

TECHNICAL REPORT



**for the
Pennsylvania
System of School Assessment**

**2008 Reading and Mathematics
Grades 3, 4, 5, 6, 7, 8, and 11**

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Table of Contents

<i>Glossary of Common Terms</i>	<i>i</i>
<i>PREFACE: An Overview of Recent and Future Assessments</i>	<i>vii</i>
Assessment Activities Occurring in the 2003–04 School Year	viii
Assessment Activities Occurring in the 2004–05 School Year	ix
Assessment Activities Occurring in the 2005–06 School Year	x
Assessment Activities Occurring in the 2006–07 School Year	xi
Assessment Activities Occurring in the 2007–08 School Year	xii
Assessment Activities Planned for the 2008–09 School Year	xiii
<i>Chapter One: Background of Pennsylvania System of School Assessment (PSSA)</i>	<i>1</i>
The Origin of State Assessment in Pennsylvania	1
The Pennsylvania System of School Assessment (PSSA)	2
Assessment Anchor Content Standards, Content Structure, and New Grade Levels	3
The Pennsylvania Writing Assessment	4
The Pennsylvania Science Assessment	5
<i>Chapter Two: New Test Development Required by NCLB</i>	<i>6</i>
Assessment Anchor Content Standards and Eligible Content	6
Overview of the 2008 PSSA	6
<i>Chapter Three: Item Development Process</i>	<i>10</i>
Test Content Blueprint for 2008	10
2008 Operational Layout for Reading and Mathematics: Grades 3, 4, 5, 6, 7, 8, and 11	11
Linking	12
Test Sessions and Timing	13
Reporting Categories and Points Distributions	14
Assessment Anchor Content Standards Subsumed within Reporting Categories	16
Test Development Considerations	16
Item Authoring and Tracking	23
<i>Chapter Four: Universal Design Procedures Applied in the PSSA 2008 Test Development Process</i>	<i>24</i>
Elements of Universally Designed Assessments	24
Guidelines for Universally Designed Items	26
Item Development	27
Item Formatting	28
Assessment Accommodations	28
<i>Chapter Five: Field-Test Procedures</i>	<i>29</i>
Embedded Field-Test Items	29
Statistical Analysis of Item Data	29
Differential Item Functioning	30
Review of Items with Data	33
<i>Chapter Six: Operational Forms Construction for 2008</i>	<i>34</i>
Final Selection of Items and 2008 PSSA Forms Construction	34
Special Forms Used in the 2008 PSSA	35
<i>Chapter Seven: Test Administration Procedures</i>	<i>37</i>
Test Sessions, Timing, and Layout	37
Shipping, Packaging, and Delivery of Materials	37
Materials Return	37
Test Security Measures	37

Sample Manuals.....	38
Assessment Accommodations	38
Chapter Eight: Processing and Scoring.....	39
Receipt of Materials.....	39
Scanning of Materials.....	40
Materials Storage.....	43
Scoring Multiple-Choice Items.....	43
Rangefinding	43
Reader Recruitment/Qualifications.....	44
Leadership Recruitment/Qualifications	44
Training	45
Handscoring Process.....	45
Quality Control	46
Match-Back Rules	53
Data Exchange, Storage, and Recovery Policies	53
Chapter Nine: Summary Demographic, Program, and Accommodation Data for the 2008 PSSA.....	55
Assessed Students.....	55
Composition of Sample Used in Subsequent Tables	57
Collection of Student Demographic Information.....	57
Demographic Characteristics.....	57
Education in Non-Traditional Settings	59
Primary Disability of IEP Students Assessed on the PSSA.....	59
Test Accommodations Provided.....	61
Presentation Accommodations Received.....	61
Response Accommodations Received.....	61
Setting Accommodations Received.....	61
Timing Accommodations Received.....	61
The Incidence of Accommodations and IEP and ELL Status.....	65
The Incidence of Accommodations and Primary Disability Classification	69
Glossary of Accommodations Terms.....	75
Chapter Ten: Form Analysis and Item Calibration.....	78
Sampling.....	78
Test Form Statistics	78
Traditional Item Statistics.....	79
Rasch Item Statistics and Scaling.....	81
Chapter Eleven: Linking	94
Grade 3: Reading.....	95
Grade 3: Mathematics.....	98
Grades 4 through 11: Reading	101
Grades 4 through 11: Mathematics	111
Chapter Twelve: Scaled Scores and Performance Levels.....	129
Common Items and Matrix Sampled Items	130
Scaled Scores for Content Standards.....	130
PSSA Performance Levels for Reading and Mathematics.....	132
Chapter Thirteen: Test Score Reliability and Validity Evidence.....	133
Reliability	133
Validity	137
Validity Evidence Summary.....	142
References	143

Appendix A:	Mathematics Assessment Anchor Content Standard Integration
Appendix B:	Reading Assessment Anchor Content Standard Integration
Appendix C:	2007-2008 Mathematics General Scoring Guideline
Appendix D:	2007-2008 Reading General Scoring Guideline
Appendix E:	2008 Test Book Section Layout Plan
Appendix F:	Assessment Anchor Content Standards (Assessment Anchors) within Reporting Categories Summary
Appendix G:	Item and Test Development Processes
Appendix H:	Item Review Tally Form
Appendix I:	PSSA New Item Review Cards and IVAN Card
Appendix J:	2007 Grades 3–8 and 11 Multiple-Choice Statistics
Appendix K:	2007 Grades 3–8 and 11 Open-Ended Statistics
Appendix L:	2008 Grades 3–8 and 11 Multiple-Choice Statistics
Appendix M:	2008 Grades 3–8 and 11 Open-Ended Statistics
Appendix N:	2008 Reading and Mathematics Reliability
Appendix O:	2008 Reading and Mathematics Linking Item Statistics
Appendix P:	2008 Reading and Mathematics Raw to Scaled Score Tables

Glossary of Common Terms

The following table contains some terms used in the 2008 technical reports and their meanings. Some of these terms are used universally in the assessment community, and some of these terms are used commonly by psychometric professionals.

Table G–1. Glossary of Terms

Term	Common Definition
Ability	In the context of scaling, a latent-trait characteristic indicating the level of an individual on a particular construct or competence in a particular area. Following Rasch literature, ability is used as a generic term for the construct that is being measured by an exam. Competence, achievement, learning and status are alternative terms that are sometimes used, but all are subject to some degree of misinterpretation.
Adjacent Agreement	A score/rating difference of one (1) point in value usually assigned by two different raters under the same conditions (e.g., two independent raters give the same paper scores that differ by one point).
Alternate Forms	Two or more versions of a test that are considered exchangeable, i.e., they measure the same constructs in the same ways, are intended for the same purposes, and are administered using the same directions. More specific terminology applies depending on the degree of statistical similarity between the test forms (e.g., parallel forms, equivalent forms, and comparable forms) where parallel forms refers to the situation in which the test forms have the highest degree of similarity to each other.
Average	A measure of central tendency in a score distribution that usually refers to the arithmetic mean of a set of scores. In this case, it is determined by adding all the scores in a distribution and then dividing the obtained value by the total number of scores. Sometimes people use the word ‘average’ to refer to other measures of central tendency such as the median (the score in the middle of a distribution) or mode (the score value with the greatest frequency).
Bias	In a statistical context, bias refers to any source of systematic error in the measurement of a test score. In discussing test fairness, bias may refer to construct-irrelevant components of test scores that differentially affect the performance of different groups of test takers (e.g., gender, ethnicity, etc.). Attempts are made to reduce bias by conducting item fairness reviews and various differential item functioning (DIF) analyses, detecting potential areas of concern, and either removing or revising the flagged test items prior to the development of the final operational form of the test. Also see Differential Item Functioning.
Construct Validity	A term used to indicate that the test scores are to be interpreted as indicating the test taker’s standing on the psychological construct measured by the test. A construct is a theoretical variable inferred from multiple types of evidence, which might include the interrelations of the test scores with other variables, internal test structure, observations of response processes, as well as the content of the test.
Constructed-Response Item	See open-ended item.

Term	Common Definition
Content Validity	Evidence regarding the extent to which a test provides an appropriate sampling of a content domain of interest—e.g., assessable portions of a state’s grade 6 mathematics curriculum in terms of the knowledge, skills, objectives, and processes sampled.
Criterion-Referenced Interpretation	When a score is interpreted as a measure of a student's performance as with respect to an expected level of mastery, educational objective, or standard. The types of resulting score interpretations provide information about what a student knows or can do in with respect to a given content area.
Cut Score	A specified point on a score scale such that scores at or above that point are interpreted or acted upon differently from scores below that point. For example, a score designated as the minimum level of performance needed to pass a competency test. One or more cut scores can be set for a test which results in dividing the score range into various proficiency level ranges. Methods for establishing cut scores vary.
Differential Item Functioning	a statistical property of a test item in which different groups of test takers (who have the same total test score) have different average item scores or, in some cases, different rates of choosing various item options. Also known as DIF. Also see Bias.
Distractor	A plausible, but incorrect option in a multiple-choice item (also called a foil).
Equating	The strongest of several “linking” methods used to establish comparability between scores from multiple tests. Equated test scores should be considered exchangeable. Consequently, the criteria needed to refer to a linkage as ‘equating’ are strong and somewhat complex (equal construct and precision, equity, and invariance). In practical terms, it is often stated that it should be a ‘matter of indifference’ to a student if he/she takes any of the equated tests. See also Linking.
Error of Measurement	The amount by which the score actually received (an observed score) differs from a hypothetical true score. Also see Standard Error of Measurement.
Exact Agreement	When identical scores/ratings are assigned by two different raters under the same conditions (e.g. two independent raters give a paper the same score).
Frequency	The number of times that a certain value or range of values (score interval) occurs in a distribution of scores.
Frequency Distribution	A tabulation of scores from low to high or high to low showing the number and/or percent of individuals who obtain each score or who fall within each score interval or category.
InFit/Outfit	Statistical indicators of the agreement of the data and the measurement model. See also Outfit/Infit.
Key	The correct response for an MC item.

Term	Common Definition
Linking	A generic term referring to one of a number of processes by which scores from one or more tests are made comparable <i>to some degree</i> . Linking includes several classes of transformations (equating, scale alignment, prediction, etc.). Equating is associated with the strongest degree of comparability (exchangeable scores). Other linkages may be very strong, but fail to meet one or more of the strict criteria required of equating. Also see Equating.
Logit	The fundamental unit of measurement in the Rasch model used to express both item difficulties and person locations. When expressing person locations, logits are invariably transformed into Scale Scores through a simple linear transformation before reporting (also see Scaled Score). When expressing item difficulties, logits are transformed P-value (also see P-Value). The logit difficulty scale is inversely related to P-values. A higher logit value would represent a relatively harder item, while a smaller logit value would represent a relatively easier item.
Mean	Also referred to as the ‘arithmetic mean’ of a set of scores, is found by adding all the score values in a distribution and dividing by the total number of scores. For example, the mean of the set {66, 76, 85, and 97} is 81. The value of a mean can be influenced by extreme values in a score distribution.
Measure	A Rasch estimate (or calibration) for a parameter, i.e., a person ability-parameter estimate, or an item difficulty-parameter estimate.
Median	The middle point or score in a set of rank-ordered observations that divides the distribution into two equal parts such that each part contains 50% of the total data set. More simply put, half of the scores are below the median value and half of the scores are above the median value. As an example, the median for the following ranked set of scores {2, 3, 6, 8, 9} is 6.
Multiple-Choice Item	A type of item format which requires the test taker to select a response from a group of possible choices, one of which is the correct answer (or key) to the question posed. Also see Open-Ended Item.
N-count	Sometimes designated as N or n, it is the number observations (usually individuals or students) in a particular group. Some examples include: the number of students tested, the number of students tested from a specific subpopulation (e.g., females), the number of students who attained a specific score, etc. In the follow set {23, 32, 56, 65, 78, 87}, n = 6.
Open-ended item	An open-ended (OE) item—referred to by some as constructed-response (CR) item—refers to an item format that requires examinees to create their own responses, which can be expressed in various forms, (e.g., written paragraph, created table/graph, formulated calculation, etc.). Such items are frequently scored using more than two score categories, that is, polytomously—e.g., 0, 1, 2, and 3. This format is in contrast to when students make a choice from a supplied set of answers options—e.g., multiple-choice items (MC) which are typically dichotomously scored as right = 1 or wrong = 0. When interpreting item difficulty and discrimination indices it is important to consider whether an item is polytomously or dichotomously scored.

Term	Common Definition
OutFit/Infit	Statistical indicators of the agreement of the data and the measurement model. Infit and Outfit are highly correlated, and both are highly correlated with the point-biserial correlation. <i>Underfit</i> can be caused when low-ability students correctly answer difficult items (perhaps by guessing or atypical experience) or high-ability students incorrectly answer easy items (perhaps because of carelessness or gaps in instruction). Any model expects some level of variability, so <i>overfit</i> can occur when nearly all low-ability students miss an item while nearly all high-ability students get the item correct.
P-value	An index indicating an item's difficulty for some specified group (perhaps grade). It is calculated as the proportion (sometimes percent) of students in the group who answer an item correctly. P-values range from 0.0 to 1.0 on the proportion scale. Lower values correspond to more difficult items and higher values correspond to easier items. P-values are usually provided for multiple-choice items or other items worth one point. For open-ended items or items worth more than one point, difficulty on a p-value-like scale can be estimated by dividing the item mean score by the maximum number of points possible for the item. Also see Logit.
Percent Correct	When referring to an individual item, the “percent correct” is the item’s “P-value” expressed as a percent (instead of a proportion). When referring to a total test score, it is the percentage of the total number of points that a student received. The percent correct score is obtained by dividing the student's raw score by the total number of points possible and multiplying the result by 100. Percent Correct scores often used in criterion-referenced interpretations and are generally more helpful if the overall difficulty of a test is known. Sometimes Percent Correct scores are incorrectly interpreted as Percentile Ranks.
Percentile	The score or point in a score distribution at or below which a given percentage of scores fall. It should be emphasized that it is a value on the score scale, not the associated percentage (although sometimes in casual usage this misinterpretation is made). For example, if 72 percent of the students score at or below a Scaled Score of 1500 on a given test, then the Scaled Score of 1500 would be considered the 72nd percentile. As another example, the median is the 50th Percentile.
Percentile Rank	The percentage of scores in a specified distribution falling at/below a certain point on a score distribution. Percentile Ranks range in value from 1 to 99, and indicate the status or relative standing of an individual within a specified group, by indicating the percent of individuals in that group who obtained equal or lower scores. An individual's percentile rank can vary depending on which group is used to determine the ranking. As suggested above, Percentiles and Percentile Rank are sometimes used interchangeably; however strictly speaking, a percentile is a value on the score scale.
Performance Level Setting	Also referred to as standard setting, a procedure used in the determination of the cut scores for a given assessment that is used to measure students' progress towards certain performance standards. Standard setting methods vary (e.g., modified Angoff, Bookmark Method, etc.), but most use a panel of educators and expert judgments to operationalize the level of achievement students must demonstrate in order to be categorized within each performance level.

Term	Common Definition
Point-biserial Correlation	In classical test theory this is an item discrimination index. It is the correlation between a dichotomously scored item and a continuous criterion, usually represented by the total test score (or the ‘corrected’ total test score with the reference item removed). It reflects the extent to which an item differentiates between high-scoring and low-scoring examinees. This discrimination index ranges from -1.00 to $+1.00$. The higher the discrimination index (the closer to $+1.00$), the better the item is considered to be performing. For multiple-choice items scored as 0 or 1, it is rare for the value of this index to exceed 0.5.
Performance Level Descriptors	Descriptions of an individual's competency in a particular content area, usually defined as ordered categories on a continuum, often labeled from "below basic" to "advanced," that constitute broad ranges for classifying performance. The exact labeling of these categories, and narrative descriptions, may vary from one assessment or testing program to another.
Raw Score	Sometimes abbreviated by RS—it is an unadjusted score usually determined by tallying the number of questions answered correctly, or by the sum of item scores (i.e., points). (Some rarer situations might include formula-scoring, the amount of time required to perform a task, the number of errors, application of basal/ceiling rules, etc.). Raw scores typically have little or no meaning by themselves and require additional information—like the number of items on the test, the difficulty of the test items, norm-referenced information, or criterion-referenced information.
Reliability	The expected degree to which test scores for a group of examinees are consistent over exchangeable replications of an assessment procedure, and therefore, considered dependable and repeatable for an individual examinee. A test that produces highly consistent, stable results (i.e., relatively free from random error) is said to be highly reliable. The reliability of a test is typically expressed as a reliability coefficient or by the standard error of measurement derived by that coefficient.
Reliability Coefficient	A statistical index that reflects the degree to which scores are free from random measurement error. Theoretically, it expresses the consistency of test scores as the ratio of true score variance to total score variance (true score variance plus error variance). This statistic is often expressed as correlation coefficient (e.g., correlation between two forms of a test) or with an index that resembles a correlation coefficient (e.g., calculation of a test's internal consistency using Coefficient Alpha). Expressed this way, the reliability coefficient is a “unitless” index. The higher the value of the index (closer to 1.0), the greater the reliability of the test. Also see Standard Error of Measurement.
Scaled Score	A mathematical transformation of a raw score developed through a process called scaling. Scaled scores are most useful when comparing test results over time. Several different methods of scaling exist, but each is intended to provide a continuous and meaningful score scale across different forms of a test.
Selected-Response Item	See multiple-choice item.

Term	Common Definition
Spiraling	A packaging process used when multiple forms of a test exist and it is desired that each form be tested in all classrooms (or other grouping unit—e.g., schools) participating in the testing process. This process allows for the random distribution of test booklets to students. For example, if a package has four test forms labeled A, B, C, & D, the order of the test booklets in the package would be: A, B, C, D, A, B, C, D, A, B, C, D, etc.
Standard Deviation	SD—a statistic that measures the degree of spread or dispersion of a set of scores. The value of this statistic is always greater than or equal to zero. If all of the scores in a distribution are identical, the standard deviation is equal to zero. The further the scores are away from each other in value, the greater the standard deviation. This statistic is calculated using the information about the deviations (distances) between each score and the distribution's mean. It is equivalent to the square root of the variance statistic. The standard deviation is a commonly used method of examining a distribution's variability since the standard deviation is expressed in the same units as the data.
Standard Error of Measurement	Abbreviated SEM, it is the amount an observed score is expected to fluctuate around the true score. As an example, across replications of a measurement procedure, the true score will not differ by more than plus or minus one standard error from the observed score about 68 percent of the time (assuming normally distributed errors). The SEM is frequently used to obtain an idea of the consistency of a person's score in actual score units, or to set a confidence band around a score in terms of the error of measurement. Often a single SEM value is calculated for all test scores. On other occasions, however, the value of the SEM can vary along a score scale. Conditional standard errors of measurement (CSEMs) provide an SEM for each possible scaled score.
Subscale	On score reports, a subscale often refers to a set of items on a test measuring the same contextual area (e.g., Number Sense in Mathematics). Items developed to measure the same reporting category would be used to determine the subscale score (sometimes called “strand” score).
Technical Advisory Committee	Or TAC—a group of individuals, most often professionals in the field of testing, that are either appointed or selected to make recommendations for and to guide the technical development of a given testing program.
Validity	The degree to which accumulated evidence and theory support specific interpretations of test scores entailed by the purposed uses of a test. There are various ways of gathering validity evidence (also see Content Validity and Construct Validity).

PREFACE: An Overview of Recent and Future Assessments

The period from 2003 through 2006 brought significant structural changes in the test blueprint for the Pennsylvania System of School Assessment (PSSA). These changes necessitated extensive test development and field testing activity along with phased-in implementation in the operational assessment. Included in this process was the development and implementation of assessments in additional grade levels.

For reading and mathematics, content changes for grades 5, 8, and 11 were developed in 2003, field tested in spring 2004, and implemented in spring 2005. The *2005 PSSA Technical Report for Reading and Mathematics* provides a description of test development activities, review of open-ended tasks and multiple-choice items, field testing, selection of items, statistical analysis of assessment data, reliability, validity, standard setting, and other technical characteristics of the operational 2005 PSSA. Test development for the new grade levels of 4, 6, and 7 began in 2004, with field testing in 2005, and full implementation in 2006. Similarly, the *2006 PSSA Technical Report for Reading and Mathematics: Grades 4, 6, and 7* provides a complete description of test development activities, item review, field testing, statistical analysis, item selection, and technical characteristics of the operational 2006 PSSA for these grade levels. In 2007 the grade 3 reading and mathematics assessment became DRC's responsibility and is covered in the present technical report, along with grades 4 through 8, and 11.

Changes in the writing assessment were designed to sharpen the focus on what is assessed with respect to Academic Standards 1.4 and 1.5. To support this effort, a shift in grade levels assessed was made, moving from grades 6 and 9 to grades 5 and 8, thereby aligning assessment to the end of elementary and middle school years. The writing testing window was changed from fall to February for grades 5 and 8, making it consistent with grade 11. Mode-specific scoring guidelines replaced domain scoring, and the introduction of stimulus-based passages and associated multiple-choice items measuring revising and editing expanded the basis of the conventions score. An account of the development of writing prompts and stimulus-based, multiple-choice items, review processes, field testing and item analysis, standard setting, and other technical characteristics of the operational 2006 PSSA may be found in the *2006 PSSA Technical Report for Writing*.

The introduction of an operational science assessment in 2008 moved closer to reality with a major standalone field test at grades 4, 8, and 11 in April–May of 2007. A description of the development of science scenarios and related multiple-choice, short answer open-ended, and extended open-ended questions, item review processes, statistical analysis of field test data, and selection of items for the 2008 operational science test may be found in the *2008 PSSA Preliminary Technical Report for Science*.

To assist the reader in navigating through the year-to-year changes in all aspects of the PSSA, tables are presented along with explanatory text. Provided is an overview of the subject areas assessed, time of year the testing activity took place, and the type of testing that occurred (e.g., operational, field testing, grade 12 retest).

ASSESSMENT ACTIVITIES OCCURRING IN THE 2003–04 SCHOOL YEAR

Table P–1 outlines the operational assessments and field tests administered during the 2003–04 school year. (A spring operational assessment in mathematics and reading took place at grades 3, 5, 8, and 11.)

As a result of new Assessment Anchor Content Standards (Assessment Anchors) developed by the Pennsylvania Department of Education (PDE) during 2003, new test items were developed (see Chapter Two of the *2005 PSSA Technical Report for Reading and Mathematics*). Following the spring operational assessment, a separate, “standalone” field test of new items for grades 5, 8, and 11 was conducted. Note that grade 11 students also took an operational writing assessment in February, and grade 6 and grade 9 students participated in a fall writing assessment. Lastly, grade 12 students who as 11th graders in the preceding spring failed to attain at least the Proficient level in any subject area were offered an opportunity to retest.

**Table P–1. Operational Assessment and Field Testing
During the 2003–04 School Year**

Grade	Assessment Activity	Date
3	Operational mathematics and reading with embedded field test (conducted by CTB/McGraw-Hill)	April 2004
5	Operational mathematics and reading	April 2004
	Standalone field test in mathematics and reading	April/May 2004
6	Operational writing	October 2004
8	Operational mathematics and reading	April 2004
	Standalone field test in mathematics and reading	April/May 2004
9	Operational writing	October 2004
11	Operational mathematics and reading	April 2004
	Standalone field test in mathematics and reading	April/May 2004
	Operational writing	February 2004
12	Retest opportunity for students who as grade 11 students in the spring of 2003 failed to reach at least the Proficient level in mathematics, reading, or writing	October/ November 2004

ASSESSMENT ACTIVITIES OCCURRING IN THE 2004–05 SCHOOL YEAR

Table P–2 displays the operational assessments and field tests that took place during the 2004–05 school year. The operational assessment at grades 5, 8, and 11 used items chosen from the spring 2004 field test. This was the first operational assessment that reflected the Pennsylvania Assessment Anchors and Eligible Content. Fulfilling the No Child Left Behind Act of 2001 (NCLB) requirement that states must implement a test at grades 3 through 8, a major field test in mathematics and reading was administered at grades 4, 6, and 7. Item development for these new grade levels took place during 2004.

The grades 6 and 9 writing assessment was reassessed in favor of moving the writing assessment to grades 5 and 8. This accounts for the separate (standalone) field test at these grade levels. There was also a test administration change from October to February. The writing assessment also underwent changes to align the test to the Academic Standards for writing. New writing prompts and stimulus-based, multiple-choice items were also field tested at grade 11 as part of the operational assessment, hence the reference to an “embedded” field test. No assessment activity of any kind occurred at grade 9. As in fall 2003, the retest opportunity at grade 12 continued.

**Table P–2. Operational Assessment and Field Testing
During the 2004–05 School Year**

Grade	Assessment Activity	Date
3	Operational mathematics and reading with embedded field test (conducted by CTB/McGraw-Hill)	April 2005
4	Standalone field test for mathematics and reading	April 2005
5	Operational mathematics and reading with embedded field test	April 2005
	Standalone field test in writing	February 2005
6	Standalone field test for mathematics and reading	April 2005
7	Standalone field test for mathematics and reading	April 2005
8	Operational mathematics and reading with embedded field test	April 2005
	Standalone field test in writing	February 2005
11	Operational mathematics and reading with embedded field test	April 2005
	Operational writing with embedded field test	February 2005
12	Retest opportunity for students who as grade 11 students in the spring of 2004 failed to reach at least the Proficient level in mathematics, reading, or writing	October/ November 2004

ASSESSMENT ACTIVITIES OCCURRING IN THE 2005–06 SCHOOL YEAR

Table P–3 shows the assessment activities that occurred during the 2005–06 school year. Note that the reading and mathematics operational assessments ran consecutively from grades 3 through 8 and at grade 11. For grades 4, 6, and 7, it was the first year for operational assessments. Field testing for mathematics and reading was embedded as part of the operational assessment at each grade level. At grade 3, the reference to field testing with items developed by DRC reflects the transition process of shifting the assessment from CTB/McGraw-Hill to DRC in 2007. As in previous years, the retest opportunity at grade 12 continued.

The first operational assessments for writing at grades 5 and 8 took place this year while the grade 11 writing assessment continued in the same February test window. New this year for all three grade levels, the operational writing assessments featured mode-specific scoring guidelines; stimulus-based, multiple-choice items; and a grade-specific emphasis shift in writing modes assessed. See the *2006 PSSA Technical Report for Writing: Grades 5, 8, and 11* for further information about the new writing assessments. Since extensive field testing in February 2005 produced a pool of prompts for use over several years, no additional writing prompts were field tested in 2006. However, new multiple-choice items were field tested in the 2006 writing assessment.

**Table P–3. Operational Assessment and Field Testing
During the 2005–06 School Year**

Grade	Assessment Activity	Date
3	Operational mathematics and reading with embedded field test of DRC-written items (conducted by CTB/McGraw-Hill)	April 2006
4	Operational mathematics and reading with embedded field test	March 2006
5	Operational mathematics and reading with embedded field test	March 2006
	Operational writing with embedded field test	February 2006
6	Operational mathematics and reading with embedded field test	March 2006
7	Operational mathematics and reading with embedded field test	March 2006
8	Operational mathematics and reading with embedded field test	March 2006
	Operational writing with embedded field test	February 2006
11	Operational mathematics and reading with embedded field test	March 2006
	Operational writing with embedded field test	February 2006
12	Retest opportunity for students who as grade 11 students in the spring of 2005 failed to reach at least the Proficient level in mathematics, reading, or writing	October/ November 2005

ASSESSMENT ACTIVITIES OCCURRING IN THE 2006–07 SCHOOL YEAR

Table P–4 shows the assessment plan for the 2006–07 school year. Note that the mathematics and reading assessments ran consecutively from grades 3 through 8 and at grade 11. For grades 4, 6, and 7, it was the second year for operational assessments and the first year in which these grade levels were included in the AYP calculations. Field testing for mathematics and reading continued to be embedded as part of the operational assessments at each grade level. This was the first year in which DRC was responsible for the grade 3 assessment, as the transition from CTB/McGraw-Hill was completed. As in previous years, the retest opportunity at grade 12 continued.

The operational assessment for writing at grades 5, 8, and 11 continued in the same February test window featuring the mode-specific scoring guidelines; stimulus-based, multiple-choice items; and a grade-specific emphasis in writing modes assessed, which were introduced in 2006. Since extensive field testing in February 2005 produced a pool of prompts for use over several years, no additional writing prompts needed to be field tested in 2007. However, new multiple-choice items were field tested in the 2007 writing assessment.

Following the spring operational assessments in writing and reading and mathematics, a separate, “standalone” field test in science occurred for grades 4, 8, and 11 with full implementation scheduled for 2008.

**Table P–4. Operational Assessment and Field Testing
During the 2006–07 School Year**

Grade	Assessment Activity	Date
3	Operational mathematics and reading with embedded field test	March 2007
4	Operational mathematics and reading with embedded field test	March 2007
	Standalone field test in science	April/May 2007
5	Operational mathematics and reading with embedded field test	March 2007
	Operational writing with embedded field test	February 2007
6	Operational mathematics and reading with embedded field test	March 2007
7	Operational mathematics and reading with embedded field test	March 2007
8	Operational mathematics and reading with embedded field test	March 2007
	Operational writing with embedded field test	February 2007
	Standalone field test in science	April/May 2007
11	Operational mathematics and reading with embedded field test	March 2007
	Operational writing with embedded field test	February 2007
	Standalone field test in science	April/May 2007
12	Retest opportunity for students who as grade 11 students in the spring of 2006 failed to reach at least the Proficient level in mathematics, reading, or writing	October/ November 2006

ASSESSMENT ACTIVITIES OCCURRING IN THE 2007–08 SCHOOL YEAR

Table P–5 shows the assessment plan for the 2007–08 school year. Note that the mathematics and reading assessments ran consecutively from grades 3 through 8, and at grade 11. For grades 4, 6, and 7, it was the third year for operational assessments and the second year in which these grade levels were included in the AYP calculations. Field testing for mathematics and reading continued to be embedded as part of the operational assessments at each grade level. This was the second year in which DRC was responsible for the grade 3 assessment. As in previous years, the retest opportunity at grade 12 continued.

The operational assessment for writing at grades 5, 8, and 11 continued in the same February test window featuring the mode-specific scoring guidelines; stimulus-based, multiple-choice items; and a grade-specific emphasis in writing modes assessed, which were introduced in 2006. Since extensive field testing in February 2005 produced a pool of prompts for use over several years, no additional writing prompts needed to be field tested in 2007. However, new multiple-choice items were field tested in the 2008 writing assessment.

Joining the spring operational assessments in writing and reading and mathematics was science at grades 4, 8, and 11.

**Table P–5. Operational Assessment and Field Testing
During the 2007–08 School Year**

Grade	Assessment Activity	Date
3	Operational mathematics and reading with embedded field test	March/April 2008
4	Operational mathematics and reading with embedded field test	March/April 2008
	Operational science with embedded field test	April/May 2008
5	Operational mathematics and reading with embedded field test	March/April 2008
	Operational writing with embedded field test	February 2008
6	Operational mathematics and reading with embedded field test	March/April 2008
7	Operational mathematics and reading with embedded field test	March/April 2008
8	Operational mathematics and reading with embedded field test	March/April 2008
	Operational writing with embedded field test	February 2008
	Operational science with embedded field test	April/May 2008
11	Operational mathematics and reading with embedded field test	March/April 2008
	Operational writing with embedded field test	February 2008
	Operational science with embedded field test	April/May 2008
12	Retest opportunity for students who as grade 11 students in the spring of 2007 failed to reach at least the Proficient level in mathematics, reading, or writing	October/ November 2007

ASSESSMENT ACTIVITIES PLANNED FOR THE 2008–09 SCHOOL YEAR

Table P–6 shows the assessment plan for the 2008–09 school year. The mathematics and reading assessments will continue to be operational for grades 3 through 8 and grade 11. Field testing for mathematics and reading will continue to be embedded as part of the operational assessments at each grade level. As in previous years, the retest opportunity at grade 12 will continue.

The operational assessment for writing at grades 5, 8, and 11 will continue with a February test window featuring mode-specific scoring guidelines; stimulus-based, multiple-choice items; and a grade-specific emphasis in writing modes assessed. An embedded field test of writing prompts will be incorporated in the 2009 assessment along with the general procedure of including a set of embedded field test of multiple-choice items.

The second operational assessment in science is scheduled to take place in April/May. Similar to the other operational assessments, field testing for science will be embedded as part of the operational assessments at each grade level.

**Table P–6. Operational Assessment and Field Testing
During the 2008–09 School Year (Planned)**

Grade	Assessment Activity	Date
3	Operational mathematics and reading with embedded field test	March 2009
4	Operational mathematics and reading with embedded field test	March 2009
	Operational science with embedded field test	April/May 2009
5	Operational mathematics and reading with embedded field test	March 2009
	Operational writing with embedded field test	February 2009
6	Operational mathematics and reading with embedded field test	March 2009
7	Operational mathematics and reading with embedded field test	March 2009
8	Operational mathematics and reading with embedded field test	March 2009
	Operational writing with embedded field test	February 2009
	Operational science with embedded field test	April/May 2009
11	Operational mathematics and reading with embedded field test	March 2009
	Operational writing with embedded field test	February 2009
	Operational science with embedded field test	April/May 2009
12	Retest opportunity for students who as grade 11 students in the spring of 2008 failed to reach at least the Proficient level in mathematics, reading, or writing	October/ November 2008

Chapter One: Background of Pennsylvania System of School Assessment (PSSA)

This brief overview of assessment in Pennsylvania describes the original and subsequent legislative mandates, previous assessment programs, the history of the current program's development process, the program's intent and purpose, recent changes to the program, and the student population that participates in the assessments.

THE ORIGIN OF STATE ASSESSMENT IN PENNSYLVANIA

State assessment of student achievement came about as a result of legislation enacted in 1963. Generally known as the School District Reorganization Act (Act 299), the issue of whether large or small district size provided a better quality education led to the development of Section 299.1 of Act 299, which required the State Board of Education to

... develop or cause to be developed an evaluation procedure designed to measure objectively the adequacy and efficiency of the educational program offered by the public schools of the Commonwealth . . . The evaluation procedure shall be so constructed and developed as to provide each school district with relevant comparative data to enable directors and administrators to more readily appraise the educational performance and to effectuate without delay the strengthening of the district's educational program. Tests developed . . . shall be used for the purpose of providing a uniform evaluation of each school district . . .

In response to the legislative mandate, the State Board of Education contracted with Educational Testing Service of Princeton, New Jersey, to engage in a two-year process of surveying and interviewing stakeholders in business, industry, education, and the general public as to what constituted a quality education. This led to the State Board adoption of *The Goals of Quality Education* in 1965. In 1967, the Department of Education formed an organizational unit along with staff to begin developing appropriate measures and engaging in extensive field testing during the 1967–68 and 1968–69 school years.

Educational Quality Assessment (EQA) Program

The first state assessment of students in Pennsylvania took place in the 1969–70 school year. Initially, state assessment was a purely school-based evaluation in the form of the *Educational Quality Assessment (EQA)* program, which reported grade 5 and 11 school-level results in ten goal areas. Grade 8 was added in 1974. Measuring both cognitive and non-cognitive areas, the program operated from 1970 through 1988. As the program evolved, a matrix sampling design was used in measuring and reporting school results in subject areas such as reading, language arts, mathematics, science, health, social studies, and analytical thinking. Initially, it operated as a voluntary program, but in 1974 it became mandatory on a cyclical basis.

Testing for Essential Learning and Literacy Skills (TELLS)

The next major revision in state assessment was the advent of the state's first mandated competency testing program, *Testing for Essential Learning and Literacy Skills (TELLS)* in the 1984–85 school year. The impetus for a statewide essential skills test evolved from an October 1983 document entitled *Turning the Tide: An Agenda for Excellence in Pennsylvania Public Schools*. A two-pronged approach was advocated, calling for:

1. competency testing in grades 3, 5, and 8 as an “early warning system” to identify students with reading and mathematics difficulties and
2. state-funded remedial instruction to provide needed additional help.

In response to this and other recommendations, the State Board of Education added *Chapter 3: Student Testing* to its regulations on June 14, 1984. It required all public school students in grades 3, 5, and 8 to be given criterion-referenced tests in reading and mathematics. The second part of the program, remedial instruction, was mandated by Act 93-1984, and required districts to provide remedial instruction programs to students identified by the tests given under the State Board regulation. Subsequently, funds were distributed to districts and intermediate units for this part of the program. The *TELLS* and *EQA* testing programs coexisted until the *EQA* was concluded in 1988. The *TELLS* program continued through the spring of 1991.

THE PENNSYLVANIA SYSTEM OF SCHOOL ASSESSMENT (PSSA)

The Pennsylvania System of School Assessment (PSSA) program was instituted in 1992. The PSSA returned to a school evaluation model with reporting at the school level only. Test administration took place in February/March, and school district participation was every third year based on the strategic planning cycle. Reading and mathematics were assessed at grades 5, 8, and 11; districts could choose to participate in the writing assessment at grades 6 and 9. State Board revisions to Chapter 5 in November 1994 brought major changes to the PSSA, beginning with the spring 1995 assessment. These changes included

3. all districts were required to participate in the reading and mathematics assessment each year,
4. student-level reports were generated in addition to school reports, and
5. the grades 6 and 9 writing assessment became mandatory on a three-year cycle corresponding to the district's strategic planning cycle.

Pennsylvania Academic Standards and the PSSA

A major structural change took place in test content with the State Board of Education's adoption of the Pennsylvania Academic Standards for Reading, Writing, Speaking and Listening, and Mathematics in January 1999 (Pennsylvania State Board of Education, 1999). The Academic Standards, which are part of *Chapter 4 Regulations on Academic Standards and Assessment*, detailed what students should know (knowledge) and be able to do (skills) at various grade levels. Subsequently, the State Board approved a set of criteria defining Advanced, Proficient, Basic, and Below Basic levels of performance. Reading and mathematics performance level results were reported at both the student and school levels for the 2000 PSSA. At that point, the PSSA became a standards-based, criterion-referenced assessment measuring student attainment of the Academic Standards while simultaneously determining the extent to which school programs enabled students to achieve proficiency of the Academic Standards.

ASSESSMENT ANCHOR CONTENT STANDARDS, CONTENT STRUCTURE, AND NEW GRADE LEVELS

Assessment in 2005 was marked by major structural changes in the PSSA. Assessment Anchor Content Standards (Assessment Anchors) developed during the previous school year to clarify content structure and improve articulation between assessment and instruction were implemented in terms of test design and reporting. At the same time field testing of mathematics and reading occurred at grades 4, 6, and 7. As specified by PL 107-110, the *No Child Left Behind Act* of 2001 (NCLB), states, school districts, and schools must achieve a minimum level of improvement each year, known as adequately yearly progress, or AYP. Accordingly, the third year of calculations for AYP were conducted and reported for grades 5, 8, and 11.

The 2006 operational reading and mathematics assessment incorporated grades 4, 6, and 7 for the first time. The assessed grade levels for 2006 included grades 3 through 8 and 11. The fourth year of calculations for AYP were conducted and reported for grades 5, 8, and 11 and for the first time in grade 3.

In 2007 the operational reading and mathematics assessment continued in grades 3 through 8 and 11. AYP calculations for grades 4, 6, and 7 took place in 2007 when they were assessed for the second time.

In 2008 the operational reading and mathematics assessment continued in grades 3 through 8 and 11, utilizing the same content structure. AYP calculations continued for all grades in 2008.

Purposes of the PSSA

As outlined in Chapter 4 of the State Board Regulations, the purposes of the statewide assessment component of the PSSA are as follows:

1. Provide students, parents, educators, and citizens with an understanding of student and school performance.
2. Determine the degree to which school programs enable students to attain proficiency of Academic Standards.
3. Provide results to school districts (including charter schools) and Area Vocational Technical Schools (AVTSs) for consideration in the development of strategic plans.
4. Provide information to state policymakers, including the State Senate, the General Assembly, and the State Board, on how effective schools are in promoting and demonstrating student proficiency of Academic Standards.
5. Provide information to the general public on school performance.
6. Provide results to school districts (including charter schools and AVTSs) based upon the aggregate performance of all students, for students with an Individualized Education Program (IEP), and for those without an IEP.

The broad purpose of the state assessments is to provide information to teachers and schools to guide the improvement of curricula and instructional strategies to enable students to reach proficiency in the Academic Standards.

THE PENNSYLVANIA WRITING ASSESSMENT

In 1990 the state initiated an on-demand writing assessment in which students wrote an essay in response to a particular topic or prompt. Offered to school districts on a voluntary basis, the writing assessment consisted of three modes of writing: narrative, informational, and persuasive. The test administration for grades 6 and 9 used a matrix sampling design; nine prompts (three per mode) were administered to students within a school, although each student responded to just one randomly distributed prompt. Scoring was based on a six-point holistic scale. Student results were aggregated and reported at the school level only. In 1992 the writing assessment was incorporated as part of the PSSA. Beginning in 1995, districts were required to participate in the writing assessment every third year in accordance with their strategic planning cycle. However, districts were also given the choice to participate more frequently. As a result, participation rose dramatically from the expected 167 districts (one-third) in any given year to 235 (47%) in 1995, 306 (61%) in 1996, 412 (82%) in 1997, 445 (89%) in 1998, and 449 (90%) in 1999.

With the advent of the Pennsylvania Academic Standards in 1999, major changes took place in the writing assessment, including alignment to the Academic Standards as well as changes in scoring method, prompts, testing date, and reporting. These changes, which are summarized below, were implemented in the 2000–01 school year and were followed by performance level reporting in the 2001–02 school year.

- The writing assessment became mandatory for all districts every year.
- Administration of the grades 6 and 9 writing assessment was changed from February to October.
- Scoring changed to a 4-point scale for each of five domains (focus, content, organization, style, and conventions).
- Prompts were different for grade 6 and grade 9 rather than being identical at the two grade levels.
- Within a grade level all students responded to two common prompts.
- The reporting model was greatly revised, and individual student reports were issued for the first time.
- A writing assessment for grade 11 was administered for the first time in February 2001.
- In 2002, performance levels were adopted for writing and implemented in the reporting of total writing results for the February grade 11 and fall 2002 grades 6 and 9 writing assessment.

The 2006 PSSA operational writing assessment featured additional revisions that included the following enhancements:

- A shift from grades 6 and 9 to grades 5 and 8, to provide better alignment to the end of elementary school and middle school.
- Grades 5 and 8 joined grade 11 in a February test window rather than the October window used previously for grades 6 and 9.

- Students responded to two writing prompts, which were evaluated in terms of (1) a mode-specific scoring guideline and (2) a conventions scoring guideline instead of the former domain scoring.
- Stimulus-based revising/editing multiple-choice items were incorporated to provide a more reliable and valid measure of the Conventions Academic Standard.

The 2008 PSSA operational writing assessment continued with the same structure and time of year as in 2006 and 2007.

THE PENNSYLVANIA SCIENCE ASSESSMENT

In accordance with the NCLB requirement to implement an operational science assessment in 2008, a major test development effort in science took place during 2006, followed by a large-scale, standalone field test in April/May of 2007. A full implementation of an operational science assessment at grades 4, 8, and 11 occurred in April-May 2008.

Several historical milestones were significant to the development of a science test in Pennsylvania. These include:

- Adoption of Act 16 or Pennsylvania Senate Bill 652 in 2000, which redefined the PSSA “as a test developed and implemented by the Department of Education to determine only academic achievement relating directly to objective Academic Standards in the areas of reading, mathematics, and science.” (see the *Science Assessment Handbook*, PDE, November 2006).
- Pennsylvania State Board of Education adoption of *Science and Technology Standards* on July 12, 2001 and the *Environment and Ecology Standards* on January 5, 2002.

Aligned to the *Pennsylvania Science Assessment Anchor Content Standards* and Eligible Content, the science test is designed to measure and report results in four major categories:

- A. The Nature of Science,
- B. Biological Sciences,
- C. Physical Sciences, and
- D. Earth and Space Sciences.

At grade 4, test questions consist of standalone multiple-choice and two-point short answer open-ended items. At grades 8 and 11 multiple-choice questions consist of both stand-alone and scenario-based types. All open-ended items at grade 8 are stand-alone 2-point questions, while grade 11 has stand alone 2-point questions and scenario-based 4-point questions. A science scenario consists of a description of a class project, an experiment, or other research. Scenarios typically contain text, graphs, charts and/or tables. Students use their content knowledge and science process skills to answer a set of multiple-choice items and, at grade 11 only, a four-point extended open-ended item related to the scenario. More information may be found in the following two Pennsylvania Department of Education publications available on the PDE website: *2007-2008 PSSA Assessment Handbook* and *2008 PSSA Science Item and Scoring Sampler* (one per assessed grade level).

An extensive description of the science test development activities, field testing, and statistical analyses may be found in the *2008 PSSA Preliminary Technical Report for Science*.

Chapter Two: New Test Development Required by NCLB

Spurred by PL 107-110, the *No Child Left Behind Act* of 2001 (NCLB), the Pennsylvania Department of Education (PDE) began to develop plans to expand testing into other grade levels and to design a standards-based assessment for science. Although grade 3 reading and mathematics tests were developed and administered statewide in 2003 and 2004, reporting results in terms of proficiency levels occurred for the first time in 2005. Reading and mathematics test development in the new grade levels of 4, 6, and 7 took place in 2004, with field testing occurring in 2005 and full implementation occurring in 2006. A field test for science occurred in 2007 and full implementation occurring in 2008.

ASSESSMENT ANCHOR CONTENT STANDARDS AND ELIGIBLE CONTENT

The Academic Standards indicate what students should know and be able to do. Educator concerns regarding the number and breadth of Academic Standards led to an initiative by the Pennsylvania Department of Education (PDE) to develop Assessment Anchor Content Standards (Assessment Anchors) to indicate which parts of the Academic Standards (Instructional Standards) would be assessed on the PSSA. Based on recommendations from Pennsylvania educators, the Assessment Anchors (PDE, 2004) were designed as a tool to improve the articulation of curricular, instructional, and assessment practices. See Appendices A and B for examples of Assessment Anchor integration for mathematics and reading. They also serve to communicate Eligible Content, also called “assessment limits,” or the range of knowledge and skills from which the PSSA would be designed.

A draft version of the Assessment Anchors and Eligible Content was submitted to Achieve, Inc., Washington, D.C., to conduct a special analysis to evaluate the degree of alignment with the Academic Standards. Preliminary feedback enabled PDE to make adjustments to improve the alignment as the Assessment Anchors took final form. These adjustments were reflected operationally starting with the 2007 PSSA.

Since the Assessment Anchors encompass grades 3 through 8 and grade 11, the document informs test design for all grade levels—distinguishing the Assessment Anchors in one grade from the Assessment Anchors in another grade and clarifying grade-level rigor.

OVERVIEW OF THE 2008 PSSA

The 2008 PSSA reading and mathematics tests contain items designed to reflect the revised Assessment Anchors. They were extensively reviewed and field tested in 2006 and 2007.

Mathematics Assessment Measures

The PSSA mathematics assessment has five major reporting categories: Numbers and Operations, Algebraic Concepts, Geometry, Measurement, and Data Analysis and Probability. By organizing the Assessment Anchors into a five-category reporting structure, there is a similarity to the categories used by the National Council of Teachers of Mathematics (NCTM) and the National Assessment of Educational Progress (NAEP).

The PSSA mathematics assessment employs two types of test items: multiple-choice and open-ended. These item types assess different levels of knowledge and provide different kinds of information about mathematics achievement. Psychometrically, multiple-choice items are very useful and efficient tools for collecting information about a student’s academic achievement.

Open-ended performance tasks are less efficient in the sense that they generally generate fewer scorable points in the same amount of testing time. They do, however, provide tasks that are more realistic and better sample higher-level thinking skills. The design of the PSSA attempts to achieve a reasonable balance between the two item types. Furthermore, well-constructed scoring guides have made it possible to include open-ended tasks in large-scale assessments such as the PSSA. Trained scorers can apply the scoring guides to efficiently score large numbers of student papers in a highly reliable way.

MULTIPLE-CHOICE ITEMS

The majority of the mathematics items included on the PSSA are multiple-choice, or selected-response items. This item type is especially efficient for measuring a broad range of content. In the PSSA mathematics assessment, each multiple-choice item has four response options, only one of which is correct. The student is awarded one point for choosing the correct response. Distractors typically represent incorrect concepts, incorrect logic, incorrect application of an algorithm, or computation errors.

Multiple-choice items are used to assess a variety of skill levels, from short-term recall of facts to problem solving. PSSA items involving application emphasize the requirement to carry out some mathematical process to find an answer, rather than simply recalling information from memory.

OPEN-ENDED TASKS FOR MATHEMATICS

Open-ended, or constructed-response tasks, require students to read a problem description and to develop an appropriate solution. The open-ended items are designed to take about ten minutes per task. Most of the open-ended items are designed to be scaffolded, which means that they have several components to the overall task that may enable students to enter or begin the problem at different places. In some items, each successive component is designed to assess progressively more difficult skills or higher knowledge levels. Certain components ask students to explain their reasoning for engaging in particular mathematical operations or for arriving at certain conclusions. The types of tasks utilized do not necessarily require computations. Students may also be asked to perform such tasks as constructing a graph, shading some portion of a figure, or listing object combinations that meet specified criteria.

Open-ended tasks are especially useful for measuring students' problem-solving skills in mathematics. They offer the opportunity to present real-life situations that require students to solve problems using math abilities learned in the classroom. Students must read the task carefully, identify the necessary information, devise a method of solution, perform the calculations, enter the solution directly in the answer document, and when required, offer an explanation. This provides insight into the students' mathematical knowledge, abilities, and reasoning processes.

The open-ended mathematics items are scored on a 0–4 point scale with an item-specific scoring guideline. The item-specific scoring guideline outlines the requirements at each score point. Item-specific scoring guidelines are based on the General Description of Mathematics Scoring Guidelines for Open-Ended Items. The general guidelines describe a hierarchy of responses, which represent the five score levels. See Appendix C or the grade-specific *Mathematics Item and Scoring Sampler*, available on the PDE website.

Reading Assessment Measures

The PSSA reading assessment has two major reporting categories, Comprehension and Reading Skills and Interpretation and Analysis of Fictional and Nonfictional Text. These two reporting categories are derived from Reading Academic Standards 1.1, 1.2, and 1.3. Standards 1.6, 1.7, and 1.8 are not addressed on the PSSA because they are not specific to reading comprehension and can be more accurately evaluated at the school level. Standards 1.4 and 1.5 are addressed on the PSSA writing assessment.

The reading assessment employs two types of test items: multiple-choice and open-ended. They are designed to measure students' comprehension of the information contained in the reading passages.

MULTIPLE-CHOICE ITEMS

Multiple-choice, or selected-response, items measure such concepts as how well students comprehend the overall meaning of a passage or make basic inferences about it. At times, asking students to choose a preferred answer is the best way to determine whether they have gleaned certain important information from a story. Such information may include setting, central idea, or main events and their sequence.

Each reading multiple-choice item has four response options, only one of which is correct. The student is awarded one point for choosing the correct response. Incorrect response choices, or distractors, typically represent some kind of misinterpretation, predisposition, unsound reasoning, or casual reading.

OPEN-ENDED TASKS FOR READING

Open-ended, or constructed-response, tasks are designed to address comprehension of text in ways that multiple-choice items cannot. A short written response, requiring about ten minutes per item, allows students to prepare an answer and summarize using supporting details or examples derived from the text.

The reading open-ended items are scored on a 0–3 point scale with an item-specific scoring guideline. This scale is consistent with the scale used on the National Assessment of Educational Progress (NAEP). The change from the former 0–4 point scale improves the alignment with the types of tasks required. Each task is text-dependent and is carefully constructed with the scoring guide reflecting the task requirements. All item-specific scoring guidelines are based on the General Scoring Guidelines for Open-Ended Reading Items. The general guidelines describe a hierarchy of responses, which represent the four score levels. (See Appendix D or the grade-specific *Reading Item and Scoring Sampler*, available on the PDE website.)

Matrix Sampling Assessment Design

The PSSA was originally designed as a complex matrix-sampling scheme for both mathematics and reading, which was very efficient for measuring *school-level* performance, but less efficient for providing *student-level* assessments and diagnostics. In the present design, all forms contain a *common* core of items to which all students respond and *matrix* items that vary by form. Both the common and the matrix sections of the 2008 PSSA use traditional multiple-choice items and open-ended performance tasks. The forms are *spiraled* so that all forms are distributed uniformly within each testing room. This ensures that each matrix section is administered to an unbiased and sequentially random sample of students in each school. Since multiple forms are

administered, the blocks of matrix items expand the number of items available to more broadly measure the Assessment Anchors for school-level reporting.

The design changes that began to take effect with the spring 2000 administration shifted the measurement focus toward the student and away from the school. Beginning in 2000, student-level results were reported on an individual student report with diagnostic results at the *Academic Content Standard* level. All student-level results were based on the common items only and presented in the raw-score, percent-correct metric. In order to accommodate this change in focus, the common section was expanded to better reflect the curriculum. To administer the tests in a reasonable length of time, enhancing the common sections required a compensatory reduction of the matrix sections.

The PSSA design from 2000 through 2008 is an attempt to have the best of both worlds:

- All student-level results are based on the common core of items that all students in a grade are administered. This ensures that all students are evaluated using the same set of items.
- School-level content area total score results are based on the mean of the student-level scaled scores. This ensures that the results used for school accountability directly reflect the student-level results.
- School-level results at the Content Standard (Academic Standards category) level are based on the common items together with all embedded operational items on the matrix forms (embedded field-test items are not included in school-level results). This ensures that decisions regarding potential strengths and weaknesses at the school level better sample the entire curriculum.

Chapter Three: Item Development Process

A series of major activities took place in 2003 and 2004, which culminated in the implementation of changes to the structure of the operational PSSA in the 2005 assessment and continued through the 2008 administration. These key activities included the development of the Pennsylvania Assessment Anchor Content Standards (Assessment Anchors); test item development; content review; bias, fairness, and sensitivity review; field test of new reading and mathematics items in spring 2007; item review with data; and final selection of items to compose the 2008 PSSA. The table below provides a timeline of these major activities, which are described in some detail in this chapter as well as in Chapters Four and Five. It should also be noted that test items for the 2007 field test were developed by Data Recognition Corporation (DRC) and WestEd.

Table 3–1. General Timeline Associated with 2007 Field Test and 2008 Operational Assessment of Mathematics and Reading at Grades 3, 4, 5, 6, 7, 8, and 11

Time Frame	Activity
January–June 2006	Item development for 2007 embedded field test
July 24–28, 2006	Item review and bias, fairness, and sensitivity review of newly developed items for 2007 embedded field test
September 2006–January 2007	Forms construction for 2007 embedded field test
January–July 2007	Item development for newly developed items to embed on 2007 operational assessment
March 12–23, 2007	2007 embedded field test in 2007 operational test
July 23–25, 2007	Statistical review of 2007 field tested items
July 23–27, 2007	Item review and bias, fairness, and sensitivity review of newly developed items for the embedded field test in 2008 operational assessment
August 2007–January 2008	Forms construction for 2008 operational assessment
March 31–April 11, 2008	2008 operational assessment

TEST CONTENT BLUEPRINT FOR 2008

The PSSA is based on the Pennsylvania Academic Standards. The 2008 PSSA reflects the new Assessment Anchors (PDE 2004), which were designed as a means of improving the articulation of curricular, instructional, and assessment practices. The Assessment Anchors serve to clarify the Academic Standards assessed on the PSSA and to communicate “assessment limits,” or the range of knowledge and skills from which the PSSA would be designed. Relevant to item development are the refinement and clarification embodied in the Assessment Anchors. Since the Assessment Anchors encompass grades 3 through 8 and grade 11, the document informs test design for the grades undergoing new test development as well as the grades currently assessed.

The PSSA for grades 3, 5, 8, and 11 in 2005 through 2008 followed a new blueprint and testing plan to reflect the new assessment anchors and item distribution. The first operational administration of the PSSA for grades 4, 6, and 7 took place in 2006. It followed the new blueprint and testing plan, and it reflected the new Assessment Anchors and item distribution plan first applied on the PSSA for grades 3, 5, 8, and 11 in 2005 through 2008.

2008 OPERATIONAL LAYOUT FOR READING AND MATHEMATICS: GRADES 3, 4, 5, 6, 7, 8, AND 11

The mathematics and reading PSSA plan was developed through the collaborative efforts of Data Recognition Corporation (DRC) and National Center for Improvement of Educational Assessment (NCIEA). The plan was subsequently evaluated and approved by PDE. At grades 4 through 8 and grade 11, the reading and mathematics assessments are combined in one test booklet and one separate answer booklet. The test booklet contains reading passages and reading and mathematics multiple-choice items. The answer booklet contains scannable pages for multiple-choice (MC) responses, open-ended (OE) items with response spaces, and demographic data collection areas. At grade 3, the reading and mathematics assessments are combined into one integrated test/answer booklet. All MC items are worth 1 point. Reading OE items receive a maximum of 3 points (scale of 0–3) and mathematics OE items receive a maximum of 4 points (scale of 0–4). Each test form contains common items (identical on all forms) along with matrix/embedded field test items. The common items consist of a set of “core” items taken by all students. The matrix items and the embedded field test items are unique, in most instances, to a form. That is, there are several instances in which a matrix or embedded field test OE item appears on more than one form.

At grades 4, 5, 6, 7, 8, and 11, the 2008 PSSA is comprised of 20 forms per grade. At grade 3, the 2008 PSSA is comprised of 16 forms. All of the forms contain the common items identical for all students and sets of generally unique (“matrix”) items that fulfill several purposes. These purposes include:

1. Expanding the total pool of items for school-level reporting,
2. Field testing new items,
3. Using items from the previous year’s assessment for the purpose of linking.

The following two tables display the design for reading and mathematics for forms 1 through 20. The column entries for these tables denote:

- the grade level,
- number of test forms per grade,
- number of common or core MC items (Core MC),
- number of matrix MC items included in school-level reporting (Matrix MC),
- number of embedded MC field test items (Embedded FT MC),
- number of common or core OE items (Core 3-pt. or Core 4-pt. OE),
- number of matrix OE items included in school-level reporting (Matrix OE),
- number of embedded OE field test items (Embedded FT OE),
- total number of MC and OE items in the form (Total Items MC/OE), and
- the total number of operational points (derived from Core MC and Core OE only) for producing a student score (Total Operational Points).

Table 3–2. Reading Test Plan 2008 per Operational Form

Grade	No. of Forms	No. of Core MC per Op. Form	No. of Matrix MC per Op. Form	No. of Embedded FT MC per Op. Form	No. of Core 3-pt. OE per Op. Form	No. of Matrix OE per Op. Form	No. of Embedded FT OE per Op. Form	Total No. of Items per Op. Form MC/OE	Total No. of Core Points per Op. Test
3	16	40	8*	10*	2	1	1	58/4	46
4, 5, 6, 7, 8, and 11	20	40	6*	10*	4	1	1	56/6	52

* Average

Table 3–3. Mathematics Test Plan 2008 per Operational Form

Grade	No. of Forms	No. of Core MC per Op. Form	No. of Matrix MC per Op. Form	No. of Embedded FT MC per Op. Form	No. of Core 4-pt. OE per Op. Form	No. of Matrix OE per Op. Form	No. of Embedded FT OE per Op. Form	Total No. of Items per Op. Form MC/OE	Total No. of Core Points per Op. Test
3	16	54	5	7	3	1	1	66/5	66
4, 5, 6, 7, 8, and 11	20	54	5	7	3	1	1	66/5	66

Since an individual student’s score is based solely on the common (or core) items, the total number of operational points is 66 for mathematics and 52 for reading (or 46 points for grade 3). The total score is obtained by combining the points from the core MC and OE portions of the test as follows:

Student’s Score	MC Items	Grade	OE Items	Total Score
Reading	40	3	2 items X 3-points=6 points	46
		4, 5, 6, 7, 8,& 11	4 items X 3-points=12 points	52
Mathematics	54	3, 4, 5, 6, 7, 8, & 11	3 items X 4-points=12 points	66

School-level reporting relies on the matrix items to expand the pool of items available to produce a more extensive content breakdown of results than is possible for student-level reporting.

For more information concerning the process used to convert the operational layout into forms (form construction), see Chapter Six. For more information about operational layout across forms and across years (form equivalency) see Chapter Ten.

LINKING

Linking provides a statistical bridge between assessment administrations. The 2008 administration is linked back to the 2007 administration through the use of linking items in the core and the matrix sections.

Multiple-choice

For grades 4, 5, 6, 7, 8, and 11, mathematics used 10 core-linking MC items and 20 matrix-linking MC items per grade, and reading used 23 to 30 matrix-linking MC items per grade. For grade 3, mathematics used 10 core-linking MC items and 16 matrix-linking MC items, and reading used 30 matrix-linking MC items.

Open-ended

For grades 3, 4, 5, 6, 7, 8, and 11, mathematics used 3 matrix-linking OE items per grade, and reading used 3 matrix-linking OE items per grade.

The matter of linking will be treated more fully in Chapter Eleven.

TEST SESSIONS AND TIMING

The test window for the 2008 operational assessment extended from March 31 through April 11, 2008, including make-ups. The reading and mathematics assessments consisted of six sections. Test administration recommendations called for each section to be scheduled as one assessment session, although schools were permitted to combine multiple sections in a single session. Administration guidelines stipulated that the sections be administered in the sequence in which they are printed in the test booklets. The following tables outline the assessment schedule and estimated times for each section (“MC” refers to multiple-choice and “OE” refers to open-ended items). The estimated testing times do not include time for administrative tasks that occur during the pre- and post- administration activities.

Table 3–4. Reading and Mathematics – Administration and Testing Times

Test Section & Content	Suggested Times (In Minutes)			Grade Level						
	Administration (Total)	Administrative (Pre & Post)	Student Testing	3	4	5	6	7	8	11
1 Mathematics	65 to 80	15 to 20	50 to 60	22 MC 2 OE	22 MC 2 OE	22 MC 2 OE	22 MC 2 OE	22 MC 2 OE	22 MC 2 OE	22 MC 2 OE
2 Reading	70 to 85	15 to 20	55 to 65	24 MC 1 OE	23 MC 2 OE	24 MC 2 OE	20 MC 2 OE	20 MC 2 OE	20 MC 2 OE	24 MC 2 OE
3 Mathematics	65 to 80	15 to 20	50 to 60	22 MC 2 OE	22 MC 2 OE	22 MC 2 OE	22 MC 2 OE	22 MC 2 OE	22 MC 2 OE	22 MC 2 OE
4 Reading	60 to 80	15 to 20	45 to 55 [G3 50 to 60]	18 MC 2 OE	16 MC 2 OE	16 MC 2 OE	16 MC 2 OE	16 MC 2 OE	16 MC 2 OE	16 MC 2 OE
5 Mathematics	55 to 70	15 to 20	40 to 50	22 MC 1 OE	22 MC 1 OE	22 MC 1 OE	22 MC 1 OE	22 MC 1 OE	22 MC 1 OE	22 MC 1 OE
6 Reading	55 to 80	15 to 20	50 to 60 [G3 40 to 50]	16 MC 1 OE	17 MC 2 OE	16 MC 2 OE	20 MC 2 OE	20 MC 2 OE	20 MC 2 OE	16 MC 2 OE

During the assessment, students may request an extended assessment period if they indicate that they have not completed the task. Such requests are granted if the assessment administrator finds the request to be educationally valid.

REPORTING CATEGORIES AND POINTS DISTRIBUTIONS

The reading assessment results will be reported in two broad categories:

- E. Comprehension and Reading Skills
- F. Interpretation and Analysis of Fictional and Nonfictional Text

Assessment Anchors associated with Comprehension and Reading Skills are coded with an initial letter “A,” and those related to Interpretation and Analysis of Fictional and Nonfictional Text are coded with an initial letter “B.” The distribution of items into these two categories across genres is shown on the following table.

Table 3–5. Reading Reporting Categories and Genre

Grade	Comprehension and Reading Skills % Range	Interpretation and Analysis of Fictional and Nonfictional Text % Range	% of Passages (Genre) Fiction	% Passages (Genre) Nonfiction
Grade 3	60–80%	20–40%	50%–70%	30%–50%
Grade 4	60–80%	20–40%	50%–70%	30%–50%
Grade 5	60–80%	20–40%	50%–70%	30%–50%
Grade 6	50–70%	30–50%	40%–60%	40%–60%
Grade 7	50–70%	30–50%	40%–60%	40%–60%
Grade 8	40–60%	40–60%	40%–60%	40%–60%
Grade 11	40–60%	40–60%	30%–50%	50%–70%

The **mathematics assessment** results will be reported in five categories that approximately correspond to those advocated by the National Council of Teachers of Mathematics (NCTM). The code letters for these Assessment Anchor categories are A–E and correspond to:

- A. Numbers and Operations
- B. Measurement
- C. Geometry
- D. Algebraic Concepts
- E. Data Analysis and Probability

The distribution of mathematics items into these five categories is shown in the following table.

Table 3–6. Mathematics Reporting Categories and Point Distribution

REPORTING CATEGORY	GRADE						
	3	4	5	6	7	8	11
Numbers and Operations	40%–50% 26–33 pts	43%–47% 28–31 pts	41%–45% 27–30 pts	28%–32% 18–21 pts	20%–24% 13–16 pts	18%–22% 12–15 pts	12%–15% 8–10 pts
Algebraic Concepts	12%–15% 8–10 pts	12%–15% 8–10 pts	13%–17% 9–11 pts	15%–20% 10–13 pts	20%–27% 13–18 pts	25%–30% 17–20 pts	38%–42% 25–28 pts
Geometry	12%–15% 8–10 pts	12%–15% 8–10 pts	12%–15% 8–10 pts	15%–20% 10–13 pts	15%–20% 10–13 pts	15%–20% 10–13 pts	12%–18% 8–12 pts
Measurement	12%–15% 8–10 pts	12%–15% 8–10 pts	12%–15% 8–10 pts	12%–15% 8–10 pts	12%–15% 8–10 pts	12%–15% 8–10 pts	12%–15% 8–10 pts
Data Analysis & Probability	12%–15% 8–10 pts	12%–15% 8–10 pts	12%–15% 8–10 pts	15%–20% 10–13 pts	15%–20% 10–13 pts	15%–20% 10–13 pts	12%–18% 8–12 pts
Total	66 pts	66 pts	66 pts	66 pts	66 pts	66 pts	66 pts

Both the reading and mathematics content area reporting categories are further subdivided for specificity and Eligible Content or limits. Each subdivision is coded by adding an additional numeral, e.g., A.1. These subdivisions are called “Assessment Anchors” and “Eligible Content.”

ASSESSMENT ANCHOR CONTENT STANDARDS SUBSUMED WITHIN REPORTING CATEGORIES

For mathematics there are 16 Assessment Anchor Content Standards (Assessment Anchors) that occur at all grade levels (grades 3 through 8 and 11), although they are not all assessed at each grade level. More specifically, the number targeted for assessment by grade level are 10 at grade 3, 12 at grade 4, 13 at grade 5, 12 at grade 6, 14 at grade 7, 13 at grade 8, and 13 at grade 11.

For reading there are five Assessment Anchors that vary to reflect grade-level appropriateness. Within the Comprehension and Reading Skills Reporting Category, two Assessment Anchors pertain to understanding fiction text and understanding nonfiction text. Within the Interpretation and Analysis of Fiction and Nonfiction Text Reporting Category, three Assessment Anchors pertain to Components of Text, Literary Devices and Concepts, and Organization of Nonfiction Text.

Total reading and mathematics scores reported at the student level are based on the core (common) sections. Also reported are the student’s reading and mathematics performance levels. School and district-level scores are reported at the Eligible Content level under the Assessment Anchors and are based on the core (common) and matrix sections, excluding the embedded field-test items. (See Appendix F for a summary by grade and subject.)

TEST DEVELOPMENT CONSIDERATIONS

Alignment to the PSSA Assessment Anchors and Eligible Content, grade-level appropriateness (reading/interest level, etc.), depth of knowledge, cognitive level, item/task level of complexity, estimated difficulty level, relevancy of context, rationale for distractors, style, accuracy, and correct terminology were major considerations in the item development process. The *Standards for Educational and Psychological Testing* (AERA, APA, NCME, 1999) and the *Principles of Universal Design* (Thompson, Johnstone, & Thurlow, 2002) guided the development process. In addition, DRC’s *Bias, Fairness, and Sensitivity Guidelines* were used for developing items free of bias, fairness, and sensitivity issues. All items were reviewed for fairness by bias and sensitivity committees and for content by Pennsylvania educators and field-specialists. Items were also reviewed for adherence to the Principles of Universal Design by representatives from the National Center for Educational Outcomes (NCEO) and adherence to the guidelines outlined in the Pennsylvania publication *Principles, Guidelines and Procedures for Developing Fair Assessment Systems: Pennsylvania Assessment Through Themes* (PATT).

Bias, Fairness, and Sensitivity

At every stage of the item and test development process, DRC employs procedures that are designed to ensure that items and tests meet Standard 7.4 of the Standards for Educational and Psychological Testing (AERA, APA, NCME, 1999).

Standard 7.4: Test developers should strive to identify and eliminate language, symbols, words, phrases, and content that are generally regarded as offensive by members of racial, ethnic, gender, or other groups, except when judged to be necessary for adequate representation of the domain.

In meeting Standard 7.4, DRC employs a series of internal quality steps. DRC provides specific training for our test developers, item writers, and reviewers on how to write, review, revise, and edit items for issues of bias, fairness, and sensitivity (as well as for technical quality). Our training also includes an awareness of and sensitivity to issues of cultural diversity. In addition to providing *internal* training in reviewing items in order to eliminate potential bias, DRC also provides *external* training to the review panels of minority experts, teachers, and other stakeholders.

DRC's guidelines for bias, fairness, and sensitivity includes instruction concerning how to eliminate language, symbols, words, phrases, and content that might be considered offensive by members of racial, ethnic, gender, or other groups. Areas of bias that are specifically targeted include, but are not limited to: stereotyping, gender, regional/geographic, ethnic/cultural, socioeconomic/class, religious, experiential, and biases against a particular age group (ageism) and against persons with disabilities. DRC catalogues topics that should be avoided, and maintains balance in gender and ethnic emphasis within the pool of available items and passages.

Universal Design

As stated above, the Principles of Universal Design were incorporated throughout the item development process to allow participation of the widest possible range of students in the PSSA. The following checklist was used as a guideline:

Items measure what they are intended to measure.

Items respect the diversity of the assessment population.

Items have a clear format for text.

Stimuli and items have clear pictures and graphics.

Items have concise and readable text.

Items allow changes to format, such as Braille, without changing meaning or difficulty.

The arrangement of the items on the test has an overall appearance that is clean and well organized.

A more extensive description of the application of Universal Design principles is described in Chapter Four.

Depth of Knowledge

An important element in statewide assessment is the alignment between the overall assessment system and the state's standards. A methodology developed by Norman Webb (1999) offers a comprehensive model that can be applied to a wide variety of contexts. With regard to the alignment between standards statements and the assessment instruments, Webb's criteria include five categories, one dealing with content. Within the content category is a useful set of levels for evaluating depth of knowledge. According to Webb (1999, p.7–8) "depth-of-knowledge consistency between standards and assessments indicates alignment if what is elicited from students on the assessment is as demanding cognitively as what students are expected to know and do as stated in the standards." The four levels of cognitive complexity (depth of knowledge) are:

- Level 1: Recall
- Level 2: Skill/Concept
- Level 3: Strategic Thinking
- Level 4: Extended Thinking

Depth-of-knowledge levels were incorporated in the item writing and review process, and items were coded with respect to the level they represented.

Test Item Writers and Item Writer Training

DRC and WestEd selected and trained item writers. Qualified writers were college graduates with teaching experience and a demonstrated base of knowledge in the content area. Many of these writers were content assessment specialists and curriculum specialists. The writers were trained individually and had previous experience in writing multiple-choice and open-ended response items. Prior to developing items for the PSSA, the cadre of item writers was trained with regard to:

- Pennsylvania Academic Standards, Assessment Anchors, and Eligible Content
- Webb's Four Levels of Cognitive Complexity: Recall, Basic Application of Skill/Concept, Strategic Thinking, and Extended Thinking
- General scoring guidelines for each content area
- Specific and General Guidelines for Item Writing
- Bias, Fairness, and Sensitivity
- Principles of Universal Design
- Item Quality Technical Style Guidelines
- Reference Information
- Sample Items

Reading Passage Selection

The task of searching for passages was conducted by DRC professionals with classroom experience in reading/language arts. They had also undergone specialized training (provided by DRC) in the characteristics of acceptable passages. Guidelines for passage selection included appropriate length, text structure, density, and vocabulary for the grade level. A judgment was also made about whether the reading level required by a particular passage was at the independent level, i.e., where the average student should be able to read 90 percent of words in the text independently. Passage finders were given the charge to search for a specified number of passages for each genre. Generally, at least twice as many passages as needed were sought. Most passages acquired for the 2007 field test were “authentic” in that they were culled from published materials. Approval to reprint was secured from the publisher. Passages underwent an internal review by several test development content editors to judge their merit with regard to the following criteria:

- Passages have interest value for students.
- Passages are grade appropriate in terms of vocabulary and language characteristics.
- Passages are free of bias, fairness, and sensitivity issues.
- Passages represent different cultures.
- Passages are from a variety of sources.
- Passages should be able to stand the test of time.
- Passages are sufficiently “rich” to generate a variety of MC and OE items.
- Passages are complete with all necessary permissions documentation.
- Passages avoid dated subject matter unless a relevant historical context is provided. (Students should not have to have extensive background knowledge in a certain discipline or area to understand a text.)

Once through the internal review, those passages deemed potentially acceptable were reviewed by the Reading Content Committee and Bias, Fairness, and Sensitivity Committee for final approval.

Passage Readability

Evaluating the readability of a passage is essentially a judgmental process by individuals familiar with the classroom context and what is linguistically appropriate at a given grade level as described in the preceding section on reading passage selection. Although various readability indices were computed and reviewed, it is recognized that such methods measure different aspects of readability and are often fraught with particular interpretive liabilities. Thus, the commonly available readability formulas were not used in a rigid way, but more informally to provide for several “snapshots” of a passage that senior test development staff considered along with experience-based judgments in guiding the passage selection process. In addition, passages were reviewed by committees of Pennsylvania educators who evaluated each passage for readability and grade-level appropriateness.

Test Item Readability

Careful attention was given to the readability of the items to make certain that the assessment focus of the item did not shift based on the difficulty of reading the item. The issue of readability was addressed for all items during the final editing of items and at the Item Content Review. Vocabulary was also addressed at the Bias, Fairness, and Sensitivity Review, although the focus was on how certain words or phrases may represent a possible source of bias or issues of fairness or sensitivity.

Process of Item Construction

To ensure that the items produced were sufficient in number and adequately distributed across subcategories and levels of difficulty, item writers were informed of the required quantities of items. As items were written, an item authoring card was completed. It contained information about the item, such as grade level, content category, and subcategories. Based on the item writer's classroom teaching experience, knowledge of the content area curriculum, and cognitive demands required by the item, estimates were recorded for level of cognitive complexity and difficulty level. Items were written to provide for a range of difficulty.

As part of the item construction process, each item was reviewed by content specialists and editors at DRC, at WestEd, or at both companies (depending on the grade). Content specialists and editors evaluated each item to make sure that it measured the intended Eligible Content and/or Assessment Anchor Content Standard. They also assessed each item to make certain that it was appropriate to the intended grade and that it provided and cued only one correct answer. In addition, the difficulty level, depth of knowledge, graphics, language demand, and distractors were also evaluated. Other elements considered in this process include, but is not limited to: Universal Design, bias, source of challenge, grammar/punctuation, and PSSA style.

A flow chart summarizing the item and test development processes used appears in Appendix G.

Item Content Review in July 2006

Prior to the 2007 field testing, all newly developed test items were submitted to content committees for review. The content committees consisted of Pennsylvania educators from school districts throughout the Commonwealth of Pennsylvania, some with postsecondary university affiliations. The primary responsibility of the content committee was to evaluate items with regard to quality and content classification, including grade-level appropriateness, estimated difficulty, depth of knowledge, and source of challenge. With source of challenge (Webb, 2002), items are identified where the cognitive demand is focused on an unintended content, concept, or skill. In addition, source of challenge may be attributed if the reason that an answer could be given results from a cultural bias, an inappropriate reading level, or a flawed graphic in an item, or if an item requires specialized, non-content related, knowledge to answer. Source of challenge could result in the student answering—either correctly or incorrectly—without actually demonstrating the intended content or skill. Committee members were asked to note any items with a source of challenge and to suggest revisions to remove the source of challenge. They also suggested revisions and made recommendations for reclassification of items. In some cases when an item was deleted, the committee suggested a replacement item and/or reviewed a suggested replacement item provided by the facilitators. The committee also reviewed the items for adherence to the Principles of Universal Design, including language demand and issues of bias, fairness, and sensitivity.

The content review was held July 24-28, 2006. Committee members were approved by PDE, and PDE-approved invitations were sent to them by DRC. PDE also selected internal PDE staff members for attendance. The meeting commenced with a welcome by PDE and DRC. This was followed by an overview of the test development process by DRC. PDE, along with DRC, also provided training on the procedures and forms to be used for item content review.

DRC assessment specialists in mathematics and reading facilitated the reviews and were assisted by representatives of PDE and WestEd. Committee members, grouped by grade level and content area, worked through and reviewed the items for quality and content, as well as for the following categories:

- Anchor Alignment (classified as Full, Partial, or No)
- Content Limits (classified as Yes or No)
- Grade-Level Appropriateness (classified as at grade level, below, or above grade level)
- Difficulty Level (classified as Easy, Medium, or Hard)
- Depth of Knowledge (classified as Recall, Application, Strategic Thinking)
- Appropriate Source of Challenge (classified as Yes or No)
- Correct Answer (classified as Yes or No)
- Quality of Distractors (classified as Yes or No)
- Graphics (classified as Yes or No)
- Appropriate Language Demand (classified as Yes or No)
- Freedom from Bias (classified as Yes or No)

The members then came to consensus and assigned a status to each item as a group: Approved, Accepted with Revision, Move to Another Assessment Anchor or Grade, or Rejected. All comments were recorded, and a master rating sheet was completed. Committee facilitators recorded the committee consensus on the Item Review Tally Form. The form may be found in Appendix H.

Security was addressed by adhering to a strict set of procedures. Items in binders were distributed for committee review by number and signed for by each member on a daily basis. All attendees, with the exception of PDE staff, were required to sign a confidentiality agreement. All materials not in use at any time were stored in a locked room. Secure materials that did not need to be retained after the meetings were deposited in secure barrels and their contents were shredded.

Bias, Fairness, and Sensitivity Reviews

Prior to 2007 field testing, all newly developed test items were also submitted to a Bias, Fairness, and Sensitivity Committee for review. This took place on July 13 and 14, 2006 and July 24, 25, and 26 2006. The committee's primary responsibility was to evaluate items as to acceptability with regard to bias, fairness, and sensitivity issues. They also made recommendations for changes or deletion of items in order to remove the potential for issues of bias, fairness, and/or sensitivity. Included in the review were proposed reading passages. An expert, multi-ethnic committee composed of men and women was trained by a DRC test development director to review items for bias, fairness, and sensitivity issues. Training materials included a manual

developed by DRC (DRC, 2003–2008). Members of the committee also had expertise with special needs students and English Language Learners. PDE staff members were also trained and participated in the review. All reading and mathematics items were read by a cross-section of committee members. Each member noted bias, fairness, and/or sensitivity comments on tracking sheets and on the item, if needed, for clarification. The committee then discussed each of the issues as a group and came to consensus as to which issues should represent the view of the committee. All consensus comments were then compiled, and the actions taken on these items were recorded and submitted to PDE. This review followed the same security procedures as outlined above, except that the materials were locked up and stored at the DRC offices in Harrisburg.

The results from the Bias, Fairness, and Sensitivity Committee review of mathematics are summarized in Table 3–7.

Table 3–7. Number of Items—2006 Bias, Fairness, and Sensitivity Committee Review for Mathematics

Grade	Mathematics		
	Accepted As Is	Accepted With Revision	Rejected
3	225	5	0
4	215	4	0
5	164	3	0
6	147	7	0
7	142	1	0
8	156	1	0
11	162	0	0
Total	1211	21	0

The results from the Bias, Fairness, and Sensitivity Committee review of reading are summarized in Table 3–8.

Table 3–8. Number of Items—2006 Bias, Fairness, and Sensitivity Committee Review for Reading

Reading						
Grade	Passages			Items		
	Accepted As Is	Accepted With Revision	Rejected	Accepted As Is	Accepted With Revision	Rejected
3	11	5	0	246	0	0
4	6	9	1	363	7	2
5	11	7	0	287	4	0
6	9	7	1	286	0	3
7	8	4	6	305	1	0
8	12	7	0	298	1	0
11	18	0	0	295	0	0
Total	75	39	8	2080	13	5

ITEM AUTHORING AND TRACKING

Initially, items are prepared on PSSA Item Cards and used for preliminary sorting and review. Although very similar, the PSSA Item Card for Multiple-Choice Items differs from the PSSA Item Card for Open-Ended Items in that the former has a location at the bottom of the card for comments regarding the distractors. Blank examples of these two cards are shown in Appendix I. In both instances a column against the right margin provides for codes to identify the subject area, grade, content categories, passage information (in the case of reading), item type, depth of knowledge (cognitive complexity), estimated difficulty, answer key (MC items), and calculator use (mathematics).

All items undergoing field-testing were entered into the DRC Item Viewer and Authoring Network™ (IVAN), which is a comprehensive, secure, online item banking system. It accommodates item writing, item viewing and reviewing, and item tracking and versioning. IVAN manages the transition of an item from its developmental stage to its approval for use within a test form. The system supports an extensive item history that includes item usage within a form, item-level notes, content categories and subcategories, item statistics from both classical and Rasch item analyses, and classifications derived from analyses of differential item functioning (DIF). A sample IVAN Item Card is presented in Appendix I.

Chapter Four: Universal Design Procedures Applied in the PSSA 2008 Test Development Process

Universally designed assessments allow participation of the widest possible range of students and contribute to valid inferences about participating students. Principles of Universal Design are based on the premise that each child in school is a part of the population to be tested, and that testing results should not be affected by disability, gender, race, or English language ability (Thompson, Johnstone & Thurlow, 2002). At every stage of the item and test development process, including the 2007 field test, procedures were employed to ensure that items and subsequent tests were designed and developed using the elements of universally designed assessments developed by the National Center for Educational Outcomes (NCEO).

Federal legislation addresses the need for universally designed assessments. The *No Child Left Behind Act* (Elementary and Secondary Education Act) requires that each state must “provide for the participation in [statewide] assessments of all students” [Section 1111(b)(3)(C)(ix)(I)]. Both Title 1 and IDEA regulations call for universally designed assessments that are accessible and valid for all students, including students with disabilities and English Language Learners. The benefits of universally designed assessments not only apply to these groups of students, but to all individuals with wide-ranging characteristics.

DRC’s test development team was trained in the elements of Universal Design as it relates to developing large-scale statewide assessments. Team leaders were trained directly by NCEO, and other team members were subsequently trained by team leaders. Committees involved in content review included some members who were familiar with the unique needs of students with disabilities and English Language Learners. Likewise some members of the Bias, Fairness, and Sensitivity Committee were conversant with these issues. What follows are the Universal Design guidelines followed during all stages of the item development process for the 2008 PSSA.

ELEMENTS OF UNIVERSALLY DESIGNED ASSESSMENTS

After a review of research relevant to the assessment development process and the principles of Universal Design (Center for Universal Design, 1997), NCEO has produced seven elements of Universal Design as they apply to assessments (Thompson, Johnstone & Thurlow, 2002). These elements served to guide PSSA item development.

- **Inclusive Assessment Population**
The PSSA target population includes all students at the assessed grades attending Commonwealth schools. For state, district, and school accountability purposes, the target population includes every student except those who will participate in accountability through an alternate assessment.
- **Precisely Defined Constructs**
An important function of well-designed assessments is that they actually measure what they are intended to measure. The Pennsylvania Assessment Anchor Content Standards (Assessment Anchors) provided clear descriptions of the constructs to be measured by the PSSA at the assessed grade levels. Universally designed assessments must remove all non-construct-oriented cognitive, sensory, emotional, and physical barriers.
- **Accessible, Non-biased Items**
DRC conducted both internal and external reviews of items and test specifications to

ensure that they did not create barriers because of lack of sensitivity to disability, culture, or other subgroups. Items and test specifications were developed by a team of individuals who understand the varied characteristics of items that might create difficulties for any group of students. Accessibility is incorporated as a primary dimension of test specifications, so that accessibility was woven into the fabric of the test rather than being added after the fact.

- **Amenable to Accommodations**

Even though items on universally designed assessments are accessible for most students, there are some students who continue to need accommodations. This essential element of universally designed assessment requires that the test is compatible with accommodations and a variety of widely-used adaptive equipment and assistive technology. (See the section on Assessment Accommodations later in Chapter Four.)

- **Simple, Clear, and Intuitive Instructions and Procedures**

Assessment instructions should be easy to understand, regardless of a student's experience, knowledge, language skills, or current concentration level. Knowledge questions that are posed within complex language can invalidate the test if students cannot understand how they are expected to respond to a question. To meet this guideline, directions and questions were prepared in simple, clear, and understandable language that underwent multiple reviews.

- **Maximum Readability and Comprehensibility**

A variety of guidelines exist to ensure that text is maximally readable and comprehensible. These features go beyond what is measured by readability formulas. Readability and comprehensibility are affected by many characteristics, including student background, sentence difficulty, text organization, and others. All of these features were considered as item text was developed.

Plain language is a concept now being highlighted in research on assessments. Plain language has been defined as language that is straightforward and concise. The following strategies for editing text to produce plain language were used during the editing process of the new PSSA items.

Reduction of excessive length

Use of common words

Avoidance of ambiguous words

Avoidance of irregularly spelled words

Avoidance of proper names

Avoidance of inconsistent naming and graphic conventions

Avoidance of unclear signals about how to direct attention

- **Maximum Legibility**

Legibility is the physical appearance of text, the way that the shapes of letters and numbers enable people to read text easily. Bias results when tests contain physical features that interfere with a student's focus on or understanding of the constructs that test items are intended to assess. A style guide developed and updated annually (DRC,

2004–2008) was utilized, with PDE approval, that included dimensions of style consistent with universal design.

GUIDELINES FOR UNIVERSALLY DESIGNED ITEMS

All test items written and reviewed adhered closely to the following guidelines for Universal Design. Item writers and reviewers used a checklist during the item development process to ensure that each aspect was attended to.

- 1. Items measure what they are intended to measure.** Item writing training included assuring that writers and reviewers had a clear understanding of Pennsylvania’s Academic Standards and the Assessment Anchors. During all phases of test development, items were presented with content-standard information to ensure that each item reflected the intended Assessment Anchor. Careful consideration of the content standards was important in determining which skills involved in responding to an item were extraneous and which were relevant to what was being tested. In certain types of items an additional skill is necessary, such as the mathematics test, which requires the student to read.
- 2. Items respect the diversity of the assessment population.** To develop items that avoid content that might unfairly advantage or disadvantage any student subgroup, item writers, test developers, and reviewers were trained to write and review items for issues of bias, fairness, and sensitivity. Training also included an awareness of, and sensitivity to, issues of cultural and regional diversity.
- 3. Items have a clear format for text.** Decisions about how items are presented to students must allow for maximum readability for all students. Appropriate fonts and point sizes were employed with minimal use of italics, which is far less legible and is read considerably more slowly than standard typeface. Captions, footnotes, keys, and legends were at least a 12-point size (11pt for grade 11). Legibility was enhanced by sufficient spacing between letters, words, and lines. Blank space around paragraphs and between columns and staggered right margins were used.
- 4. Stimuli and items have clear pictures and graphics.** When pictures and graphics were used, they were designed to provide essential information in a clear and uncluttered manner. Illustrations were placed directly next to the information to which they referred and labels were used where possible. Sufficient contrast between background and text, with minimal use of shading, increased readability for students with visual difficulties. Color was not used to convey important information.
- 5. Items have concise and readable text.** Linguistic demands of stimuli and items can interfere with a student’s ability to demonstrate knowledge of the construct being assessed. During item writing and review, the following guidelines were used.
 - Simple, clear, commonly-used words were used whenever possible.
 - Extraneous text was omitted.
 - Vocabulary and sentence complexity were appropriate for the grade level assessed.
 - Technical terms and abbreviations were used only if related to the content being measured.
 - Definitions and examples were clear and understandable.

- Idioms were avoided unless idiomatic speech was being assessed.
 - The questions to be answered were clearly identifiable.
6. **Items allow changes to format without changing meaning or difficulty.** A Braille version of the PSSA was available at each assessed grade. Attention was given to using items that allow for Braille. Specific accommodations were permitted such as signing to a student, the use of oral presentation under specified conditions, and the use of various assistive technologies. A Spanish version for the PSSA mathematics test was available for use by English Language Learners who would benefit from this accommodation.
7. **The test has an overall appearance that is clean and organized.** Images, pictures, and text that may not be necessary (e.g., sidebars, overlays, callout boxes, visual crowding, shading) and that could be potentially distracting to students were avoided. Also avoided were purely decorative features that did not serve a purpose. Information was organized in a manner consistent with an academic English framework with a left-right, top-bottom flow.

ITEM DEVELOPMENT

DRC and WestEd work closely with the Pennsylvania Department of Education to help ensure that PSSA tests comply with nationally recognized Principles of Universal Design. We support the implementation of accommodations on large-scale statewide assessments for students with disabilities. In addition to the Principles of Universal Design as described in the Pennsylvania Technical Report, DRC and WestEd apply to each content area assessment the standards for test accessibility as described in *Tests Access: Making Tests Accessible for Students with Visual Impairments—A Guide for Test Publishers, and State Assessment Personnel* (Allman, 2004). To this end, we embrace the following precepts:

- Test directions are carefully worded to allow for alternate responses to open-ended questions.
- During item and bias reviews, test committee members are made aware of the Principles of Universal Design and of issues that may adversely affect students with disabilities with the goal of ensuring that PSSA tests are bias free for all students.
- With the goal of ensuring that the PSSA tests are accessible to the widest range of diverse student populations, PDE instructs DRC and WestEd to limit item types that are difficult to format in Braille, and that may become distorted when published in large print. DRC and WestEd are instructed to limit the following on the PSSA.

Mathematics: complicated tessellations, a chart or graph that extends beyond one page,

Reading: graphics and illustrations that are not germane to the content presented,

Both content areas: unnecessary boxes and framing of text, unless enclosing the text provides necessary context for the student; use of italics (limited to only when it is absolutely necessary; e.g. variables).

ITEM FORMATTING

For both content areas, DRC formats PSSA tests to maximize accessibility for all students by using text that is in a point size and font style that is easily readable. We limit shading, spacing, graphics, charts, and number of items per page so that there is sufficient white space on each page. Whenever possible, we ensure that graphics, pictures, diagrams, charts, and tables are positioned on the page with the associated test items. We use high contrast for text and background where possible to convey pertinent information. Tests are published on dull-finish paper to avoid the glare encountered on glossy paper. DRC pays close attention to the binding of the PSSA test booklets to ensure that they lie flat for two-page viewing and ease of reading and handling.

DRC ensures consistency across PSSA assessments by following these Principles of Universal Design:

- High contrast and clarity is used to convey detailed information.
- Typically, shading is avoided; when necessary for content purposes, 10% screens are used as the standard.
- Overlaid print on diagrams, charts, and graphs is avoided.
- Charts, graphs, diagrams, and tables are clearly labeled with titles and with short descriptions where applicable.
- Only relevant information is included in diagrams, pictures, and graphics.
- Symbols used in keys and legends are meaningful and provide reasonable representations of the topic they depict.
- Pictures that require physical measurement are true to size.

ASSESSMENT ACCOMMODATIONS

While universally designed assessments provide for participation of the widest range of students, many students require accommodations in order to participate in the regular assessment. Clearly, the intent of providing accommodations for students is to ensure that students are not unfairly disadvantaged during testing and that the accommodations used during instruction, if appropriate, are made available as students take the test. The literature related to assessment accommodations is still evolving and often focuses on state policies regulating accommodations rather than on providing empirical data that supports the reliability and validity of the use of accommodations. On a yearly basis, the Pennsylvania Department of Education examines accommodations policies and current research to ensure that valid, acceptable accommodations are available for students. An accommodations manual for the PSSA entitled *2008 Accommodations Guidelines for Students with IEPs and Students with 504 Plans* (PDE, January 2008) was developed for use with the 2008 PSSA.

Chapter Five: Field-Test Procedures

EMBEDDED FIELD-TEST ITEMS

The 2007 PSSA test forms contained common items (identical on all forms) along with matrix/embedded field-test items. The common items consisted of a set of “core” items taken by all students. The matrix and field-test items were embedded and were unique, in most instances, to a form; however, there are instances in which a matrix or embedded field-test item appeared on more than one form. The purpose of administering field-test items is to obtain statistics for them so they can be reviewed before becoming operational. Based on this statistical review, many of the field test items embedded in the 2007 PSSA were selected for use as common or matrix items in the 2008 PSSA.

STATISTICAL ANALYSIS OF ITEM DATA

All field-tested items were analyzed statistically following conventional item analysis methods. For MC items, traditional or classical item statistics included the corrected point-biserial correlation (Pt. Bis.) for the correct and incorrect responses (distractors), percent correct (P-Value), and the percent responding to incorrect responses. For OE items the statistical indices included the item-test correlation, the point-biserial correlation for each score level, percent in each score category or level, and the percent of non-scorable responses.

In general, more capable students are expected to respond correctly to easy items and less capable students are expected to respond incorrectly to difficult items. If either of these situations does *not* occur, the item will be reviewed by DRC test development staff and committees of Pennsylvania educators to determine the nature of the problem and the characteristics of the students affected. The primary way of detecting such conditions is through the point-biserial correlation coefficient for dichotomous (MC) items and the item-total correlation for polytomous (OE) items. In each case the statistic will be positive if the total test mean score is higher for the students who respond correctly to MC items (or attain a higher OE item score) and negative when the reverse is true.

Item statistics are used as a means of detecting items that deserve closer scrutiny, rather than being a mechanism for automatic retention or rejection. Toward this end, a set of criteria was used as a screening tool to identify items that needed a closer review by committees of Pennsylvania educators. For a MC item to be flagged, the criteria included any of the following:

- Point-biserial correlation for the correct response of less than 0.25
- Point-biserial correlation for any incorrect response greater than 0.0
- Percent correct less than 30% or greater than 90%
- Percent responding to any incorrect responses greater than the percent correct

For an OE item to be flagged, the criteria included any of the following:

- Item-test correlation less than 0.40
- Percent in any score category less than 10% or greater than 40%
- Non-scorable responses greater than 10 percent

Item analysis results for MC and OE field-test items are presented in Appendices J and K.

DIFFERENTIAL ITEM FUNCTIONING

Differential item functioning (DIF) occurs when two examinees with the same ability level but different group membership do not have the same probability of answering the item correctly. This pattern of results may suggest the presence of item bias. As a statistical concept, however, DIF can be differentiated from *item bias*, which is a content issue that can arise when an item presents negative group stereotypes, uses language that is more familiar to one subpopulation than to another, or is presented in a format that disadvantages certain learning styles. While the source of item bias is usually plain to trained judges, DIF may have no clear cause. However, studying how DIF arises and how it presents itself has an effect on how to detect and correct it.

Limitations of Statistical Detection

No statistical procedure should be used as a substitute for rigorous, hands-on reviews by content and bias specialists. The statistical results can help to organize the review so the effort is concentrated on the most problematic cases; however, no items should be automatically rejected simply because a statistical method flagged them or accepted because they were not flagged.

Statistical detection of DIF is an inexact science. There have been a variety of methods proposed for detecting DIF, but no one statistic can be considered either necessary or sufficient. Different methods are more or less successful depending on the situation. No analysis can guarantee that a test is free of bias, but almost any thoughtful analysis will uncover the most flagrant problems.

A fundamental shortcoming of all of the statistical methods used in DIF evaluation is that all are intrinsic to the test being evaluated. If a test is unbiased overall but contains one or two DIF items, any method will locate the problems. If, however, all items on the test show consistent DIF to the disadvantage of a given subpopulation, a statistical analysis of the items will not be able to separate DIF effects from true differences in achievement.

Mantel-Haenszel Procedure for Differential Item Functioning

The *Mantel-Haenszel* procedure for detecting differential item functioning is a commonly used technique in educational testing. It does not depend on the application or the fit of any specific measurement model. However, it does have significant philosophical overlap with the Rasch model since it uses total score to organize the analysis.

The procedure as implemented by DRC contrasts a focal group with a reference group. While it makes no practical difference in the analysis which group is defined as the focal group, the group most apt to be disadvantaged by a biased measurement is typically defined as the focal group. In these analyses, the focal group was female for gender-based DIF and black for ethnicity-based DIF; reference groups were male and white, respectively. The Mantel-Haenszel (MH) statistic (Mantel & Haenszel, 1959) for each item is computed from a contingency table. It has two groups (focal and reference) and two outcomes (right or wrong). The ability groups are defined by the core test's score distribution for the total examinee populations.

The basic MH statistic is a single degree of freedom chi-square that compares the observed number in each cell to the expected number. The expected counts are computed to ensure that the analysis is not confounded with differences in the achievement level of the two groups.

For OE items, a comparable statistic is computed based on the standardized mean difference (SMD) (Dorans, Schmitt & Bleistein, 1992), computed as the differences in mean scores for the focal and reference groups if both groups had the same score distribution.

To assist the review committees in interpreting the analyses, the items are assigned a severity code based on the magnitude of the MH statistic. Items classified as A+ or A- have little or no statistical indication of differential item functioning. Items classified as B+ or B- have some indication of DIF and may not require revision. Items classified as C+ or C- have strong evidence of DIF and should be reviewed and revised if they are to be used again. The plus sign indicates that the item favors the focal group and a minus sign indicates that the item favors the reference group.

Counts of the number of items from each grade and content area that were assigned to each severity code are shown below in Table 5–1. DIF analyses were conducted only on field test items.

Table 5–1. 2008 DIF Summary

Multiple-Choice Male/Female DIF Counts													
2007							2008						
Mathematics	A	B-	B+	C-	C+	Total	Mathematics	A	B-	B+	C-	C+	Total
3	112	2	10	2	2	128	3	106	1	3	1	1	112
4	127	3	9	0	1	140	4	133	3	3	1	0	140
5	136	2	2	0	0	140	5	138	2	0	0	0	140
6	128	2	9	1	0	140	6	130	2	7	0	1	140
7	135	2	1	2	0	140	7	136	2	2	0	0	140
8	131	2	6	0	1	140	8	132	1	6	1	0	140
11	136	3	0	1	0	140	11	129	4	6	1	0	140
Reading							Reading						
A	B-	B+	C-	C+	Total	A	B-	B+	C-	C+	Total		
3	175	0	0	0	0	175	3	159	0	1	0	0	160
4	196	1	3	1	0	201	4	198	0	2	0	0	200
5	196	1	4	0	0	201	5	193	1	6	1	0	201
6	194	3	5	0	0	202	6	191	4	3	2	0	200
7	196	5	1	1	0	203	7	187	6	3	4	0	200
8	191	7	2	3	0	203	8	190	4	4	1	1	200
11	182	9	8	2	2	203	11	190	3	6	1	0	200

Multiple-Choice White/Black DIF Counts													
2007							2008						
Mathematics	A	B-	B+	C-	C+	Total	Mathematics	A	B-	B+	C-	C+	Total
3	97	23	0	8	0	128	3	78	22	0	12	0	112
4	110	19	0	11	0	140	4	105	26	0	9	0	140
5	117	14	0	9	0	140	5	119	17	0	4	0	140
6	130	9	0	1	0	140	6	126	13	0	1	0	140
7	130	10	0	0	0	140	7	134	5	0	1	0	140
8	129	7	0	4	0	140	8	127	12	0	1	0	140
11	129	8	1	2	0	140	11	131	5	1	3	0	140
Reading							Reading						
A	B-	B+	C-	C+	Total	A	B-	B+	C-	C+	Total		
3	149	24	0	2	0	175	3	148	10	0	2	0	160
4	175	23	0	3	0	201	4	182	13	0	5	0	200
5	172	25	0	4	0	201	5	169	27	0	5	0	201
6	188	10	0	4	0	202	6	183	16	0	1	0	200
7	188	11	0	4	0	203	7	173	24	0	3	0	200
8	182	19	0	2	0	203	8	182	15	0	3	0	200
11	168	23	0	12	0	203	11	180	16	0	4	0	200

Table 5–1 (continued). 2008 DIF Summary

Open-Ended Male/Female DIF Counts													
2007							2008						
Mathematics	A	B-	B+	C-	C+	Total	Mathematics	A	B-	B+	C-	C+	Total
3	16	0	0	0	0	16	3	15	1	0	0	0	16
4	20	0	0	0	0	20	4	19	0	1	0	0	20
5	16	0	3	0	1	20	5	18	0	2	0	0	20
6	17	0	3	0	0	20	6	18	0	2	0	0	20
7	18	0	2	0	0	20	7	19	0	0	0	1	20
8	17	0	3	0	0	20	8	19	0	1	0	0	20
11	19	0	0	0	0	19	11	18	2	0	0	0	20
Reading	A	B-	B+	C-	C+	Total	Reading	A	B-	B+	C-	C+	Total
3	16	0	0	0	0	16	3	14	0	2	0	0	16
4	14	0	6	0	0	20	4	15	0	5	0	0	20
5	11	0	8	0	1	20	5	7	0	5	0	8	20
6	5	0	12	0	4	21	6	6	0	10	0	5	21
7	7	0	12	0	2	21	7	11	0	6	0	3	20
8	4	0	10	0	7	21	8	2	0	5	0	14	21
11	0	0	12	0	9	21	11	0	0	6	0	14	20

Open-Ended White/Black DIF Counts													
2007							2008						
Mathematics	A	B-	B+	C-	C+	Total	Mathematics	A	B-	B+	C-	C+	Total
3	4	7	0	5	0	16	3	9	4	0	3	0	16
4	12	5	0	3	0	20	4	13	5	0	2	0	20
5	11	3	0	6	0	20	5	13	3	0	4	0	20
6	15	3	0	2	0	20	6	13	5	0	2	0	20
7	19	0	0	1	0	20	7	13	6	0	1	0	20
8	16	4	0	0	0	20	8	14	4	0	2	0	20
11	15	2	0	2	0	19	11	13	6	0	1	0	20
Reading	A	B-	B+	C-	C+	Total	Reading	A	B-	B+	C-	C+	Total
3	12	3	0	1	0	16	3	14	2	0	0	0	16
4	14	5	0	1	0	20	4	18	2	0	0	0	20
5	16	4	0	0	0	20	5	13	6	0	1	0	20
6	20	1	0	0	0	21	6	20	0	0	1	0	21
7	19	2	0	0	0	21	7	15	3	0	2	0	20
8	21	0	0	0	0	21	8	20	1	0	0	0	21
11	21	0	0	0	0	21	11	19	1	0	0	0	20

REVIEW OF ITEMS WITH DATA

In the preceding section on Statistical Analysis of Item Data, it was stated that test development content-area specialists used certain statistics from item and DIF analyses of the 2007 field test to identify items for further review. Specific flagging criteria for this purpose were specified in the previous section. Items not identified for this review were those that had good statistical characteristics and, consequently, were regarded as statistically acceptable. Likewise, items of extremely poor statistical quality were regarded as unacceptable and needed no further review. However, there were some items, relatively few in number, which DRC content-area test development specialists and DRC psychometric specialists regarded as needing further review by a committee of Pennsylvania educators. The intent was to capture all items that needed a closer look; thus the criteria employed tended to over-identify rather than under-identify items.

The review of the items with data was conducted by subject-area content committees composed of eight teachers and PDE staff for reading and ten teachers and PDE staff for mathematics. The review took place on July 23–25, 2007. In this session, committee members were first trained by a representative from DRC's Psychometrics staff with regard to the statistical indices used in item evaluation. This was followed by a discussion with examples concerning reasons that an item might be retained regardless of the statistics. The committee review process involved a brief exploration of possible reasons for the statistical profile of an item (e.g., possible bias, grade appropriateness, instructional issues) and a decision regarding acceptance. DRC content-area test development specialists facilitated the review of the items.

Chapter Six: Operational Forms Construction for 2008

FINAL SELECTION OF ITEMS AND 2008 PSSA FORMS CONSTRUCTION

When the final selection of items for the operational 2008 test was ready to begin, the candidate items that emerged from the spring 2007 field test had undergone multiple reviews, including:

- Reviews by DRC and WestEd content-area test development specialists and curriculum specialists
- Formal bias, fairness, and sensitivity review by the Bias, Fairness, and Sensitivity Committee consisting of an expert, multi-ethnic group of men and women with members also having expertise with special needs students and English Language Learners
- Formal review by the content committees consisting of Pennsylvania educators, including teachers as well as district personnel
- PDE review
- Item data review by members of the PDE subject-area teacher committees

The end product of the above process was an “item status” designation for each field tested item. All items having an item status code of “Acceptable/Active” were candidates to be selected for the 2008 PSSA. To have an item status code of “Acceptable/Active” meant that the item met the following criteria:

- Appropriately aligned with its designated Assessment Anchor Content Standard (Assessment Anchor) and sub-classifications
- Acceptable in terms of bias/fairness/sensitivity issues, including differential item functioning (for gender and race)
- Free of major psychometric flaws, including a special review of flagged items

Next, all relevant information regarding the acceptable items, including associated graphics, was entered into the IVAN (item banking) system. From the IVAN system and other database sources, Excel files were created for reading and mathematics at each grade. These files contained all relevant content codes and statistical characteristics. The IVAN system also created for each acceptable item a card displaying the item, any associated graphic, and all relevant content codes and item statistics for use by the content-area test development specialists and psychometric services staff.

DRC test development specialists reviewed the test design blueprint, including the number of items per strand for each content-area test. Special considerations, such as calculator use and manipulatives, were noted.

Psychometricians provided content-area test development specialists with an overview of the psychometric guidelines for forms construction, including guidelines for selecting linking items to link to previous test forms.

Senior DRC content-area test development specialists reviewed all items in the operational pool to make an initial selection for common (core) and matrix sections according to test blueprint requirements and psychometric guidelines. No changes were made to any item since even slight alterations could affect how an item performs on subsequent testing.

For the common items, this meant that the combination of MC and OE items would yield the appropriate range of points while tapping an appropriate variety of the Assessment Anchors and related Eligible Content within each Reporting Category. Items selected in the first round were examined with regard to how well they went together as a set. Of particular concern were the following:

- One item providing cues as to the correct answer to another item
- Context redundancy (e.g., math items with a sports context)
- Presence of “clang” (distractors not unique from one another)
- Diversity of names and artwork for gender and ethnicity

The first round of items was then evaluated for statistical features such as an acceptable point biserial correlation and whether correct answers were distributed equally—that is, whether approximately 25 % of correct answers appeared in each of the four possible positions (A, B, C, or D). Selected items that were psychometrically problematic resulted in a search by the senior reviewer for suitable replacements. At this point, the second round of items was analyzed. If necessary, this iterative process between content-based selections and statistical properties continued in an effort to reach the best possible balance.

The process for selecting operational matrix items was a little different. The chief consideration was that items in the matrix section of the various forms, together with the common items, would yield a greater overall pool of items from which reliable sub-category results could be generated for school-level reporting. Once again the cardinal principle was the selection of an appropriate number of items to properly cover the sub-categories. The content-area test development specialist’s task was to distribute these items in matrix sections across the 20 forms (16 forms at grade 3) so that the OE item and set of MC items assigned to a particular form would go well with one another and reflect the same content and statistical considerations as previously outlined. Additionally, the forms needed to display similar difficulty levels.

In the case of the linking items, content considerations remained relevant, together with statistical features, such as an acceptable point-biserial correlation and whether the items, as a collection, had an average logit value and a test characteristic curve approximating that of the previous year.

Once the recommendations were finalized for the common/core, matrix, and linking items, they were submitted to PDE for review. Department staff provided feedback, which could be in the form of approval or recommendations for replacing certain items. Any item replacement was accomplished by the collective effort of the test development specialists, psychometricians, and PDE staff until final PDE approval.

SPECIAL FORMS USED IN THE 2008 PSSA

Braille and Large Print

Students with visual impairments were able to respond to test materials that were available in either Braille or large print. At each grade level assessed, one form was selected for the creation of a Braille and a large-print edition. School district personnel ordered Braille or large-print assessment materials directly from the Pennsylvania Training and Technical Assistance Network

(PaTTAN) in Harrisburg. They could also contact PaTTAN for technical assistance regarding students with visual impairments.

School personnel were directed to transcribe all student answers (MC and OE) into scannable answer documents exactly as the student responded. No alterations or corrections of student work were permitted, and the answer document had to have the identical form designation.

Spanish Translation of the Mathematics Assessment

Starting with the 2005 assessment and continuing through the 2008 assessment, school personnel had the option of having Spanish-speaking students who had been enrolled in schools in the United States for less than three years respond to a Spanish version of the PSSA for mathematics only. The original translation of the items and the *Directions for Administration Manual* was initiated by Second Language Testing Incorporated and completed by Data Recognition Corporation. After discussions with the PDE and Second Language Testing Incorporated, the mathematics sections of the test booklet for grades 4, 5, 6, 7, 8, and 11 were designed with a “side-by-side” format with the English text and Spanish translated text on facing pages. The original English text was on the right-hand side. The Spanish translated text was on the left-hand side.

The mathematics sections of the answer booklet for grades 4, 5, 6, 7, 8, and 11 were also presented in Spanish and English. Each open-ended item covered a total of four pages in the answer booklet. The first set of facing pages of an item was presented in Spanish. The second set of facing pages of an item was presented in the original English. Those students using this accommodated version of the mathematics assessment could write their answers on either the English language pages or on the translated Spanish language pages. Their answers could be written in English, Spanish, or a combination of both Spanish and English as all pages were evaluated and scored, with the highest possible score from those combinations recorded for the student.

The mathematics sections of the scannable booklets for grade 3 were also presented in Spanish and English using a modified “over/under” format with the Spanish presented directly above or to the left of the English. To assist the presentation of the two languages on the same page, the English portion was presented in italics and in a smaller font. Those students using this accommodated version of the mathematics assessment could write their answers in English, Spanish, or a combination of both Spanish and English, with the highest possible score from those combinations recorded for the student.

Spanish translated versions of the mathematics assessment were used by a total of 1,653 students at grades 3, 4, 5, 6, 7, 8, and 11 in 2008.

Instructions for the appropriate use of these special forms are detailed in the *2008 Accommodations Guidelines for Students with IEPs and Students with 504 Plans* (PDE, January 2008).

Chapter Seven: Test Administration Procedures

TEST SESSIONS, TIMING, AND LAYOUT

The testing window for the 2008 operational assessment was from March 31 through April 11, 2008, including make-ups. The reading and mathematics assessments consisted of six sections. Additional information concerning testing time and test layouts can be found in Chapter Three.

SHIPPING, PACKAGING, AND DELIVERY OF MATERIALS

There were two shipments sent out by Data Recognition Corporation (DRC). Shipment one was delivered by March 3, 2008, and contained the *Handbook for Assessment Coordinators and Administrators* and the *Directions for Administration Manuals* for each grade tested at a school. Shipment two was delivered by March 17, 2008, and contained the Spanish-translation *Directions for Administration Manuals*, administrative materials (e.g., return shipping labels, District/School Labels, Do Not Score Labels, and Student Precode Labels) and secure materials (e.g., test booklets and answer booklets). DRC ensured that all assessment materials were assembled correctly prior to shipping. DRC Operations staff used the automated Operations Materials Management System (Ops MMS) to assign secure materials to a district at the time of ship out. This system used barcode technology to provide an automated quality check between items requested for a site and items shipped to a site. A shipment box manifest was produced for and placed in each box shipped. DRC Operations staff double-checked all box contents with the box manifest prior to the box being sealed for shipment to ensure accurate delivery of materials. DRC Operations staff performed lot acceptance sampling on both shipments. Districts and schools were selected at random and examined for correct and complete packaging and labeling. This sampling represented a minimum of 10 percent of all shipping sites.

DRC's materials management system, along with the systems of shippers, allowed DRC to track the items from the point of shipment from DRC's warehouse facility to receipt at the district, school, or testing site. All DRC shipping facilities, materials processing facilities, and storage facilities are secure. Access is restricted by security code. Non-DRC personnel are escorted by a DRC employee at all times. Only DRC inventory control personnel have access to stored secure materials. DRC employees are trained in and made aware of the high level of security that is required.

The assessments for grades 3–8 and 11 were shipped together. DRC packed 2,184,328 assessment booklets, approximately 135,070 manuals, and 165,438 non-secure materials for 3,319 testing sites. DRC used UPS, Yellow Freight, and Diamond Transportation Group, Inc. to deliver 42,652 boxes of materials to the testing sites.

MATERIALS RETURN

The materials return window was April 16 through April 23, 2008. DRC used UPS, Yellow Freight, and Diamond Transportation Group, Inc. for all returns.

TEST SECURITY MEASURES

Test security is essential to obtaining reliable and valid scores for accountability purposes. The 2008 PSSA included a Test Security Affidavit that was to be signed and returned by every principal or director where testing materials were shipped. DRC received 3,250 signed Test

Security Affidavits of the 3,319 affidavits sent to the testing sites participating in the 2008 Reading and Mathematics PSSA. The purpose of the affidavit was to serve as a tool to document that the individuals responsible for administering the assessments both understood and acknowledged the importance of test security and accountability. The Test Security Affidavit attested that all security measures were followed concerning the handling of secure materials. Some of the security measures included:

- The contents of the test were not discussed, disseminated, described, or otherwise revealed to anyone.
- The contents of the test were not kept, copied, or reproduced.
- All booklets were kept in a locked, secure storage area at both the district and school levels.

SAMPLE MANUALS

Copies of the *Handbook for Assessment Coordinators and Administrators* and the *Directions for Administration Manuals* can be found on the Pennsylvania Department of Education website at www.pde.state.pa.us.

ASSESSMENT ACCOMMODATIONS

An accommodations manual entitled *2008 Accommodations Guidelines for Students with IEPs and Students with 504 Plans* (PDE, January 2008) was developed for use with the 2008 PSSA. Additional information regarding assessment accommodations can be found in Chapter Four of this report.

Chapter Eight: Processing and Scoring

RECEIPT OF MATERIALS

Receipt of PSSA test materials began on April 14, 2008, and concluded on May 5, 2008. DRC's Operations Material Management System (Ops MMS) was utilized to receive assessment materials securely, accurately, and efficiently. This system features advanced automation and cutting-edge barcode scanners. Captured data were organized into reports, which provided timely information with respect to suspected missing material.

The first step in the Ops MMS was the Box Receipt System. When a shipment arrived at DRC, the boxes were removed from the carrier's truck and passed under a barcode reader, which read the barcode contained on the return label and identified the district and school. If the label could not be read automatically, a floor operator entered the information into the system manually. The data collected in this process were stored in the Ops MMS database. After the barcode data were captured, the boxes were placed on a pallet and assigned a corresponding pallet number. A "three way match" among the district box count, the carrier box count, and the DRC return box count was conducted to verify a box return accuracy rate of 100%.

Once the box receipt process was completed, the materials separation phase began. Warehouse personnel opened the district boxes and sorted the contents by material type (test booklet or answer booklet), grade, and status (used or unused answer booklet) into new boxes. Once filled, a sorted box's documents were loaded into an automated counter, which recorded a booklet count for each box. An on-demand DRC box label was produced that contained a description of each box's contents and quantity in both barcode and human-readable format. This count remained correlated to the box as an essential quality control step throughout secure booklet processing and provided a target number for all steps of the check-in process.

Once labeled, the sorted and counted boxes proceeded to booklet check-in. This system used streamfeeder automation to carry documents past oscillating scanners that captured data from up to two representative barcodes and stored it in the Ops MMS database.

The secure booklet check-in operator used a hand scanner to scan the counted box label. This procedure input material type and quantity parameters for what the Ops MMS should expect within a box. It then loaded the box's contents into the streamfeeder.

The documents were fed past oscillating scanners that captured either a security code or both a security code and a precode, depending upon material type. A human operator monitored an Ops MMS screen, which displayed scan errors, an ordered accounting of what was successfully scanned, and the document count for each box.

When all materials were scanned and the correct document count was reached, the box was sealed and placed on a pallet. If the correct document count was not reached, or if the operator encountered difficulties with material scanning, the box and its contents were delivered to an exception handling station for resolution.

This check-in process occurred immediately upon receipt of materials; therefore, DRC provided immediate feedback to districts and schools regarding any missing materials based on actual receipts versus expected receipts.

Upon completion of secure booklet check-in, DRC produced a Missing Materials Report that listed all schools in each participating district and any booklets not returned to DRC listed by school and security number.

After scannable materials (used answer booklets) were processed through booklet check-in, the materials became available to the DRC Document Processing Center Log-in staff for document log-in. Based on a pre-determined sampling and calibration plan, the staff prioritized answer documents using the following process:

- A DRC scannable barcode batch header was scanned, and a batch number was assigned to each box of answer documents.
- The DRC box label barcode was scanned into the system to link the box and answer documents to the newly created batch and to create a Batch Control Sheet.
- The DRC box label barcode number, along with the number of answer documents in the box, was printed on the Batch Control Sheet for document tracking purposes. All documents that were linked to the box barcode were assigned to the batch number and tracked through all processing steps. As documents were processed, DRC staff dated and initialed the Batch Control Sheet to indicate that proper processing and controls were observed.

Before the answer documents were scanned, all batches went through a quality inspection to ensure batch integrity and correct document placement.

After a quality check in the DRC Document Processing Log-in area, the spines were cut off the scannable documents, and the pages were sent to DRC's Imaging and Scoring System.

SCANNING OF MATERIALS

DRC used its image scanning system to capture constructed-response items as images. These were then loaded into the image scoring system for both the handscoring of constructed-response items and for the capture of multiple-choice and demographic data.

DRC's image scanners were calibrated using a standard deck of scannable pages with 16 known levels of gray. On a predefined page location, the average pixel darkness was compared to the standard calibration to determine the level of gray. Marks with an average darkness level of 4 or above on a scale of 16 (0 through F) were determined to be valid responses, per industry standard. If multiple marks were read for a single item and the difference of the grayscale reads was greater than four levels, the lighter mark was discarded. If the multiple marks had fewer than four levels of grayscale difference, the response was flagged systematically and forwarded to an editor for resolution.

Customized scanning programs for all scannable documents were prepared to read the answer documents and to electronically format the scanned information. Before materials arrived, all image scanning programs went through a quality review process that included scanning of mock data from production booklets to ensure proper data collection.

DRC's image scanners read selected-response, demographic, and identification information. The image scanners also used barcode readers to read pre-printed barcodes from a label on the booklet.

The scannable documents were automatically fed into the image scanners where pre-defined processing criteria determined which fields were to be captured electronically. Constructed-response images were separated out for image-based scoring.

During scanning, a unique serial number was printed on each sheet of paper. This serial number was used for document integrity and to maintain sequencing within a batch of answer documents.

A monitor randomly displayed images, and the human operator adjusted or cleaned the scanner when the scanned image did not meet DRC's strict quality standards for image clarity.

All images passed through a process and a software clean-up program that despeckled, deskewed, and desmeared the images. A random sample of images was reviewed for image quality approval. If any document failed to meet image quality standards, the document was returned for rescanning.

Page scan verification was performed to ensure that all pre-defined portions of the answer documents were represented in their entirety in the image files. If a page was missing, the entire answer document was flagged for resolution.

After each batch was scanned, answer documents were processed through a computer-based edit program to detect potential errors as a result of smudges, multiple marks, and omits in predetermined fields. Marks that did not meet the pre-defined editing standards were routed to editors for resolution.

Experienced DRC Document Processing Center Editing staff reviewed all potential errors detected during scanning and made necessary corrections to the data file. The imaging system displayed each suspected error. The editing staff then inspected the image and made any needed corrections using the unique serial number printed on the document during scanning.

Upon completion of editing, quality control reports were run to ensure that all detected potential errors were reviewed again and a final disposition was determined.

Before batches of answer documents were extracted for scoring, a final edit was performed to ensure that all requirements for final processing were met. If a batch contained errors, it was flagged for further review before being extracted for scoring and reporting.

During this processing step, the actual number of documents scanned was compared to the number of answer documents assigned to the box during book receipt. Count discrepancies between book receipt and answer documents scanned were resolved at this time.

Once all requirements for final processing were met, the batch was released for scoring and student level processing.

Table 8–1 shows the number of answer booklets received through booklet check in, the number of booklets that contained student responses that were scanned and scored, the number of test booklets received, and the total number of booklets received.

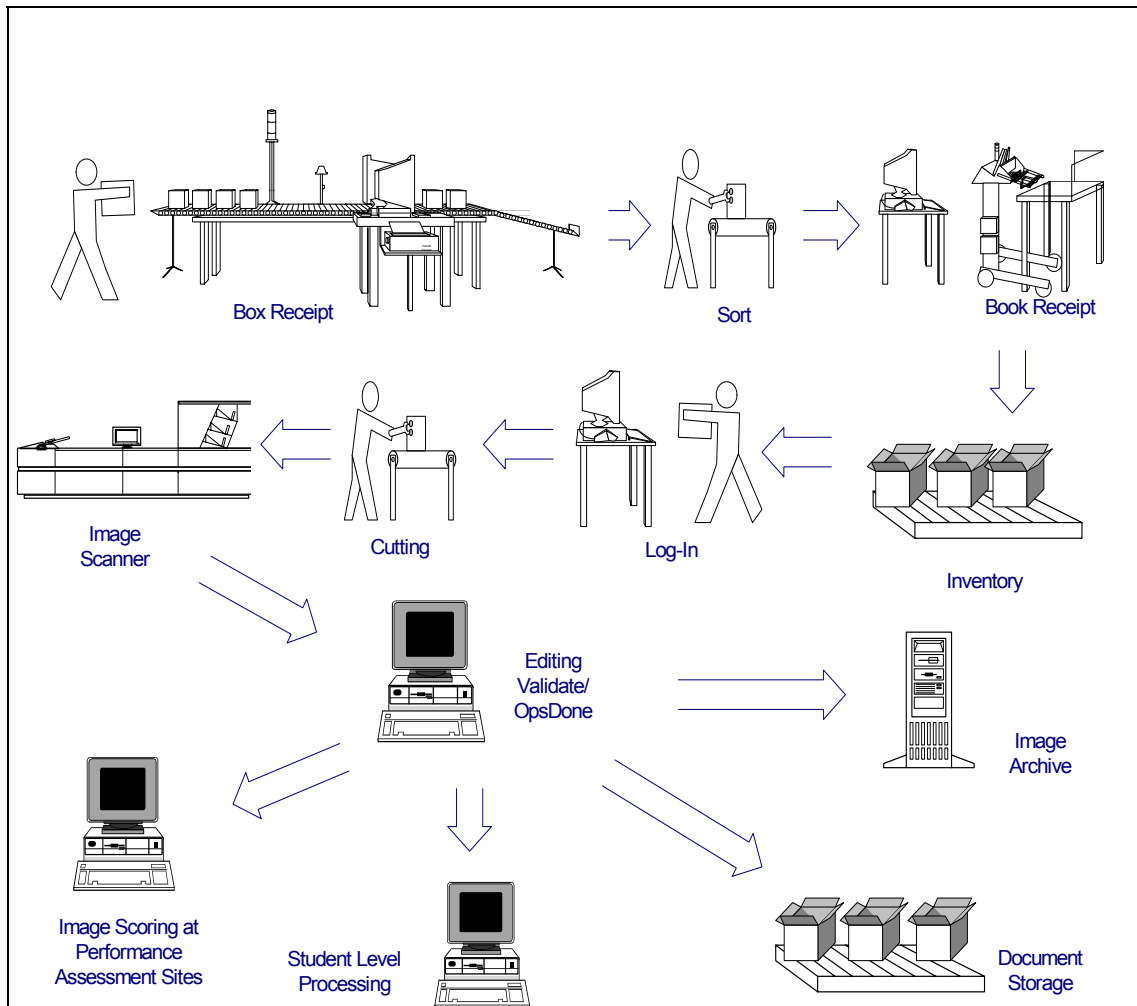
Table 8–1. Counts of 2008 PSSA Materials Received – Grades 3, 4, 5, 6, 7, 8, and 11

	Answer Booklets Received	Used Answer Booklets Scanned	Test Booklets Received	Total Booklets Received
Grade 3*	166463	129377	n/a	166463
Grade 4	164473	129084	164485	328958
Grade 5	165001	130054	165003	330004
Grade 6	165444	133729	165436	330880
Grade 7	170285	139059	170284	340569
Grade 8	174204	142290	174205	348409
Grade 11	174751	139452	174753	349504

* Grade 3 was presented in a single, integrated test/answer booklet.

Figure 8–1 illustrates the production workflow for DRC’s Ops MMS and Image Scanning and Scoring System from receipt of materials through all processing of materials and the presentation of scanned images for scoring.

Figure 8–1. Workflow System



MATERIALS STORAGE

Upon completion of processing, student answer materials are boxed for security purposes and final storage:

- Project-specific box labels were created containing unique customer and project information, materials type, batch number, pallet/box number, and the number of boxes for a given batch.
- Boxes were stacked on project-specific pallets that were labeled with a list of its contents and delivered to the Materials Distribution Center for final secure storage.
- Materials will be destroyed one year after contract year ends with PDE written approval.

SCORING MULTIPLE-CHOICE ITEMS

The scoring process included the scoring of multiple-choice items against the answer key and the aggregation of raw scores from the constructed responses. A student's raw score is the actual number of points achieved by the student for tested elements of an assessment. From the raw scores, the scale scores were calculated.

The student file was scored against the finalized and approved multiple-choice answer key. Items were scored as right, wrong, omitted, or double-gridded (more than one answer was bubbled for an item). Sections of the test were evaluated as a whole and an attempt status was determined for each student for each subject. The score program defined all data elements at the student level for reporting.

RANGEFINDING

After student answer documents were received and processed, DRC's Performance Assessment Services (PAS) staff assembled groups of responses that exemplified the different score points represented in the 0–4 item-specific scoring guidelines for mathematics and the 0–3 item-specific scoring guidelines for reading. Papers were pulled for the new 2008 field test items.

Once examples for all the score points were identified, sets were put together for each item. These sets were copied for use at Field Test Rangefinding, held June 24 – 26, 2008, at the Harrisburg Hershey Holiday Inn, Grantville, Pennsylvania. The rangefinding committees consisted of Pennsylvania educators, PDE staff members, DRC Test Development staff, and DRC Performance Assessment Services staff.

The joint session began with a review of the history of the 2008 assessment and then broke into mathematics and reading grade-level groups. Copies of the student example sets were presented to the committees, one item at a time. The committees reviewed and scored the student samples together to ensure that everyone was interpreting the scoring guidelines consistently. Committee members then went on to score responses independently and those scores were discussed until a consensus was reached. Only responses for which a good agreement rate was attained were used in training the readers. Discussions of the responses used the language of the scoring guidelines, assuring PDE and all involved that the score point examples clearly illustrated the specific requirements of each score level. DRC PAS staff made notes of how and why the committees arrived at score point decisions, and this information was used by the individual scoring directors in reader training.

DRC and PDE discussed scoring guideline edits that the committees suggested. Changes approved by PDE were then made by DRC Test Development, and the scoring guidelines were used by PAS staff in the preparation of materials and training of readers.

READER RECRUITMENT/QUALIFICATIONS

DRC retains a number of experienced readers from year to year, and those readers made up approximately 60% of the reader pool (N=1,000) for 2008. To complete the reader staffing for this project, DRC placed advertisements in local papers, television, minority publications, teacher newsletters, and at regional colleges and universities. Open houses were held and applications for reader positions were screened by the DRC recruiting staff. Candidates were personally interviewed and a mandatory, on-demand writing sample, plus a mathematics sample for those applying to score mathematics, were collected, along with references and proof of a four-year college degree. In this screening process, preference was given to candidates with previous experience scoring large-scale assessments and with degrees emphasizing expertise in mathematics and reading. Since readers had to have a strong content-specific background, the reader pool consisted of educators, writers, editors, and other professionals who were valued for their experience, but who were also required to set aside their own biases about student performance and accept the scoring standards. All readers on this assessment held at least a four-year degree.

LEADERSHIP RECRUITMENT/QUALIFICATIONS

Scoring directors and team leaders were chosen by the project director from a pool consisting of experienced individuals who were successful readers and leaders on previous DRC contracts and had strong backgrounds in scoring mathematics and/or reading. Those selected demonstrated organization, leadership, and management skills. The scoring directors and a majority of the team leaders had at least five years of leadership experience on the PSSA. All scoring directors, team leaders, and readers were required to sign confidentiality agreements before any training or handling of secure materials began.

Each room of readers was assigned a scoring director. This individual was monitored by the project manager and project content coordinator and led the hand scoring for the duration of the project. The scoring director assisted in rangefinding, worked with supervisors to create training materials, conducted the team leader training, and was responsible for training the readers. The scoring director also made sure that reports were available and interpreted reports for the readers. The scoring director supervised the team leaders.

Team leaders assisted the scoring director with reader training and monitoring by working with their teams in small group discussions and answering individual questions that readers may not have felt comfortable asking in a large group. Once readers had qualified, the team leaders were responsible for maintaining the accuracy and workload of team members. The ongoing monitoring identified those readers who were having difficulty scoring accurately and resulted in the reader receiving one-on-one retraining or in pairing that reader with a stronger reader. This process corrected any inaccuracies in scoring and, if not, that reader was released from the project.

TRAINING

To train the common items for 2008, DRC's PAS staff used the approved scoring guidelines and the scored student examples from training materials, that were identified by previous rangefinding committees, into packets used for training the readers. The same process was used to assemble field test training materials upon completion of the Field Test Rangefinding. Responses that were relevant in terms of the scoring concepts they illustrated were annotated for use in an anchor set. The item-specific scoring guidelines served as the reader's constant reference. Readers were instructed how to apply the guidelines and were required to demonstrate a clear comprehension of each anchor set by performing well on the training materials that were presented for each grade and item. Training and qualifying sets consisted of examples of student responses reviewed by the rangefinding committee.

Team leaders assisted the scoring directors with the training and monitoring of readers. The scoring director conducted the team leader training before the reader training. This training followed the same procedures as the reader training, but qualifying standards were more stringent because of the responsibilities required of the team leaders. During team leader training, all materials were reviewed and discussed, and anticipated reader questions and concerns were addressed. Team leaders were required to annotate all of their training responses with the official annotations received from the content committee members at the rangefinding meetings. To facilitate scoring consistency, it was imperative that each team leader imparted the same rationale for each response that other team leaders used. Once the team leaders qualified, leadership responsibilities were reviewed and team assignments were given. A ratio of one team leader for each 8–10 readers ensured adequate monitoring of the readers.

The 2008 assessment included the opportunity for students to respond to the mathematics section in Spanish. The scoring director responsible for this was a bilingual Hispanic with a strong mathematics background who had also worked with the PSSA for over ten years. All of the readers were bilingual and were hired specifically to score the Spanish portion of the assessment. They were required to meet the same stringent training and scoring standards that were set for the English readers.

Reader training began with the scoring director providing an intensive review of the scoring guidelines and anchor papers to all readers. Next, the readers "practiced" by independently scoring the responses in the training sets. Afterwards, the scoring director and team leaders led a thorough discussion of each set in either a small group or room-wide setting.

Once the scoring guidelines and all the training sets were discussed, readers were required to apply the scoring criteria by qualifying (i.e., scoring with acceptable agreement to the "true" scores) on at least one of the qualifying sets. Readers who failed to achieve the level of agreement determined by PDE were given additional training to acquire the highest degree of accuracy possible. Readers who did not perform at the required level of agreement by the end of the qualifying process were not allowed to score "live" student work and were released from the project.

HANDSCORING PROCESS

Student responses were scored independently and by multiple readers. All responses were read once with a 10 percent double read or read behind to ensure reliability. The 10 percent read behinds were randomly chosen by the imaging system at the item level. PDE determined the required number of reads.

Readers scored the imaged student responses on PC monitors at the DRC Scoring Centers in Harrisburg, Pennsylvania; Sharonville and Columbus, Ohio; Austin, Texas; Brooklyn Park, Minnetonka and Woodbury, Minnesota. Readers were seated at tables with two imaging stations at each table. Image distribution was controlled, thus ensuring that student images were sent to designated groups of readers qualified to score those items. Imaged student responses were electronically separated for routing to individual readers by item, and readers were only provided with student responses that they were qualified to score. Readers read each response and keyed in the scores.

To handle possible alerts (i.e., student responses indicating potential issues related to the student's safety and well-being that may require attention at the state or local level), the imaging system allowed readers to forward responses needing attention to the scoring director. These alerts were reviewed by the project director, who then notified that student's school and PDE of this occurrence. However, PDE did not receive the student's responses or any other identifying information on that student. Also, at no time did the reader know anything about the student's personal identity.

Once handscoring was completed, PAS compiled anecdotal reviews of the field test items for all grade levels in both subjects. This information was handed on to DRC Test Development.

QUALITY CONTROL

Reader accuracy was monitored throughout the scoring session by producing both daily and on-demand reports, ensuring that an acceptable level of scoring accuracy was maintained. Inter-reader reliability was tracked and monitored with multiple quality control reports that were reviewed by quality assurance analysts. These reports were generated at the handscoring center and were reviewed by the scoring directors, team leaders, project coordinators, and project directors. The following reports were used during the scoring of the constructed responses:

The Reader Monitor Report monitored how often readers were in exact agreement and ensured that an acceptable agreement rate was maintained. This report provided daily and cumulative exact and adjacent inter-reader agreement and the percentage of responses requiring resolution.

The Score Point Distribution Report monitored the percentage of responses given each of the score points. For example, the mathematics daily and cumulative report showed how many 0s, 1s, 2s, 3s, and 4s a reader had given to all the responses he or she had scored at the time the report was produced. It also indicated the number of responses read by each reader so that production rates could be monitored.

The Item Status Report monitored the progress of handscoring. This report tracked each response and indicated the status (e.g., "needs second reading," "complete"). This report ensured that all discrepancies were resolved by the end of the project.

The Response Read by Reader Report identified all responses scored by an individual reader. This report was useful if any responses needed rescoring because of reader drift.

The Read-Behind Log was used by the team leader/scoring director to monitor reader reliability. Student responses were randomly selected and team leaders read scored items from each team member. If the team leader disagreed with the reader's score, remediation occurred. This proved to be a very effective type of feedback because it was done with "live" items scored by a particular reader.

The Validity Reports tracked how the readers performed by comparing pre-determined scored responses to readers' scores for the same set of responses. If the readers' scoring fell outside of a determined percentage of agreement, remediation occurred and additional responses were given to individuals who needed to be monitored more closely.

Recalibration sets were used throughout the scoring sessions to monitor scoring by comparing each reader's scores with the true scores and to refocus readers on Pennsylvania scoring standards. This check made sure there was no change in the scoring pattern as the project progressed. Readers failing to achieve a certain percent of agreement with the recalibration true scores were given additional training to achieve the highest degree of accuracy possible. Readers who were unable to recalibrate were released from the project. The procedure for creating and reading recalibration sets was similar to the one used for the training sets.

Tables 8–2 to 8–8 show the exact and adjacent agreement rates of the readers for the common constructed responses of the mathematics and reading items for grades 3, 4, 5, 6, 7, 8, and 11.

**Table 8–2. Inter-rater Agreement for
2008 Grade 3 PSSA Constructed-Response Items**

	Common Item	% Exact Agreement	% Adjacent Agreement	% Exact + Adjacent Agreement
Reading	1	76	24	100
	2	73	26	99
Mathematics	1	90	10	100
	2	92	7	99
	3	82	17	99

**Table 8–3. Inter-rater Agreement for
2008 Grade 4 PSSA Constructed-Response Items**

	Common Item	% Exact Agreement	% Adjacent Agreement	% Exact + Adjacent Agreement
Reading	1	84	16	100
	2	90	10	100
	3	85	15	100
	4	81	19	100
Mathematics	1	84	16	100
	2	96	4	100
	3	79	21	100

**Table 8–4. Inter-rater Agreement for
2008 Grade 5 PSSA Constructed-Response Items**

	Common Item	% Exact Agreement	% Adjacent Agreement	% Exact + Adjacent Agreement
Reading	1	79	20	99
	2	78	22	100
	3	78	21	99
	4	73	26	99
Mathematics	1	79	20	99
	2	92	8	100
	3	86	14	100

**Table 8–5. Inter-rater Agreement for
2008 Grade 6 PSSA Constructed-Response Items**

	Common Item	% Exact Agreement	% Adjacent Agreement	% Exact + Adjacent Agreement
Reading	1	71	29	100
	2	70	28	98
	3	72	27	99
	4	82	18	100
Mathematics	1	94	6	100
	2	78	22	100
	3	86	14	100

**Table 8–6. Inter-rater Agreement for
2008 Grade 7 PSSA Constructed-Response Items**

	Common Item	% Exact Agreement	% Adjacent Agreement	% Exact + Adjacent Agreement
Reading	1	74	25	99
	2	76	24	100
	3	75	24	99
	4	73	27	100
Mathematics	1	80	20	100
	2	82	18	100
	3	79	20	99

Table 8–7. Inter-rater Agreement for 2008 Grade 8 PSSA Constructed-Response Items

	Common Item	% Exact Agreement	% Adjacent Agreement	% Exact + Adjacent Agreement
Reading	1	74	26	100
	2	80	20	100
	3	72	27	99
	4	76	24	100
Mathematics	1	81	19	100
	2	87	13	100
	3	81	19	100

Table 8–8. Inter-rater Agreement for 2008 Grade 11 PSSA Constructed-Response Items

	Common Item	% Exact Agreement	% Adjacent Agreement	% Exact + Adjacent Agreement
Reading	1	80	20	100
	2	76	24	100
	3	77	23	100
	4	75	25	100
Mathematics	1	88	11	99
	2	83	17	100
	3	85	15	100

Tables 8-9 through 8-15 show the percentages awarded for each possible score point. All reading items are scored with a 0-3 score point range and all mathematics items are scored with a 0-4 score point range. B=blank and NS=non-scorable.

Table 8-9 Percentages Awarded for Each Possible Score Point Grade 3

Reading	Common Item	% 0	% 1	% 2	%3	%B/NS	
	1	9	37	40	12	1	
	2	8	34	38	19	1	
Mathematics	Common Item	%0	%1	%2	%3	%4	%B/NS
	1	3	8	17	36	35	0
	2	2	9	16	28	42	1
	3	4	16	36	29	14	0

Table 8-10 Percentages Awarded for Each Possible Score Point Grade 4

Reading	Common Item	% 0	% 1	% 2	%3	%B/NS	
	1	7	31	44	17	1	
	2	20	34	25	20	1	
	3	21	21	29	27	1	
	4	3	28	51	16	2	

Mathematics	Common Item	%0	%1	%2	%3	%4	%B/NS
	1	9	16	25	24	25	1
	2	31	14	21	19	13	2
	3	12	22	24	24	18	0

Table 8-11 Percentages Awarded for Each Possible Score Point Grade 5

Reading	Common Item	% 0	% 1	% 2	%3	%B/NS	
	1	6	26	33	34	1	
	2	5	36	35	23	1	
	3	6	44	33	15	1	
	4	10	43	36	10	1	

Mathematics	Common Item	%0	%1	%2	%3	%4	%B/NS
	1	16	25	24	21	14	1
	2	11	18	9	28	33	2
	3	10	21	22	18	28	1

Table 8-12 Percentages Awarded for Each Possible Score Point Grade 6

Reading	Common Item	% 0	% 1	% 2	%3	%B/NS
	1	5	23	42	28	1
	2	9	28	39	23	1
	3	3	19	45	32	1
	4	4	35	43	17	2

Mathematics	Common Item	%0	%1	%2	%3	%4	%B/NS
	1	12	15	20	26	26	1
	2	15	22	31	23	6	2
	3	20	16	34	15	14	1

Table 8-13 Percentages Awarded for Each Possible Score Point Grade 7

Reading	Common Item	% 0	% 1	% 2	%3	%B/NS
	1	13	25	47	14	1
	2	5	25	46	22	2
	3	14	30	36	18	2
	4	11	29	43	12	4

Mathematics	Common Item	%0	%1	%2	%3	%4	%B/NS
	1	26	39	19	8	6	1
	2	23	14	19	19	23	3
	3	20	22	18	18	20	2

Table 8-14 Percentages Awarded for Each Possible Score Point Grade 8

Reading	Common Item	% 0	% 1	% 2	%3	%B/NS
	1	21	36	27	13	4
	2	11	26	47	13	2
	3	4	38	34	22	2
	4	13	19	49	15	3

Mathematics	Common Item	%0	%1	%2	%3	%4	%B/NS
	1	21	22	19	26	7	4
	2	10	18	20	19	30	4
	3	6	14	40	22	17	1

Table 8-15 Percentages Awarded for Each Possible Score Point Grade 11

Reading	Common Item	% 0	% 1	% 2	%3	%B/NS
	1	2	16	63	16	2
	2	4	20	50	22	4
	3	5	18	48	24	4
	4	5	33	43	15	4

Mathematics	Common Item	%0	%1	%2	%3	%4	%B/NS
	1	9	18	24	15	32	3
	2	22	19	18	21	12	7
	3	17	38	11	15	9	10

MATCH-BACK RULES

In order to create a single student record in the central student file, it was necessary to establish match-back rules to combine separate student records into one student record. Match-back rules were applied to link multiple-choice and constructed responses. They were also used to merge student responses captured on different subjects and to link test results with student demographic information.

DATA EXCHANGE, STORAGE, AND RECOVERY POLICIES

Data Exchange Procedures

The exchange of data between DRC, PDE, and other contractors is a critical and essential component in the success of the PSSA program. To support this process, DRC used the following data exchange procedures to ensure that all data files were successfully and accurately transferred.

- Files were posted to DRC's secure Pennsylvania FTP site with a standard and logical folder structure.
- Standard file naming conventions were established and used.
- The information necessary to perform these quality control procedures accompanied each data exchange.

Data Exchange Quality Control Procedures

Record Count Check – Confirm the expected record count and provide the record count in files sent and received.

File Count Check – Confirm that the number of files sent and received matches the number of files expected.

Duplicate File Check – Verify that duplicate files were not sent or received.

File Date – Verify that the version of the file received matches the file creation date.

File Type Verification Check – Verify that data sent and received matches the format expected (e.g., Excel, CSV, PDF, Text file [delimited/fixed field length]).

File Log – A log of files sent and received will be maintained.

Data Validation – Data checking procedures will be used to verify that the data is in the specified file layout and matches the expected values.

Images

As part of the scanning process, the multi-page TIFF images were archived to tape before being separated into single page TIFFs and transmitted to the scoring centers. If any of the images were lost/deleted/corrupted at a scoring center, they could be restored from the archived multi-page TIFF images. In addition to archiving the images, the scoring center servers used RAID (Redundant Array of Independent Disks) 5 disk management technology to mirror the images to redundant disk drives. If a disk drive failed in a scoring center server, the images could be quickly restored from the redundant disk drive. In the event that the disk drive and the multi-

page TIFF images could not be restored, the original documents would be rescanned. Images are stored for a PDE-specified period.

Data

Once a reader submitted a score for a constructed-response item, the data were electronically transmitted to our SQL Servers. The log files documenting the changes were backed up hourly. Full back-ups were done nightly (Monday–Friday) and two additional full back-ups were run over the weekend on the handscoring SQL Servers with the backup tapes being rotated off-site. All data are stored for a PDE specified period.

Storage

All physical servers are housed in secure server rooms in DRC’s corporate headquarters in Maple Grove, or the Brooklyn Park or Woodbury locations. The server rooms are constructed of concrete floors, walls, and ceilings and designed to be fire and crush proof. They have fire suppression systems to minimize the effect of any fire started within the server room. Access to the server rooms is controlled through a card access system and is restricted to authorized technology support staff only. A log is maintained documenting each time a server room is entered, by whom, and for what purpose. In case of a disaster at any of the locations, another server can take over full operations.

DRC maintains backup servers that can be used to replace a failed server within 24 hours. Every server’s configuration is documented in the event a rebuild is required. Each server has an assigned primary and secondary network analyst responsible for its operation.

The servers utilize load-sharing, redundant power supplies and implement RAID subsystems to minimize the effect of a failed disk. The server rooms all have Uninterruptible Power Supply (UPS) systems. For longer periods of power failure, an on-site diesel power generator will automatically start and supply needed power. The computing environment, both servers and communications hardware, will continue to function without interruption when the utility power is disrupted.

Two copies of complete system and data backup are created each weekend. One of these copies is stored in a secure room at the Maple Grove location. The second copy is stored in a secure room at the Woodbury location. These backups are stored indefinitely. Incremental backups of all files on the network are made each day. The incremental backups are kept for 6 weeks.

DRC utilizes a storage area network (SAN) for maximum speed, flexibility, and redundancy in our data storage solution. Servers are connected to the SAN via redundant connections to ensure minimum interruptions due to hardware failures. The SAN allows disk space to be reallocated with ease for availability to those applications or servers as needed. The SAN currently houses 13 Terabytes of storage and is expandable to 26 Terabytes.

Chapter Nine: Summary Demographic, Program, and Accommodation Data for the 2008 PSSA

ASSESSED STUDENTS

The total number of answer documents processed by grade level for the 2008 PSSA is presented on the first line of Table 9-1. This number pertains to the total number of records on the student file and is typically less than the “Used Answer Booklets Scanned” column shown in Table 8-1. The reason for the difference is that completely blank answer booklets (no student name and no items responded to) get removed from the initial batch of materials scanned. See Chapter 8 for more details on processing. The second and third lines show the number and percent of students with PSSA scores for reading and for mathematics. The final two lines give the number of students contributing to state summary statistics in reading and in mathematics, which is especially relevant for all tables following 9-2. (See the section of this chapter entitled, “Composition of Sample Used in Subsequent Tables” for additional explanation.) The vast majority of students (in excess of 98%) had scores in both reading and mathematics.

Assessed students include those from public schools who are required to participate as well as those from a small number of non-public schools (numbering fewer than 500 students per grade level) that elected to participate. Also included were home-schooled students, which numbered fewer than 100 per grade.

As may be observed from Table 9-1, not all students were assessed. Although there are a variety of reasons for this, the major ones pertain to:

1. extended absence from school that continued beyond the assessment window
2. being absent without make-up for at least one section of a subject area test
3. a situation in which there was a non-attempt (failed to meet the criteria of having attempted one or more sections of a test) on the part of the student and no exclusion code was marked by school personnel.
4. ELL students in the first year in U.S. schools
5. medical emergency
6. other reasons (includes parental request due to religious reasons, students who are court-agency placed, students with multiple reasons coded, and the category of “other”).

The number of students without scores for these reasons is presented in Table 9-2.

Students in an assessed grade who met each of the following criteria were excused from the PSSA and should have participated in the Pennsylvania Alternate System of Assessment (PASA):

1. had a significant cognitive disability,
2. required intensive instruction,
3. required adaptation and support to perform or participate meaningfully,
4. required substantial modification of the general education curriculum,
5. participation in the general education curriculum differed markedly in form and substance from that of other students (see *2008 PSSA Handbook for Assessment Coordinators and Administrators: Grades 3-8 and 11 Reading and Mathematics*, PDE, 2008, p.10).

A student must have completed five or more items in each of the reading sections of the assessment to have been considered attempted for reading and five or more items in each of the mathematics sections of the assessment to have been considered attempted for mathematics.

Table 9-1. Students Assessed on the 2008 PSSA

	Gr. 3	Gr. 4	Gr. 5	Gr. 6	Gr. 7	Gr. 8	Gr. 11
	N / Pct	N / Pct	N / Pct	N / Pct	N / Pct	N / Pct	N / Pct
Number of answer documents processed	129,377	129,080	130,052	133,713	139,047	142,277	139,430
Students with reading scores	128,623 99.4	128,247 99.4	129,242 99.4	132,748 99.3	137,667 99.0	140,575 98.8	136,815 98.1
Students with mathematics scores	129,047 99.7	128,658 99.7	129,609 99.7	133,121 99.6	138,034 99.3	140,985 98.8	137,030 98.3
Number processed but not assessed in either subject area	287 0.2	358 0.3	376 0.3	513 0.4	888 0.6	1,153 0.8	2,196 1.6
Students with reading scores used in state summaries	126,402	126,266	127,189	130,692	135,641	138,339	134,984
Students with mathematics scores used in state summaries	126,563	126,403	127,302	130,839	135,784	138,545	135,120

Table 9-2R. Counts of Students without Reading Scores on the 2008 PSSA

Reason for Non-Assessment: Reading	Gr. 3	Gr. 4	Gr. 5	Gr. 6	Gr. 7	Gr. 8	Gr. 11
	N / Pct	N / Pct	N / Pct	N / Pct	N / Pct	N / Pct	N / Pct
Extended absence from school	40 5.3	59 7.1	61 7.5	82 8.5	208 15.1	294 17.3	726 27.8
Absent without make-up	143 19.0	144 17.3	170 21.0	222 23.0	269 19.5	355 20.9	523 20.0
Non-Attempt for Reading	229 30.4	250 30.0	199 24.6	300 31.1	487 35.3	600 35.2	748 28.6
ELL student in 1st year in U.S. schools	234 31.0	254 30.5	245 30.2	208 21.6	190 13.8	178 10.5	71 2.7
Medical emergency	69 9.2	78 9.4	97 12.0	98 10.2	130 9.4	133 7.8	264 10.1
Other reasons	39 5.2	48 5.8	38 4.7	63 6.5	96 7.0	142 8.3	283 10.8
Total not assessed for reading	754	833	810	965	1,380	1,702	2,615

Table 9-2M. Counts of Students without Mathematics Scores on the 2008 PSSA

Reason for Non-Assessment: Mathematics	Gr. 3	Gr. 4	Gr. 5	Gr. 6	Gr. 7	Gr. 8	Gr. 11
	N / Pct	N / Pct	N / Pct	N / Pct	N / Pct	N / Pct	N / Pct
Extended absence from school	36 10.9	58 13.7	59 13.3	77 13.7	208 20.5	295 22.8	724 30.2
Absent without make-up	82 24.8	85 20.1	112 25.3	158 26.7	212 20.9	274 21.2	471 19.6
Non-Attempt for Math	111 33.6	162 38.4	144 32.5	207 35.0	371 36.6	461 35.7	666 27.8
Medical emergency	66 20.0	71 16.8	92 20.8	92 15.5	127 12.5	125 9.7	264 11.0

Other reasons	35 10.6	46 10.9	36 8.1	58 9.8	95 9.4	137 10.6	275 11.5
Total not assessed for Math	330	422	443	592	1,013	1,292	2,400

COMPOSITION OF SAMPLE USED IN SUBSEQUENT TABLES

Students included in the following demographic analyses were those who contributed to state summary statistics, using the individual student data file of June 4, 2008. Consequently, these results may not reflect some data used for final AYP calculations. Students not included in the present data were those who (1) enrolled in a Pennsylvania school after October 1, 2007, (2) were coded as ELL and enrolled after March 23, 2007, or (3) were home schooled.

Rather than present demographic data found in Tables 9-3 through 9-5 separately for reading and mathematics, redundancy was reduced by basing results on the group of students having a score in reading or in mathematics. Results for accommodations received were collected separately for reading and mathematics for the first time in 2008 and are presented in separate tables as well. Thus, tables involving accommodations for reading were calculated for those students having a reading score (Tables 9-6R through 9-11R) and tables involving accommodations for mathematics were calculated for those students having a mathematics score (Tables 9-6M through 9-11M). Because some student file updates may occur subsequent to these analyses, there could be small differences in the counts along with slight percentage differences.

COLLECTION OF STUDENT DEMOGRAPHIC INFORMATION

Data for analyses involving demographic characteristics were obtained primarily from information initially supplied by school district personnel through the Pennsylvania Information Management System (PIMS) and subsequently transmitted to DRC. Later corrections and updates of demographic and attribution (for AYP) data were carried out through the DRC Student Precode and Corrections System. Some data such as accommodation information is marked directly on the student answer document at the time the PSSA is administered.

DEMOGRAPHIC CHARACTERISTICS

Frequency data for each category is presented in Table 9-3. Percentages are based on students with a score in reading or mathematics as shown at the bottom of the table.

Table 9-3. Demographic Characteristics of 2008 PSSA

Demographic or Educational Characteristic	Gr. 3	Gr. 4	Gr. 5	Gr. 6	Gr. 7	Gr. 8	Gr. 11
	N / Pct	N / Pct	N / Pct	N / Pct	N / Pct	N / Pct	N / Pct
Gender							
Female	61,594 48.7	61,567 48.7	62,530 49.1	63,572 48.6	66,102 48.6	67,321 48.5	66,958 49.5
Male	64,887 51.3	64,811 51.2	64,719 50.8	67,247 51.4	69,619 51.2	71,167 51.3	68,128 50.3
Race/Ethnicity							
American Indian or Alaskan Native	206 0.2	206 0.2	187 0.1	211 0.2	233 0.2	233 0.2	220 0.2
Asian or Pacific Islander	3,579 2.8	3,658 2.9	3,606 2.8	3,539 2.7	3,532 2.6	3,520 2.5	3,318 2.5

Demographic or Educational Characteristic	Gr. 3	Gr. 4	Gr. 5	Gr. 6	Gr. 7	Gr. 8	Gr. 11
	N / Pct	N / Pct	N / Pct	N / Pct	N / Pct	N / Pct	N / Pct
Black/African American non-Hispanic	20,028 15.8	19,844 15.7	19,962 15.7	20,090 15.3	21,027 15.5	21,689 15.6	17,271 12.8
Latino/Hispanic	9,485 7.5	9,408 7.4	9,125 7.2	9,006 6.9	9,078 6.7	9,049 6.5	6,693 4.9
White non-Hispanic	92,121 72.8	92,326 73.0	93,537 73.4	97,177 74.2	101,129 74.4	103,241 74.4	107,004 79.1
Multi-Racial/Ethnic	1,024 0.8	906 0.7	792 0.6	735 0.6	685 0.5	705 0.5	524 0.4
Educational Category and Other Demographic Groups							
IEP (not gifted)	19,112 15.1	20,327 16.1	20,566 16.1	20,661 15.8	21,135 15.6	21,594 15.6	18,198 13.4
Student exited IEP in last 2 years	1,174 0.9	1,329 1.1	1,490 1.2	1,286 1.0	1,078 0.8	777 0.6	346 0.3
Gifted and has an IEP	4,224 3.3	5,119 4.0	6,182 4.9	6,769 5.2	7,477 5.5	7,953 5.7	7,254 5.4
504 Plan / Chapter 15	1,342 1.1	1,362 1.1	1,448 1.1	1,362 1.0	1,462 1.1	1,507 1.1	1,308 1.0
Title I	43,878 34.7	40,998 32.4	38,104 29.9	31,110 23.8	26,343 19.4	26,723 19.3	17,354 12.8
Title III Served	3,047 2.4	2,580 2.0	2,359 1.9	2,062 1.6	1,841 1.4	1,744 1.3	1,050 1.0
Title III Not Served	440 0.3	393 0.3	376 0.3	285 0.2	284 0.2	268 0.2	281 0.3
Migrant Student	106 0.1	110 0.1	108 0.1	98 0.1	108 0.1	84 0.1	79 0.1
ELL (enrolled after Mar 23, 2007)	0 0.0	0 0.0	0 0.0	0 0.0	0 0.0	0 0.0	0 0.0
ELL (enrolled before Mar 23, 2007)	3,487 2.8	2,973 2.4	2,735 2.1	2,347 1.8	2,125 1.6	2,012 1.5	1,331 1.0
Exited ESL/bilingual program and in first year of monitoring	472 0.4	634 0.5	529 0.4	476 0.4	359 0.3	345 0.2	196 0.1
Exited ESL/bilingual program and in second year of monitoring	638 0.5	651 0.5	661 0.5	646 0.5	630 0.5	539 0.4	322 0.2
Former ELL no longer monitored	563 0.4	885 0.7	982 0.8	1,192 0.9	1,222 0.9	1,252 0.9	857 0.6
Foreign Exchange Student	7 0.0	4 0.0	6 0.0	3 0.0	4 0.0	6 0.0	98 0.1
Economically Disadvantaged	48,918 38.6	48,118 38.0	47,300 37.1	47,480 36.3	48,094 35.4	47,370 34.2	33,941 25.1
Enrollment							
Current Enrollment in school of residence after Oct 1, 2007	4,225 3.3	4,220 3.3	4,141 3.3	4,333 3.3	5,062 3.7	4,386 3.2	4,838 3.6
Current Enrollment in district of residence after Oct 1, 2007	2,164 1.7	2,124 1.7	1,987 1.6	2,029 1.5	2,337 1.7	2,352 1.7	2,121 1.6
Current Enrollment as PA	0	0	0	0	0	0	0

Demographic or Educational Characteristic	Gr. 3	Gr. 4	Gr. 5	Gr. 6	Gr. 7	Gr. 8	Gr. 11
	N / Pct	N / Pct	N / Pct	N / Pct	N / Pct	N / Pct	N / Pct
resident after Oct 1, 2007	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Enrolled in school of residence after Oct 1, 2006 but on/before Oct 1, 2007	25,864 20.4	25,305 20.0	29,471 23.1	51,257 39.2	43,074 31.7	26,623 19.2	21,659 16.0
Enrolled in district of residence after Oct 1, 2006 but on/before Oct 1, 2007	14,600 11.5	13,631 10.8	14,054 11.0	16,672 12.7	16,979 12.5	15,431 11.1	14,026 10.4
Homeless as defined by McKinney-Vento Act	255 0.2	207 0.2	213 0.2	211 0.2	210 0.2	203 0.1	118 0.1
School Choice Provision	39 0.0	61 0.0	127 0.1	172 0.1	176 0.1	170 0.1	43 0.0
Total Number Scored	126,602	126,461	127,363	130,915	135,905	138,678	135,310

EDUCATION IN NON-TRADITIONAL SETTINGS

For each category the number and percent are presented for all students with a score in reading or mathematics. Table 9-4 reveals an incidence of less than one percent for the majority of these settings. Also shown are home schooled students assessed by parental request.

Table 9-4. Participation in 2008 PSSA by Students in Non-Traditional Settings

Non-Traditional Educational Settings	Gr. 3	Gr. 4	Gr. 5	Gr. 6	Gr. 7	Gr. 8	Gr. 11
	N / Pct	N / Pct	N / Pct	N / Pct	N / Pct	N / Pct	N / Pct
Court / agency placed	112 0.1	128 0.1	133 0.1	215 0.2	360 0.3	616 0.4	862 0.6
Homebound instruction	1 0.0	2 0.0	2 0.0	6 0.0	3 0.0	8 0.0	20 0.0
Special education student with IEP placed in program operated by entity other than district or school of residence	666 0.5	778 0.6	771 0.6	737 0.6	783 0.6	858 0.6	787 0.6
Student placed in alternative Education for Disruptive Youth program conducted outside of regular classroom	63 0.0	98 0.1	160 0.1	286 0.2	630 0.5	1,026 0.7	1,202 0.9
Home schooled student assessed by parental request	0 0.0	0 0.0	0 0.0	0 0.0	0 0.0	0 0.0	0 0.0
ELL student tested outside district	68 0.1	53 0.0	52 0.0	37 0.0	22 0.0	20 0.0	1 0.0
Number having a reading or a mathematics score	126,602	126,461	127,363	130,915	135,905	138,678	135,310

PRIMARY DISABILITY OF IEP STUDENTS ASSESSED ON THE PSSA

School personnel supplied the primary disability information for those students who had an IEP (not gifted) through the Pennsylvania Information Management System (PIMS) in conjunction with the DRC Student Precode System as stated earlier. Beginning with the 2006 assessment, disability categories were presented in a sequence matching a Department of Education

numbering system and two previously separate categories were combined. In Table 9-5, for all students with a score in reading or mathematics classified as IEP, the number and percent in each disability category are presented. For example, if 20,000 students statewide were categorized as IEP and 4,000 students were classified with a particular disability, the table entry would display 4,000 followed by 20 percent. Data is also supplied for the substantial percentage of students who were unclassified with respect to a specific disability. The last row presents the percent of all assessed students classified as IEP. The most prominent finding in Table 9-5 is that specific learning disability is the category with the highest incidence of occurrence across all grade levels.

Table 9-5. Incidence of Primary Disabilities among IEP Students Assessed in 2008

Primary Disability of Students with an IEP	Gr. 3	Gr. 4	Gr. 5	Gr. 6	Gr. 7	Gr. 8	Gr. 11
	N / Pct	N / Pct	N / Pct	N / Pct	N / Pct	N / Pct	N / Pct
Traumatic Brain Injury	9 0.0	17 0.1	28 0.1	26 0.1	32 0.2	49 0.2	35 0.2
Hearing Impairment including Deafness	166 0.9	177 0.9	161 0.8	173 0.8	179 0.8	159 0.7	148 0.8
Specific Learning Disability	8,009 41.9	9,968 49.0	11,352 55.2	12,464 60.3	13,414 63.5	13,754 63.7	11,701 64.3
Mental Retardation	482 2.5	449 2.2	560 2.7	594 2.9	680 3.2	781 3.6	772 4.2
Orthopedic Impairment	50 0.3	34 0.2	32 0.2	34 0.2	24 0.1	33 0.2	34 0.2
Emotional Disturbance	789 4.1	1,041 5.1	1,199 5.8	1,408 6.8	1,607 7.6	1,839 8.5	1,697 9.3
Speech or Language Impairment	6,261 32.8	4,876 24.0	3,459 16.8	2,051 9.9	1,193 5.6	729 3.4	146 0.8
Visual Impairment Including Blindness	59 0.3	63 0.3	68 0.3	69 0.3	50 0.2	61 0.3	58 0.3
Deaf/Blind	6 0.0	3 0.0	5 0.0	3 0.0	6 0.0	6 0.0	15 0.1
Multiple Disabilities	28 0.1	30 0.1	33 0.2	41 0.2	37 0.2	40 0.2	34 0.2
Autism	677 3.5	681 3.4	585 2.8	550 2.7	476 2.3	449 2.1	252 1.4
Other Health Impairment	1,172 6.1	1,328 6.5	1,423 6.9	1,418 6.9	1,383 6.5	1,373 6.4	919 5.1
IEP Students Without a Disability Code	1,404 7.3	1,660 8.2	1,661 8.1	1,830 8.9	2,054 9.7	2,321 10.7	2,387 13.1
Number of IEP Students Assessed	19,112	20,327	20,566	20,661	21,135	21,594	18,198
Percent of Assessed Students Classified IEP	15.1	16.1	16.1	15.8	15.6	15.6	13.4

TEST ACCOMMODATIONS PROVIDED

School personnel supplied information regarding accommodations that a student may have received while taking the PSSA. Accommodations are classified in terms of presentation, response, setting, and timing modifications to enable students to better manage disabilities that hinder their ability to learn and respond to assessments.

The frequency with which these accommodations were utilized is summarized separately for reading and mathematics in Tables 9–6R through 9-9M. Tabled values are based on all students who received a score in each respective subject area. Please note that a glossary of accommodation terms as applied to the PSSA is provided in Table 9–12 at the end of this chapter.

PRESENTATION ACCOMMODATIONS RECEIVED

Presentation Accommodations are those that provide alternate ways for students to access and process printed instructional material and assessments. These include auditory, tactile, visual, and combined auditory/visual modes of presentation. There were nine categories of presentation modifications in the 2008 PSSA reading assessment and twelve for the mathematics assessment. As depicted in Tables 9–6R and 9-6M, the actual frequencies are quite low, generally representing less than two-tenths of one percent of assessed students statewide. An exception for both reading and mathematics is test directions read aloud, signed, or recorded, in which about 2,000 instances or more occurred at each grade level. A second exception, which applied only to mathematics, is test questions read aloud or signed.

RESPONSE ACCOMMODATIONS RECEIVED

Response Accommodations permit students to complete assignments, tests, and activities in different ways to solve or organize problems using some type of assistive device or organizer. There were ten (reading) and eleven (math) categories of response accommodations on the 2008 PSSA reading and mathematics assessments. The frequency with which these accommodations were utilized is summarized in Tables 9–7R and 9-7M. The actual frequencies are quite low, most representing less than two-tenths of one percent of assessed students statewide.

SETTING ACCOMMODATIONS RECEIVED

Setting Accommodations permit a change in location in which a student receives instruction or participates in an assessment. There were three categories of setting accommodations on the 2008 PSSA reading and mathematics assessment. As depicted in Tables 9–8R and 9-8M, the most common accommodations were small group testing and testing in a separate setting. Typically the percentage of IEP students tested in separate or small group settings decreases from lower to higher grade levels.

TIMING ACCOMMODATIONS RECEIVED

Timing Accommodations involve a change in the allowable length of time to complete assignments or assessments, including the way in which time is organized. There were four categories of timing accommodations on the 2008 PSSA reading and mathematics assessment. As depicted in Tables 9–9R and 9-9M, the most common accommodations were scheduled extended time and requested extended time for both subject areas.

Table 9-6R Incidence of Presentation Accommodations Received on the 2008 PSSA: Reading

Type of Presentation Accommodation	Gr. 3	Gr. 4	Gr. 5	Gr. 6	Gr. 7	Gr. 8	Gr. 11
	N / Pct	N / Pct	N / Pct	N / Pct	N / Pct	N / Pct	N / Pct
Braille Edition	5 0.0	4 0.0	8 0.0	8 0.0	6 0.0	8 0.0	13 0.0
Large Print Edition	81 0.1	80 0.1	86 0.1	81 0.1	62 0.0	75 0.1	55 0.0
Magnification device	6 0.0	10 0.0	11 0.0	8 0.0	6 0.0	5 0.0	16 0.0
Reading Windows, Reading Guides	672 0.5	714 0.6	472 0.4	293 0.2	135 0.1	175 0.1	7 0.0
Sign Language Interpreter	16 0.0	17 0.0	20 0.0	19 0.0	24 0.0	12 0.0	21 0.0
Qualified interpreter for ELL student	151 0.1	126 0.1	100 0.1	101 0.1	79 0.1	80 0.1	101 0.1
Test directions read aloud, signed, recorded *	6,530 5.2	7,687 6.1	7,200 5.7	5,650 4.3	4,078 3.0	3,804 2.7	1,882 1.4
Electronic Screen Reader *	5 0.0	1 0.0	0 0.0	4 0.0	3 0.0	0 0.0	8 0.0
Other (<i>Accommodations Guidelines</i>)	346 0.3	399 0.3	444 0.3	305 0.2	169 0.1	253 0.2	171 0.1

Table 9-6M Incidence of Presentation Accommodations Received on the 2008 PSSA: Mathematics

Type of Presentation Accommodation	Gr. 3	Gr. 4	Gr. 5	Gr. 6	Gr. 7	Gr. 8	Gr. 11
	N / Pct	N / Pct	N / Pct	N / Pct	N / Pct	N / Pct	N / Pct
Braille Edition	6 0.0	4 0.0	8 0.0	8 0.0	6 0.0	15 0.0	14 0.0
Large Print Edition	81 0.1	81 0.1	82 0.1	79 0.1	63 0.0	74 0.1	55 0.0
Magnification device	8 0.0	10 0.0	12 0.0	14 0.0	9 0.0	7 0.0	15 0.0
Reading Windows, Reading Guides	154 0.1	181 0.1	132 0.1	83 0.1	19 0.0	19 0.0	4 0.0
Sign Language Interpreter	16 0.0	17 0.0	21 0.0	21 0.0	29 0.0	13 0.0	19 0.0
Qualified interpreter for ELL student	199 0.2	204 0.2	134 0.1	130 0.1	129 0.1	98 0.1	102 0.1
Test Directions Read Aloud, Signed, or recorded *	8,491 6.7	9,101 7.2	8,529 6.7	6,560 5.0	4,512 3.3	4,139 3.0	1,963 1.5
Electronic Screen Reader *	5 0.0	2 0.0	0 0.0	5 0.0	4 0.0	0 0.0	7 0.0
Other (per <i>Accommodations Guidelines</i>)	371 0.3	406 0.3	417 0.3	333 0.3	174 0.1	259 0.2	175 0.1
Test Items /Questions Read Aloud or Signed (math) *	10,713 8.5	11,188 8.9	10,300 8.1	7,529 5.8	4,419 3.3	3,983 2.9	1,054 0.8
Test Items /Questions Recorded (math)	317 0.3	443 0.4	440 0.3	245 0.2	135 0.1	131 0.1	57 0.0
Spanish Math Version	104 0.1	133 0.1	187 0.1	232 0.2	255 0.2	266 0.2	216 0.2

Table 9-7R. Incidence of Response Accommodations Received on the 2008 PSSA: Reading

Type of Response Accommodation	Gr. 3	Gr. 4	Gr. 5	Gr. 6	Gr. 7	Gr. 8	Gr. 11
	N / Pct	N / Pct	N / Pct	N / Pct	N / Pct	N / Pct	N / Pct
Braille / Note taker	4 0.0	3 0.0	4 0.0	5 0.0	4 0.0	7 0.0	12 0.0
Test Administrator scribed open-ended responses at student's direction	998 0.8	836 0.7	684 0.5	346 0.3	168 0.1	144 0.1	73 0.1
Test administrator marked multiple-choice responses at student's direction	171 0.1	510 0.4	413 0.3	252 0.2	147 0.1	158 0.1	55 0.0
Test Administrator transcribed student responses	448 0.4	531 0.4	518 0.4	332 0.3	247 0.2	248 0.2	123 0.1
Augmentative communication device	15 0.0	7 0.0	3 0.0	7 0.0	4 0.0	1 0.0	3 0.0
Typewriter, word processor or computer	21 0.0	44 0.0	113 0.1	93 0.1	103 0.1	126 0.1	60 0.0
Audio recording of student responses	3 0.0	4 0.0	1 0.0	2 0.0	2 0.0	0 0.0	2 0.0
Translation dictionary for ELL student	47 0.0	46 0.0	93 0.1	103 0.1	128 0.1	100 0.1	228 0.2
Electronic Screen Reader *	1 0.0	1 0.0	1 0.0	0 0.0	1 0.0	1 0.0	8 0.0
Other (approved by PDE)	197 0.2	195 0.2	250 0.2	114 0.1	61 0.0	80 0.1	87 0.1

Table 9-7M. Incidence of Response Accommodations Received on the 2008 PSSA: Mathematics

Type of Response Accommodation	Gr. 3	Gr. 4	Gr. 5	Gr. 6	Gr. 7	Gr. 8	Gr. 11
	N / Pct	N / Pct	N / Pct	N / Pct	N / Pct	N / Pct	N / Pct
Braille / Note taker	4 0.0	3 0.0	2 0.0	4 0.0	5 0.0	8 0.0	10 0.0
Test Administrator scribed open-ended responses at student's direction	905 0.7	765 0.6	620 0.5	284 0.2	144 0.1	115 0.1	55 0.0
Test administrator marked multiple-choice responses at student's direction	173 0.1	520 0.4	416 0.3	258 0.2	152 0.1	154 0.1	58 0.0
Test Administrator transcribed student responses	389 0.3	438 0.3	384 0.3	284 0.2	169 0.1	158 0.1	98 0.1
Augmentative communication device	14 0.0	9 0.0	2 0.0	6 0.0	4 0.0	2 0.0	3 0.0
Typewriter, word processor or computer	11 0.0	21 0.0	47 0.0	34 0.0	40 0.0	45 0.0	30 0.0
Audio recording of student responses	3 0.0	4 0.0	0 0.0	1 0.0	2 0.0	0 0.0	2 0.0
Manipulative (Cranmer Abacus, Number Line)	379 0.3	278 0.2	98 0.1	45 0.0	13 0.0	21 0.0	5 0.0
Translation dictionary for ELL student	51 0.1	48 0.0	78 0.1	115 0.1	152 0.1	124 0.1	229 0.2
Electronic Screen Reader *	0 0.0	1 0.0	0 0.0	0 0.0	2 0.0	1 0.0	6 0.0
Other (approved by PDE)	186 0.1	189 0.1	246 0.2	119 0.1	72 0.1	89 0.1	91 0.1

Table 9-8R. Incidence of Setting Accommodations Received on the 2008 PSSA: Reading

Type of Setting Accommodation	Gr. 3	Gr. 4	Gr. 5	Gr. 6	Gr. 7	Gr. 8	Gr. 11
	N / Pct	N / Pct	N / Pct	N / Pct	N / Pct	N / Pct	N / Pct
Hospital/Home Testing	38 0.0	29 0.0	56 0.0	53 0.0	66 0.1	72 0.1	137 0.1
Separate Setting	7,502 5.9	8,279 6.6	8,011 6.3	6,009 4.6	4,649 3.4	4,969 3.6	3,153 2.3
Small Group Testing	15,189 12.0	15,923 12.6	15,601 12.3	13,197 10.1	11,178 8.2	12,154 8.8	8,355 6.2

Table 9-8M. Incidence of Setting Accommodations Received on the 2008 PSSA: Mathematics

Type of Setting Accommodation	Gr. 3	Gr. 4	Gr. 5	Gr. 6	Gr. 7	Gr. 8	Gr. 11
	N / Pct	N / Pct	N / Pct	N / Pct	N / Pct	N / Pct	N / Pct
Hospital/Home Testing	37 0.0	34 0.0	55 0.0	53 0.0	65 0.1	73 0.1	142 0.1
Separate Setting	7,508 5.9	8,248 6.5	8,074 6.3	5,945 4.5	4,664 3.4	4,985 3.6	3,184 2.4
Small Group Testing	15,374 12.1	16,092 12.7	15,793 12.4	13,317 10.2	11,257 8.3	12,166 8.8	8,353 6.2

Table 9-9R. Incidence of Timing Accommodations Received on the 2008 PSSA: Reading

Type of Timing Accommodation	Gr. 3	Gr. 4	Gr. 5	Gr. 6	Gr. 7	Gr. 8	Gr. 11
	N / Pct	N / Pct	N / Pct	N / Pct	N / Pct	N / Pct	N / Pct
Scheduled Extended Time	6,037 4.8	7,297 5.8	7,548 5.9	6,595 5.0	4,729 3.5	5,309 3.8	4,683 3.5
Requested Extended Time	1,850 1.5	2,926 2.3	4,039 3.2	3,875 3.0	4,328 3.2	5,779 4.2	4,234 3.1
Multiple Test Sessions	1,351 1.1	1,551 1.2	1,535 1.2	1,381 1.1	1,152 0.8	1,445 1.0	1,374 1.0
Changed Test Schedule	425 0.3	386 0.3	463 0.4	238 0.2	201 0.1	316 0.2	233 0.2

Table 9-9M. Incidence of Timing Accommodations Received on the 2008 PSSA: Mathematics

Type of Timing Accommodation	Gr. 3	Gr. 4	Gr. 5	Gr. 6	Gr. 7	Gr. 8	Gr. 11
	N / Pct	N / Pct	N / Pct	N / Pct	N / Pct	N / Pct	N / Pct
Scheduled Extended Time	5,736 4.5	7,195 5.7	7,445 5.8	6,488 5.0	4,882 3.6	5,307 3.8	4,806 3.6
Requested Extended Time	1,012 0.8	2,116 1.7	3,096 2.4	3,749 2.9	4,885 3.6	4,731 3.4	5,602 4.1
Multiple Test Sessions	1,318 1.0	1,529 1.2	1,519 1.2	1,373 1.0	1,180 0.9	1,467 1.1	1,395 1.0
Changed Test Schedule	421 0.3	385 0.3	445 0.3	239 0.2	232 0.2	333 0.2	217 0.2

THE INCIDENCE OF ACCOMMODATIONS AND IEP AND ELL STATUS

It is reasonable to expect that students with an IEP would receive the majority of accommodations; however, certain accommodations are specific to particular disabilities or to students classified as English Language Learners (ELL). A cross-tabulation between each of the accommodations and IEP and ELL status revealed a much greater incidence for students with an IEP. As observed in Tables 9-6R through 9-9M, the most frequently occurring accommodations for assessed students were:

- Test directions read aloud, signed, or recorded
- Test items/questions read aloud or signed (mathematics only)
- tested in separate setting
- small group testing
- scheduled extended time
- requested extended time
- multiple test sessions.

Because the accommodations with the largest frequencies can potentially supply the most stable data when broken out for subgroup analysis, these were selected for display in Tables 9-10R and 9-10M.

Coding for IEP is dichotomous as students are classified as IEP and non-IEP. For purposes of this analysis, an English Language Learner (ELL) was a student classified as ELL and enrolled in a U.S. school on or before March 23, 2007. All other assessed students, including those who exited an ESL/bilingual program and in the first or second year of monitoring were regarded as “Not ELL.” Students coded as ELL and enrolled in a U.S. school after March 23, 2007 are excluded from state summary statistics as stated earlier in this chapter.

Customarily, a considerably larger percent of IEP students receive a given accommodation than Non-IEP students. Likewise, certain accommodations occur more frequently for ELL students than for non-ELL students. To separate out the effect of being classified IEP or ELL, four possible combinations are presented in Tables 9-10R and 9-10M. These include: (1) General education students (those who are neither IEP nor ELL), and students classified as (2) IEP but not ELL, (3) ELL but not IEP, and (4) both IEP and ELL. The bottom row for each grade provides the total number of students having a subject area score within each of the four classifications.

General findings from Table 9-10R for reading based on 42 instances (across seven grades and six selected accommodations) include:

- General education (neither IEP nor ELL) students had a very low incidence of accommodations, as 21 of the 42 instances were less than one percent and only four exceeded three percent.
- The IEP and not ELL students had the largest percentage of these accommodations in 14 instances and second largest in 25 instances.

- The ELL and not IEP students received a larger percent of these accommodations than the General education students in all instances, and fewer than IEP and not ELL students in 39 instances.
- The Both IEP and ELL students had the largest percent of accommodations in 26 instances and second largest in 13 instances.

General findings from Table 9-10M for mathematics based on 49 instances (across seven grades and seven selected accommodations) include:

- General education (neither IEP nor ELL) students had a very low incidence of accommodations, as 23 of the 49 instances were less than one percent and only five exceeded three percent.
- The IEP and not ELL students had the largest percentage of these accommodations in 10 instances and second largest in 36 instances.
- The ELL and not IEP students received a larger percent of these accommodations than the General education students in all 49 instances, and fewer than IEP and not ELL students in 45 instances.
- The Both IEP and ELL students had the largest percent of accommodations in 36 instances and second largest in 12 instances.

Table 9–10R. Incidence of IEP and ELL Students Receiving Selected Accommodations

Reading Accommodation Received	Classification of Students Regarding IEP and ELL							
	General education (Not IEP or ELL)		IEP and not ELL		ELL and not IEP		Both IEP and ELL	
Gr. 3	N	Pct	N	Pct	N	Pct	N	Pct
Test directions read aloud, signed, recorded	895	0.9	5,083	27.3	390	13.1	162	34.1
Tested in separate setting	2,285	2.2	4,618	24.8	452	15.1	147	30.9
Small group testing	4,741	4.5	9,308	50.1	875	29.3	265	55.8
Scheduled extended time	1,472	1.4	4,075	21.9	381	12.8	109	22.9
Requested extended time	1,231	1.2	503	2.7	93	3.1	23	4.8
Multiple test sessions	313	0.3	939	5.1	78	2.6	21	4.4
Column N for Gr. 3	104,354		18,587		2,986		475	
Gr. 4	N	Pct	N	Pct	N	Pct	N	Pct
Test directions read aloud, signed, recorded	797	0.8	6,357	32.2	336	13.7	197	39.9
Tested in separate setting	1,935	1.9	5,739	29.0	435	17.7	170	34.4
Small group testing	4,042	3.9	10,864	55.0	710	28.9	307	62.1
Scheduled extended time	1,495	1.4	5,288	26.7	352	14.3	162	32.8
Requested extended time	1,956	1.9	801	4.1	129	5.3	40	8.1
Multiple test sessions	245	0.2	1,230	6.2	50	2.0	26	5.3
Column N for Gr. 4	103,548		19,770		2,454		494	
Gr. 5	N	Pct	N	Pct	N	Pct	N	Pct
Test directions read aloud, signed, recorded	532	0.5	6,276	31.3	225	9.9	167	37.7
Tested in separate setting	1,671	1.6	5,856	29.2	340	14.9	144	32.5

Reading Accommodation Received	Classification of Students Regarding IEP and ELL							
	General education (Not IEP or ELL)		IEP and not ELL		ELL and not IEP		Both IEP and ELL	
Small group testing	3,359	3.2	11,383	56.7	605	26.6	254	57.3
Scheduled extended time	1,694	1.6	5,322	26.5	380	16.7	152	34.3
Requested extended time	2,916	2.8	982	4.9	107	4.7	34	7.7
Multiple test sessions	224	0.2	1,237	6.2	60	2.6	14	3.2
Column N for Gr. 5	104,408		20,063		2,275		443	
Gr. 6	N	Pct	N	Pct	N	Pct	N	Pct
Test directions read aloud, signed, recorded	359	0.3	5,049	25.0	136	7.1	106	25.8
Tested in separate setting	1,053	1.0	4,691	23.2	168	8.8	97	23.6
Small group testing	1,919	1.8	10,753	53.3	344	18.0	181	44.0
Scheduled extended time	1,425	1.3	4,889	24.2	178	9.3	103	25.1
Requested extended time	2,613	2.4	1,159	5.7	82	4.3	21	5.1
Multiple test sessions	166	0.2	1,127	5.6	59	3.1	29	7.1
Column N for Gr. 6	108,188		20,178		1,915		411	
Gr. 7	N	Pct	N	Pct	N	Pct	N	Pct
Test directions read aloud, signed, recorded	188	0.2	3,704	17.9	121	6.8	65	20.2
Tested in separate setting	710	0.6	3,739	18.0	136	7.6	64	19.9
Small group testing	1,060	0.9	9,716	46.9	291	16.3	111	34.6
Scheduled extended time	1,026	0.9	3,502	16.9	140	7.8	61	19.0
Requested extended time	2,947	2.6	1,274	6.1	95	5.3	12	3.7
Multiple test sessions	175	0.2	924	4.5	40	2.2	13	4.0
Column N for Gr. 7	112,797		20,735		1,788		321	
Gr. 8	N	Pct	N	Pct	N	Pct	N	Pct
Test directions read aloud, signed, recorded	193	0.2	3,497	16.5	64	3.7	50	19.2
Tested in separate setting	731	0.6	4,001	18.9	190	11.0	47	18.1
Small group testing	1,331	1.2	10,441	49.2	286	16.5	96	36.9
Scheduled extended time	1,115	1.0	3,945	18.6	199	11.5	50	19.2
Requested extended time	3,901	3.4	1,709	8.1	150	8.6	19	7.3
Multiple test sessions	221	0.2	1,156	5.4	57	3.3	11	4.2
Column N for Gr. 8	115,124		21,220		1,735		260	
Gr. 11	N	Pct	N	Pct	N	Pct	N	Pct
Test directions read aloud, signed, recorded	74	0.1	1,781	9.9	13	1.1	14	12.2
Tested in separate setting	309	0.3	2,687	14.9	143	12.0	14	12.2
Small group testing	776	0.7	7,283	40.5	250	20.0	46	40.0
Scheduled extended time	1,006	0.9	3,470	19.3	183	15.3	24	20.9
Requested extended time	2,923	2.5	1,146	6.4	151	12.7	14	12.2
Multiple test sessions	327	0.3	991	5.5	50	4.2	6	5.2
Column N for Gr. 11	115,690		17,986		1,193		115	

Table 9–10M. Incidence of IEP and ELL Students Receiving Selected Accommodations

Mathematics	Classification of Students Regarding IEP and ELL							
	General education (Not IEP or ELL)		IEP and not ELL		ELL and not IEP		Both IEP and ELL	
Accommodation Received	N	Pct	N	Pct	N	Pct	N	Pct
Gr. 3								
Test directions read aloud, signed, recorded	1,526	1.5	6,174	33.1	590	19.6	201	42.1
Math test read aloud	2,543	2.4	7,302	39.2	641	21.3	227	47.5
Tested in separate setting	2,250	2.2	4,651	25.0	463	15.4	144	30.1
Small group testing	4,802	4.6	9,410	50.5	892	29.7	270	56.5
Scheduled extended time	1,246	1.2	4,025	21.6	358	11.9	107	22.4
Requested extended time	548	0.5	384	2.1	61	2.0	19	4.0
Multiple test sessions	297	0.3	924	5.0	78	2.6	19	4.0
Column N for Gr. 3	104,451		18,627		3,007		478	
Gr. 4	N	Pct	N	Pct	N	Pct	N	Pct
Test directions read aloud, signed, recorded	1,106	1.1	7,346	37.1	425	17.2	224	45.1
Math test read aloud	1,856	1.8	8,563	43.2	500	20.2	269	54.1
Tested in separate setting	1,871	1.8	5,783	29.2	428	17.3	166	33.4
Small group testing	4,043	3.9	11,018	55.6	724	29.2	307	61.8
Scheduled extended time	1,402	1.4	5,279	26.6	351	14.2	163	32.8
Requested extended time	1,334	1.3	656	3.3	95	3.8	31	6.2
Multiple test sessions	238	0.2	1,219	6.2	47	1.9	25	5.0
Column N for Gr. 4	103,620		19,810		2,476		497	
Gr. 5	N	Pct	N	Pct	N	Pct	N	Pct
Test directions read aloud, signed, recorded	822	0.8	7,245	36.0	268	11.7	194	43.7
Math test read aloud	1,389	1.3	8,330	41.4	370	16.2	211	47.5
Tested in separate setting	1,679	1.6	5,892	29.3	354	15.5	149	33.6
Small group testing	3,433	3.3	11,487	57.2	612	26.7	261	58.8
Scheduled extended time	1,647	1.6	5,266	26.2	382	16.7	150	33.8
Requested extended time	2,101	2.0	871	4.3	90	3.9	34	7.7
Multiple test sessions	207	0.2	1,238	6.2	60	2.6	14	3.2
Column N for Gr. 5	104,470		20,099		2,289		444	
Gr. 6	N	Pct	N	Pct	N	Pct	N	Pct
Test directions read aloud, signed, recorded	507	0.5	5,759	28.5	173	8.9	121	29.4
Math test read aloud	676	0.6	6,533	32.3	168	8.7	152	37.0
Tested in separate setting	1,024	0.9	4,656	23.0	168	8.7	97	23.6
Small group testing	1,906	1.8	10,873	53.8	354	18.3	184	44.8
Scheduled extended time	1,327	1.2	4,870	24.1	186	9.6	105	25.5
Requested extended time	2,512	2.3	1,120	5.5	87	4.5	30	7.3
Multiple test sessions	162	0.1	1,123	5.6	59	3.1	29	7.1
Column N for Gr. 6	108,269		20,225		1,934		411	
Gr. 7	N	Pct	N	Pct	N	Pct	N	Pct

Mathematics Accommodation Received	Classification of Students Regarding IEP and ELL							
	General education (Not IEP or ELL)		IEP and not ELL		ELL and not IEP		Both IEP and ELL	
Test directions read aloud, signed, recorded	220	0.2	4,062	19.5	147	8.2	83	26.0
Math test read aloud	296	0.3	3,903	18.8	126	7.0	94	29.5
Tested in separate setting	722	0.6	3,738	18.0	139	7.7	65	20.4
Small group testing	1,102	1.0	9,750	46.9	294	16.3	111	34.8
Scheduled extended time	1,143	1.0	3,525	17.0	149	8.3	65	20.4
Requested extended time	3,517	3.1	1,228	5.9	122	6.8	18	5.6
Multiple test sessions	195	0.2	932	4.5	40	2.2	13	4.1
Column N for Gr. 7	112,885		20,779		1,801		319	
Gr. 8	N	Pct	N	Pct	N	Pct	N	Pct
Test directions read aloud, signed, recorded	216	0.2	3,788	17.8	83	4.7	52	20.1
Math test read aloud	244	0.2	3,570	16.8	109	6.2	60	23.2
Tested in separate setting	746	0.6	4,000	18.8	189	10.8	50	19.3
Small group testing	1,326	1.2	10,456	49.1	287	16.4	97	37.5
Scheduled extended time	1,113	1.0	3,943	18.5	200	11.4	51	19.7
Requested extended time	3,111	2.7	1,469	6.9	132	7.5	19	7.3
Multiple test sessions	218	0.2	1,180	5.5	58	3.3	11	4.2
Column N for Gr. 8	115,248		21,288		1,750		259	
Gr. 11	N	Pct	N	Pct	N	Pct	N	Pct
Test directions read aloud, signed, recorded	76	0.1	1,861	10.3	12	1.0	14	12.0
Math test read aloud	18	0.0	1,019	5.7	7	0.6	10	8.5
Tested in separate setting	320	0.3	2,696	15.0	153	12.6	15	12.8
Small group testing	729	0.6	7,314	40.6	262	21.6	48	41.0
Scheduled extended time	1,090	0.9	3,499	19.4	193	15.9	24	20.5
Requested extended time	4,138	3.6	1,257	7.0	192	15.8	15	12.8
Multiple test sessions	331	0.3	1,005	5.6	53	4.4	6	5.1
Column N for Gr. 11	115,780		18,010		1,213		117	

THE INCIDENCE OF ACCOMMODATIONS AND PRIMARY DISABILITY CLASSIFICATION

To further delineate the use of commonly employed accommodations, a grade level breakdown by primary disability is presented in Table 9-11. A selection was made based on the more frequently occurring categories of disability and accommodations rather than displaying data for all of them. As may be seen from a perusal of Tables 9-6R through 9-9M, the accommodations with the larger frequencies were those that involve a change in test timing, setting or that necessitates the reading of test directions, and, for mathematics, reading test items / questions aloud. Selected for incorporation in Table 9-11R are six reading accommodations with frequencies in excess of 1,000 at all grade levels. Likewise, for Table 9-11M, the seven accommodations for mathematics exceeding 1,000 at all grades. Response accommodations tended to be infrequent and highly specific to particular and infrequent disability categories or to

students classified as English language learner (ELL) and not included in Table 9-11R or 9-11M. Seven Primary Disability categories were selected that had a minimum of 100 students so classified at each grade level.

The entries for Table 9-11 represent the number and percent of students with a particular disability (columns) who received the listed accommodation (rows). For example, if 200 students out of 500 classified with a particular disability received scheduled extended time, the table entry would display 200 followed by 40%.

The most prominent and consistent findings from Tables 9-11R and 9-11M are (1) the heavy use of test directions read aloud, signed, or recorded, test items/questions read aloud or signed (math), scheduled extended time, separate settings, and small group testing for all disability categories except speech and language impairment and that (2) in each instance the percentage of students receiving these three accommodations tended to be greatest for students in 3rd through 6th grades.

Table 9-11R Incidence of Test Accommodations Received for Selected Primary Disabilities on the 2008 PSSA: Reading

Type of Accommodation Received	Grade Level	Primary Disability of Assessed Student with an IEP: Number and Percent									
		Autism	Emotional Disturbance	Deafness / Hearing Impairment	Mental Retardation	Other Health Impairment	Specific Learning Disability	Speech or Language Impairment			
Test directions read aloud, signed, recorded	3	239 36%	235 30%	35 21%	196 41%	451 39%	3306 41%	340 5%			
	4	263 39%	342 33%	39 22%	201 45%	580 44%	4295 43%	203 4%			
	5	202 35%	363 31%	41 37%	217 39%	553 39%	4372 39%	138 4%			
	6	138 25%	347 25%	34 20%	177 30%	379 27%	3516 28%	91 4%			
	7	76 16%	246 16%	33 19%	170 25%	271 20%	2508 19%	68 6%			
	8	66 15%	262 14%	22 14%	174 22%	223 16%	2326 17%	27 4%			
	11	18 7%	144 9%	14 10%	134 17%	71 8%	1067 9%	2 1%			
	Separate setting	3	220 33%	199 25%	33 20%	196 41%	443 38%	2891 36%	482 8%		
		4	250 37%	274 26%	29 16%	146 33%	562 42%	3939 40%	325 7%		
		5	192 33%	307 26%	33 21%	179 32%	519 36%	4165 37%	225 6%		
		6	137 25%	295 21%	18 10%	147 25%	377 27%	3329 27%	123 6%		
7		91 19%	223 14%	22 12%	144 21%	299 22%	2630 20%	75 6%			
8		83 19%	284 16%	13 8%	167 21%	287 21%	2782 20%	39 5%			
11		45 18%	236 14%	22 15%	146 19%	143 16%	1765 15%	13 9%			
Small group testing	3	356 65%	458 58%	53 32%	331 69%	807 69%	5714 71%	956 15%			
	4	456 67%	639 62%	62 35%	309 69%	956 72%	7099 71%	607 12%			
	5	368 63%	715 60%	56 35%	368 66%	969 68%	7700 68%	441 13%			
	6	313 57%	759 54%	51 29%	339 58%	840 59%	7401 59%	242 12%			
	7	225 47%	766 48%	63 36%	365 54%	701 51%	6514 49%	134 11%			
	8	235 53%	868 48%	41 26%	380 49%	687 50%	6953 51%	99 14%			
	11	72 41%	706 42%	63 36%	436 49%	335 41%	4852 42%	23 13%			
Scheduled extended time	3	194 29%	226 29%	19 11%	169 35%	341 29%	2518 31%	270 4%			
	4	225 33%	296 29%	34 19%	160 36%	446 34%	3481 35%	194 4%			
	5	170 29%	337 28%	23 14%	192 34%	446 31%	3533 31%	161 5%			
	6	147 27%	331 24%	24 14%	157 27%	352 25%	3217 26%	98 5%			
	7	80 17%	267 17%	17 10%	149 22%	192 14%	2231 17%	64 5%			
	8	75 17%	351 19%	14 9%	163 21%	225 16%	2377 17%	38 5%			
	11	36 22%	378 23%	49 28%	237 21%	146 18%	2387 21%	11 6%			

Table 9-11R (continued) Incidence of Test Accommodations Received for Selected Primary Disabilities on the 2008 PSSA: Reading

Type of Accommodation Received	Grade Level	Primary Disability of Assessed Student with an IEP: Number and Percent													
		Autism	Emotional Disturbance	Deafness / Hearing Impairment	Mental Retardation	Other Health Impairment	Specific Learning Disability	Speech or Language Impairment							
Student-requested extended time	3	21	29	7	18	32	274	97	3%	4%	4%	3%	3%	2%	
	4	42	53	10	19	73	464	112	6%	6%	4%	5%	5%	2%	
	5	34	71	11	32	66	615	106	6%	7%	6%	5%	5%	3%	
	6	44	78	6	36	96	732	75	8%	6%	6%	6%	6%	4%	
	7	34	71	23	46	91	838	46	7%	4%	7%	6%	7%	4%	
	8	58	102	6	57	106	1228	35	13%	6%	7%	9%	8%	5%	
	11	12	127	5	60	70	924	14	7%	8%	7%	8%	9%	8%	
	Multiple test sessions	3	44	75	2	40	48	490	74	6%	10%	8%	6%	4%	1%
		4	63	103	7	32	97	670	32	9%	10%	7%	7%	3%	1%
		5	57	108	4	39	84	650	28	10%	9%	7%	6%	6%	1%
		6	47	117	4	38	52	629	22	9%	8%	6%	5%	4%	1%
7		20	128	10	29	38	411	13	4%	8%	4%	3%	3%	1%	
8		29	149	5	44	36	473	6	6%	8%	6%	3%	3%	1%	
11		7	168	14	71	31	528	1	4%	10%	8%	4%	5%	1%	

Note: Results displayed are for most frequently occurring accommodations and disability classifications

Table 9-11M Incidence of Test Accommodations Received for Selected Primary Disabilities on the 2008 PSSA: Mathematics

Type of Accommodation Received	Grade Level	Primary Disability of Assessed Student with an IEP: Number and Percent										Speech or Language Impairment				
		Autism	Emotional Disturbance	Deafness / Hearing Impairment	Mental Retardation	Other Health Impairment	Specific Learning Disability									
Test directions read aloud, signed, recorded	3	277	41%	282	36%	42	25%	245	51%	548	47%	4015	50%	452	7%	
	4	304	45%	396	38%	51	29%	226	50%	648	49%	4963	49%	261	5%	
	5	221	38%	418	35%	45	28%	251	45%	623	44%	5066	45%	177	5%	
	6	158	29%	379	27%	35	20%	210	35%	436	31%	4007	32%	101	5%	
	7	82	17%	268	17%	34	19%	188	28%	295	21%	2776	21%	68	6%	
	8	70	16%	277	15%	22	14%	181	23%	235	17%	2541	18%	30	4%	
	11	19	8%	149	9%	17	11%	145	19%	74	8%	1108	9%	3	2%	
	Separate setting	3	220	33%	203	26%	34	21%	173	36%	447	38%	2908	36%	477	8%
		4	250	37%	272	27%	34	19%	149	33%	564	42%	3959	40%	321	7%
		5	193	33%	313	26%	33	21%	177	31%	518	36%	4207	37%	213	6%
		6	134	24%	291	21%	18	10%	146	25%	379	27%	3309	27%	119	6%
7		92	19%	224	14%	23	13%	143	21%	300	22%	2628	20%	74	6%	
Small group testing	8	82	18%	280	15%	12	7%	166	21%	288	21%	2785	20%	40	5%	
	11	46	18%	236	14%	23	15%	147	19%	141	15%	1767	15%	13	9%	
	3	428	63%	463	59%	54	33%	333	69%	814	69%	5789	72%	950	15%	
	4	462	68%	649	62%	68	38%	319	71%	968	73%	7190	72%	600	12%	
	5	366	63%	729	61%	58	36%	374	67%	981	69%	7762	68%	441	13%	
	6	319	58%	774	55%	51	29%	343	58%	850	60%	7483	60%	240	12%	
	7	227	48%	781	49%	65	36%	364	54%	703	51%	6527	49%	135	11%	
	8	234	52%	876	48%	41	26%	376	48%	690	50%	6951	51%	99	14%	
	11	99	39%	723	43%	39	26%	372	48%	343	38%	4685	40%	23	16%	
	3	193	28%	224	28%	19	11%	169	35%	332	28%	2493	31%	256	4%	
	4	226	33%	299	29%	34	19%	162	36%	438	33%	3465	35%	191	4%	
Scheduled extended time	5	175	30%	335	28%	22	14%	187	33%	432	30%	3494	31%	159	5%	
	6	149	27%	332	24%	22	13%	155	26%	354	25%	3203	26%	93	4%	
	7	81	17%	272	17%	16	9%	151	22%	188	14%	2249	17%	65	5%	
	8	74	17%	348	19%	15	9%	159	20%	227	17%	2378	17%	40	5%	
	11	59	23%	336	20%	33	22%	184	24%	122	13%	2043	17%	12	8%	

Table 9-11R (continued) Incidence of Test Accommodations Received for Selected Primary Disabilities on the 2008 PSSA: Reading

Type of Accommodation Received	Grade Level	Primary Disability of Assessed Student with an IEP: Number and Percent													
		Autism	Emotional Disturbance	Deafness / Hearing Impairment	Mental Retardation	Other Health Impairment	Specific Learning Disability	Speech or Language Impairment							
Student-requested extended time	3	17	2%	26	3%	6	4%	16	3%	33	3%	211	3%	51	1%
	4	33	5%	53	5%	8	4%	18	4%	56	4%	369	4%	82	2%
	5	32	5%	70	6%	7	4%	33	6%	57	4%	536	5%	85	2%
	6	41	7%	82	6%	10	6%	34	6%	87	6%	723	6%	65	3%
	7	37	8%	82	5%	19	11%	45	7%	84	6%	800	6%	57	5%
	8	60	13%	105	6%	9	6%	43	5%	91	7%	1030	7%	21	3%
	11	20	8%	103	6%	10	7%	57	7%	75	8%	892	8%	10	7%
	3	47	7%	71	9%	2	1%	40	8%	46	4%	481	6%	72	1%
Multiple test sessions	4	63	9%	103	10%	7	4%	31	7%	95	7%	664	7%	31	1%
	5	62	11%	111	9%	4	2%	36	6%	83	6%	643	6%	29	1%
	6	45	8%	117	8%	4	2%	38	6%	53	4%	620	5%	22	1%
	7	21	4%	128	8%	10	6%	29	4%	38	3%	413	3%	12	1%
	8	32	7%	149	8%	5	3%	44	6%	37	3%	487	3%	7	1%
	11	11	4%	116	7%	16	11%	50	6%	36	4%	405	3%	2	1%
	3	301	44%	310	39%	44	27%	293	61%	634	54%	4751	59%	572	9%
	4	332	49%	411	40%	50	28%	280	62%	746	56%	5951	60%	335	7%
Test items / questions read aloud or signed	5	233	40%	449	38%	46	29%	326	58%	677	48%	5918	52%	240	7%
	6	161	29%	360	26%	35	20%	272	46%	469	33%	4721	38%	116	6%
	7	58	12%	229	14%	30	17%	195	29%	266	19%	2810	21%	41	3%
	8	46	10%	226	12%	15	9%	202	26%	219	16%	2515	18%	28	4%
	11	6	2%	52	3%	9	6%	99	13%	38	4%	699	6%	3	2%

Note: Results displayed are for most frequently occurring accommodations and disability classifications

GLOSSARY OF ACCOMMODATIONS TERMS

Table 9–12 provides a brief description of accommodations terms as used in the PSSA. School personnel identified the accommodations that a student received by marking a bubble in the student answer document as seen in the left column. The right column contains an explanation abstracted from the *2008 Accommodations Guidelines* (PDE, 2008, pages 24-46).

Table 9–12. Glossary of Accommodations Terms as Applied in the PSSA

Type of Testing Accommodation	Explanation
Student used the following Presentation Accommodations (mark all that apply)	
Braille format	Students may use a Braille edition of the test. Answers must then be transcribed into the answer booklet without alteration.
Large print format	Students with visual impairments may use a large print edition. Answers must then be transcribed into the answer booklet without alteration.
Magnification device	Devices to magnify print may be used for students with visual impairments and or print disabilities.
Reading windows, reading guides	Students with visual impairments may use reading windows and reading guides in all assessments.
Sign language interpreter	Deaf/hearing impaired students may receive test directions from a qualified interpreter. Signing is also permitted for: essay prompts (writing), items/questions (math, science only).
Qualified interpreter for ELL student	An interpreter may translate directions or clarify instructions for the assessments. They may translate, not define specific words or test questions on the mathematics and science tests. On the reading test interpreters may only translate directions and may not translate or define words in the passage or test questions.
Test directions read aloud, signed, or recorded	Directions for all PSSA tests may be read aloud, signed or presented by audio recording.
Test items/questions read aloud or signed	Students unable to decode text visually may have items / questions read aloud for mathematics and science only; however, words may not be defined.
Test prompts recorded	Writing essay prompts may be presented by audio recording.
Electronic screen reader (PDE approval required)	Students with a severe visual disability may use an electronic screen reader; however, PDE must approve the program and functions prior to the test window.
Other (PDE approval required)	Other presentation accommodations indicated in the <i>Accommodation Guidelines</i> may be provided; however, PDE approval is required prior to the test window.
Spanish mathematics version	This version may be taken by students whose first language is Spanish and who have been enrolled in U.S. schools for fewer than 3 years.

Student used the following Response Accommodations (mark all that apply)	
Braille / Note taker (per <i>Accommodations Guidelines</i>)	Students using this device as part of their regular instructional program may use it on the PSSA; however, without thesaurus, spell- or grammar checker, etc.)
Test administrator scribed open-ended responses at student's direction	A test administrator may record word-for-word exactly what a student dictated directly into the PSSA test booklet. This includes MC and OE responses for reading, math and science. For writing, MC items and scribing one's own recorded essay.
Test administrator marked multiple-choice responses at student's direction	A test administrator may mark an answer booklet at the direction of a student. (e.g., a student may point to a multiple-choice answer with the test administrator marking the response in the answer booklet).
Test administrator transcribed (copied) student responses. (per <i>Accommodations Guidelines</i>)	For writing prompts the test administrator may transcribe handwriting that is extremely difficult to read. On reading, mathematics, or science illegible handwriting may be transcribed for open-ended items only.
Augmentative communication device	Students with severe communication difficulties may use a special device to convey responses, which must be transcribed into the test booklet by the test administrator.
Typewriter, word processor or computer (per <i>Accommodations Guidelines</i>)	An allowable accommodation as a typing function only for students with identified need. Supports such as dictionaries, thesauri, spell checkers and grammar checkers must be turned off. Answers must then be transcribed into the answer booklet without alteration.
Audio recording of student responses (per <i>Accommodations Guidelines</i>)	An electronic recording device may be used to record responses, which must be transcribed into the test booklet by the test administrator. [Students who are unable to use a pencil or have illegible handwriting may answer reading, mathematics, and writing multiple-choice questions orally. Answers must be recorded in the answer booklet without alteration during the testing period.]
Manipulative (Cranmer Abacus, number line)	An adaptive calculator or a Cranmer Abacus may be used for the calculator portion of the test only. Eligible students are only those with blindness, low vision, or partial sight.
Translation dictionary for ELL student	A word-to-word dictionary that translates native language to English (or vice versa) without word definitions or pictures is allowed on any portion of the mathematics test and open-ended section of the reading test (but not for the reading passage or multiple-choice items). Cannot be used on any section of the writing test.
Electronic screen reader (PDE approval required)	Students with blindness or extremely low vision may use computer software that converts text to synthesized speech or Braille.
Other (per <i>Accommodations Guidelines</i> or PDE approval)	Other accommodations may be appropriate and available if they do not compromise the integrity of the assessment. Documentation must be provided to PDE.

Table 9–13 (continued). Glossary of Accommodations Terms as Applied in the PSSA

Student used the following Setting Accommodations (<i>mark all that apply</i>)	
Hospital/home testing	A student who is confined to a hospital or to home during the testing window may be tested in that environment.
Tested in a separate setting	A separate room may be used to reduce distraction.
Small group testing	Some students may require a test setting with fewer students or a setting apart from all other students.
Student used the following Timing Accommodations (<i>mark all that apply</i>)	
Scheduled extended time	Extended time may be allotted for each section of the test as a planned accommodation to enable students to finish.
Student-requested extended time	A student may request extended time if working productively.
Multiple test sessions	Multiple test sessions (breaks within a test section) may be scheduled for the completion of each test section; however, a test section must be completed within one school day.
Changed test schedule	Students whose disabilities prevent them from following a regular, planned test schedule may follow an individual schedule, enabling test completion.

Chapter Ten: Form Analysis and Item Calibration

SAMPLING

In order to expedite the analysis process, a target sample of students was selected for use in calibrating items. The target sample was aimed to cover roughly 50% of the student population while preserving ethnic representation. This was done using random sampling without replacement at the district level for approximately 85% of the sample and at the school level for Pittsburgh and Philadelphia districts for approximately 15% of the sample based on 2007–2008 enrollment counts. In any given year, additional students end up being available before the calibration is scheduled to begin. If possible, the additional students are included in the analyses, provided there is time to ensure the demographic profile is similar to the original target sample.

TEST FORM STATISTICS

Table 10-1 contains an overview of the test-level data based on the complete set of common items in each subject area. Test length in total number of points (Pts.), mean number of points received (Mean), standard deviations (SD), test reliabilities (R), and traditional standard errors of measurement (SEM) are shown by grade and content area. These statistics are based on the total test using both multiple-choice and open-ended tasks for the common sections of each form. For each grade level except Grade 3, the common Reading section is comprised of 40 MC items and four (3-point) OE items for a maximum of 52 points. Grade 3 Reading is comprised of 40 MC items and two (3-point) OE items for a maximum of 46 points. Mathematics is comprised of 54 MC items and three (4-point) OE items for a maximum of 66 points. Both item types (MC and OE) are included in the calculation of total test reliability. Detailed item-level statistics for the common items can be found in Appendices L and M.

Test reliability is discussed in more detail in Chapter 13.

Table 10–1. 2008 Summary of Common Item Performances

Grade	Reading					Mathematics				
	Pts.	Mean	SD	R	SEM	Pts.	Mean	SD	R	SEM
3	46	30.64	8.87	0.90	2.81	66	55.00	9.91	0.92	2.79
4	52	33.93	9.82	0.90	3.07	66	44.29	13.25	0.93	3.60
5	52	34.57	9.80	0.91	3.00	66	43.39	14.08	0.93	3.67
6	52	34.54	9.60	0.90	3.01	66	42.96	13.85	0.93	3.56
7	52	34.12	10.04	0.91	3.03	66	41.59	13.40	0.92	3.69
8	52	33.58	10.13	0.91	3.03	66	44.17	13.54	0.93	3.53
11	52	34.82	9.28	0.90	2.93	66	42.01	14.33	0.94	3.63

The standard deviations shown in the table are for the standard deviations of observed scores. Assuming normally distributed scores, one would expect about two-thirds of the observations to be within one standard deviation of the mean. An estimate of the standard deviation of the true scores can be computed as $\hat{\sigma}_T = \sqrt{\hat{\sigma}_X^2 - \hat{\sigma}_X^2(1 - \hat{\rho}_{XX})}$. As an example, for Grade 5 Mathematics this would be $\sqrt{14.08^2 - 14.08^2(1 - .93)} = 13.58$.

The conditional standard error of measurement (CSEM) also indicates the degree of measurement error in score units, but as a function of one's actual test score. Therefore, the CSEM may be especially useful in characterizing measurement precision in the neighborhood of

a score level used for decision-making—such as cut scores for identifying students who meet a performance standard. The CSEMs for Reading and Mathematics are documented in Appendix P in the column labeled “Scaled Score SE.”

TRADITIONAL ITEM STATISTICS

Although all items were previously reviewed for both content and statistical quality, a thorough item analysis was conducted in the spring to ensure that the items and forms performed as expected. With any psychometric model, an item analysis is a search for unexpected results. For example, *more able*¹ students are expected to pass easy items and *less able* students are expected to fail difficult items. If either of these situations does not occur, the item should be reviewed to determine the nature of the problem and the characteristics of the students affected.

The most familiar indices of item performance are *proportion correct* (P-Value) and item discrimination. Discrimination for dichotomous items is typically represented by the *point-biserial correlation* coefficient. The correlation will have a positive value when the mean score of the students answering correctly is higher than the mean score of the students answering incorrectly. This indicates that students who did well on the total test tended to do well on this item. The index will take its maximum theoretical value of 1.0 if *every* student who answered the item correctly scored better on the test than *any* student who answered incorrectly².

The P-Value indicates an item's difficulty for some specified group (e.g. grade level). It is calculated as the proportion (sometimes percent) of students in the group who answer an item correctly. P-values range from 0.0 to 1.0 on the proportion scale. Lower values correspond to more difficult items and higher values correspond to easier items.

Table 10–2 provides some distributional indices for the P-Value and corrected point-biserial correlation (Pt. Bis.) for the multiple-choice items on the common form in each grade and content area.

In general, with the mean P-values ranging from about 0.67 – 0.87, the PSSA was reasonably challenging to most students; the exception being Grade 3 Mathematics, which seems to have been easier for students than other grade/subject pairs. With the median point-biserial correlations ranging from about 0.41 to 0.48, the overall item quality was quite good.

¹ Following the Rasch literature, *ability* is used in this discussion as a generic term for the construct that is being measured by the exam. *Competence, achievement, learning* and *status* are among the alternatives that are sometimes used, but are all subject to some degree of misinterpretation.

² It is legitimate to view the point biserial correlations as standardized means. A positive value means students who chose that response had a higher mean score than the average student; a negative value means students who chose that response had a lower than average mean score.

Table 10–2. Common Form Statistics by Grade and Content for Multiple-Choice Items

	Reading		Mathematics	
	P-Value	Pt. Bis.	P-Value	Pt. Bis.
Grade 3				
Minimum	0.432	0.295	0.601	0.310
Maximum	0.877	0.626	0.968	0.628
Mean	0.685	-	0.866	-
Median	0.687	0.443	0.875	0.436
Grade 4				
Minimum	0.308	0.226	0.428	0.320
Maximum	0.948	0.576	0.918	0.598
Mean	0.684	-	0.705	-
Median	0.731	0.433	0.714	0.435
Grade 5				
Minimum	0.443	0.253	0.411	0.308
Maximum	0.900	0.573	0.855	0.648
Mean	0.696	-	0.678	-
Median	0.677	0.452	0.685	0.454
Grade 6				
Minimum	0.359	0.295	0.427	0.249
Maximum	0.912	0.565	0.879	0.611
Mean	0.677	-	0.683	-
Median	0.688	0.419	0.688	0.479
Grade 7				
Minimum	0.466	0.258	0.355	0.148
Maximum	0.885	0.552	0.951	0.597
Mean	0.688	-	0.673	-
Median	0.711	0.435	0.661	0.445
Grade 8				
Minimum	0.416	0.291	0.420	0.281
Maximum	0.867	0.578	0.883	0.604
Mean	0.682	-	0.700	-
Median	0.699	0.443	0.714	0.460
Grade 11				
Minimum	0.348	0.283	0.397	0.309
Maximum	0.928	0.589	0.899	0.591
Mean	0.685	-	0.675	-
Median	0.680	0.414	0.680	0.470

RASCH ITEM STATISTICS AND SCALING

WINSTEPS[®] software, implementing the Rasch model, was used to obtain estimates of logit difficulties for both dichotomously- and polytomously-scored items. The parameters estimated for polytomous items are the *step difficulties* associated with the Masters Partial Credit model. This software is capable of handling all the item types currently in use with the PSSA. WINSTEPS[®] version 3.54 was used for all calibrations. See Wright and Masters (1982) and Rasch (1960) for further information about the models used for these analyses.

The Rasch model expresses item difficulty (and student ability) in units referred to as *logits*, rather than in percent correct. In the simplest case, a logit is a transformed P-Value with the average P-Value becoming a logit of zero. In this form, logits resemble z-scores or standard normal deviates; a very difficult item might have a logit of +4 and a very easy item might have a logit of -4. However, they have no formal relationship to the normal distribution.

The logit metric has several mathematical advantages over P-values. It is an interval scale, meaning that two items with logits of zero and one (respectively) are the *same distance* apart as items with logits of +3 and +4. Logits are not dependent on the ability level of the students. For example, a form can have a mean logit of zero, whether the average P-Value of the sample is 0.8 or 0.3.

The standard Rasch calibration procedure arbitrarily sets the mean difficulty of the items on any form at zero. Under normal circumstances where all students are administered a common set of items, any item with a P-Value lower than the average item on the form receives a positive logit difficulty and any item with a P-Value higher than the average receives a negative logit. Consequently, the logits for any calibration, whether it is a third grade Reading test or a high school Science test, relate to an arbitrary origin defined by the center of items on that form. The average third grade Reading item will have a logit of zero; the average high school science item will have a logit of zero. Logits for both item difficulties and student abilities are placed on the same scale and relate to the same mean item difficulty.

There are any number of other arbitrary choices that could be made for centering the item difficulties. Rather than using all the items, the origin could be defined by a subset. For the PSSA, all test forms in a particular grade and content area share a common block of items. The items on all forms can then be easily adjusted to a single (but still arbitrary) origin by defining the origin as the mean of the **common** items. With this done, the origins for all the forms will be statistically equal. For example, items on any two forms that are equally difficult will now have *statistically* equal logit difficulties.

During PSSA administration, test forms were spiraled within classrooms. In effect, students are administered the same set of common items but different field test or matrix sets. As a result, there are cross checks that are made to ensure the calibrations and links are reasonable across forms. The goal of spiraling is to achieve randomly equivalent samples of students across forms with equal standard deviations and arbitrary means. Any differences in performance observed among the groups should be due only to differences in form difficulty. After linking, the mean of the logit abilities should be statistically equal for each sample of students.

Because of the equivalent samples, common items should have the same P-values regardless of which form and sample is being considered. Also, for all items, both common and matrix, a plot of the relationship between the P-value and the logit should fall along a single, curved line. Figures 10-1 through 10-14 plot this relationship for common items. The curves are nearly linear

in the center, but curve towards asymptotes of one and zero, respectively, on the left and right. The graphs show that items with low P-values (indicating a more difficult item that fewer students answered correctly) also showed higher logit difficulty, and items with high P-values had lower logit difficulties (i.e., the two scales are inversely related). The spread of the graph points is indicative of the dispersion of item difficulties in the common items. The dispersion and coordinates of items are roughly similar across grades for both Reading and Mathematics (again, with the notable exception of grade 3 Mathematics, which as noted earlier had a relatively more homogeneous set of P-values with a higher mean).

Common OE items are also graphed in Figures 10-1 to 10-14. These items appear with triangle-shaped markers. The OE items generally fall on the same curve as the MC items but subtle differences can occur. The OE items were placed on the MC item difficulty (P-value) scale—which ranges from 0.00 to 1.00—by dividing the mean OE item score by the maximum OE score possible. Also, the MC items were calibrated concurrently. The OE items were placed on the MC scale in a separate step (i.e., MC items were concurrently calibrated, then anchored by programmatically fixing their values when the difficulties of OE items were estimated).

Figure 10–1. Grade 3 Reading

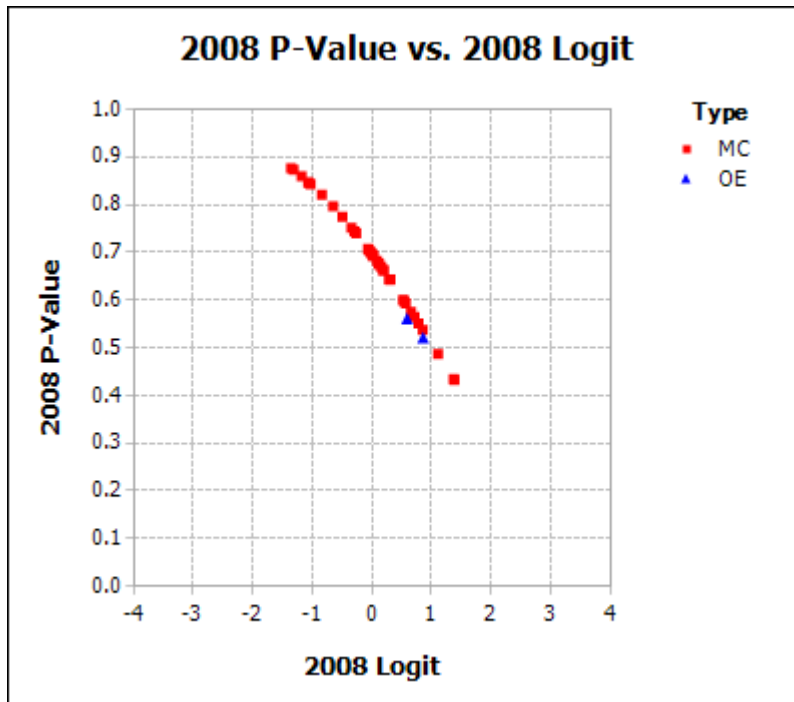


Figure 10–2. Grade 3 Mathematics

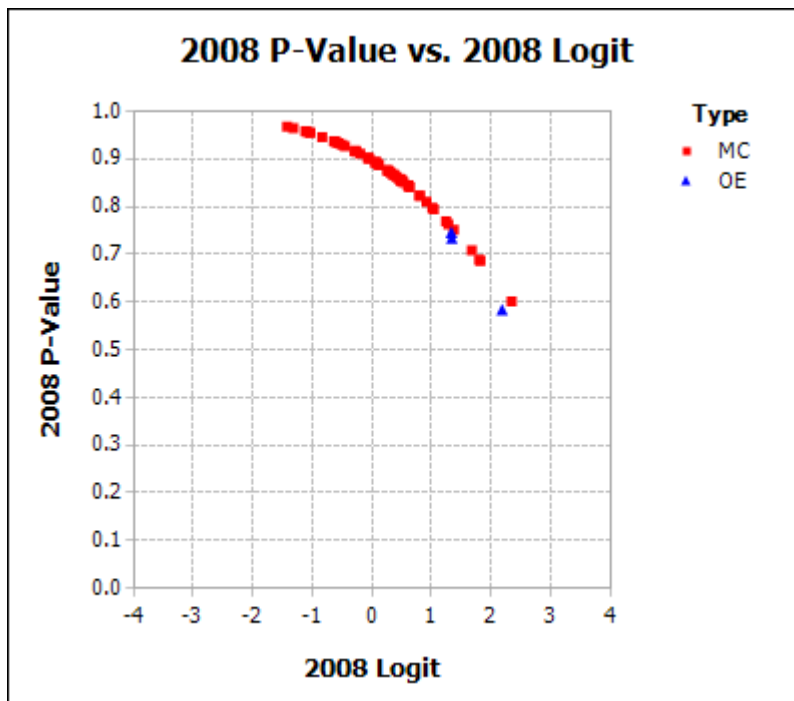


Figure 10–3. Grade 4 Reading

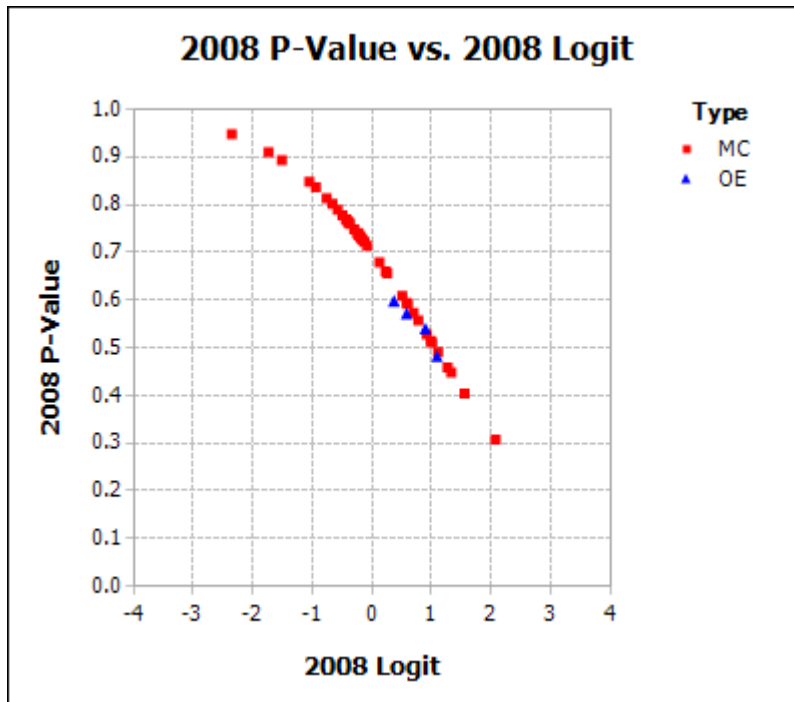


Figure 10–4. Grade 4 Mathematics

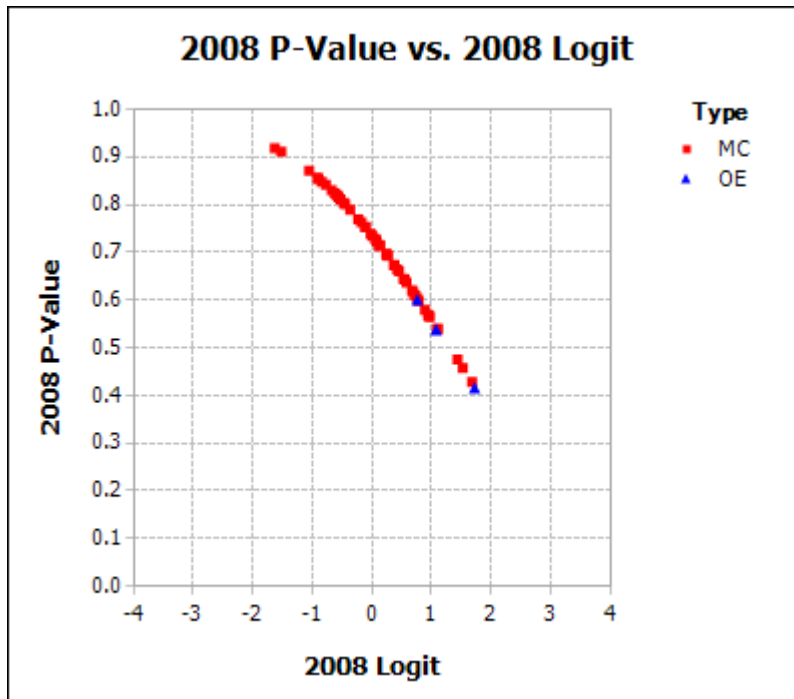


Figure 10–5. Grade 5 Reading

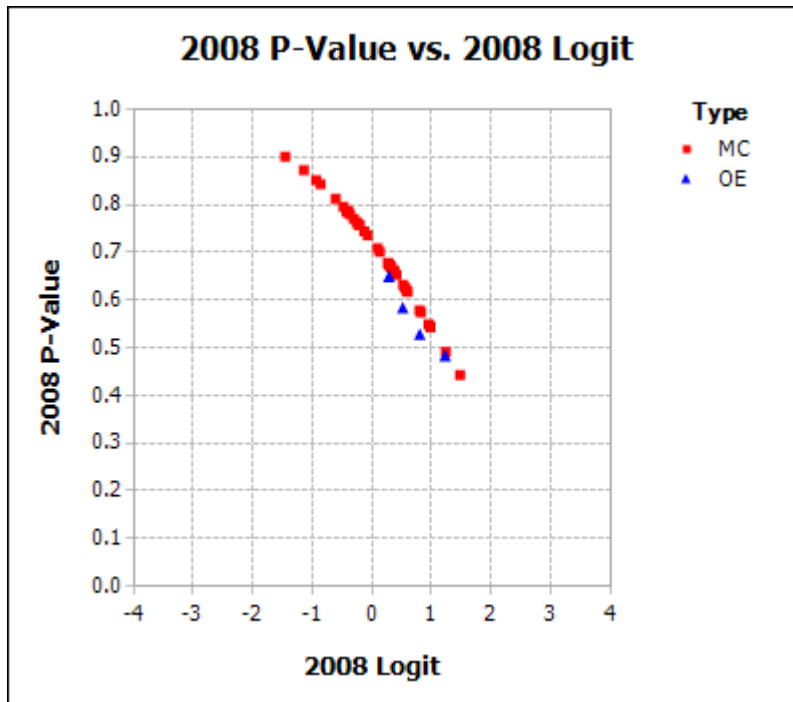


Figure 10–6. Grade 5 Mathematics

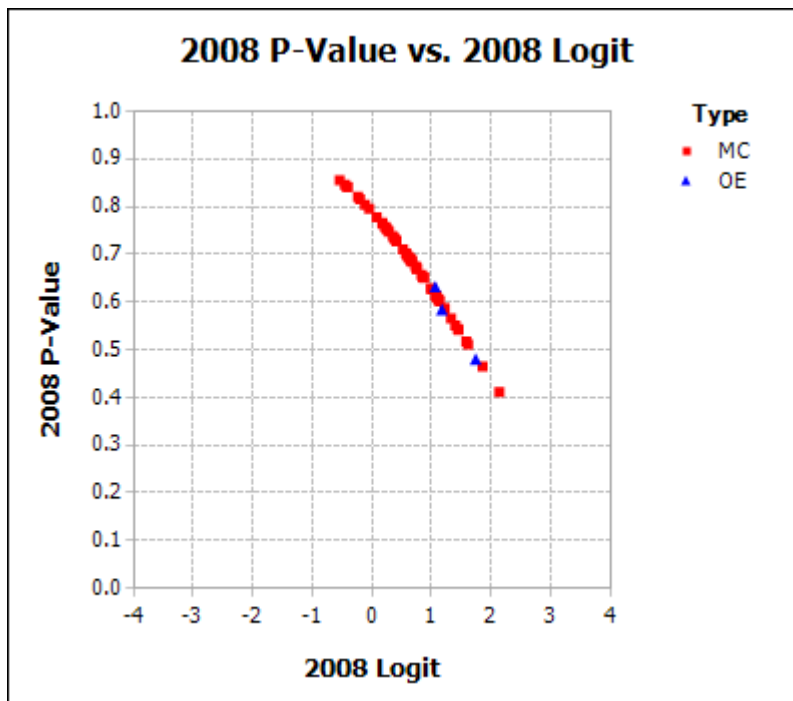


Figure 10–7. Grade 6 Reading

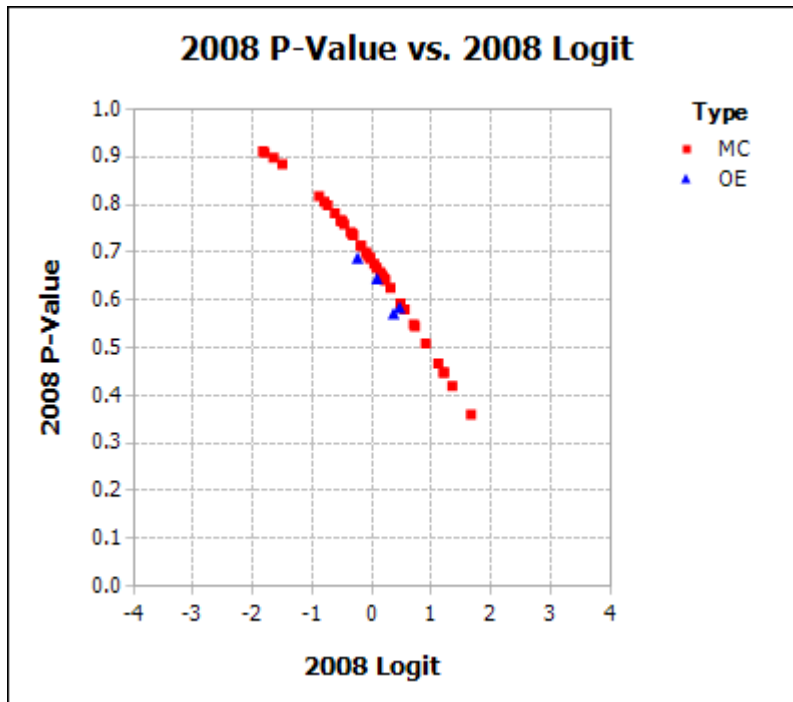


Figure 10–8. Grade 6 Mathematics

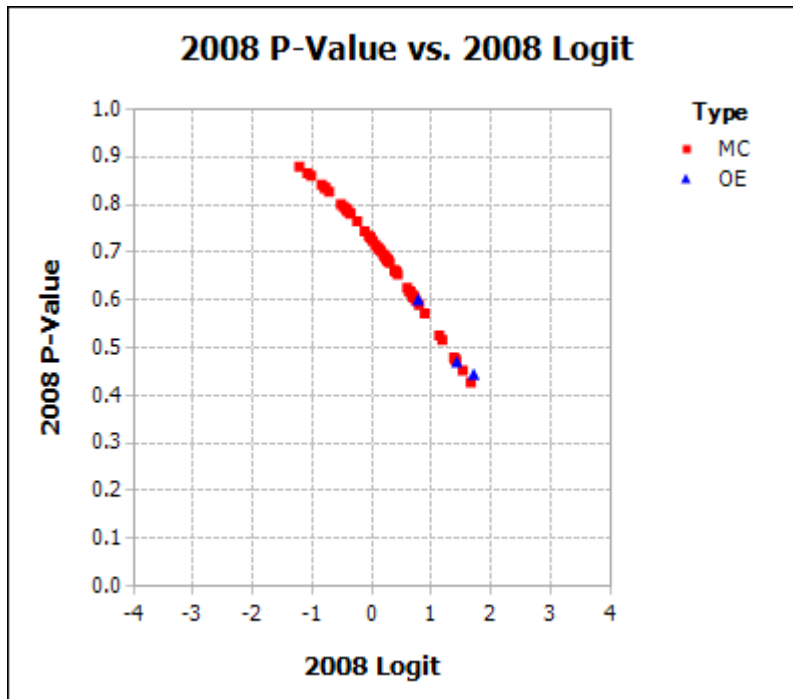


Figure 10–9. Grade 7 Reading

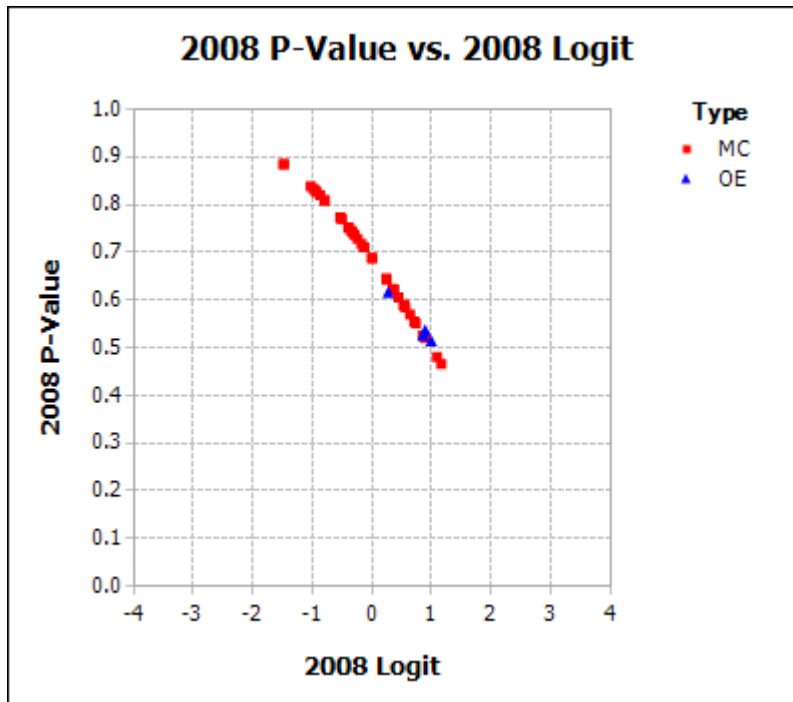


Figure 10–10. Grade 7 Mathematics

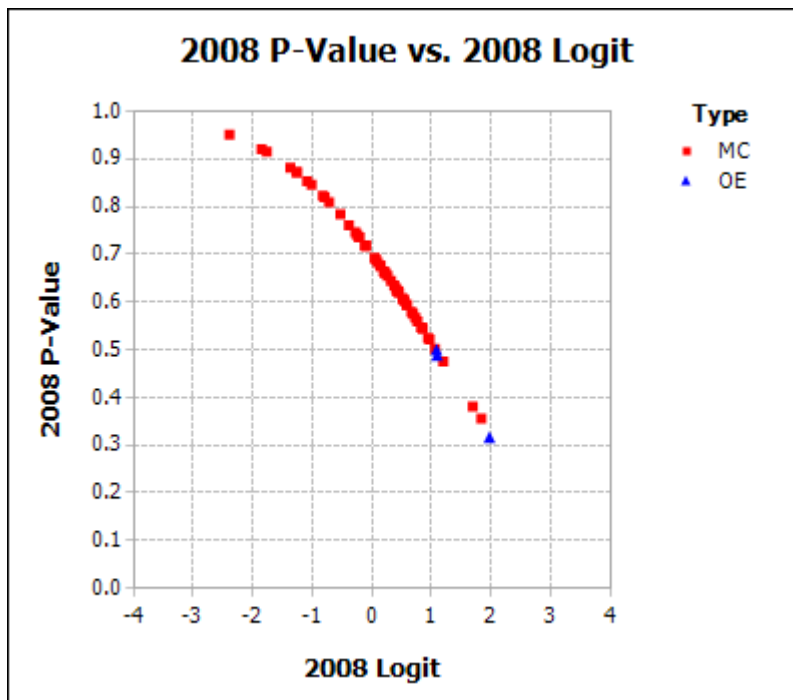


Figure 10–11. Grade 8 Reading

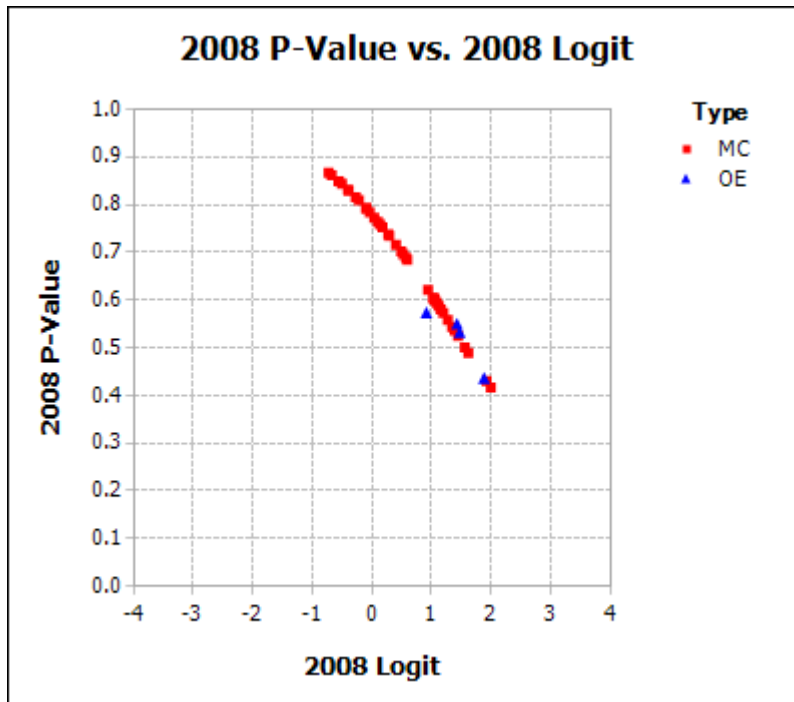


Figure 10–12. Grade 8 Mathematics

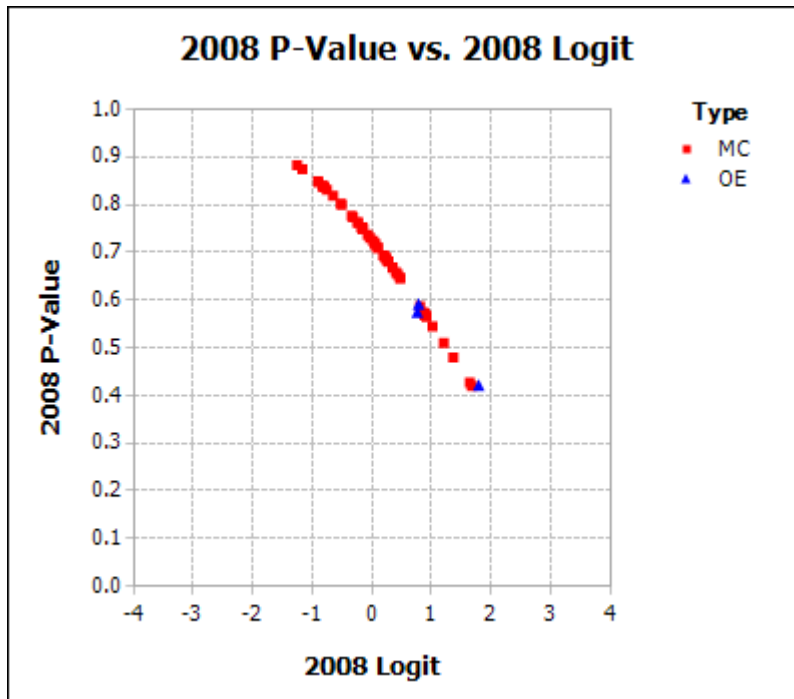


Figure 10–13. Grade 11 Reading

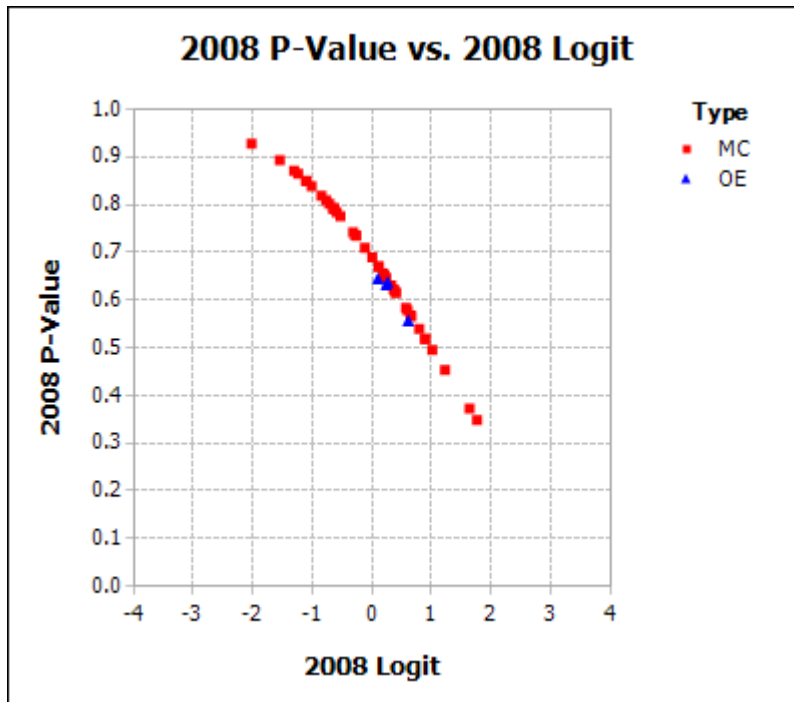
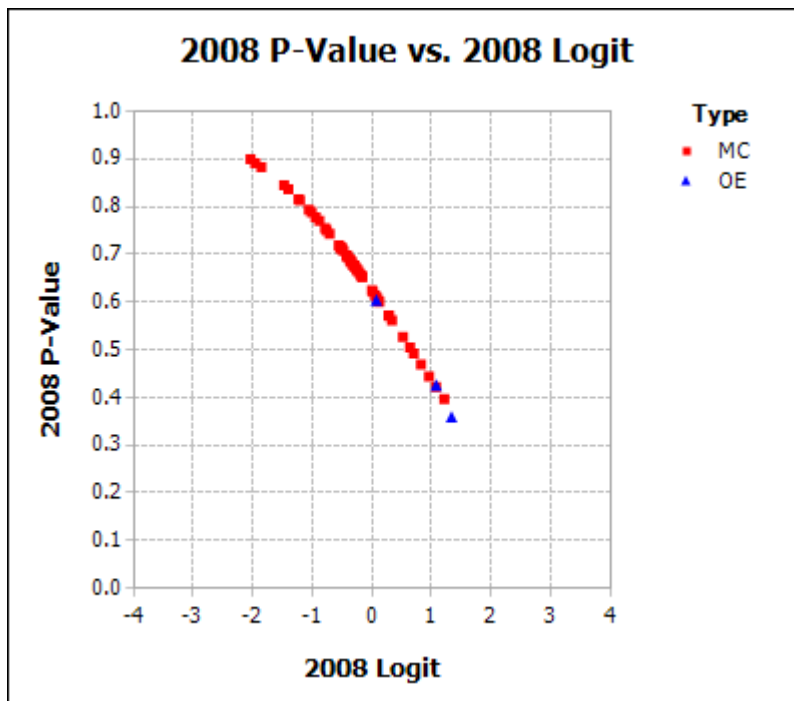


Figure 10–14. Grade 11 Mathematics



Below are the mean raw scores by form for the common items. In addition, the number of students (N), test length in total points (Pts.), minimum observed score (Min), maximum observed score (Max), median score (Median), and standard deviation (SD) are shown by form, grade, and content area. The extent to which the mean raw scores across forms are similar indicates the extent to which the student populations taking each form are of approximately equal ability. This equivalence of ability distributions across forms is the desired outcome of spiraling and allows for optimum analysis of the embedded field-test items.

Table 10–3. 2008 Summary Raw-Score Statistics for Common Items by Form

Grade 3														
Form	Reading							Mathematics						
	N	Pts.	Min	Max	Mean	Median	SD	N	Pts.	Min	Max	Mean	Median	SD
ALL	126402	46	1	46	30.64	33.0	8.87	126563	66	5	66	55.00	58.0	9.91
1³	8121	46	4	46	29.97	32.0	9.10	8153	66	5	66	54.28	58.0	10.51
2	7934	46	3	46	30.41	32.0	8.99	7940	66	7	66	54.69	58.0	10.23
3	7952	46	1	46	30.45	32.0	8.94	7960	66	5	66	54.88	58.0	10.05
4	7953	46	3	46	30.67	33.0	8.98	7963	66	9	66	54.90	58.0	9.98
5	7953	46	4	46	30.58	33.0	8.88	7959	66	8	66	55.02	58.0	9.93
6	7889	46	4	46	30.59	33.0	8.81	7895	66	8	66	55.11	58.0	9.68
7	7893	46	3	46	31.01	33.0	8.77	7897	66	7	66	55.37	59.0	9.73
8	7821	46	2	46	30.72	33.0	8.81	7828	66	9	66	55.14	58.0	9.79
9	7937	46	4	46	30.72	33.0	8.83	7948	66	9	66	55.12	58.0	9.79
10	7873	46	2	46	30.72	33.0	8.80	7887	66	7	66	55.08	58.0	9.87
11	7881	46	4	46	30.82	33.0	8.78	7887	66	10	66	55.06	58.0	9.77
12	7880	46	3	46	30.69	32.0	8.83	7891	66	10	66	55.05	58.0	9.76
13	7867	46	3	46	30.83	33.0	8.85	7878	66	7	66	55.11	58.0	9.86
14	7823	46	4	46	30.78	33.0	8.78	7830	66	8	66	55.20	58.0	9.80
15	7857	46	4	46	30.67	33.0	8.83	7867	66	8	66	55.07	58.0	9.78
16	7768	46	2	46	30.64	33.0	8.87	7780	66	8	66	54.99	58.0	9.96

³ For both reading and mathematics in all grades, Form 1 was used to generate modified versions (e.g., Large Print and Braille) of the common form; thus, the mean P-Values for these forms are somewhat lower.

Table 10–3 (continued). 2008 Summary Raw-Score Statistics for Common Item by Form

Grade 4														
Form	Reading							Mathematics						
	N	Pts.	Min	Max	Mean	Median	SD	N	Pts.	Min	Max	Mean	Median	SD
ALL	126266	52	3	52	33.93	36.0	9.82	126403	66	4	66	44.29	46.0	13.25
1 ³	6573	52	3	52	33.15	35.0	10.26	6593	66	6	66	43.28	45.0	13.61
2	6343	52	5	52	33.57	35.0	9.94	6351	66	5	66	43.77	46.0	13.31
3	6327	52	3	52	33.68	35.0	9.85	6334	66	7	66	44.02	46.0	13.24
4	6344	52	4	52	34.07	36.0	9.85	6350	66	7	66	44.19	46.0	13.31
5	6286	52	5	52	34.00	36.0	9.67	6293	66	7	66	44.46	47.0	13.18
6	6287	52	3	52	34.04	36.0	9.69	6296	66	4	66	44.48	47.0	13.16
7	6322	52	5	52	34.02	36.0	9.66	6328	66	5	66	44.49	47.0	13.04
8	6284	52	4	52	34.23	36.0	9.71	6295	66	6	66	44.38	47.0	13.16
9	6309	52	3	52	33.94	36.0	9.82	6315	66	7	66	44.19	46.0	13.32
10	6260	52	4	52	33.95	36.0	9.77	6264	66	4	66	44.24	47.0	13.26
11	6337	52	5	52	33.96	36.0	9.83	6338	66	7	66	44.29	47.0	13.36
12	6322	52	5	52	34.04	36.0	9.96	6324	66	6	66	44.51	47.0	13.35
13	6272	52	3	52	33.95	36.0	9.85	6275	66	6	66	44.52	47.0	13.22
14	6320	52	5	52	34.21	36.0	9.72	6320	66	7	66	44.57	47.0	13.15
15	6273	52	5	52	33.83	36.0	9.90	6278	66	6	66	44.05	46.0	13.39
16	6290	52	4	52	33.99	36.0	9.77	6293	66	4	66	44.41	46.0	13.20
17	6281	52	3	52	33.83	36.0	9.86	6292	66	6	66	44.25	47.0	13.18
18	6271	52	4	52	34.03	36.0	9.68	6274	66	6	66	44.38	47.0	13.12
19	6292	52	4	52	34.04	36.0	9.75	6305	66	5	66	44.60	47.0	13.21
20	6273	52	5	52	34.13	36.0	9.69	6285	66	6	66	44.66	47.0	13.10

Grade 5														
Form	Reading							Mathematics						
	N	Pts.	Min	Max	Mean	Median	SD	N	Pts.	Min	Max	Mean	Median	SD
ALL	127189	52	2	52	34.57	37.0	9.80	127302	66	4	66	43.39	46.0	14.08
1 ³	6687	52	2	52	33.40	36.0	10.35	6708	66	5	66	42.06	44.0	14.59
2	6384	52	5	52	34.33	36.0	10.02	6387	66	6	66	43.13	45.0	14.19
3	6350	52	3	52	34.22	36.0	10.11	6354	66	4	66	43.07	46.0	14.39
4	6326	52	5	52	34.41	37.0	9.96	6334	66	5	66	43.21	46.0	14.13
5	6371	52	4	52	34.48	37.0	9.95	6376	66	6	66	43.16	45.0	14.15
6	6331	52	2	52	34.62	37.0	9.81	6334	66	4	66	43.18	45.0	14.06
7	6364	52	4	52	34.61	37.0	9.74	6373	66	6	66	43.67	46.0	14.07
8	6334	52	4	52	34.60	37.0	9.71	6339	66	5	66	43.55	46.0	14.04
9	6337	52	4	52	34.72	37.0	9.69	6339	66	6	66	43.73	46.0	13.93
10	6316	52	4	52	34.57	37.0	9.80	6317	66	7	66	43.55	46.0	14.11
11	6338	52	3	52	34.61	37.0	9.82	6345	66	5	66	43.51	46.0	14.06
12	6345	52	5	52	34.50	37.0	9.80	6350	66	4	66	43.45	46.0	13.92
13	6333	52	4	52	34.72	37.0	9.50	6342	66	7	66	43.55	46.0	13.89
14	6322	52	4	52	34.76	37.0	9.60	6324	66	5	66	43.62	46.0	13.86
15	6333	52	4	52	34.80	37.0	9.61	6338	66	6	66	43.57	46.0	14.07
16	6343	52	5	52	34.93	37.0	9.60	6352	66	5	66	43.74	46.0	13.91
17	6327	52	3	52	34.86	37.0	9.59	6331	66	7	66	43.44	46.0	13.84
18	6342	52	3	52	34.75	37.0	9.79	6343	66	6	66	43.70	46.0	14.15
19	6380	52	3	52	34.78	37.0	9.75	6381	66	6	66	43.60	46.0	14.11
20	6326	52	4	52	34.79	37.0	9.61	6335	66	4	66	43.42	46.0	14.01

Table 10–3 (continued). 2008 Summary Raw-Score Statistics for Common Item by Form

Form	Grade 6													
	Reading							Mathematics						
	N	Pts.	Min	Max	Mean	Median	SD	N	Pts.	Min	Max	Mean	Median	SD
ALL	130692	52	2	52	34.54	36.0	9.60	130839	66	3	66	42.96	45.0	13.85
1 ³	6876	52	4	52	33.40	35.0	10.18	6895	66	3	66	41.51	44.0	14.41
2	6521	52	4	51	34.14	36.0	9.67	6528	66	4	66	42.62	45.0	13.98
3	6480	52	7	52	34.25	36.0	9.75	6487	66	6	66	42.69	45.0	14.00
4	6505	52	2	52	34.39	36.0	9.71	6513	66	5	66	42.72	45.0	13.96
5	6500	52	2	52	34.63	36.0	9.51	6507	66	6	66	43.09	45.0	13.79
6	6515	52	4	52	34.66	36.0	9.42	6517	66	7	66	43.16	45.0	13.71
7	6518	52	3	52	34.69	36.0	9.52	6524	66	5	66	43.00	45.0	13.67
8	6517	52	5	52	34.45	36.0	9.65	6521	66	7	66	42.89	45.0	13.76
9	6498	52	4	52	34.72	37.0	9.41	6501	66	5	66	43.10	45.0	13.77
10	6559	52	5	52	34.74	36.0	9.45	6567	66	7	66	43.15	45.0	13.76
11	6552	52	6	52	34.78	37.0	9.46	6562	66	4	66	43.47	46.0	13.59
12	6551	52	3	52	34.64	37.0	9.62	6557	66	4	66	43.03	45.0	13.83
13	6533	52	4	52	34.43	36.0	9.67	6539	66	4	66	42.95	45.0	13.85
14	6530	52	4	52	34.59	36.0	9.68	6540	66	4	66	42.89	45.0	14.02
15	6515	52	6	52	34.76	37.0	9.52	6521	66	5	66	43.16	46.0	13.79
16	6538	52	2	52	34.69	36.0	9.48	6540	66	3	66	43.21	46.0	13.87
17	6511	52	4	52	34.73	36.0	9.46	6517	66	4	66	43.12	45.0	13.82
18	6488	52	5	52	34.88	37.0	9.54	6502	66	6	66	43.39	45.0	13.59
19	6491	52	3	52	34.66	36.0	9.57	6498	66	4	66	43.20	45.5	13.76
20	6494	52	5	52	34.63	36.0	9.46	6503	66	5	66	42.91	46.0	13.84

Form	Grade 7													
	Reading							Mathematics						
	N	Pts.	Min	Max	Mean	Median	SD	N	Pts.	Min	Max	Mean	Median	SD
ALL	135641	52	2	52	34.12	36.0	10.04	135784	66	4	66	41.59	43.0	13.40
1 ³	7104	52	4	52	33.05	35.0	10.60	7121	66	5	66	40.68	42.0	13.98
2	6785	52	5	52	33.86	36.0	10.09	6796	66	5	66	41.45	43.0	13.45
3	6780	52	2	52	34.03	36.0	10.10	6791	66	8	66	41.54	43.0	13.50
4	6755	52	5	52	34.05	36.0	10.19	6761	66	6	66	41.48	43.0	13.39
5	6764	52	6	52	34.12	36.0	10.11	6770	66	7	66	41.41	43.0	13.56
6	6746	52	3	52	34.15	36.0	10.16	6750	66	7	66	41.73	43.0	13.35
7	6744	52	5	52	34.19	36.0	9.90	6751	66	6	66	41.66	43.0	13.33
8	6759	52	2	52	34.19	36.0	10.03	6761	66	6	66	41.50	43.0	13.37
9	6770	52	3	52	34.25	36.0	10.01	6779	66	4	66	41.60	43.0	13.45
10	6765	52	3	52	34.17	36.0	10.01	6772	66	7	66	41.64	43.0	13.44
11	6811	52	4	52	34.07	36.0	9.94	6819	66	5	66	41.53	43.0	13.36
12	6773	52	4	52	34.22	36.0	10.00	6785	66	7	66	41.59	43.0	13.41
13	6807	52	3	52	34.21	36.0	9.99	6809	66	6	66	41.59	43.0	13.29
14	6789	52	4	52	34.17	36.0	10.03	6794	66	6	66	41.41	43.0	13.39
15	6794	52	5	52	34.36	36.0	9.83	6797	66	7	66	42.10	43.0	13.15
16	6759	52	2	52	34.25	36.0	9.84	6760	66	7	66	41.80	43.0	13.34
17	6743	52	4	52	34.23	36.0	10.02	6753	66	8	66	41.86	43.0	13.24
18	6741	52	5	52	34.30	36.0	10.00	6749	66	7	66	41.66	43.0	13.45
19	6729	52	4	52	34.22	36.0	9.96	6739	66	7	66	41.74	43.0	13.18
20	6723	52	3	52	34.44	36.0	9.97	6727	66	7	66	41.80	43.0	13.36

Table 10–3 (continued). 2008 Summary Raw-Score Statistics for Common Item by Form

Grade 8														
Form	Reading							Mathematics						
	N	Pts.	Min	Max	Mean	Median	SD	N	Pts.	Min	Max	Mean	Median	SD
ALL	138339	52	1	52	33.58	36.0	10.13	138545	66	3	66	44.17	47.0	13.54
1 ³	7264	52	2	52	32.66	35.0	10.68	7276	66	7	66	43.11	46.0	14.04
2	6900	52	4	52	33.42	36.0	10.17	6898	66	7	66	43.98	46.0	13.55
3	6873	52	4	52	33.48	36.0	10.31	6890	66	7	66	43.83	47.0	13.74
4	6905	52	2	52	33.36	35.0	10.20	6910	66	6	66	43.96	47.0	13.56
5	6905	52	4	52	33.38	35.0	10.22	6914	66	5	66	43.89	46.0	13.57
6	6921	52	3	52	33.66	36.0	10.06	6926	66	5	66	44.21	47.0	13.49
7	6895	52	3	52	33.85	36.0	9.98	6903	66	5	66	44.34	47.0	13.44
8	6903	52	1	52	33.69	36.0	10.08	6917	66	5	66	44.29	47.0	13.33
9	6921	52	2	52	33.68	36.0	10.05	6931	66	3	66	44.42	47.0	13.42
10	6904	52	3	52	33.65	36.0	10.08	6913	66	6	66	44.34	47.0	13.58
11	6910	52	4	52	33.61	36.0	10.11	6919	66	3	66	44.19	47.0	13.52
12	6877	52	4	52	33.69	36.0	10.02	6891	66	5	66	44.34	47.0	13.50
13	6860	52	2	52	33.79	36.0	10.01	6882	66	5	66	44.42	47.0	13.41
14	6923	52	3	52	33.58	35.0	10.13	6932	66	7	66	44.34	47.0	13.46
15	6912	52	3	52	33.51	35.0	10.19	6922	66	5	66	44.05	47.0	13.65
16	6921	52	5	52	33.63	36.0	10.08	6932	66	6	66	44.12	47.0	13.55
17	6906	52	5	52	33.79	36.0	9.96	6925	66	6	66	44.56	47.0	13.37
18	6903	52	5	52	33.86	36.0	9.91	6912	66	6	66	44.49	47.0	13.42
19	6862	52	4	52	33.57	35.0	10.04	6870	66	5	66	44.21	47.0	13.48
20	6874	52	4	52	33.75	36.0	10.17	6882	66	7	66	44.38	47.0	13.56

Grade 11														
Form	Reading							Mathematics						
	N	Pts.	Min	Max	Mean	Median	SD	N	Pts.	Min	Max	Mean	Median	SD
ALL	134984	52	1	52	34.82	36.0	9.28	135120	66	2	66	42.00	44.0	14.33
1 ³	7038	52	4	52	34.16	36.0	9.65	7061	66	3	66	41.27	43.0	14.70
2	6729	52	5	52	34.85	36.0	9.25	6732	66	5	66	42.14	44.0	14.32
3	6738	52	6	52	34.96	37.0	9.20	6753	66	6	66	42.02	44.0	14.17
4	6733	52	3	52	34.92	37.0	9.26	6739	66	5	66	42.14	44.0	14.43
5	6749	52	1	52	34.90	37.0	9.29	6751	66	4	66	42.09	44.0	14.33
6	6764	52	4	52	34.73	36.0	9.25	6770	66	7	66	41.80	44.0	14.27
7	6729	52	3	52	34.69	36.0	9.30	6741	66	6	66	41.96	44.0	14.38
8	6749	52	4	52	34.73	36.0	9.36	6749	66	3	66	41.91	44.0	14.33
9	6742	52	3	52	34.83	36.0	9.19	6740	66	4	66	41.88	44.0	14.27
10	6737	52	3	52	34.85	37.0	9.29	6745	66	6	66	41.86	44.0	14.52
11	6738	52	2	52	34.79	36.0	9.30	6744	66	5	66	41.95	44.0	14.40
12	6727	52	4	52	34.66	36.0	9.27	6735	66	2	66	41.98	44.0	14.32
13	6765	52	4	52	34.89	37.0	9.22	6773	66	6	66	42.00	44.0	14.35
14	6729	52	1	52	34.77	36.0	9.35	6732	66	5	66	42.07	44.0	14.38
15	6744	52	4	52	34.85	36.0	9.14	6752	66	4	66	42.08	44.0	14.20
16	6711	52	5	52	35.03	37.0	9.20	6715	66	5	66	42.33	44.0	14.32
17	6731	52	2	52	35.01	37.0	9.26	6738	66	6	66	42.19	44.0	14.17
18	6733	52	5	52	34.81	36.0	9.21	6740	66	4	66	41.98	44.0	14.26
19	6712	52	6	52	34.92	36.0	9.30	6716	66	6	66	42.32	44.0	14.30
20	6686	52	1	52	35.03	37.0	9.20	6694	66	5	66	42.10	44.0	14.22

Chapter Eleven: Linking

Rasch model linking of the exam for the current year to the exam for previous years is just as straightforward as linking forms within year. However, the student samples are not equivalent across years and identical items can have different properties in different years because of changes in the item's context or changes in the students' experiences. Consequently, between-year linking requires more scrutiny than within-year linking.

The link between years is based on items that are used in both years in approximately the same context. The *same context* in this situation means the items are not altered in any way, they appear in about the same position in the booklet, and they are administered at about the same time of year.

A transitional matrix-to-matrix section linking plan was used to measure growth. This was based on the recommendation of the national technical advisory committee in collaboration with PDE and DRC staff. This link was accomplished via intact matrix sections with a subset of linking items present on all Mathematics forms. Item level statistics for the linking items can be found in Appendix O.

For *within-year* linking, the procedure is to link forms via the common section. The result is a bank of items with comparable logit difficulties. For *between-year* linking, the procedure is to link the current year's test to the previous years' tests.

1. Linking items are identified.
2. The logit difficulties of all items are adjusted in the current year's bank so that the mean 2008 logit difficulty for the linking items and weights is equal to the mean 2007 logit difficulty and weights for the same items.
3. The validity of the link is assessed by identifying any items that do not maintain their relative position across years.

Since the linking process forces the current logit difficulties for the linking items to have the same mean as the previous logit difficulties for these same items, the current-year logits will be *displaced* from their estimates obtained from an independent calibration. The size of the displacements reflects the difference, if any, in the origins. The variation among the displacements corresponds to the approximate size of the standard errors for the items.

Plotting P-values against logit difficulties across year is not as reliable as it is within year. Using spiraled forms within year, a given P-value will translate to a given logit regardless of the form it is used on, within the limits of statistical precision. Within year, the P-value-to-logit plot should be a single curved line; between years, the plot could have separate lines for each year. The difference between the two lines is a reflection of the adjustment (positive or negative) that is required to link the two item tests. The following sections show the linking results by grade and subject. The data used included all students who attempted a subject at the time of the linking process. This was the same set of data presented to the TAC prior to the release of results.

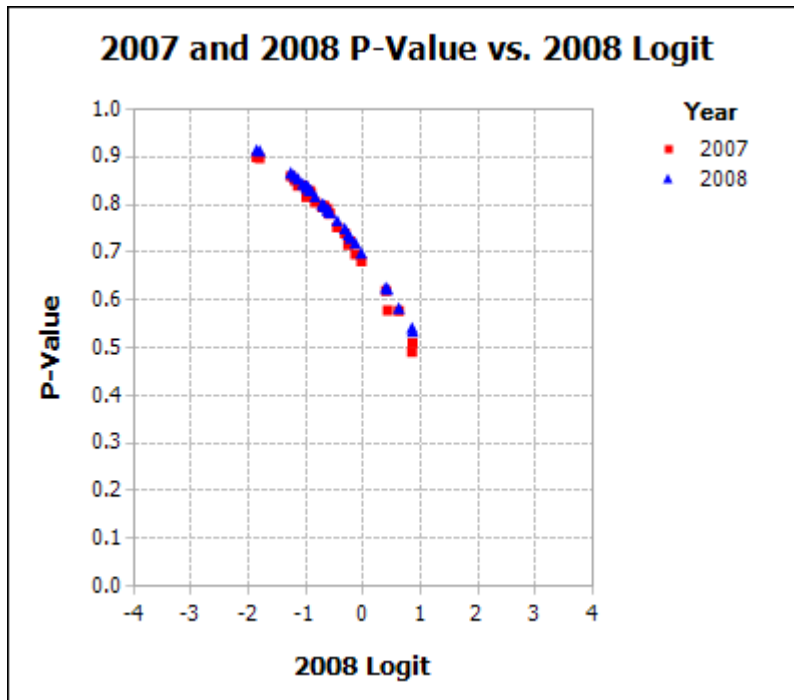
This Technical Report emphasizes figures to help one visualize the across-year differences in linking items. Some of the linking items were not used to determine the final linking adjustments. These items are not included in the following graphs. As a consequence, some graphs will have fewer MC and/or OE items than expected.

GRADE 3: READING

In Figure 11–1, the two lines sloping downward toward the right relate item P-values for the two years to the 2008 logit difficulties. These graphs have some similarity with the set of graphs that were part of Figure 10 (10-1 to 10-14) in the last chapter. Both show the P-value-on-Logit relationship, with Figure 10 showing the current year P-values for operational core items while Figure 11 shows P-values for linking items from the current year and the prior year. Both illustrate the curvilinear relationship required by the model, with low P-values being translated into high logit difficulties and high P-values into low difficulties.

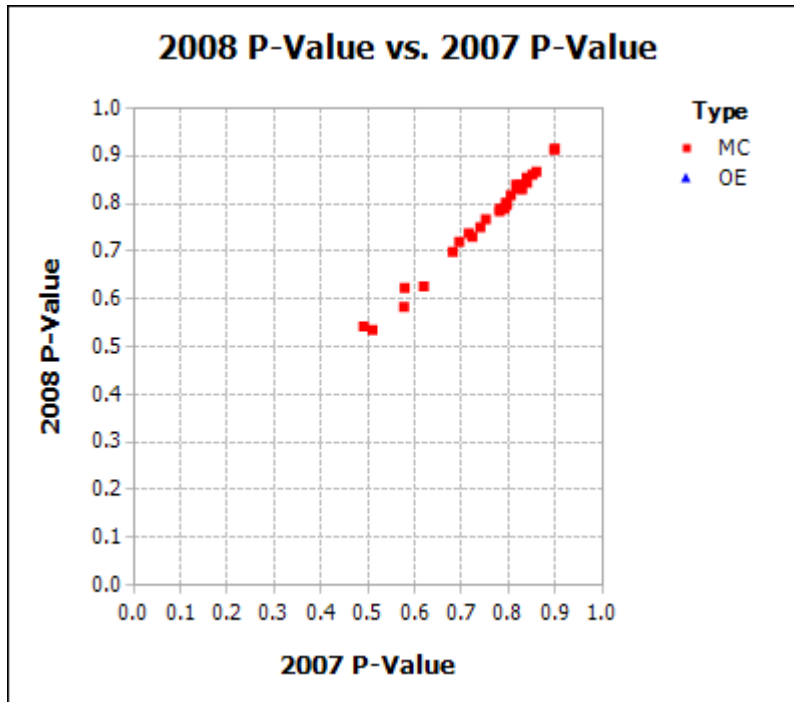
To bolster the number of linking items, different sets of linking items were included on different forms. Because the forms were spiraled within classroom, the samples generated are randomly equivalent and one would expect the same P-value to translate into roughly the same logit, with some random variation expected. This is the case with these data as the relative smoothness of this curve indicates very good agreement among the forms.

Figure 11–1. Grade 3 Reading



In Figure 11–2, the trend, rising from left to right, describes the item P-values⁴ for the two years (the clusters of points reflect items which were used on multiple matrix forms). If the P-values for both years are correlated at 1.0, one would expect the relationship to fall on a straight line. Generally, linking items are not perfectly stable across years, so some scatter is expected. The figure below shows excellent cross-year stability. The extent to which the trend does not pass through the origin indicates a change in student performance.

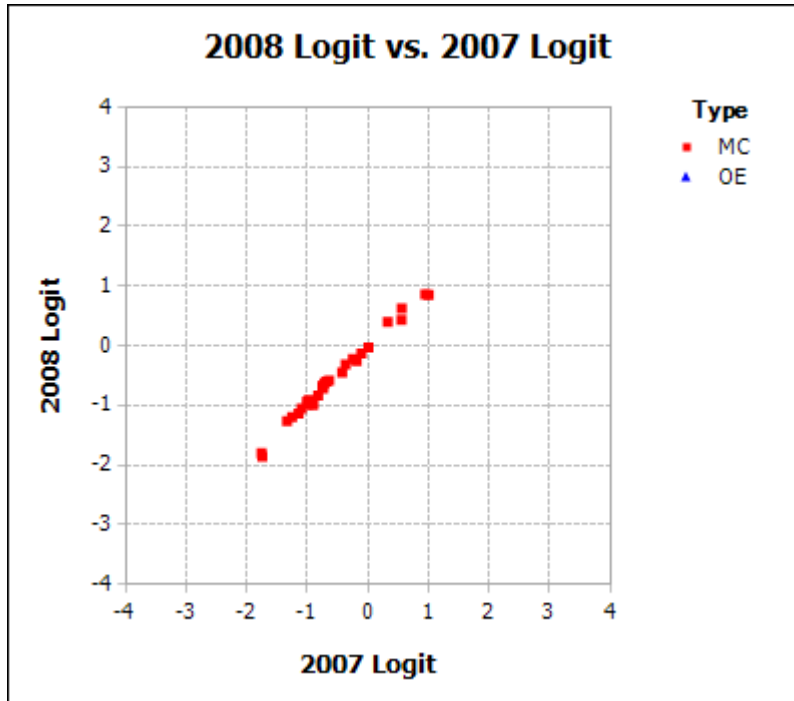
Figure 11–2. Grade 3 Reading



⁴ Many test score users are familiar with the P-value metric, which is why these charts are provided. However, the logit charts, as on the following page, have some advantages for visualizing this trend data.

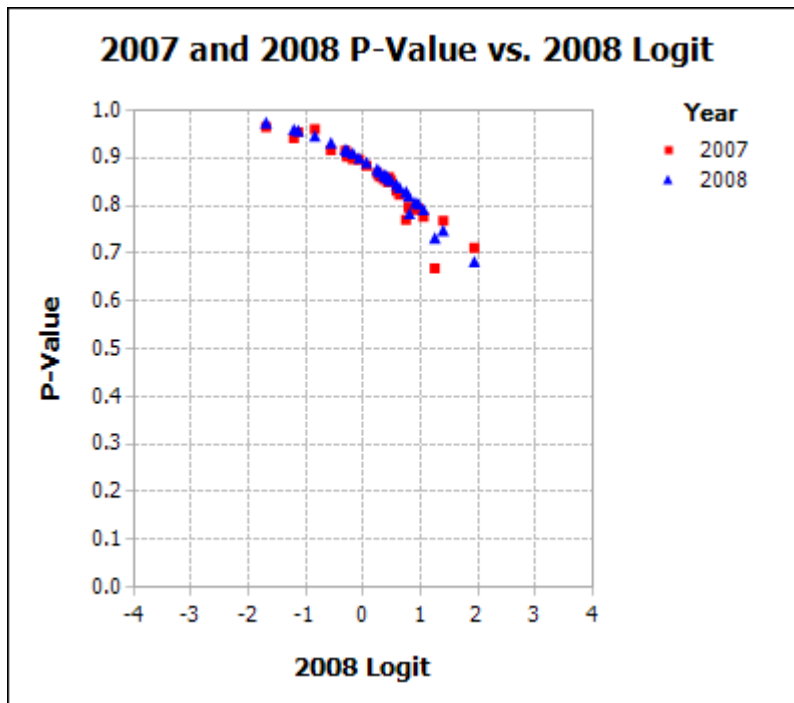
Figure 11–3 below uses the same data as Figure 11-1 and 11-2, but focuses entirely on logit difficulties. It shows more clearly the relationship between 2008 logits and 2007 logits. Logit plots often provide more defined trends, but still can present varying degrees of scatter and in some instances reveal “outlier” data points. As with the associated P-value plot, this figure suggest excellent cross-year stability

Figure 11–3. Grade 3 Reading



GRADE 3: MATHEMATICS

In Figure 11–4, the two lines sloping downward toward the right relate item P-values for the two years to the 2008 logit difficulties. They show the curvilinear relationship required by the model, with low P-values being translated into high logit difficulties and high P-values into low difficulties. The relative smoothness of this line indicates good agreement among the forms. Because the forms were spiraled within classroom, the samples generated are randomly equivalent and one would expect the same P-value to translate into the same logit. This was generally the case with these data, but as noted earlier some random fluctuation is expected.

Figure 11–4. Grade 3 Mathematics

The trend, rising from left to right in Figure 11–5, describes the relationship between item P-values in the two years. If the P-values for both years are correlated at 1.0, one would expect the relationship to form a straight line. The extent to which the best fit line does not pass through the origin indicates a change in student performance.

Figure 11–5. Grade 3 Mathematics

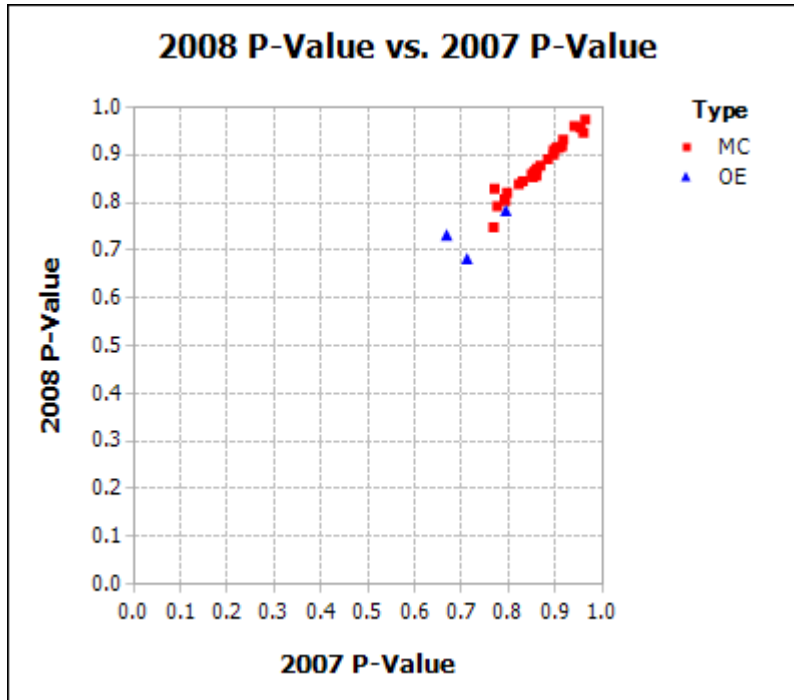
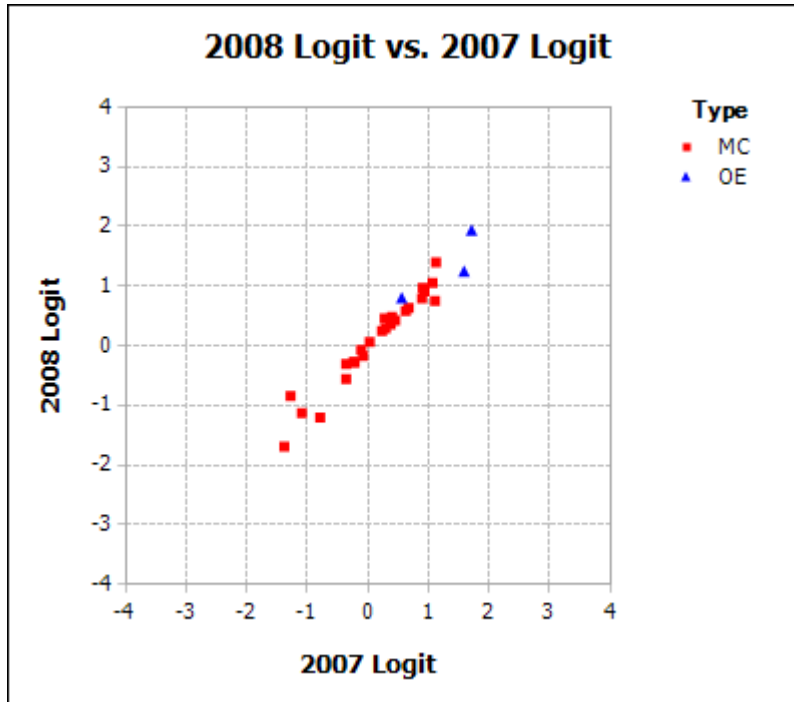


Figure 11–6 below uses the same data as Figure 11-4 and 11-5, but focuses entirely on logit difficulties. It shows more clearly the relationship between 2008 logits and 2007 logits. As with the associated P-value plot, a strong but imperfect linear trend is illustrated.

Figure 11–6. Grade 3 Mathematics



GRADES 4 THROUGH 11: READING

Similar cross-year linking analyses were performed for Grades 4 through 11 and are shown in the plots below. Again, the graphs show the curvilinear relationship required by the model, with low P-values being translated into high logit difficulties and high P-values into low difficulties. The general smoothness of this line indicates good agreement among the forms. The results were somewhat similar to Grade 3 Reading plots, but in some cases there is slightly more noise present in the links. As noted then, some variability is expected, so it is not unusual for some plots to appear relatively more linear than others.

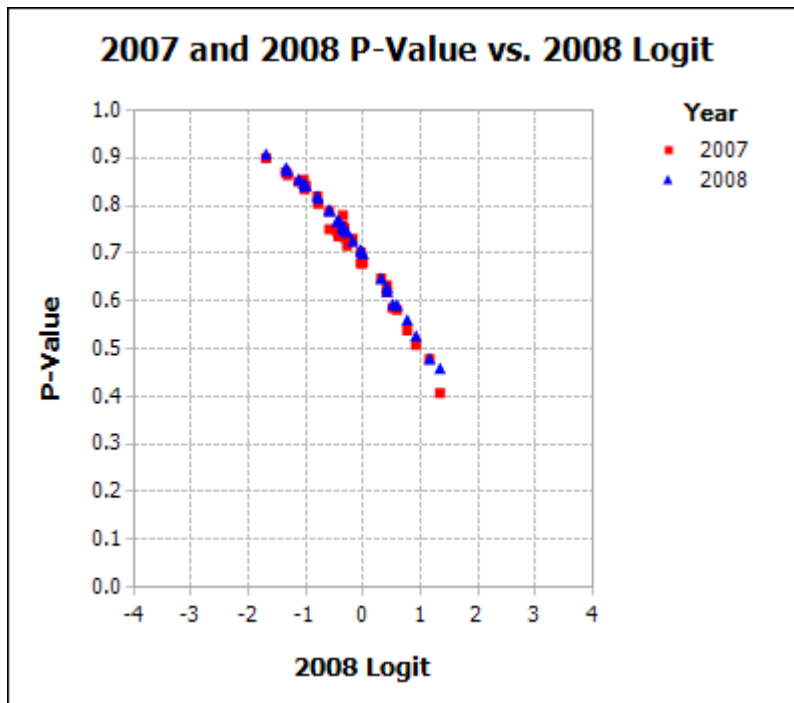
Figure 11–7. Grade 4 Reading

Figure 11–8. Grade 4 Reading

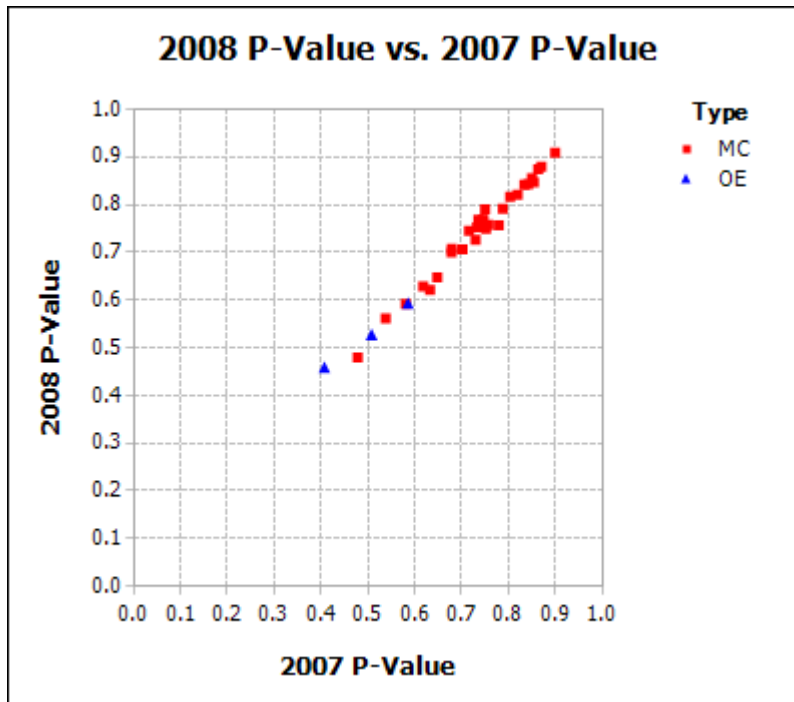


Figure 11–9. Grade 4 Reading

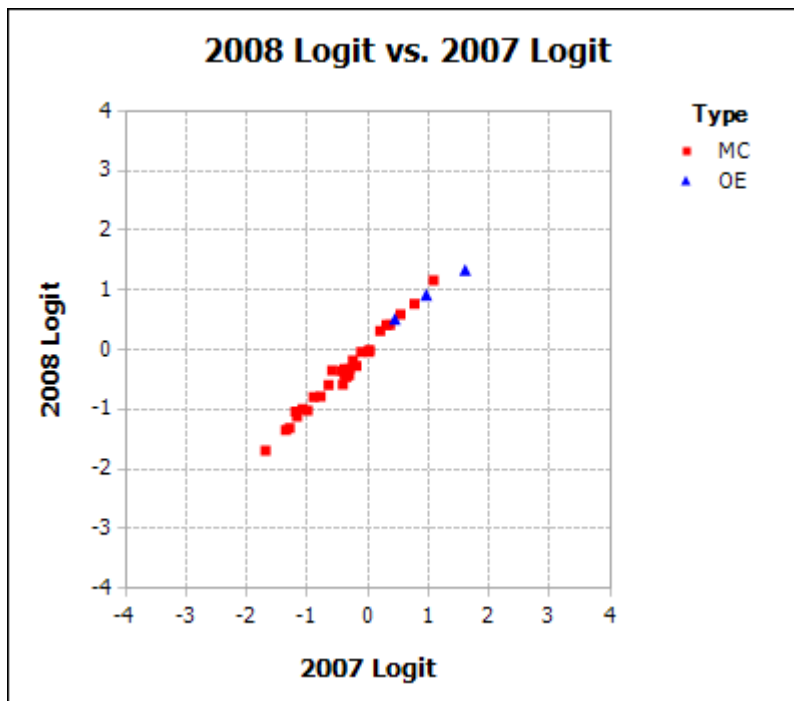


Figure 11–10. Grade 5 Reading

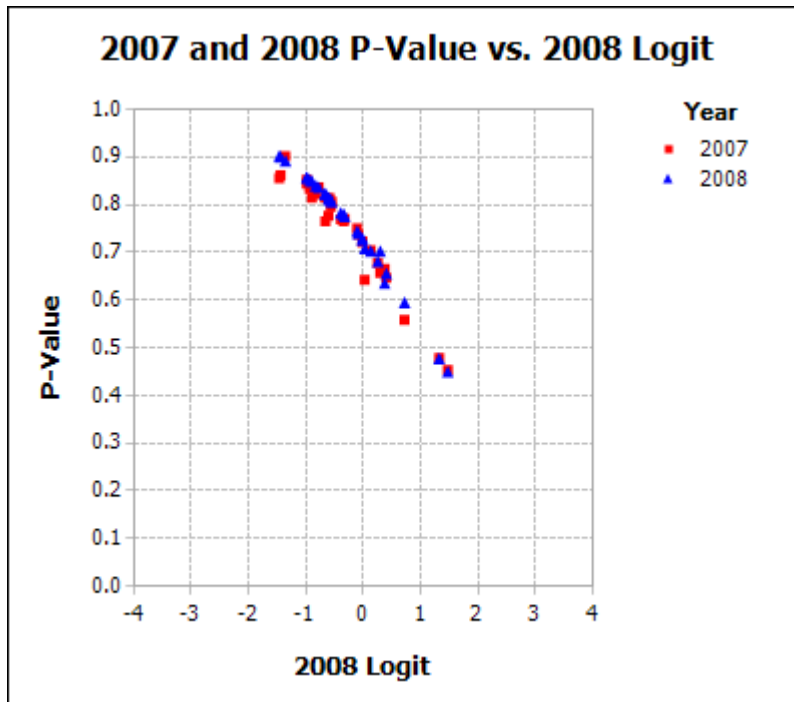


Figure 11–11. Grade 5 Reading

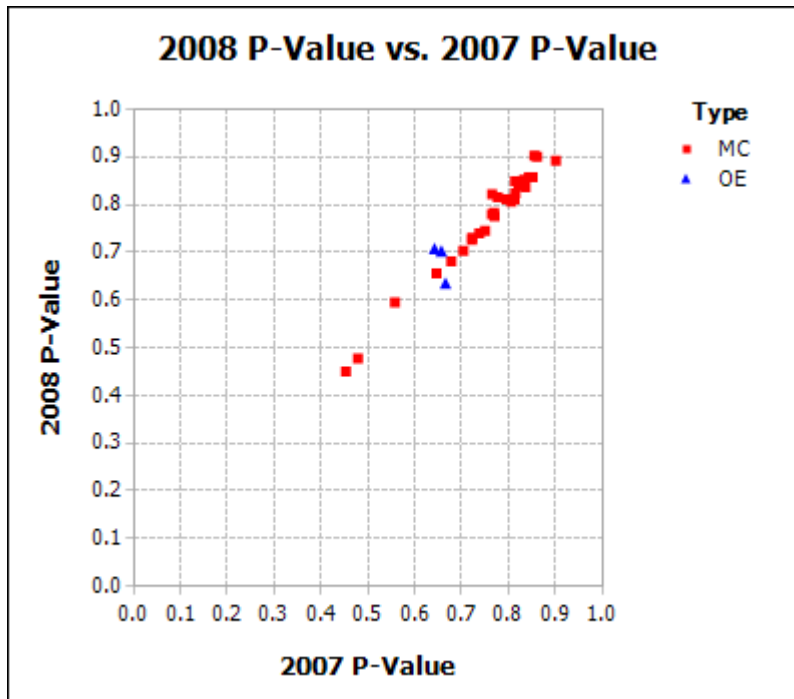


Figure 11–12. Grade 5 Reading

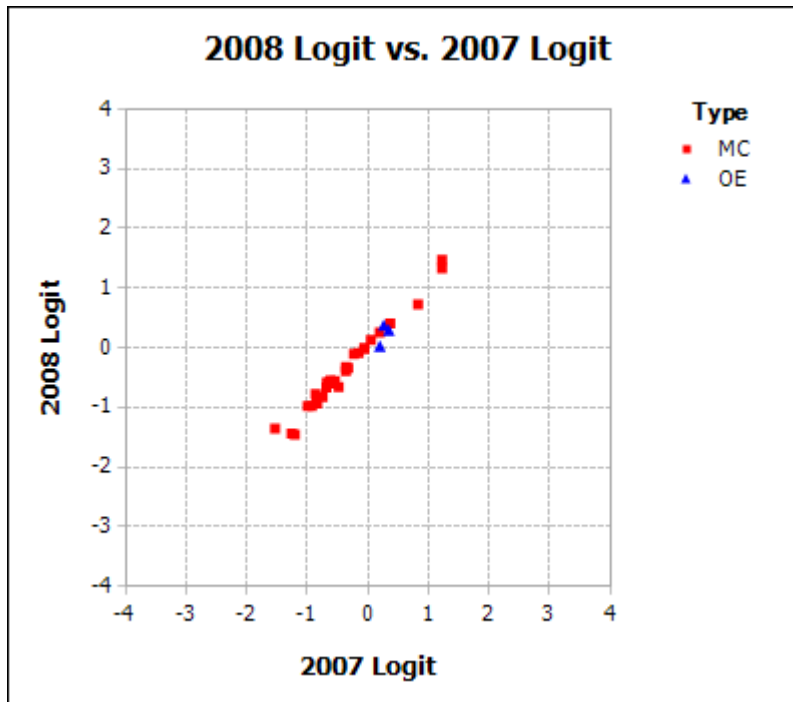


Figure 11–13. Grade 6 Reading

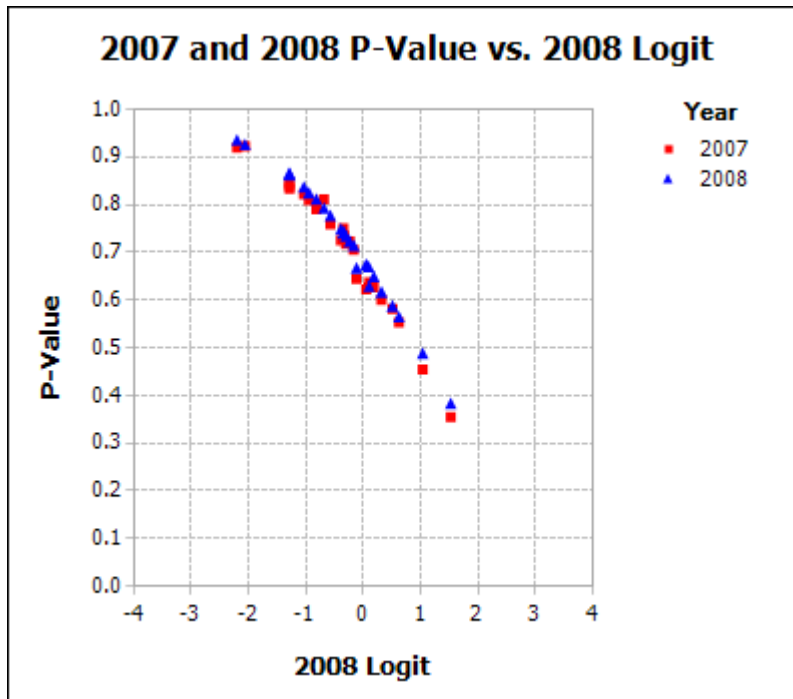


Figure 11–14. Grade 6 Reading

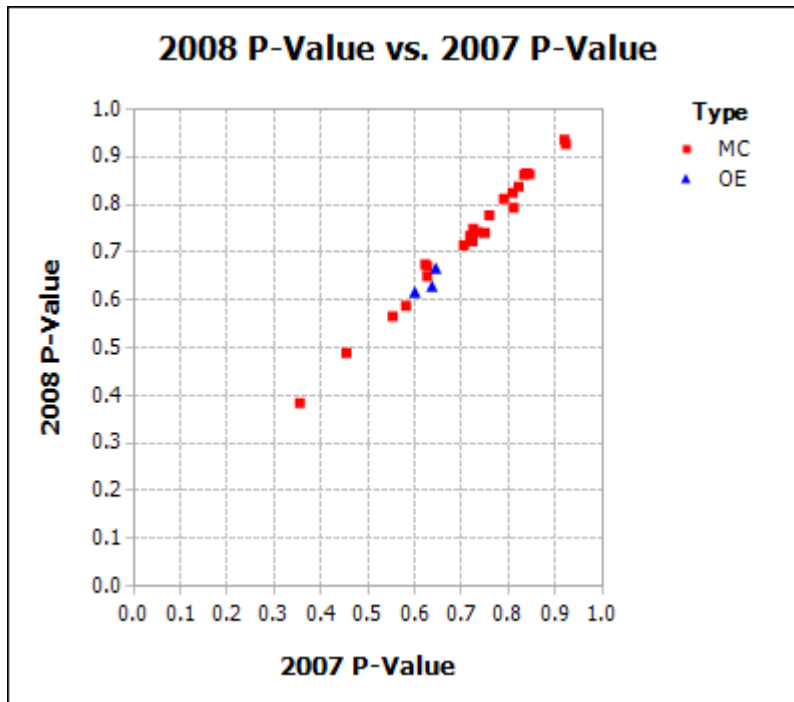


Figure 11–15. Grade 6 Reading

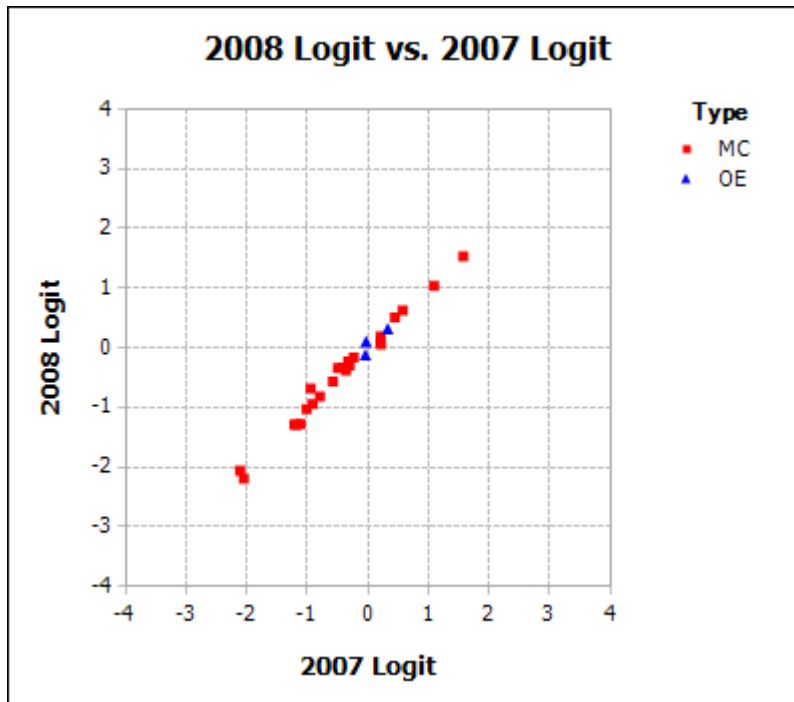


Figure 11–16. Grade 7 Reading

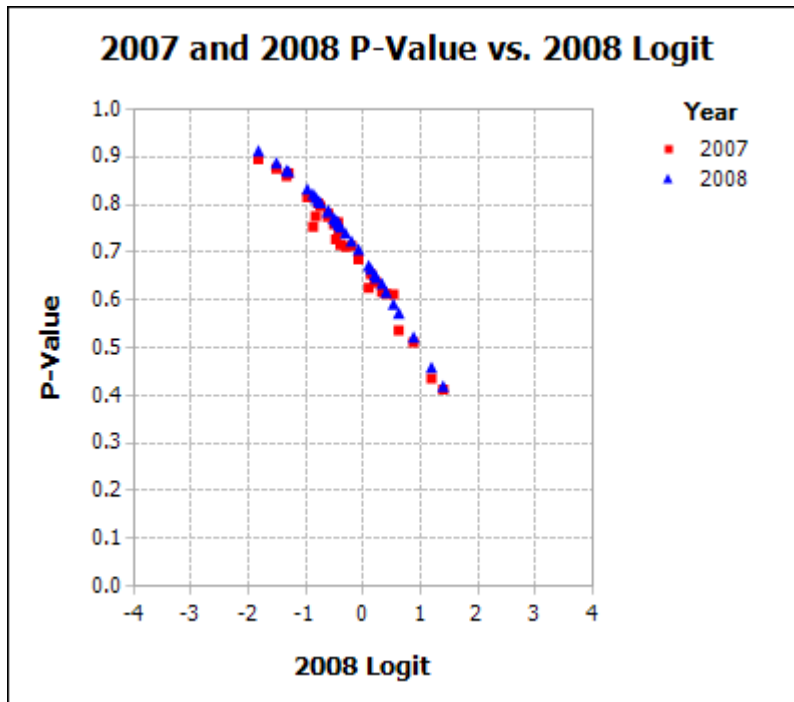


Figure 11–17. Grade 7 Reading

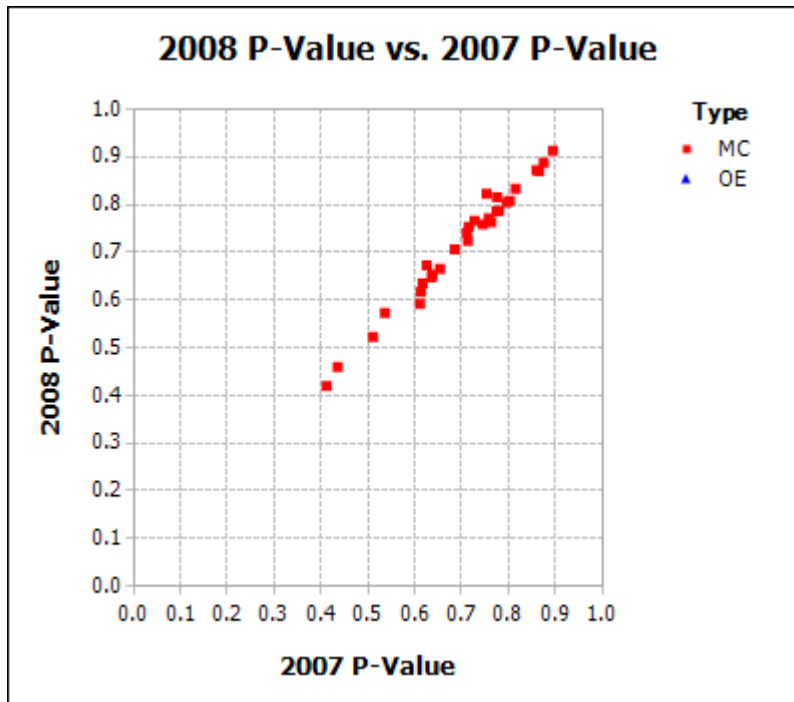


Figure 11–18. Grade 7 Reading

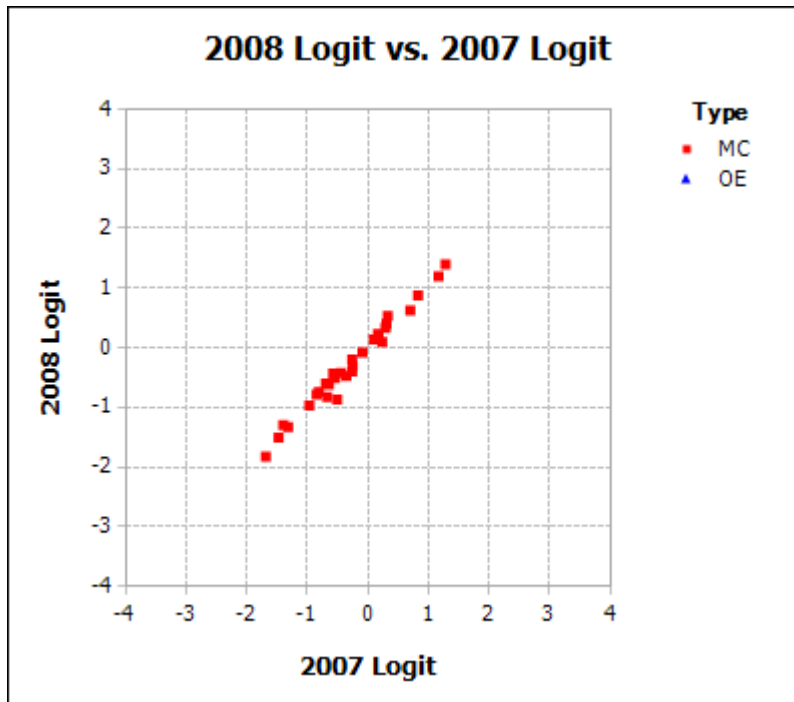


Figure 11–19. Grade 8 Reading

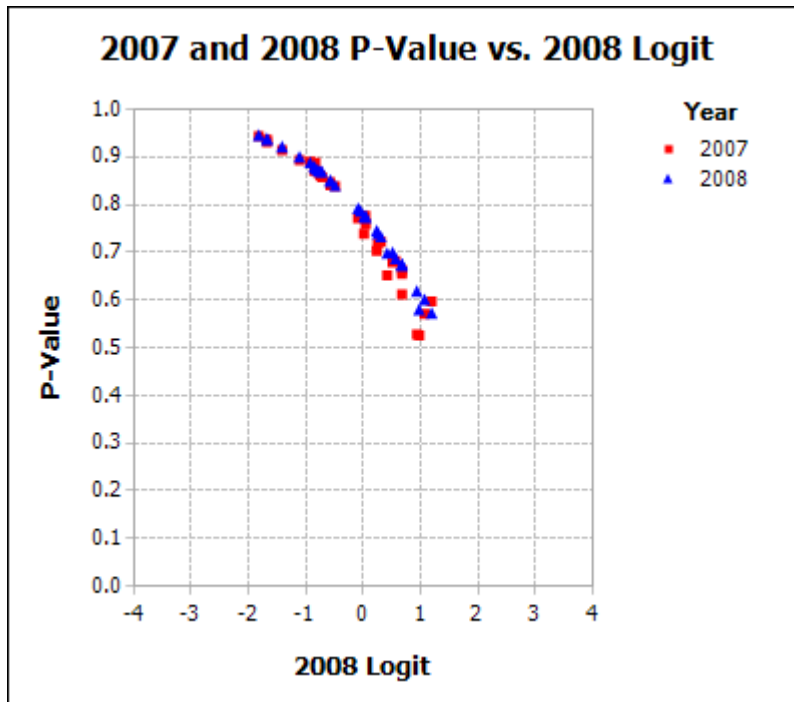


Figure 11–20. Grade 8 Reading

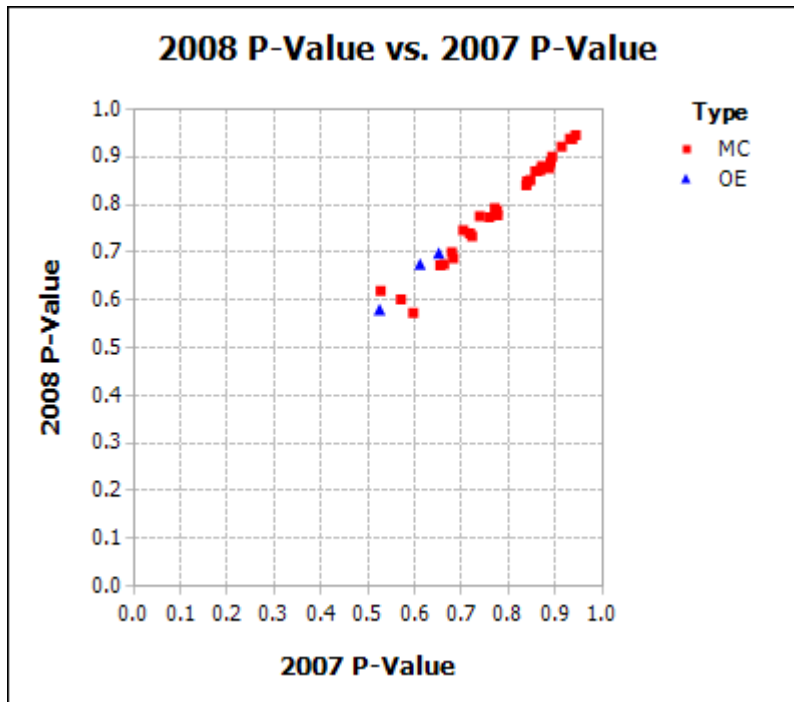


Figure 11–21. Grade 8 Reading

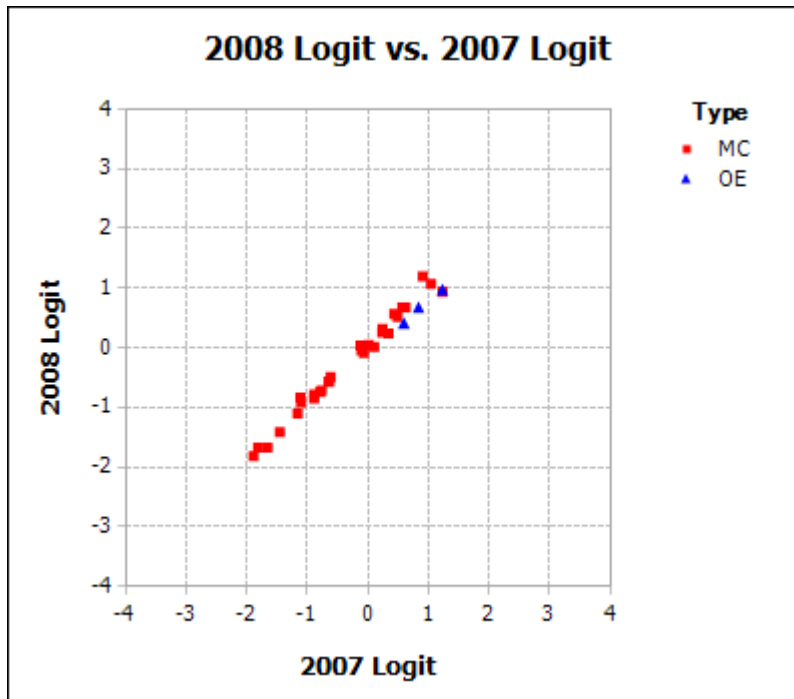


Figure 11–22. Grade 11 Reading

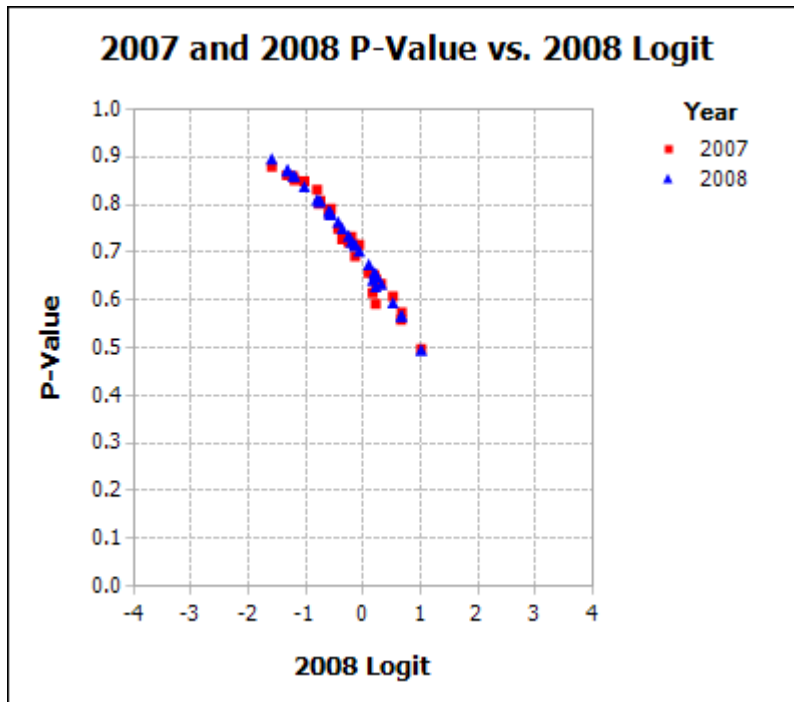


Figure 11–23. Grade 11 Reading

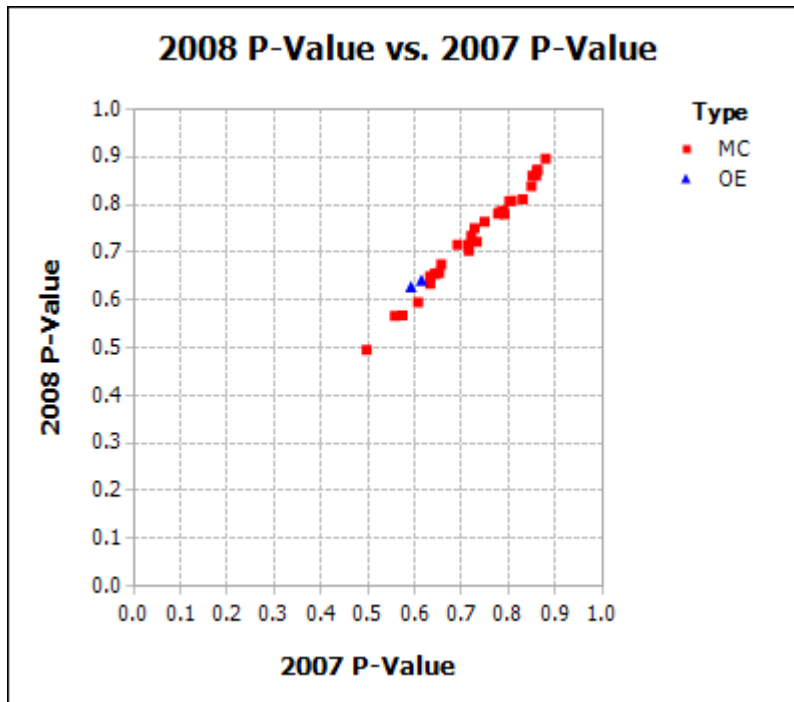
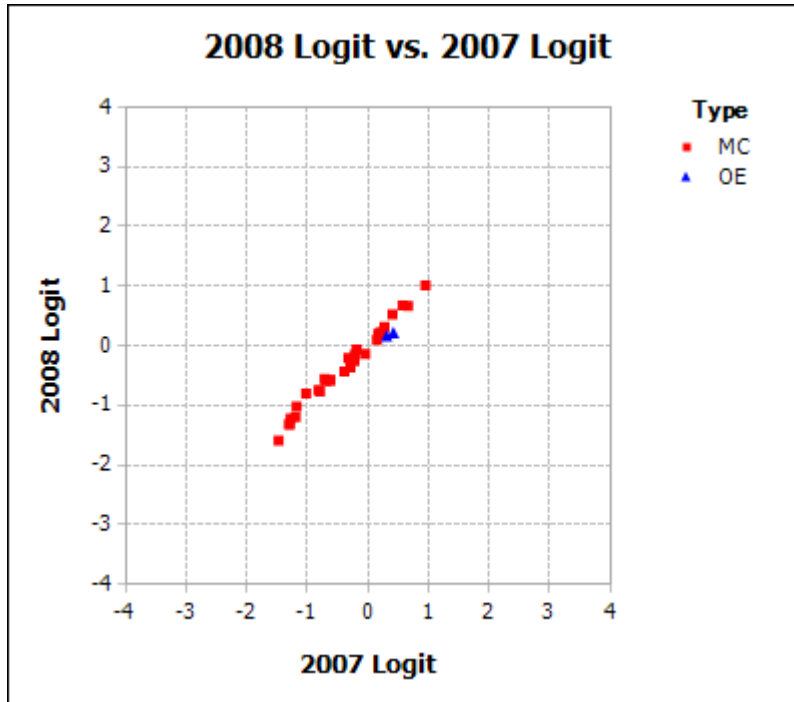


Figure 11–24. Grade 11 Reading



GRADES 4 THROUGH 11: MATHEMATICS

Similar cross-year linking analyses were performed for Grades 4 through 11 Mathematics and are shown in the plots below. Again, the P-value-to-logit graphs show the curvilinear relationship required by the model, with low P-values being translated into high logit difficulties and high P-values into low difficulties. The general smoothness of this line indicates good agreement among the forms. The results were somewhat similar to Grade 3 Mathematics plots, but in some cases there is slightly more noise present in the links. As noted then, some variability is expected, so it is not unusual for some plots to appear relatively more linear than others.

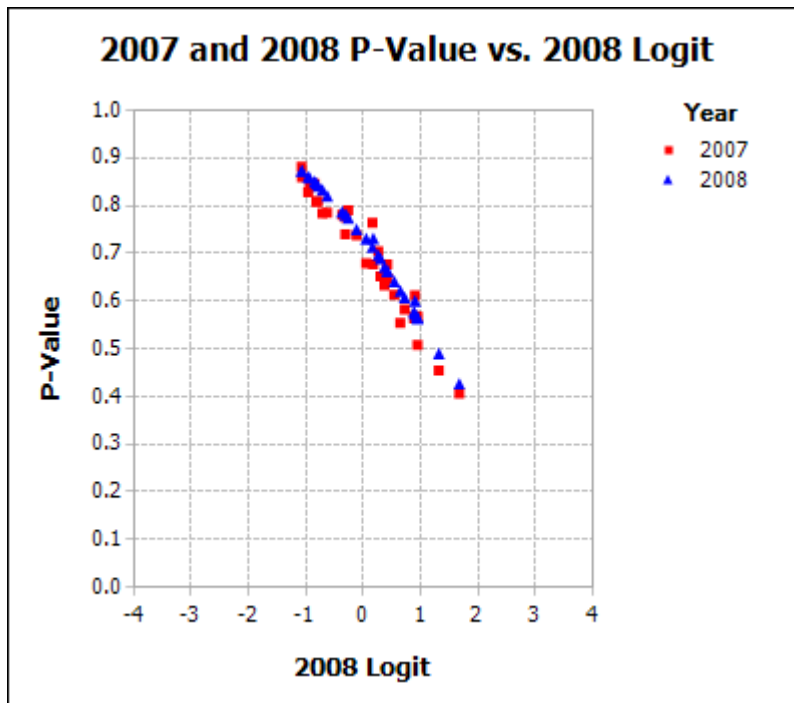
Figure 11–25. Grade 4 Mathematics

Figure 11–26. Grade 4 Mathematics

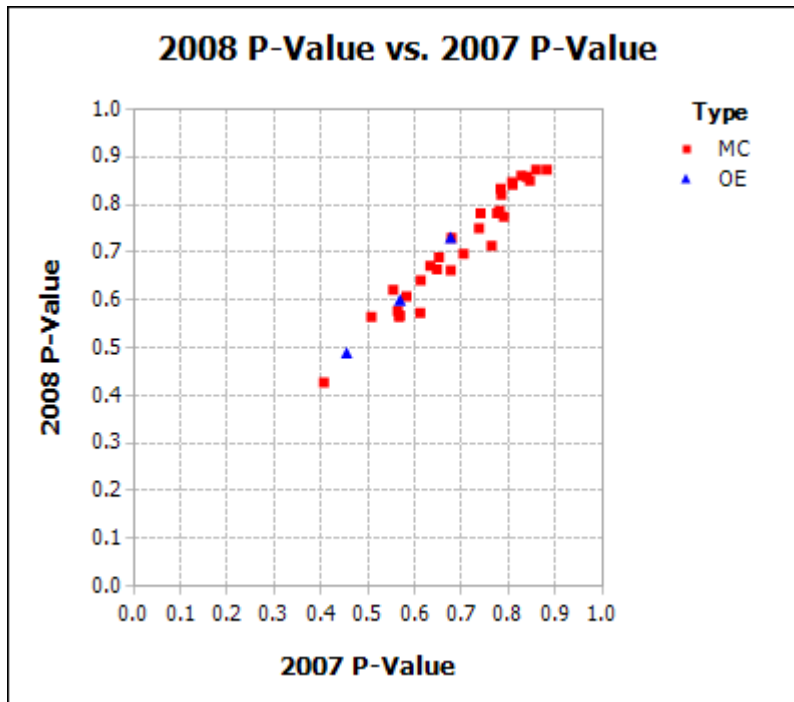


Figure 11–27. Grade 4 Mathematics

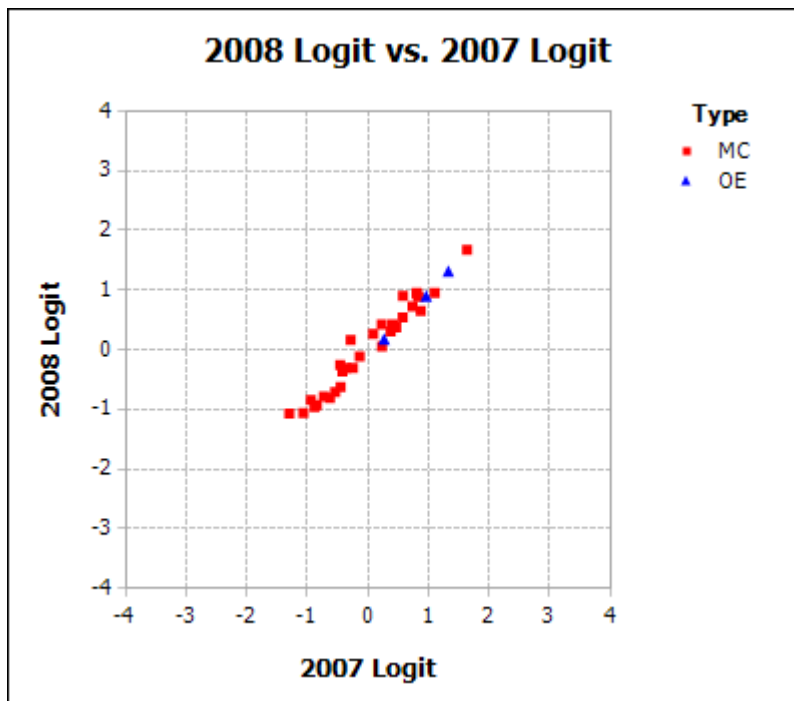


Figure 11–28. Grade 5 Mathematics

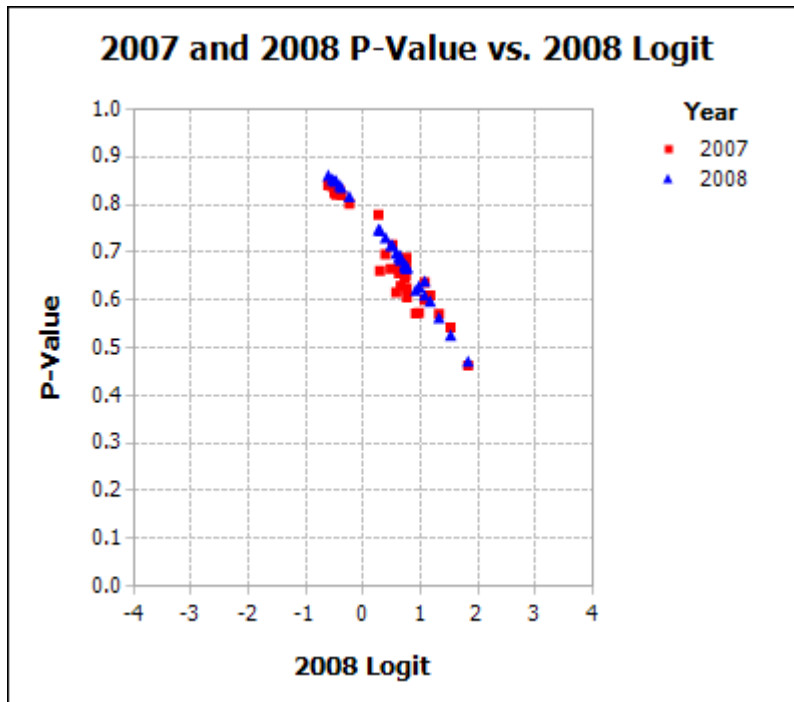


Figure 11–29. Grade 5 Mathematics

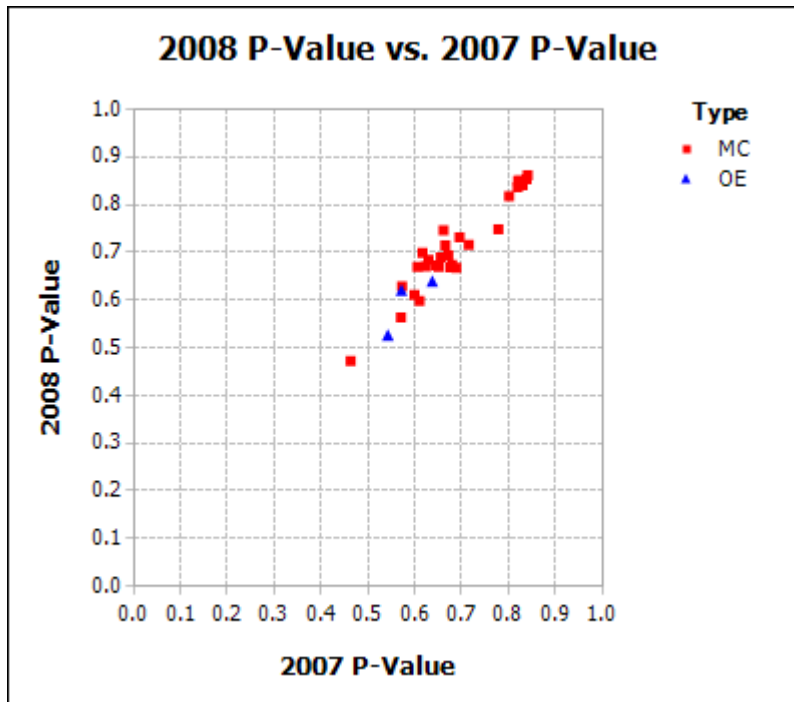


Figure 11–30. Grade 5 Mathematics

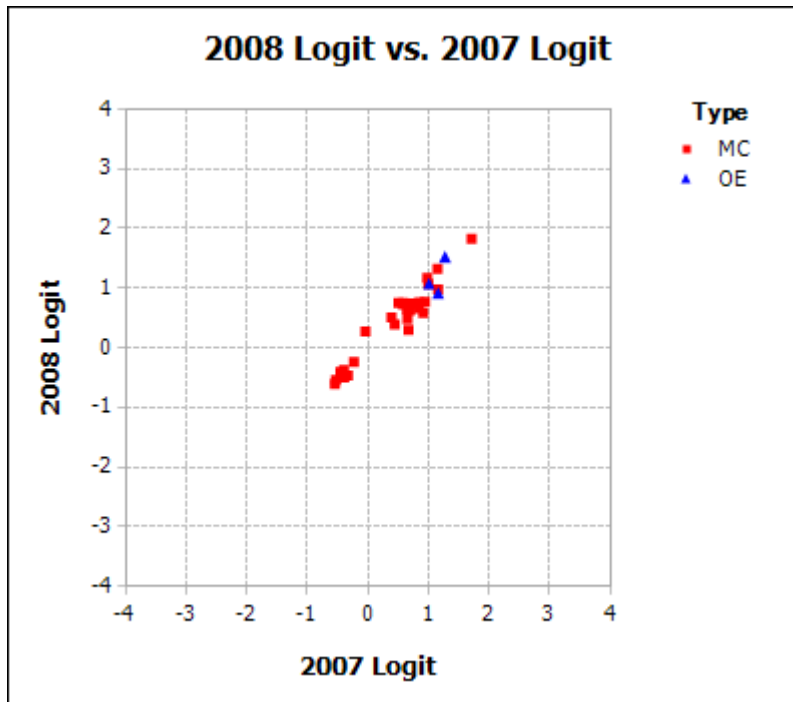


Figure 11–31. Grade 6 Mathematics

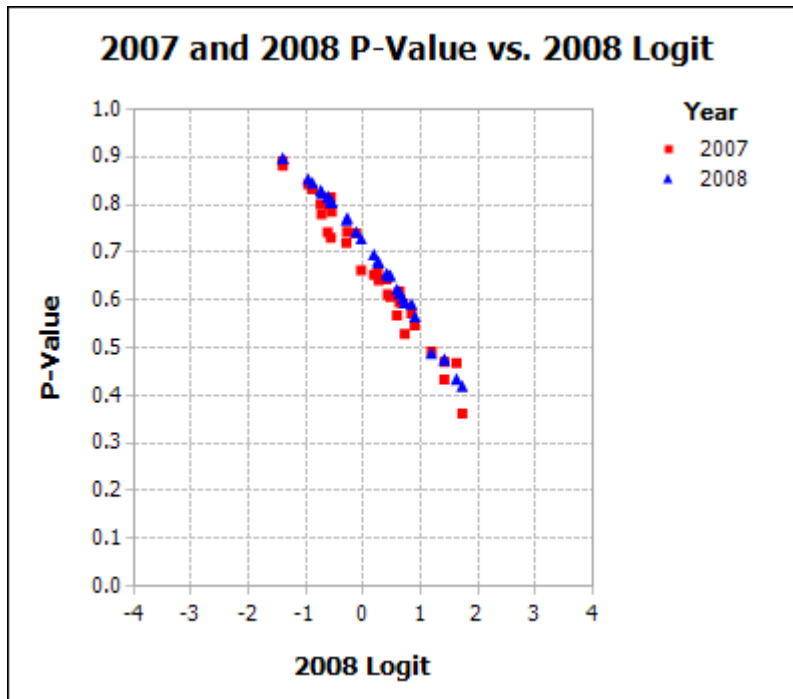


Figure 11–32. Grade 6 Mathematics

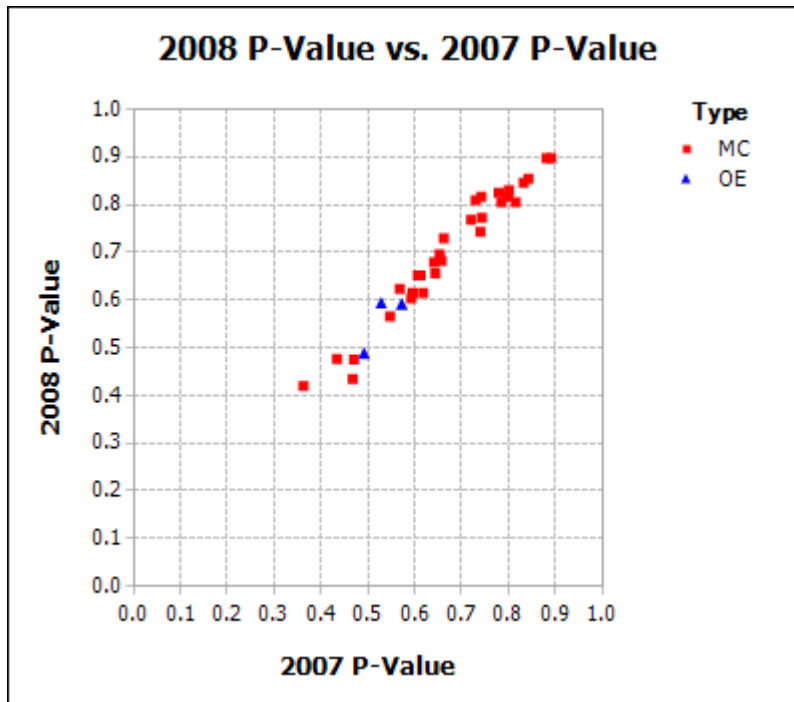


Figure 11–33. Grade 6 Mathematics

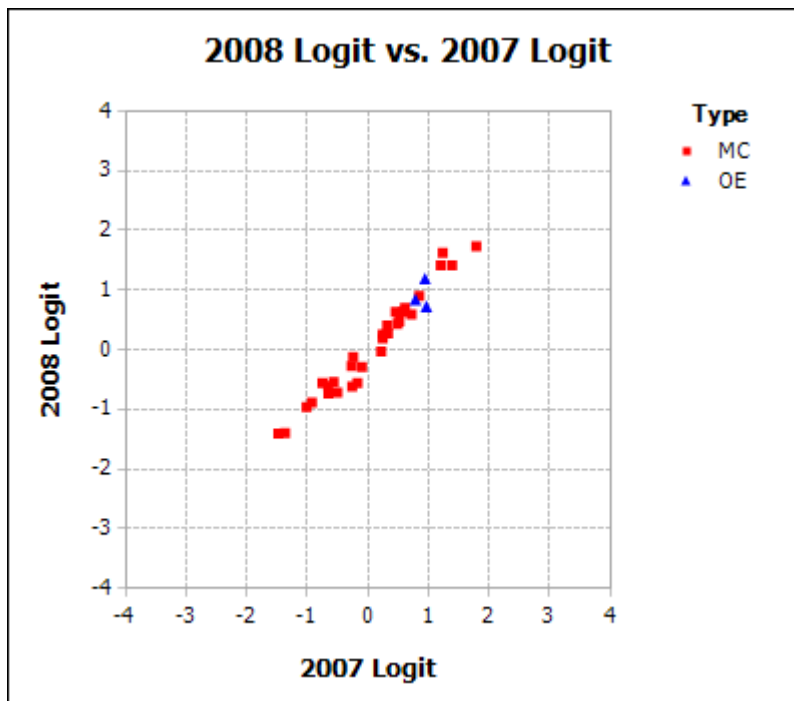


Figure 11–34. Grade 7 Mathematics

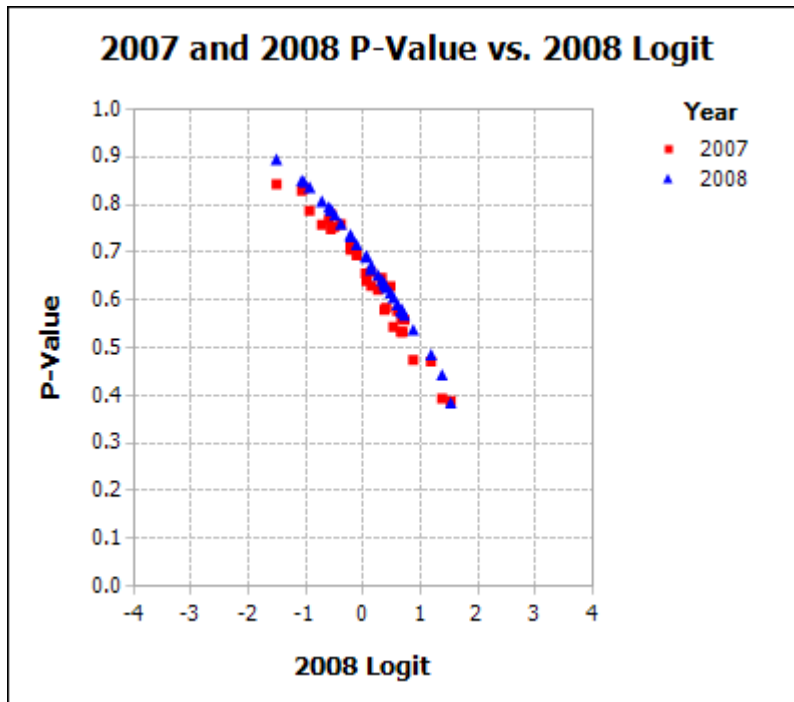


Figure 11–35. Grade 7 Mathematics

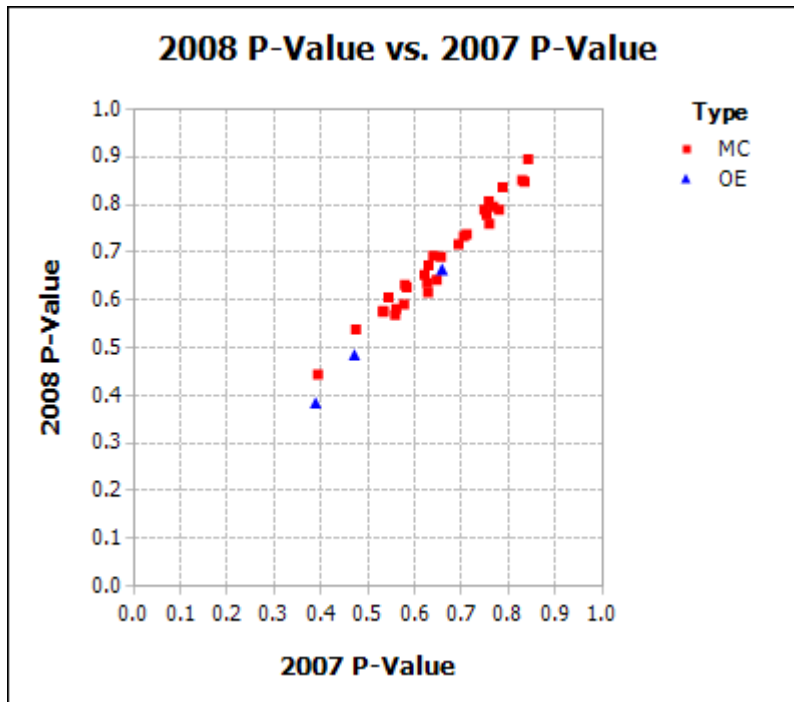


Figure 11–36. Grade 7 Mathematics

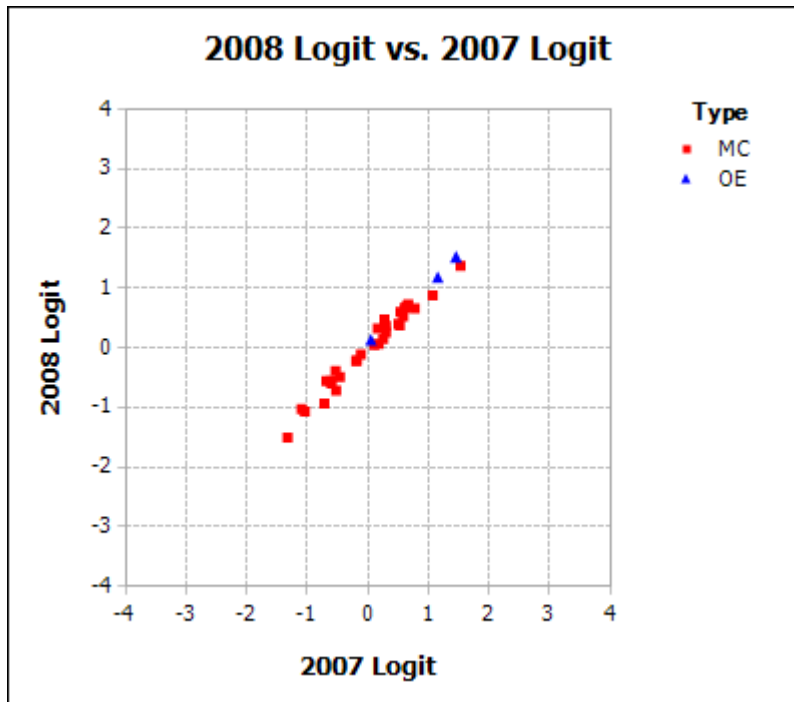


Figure 11–37. Grade 8 Mathematics

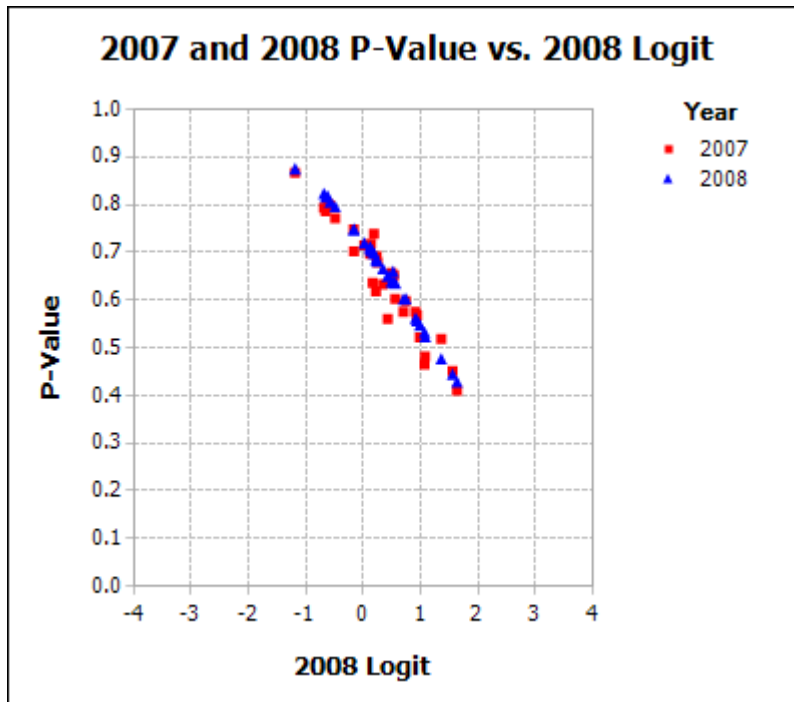


Figure 11–38. Grade 8 Mathematics

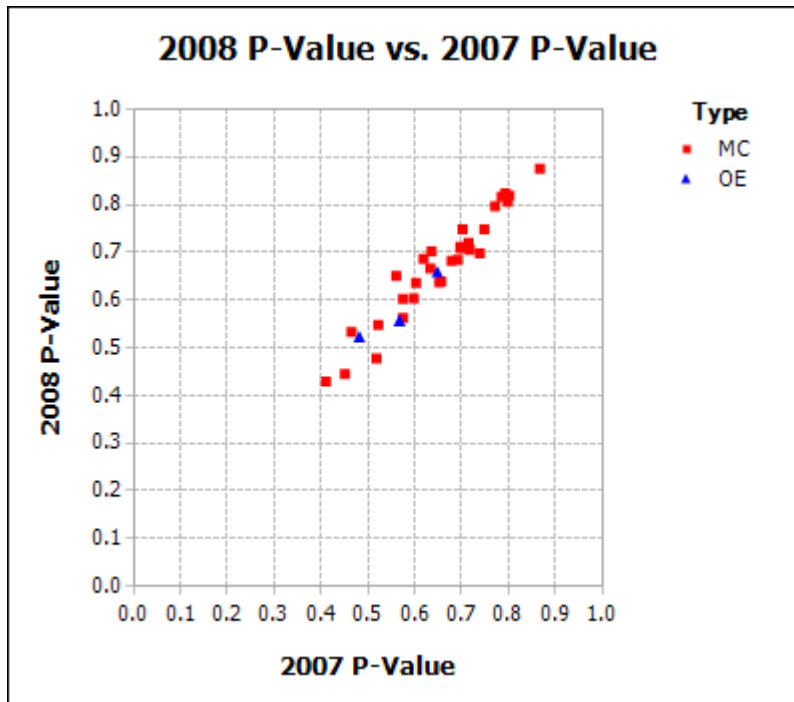


Figure 11–39. Grade 8 Mathematics

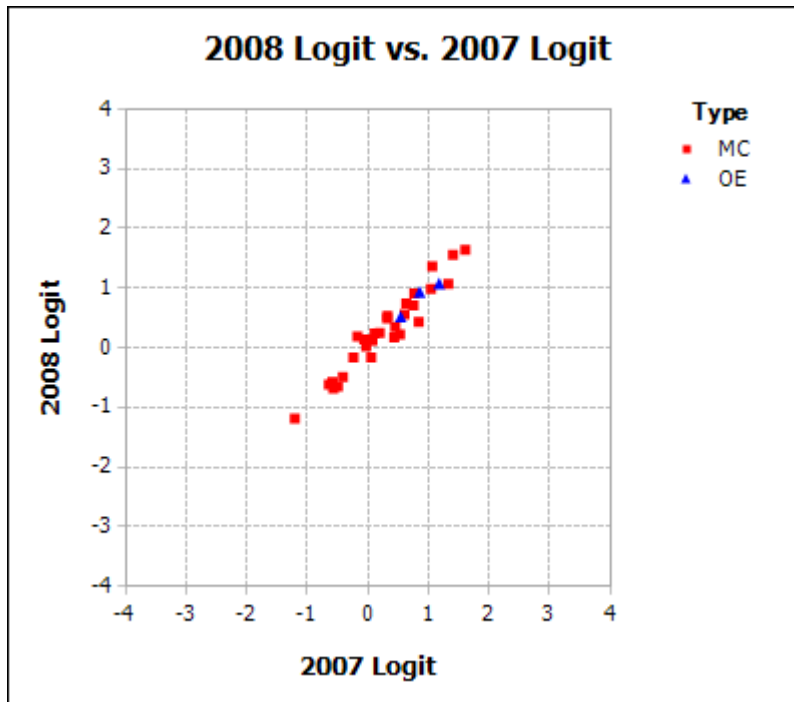


Figure 11–40. Grade 11 Mathematics

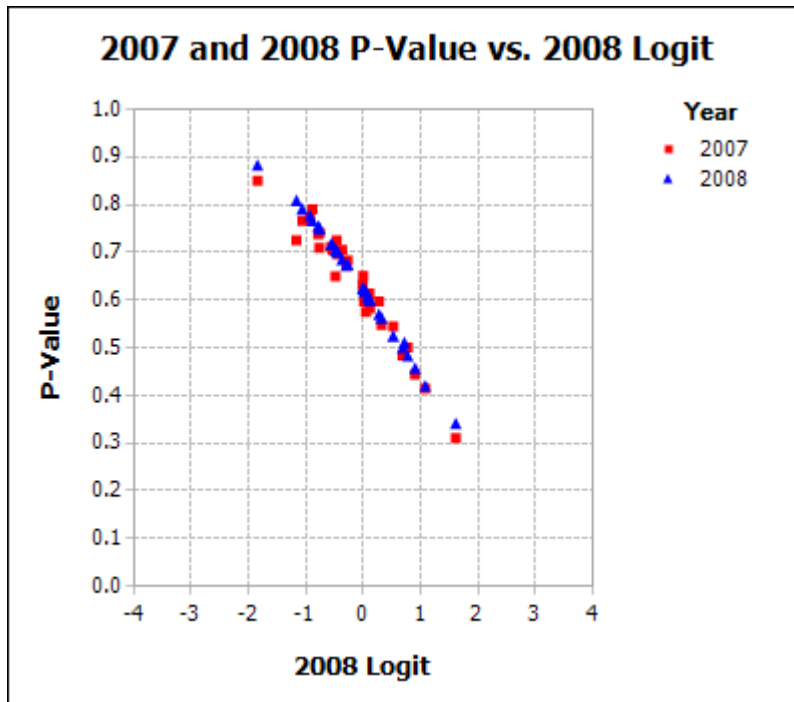


Figure 11–41. Grade 11 Mathematics

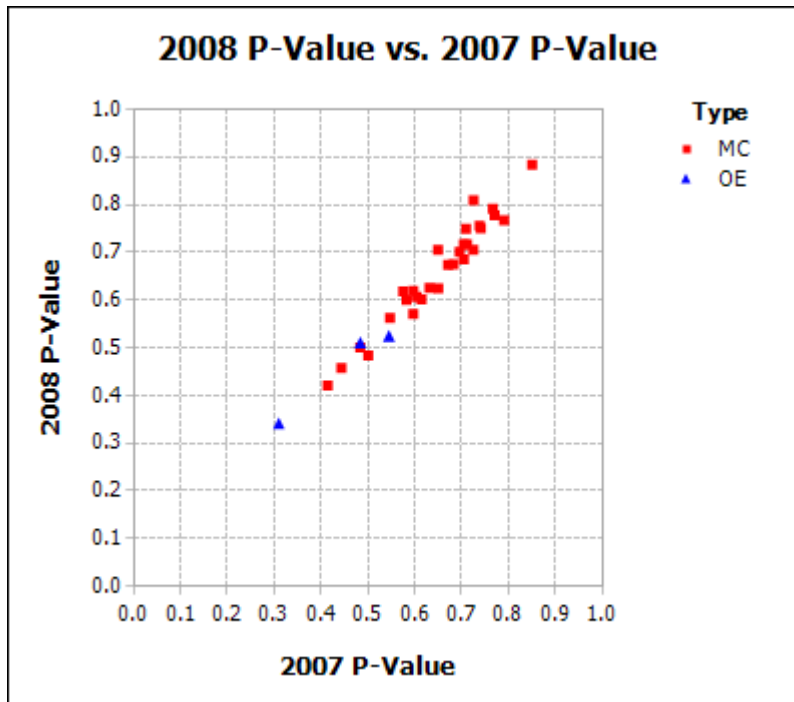
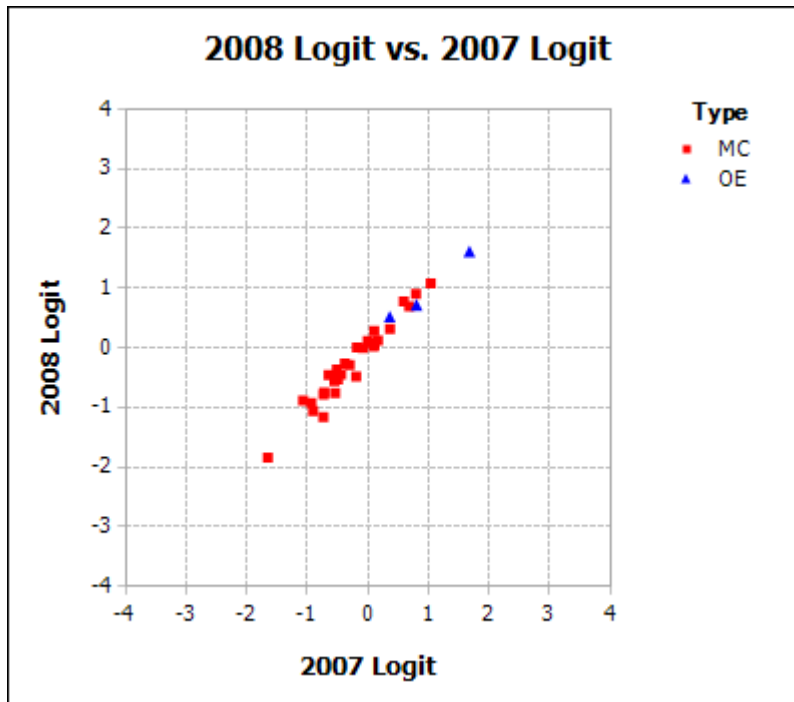
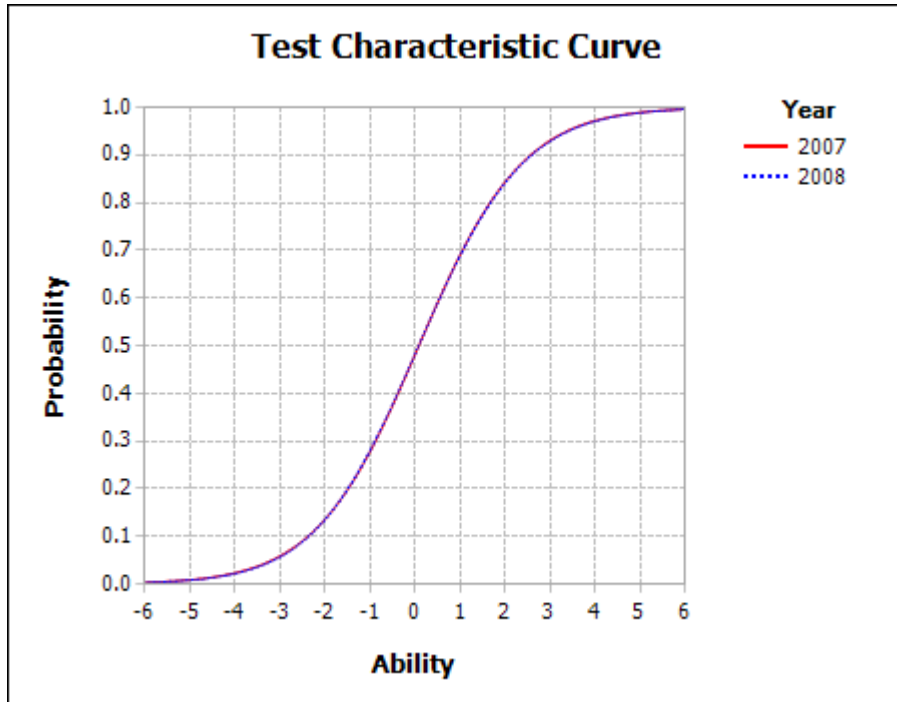


Figure 11–42. Grade 11 Mathematics



The 2007 vs. 2008 Test Characteristic Curves (TCCs) by grade and subject are shown in the figures below⁵. TCCs show the similarity between the 2007 and 2008 tests in terms of difficulty in the logit metric. Assuming equal numbers of items for the two years, curves that are close to being coincident will translate into similar raw score cutpoints. With extreme differences in test difficulties, some loss of precision and reliability may result. However, this is generally not evidenced in the figures below, which display close matches across years with the exception of the upper asymptote of Grade 6 Mathematics. This occurred because all students were given full credit for one four-point OE item (item 24) in 2007 at the PDE’s request.

Figure 11–43. Grade 3 Reading



⁵ In the TCC figures, the Y-Axis ‘Probability’ represents total test raw score expressed on a proportion-correct metric.

Figure 11–44. Grade 3 Mathematics

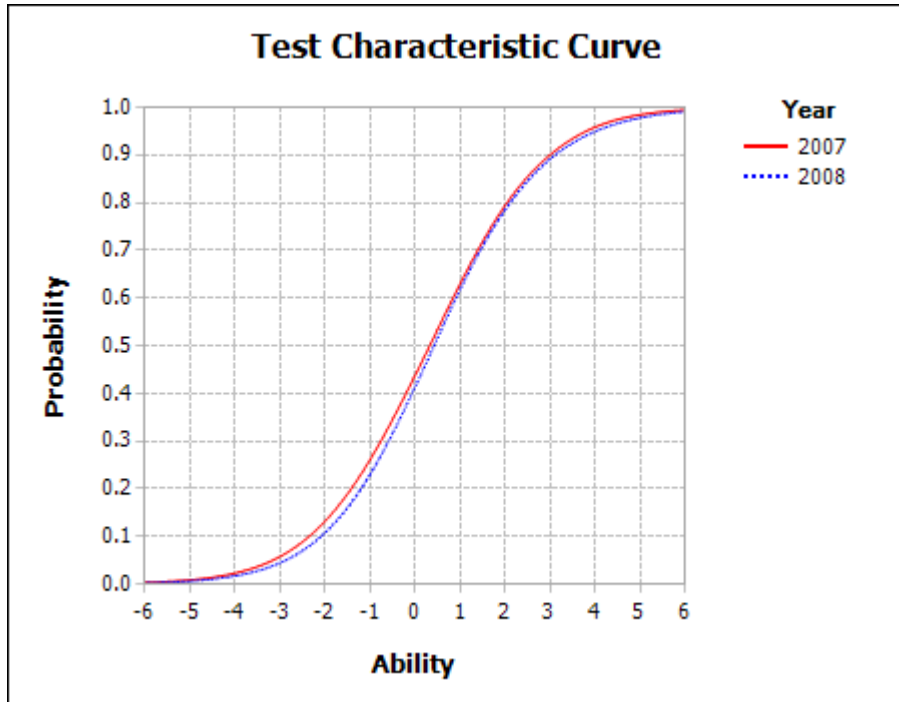


Figure 11–45. Grade 4 Reading

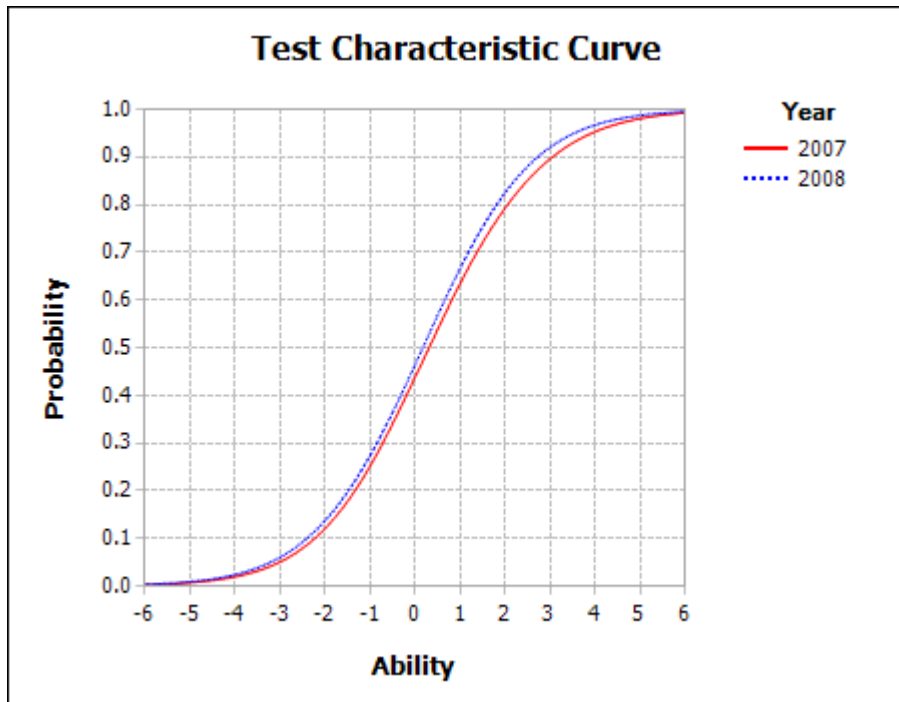


Figure 11–46. Grade 4 Mathematics

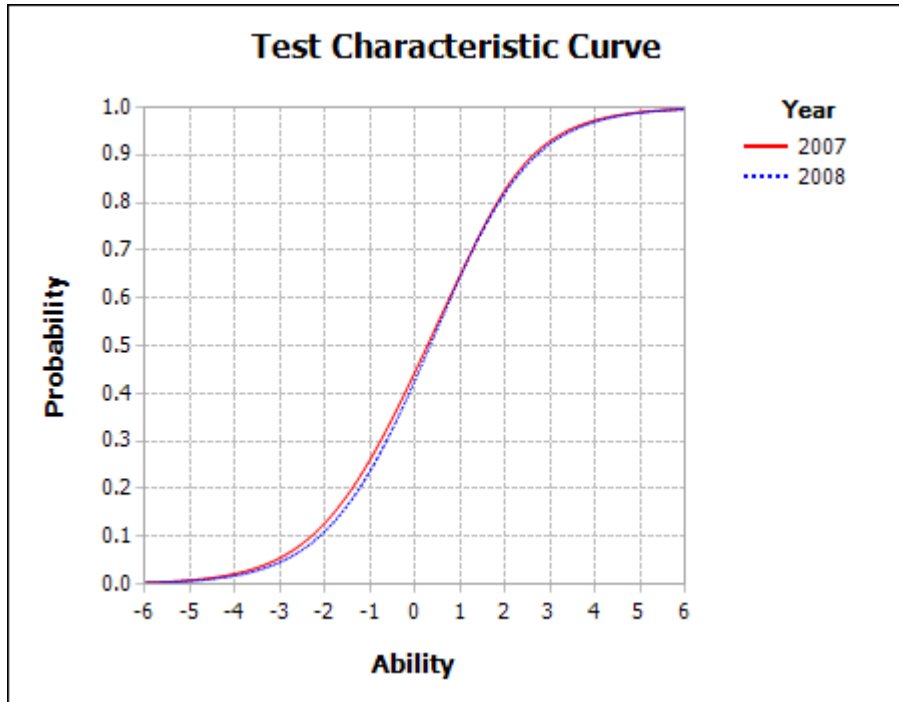


Figure 11–47. Grade 5 Reading

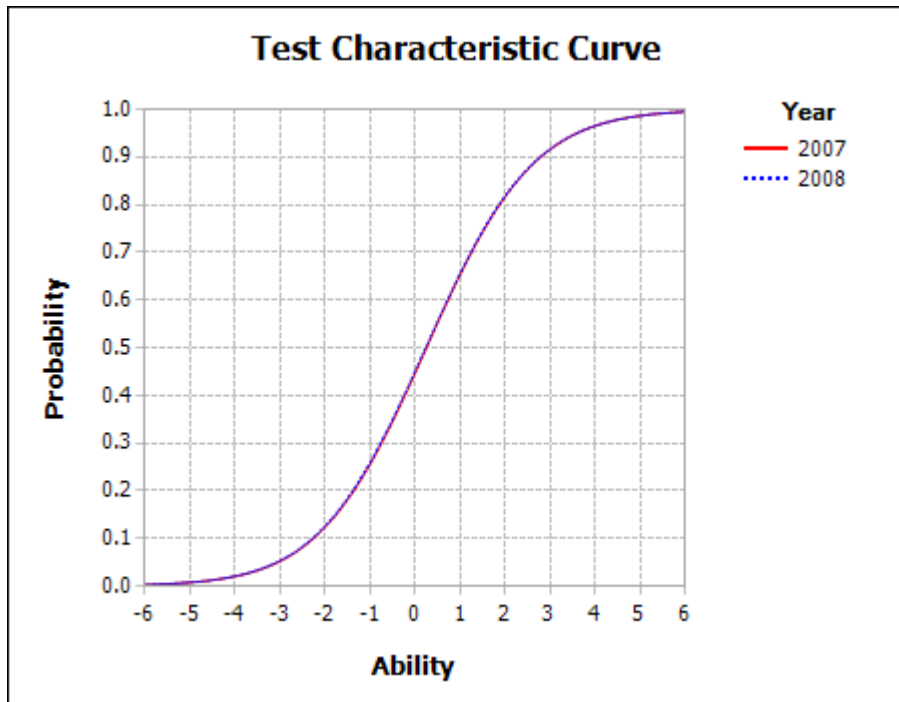


Figure 11–48. Grade 5 Mathematics

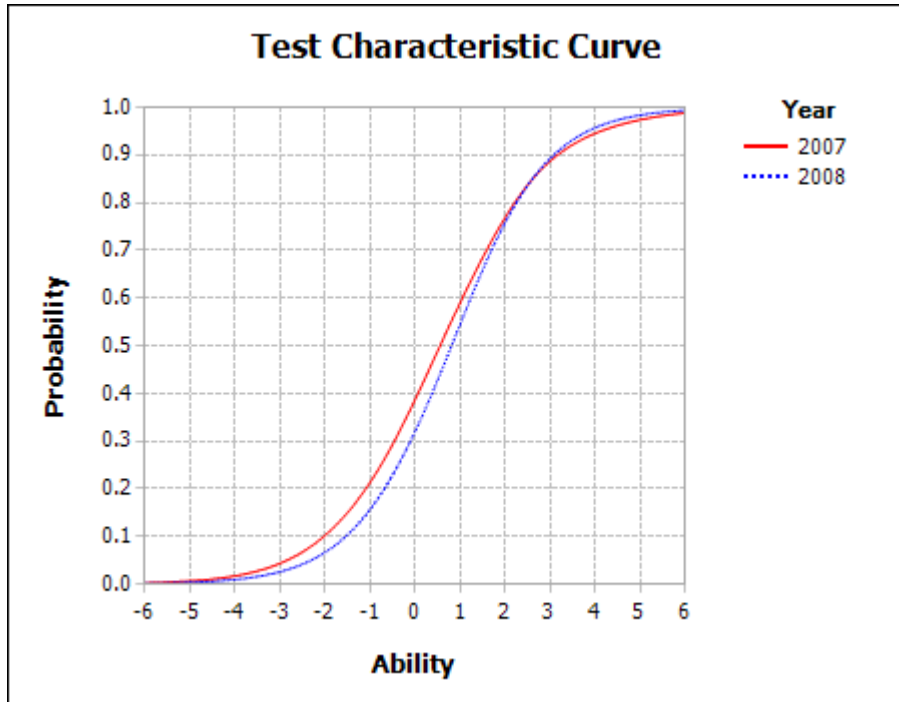


Figure 11–49. Grade 6 Reading

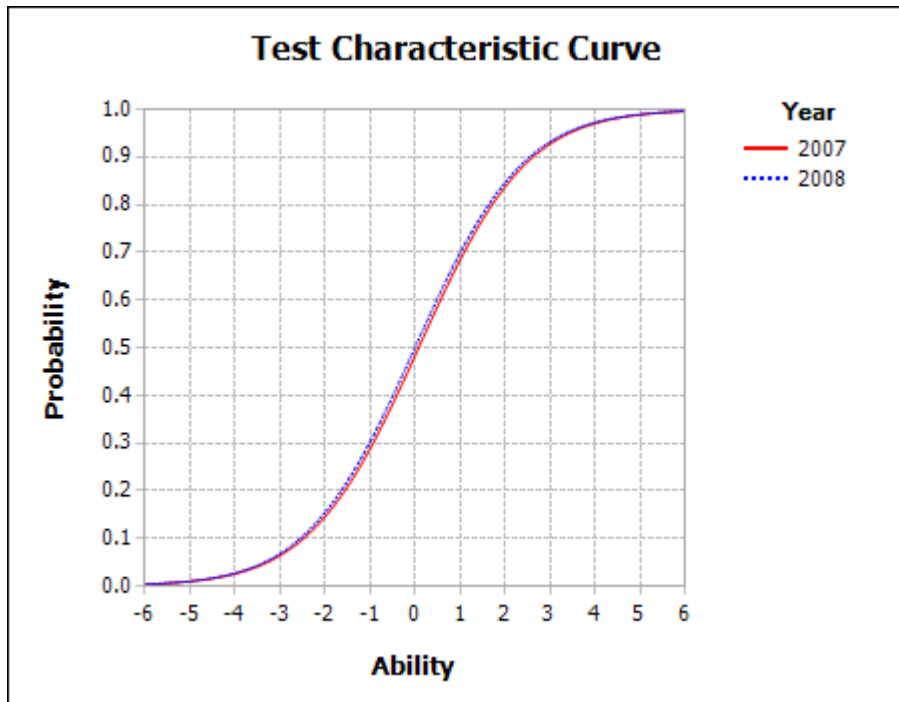


Figure 11–50. Grade 6 Mathematics

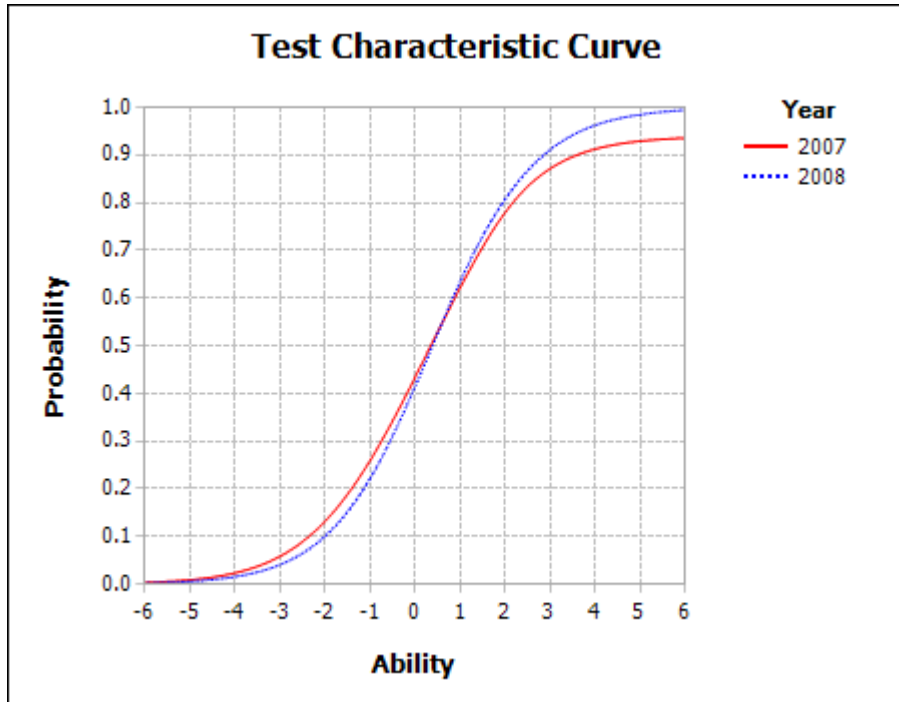


Figure 11–51. Grade 7 Reading

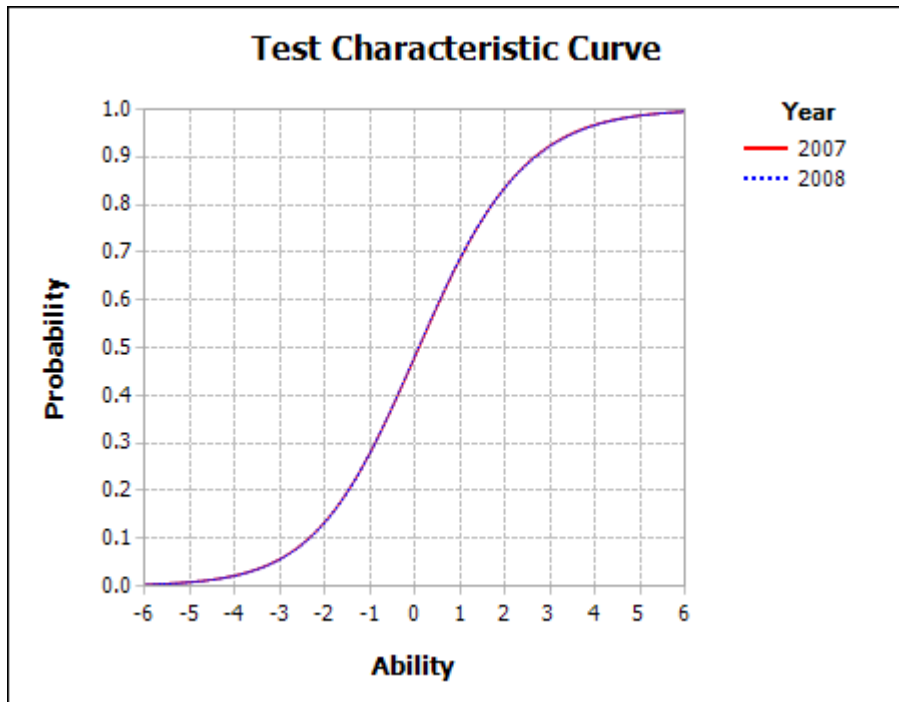


Figure 11–52. Grade 7 Mathematics

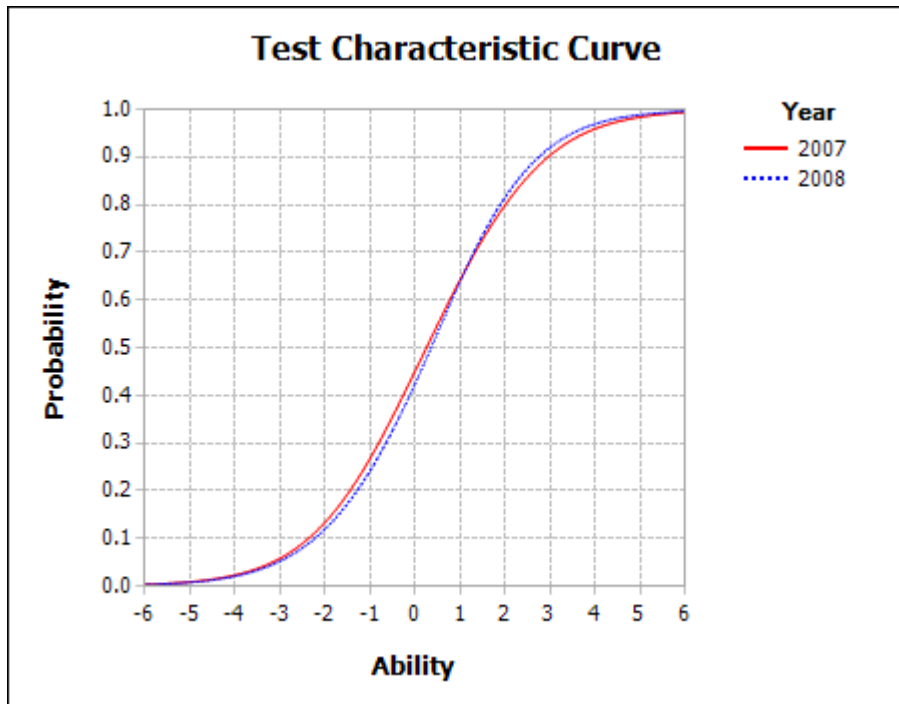


Figure 11–53. Grade 8 Reading

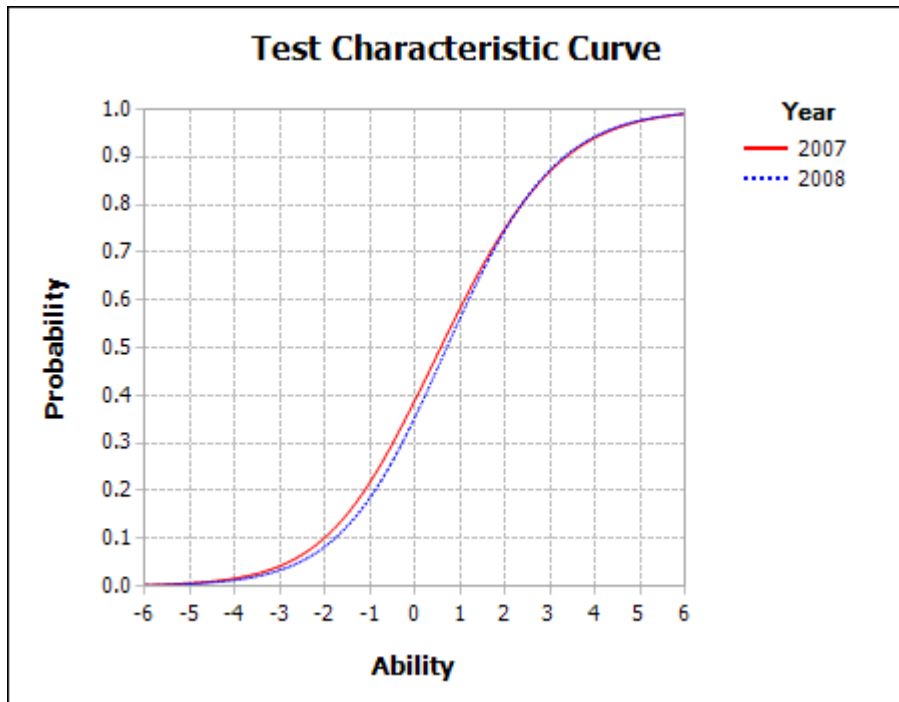


Figure 11–54. Grade 8 Mathematics

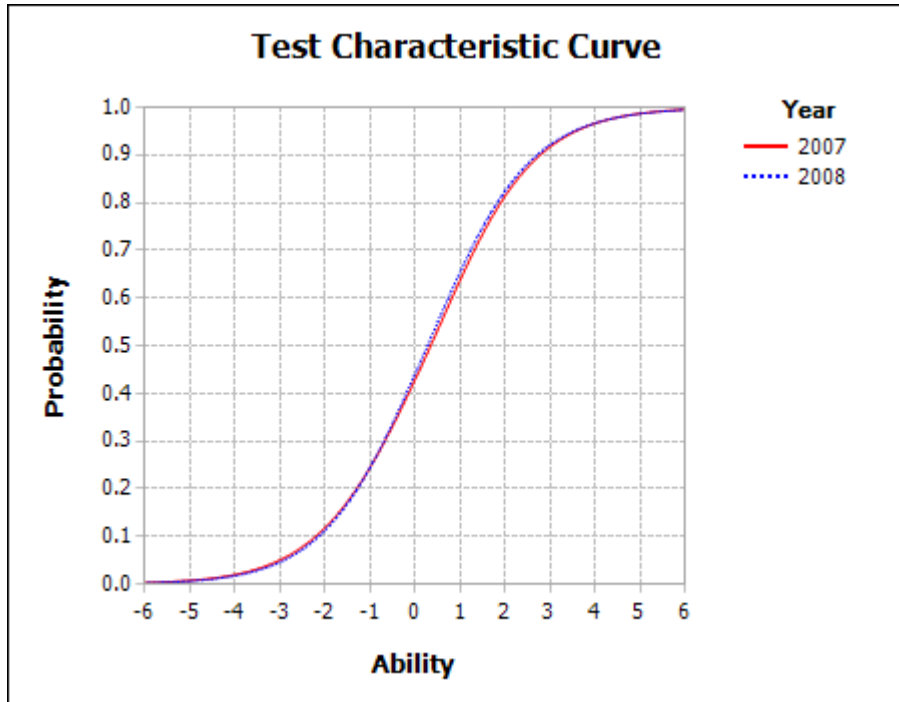


Figure 11–55. Grade 11 Reading

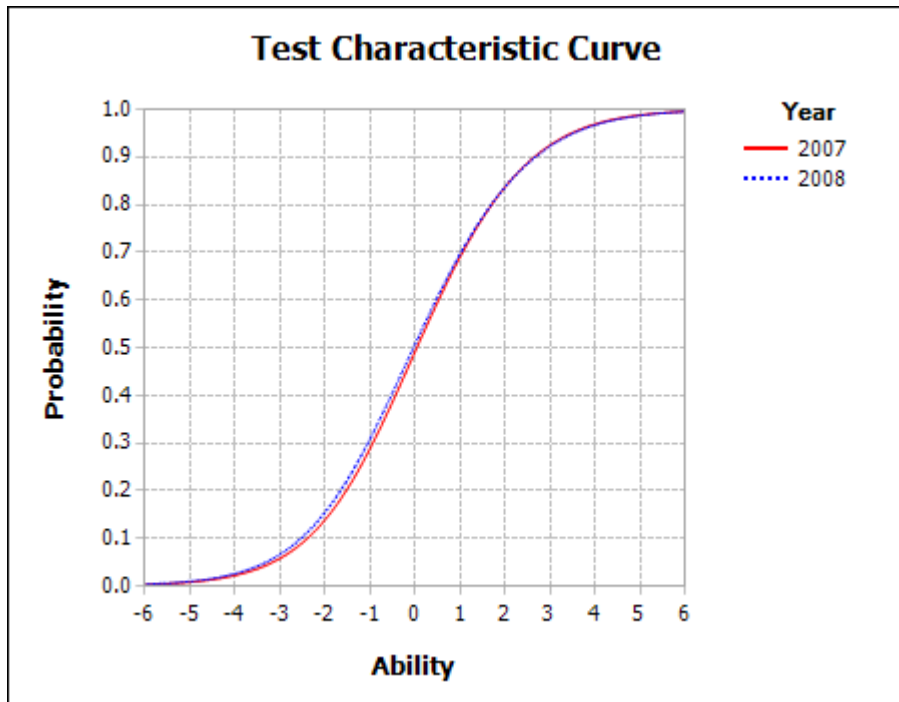
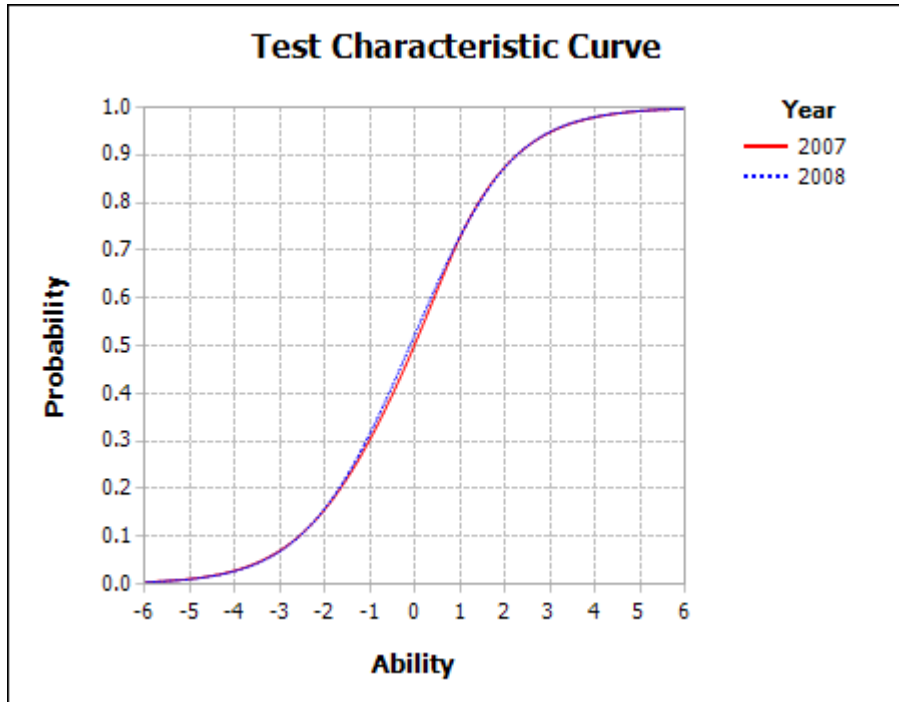


Figure 11–56. Grade 11 Mathematics



Chapter Twelve: Scaled Scores and Performance Levels

Prior to 2000, when the PSSA design was heavily matrix sampling, estimating school-level scaled scores presented some statistical and psychometric challenges. The statistically correct method to compute the school-level scaled score often gave an answer different from what would be obtained by averaging student ability estimates. To avoid this source of misunderstanding, the school-level scores were made to equal the average of the appropriate students. The matrix sampling component of the design, together with items from the common section, was used at the academic standard category level to estimate relative strengths and weaknesses for the school.

The adoption of the Pennsylvania Academic Standards in 1999 brought structural changes to the PSSA that were fully implemented in 2000. Beginning with the new reporting design in 2000, content area total scores for students and for schools were based exclusively on the common sections. Thus, greater emphasis was placed on the common sections possessing optimal balance at the content standard level and yielding reliable estimates of student-level abilities, as indicated by the standard errors. It was then possible to aggregate all scaled scores at the school, district, and state levels without resorting to any complex algorithms, making the results simpler to understand.

Because the original design of the PSSA was intended to produce school-level estimates only, the reporting metric was defined at the school level. For the 1996 base year, the mean of all schools in the *norming* sample was set at 1300 and the standard deviation at 100. The distribution to which these parameters applied was the content area scaled score with all schools weighted equally. Consequently, the expectation in the base year was for state-level means near 1300 and standard deviations near 100. The state mean of student level scaled scores was, in general, somewhat different. This difference occurred because the mean of the school-level scores counted schools equally, regardless of size, while the mean of the student-level scores counted students equally.

A minimum scaled score of 700 was implemented for all PSSA Reading, Mathematics, and Writing exams beginning in 2002. This minimum is applied to all PSSA scales except Grade 3. At the PDE's request, the Grade 3 scales were assigned minimum scaled scores of 750 for Mathematics and 1000 for Reading in order to preserve the percentages in category recommended by standard setting participants while preventing students from achieving proficient level through random response.

Although it affects very few students, many administrators believed that their schools were being penalized by the presence of extremely low scoring special needs students who took the regular assessment. The change was made to reduce the impact of these students on the overall school score. Note that there is no maximum scaled score or upper bound.

Table 12–1 gives the linear transformations that were used to convert 2008 logits (X) into the scaled scores. These translation constants included the adjustments to link 2008 to prior years as well as the rescaling needed to convert to the appropriate metric. These transformations are used for all scaled score calculations.

Table 12–1. Transformation to Scaled Scores

Grade	Reading	Mathematics
3	$Y = 123.80X + 1207.70$	$Y = 128.81X + 0964.24$
4	$Y = 200.00X + 1156.30$	$Y = 200.00X + 1183.52$
5	$Y = 198.80X + 1094.60$	$Y = 189.80X + 1134.10$
6	$Y = 200.00X + 1168.96$	$Y = 200.00X + 1201.54$
7	$Y = 200.00X + 1194.40$	$Y = 200.00X + 1225.28$
8	$Y = 234.82X + 1113.70$	$Y = 177.53X + 1182.30$
11	$Y = 245.45X + 1115.20$	$Y = 206.42X + 1203.10$

COMMON ITEMS AND MATRIX SAMPLED ITEMS

Beginning with the design changes implemented for the 2000 PSSA, student-level scores were based on the common items only. This ensures that any decision made about students will be done in the most equitable manner. School-level scaled scores for the content areas are based on the mean of the student-level scaled scores. This ensures that the scaled scores used for school accountability directly reflect the student-level results. It is a simple matter to aggregate up to the school, district, and state levels.

For the purpose of providing school-level results at the content standard (academic standards category) level, all items on all matrix forms plus the common items are utilized. This ensures that decisions about potential school-level strengths and weaknesses are based on broad sampling of the curriculum.

SCALED SCORES FOR CONTENT STANDARDS

As of 2003, school-level scaled scores are no longer reported for the academic content standards (academic standards categories). Instead, school results are presented as the percent of total points achieved as compared to district and state level results.

Interpreting Scaled Scores and Performance Levels

A *Scaled Score*, in the simplest sense, is a transformed number-correct score⁶. When all students take the same items, as in the common sections of the PSSA, the more points the student earns, the higher the associated scaled score. The value of switching to the more abstract scaled score metric lies in the achievement of a more general and equitable result.

To illustrate, a raw score of 30 is meaningless unless the reader is also told how many points were possible. The same score has quite different meanings if it is based on a thirty-item test as opposed to a sixty-item test. *Number-correct scores are transformed to percent-correct scores to remove the effect of test length.* In the same way, a score based on sixty *difficult* items is quite different from the same score based on sixty *easy* items. *Number-correct scores are transformed to scaled scores to remove the effects of test length and item difficulty.* As a result, scaled scores lend themselves to interpretations at what is referred to as an interval level, while raw scores do not. Interval-level scales, in the testing industry, allow one to interpret a scaled score difference

⁶ This is done in two steps. First, there is a nonlinear transformation that converts number correct scores to logits, and then a linear transformation to convert logits to scaled scores.

of 5 points the same whether the scores are 1295 vs. 1300 or 1445 vs. 1450. Raw score differences, in this context, cannot be interpreted in this manner and are thus neither generalizable nor equitable.

The PSSA scaled score metric was originally anchored to the *mean school level scaled score* for a base year and arbitrarily labeled as 1300. In the base year, the standard deviation of the school-level scaled scores was set to a value of 100. If school scores are approximately normally distributed, a scaled score of 1400, one standard deviation above the base year mean, means the school did better than about 5/6 of the schools in the base year. About two thirds of the schools will have scaled scores between 1200 and 1400. About 16% of the schools will be below 1200. Scaled scores of 1000 and 1600 are three standard deviations from the mean and so are extreme scores.

These labels of 1300, 1200, etc. are completely arbitrary; they could have been called zero and one, or 100 and 110, or any other ordered pair without affecting any of the relationships among schools, years, students, or items. Changing the scale would simply be changing the labels on the axis of a graph without moving any of the points.

Setting the mean at 1300 and the standard deviation at 100 was originally chosen so as to not produce negative scores and so that scores on the PSSA would not be confused with the results from any other testing program. Like the temperature scales of Fahrenheit and Celsius, the new scale will acquire meaning to users only with experience.

A scaled score of 1300—or any other value for a particular grade and content area test, like Grade 4 Reading—should have the same absolute meaning in the current year as it had in previous years, when test scores are properly equated across years. A school with a scaled score above 1300 in Grade 4 Reading performed better than the average school in the base year in Grade 4 Reading.

More importantly, an increase in the scaled score for Grade 4 Reading from last year to the current year means that student performance improved⁷; it does not say anything about whether the this year's exam is easier or harder than last year's exam. To make these interpretations requires no information about the length or the difficulty of the test in either year, although these variables are essential for the process of deriving the scaled scores.

As noted above, PSSA scaled scores should be interpreted only within each grade and content area test (Grade 4 Reading in the examples above). A student with scaled scores of 1450 in Grade 4 Reading and 1400 in Grade 4 Math does not necessarily imply that the student performed better in reading than math. Further, no across-grade comparisons or growth statements for a student is appropriate. So, a 1400 in Grade 4 Reading and a 1400 in Grade 5 Reading does not indicate a student had no achievement growth from Grade 4 to Grade 5 in Reading.

Raw to scaled score tables for the Spring 2008 assessment can be found in Appendix P.

⁷ This example is not an endorsement of conducting a trend analysis with just two years of results. Further, small differences may not be statistically or practically significant.

PSSA PERFORMANCE LEVELS FOR READING AND MATHEMATICS

Performance levels are another way to attach meaning to the scaled score metric. They associate precise quantitative ranges of scaled scores with verbal, qualitative descriptions of student status. While much less precise, the qualitative description of the levels is one way for parents and teachers to interpret the student scores. They are also useful in assessing the status of the school.

The Pennsylvania General Performance Level Descriptors, as developed by PDE and teacher panels, are given below.

- **Advanced:** The Advanced Level reflects superior academic performance. Advanced work indicates an in-depth understanding and exemplary display of the skills included in the Pennsylvania Academic Content Standards.
- **Proficient:** The Proficient Level reflects satisfactory academic performance. Proficient work indicates a solid understanding and adequate display of the skills included in the Pennsylvania Academic Content Standards.
- **Basic:** The Basic Level reflects marginal academic performance. Basic work indicates a partial understanding and limited display of the skills included in the Pennsylvania Academic Content Standards. This work is approaching satisfactory performance, but has not been reached. There is a need for additional instructional opportunities and/or increased student academic commitment to achieve the Proficient Level.
- **Below Basic:** The Below Basic Level reflects inadequate academic performance. Below Basic work indicates little understanding and minimal display of the skills included in the Pennsylvania Academic Content Standards. There is a major need for additional instructional opportunities and/or increased student academic commitment to achieve the Proficient Level.

Chapter Thirteen: Test Score Reliability and Validity Evidence

RELIABILITY

This chapter provides reliability indices and standard errors of measurement (SEM) for the 2008 PSSA assessments. For the Rasch model (assuming adequate model/data fit) raw scores are sufficient statistics for abilities and scaled scores; performance levels set on scaled scores are identical to those based on raw scores.

Reliability Indices

Reliability refers to the expected consistency of test scores. As indicated below, the reliability coefficient expresses the consistency of test scores as the ratio of true score variance to total score variance (true score variance plus error variance). If all test score variance were true, the index would equal 1.0. Conversely, the index will be 0.0 if none of the test score variance were true. Clearly, a larger coefficient is better as it indicates the test scores are influenced less by random sources of error. Generally speaking, reliabilities go up with an increase in test length and population heterogeneity and go down with shorter tests and more homogeneous populations.

$$R = \frac{\sigma_r^2}{\sigma_r^2 + \sigma_e^2} = \frac{\sigma_o^2 - \sigma_e^2}{\sigma_o^2}$$

Although a number of reliability indices exist, a frequently reported index for achievement tests is Coefficient Alpha. Consequently, this index is the one reported for the PSSA. Alpha indicates the internal consistency over the responses to a set of items measuring an underlying trait, in this case Reading and Mathematics achievement. From this perspective, Alpha can be thought of as the correlation between scores if the students could be tested twice with the same instrument without the second testing being affected by the first. It can also be conceptualized as the extent to which an exchangeable set of items from the same domain would result in similar ordering of students.

While sensitive to random errors associated with content sampling variability, the index is not sensitive to other types of errors that can affect test scores, such as temporal stability or variability in performance that might occur across testing occasions. It is also not sensitive to rater error. Consequently, this index might be positively biased by these factors. On the other hand, there are also factors that might negatively bias this estimate. These include tests that are comprised of mixed item types (e.g., MC and OE items) and tests that include strata (sub-domains) that are homogeneous enough for the average covariance within strata to exceed the average covariance between strata. Although both are potential influences for the PSSA's, the reliabilities reported in Table 10-1 are all close to or above 0.90, indicating highly consistent test scores for these instruments.

The reliability coefficient is a unit-free indicator that reflects the degree to which scores are free of measurement error. The *standard error of measurement (SEM)* is another indicator of precision. If everyone being tested had the same true score⁸, there would still be some variation in observed scores due to imperfections in the measurement process, such as random differences

⁸ True score is the score the person would receive if the measurement process were perfect.

in attention during instruction or concentration during testing. The standard error is defined as the standard deviation⁹ of the distribution of observed scores for students with identical true scores. Because the SEM is an index of the random variability in test scores in actual score units, it represents important information for test score users.

The Cronbach's Alpha reliability indices (Cronbach, 1951) for the PSSA were calculated. Tables 1 through 14 in Appendix N provide reliability information on the Reading and Mathematics tests by strand for the total student population and for students in each gender and ethnicity group. Other groups such as English language learner (ELL), individualized education plan (IEP), and economically disadvantaged (ED) were also included for reliability estimation. The contents of the table include number of points possible (K), number of students tested (N), mean points received (X), standard deviation (SD), mean P-Value (P), reliability (R), traditional standard errors of measurement (SEM), and item type (Types).

⁹ The standard deviation of a distribution is a measure of the dispersion of the observations. For the normal distribution about 16% of the observations are more than one standard deviation above the mean and the same percentage is more than one standard deviation below the mean. Using the data in table 10-1, about 68% of students with true scores of 60 for Grade 5 mathematics will have observed scores between 56 and 64.

As noted earlier, reliabilities tend to go up in value with an increase in test length and population heterogeneity and go down in value with shorter tests and more homogeneous populations. Across the grades and subjects tabled in Appendix N, reliabilities for the sub-strands tended to follow these same trends. That is, strands with more items tended to show higher reliability coefficients. Also, groups exhibiting more variability in test scores tended to have higher reliability coefficients. Some strand score reliabilities may be too low to warrant interpretation at the individual student level. There is no firm guideline regarding how low is too low. The lower a given reliability coefficient, the greater the potential for over-interpretation. As a point of reference, a reliability coefficient of 0.50 would suggest that there is as much error variance as true-score variance in the scores. It should be noted that the reliability of group mean scores (e.g., school or district means) tends to be higher than that of individual scores, meaning interpretation of strand scores at these aggregate levels is likely very reasonable.

Decision Consistency

In a standards-based testing program there is also interest in knowing how accurately students are classified into the various performance categories. Classification consistency refers to the degree with which the achievement level for each student can be replicated upon retesting using the same form or an equivalent form (Huynh, 1976). Since it is not feasible to repeat PSSA testing in order to estimate the proportion of students who would be reclassified in the same performance levels, a statistical model needs to be imposed on the data in order to project the consistency of classifications solely using data from the available administration (Hambleton and Novick, 1973). Although a number of procedures are available, two well known methods were developed by Hanson and Brennan (1990) and Livingston and Lewis (1995) utilizing specific True Score Models.

Hanson and Brennan (1990) utilized a four parameter beta binomial and a four parameter beta compound binomial model for estimating single administration estimates of classification consistency. The models are given by:

$$\Pr(X = i) = \int_l^u \Pr(X = i | \tau, k) g(\tau | \alpha, \beta, l, u) d\tau,$$

where l and u are, respectively, the lower and upper bounds of the distribution. If $k \leq 0$, then the conditional error distribution is binomial. If $k > 0$, then the conditional error distribution is compound binomial using Lord's (1965) two-term approximation to the compound binomial distribution. Parameters for the true score density are estimated using the method of moments.

In order to use this method, the test must consist of purely dichotomous items. A simple way to satisfy this requirement is to dichotomize the assessment. For any polychotomous item with a maximum score of u , create a set S of u dichotomous items to replace it. For example, $S_{1(x)} = \{u_1, u_2, u_3, u_4\}$ is a set created for a polychotomous item with a maximum score of 4 for examinee x . Then, for an examinee y with a score of 3, $S_{1(y)} = \{1, 1, 1, 0\}$. Local independence of these newly created dichotomous items within the set is sacrificed due to the fact that to get the 3rd item in the set correct, you must get the 1st and 2nd items in the same set correct (the same goes for getting an item incorrect). Artificial local independence cannot be manufactured for these items within each set.

To solve the problem of a complex assessment, Livingston and Lewis (1995) proposed an effective test length,

$$n = \frac{(\mu_x - X_{\min})(X_{\max} - \mu_x) - r\sigma_x^2}{\sigma_x^2(1-r)},$$

which transforms the original raw score random variable from $X = 0, \dots, K$ into a new random variable $X' = 0, \dots, n$, where n is the number of dichotomous, locally independent, equally difficult items required to produce a raw score of the same reliability. Then, using the transformed observed distribution X' , parameters are estimated for a four parameter beta-binomial model where the conditional error distribution is assumed to be binomial. The X' distribution is then converted back onto the original X scale using interpolation. This method is designed only to estimate a contingency table, not a full bivariate distribution.

Stearns and Smith (2007) found that results from the Hanson and Brennan (1990) method on a dichotomized version of a complex assessment yields similar results to the Livingston and Lewis (1995) method. The results of the consistency analyses by cut score and overall are presented in Table 13-15. The results—derived using the program *BB-Class* (Brennan, 2004)—showed that the consistency index values across methods were very similar. It should be noted that consistency indices for the four performance levels should be lower than those based on two categories, as seen below. This is not surprising since classification using four levels would allow more opportunity to change the achievement levels. Hence there would be more classification errors in the four achievement levels, resulting in lower consistency indices.

Table 13–15. Decision Consistency

Grade	Method	Reading				Mathematics			
		Overall	Basic	Prof.	Adv.	Overall	Basic	Prof.	Adv.
3	<i>H.B.(1990)</i>	0.704	0.941	0.912	0.841	0.730	0.972	0.931	0.831
	<i>L.L.(1995)</i>	0.698	0.939	0.910	0.835	0.713	0.971	0.929	0.813
4	<i>H.B.(1990)</i>	0.697	0.934	0.895	0.863	0.776	0.943	0.925	0.892
	<i>L.L.(1995)</i>	0.693	0.933	0.893	0.859	0.767	0.941	0.921	0.887
5	<i>H.B.(1990)</i>	0.663	0.923	0.885	0.852	0.773	0.951	0.920	0.900
	<i>L.L.(1995)</i>	0.656	0.922	0.883	0.846	0.759	0.947	0.915	0.892
6	<i>H.B.(1990)</i>	0.684	0.929	0.889	0.860	0.763	0.939	0.917	0.899
	<i>L.L.(1995)</i>	0.680	0.928	0.888	0.857	0.758	0.938	0.915	0.896
7	<i>H.B.(1990)</i>	0.709	0.934	0.899	0.870	0.741	0.928	0.907	0.895
	<i>L.L.(1995)</i>	0.705	0.933	0.897	0.867	0.732	0.925	0.903	0.891
8	<i>H.B.(1990)</i>	0.757	0.943	0.917	0.879	0.754	0.937	0.915	0.894
	<i>L.L.(1995)</i>	0.753	0.941	0.916	0.877	0.749	0.936	0.913	0.892
11	<i>H.B.(1990)</i>	0.669	0.916	0.880	0.860	0.734	0.919	0.905	0.907
	<i>L.L.(1995)</i>	0.666	0.914	0.878	0.857	0.724	0.916	0.901	0.902

Rater Agreement

Rater agreement information is provided in Chapter 8.

VALIDITY

As noted in the *Standards for Educational and Psychological Testing*, “validity refers to the degree to which evidence and theory support the interpretation of test scores entailed by the proposed uses of the tests” (AERA, APA, & NCME, 1999, p. 9). Thus, the validity of the PSSA must be judged in relation to its primary purposes as delineated in Chapter One. Multiple sources of evidence should be considered, and in fact, virtually all of this technical report’s content is part of this body of evidence (test developmental steps, item writing procedures, item review, item analysis, bias analysis, etc.). Below, validity evidence specifically related to test content is presented in terms of how the PSSA assessments were assembled to reflect the state content standards. Very significant supporting information on the item development processes is presented in Chapter Three.

Content Validity Evidence

PDE commissioned Achieve, Inc. to conduct a series of reviews during the period in which PDE was in the process of developing and refining the Assessment Anchor Content Standards (Assessment Anchors) and Eligible Content for Reading and Mathematics. Through an iterative process of successive refinement in which each version underwent review and modification in accordance with Achieve’s recommendations, final documents for Reading and Mathematics emerged. Similarly, PDE submitted sets of items designed to measure these anchors (see Chapter 2 for additional details). The item development process also benefited from an evaluation of how well test items aligned with the Assessment Anchors and Eligible Content. The reviews conducted by Achieve (2005) focused on:

- Assessment Anchors and Eligible Content for Reading and Mathematics.
- Alignment of assessments to the Assessment Anchors and Eligible Content and, subsequently, in developing items tailored toward these anchors.

Achieve, Inc. (2005). *Measuring Up 2005: A Report on Assessment Anchors and Tests in Reading and Mathematics for Pennsylvania*.

Internal Validity Evidence

Information regarding the PSSA’s internal structure is an important source of construct-related evidence of validity. Correlations by reporting category [A-E for Mathematics (M) and A-B for Reading (R)] were calculated using Pearson’s Correlation Coefficient. These correlations are presented in Tables 13–16 through 13–22. They generally display the expected pattern and magnitude of correlations. For example, the Reading total should correlate higher with the Reading part or subscores than with the Mathematics total or subscores. Note that the correlation between the Reading and Mathematics total scores is .796 for Grade 5. When this value is squared, the resulting value of .63 translates into the shared variance between the two assessments across the student population. Recent research indicates that this is a fairly typical outcome.

Table 13–16. Grade 3 Correlations (Reliabilities on Diagonal)

M	0.921			
MA	0.961	0.876		
MB	0.783	0.689	0.526	
MC	0.723	0.604	0.481	0.481

MD	0.833	0.766	0.581	0.525	0.699				
ME	0.764	0.671	0.528	0.488	0.640	0.648			
R	0.744	0.711	0.589	0.544	0.612	0.575	0.900		
RA	0.726	0.694	0.574	0.530	0.600	0.563	0.979	0.867	
RB	0.673	0.644	0.534	0.495	0.549	0.517	0.900	0.792	0.707
	M	MA	MB	MC	MD	ME	R	RA	RB

Table 13–17. Grade 4 Correlations (Reliabilities on Diagonal)

M	0.926								
MA	0.961	0.855							
MB	0.821	0.721	0.600						
MC	0.735	0.642	0.539	0.616					
MD	0.855	0.778	0.643	0.578	0.732				
ME	0.831	0.738	0.644	0.555	0.667	0.599			
R	0.781	0.740	0.640	0.582	0.673	0.670	0.902		
RA	0.759	0.719	0.624	0.562	0.652	0.651	0.979	0.856	
RB	0.729	0.690	0.593	0.550	0.630	0.624	0.918	0.819	0.767
	M	MA	MB	MC	MD	ME	R	RA	RB

Table 13–18. Grade 5 Correlations (Reliabilities on Diagonal)

M	0.932								
MA	0.956	0.872							
MB	0.842	0.762	0.699						
MC	0.830	0.723	0.661	0.647					
MD	0.827	0.741	0.640	0.629	0.667				
ME	0.829	0.731	0.639	0.635	0.628	0.585			
R	0.796	0.747	0.672	0.680	0.668	0.663	0.906		
RA	0.776	0.729	0.658	0.663	0.652	0.643	0.973	0.867	
RB	0.737	0.691	0.618	0.629	0.618	0.620	0.929	0.819	0.760
	M	MA	MB	MC	MD	ME	R	RA	RB

Table 13–19. Grade 6 Correlations (Reliabilities on Diagonal)

M	0.934									
MA	0.936	0.828								
MB	0.800	0.689	0.641							
MC	0.866	0.740	0.659	0.700						
MD	0.890	0.792	0.661	0.704	0.735					
ME	0.878	0.776	0.658	0.697	0.737	0.743				
R	0.780	0.714	0.601	0.687	0.722	0.683	0.902			
RA	0.751	0.685	0.584	0.662	0.695	0.659	0.965	0.843		
RB	0.740	0.681	0.564	0.651	0.686	0.647	0.947	0.829	0.790	
	M	MA	MB	MC	MD	ME	R	RA	RB	

Table 13–20. Grade 7 Correlations (Reliabilities on Diagonal)

M	0.924									
MA	0.914	0.734								
MB	0.871	0.745	0.743							
MC	0.828	0.689	0.670	0.690						
MD	0.910	0.784	0.744	0.692	0.706					
ME	0.866	0.740	0.704	0.660	0.731	0.674				
R	0.797	0.723	0.677	0.670	0.727	0.705	0.909			
RA	0.765	0.695	0.654	0.645	0.697	0.671	0.957	0.838		
RB	0.762	0.689	0.643	0.639	0.695	0.679	0.958	0.835	0.829	
	M	MA	MB	MC	MD	ME	R	RA	RB	

Table 13–21. Grade 8 Correlations (Reliabilities on Diagonal)

M	0.932									
MA	0.880	0.766								
MB	0.854	0.685	0.678							
MC	0.846	0.677	0.675	0.671						
MD	0.933	0.768	0.738	0.726	0.818					
ME	0.857	0.723	0.680	0.670	0.748	0.701				
R	0.801	0.708	0.673	0.663	0.747	0.713	0.910			
RA	0.771	0.687	0.643	0.638	0.717	0.688	0.959	0.845		
RB	0.767	0.672	0.649	0.635	0.716	0.681	0.960	0.841	0.825	
	M	MA	MB	MC	MD	ME	R	RA	RB	

Table 13–22. Grade 11 Correlations (Reliabilities on Diagonal)

M	0.936									
MA	0.858	0.716								
MB	0.852	0.683	0.555							
MC	0.856	0.685	0.687	0.699						
MD	0.961	0.785	0.764	0.768	0.866					
ME	0.885	0.710	0.715	0.713	0.808	0.659				
R	0.796	0.684	0.680	0.656	0.769	0.718	0.900			
RA	0.765	0.662	0.651	0.629	0.740	0.686	0.959	0.833		
RB	0.751	0.640	0.644	0.619	0.725	0.681	0.945	0.814	0.804	
	M	MA	MB	MC	MD	ME	R	RA	RB	

Below are the correlations corrected for attenuation for the non-confounding pairs; that is, those without shared items. Correcting for attenuation adjusts the correlation between the two measures to account for the unreliability of both. Although the theoretical upper bound for a correlation is 1.0, disattenuated correlations can be greater. Two underlying factors should be noted about this situation. The first is that sample statistics are being used to estimate population parameters. The second and likely more prevailing issue is that something akin to a “design misspecification” occurs. As noted earlier in this chapter, there are potential downward biases in the reliability index used for the PSSA: Coefficient Alpha. The disattenuated correlations might go above 1.0 if the reliability estimates are too low (underestimated). But to complicate matters, two potential upward biases were also noted earlier. Because Coefficient Alpha may not capture all sources of random error in the PSSA scores, it might be an overestimate of reliability in some situations. In short, it is possible that the tabled disattenuated correlations are actually not as high or low, as they might really be, depending on which bias prevails in a given situation.

Given that none of these tests have perfect reliabilities (equal to one), the correlations are somewhat higher than those shown in Tables 13–16 to 13–22 above. Disattenuated correlations less than 1.0 suggest that the different strands are measuring slightly different aspects of the Reading and Mathematics constructs. Values around 1.0 suggest that the same or very similar constructs are being measured. Results indicate that strands generally correlate more highly within the same content area (Reading or Mathematics) than across content areas. These within content area strand correlations are close to, or exceed 1.0 in many cases.

Table 13–23. Grade 3 Disattenuated Correlations

M	-									
MA	-	-								
MB	-	1.014	-							
MC	-	0.930	0.956	-						
MD	-	0.978	0.958	0.904	-					
ME	-	0.890	0.904	0.874	0.950	-				
R	0.817	0.800	0.856	0.827	0.772	0.753	-			
RA	0.813	0.796	0.850	0.821	0.771	0.751	-	-		
RB	0.834	0.818	0.876	0.848	0.781	0.763	-	1.011	-	
	M	MA	MB	MC	MD	ME	R	RA	RB	

Table 13–24. Grade 4 Disattenuated Correlations

M	-									
MA	-	-								
MB	-	1.006	-							
MC	-	0.885	0.886	-						
MD	-	0.983	0.970	0.862	-					
ME	-	1.030	1.074	0.914	1.008	-				
R	0.854	0.842	0.869	0.782	0.828	0.911	-			
RA	0.852	0.840	0.870	0.775	0.824	0.909	-	-		
RB	0.865	0.852	0.873	0.801	0.841	0.921	-	1.010	-	
	M	MA	MB	MC	MD	ME	R	RA	RB	

Table 13–25. Grade 5 Disattenuated Correlations

M	-								
MA	-	-							
MB	-	0.976	-						
MC	-	0.962	0.982	-					
MD	-	0.971	0.937	0.958	-				
ME	-	1.024	0.999	1.032	1.005	-			
R	0.866	0.840	0.845	0.887	0.860	0.911	-		
RA	0.863	0.838	0.846	0.885	0.858	0.903	-	-	
RB	0.875	0.849	0.848	0.896	0.868	0.930	-	1.009	-
	M	MA	MB	MC	MD	ME	R	RA	RB

Table 13–26. Grade 6 Disattenuated Correlations

M	-								
MA	-	-							
MB	-	0.946	-						
MC	-	0.972	0.984	-					
MD	-	1.015	0.963	0.981	-				
ME	-	0.990	0.953	0.966	0.997	-			
R	0.850	0.827	0.791	0.864	0.887	0.834	-		
RA	0.847	0.820	0.795	0.862	0.883	0.833	-	-	
RB	0.861	0.842	0.793	0.875	0.900	0.844	-	1.016	-
	M	MA	MB	MC	MD	ME	R	RA	RB

Table 13–27. Grade 7 Disattenuated Correlations

M	-								
MA	-	-							
MB	-	1.009	-						
MC	-	0.968	0.935	-					
MD	-	1.090	1.028	0.991	-				
ME	-	1.052	0.994	0.967	1.060	-			
R	0.869	0.884	0.824	0.846	0.907	0.901	-		
RA	0.869	0.886	0.828	0.847	0.906	0.893	-	-	
RB	0.870	0.884	0.819	0.845	0.909	0.908	-	1.002	-
	M	MA	MB	MC	MD	ME	R	RA	RB

Table 13–28. Grade 8 Disattenuated Correlations

M	-								
MA	-	-							
MB	-	0.951	-						
MC	-	0.944	1.000	-					
MD	-	0.971	0.991	0.980	-				
ME	-	0.987	0.986	0.976	0.988	-			
R	0.870	0.848	0.857	0.848	0.866	0.893	-		
RA	0.868	0.854	0.849	0.846	0.863	0.893	-	-	
RB	0.874	0.845	0.867	0.853	0.872	0.895	-	1.007	-
	M	MA	MB	MC	MD	ME	R	RA	RB

Table 13–29. Grade 11 Disattenuated Correlations

M	-									
MA	-	-								
MB	-	1.083	-							
MC	-	0.969	1.103	-						
MD	-	0.998	1.102	0.988	-					
ME	-	1.033	1.182	1.051	1.070	-				
R	0.868	0.852	0.962	0.827	0.871	0.932	-			
RA	0.866	0.857	0.957	0.825	0.871	0.925	-	-		
RB	0.866	0.844	0.965	0.826	0.869	0.936	-	0.995	-	
	M	MA	MB	MC	MD	ME	R	RA	RB	

VALIDITY EVIDENCE SUMMARY

As noted earlier, “validity refers to the degree to which evidence and theory support the interpretation of test scores entailed by the proposed uses of the tests” (AERA, APA, & NCME, 1999, p. 9). Further, it was stated that validity considerations must be judged in relation to the PSSA’s primary purposes (overviewed in Chapter 1). While this entire technical document provides information that can (and should) be weighed when establishing the body of validity evidence, this summary is structured based primarily on two of the five sources of validity evidence identified in the *Standards for Educational and Psychological Testing*, that is, evidence based on test content and internal structure.

Validity evidence related to test content was presented earlier in this chapter. Further, details about how the 2008 PSSA assessments were assembled to reflect the state content standards and information regarding educator reviews (including content and bias and sensitivity reviews) was presented in Chapter 3. On the whole, the early chapters of this technical report show that a strong link can be established between each PSSA item and its associated eligible content.

The PDE’s commitment to validity is also evidenced by the fact that the Pennsylvania State Board of Education commissioned an independent study of an earlier version of the PSSA. That study, conducted by HumRRO, included an extensive evaluation of the items (Thacker and Dickinson, 2004) and of statistical relationships of the PSSA, including convergent and discriminant validity (Thacker, Dickinson and Koger, 2004).

Strand score intercorrelations were also presented in this chapter. In general one finds that the math strands correlated more highly with themselves than they did with Reading strands (and vice versa). Consequently, this provides some favorable evidence regarding the internal and external relationships among the tests’ components.

Validity of score inferences is bolstered when test scores are consistent. Here, the reliability of the total test scores were very good.

Reported in Chapter 5, differential item functioning (DIF) with respect to gender and ethnicity helps address construct-irrelevant variance, which represents an important threat to the validity of inferences made from achievement test scores. As noted in that chapter, field-test items are screened and reviewed for DIF. Only items approved by teacher committees are eligible for operational use.

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Appendix A:
**Mathematics Assessment Anchor Content Standards
Integration**

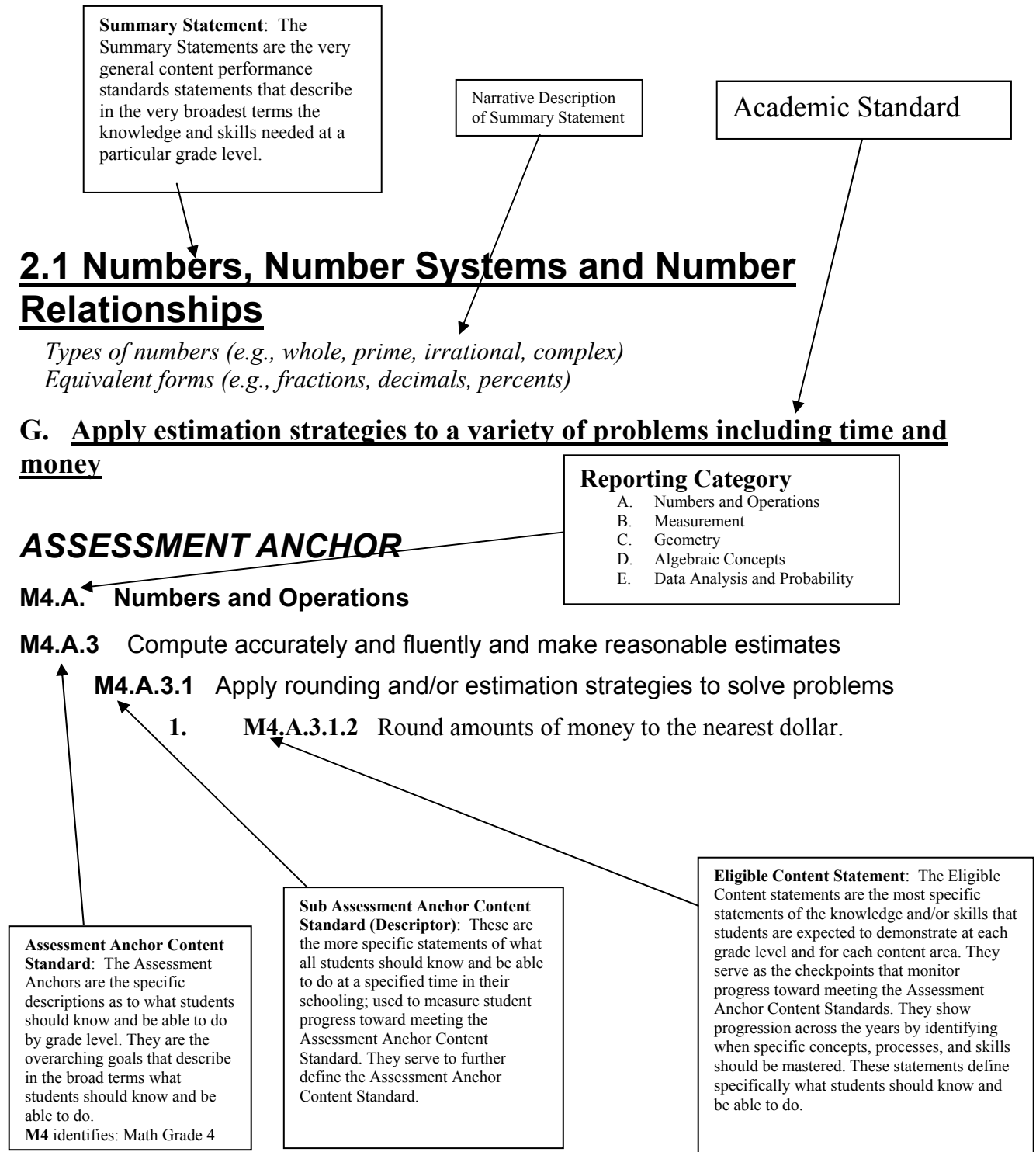
**Assessment Anchor
Math
Content Standards

Grades 4 & 11**

** Assessed at the local level.*

Understanding the 2007 Pennsylvania Assessment Anchor Content Standards

For Grades 3-11



* Assessed at the local level.

Standards / Anchor Alignment - Math Grade 4

2.1. Numbers, Number Systems and Number Relationships

C. Represent equivalent forms of the same number through the use of concrete objects, drawings, word names, and symbols.

ASSESSMENT ANCHOR

M4.A.1 Demonstrate an understanding of numbers, ways of representing numbers, relationships among numbers and number systems.

M4.A.1.1 Use models and/or words to represent quantities as decimals, fractions or mixed numbers.

M4.A.1.1.1 Write the fraction or decimal, including mixed numbers, which corresponds to a drawing or set – no simplification necessary.

M4.A.1.1.2 Create a drawing or set that represents a given fraction or decimal, including mixed numbers (through the tenths).

D. Use drawings, diagrams or models to show the concept of fraction as part of a whole.

ASSESSMENT ANCHOR

M4.A.1 Demonstrate an understanding of numbers, ways of representing numbers, relationships among numbers and number systems.

M4.A.1.1 Use models and/or words to represent quantities as decimals, fractions or mixed numbers.

M4.A.1.1.1 Write the fraction or decimal, including mixed numbers, which corresponds to a drawing or set – no simplification necessary.

M4.A.1.1.2 Create a drawing or set that represents a given fraction or decimal, including mixed numbers (through the tenths).

E. Count, compare and make change using a collection of coins and one-dollar bills.

ASSESSMENT ANCHOR

M4.A.1 Demonstrate an understanding of numbers, ways of representing numbers, relationships among numbers and number systems.

M4.A.1.2 Compare quantities and magnitudes of numbers.

M4.A.1.2.2 Compare and/or order whole numbers through 6 digits and amounts of money to \$100 (limit sets for ordering, to no more than 4 numbers).

** Assessed at the local level.*

A. Use expanded notation to represent whole numbers or decimals.

ASSESSMENT ANCHOR

M4.A.1 Demonstrate an understanding of numbers, ways of representing numbers, relationships among numbers and number systems.

M4.A.1.1 Use models and/or words to represent quantities as decimals, fractions or mixed numbers.

M4.A.1.1.4 Write whole numbers in expanded, standard and/or word form through 6 digits (example of standard to expanded form: $43,076 = 40,000 + 3000 + 70 + 6$).

D. Use models to represent fractions and decimals.

ASSESSMENT ANCHOR

M4.A.1 Demonstrate an understanding of numbers, ways of representing numbers, relationships among numbers and number systems.

M4.A.1.1 Use models and/or words to represent quantities as decimals, fractions or mixed numbers.

M4.A.1.1.1 Write the fraction or decimal, including mixed numbers, which corresponds to a drawing or set – no simplification necessary.

M4.A.1.1.2 Create a drawing or set that represents a given fraction or decimal, including mixed numbers (through the tenths).

M4.A.1.2 Compare quantities and magnitudes of numbers.

M4.A.1.2.1 Locate/identify fractions or decimals on a number line (decimals and fractions through the tenths – do not mix fractions and decimals).

F. Use simple concepts of negative numbers (e.g., on a number line, in counting, in temperature).

ASSESSMENT ANCHOR

M4.A.1 Demonstrate an understanding of numbers, ways of representing numbers, relationships among numbers and number systems.

M4.A.1.2 Compare quantities and magnitudes of numbers.

M4.A.1.2.1 Locate/identify fractions or decimals on a number line (decimals and fractions through the tenths – do not mix fractions and decimals).

G. Develop and apply number theory concepts (e.g., primes, factors, multiples, composites) to represent numbers in various ways.

ASSESSMENT ANCHOR

M4.A.1 Demonstrate an understanding of numbers, ways of representing numbers, relationships among numbers and number systems.

M4.A.1.3 Develop and/or apply number theory concepts to represent numbers in various ways

* Assessed at the local level.

M4.A.1.3.1 Find/list/identify all factors through 10 of any given number.

M4.A.1.3.2 Find/list/identify multiples of a number, where the multiples do not exceed 100

** Assessed at the local level.*

2.2 Computation and Estimation

Create and solve word problems involving addition, subtraction, multiplication and division of whole numbers.

ASSESSMENT ANCHOR

M4.A.2 Understand the meanings of operations, use operations and understand how they relate to each other.

M4.A.2.1 Use operations to solve problems (may include word problems).

M4.A.2.1.1 Solve problems involving all operations with whole numbers, and/or explain the solution (limit to two-step problems; e.g., multiply then add – single digit multipliers and divisors).

Develop and apply algorithms to solve word problems that involve addition, subtraction, and/or multiplication with decimals with and without regrouping.

ASSESSMENT ANCHOR

M4.A.2 Understand the meanings of operations, use operations and understand how they relate to each other.

M4.A.2.1 Use operations to solve problems (may include word problems).

M4.A.2.1.2 Solve problems involving addition or subtraction with decimals through the tenths or money to the cent and/or explain the solution. Limit to two-step problems.

ASSESSMENT ANCHOR

M4.A.3 Compute accurately and fluently and make reasonable estimates.

M4.A.3.2 Compute using fractions or decimals (written vertically or horizontally - straight computation only).

M4.A.3.2.1 Solve addition or subtraction problems involving decimals through hundredths (decimal numbers must have the same number of places).

Develop and apply algorithms to solve word problems that involve addition, subtraction, and/or multiplication with fractions and mixed numbers that include like and unlike denominators.

ASSESSMENT ANCHOR

M4.A.3 Compute accurately and fluently and make reasonable estimates

M4.A.3.2 Compute using fractions or decimals (written vertically or horizontally - straight computation only).

* Assessed at the local level.

M4.A.3.2.2 Solve addition or subtraction problems with fractions with like denominators (denominators to 10, no simplifying necessary).

Demonstrate the ability to round numbers.

ASSESSMENT ANCHOR

M4.A.3 Compute accurately and fluently and make reasonable estimates.

M4.A.3.1 Apply rounding and/or estimation strategies to solve problems.

2. **M4.A.3.1.1** Round whole numbers to the nearest ten, hundred, thousand, ten-thousand or hundred-thousand.

3. **M4.A.3.1.2** Round amounts of money to the nearest dollar.

Determine through estimations the reasonableness of answers to problems involving addition, subtraction, multiplication and division of whole numbers.

ASSESSMENT ANCHOR

M4.A.3 Compute accurately and fluently and make reasonable estimates.

M4.A.3.1 Apply rounding and/or estimation strategies to solve problems.

M4.A.3.1.3 Estimate the answer to addition, subtraction and multiplication problems using whole numbers through 6 digits (for multiplication, no more than 2 digits X 1 digit, excluding powers of 10).

G. Apply estimation strategies to a variety of problems including time and money

ASSESSMENT ANCHOR

M4.A.3 Compute accurately and fluently and make reasonable estimates.

M4.A.3.1 Apply rounding and/or estimation strategies to solve problems.

4. **M4.A.3.1.2** Round amounts of money to the nearest dollar.

** Assessed at the local level.*

2.3 Measurement and Estimation

C. Determine and compare elapsed times.

ASSESSMENT ANCHOR

M4.B.1 Demonstrate an understanding of measurable attributes of objects and figures, and the units, systems and processes of measurement.

M4.B.1.1 Determine time and/or calculate elapsed time.

M4.B.1.1.2 Identify time (analog or digital) as the amount of minutes before and/or after the hour (e.g., 2:50 is the same as 10 minutes before 3:00; quarter past six is the same as 6:15).

M4.B.1.1.3 Calculate the elapsed time, to the minute, in a given situation (limited to 2 adjacent hours).

M4.B.1.1.4 Determine the beginning or ending time, given the elapsed time (limited to 2 adjacent hours).

D. Tell time (analog and digital) to the minute.

ASSESSMENT ANCHOR

M4.B.1 Demonstrate an understanding of measurable attributes of objects and figures, and the units, systems and processes of measurement.

M4.B.1.1 Determine time and/or calculate elapsed time.

M4.B.1.1.1 Match/construct analog time (a picture of a clock), to the same time written in digital.

G. Demonstrate the concept of multiplication as repeated addition and arrays.

ASSESSMENT ANCHOR

M4.B.2 Apply appropriate techniques, tools and formulas to determine measurements.

M4.B.2.2 Estimate measurements of figures.

M4.B.2.2.1 Make reasonable estimates of weights, lengths and capacities of familiar objects (measurements in the same system).

Select and use appropriate instruments and units for measuring quantities (e.g., perimeter, volume, area, weight, time, temperature).

ASSESSMENT ANCHOR

M4.B.2 Apply appropriate techniques, tools and formulas to determine measurements.

* Assessed at the local level.

M4.B.2.1 Select and/or use appropriate tools and/or attributes for measuring quantities.

M4.B.2.1.1 Use or read a ruler (provided) to measure to the nearest 1/4 inch or centimeter.

Select and use standard tools to measure the size of figures with specified accuracy, including length, width, perimeter and area.

ASSESSMENT ANCHOR

M4.B.2 Apply appropriate techniques, tools and formulas to determine measurements.

M4.B.2.1 Apply appropriate techniques, tools and formulas to determine measurements.

M4.B.2.1.1 Use or read a ruler (provided) to measure to the nearest 1/4 inch or centimeter.

Estimate, refine and verify specified measurements of objects.

ASSESSMENT ANCHOR

M4.B.2 Apply appropriate techniques, tools and formulas to determine measurements.

M4.B.2.2 Estimate measurements of figures.

M4.B.2.2.1 Make reasonable estimates of weights, lengths and capacities of familiar objects (measurements in the same system).

** Assessed at the local level.*

2.4. Mathematical Reasoning and Connections (embedded in all anchors)

2.5. Mathematical Problem Solving and Communication (embedded in all anchors)

** Assessed at the local level.*

2.6. Statistics and Data Analysis

A. Gather, organize and display data using pictures, tallies, charts, bar graphs and pictographs.

ASSESSMENT ANCHOR

M4.E.1 Formulate questions that can be addressed with data and/or collect, organize, display and analyze data.

M4.E.1.2 Organize or display data using tables, bar graphs, line graphs or pictographs.

M4.E.1.2.1 Graph data or complete a graph given the data (bar graph or pictograph – grid is provided).

M4.E.1.2.2 Translate information from one type of display to another (table, chart, bar graph, or pictograph).

B. Formulate and answer questions based on data shown on graphs.

ASSESSMENT ANCHOR

M4.E.1 Formulate questions that can be addressed with data and/or collect, organize, display and analyze data.

M4.E.1.1 Interpret data shown on tables, charts, line graphs, bar graphs or pictographs

M4.E.1.1.1 Describe, interpret and/or answer questions based on data shown in tables, charts, bar graphs or pictographs.

C. Predict the likely number of times a condition will occur based on analyzed data.

ASSESSMENT ANCHOR

M4.E.3 Understand and apply basic concepts of probability or outcomes.

M4.E.3.1 Predict and/or measure the likelihood of events.

M4.E.3.1.1 Make a prediction based on data or chance (data may be shown in tables, charts, line graphs, bar graphs or pictographs).

A. Organize and display data using pictures, tallies, tables, charts, bar graphs and circle graphs.

ASSESSMENT ANCHOR

M4.E.1 Formulate questions that can be addressed with data and/or collect, organize, display and analyze data.

M4.E.1.2 Organize or display data using tables, bar graphs, line graphs or pictographs.

M4.E.1.2.1 Graph data or complete a graph given the data (bar graph or pictograph – grid is provided).

** Assessed at the local level.*

M4.E.1.2.2 Translate information from one type of display to another (table, chart, bar graph, or pictograph).

Predict the likely number of times a condition will occur based on analyzed data.

ASSESSMENT ANCHOR

M4.E.3 Understand and apply basic concepts of probability or outcomes.

M4.E.3.1 Predict and/or measure the likelihood of events.

M4.E.3.1.1 Make a prediction based on data or chance (data may be shown in tables, charts, line graphs, bar graphs or pictographs).

Construct and defend simple conclusions based on data.

ASSESSMENT ANCHOR

M4.E.1 Formulate questions that can be addressed with data and/or collect, organize, display and analyze data.

M4.E.1.1 Interpret data shown on tables, charts, line graphs, bar graphs or pictographs.

M4.E.1.1.1 Describe, interpret and/or answer questions based on data shown in tables, charts, bar graphs or pictographs.

** Assessed at the local level.*

2.7. Probability and Predictions

- A. Predict and measure the likelihood of events and recognize that the results of an experiment may not match predicted outcomes.**

ASSESSMENT ANCHOR

M4.E.3 Understand and apply basic concepts of probability or outcomes.

M4.E.3.1 Predict and/or measure the likelihood of events.

M4.E.3.1.1 Make a prediction based on data or chance (data may be shown in tables, charts, line graphs, bar graphs or pictographs).

** Assessed at the local level.*

2.8. Algebra and Functions

Recognize, describe, extend, create and replicate a variety of patterns including attribute, activity, number and geometric patterns.

ASSESSMENT ANCHOR

M4.D.1 Demonstrate an understanding of patterns, relations and functions.

M4.D.1.1 Recognize, describe, extend, create and/or replicate a variety of patterns.

M4.D.1.1.1 Extend or find a missing element in a numerical or geometric pattern (+, - or x may be used – numerical patterns must be whole numbers).

M4.D.1.1.3 Create or replicate a numerical or geometric pattern showing 3 repetitions (+, - or x may be used - numerical patterns must be whole numbers or money).

Use concrete objects and trial and error to solve number sentences and check if solutions are sensible and accurate.

ASSESSMENT ANCHOR

M4.D.2 Represent and/or analyze mathematical situations and structures using algebraic symbols, words, tables and graphs.

M4.D.2.2 Determine the missing number or symbol in a number sentence.

M4.D.2.2.1 Solve for a missing number in an equation (using estimation, guess & check, etc.). May use +, - or single digit x or ÷.

Substitute a missing addend in a number sentence.

ASSESSMENT ANCHOR

M4.D.2 Represent and/or analyze mathematical situations and structures using algebraic symbols, words, tables and graphs.

M4.D.2.2 Determine the missing number or symbol in a number sentence.

M4.D.2.2.2 Identify the missing symbol (+, -, x, ÷, =, <, >) that makes a number sentence true (single digit x or ÷ only).

Create a story to match a given combination of symbols and numbers.

ASSESSMENT ANCHOR

M4.D.2 Represent and/or analyze mathematical situations and structures using algebraic symbols, words, tables and graphs.

* Assessed at the local level.

M4.D.2.1 Use numbers and symbols to model the concepts of expressions and/or equations.

M4.D.2.1.1 Correlate story situations with expressions or equations (may use numbers and one operation +, - or x; no variables).

Recognize, reproduce, extend, create and describe patterns, sequences and relationships verbally, numerically, symbolically and graphically, using a variety of materials.

ASSESSMENT ANCHOR

M4.D.1 Demonstrate an understanding of patterns, relations and functions.

M4.D.1.1 Recognize, describe, extend, create and/or replicate a variety of patterns.

M4.D.1.1.1 Extend or find a missing element in a numerical or geometric pattern (+, - or x may be used – numerical patterns must be whole numbers).

M4.D.1.1.3 Create or replicate a numerical or geometric pattern showing 3 repetitions (+, - or x may be used - numerical patterns must be whole numbers or money).

C. Form rules based on patterns (e.g., an equation that relates pairs in a sequence).

ASSESSMENT ANCHOR

M4.D.1 Demonstrate an understanding of patterns, relations and functions.

M4.D.1.1 Recognize, describe, extend, create and/or replicate a variety of patterns

5. **M4.D.1.1.2** Identify/describe the rule for a numerical or geometric pattern shown (+, - or x may be used - numerical patterns must be whole numbers).

ASSESSMENT ANCHOR

6. **M4.D.1** Demonstrate an understanding of patterns, relations and functions.

M4.D.1.2 Apply simple function rules.

M4.D.1.2.1 Determine the missing elements in a function table (functions may use +, - or x and whole numbers or money).

Describe a realistic situation using information given in equations, inequalities, tables or graphs.

ASSESSMENT ANCHOR

M4.D.2 Represent and/or analyze mathematical situations and structures using algebraic symbols, words, tables and graphs.

** Assessed at the local level.*

M4.D.2.1 Use numbers and symbols to model the concepts of expressions and/or equations.

M4.D.2.1.1 Correlate story situations with expressions or equations (may use numbers and one operation +, - or x ; no variables).

7.

** Assessed at the local level.*

2.9. Geometry

Identify and draw lines of symmetry in geometric figures.

ASSESSMENT ANCHOR

M4.C.2 Identify and/or apply concepts of transformations or symmetry.

M4.C.2.1 Apply the concepts of reflection and symmetry.

M4.C.2.1.1 Identify or create figures that have one, two or no lines of symmetry.

B. Classify and compare triangles and quadrilaterals according to sides or angles.

ASSESSMENT ANCHOR

M4.C.1 Analyze characteristics and properties of two- and three- dimensional geometric shapes and demonstrate understanding of geometric relationships.

M4.C.1.1 Identify/describe the basic properties of geometric figures in two or three dimensions.

M4.C.1.1.1 Identify, classify and/or compare two-dimensional figures (circle, triangle, square, parallelogram, trapezoid, rhombus, rectangle, pentagon, hexagon, octagon).

C. Identify and measure circles, their diameters and their radii.

ASSESSMENT ANCHOR

M4.C.1 Analyze characteristics and properties of two- and three- dimensional geometric shapes and demonstrate understanding of geometric relationships.

M4.C.1.1 Identify/describe the basic properties of geometric figures in two or three dimensions.

M4.C.1.1.1 Identify, classify and/or compare two-dimensional figures (circle, triangle, square, parallelogram, trapezoid, rhombus, rectangle, pentagon, hexagon, octagon).

I. Identify properties of geometric figures (e.g., parallel, perpendicular, similar, congruent, symmetrical).

ASSESSMENT ANCHOR

M4.C.1 Analyze characteristics and properties of two- and three- dimensional geometric shapes and demonstrate understanding of geometric relationships.

M4.C.1.2 Represent and/or use properties or relationships of points, lines, line segments, rays and angles.

M4.C.1.2.1 Identify points, lines, line segments or rays.

8. M4.C.1.2.2 Identify parallel and perpendicular lines.

* Assessed at the local level.

J. Represent and use the concepts of line, point and plane.

ASSESSMENT ANCHOR

M4.C.1 Analyze characteristics and properties of two- and three- dimensional geometric shapes and demonstrate understanding of geometric relationships.

M4.C.1.1 Identify/describe the basic properties of geometric figures in two or three dimensions.

M4.C.1.1.1 Identify, classify and/or compare two-dimensional figures (circle, triangle, square, parallelogram, trapezoid, rhombus, rectangle, pentagon, hexagon, octagon).

M4.C.1.1.2 Identify or classify three-dimensional figures (cube, sphere, rectangular prism and pyramid).

L. Define the basic properties of squares, pyramids, parallelograms, quadrilaterals, trapezoids, polygons, rectangles, rhombi, circles, triangles, cubes, prisms, spheres and cylinders.

ASSESSMENT ANCHOR

M4.C.1 Analyze characteristics and properties of two- and three- dimensional geometric shapes and demonstrate understanding of geometric relationships.

M4.C.1.2 Represent and/or use properties or relationships of points, lines, line segments, rays and angles.

M4.C.1.2.2 Identify parallel and perpendicular lines.

2.10. Trigonometry

2.11. Concepts of Calculus

** Assessed at the local level.*

Standards / Anchor Alignment - Math Grade 11

2.2. Numbers, Number Systems and Number Relationships

2.1.8.A. Represent and use numbers in equivalent forms (e.g., integers, fractions, decimals, percents, exponents, scientific notation, square roots).

ASSESSMENT ANCHOR

M11.A.1 Demonstrate an understanding of numbers, ways of representing numbers, relationships among numbers and number systems.

M11.A.1.1 Represent and/or use numbers in equivalent forms (e.g., integers, fractions, decimals, percents, square roots, exponents and scientific notation).

M11.A.1.1.1 Find the square root of an integer to the nearest tenth using either a calculator or estimation.

M11.A.1.1.2 Express numbers and/or simplify expressions using scientific notation (including numbers less than 1).

2.1.8.E Simplify and expand algebraic expressions using exponential forms.

ASSESSMENT ANCHOR

M11.A.1 Demonstrate an understanding of numbers, ways of representing numbers, relationships among numbers and number systems.

M11.A.1.2 Apply number theory concepts to show relationships between real numbers in problem solving settings.

M11.A.1.2.1 Find the Greatest Common Factor (GCF) and/or the Least Common Multiple (LCM) for sets of monomials.

ASSESSMENT ANCHOR

M11.D.2 Represent and/or analyze mathematical situations using numbers, symbols, words, tables and/or graphs.

M11.D.2.2 Simplify expressions involving polynomials.

M11.D.2.2.1 Add, subtract and/or multiply polynomial expressions (express answers in simplest form – nothing larger than a binomial multiplied by a trinomial).

M11.D.2.2.2 Factor algebraic expressions, including difference of squares and trinomials (trinomials limited to the form ax^2+bx+c where a is not equal to 0).

M11.D.2.2.3 Simplify algebraic fractions.

ASSESSMENT ANCHOR

M11.A.2 Understand the meanings of operations, use operations and understand how they relate to each other.

** Assessed at the local level.*

M11.A.2.2 Use exponents, roots and/or absolute value to solve problems.

M11.A.2.2.1 Simplify/evaluate expressions involving positive and negative exponents, roots and/or absolute value (may contain all types of real numbers - exponents should not exceed power of 10).

M11.A.2.2.2 Simplify/evaluate expressions involving multiplying with exponents (e.g. $x^6 * x^7 = x^{13}$), powers of powers (e.g., $(x^6)^7 = x^{42}$) and powers of products $(2x^2)^3 = 8x^6$ (positive exponents only).

ASSESSMENT ANCHOR

M11.A.3 Compute accurately and fluently and make reasonable estimates.

M11.A.3.1 Apply the order of operations in computation and in problem-solving situations.

M11.A.3.1.1 Simplify/evaluate expressions using the order of operations to solve problems (any rational numbers may be used).

A. Use operations (e.g., opposite, reciprocal, absolute value, raising to a power, finding roots, finding logarithms).

ASSESSMENT ANCHOR

M11.A.1 Demonstrate an understanding of numbers, ways of representing numbers, relationships among numbers and number systems.

M11.A.1.1 Represent and/or use numbers in equivalent forms (e.g., integers, fractions, decimals, percents, square roots, exponents and scientific notation).

M11.A.1.1.1 Find the square root of an integer to the nearest tenth using either a calculator or estimation.

M11.A.1.1.2 Express numbers and/or simplify expressions using scientific notation (including numbers less than 1).

M11.A.1.1.3 Simplify square roots. (e.g., $\sqrt{24} = 2\sqrt{6}$)

ASSESSMENT ANCHOR

M11.A.2 Understand the meanings of operations, use operations and understand how they relate to each other.

M11.A.2.2 Use exponents, roots and/or absolute value to solve problems

M11.A.2.2.1 Simplify/evaluate expressions involving positive and negative exponents, roots and/or absolute value (may contain all types of real numbers - exponents should not exceed power of 10).

M11.A.2.2.2 Simplify/evaluate expressions involving multiplying with exponents (e.g. $x^6 * x^7 = x^{13}$), powers of powers (e.g., $(x^6)^7 = x^{42}$) and powers of products $(2x^2)^3 = 8x^6$ (positive exponents only).

* Assessed at the local level.

2.2 Computation and Estimation

2.2.8.A. Complete calculations by applying the order of operations.

ASSESSMENT ANCHOR

M11.A.3 Compute accurately and fluently and make reasonable estimates.

M11.A.3.1 Apply the order of operations in computation and in problem-solving situations.

M11.A.3.1.1 Simplify/evaluate expressions using the order of operations to solve problems (any rational numbers may be used).

2.2.8.C Estimate the value of irrational numbers

ASSESSMENT ANCHOR

M11.A.1 Demonstrate an understanding of numbers, ways of representing numbers, relationships among numbers and number systems.

M11.A.1.3 Estimate the value of an irrational number.

M11.A.1.3.1 Locate/identify irrational numbers at the approximate location on a number line.

M11.A.1.3.2 Compare and/or order any real numbers (rational and irrational may be mixed).

Develop and use computation concepts, operations and procedures with real numbers in problem-solving situations.

ASSESSMENT ANCHOR

M11.A.2 Understand the meanings of operations, use operations and understand how they relate to each other.

M11.A.2.1 Apply ratio and/or proportion in problem-solving situations.

M11.A.2.1.1 Solve problems using operations with rational numbers including rates and percents (single and multi-step and multiple procedure operations) (e.g., distance, work and mixture problems, etc.).

M11.A.2.2 Use exponents, roots and/or absolute value to solve problems.

M11.A.2.2.1 Simplify/evaluate expressions involving positive and negative exponents, roots and/or absolute value (may contain all types of real numbers - exponents should not exceed power of 10).

M11.A.2.2.2 Simplify/evaluate expressions involving multiplying with exponents (e.g. $x^6 * x^7 = x^{13}$), powers of powers (e.g., $(x^6)^7 = x^{42}$) and powers of products $(2x^2)^3 = 8x^6$ (positive exponents only).

ASSESSMENT ANCHOR

M11.A.3 Compute accurately and fluently and make reasonable estimates.

M11.A.3.1 Apply the order of operations in computation and in problem-solving situations.

** Assessed at the local level.*

M11.A.3.1.1 Simplify/evaluate expressions using the order of operations to solve problems (any rational numbers may be used).

M11.A.3.2 Use estimation strategies in problem-solving situations.

M11.A.3.2.1 Use estimation to solve problems.

Use estimation to solve problems for which an exact answer is not needed.

ASSESSMENT ANCHOR

M11.A.3 Compute accurately and fluently and make reasonable estimates.

M11.A.3.2 Use estimation strategies in problem-solving situations.

M11.A.3.2.1 Use estimation to solve problems.

Construct and apply mathematical models, including lines and curves of best fit, to estimate values of related quantities.

Describe and explain the amount of error that may exist in a computation using estimates.

ASSESSMENT ANCHOR

M11.A.3 Compute accurately and fluently and make reasonable estimates.

M11.A.3.2 Use estimation strategies in problem-solving situations.

M11.A.3.2.1 Use estimation to solve problems.

Recognize that the degree of precision needed in calculating a number depends on how the results will be used and the instruments used to generate the measure.

Demonstrate skills for using computer spreadsheets and scientific and graphing calculators.

** Assessed at the local level.*

2.3 Measurement and Estimation

2.3.8.A Develop formulas and procedures for determining measurements (e.g., area, volume, distance).

ASSESSMENT ANCHOR

M11.B.2 Apply appropriate techniques, tools and formulas to determine measurements.

M11.B.2.2 Use and/or develop procedures to determine or describe measures of perimeter, circumference, area, surface area and/or volume. (May require conversions within the same system.)

M11.B.2.2.1 Calculate the surface area of prisms, cylinders, cones, pyramids and/or spheres. Formulas are provided on the reference sheet.

M11.B.2.2.2 Calculate the volume of prisms, cylinders, cones, pyramids and/or spheres. Formulas are provided on the reference sheet.

M11.B.2.2.3 Estimate area, perimeter or circumference of an irregular figure.

M11.B.2.2.4 Find the measurement of a missing length given the perimeter, circumference, area or volume.

2.3.8.E. Describe how a change in linear dimension of an object affects its perimeter, area and volume.

ASSESSMENT ANCHOR

M11.B.2 Apply appropriate techniques, tools and formulas to determine measurements.

M11.B.2.3 Describe how a change in one dimension of a figure (2 or 3 dimensional) affects other measurements of that figure.

M11.B.2.3.1 Describe how a change in the linear dimension of a figure affects its perimeter, circumference, area or volume.

- How does changing the length of the radius of a circle affect the circumference of the circle?
- How does changing the length of the edge of a cube affect the volume of the cube?
- How does changing the length of the base of a triangle affect the area of the triangle?

M11.B.2.2.1 Calculate the surface area of prisms, cylinders, cones, pyramids and/or spheres. Formulas are provided on the reference sheet.

M11.B.2.2.2 Calculate the volume of prisms, cylinders, cones, pyramids and/or spheres. Formulas are provided on the reference sheet.

M11.B.2.2.3 Estimate area, perimeter or circumference of an irregular figure.

A. Select and use appropriate units and tools to measure to the degree of accuracy required in particular measurement situations.

* Assessed at the local level.

ASSESSMENT ANCHOR

M11.B.2 Apply appropriate techniques, tools and formulas to determine measurements.

M11.B.2.1 Use and/or compare measurements of angles.

M11.B.2.1.1 Measure and/or compare angles in degrees (up to 360°) (protractor must be provided or drawn).

B. Measure and compare angles in degrees and radians.

ASSESSMENT ANCHOR

M11.B.2 Apply appropriate techniques, tools and formulas to determine measurements.

M11.B.2.1 Use and/or compare measurements of angles.

M11.B.2.1.1 Measure and/or compare angles in degrees (up to 360°) (protractor must be provided or drawn).

C. Demonstrate the ability to produce measures with specified levels of precision.

** Assessed at the local level.*

.2.4. Mathematical Reasoning and Connections (embedded in all anchors)

Use direct proofs, indirect proofs or proof by contradiction to validate conjectures.

Construct valid arguments from stated facts.

Determine the validity of an argument.

Use truth tables to reveal the logic of mathematical statements.

Demonstrate mathematical solutions to problems (e.g., in the physical sciences).

** Assessed at the local level.*

2.5. Mathematical Problem Solving and Communication (embedded in all anchors)

- A. **Select and use appropriate mathematical concepts and techniques from different areas of mathematics and apply them to solving non-routine and multi-step problems.**

- B. **Use symbols, mathematical terminology, standard notation, mathematical rules, graphing and other types of mathematical representations to communicate observations, predictions, concepts, procedures, generalizations, ideas and results.**

- C. **Present mathematical procedures and results clearly, systematically, succinctly and correctly.**

- D. **Conclude a solution process with a summary of results and evaluate the degree to which the results obtained represent an acceptable response to the initial problem and why the reasoning is valid.**

** Assessed at the local level.*

2.6 Statistics and Data Analysis

2.6.8.A. Compare and contrast different plots of data using values of mean, median, mode, quartiles and range.

ASSESSMENT ANCHOR

M11.E.2 Select and/or use appropriate statistical methods to analyze data.

M11.E.2.1 Use measures of central tendency to describe a set of data.

M11.E.2.1.1 Calculate or select the appropriate measure of central tendency (mean, mode or median) of a set of data given or represented on a table, line plot or stem-and-leaf plot.

M11.E.2.1.2 Calculate and/or interpret the range, quartiles and interquartile range of data.

M11.E.2.1.3 Describe how outliers affect measures of central tendency.

2.6.8.E. Analyze and display data in stem-and-leaf and box-and-whisker plots.

ASSESSMENT ANCHOR

M11.E.1 Formulate or answer questions that can be addressed with data and/or organize, display, interpret or analyze data.

M11.E.1.1 Appropriately display and/or use data in problem-solving settings.

M11.E.1.1.1 Create and/or use appropriate graphical representations of data, including box-and-whisker plots, stem-and-leaf plots or scatter plots.

M11.E.1.1.2 Analyze data and/or answer questions based on displayed data (box-and-whisker plots, stem-and-leaf plots or scatter plots).

A. Design and conduct an experiment using random sampling. Describe the data as an example of a distribution using statistical measures of center and spread. Organize and represent the results with graphs. (Use standard deviation, variance and t-tests.)

ASSESSMENT ANCHOR

M11.E.1 Formulate or answer questions that can be addressed with data and/or organize, display, interpret or analyze data.

M11.E.1.1 Appropriately display and/or use data in problem-solving settings.

M11.E.1.1.1 Create and/or use appropriate graphical representations of data, including box-and-whisker plots, stem-and-leaf plots or scatter plots.

M11.E.1.1.2 Analyze data and/or answer questions based on displayed data (box-and-whisker plots, stem-and-leaf plots or scatter plots).

ASSESSMENT ANCHOR

M11.E.2 Select and/or use appropriate statistical methods to analyze data.

** Assessed at the local level.*

M11.E.2.1 Use measures of central tendency to describe a set of data.

M11.E.2.1.1 Calculate or select the appropriate measure of central tendency (mean, mode or median) of a set of data given or represented on a table, line plot or stem-and-leaf plot.

M11.E.2.1.2 Calculate and/or interpret the range, quartiles and interquartile range of data.

M11.E.2.1.3 Describe how outliers affect measures of central tendency.

B. Use appropriate technology to organize and analyze data taken from the local community.

C. Determine the regression equation of best fit (e.g., linear, quadratic, exponential).

ASSESSMENT ANCHOR

M11.E.4 Develop and evaluate inferences and predictions or draw conclusions based on data or data displays

M11.E.4.2 Analyze and/or interpret data on a scatter plot and/or use a scatter plot to make predictions.

M11.E.4.2.1 Draw, find and/or write an equation for a line of best fit for a scatter plot.

D. Make predictions using interpolation, extrapolation, regression and estimation using technology to verify them.

ASSESSMENT ANCHOR

M11.E.4 Develop and evaluate inferences and predictions or draw conclusions based on data or data displays.

M11.E.4.1 Make predictions using data displays and probability.

M11.E.4.1.1 Estimate or calculate to make predictions based on a circle, line, bar graph or given situation.

M11.E.4.1.2 Use probability to predict outcomes.

M11.E.4.2 Analyze and/or interpret data on a scatter plot and/or use a scatter plot to make predictions.

M11.E.4.2.2 Make predictions using the equations or graphs of best-fit lines of scatter plots.

E. Determine the validity of the sampling method described in a given study.

F. Determine the degree of dependence of two quantities specified by a two-way table.

** Assessed at the local level.*

- G. Describe questions of experimental design, control groups, treatment groups, cluster sampling and reliability.**

- H. Use sampling techniques to draw inferences about large populations.**

- I. Describe the normal curve and use its properties to answer questions about sets of data that are assumed to be normally distributed.**

** Assessed at the local level.*

2.7. **Probability and Predictions**

2.7.8.A. **Determine the number of combinations and permutations for an event.**

ASSESSMENT ANCHOR

M11.E.3 Understand and/or apply basic concepts of probability or outcomes.

M11.E.3.2 Apply counting techniques in problem-solving settings.

M11.E.3.2.1 Determine the number of permutations and/or combinations or apply the fundamental counting principle. (Formula provided on the reference sheet).

2.7.8.E. **Make valid inferences, predictions and arguments based on probability.**

ASSESSMENT ANCHOR

M11.E.4 Develop and/or evaluate inferences and predictions or draw conclusions based on data or data displays.

M11.E.4.1 Make predictions using data displays and probability.

M11.E.4.1.1 Estimate or calculate to make predictions based on a circle, line, bar graph or given situation.

M11.E.4.1.2 Use probability to predict outcomes.

A. **Compare odds and probability.**

ASSESSMENT ANCHOR

M11.E.3 Understand and/or apply basic concepts of probability or outcomes.

M11.E.3.1 Apply probability and/or odds to practical situations.

M11.E.3.1.2 Find, convert and/or compare the probability and/or odds of a simple event.

B. **Apply probability and statistics to perform an experiment involving a sample and generalize its results to the entire population.**

C. **Draw and justify a conclusion regarding the validity of a probability or statistical argument.**

D. **Use experimental and theoretical probability distributions to make judgments about the likelihood of various outcomes in uncertain situations.**

E. **Solve problems involving independent simple and compound events.**

* Assessed at the local level.

ASSESSMENT ANCHOR

M11.E.3 Understand and/or apply basic concepts of probability or outcomes.

M11.E.3.1 Apply probability and/or odds to practical situations.

M11.E.3.1.1 Find probabilities for independent, dependent or compound events and represent as a fraction, decimal or percent).

** Assessed at the local level.*

2.8. Algebra and Functions

2.8.8.F. Solve and graph equations and inequalities using scientific and graphing calculators and computer spreadsheets.

ASSESSMENT ANCHOR

M11.D.2 Represent and/or analyze mathematical situations using numbers, symbols, words, tables and/or graphs.

M11.D.2.1 Write, solve and/or graph linear equations and inequalities using various methods.

M11.D.2.1.1 Solve compound inequalities and/or graph their solution sets on a number line (may include absolute value inequalities).

2.8.8.J. Show that an equality relationship between two quantities remains the same as long as the same change is made to both quantities; explain how a change in one quantity determines another quantity in a functional relationship.

ASSESSMENT ANCHOR

M11.D.3 Analyze change in various contexts.

M11.D.3.1 Describe and/or determine change.

M11.D.3.1.2 Determine how a change in one variable relates to a change in a second variable (e.g., $y=4/x$, if x doubles, what happens to y ?).

A. Analyze a given set of data for the existence of a pattern and represent the pattern algebraically and graphically.

ASSESSMENT ANCHOR

M11.D.1 Demonstrate an understanding of patterns, relations and functions.

M11.D.1.1 Analyze and/or use patterns or relations.

M11.D.1.1.1 Analyze a set of data for the existence of a pattern and represent the pattern algebraically and/or graphically.

M11.D.1.1.2 Determine if a relation is a function given a set of points or a graph.

ASSESSMENT ANCHOR

M11.D.2 Represent and/or analyze mathematical situations using numbers, symbols, words, tables and/or graphs.

M11.D.2.2 Simplify expressions involving polynomials.

M11.D.2.2.1 Add, subtract and/or multiply polynomial expressions (express answers in simplest form – nothing larger than a binomial multiplied by a trinomial).

M11.D.2.2.2 Factor algebraic expressions, including difference of squares and trinomials (trinomials limited to the form ax^2+bx+c where a is not equal to 0).

* Assessed at the local level.

M11.D.2.2.3 Simplify algebraic fractions.

- B. Give examples of patterns that occur in data from other disciplines.**
- C. Use patterns, sequences and series to solve routine and non-routine problems.**
- D. Formulate expressions, equations, inequalities, systems of equations, systems of inequalities and matrices to model routine and non-routine problem situations.**

ASSESSMENT ANCHOR

M11.D.2 Represent and/or analyze mathematical situations using numbers, symbols, words, tables and/or graphs.

M11.D.2.1 Write, solve and/or graph linear equations and inequalities using various methods.

M11.D.2.1.4 Write and/or solve systems of equations using graphing, substitution and/or elimination (limit systems to 2 equations).

- E. Use equations to represent curves (e.g., lines, circles, ellipses, parabolas, hyperbolas).**
- F. Identify whether systems of equations and inequalities are consistent or inconsistent.**
- G. Analyze and explain systems of equations, systems of inequalities and matrices.**

ASSESSMENT ANCHOR

M11.D.2 Represent and/or analyze mathematical situations using numbers, symbols, words, tables and/or graphs.

M11.D.2.1 Write, solve and/or graph linear equations and inequalities using various methods.

M11.D.2.1.1 Solve compound inequalities and/or graph their solution sets on a number line (may include absolute value inequalities).

M11.D.2.1.4 Write and/or solve systems of equations using graphing, substitution and/or elimination (limit systems to 2 equations).

- H. Select and use an appropriate strategy to solve systems of equations and inequalities using graphing calculators, symbol manipulators, spreadsheets and other software.**
- I. Use matrices to organize and manipulate data, including matrix addition, subtraction, multiplication and scalar multiplication.**

** Assessed at the local level.*

J. Demonstrate the connection between algebraic equations and inequalities and the geometry of relations in the coordinate plane.

ASSESSMENT ANCHOR

M11.C.3 Locate points or describe relationships using the coordinate plane.

M11.C.3.1 Solve problems using analytic geometry.

M11.C.3.1.1 Calculate the distance and/or midpoint between 2 points on a number line or on a coordinate plane (formula provided on the reference sheet).

M11.C.3.1.2 Relate slope to perpendicularity and/or parallelism (limit to linear algebraic expressions; slope formula provided on the reference sheet).

ASSESSMENT ANCHOR

M11.D.3 Analyze change in various contexts.

M11.D.3.2 Compute and/or use the slope of a line.

M11.D.3.2.1 Apply the formula for the slope of a line to solve problems (formula given on reference sheet).

M11.D.3.2.2 Given the graph of the line, 2 points on the line, or the slope and a point on a line, write or identify the linear equation in point-slope, standard and/or slope-intercept form.

M11.D.3.2.3 Compute the slope and/or y-intercept represented by a linear equation or graph.

K. Select, justify and apply an appropriate technique to graph a linear function in two variables, including slope-intercept, x- and y-intercepts, graphing by transformations and the use of a graphing calculator.

ASSESSMENT ANCHOR

M11.D.2 Represent and/or analyze mathematical situations using numbers, symbols, words, tables and/or graphs.

M11.D.2.1 Write, solve and/or graph linear equations and inequalities using various methods.

M11.D.2.1.2 Identify or graph functions, linear equations or linear inequalities on a coordinate plane.

L. Write the equation of a line when given the graph of the line, two points on the line, or the slope of the line and a point on the line.

ASSESSMENT ANCHOR

M11.D.2 Represent and/or analyze mathematical situations using numbers, symbols, words, tables and/or graphs.

M11.D.2.1 Write, solve and/or graph linear equations and inequalities using various methods.

M11.D.2.1.2 Identify or graph functions, linear equations or linear inequalities on a coordinate plane.

** Assessed at the local level.*

M11.D.2.1.3 Write, solve and/or apply a linear equation (including problem situations).

ASSESSMENT ANCHOR

M11.D.3 Analyze change in various contexts.

M11.D.3.2 Compute and/or use the slope of a line.

M11.D.3.2.1 Apply the formula for the slope of a line to solve problems (formula given on reference sheet).

M11.D.3.2.2 Given the graph of the line, 2 points on the line, or the slope and a point on a line, write or identify the linear equation in point-slope, standard and/or slope-intercept form.

M11.D.3.2.3 Compute the slope and/or y-intercept represented by a linear equation or graph.

M. Given a set of data points, write an equation for a line of best fit.

ASSESSMENT ANCHOR

M11.E.4 Develop and evaluate inferences and predictions or draw conclusions based on data or data displays.

M11.E.4.2 Analyze and/or interpret data on a scatter plot and/or use a scatter plot to make predictions.

M11.E.4.2.1 Draw, find and/or write an equation for a line of best fit for a scatter plot.

M11.E.4.2.2 Make predictions using the equations or graphs of best-fit lines of scatter plots.

N. Solve linear, quadratic and exponential equations both symbolically and graphically.

ASSESSMENT ANCHOR

M11.D.2 Represent and/or analyze mathematical situations using numbers, symbols, words, tables and/or graphs.

M11.D.2.1 Write, solve and/or graph linear equations and inequalities using various methods.

M11.D.2.1.3 Write, solve and/or apply a linear equation (including problem situations).

M11.D.2.1.4 Write and/or solve systems of equations using graphing, substitution and/or elimination (limit systems to 2 equations).

M11.D.2.1.5 Solve quadratic equations using factoring (integers only – not including completing the square or the Quadratic Formula).

O. Determine the domain and range of a relation, given a graph or set of ordered pairs.

ASSESSMENT ANCHOR

M11.D.1 Demonstrate an understanding of patterns, relations and functions.

** Assessed at the local level.*

M11.D.1.1 Analyze and/or use patterns or relations.

M11.D.1.1.1 Analyze a set of data for the existence of a pattern and represent the pattern algebraically and/or graphically.

M11.D.1.1.2 Determine if a relation is a function given a set of points or a graph.

P. Analyze a relation to determine whether a direct or inverse variation exists and represent it algebraically and graphically.

ASSESSMENT ANCHOR

M11.A.2 Understand the meanings of operations, use operations and understand how they relate to each other.

M11.A.2.1 Apply ratio and/or proportion in problem-solving situations.

M11.A.2.1.2 Solve problems using direct and inverse proportions.

M11.A.2.1.3 Identify and/or use proportional relationships in problem solving settings.

Q. Represent functional relationships in tables, charts and graphs.

ASSESSMENT ANCHOR

M11.D.1 Demonstrate an understanding of patterns, relations and functions.

M11.D.1.1 Analyze and/or use patterns or relations.

M11.D.1.1.1 Analyze a set of data for the existence of a pattern and represent the pattern algebraically and/or graphically.

M11.D.1.1.2 Determine if a relation is a function given a set of points or a graph.

M11.D.1.1.3 Identify the domain, range or inverse of a relation (may be presented as ordered pairs or a table).

ASSESSMENT ANCHOR

M11.D.4 Describe or use models to represent quantitative relationships.

M11.D.4.1 Interpret and/or use linear, quadratic and/or exponential functions and their equations, graphs or tables.

M11.D.4.1.1 Match the graph of a given function to its table or equation.

R. Create and interpret functional models.

ASSESSMENT ANCHOR

M11.D.1 Demonstrate an understanding of patterns, relations and functions.

M11.D.1.1 Analyze and/or use patterns or relations.

M11.D.1.1.1 Analyze a set of data for the existence of a pattern and represent the pattern algebraically and/or graphically.

** Assessed at the local level.*

M11.D.1.1.2 Determine if a relation is a function given a set of points or a graph.

M11.D.1.1.3 Identify the domain, range or inverse of a relation (may be presented as ordered pairs or a table).

S. Analyze properties and relationships of functions (e.g., linear, polynomial, rational, trigonometric, exponential, logarithmic).

ASSESSMENT ANCHOR

M11.D.2 Represent and/or analyze mathematical situations using numbers, symbols, words, tables and/or graphs.

M11.D.2.2 Simplify expressions involving polynomials.

M11.D.2.2.1 Add, subtract and/or multiply polynomial expressions (express answers in simplest form – nothing larger than a binomial multiplied by a trinomial).

M11.D.2.2.2 Factor algebraic expressions, including difference of squares and trinomials (trinomials limited to the form ax^2+bx+c where a is not equal to 0).

M11.D.2.2.3 Simplify algebraic fractions.

T. Analyze and categorize functions by their characteristics.

ASSESSMENT ANCHOR

M11.D.1 Demonstrate an understanding of patterns, relations and functions.

M11.D.1.1 Analyze and/or use patterns or relations.

M11.D.1.1.1 Analyze a set of data for the existence of a pattern and represent the pattern algebraically and/or graphically.

M11.D.1.1.2 Determine if a relation is a function given a set of points or a graph.

M11.D.1.1.3 Identify the domain, range or inverse of a relation (may be presented as ordered pairs or a table).

** Assessed at the local level.*

2.9. Geometry

2.9.8.E. Identify, name, draw and list all properties of squares, cubes, pyramids, parallelograms, quadrilaterals, trapezoids, polygons, rectangles, rhombi, circles, spheres, triangles, prisms and cylinders.

ASSESSMENT ANCHOR

M11.C.1 Analyze characteristics and properties of two- and three- dimensional geometric shapes and demonstrate understanding of geometric relationships.

M11.C.1.2 Recognize and/or apply properties of angles, triangles and quadrilaterals.

M11.C.1.2.1 Identify and/or use properties of triangles (e.g., medians, altitudes, angle bisectors, side/angle relationships, Triangle Inequality Theorem).

M11.C.1.2.2 Identify and/or use properties of quadrilaterals (e.g., parallel sides, diagonals, bisectors, congruent sides/angles and supplementary angles).

M11.C.1.2.3 Identify and/or use properties of isosceles and equilateral triangles.

A. Construct geometric figures using dynamic geometry tools (e.g., Geometer's Sketchpad, Cabri Geometry).

B. Prove that two triangles or two polygons are congruent or similar using algebraic, coordinate and deductive proofs.

ASSESSMENT ANCHOR

M11.C.1 Analyze characteristics and properties of two- and three- dimensional geometric shapes and demonstrate understanding of geometric relationships.

M11.C.1.3 Use properties of congruence, correspondence and similarity in problem-solving settings involving two- and three- dimensional figures.

M11.C.1.3.1 Identify and/or use properties of congruent and similar polygons or solids.

C. Identify and prove the properties of quadrilaterals involving opposite sides and angles, consecutive sides and angles and diagonals using deductive proofs.

ASSESSMENT ANCHOR

M11.C.1 Analyze characteristics and properties of two- and three- dimensional geometric shapes and demonstrate understanding of geometric relationships.

M11.C.1.2 Recognize and/or apply properties of angles, triangles and quadrilaterals.

M11.C.1.2.2 Identify and/or use properties of quadrilaterals (e.g., parallel sides, diagonals, bisectors, congruent sides/angles and supplementary angles).

D. Identify corresponding parts in congruent triangles to solve problems.

* Assessed at the local level.

E. Solve problems involving inscribed and circumscribed polygons.

ASSESSMENT ANCHOR

M11.B.2 Apply appropriate techniques, tools and formulas to determine measurements.

M11.B.2.2 Use and/or develop procedures to determine or describe measures of perimeter, circumference, area, surface area and/or volume. (May require conversions within the same system.)

M11.B.2.2.3 Estimate area, perimeter or circumference of an irregular figure.

M11.B.2.2.4 Find the measurement of a missing length given the perimeter, circumference, area or volume.

ASSESSMENT ANCHOR

M11.C.1 Analyze characteristics and properties of two- and three- dimensional geometric shapes and demonstrate understanding of geometric relationships.

M11.C.1.1 Identify and/or use parts of circles and segments associated with circles.

M11.C.1.1.2 Identify and/or use the properties of arcs, semicircles, inscribed angles and/or central angles.

F. Use the properties of angles, arcs, chords, tangents and secants to solve problems involving circles.

ASSESSMENT ANCHOR

M11.C.1 Analyze characteristics and properties of two- and three- dimensional geometric shapes and demonstrate understanding of geometric relationships.

M11.C.1.1 Identify and/or use parts of circles and segments associated with circles.

M11.C.1.1.1 Identify and/or use the properties of a radius, diameter and/or tangent of a circle (given numbers should be whole).

M11.C.1.1.2 Identify and/or use the properties of arcs, semicircles, inscribed angles and/or central angles.

G. Solve problems using analytic geometry.

ASSESSMENT ANCHOR

M11.C.3 Locate points or describe relationships using the coordinate plane.

M11.C.3.1 Solve problems using analytic geometry.

M11.C.3.1.1 Calculate the distance and/or midpoint between 2 points on a number line or on a coordinate plane (formula provided on the reference sheet).

M11.C.3.1.2 Relate slope to perpendicularity and/or parallelism (limit to linear algebraic expressions; slope formula provided on the reference sheet).

** Assessed at the local level.*

H. Construct a geometric figure and its image using various transformations.

(Not tested in 11th grade)

I. Model situations geometrically to formulate and solve problems.

J. Analyze figures in terms of the kinds of symmetries they have.

** Assessed at the local level.*

2.10. Trigonometry

2.10.8.A. Compute measures of sides and angles using proportions, the Pythagorean Theorem and right triangle relationships.

ASSESSMENT ANCHOR

M11.C.1 Analyze characteristics and properties of two- and three- dimensional geometric shapes and demonstrate understanding of geometric relationships.

M11.C.1.4 Solve problems involving right triangles using the Pythagorean Theorem.

M11.C.1.4.1 Find the measure of a side of a right triangle using the Pythagorean Theorem (Pythagorean Theorem included on the reference sheet).

A. Use graphing calculators to display periodic and circular functions; describe properties of the graphs.

B. Identify, create and solve practical problems involving right triangles using the trigonometric functions and the Pythagorean Theorem.

ASSESSMENT ANCHOR

M11.C.1 Analyze characteristics and properties of two- and three- dimensional geometric shapes and demonstrate understanding of geometric relationships.

M11.C.1.4 Solve problems involving right triangles using the Pythagorean Theorem.

M11.C.1.4.1 Find the measure of a side of a right triangle using the Pythagorean Theorem (Pythagorean Theorem included on the reference sheet).

* Assessed at the local level.

2.11. Concepts of Calculus

A. Describe the concept of unit rate, ratio and slope in the context of rate of change.

ASSESSMENT ANCHOR

M11.D.3 Analyze change in various contexts.

M11.D.3.1 Describe and/or determine change.

M11.D.3.1.2 Determine how a change in one variable relates to a change in a second variable (e.g., $y=4/x$, if x doubles, what happens to y ?).

A. Determine maximum and minimum values of a function over a specified interval.

B. Interpret maximum and minimum values in problem situations.

C. Graph and interpret rates of growth/decay.

D. Determine sums of finite sequences of numbers and infinite geometric series.

E. Estimate areas under curves using sequences of areas.

* Assessed at the local level.

Appendix B:

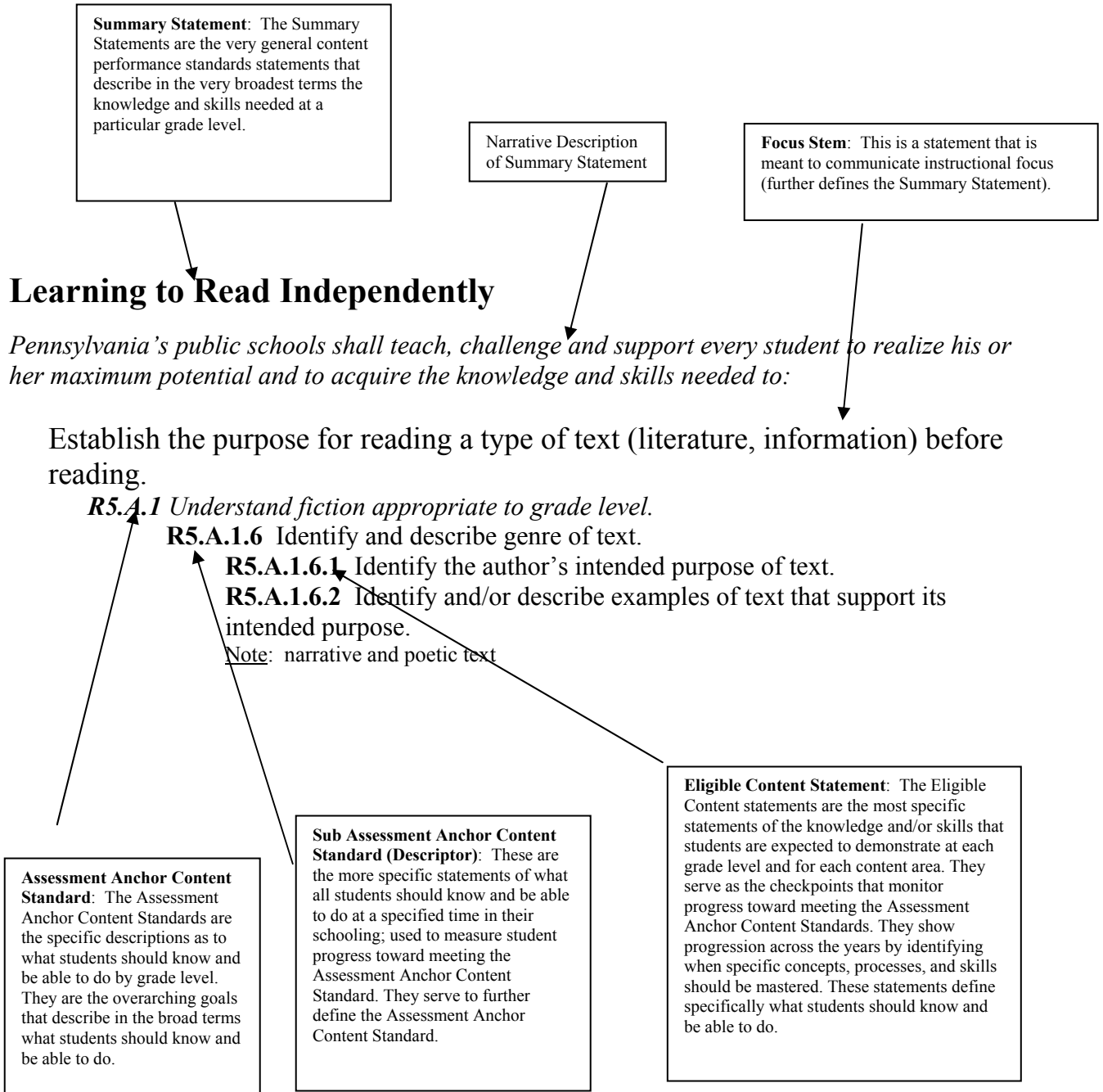
Reading Assessment Anchor Content Standards Integration

**Assessment Anchor
Reading
Content Standards

Grades 5 & 7**

Understanding the 2007 Pennsylvania Assessment Anchor Content Standards

For Grades 3-11



Grade 5

Learning to Read Independently

Pennsylvania's public schools shall teach, challenge and support every student to realize his or her maximum potential and to acquire the knowledge and skills needed to:

Establish the purpose for reading a type of text (literature, information) before reading.

R5.A.1 Understand fiction appropriate to grade level.

R5.A.1.6 Identify and describe genre of text.

R5.A.1.6.1 Identify the author's intended purpose of text.

R5.A.1.6.2 Identify and/or describe examples of text that support the author's intended purpose.

Note: narrative and poetic text

R5.A.2 Understand nonfiction appropriate to grade level.

R5.A.2.6 Identify and describe genre of text.

R5.A.2.6.1 Identify the author's intended purpose of text.

R5.A.2.6.2 Identify and/or describe examples of text that support the author's intended purpose.

Note: informational, persuasive, biographical, instructional (practical/how-to/advertisement), and editorial/essay text

*Select texts for a particular purpose using the format of the text as a guide.

Use knowledge of phonics, syllabication, prefixes, suffixes, the dictionary or context clues to decode and understand new words during reading. Use these words accurately in writing and speaking.

R5.A.1 Understand fiction appropriate to grade level.

R5.A.1.2 Identify and apply word recognition skills.

R5.A.1.2.1 Identify how the meaning of a word is changed when an affix is added; identify the meaning of a word from the text with an affix.

Note: Affixes will be limited to prefixes: *pre-, dis-, mis-, non-, inter-, extra-, post-, super-, sub-*; suffixes: *-less, -ble, -ly, -or, -ness, -ment, -er, -ship, -tion, -en.*

R5.A.1.2.2 Define and/or apply how the meaning of words or phrases changes when using context clues given in explanatory sentences.

R5.A.2 Understand nonfiction appropriate to grade level.

R5.A.2.2 Identify and apply word recognition skills.

R5.A.2.2.1 Identify how the meaning of a word is changed when an affix is added; identify the meaning of a word from the text with an affix.

Note: Affixes will be limited to prefixes: pre-, dis-, mis-, non-, inter-, extra-, post-, super-, sub-; suffixes: -less, -ble, -ly, -or, -ness, -ment, -er, -ship, -tion, -en.

R5.A.2.2.2 *Define and/or apply how the meaning of words or phrases changes when using context clues given in explanatory sentences.*

**Identify the basic ideas and facts in text using strategies (e.g., prior knowledge, illustrations and headings) and information from other sources to make predictions about text.*

Acquire a reading vocabulary by correctly identifying and using words (e.g., synonyms, homophones, homographs, words with roots, suffixes, prefixes). Use a dictionary or related reference.

R5.A.1 *Understand fiction appropriate to grade level.*

R5.A.1.1 Identify and interpret the meaning of vocabulary.

R5.A.1.1.1 Identify and/or interpret the meaning of multiple-meaning words used in text.

R5.A.1.1.2 *Identify and/or interpret a synonym or antonym of a word used in text.*

R5.A.2 *Understand nonfiction appropriate to grade level.*

R5.A.2.1 *Identify and interpret the meaning of vocabulary in nonfiction.*

R5.A.2.1.1 Identify and/or interpret the meaning of multiple-meaning words used in text.

R5.A.2.1.2 *Identify and/or interpret the meaning of content-specific words used in text.*

Identify, understand the meaning of and use correctly key vocabulary from various subject areas.

R5.A.1 *Understand fiction appropriate to grade level.*

R5.A.1.1 Identify and interpret the meaning of vocabulary.

R5.A.1.1.1 Identify and/or interpret the meaning of multiple-meaning words used in text.

R5.A.1.1.2 *Identify and/or interpret a synonym or antonym of a word used in text.*

R5.A.1.2 *Identify and apply word recognition skills.*

R5.A.1.2.1 Identify how the meaning of a word is changed when an affix is added; identify the meaning of a word from the text with an affix.

Note: Affixes will be limited to prefixes: pre-, dis-, mis-, non-, inter-, extra-, post-, super-, sub-; suffixes: -less, -ble, -ly, -or, -ness, -ment, -er, -ship, -tion, -en.

R5.A.1.2.2 *Define and/or apply how the meaning of words or phrases changes when using context clues given in explanatory sentences.*

R5.A.2 *Understand nonfiction appropriate to grade level.*

R5.A.2.1 *Identify and interpret the meaning of vocabulary in nonfiction.*

R5.A.2.1.1 Identify and/or interpret the meaning of multiple-meaning words used in text.

R5.A.2.1.2 *Identify and/or interpret the meaning of content-specific words used in text.*

R5.A.2.2 Identify and apply word recognition skills.

R5.A.2.2.1 Identify how the meaning of a word is changed when an affix is added; identify the meaning of a word from the text with an affix.

Note: Affixes will be limited to prefixes: pre-, dis-, mis-, non-, inter-, extra-, post-, super-, sub-; suffixes: -less, -ble, -ly, -or, -ness, -ment, -er, -ship, -tion, -en.

R5.A.2.2.2 *Define and/or apply how the meaning of words or phrases changes when using context clues given in explanatory sentences.*

Demonstrate after reading understanding and interpretation of both fiction and nonfiction text.

*Summarize the major ideas, themes or procedures of the text; *Relate new information or ideas from the text to that learned through additional reading and media (e.g., film, audiotape); Clarify ideas and understandings through rereading and discussion; Make responsible assertions about the ideas from the text by citing evidence; Extend ideas found in the text.*

R5.A.1 *Understand fiction appropriate to grade level.*

R5.A.1.3 *Make inferences, draw conclusions, and make generalizations based on text.*

R5.A.1.3.1 Make inferences and/or draw conclusions based on information from text.

R5.A.1.3.2 *Cite evidence from text to support generalizations.*

R5.A.1.4 *Identify and explain main ideas and relevant details.*

R5.A.1.4.1 Identify and/or explain stated or implied main ideas and relevant supporting details from text.

Note: *Items may target specific paragraphs.*

R5.A.1.5 *Summarize a fictional text as a whole.*

R5.A.1.5.1 *Summarize the key details and/or events of a fictional text as a whole.*

R5.A.1.6 Identify and describe genre of text.

R5.A.1.6.1 Identify the author's intended purpose of text.

R5.A.1.6.2 Identify and/or describe examples of text that support the author's intended purpose.

Note: narrative and poetic text

R5.A.2 *Understand nonfiction appropriate to grade level.*

R5.A.2.3 Make inferences, draw conclusions, and make generalizations based on text.

R5.A.2.3.1 Make inferences and/or draw conclusions based on information from text.

R5.A.2.3.2 Cite evidence from text to support generalizations.

R5.A.2.4 Identify and explain main ideas and relevant details.

R5.A.2.4.1 Identify and/or explain stated or implied main ideas and relevant supporting details from text.

Note: Items may target specific paragraphs.

R5.A.2.5 Summarize a nonfictional text as a whole.

R5.A.2.5.1 Summarize the major points, processes, and/or events of a nonfictional text as a whole.

R5.A.2.6 Identify and describe genre of text.

R5.A.2.6.1 Identify the author's intended purpose of text.

R5.A.2.6.2 Identify and/or describe examples of text that support the author's intended purpose.

Note: informational, persuasive, biographical, instructional (practical/how-to/advertisement), and editorial/essay text

R5.B.1 Understand components within and between texts.

R5.B.1.1 Identify, interpret, compare, describe, and analyze components of fiction and literary nonfiction.

R5.B.1.1.1 Identify, interpret, compare, describe, and/or analyze components of fiction and literary nonfiction.

Character (may also be called narrator, speaker, subject of a biography):

- Identify, interpret, compare, describe, and/or analyze character actions, motives, dialogue, emotions/feelings, traits, and relationships among characters within fictional or literary nonfictional text.
- Identify, interpret, compare, describe, and/or analyze the relationship between characters and other components of text.

Setting:

- Identify, interpret, compare, describe, and/or explain the setting of fiction or literary nonfiction.
- Identify, interpret, compare, describe, and/or analyze the relationship between setting and other components of text.

Plot (may also be called action):

- Identify, interpret, compare, describe, and/or analyze elements of the plot (conflict, rising action, climax, and/or resolution).
- Identify, interpret, compare, describe, and/or analyze the relationship between elements of the plot and other components of text.

Theme:

- Identify, interpret, compare, describe, and/or analyze the theme of fiction or literary nonfiction.
- *Identify, interpret, compare, describe, and/or analyze the relationship between the theme and other components of text.*

R5.B.1.2 *Make connections between texts.*

R5.B.1.2.1 *Identify, interpret, compare, describe, and/or analyze connections between texts.*

**Demonstrate fluency and comprehension in reading.*

Read familiar materials aloud with accuracy; Self-correct mistakes; Use appropriate rhythm, flow, meter and pronunciation; Read a variety of genres and types of text; Demonstrate comprehension (Standard 1.1.5.G.); (Recommend: 25 books/year).

Reading Critically in All Content Areas

Pennsylvania's public schools shall teach, challenge and support every student to realize his or her maximum potential and to acquire the knowledge and skills needed to:

Read and understand essential content of informational texts and documents in all academic areas.

Differentiate fact from opinion across texts; Distinguish between essential and nonessential information across a variety of texts, identifying stereotypes and exaggeration where present; Make inferences about similar concepts in multiple texts and draw conclusions; Evaluate text organization and content to determine the author's purpose and effectiveness.

R5.A.1 Understand fiction appropriate to grade level.

R5.A.1.3 Make inferences, draw conclusions, and make generalizations based on text.

R5.A.1.3.1 Make inferences and/or draw conclusions based on information from text.

R5.A.1.3.2 *Cite evidence from text to support generalizations.*

R5.A.2 *Understand nonfiction appropriate to grade level.*

R5.A.2.3 Make inferences, draw conclusions, and make generalizations based on text.

R5.A.2.3.1 Make inferences and/or draw conclusions based on information from text.

R5.A.2.3.2 *Cite evidence from text to support generalizations.*

R5.A.2.4 Identify and explain main ideas and relevant details.

R5.A.2.4.1 Identify and/or explain stated or implied main ideas and relevant supporting details from text.

Note: Items may target specific paragraphs.

R5.A.2.5 Summarize a nonfictional text as a whole.

R5.A.2.5.1 Summarize the major points, processes, and/or events of a nonfictional text as a whole.

R5.A.2.6 Identify and describe genre of text.

R5.A.2.6.1 Identify the author's intended purpose of text.

R5.A.2.6.2 Identify and/or describe examples of text that support the author's intended purpose.

Note: informational, persuasive, biographical, instructional (practical/how-to/advertisement), and editorial/essay text

R5.B.3 Understand concepts and organization of nonfictional text.

R5.B.3.1 Differentiate fact from opinion in nonfictional text.

R5.B.3.1.1 Identify and/or interpret statements of fact and opinion in nonfictional text.

Note: Items focusing on opinion will be worded, "Which of these is an opinion?"

R5.B.3.2 Distinguish between essential and nonessential information within or between texts.

R5.B.3.2.1 Identify and/or interpret how the author uses exaggeration (bias) in nonfictional text.

R5.B.3.3 Identify, compare, explain, interpret, describe, and analyze how text organization clarifies meaning of nonfictional text.

R5.B.3.3.1 Identify and/or interpret text organization, including sequence, question/answer, comparison/contrast, cause/effect, or problem/solution.

R5.B.3.3.2 Use headings to locate information in a passage, or identify content that would best fit in a specific section of text.

R5.B.3.3.3 Interpret graphics and charts and/or make connections between text and the content of graphics and charts.

R5.B.3.3.4 Identify, compare, explain, interpret, describe, and/or analyze the sequence of steps in a list of directions.

**Use and understand a variety of media and evaluate the quality of material produced.*

Use a variety of media (e.g., computerized card catalogues, encyclopedias) for research; Evaluate the role of media as a source of both entertainment and information; Use established criteria to design and develop a media project (e.g., script, play, audiotape) for a targeted audience.

**Produce work in at least one literary genre that follows the conventions of the genre.*

Reading, Analyzing and Interpreting Literature

Pennsylvania's public schools shall teach, challenge and support every student to realize his or her maximum potential and to acquire the knowledge and skills needed to:

**Read and understand works of literature.*

Compare the use of literary elements within and among texts including characters, setting, plot, theme and point of view.

R5.B.1 Understand components within and between texts.

R5.B.1.1 Identify, interpret, compare, describe, and analyze components of fiction and literary nonfiction.

R5.B.1.1.1 Identify, interpret, compare, describe, and/or analyze components of fiction and literary nonfiction.

Character (may also be called narrator, speaker, subject of a biography):

- Identify, interpret, compare, describe, and/or analyze character actions, motives, dialogue, emotions/feelings, traits, and relationships among characters within fictional or literary nonfictional text.
- Identify, interpret, compare, describe, and/or analyze the relationship between characters and other components of text.

Setting:

- Identify, interpret, compare, describe, and/or explain the setting of fiction or literary nonfiction.

- Identify, interpret, compare, describe, and/or analyze the relationship between setting and other components of text.

Plot (may also be called action):

- Identify, interpret, compare, describe, and/or analyze elements of the plot (conflict, rising action, climax, and/or resolution).
- Identify, interpret, compare, describe, and/or analyze the relationship between elements of the plot and other components of text.

Theme:

- Identify, interpret, compare, describe, and/or analyze the theme of fiction or literary nonfiction.

▪ *Identify, interpret, compare, describe, and/or analyze the relationship between the theme and other components of text.*

R5.B.1.2 *Make connections between texts.*

R5.B.1.2.1 *Identify, interpret, compare, describe, and/or analyze connections between texts.*

Describe how the author uses literary devices to convey meaning.

Sound techniques (e.g., rhyme, rhythm, meter, alliteration); Figurative language (e.g., personification, simile, metaphor, hyperbole).

R5.B.2 Understand literary devices in fictional and nonfictional text.

R5.B.2.1 Identify, interpret, and describe figurative language in fiction and nonfiction.

R5.B.2.1.1 Identify, interpret, and/or describe examples of personification in text.

R5.B.2.1.2 Identify, interpret, and/or describe examples of similes in text.

R5.B.2.1.3 Identify, interpret, and/or describe examples of alliteration in text when its use is presumed intentional.

R5.B.2.1.4 *Identify, interpret, and/or describe examples of metaphors in text.*

R5.B.2.2 Identify, interpret, and describe the point of view of the narrator in fictional and nonfictional text.

R5.B.2.2.1 Identify, interpret, and/or describe the point of view of the narrator as first person or third person point of view.

R5.B.2.2.2 *Interpret and/or describe the effectiveness of the point of view used by the author.*

Identify and respond to the effects of sound and structure in poetry (e.g., alliteration, rhyme, verse form).

R5.B.2 *Understand literary devices in fictional and nonfictional text.*

R5.B.2.1 Identify, interpret, and describe figurative language in fiction and nonfiction.

R5.B.2.1.1 Identify, interpret, and/or describe examples of personification in text.

R5.B.2.1.2 Identify, interpret, and/or describe examples of similes in text.

R5.B.2.1.3 Identify, interpret, and/or describe examples of alliteration in text when its use is presumed intentional.

R5.B.2.1.4 *Identify, interpret, and/or describe examples of metaphors in text.*

*Analyze drama as information source, entertainment, persuasion or transmitter of culture.

Read and respond to nonfiction and fiction including poetry and drama.

R5.A.1 Understand fiction appropriate to grade level.

R5.A.1.6 Identify and describe genre of text.

R5.A.1.6.1 Identify the author's intended purpose of text.

R5.A.1.6.2 Identify and/or describe examples of text that support its intended purpose.

Note: narrative and poetic text

R5.A.2 *Understand nonfiction appropriate to grade level.*

R5.A.2.6 Identify and describe genre of text.

R5.A.2.6.1 Identify the author's intended purpose of text.

R5.A.2.6.2 Identify and/or describe examples of text that support the author's intended purpose.

Note: informational, persuasive, biographical, instructional (practical/how-to/advertisement), and editorial/essay text

R5.B.1 Understand components within and between texts.

R5.B.1.1 Identify, interpret, compare, describe, and analyze components of fiction and literary nonfiction.

R5.B.1.1.1 Identify, interpret, compare, describe, and/or analyze components of fiction and literary nonfiction.

Character (may also be called narrator, speaker, subject of a biography):

- Identify, interpret, compare, describe, and/or analyze character actions, motives, dialogue, emotions/feelings, traits, and relationships among characters within fictional or literary nonfictional text.
- Identify, interpret, compare, describe, and/or analyze the relationship between characters and other components of text.

Setting:

- Identify, interpret, compare, describe, and/or explain the setting of fiction or literary nonfiction.
- Identify, interpret, compare, describe, and/or analyze the relationship between setting and other components of text.

Plot (may also be called action):

- Identify, interpret, compare, describe, and/or analyze elements of the plot (conflict, rising action, climax, and/or resolution).
- Identify, interpret, compare, describe, and/or analyze the relationship between elements of the plot and other components of text.

Theme:

- Identify, interpret, compare, describe, and/or analyze the theme of fiction or literary nonfiction.
- *Identify, interpret, compare, describe, and/or analyze the relationship between the theme and other components of text.*

R5.B.1.2 *Make connections between texts.*

***R5.B.1.2.1** Identify, interpret, compare, describe, and/or analyze connections between texts.*

Grade 7

Learning to Read Independently

Pennsylvania's public schools shall teach, challenge and support every student to realize his or her maximum potential and to acquire the knowledge and skills needed to:

Locate appropriate texts (literature, information, documents) for an assigned purpose before reading.

R7.A.1 *Understand fiction appropriate to grade level.*

R7.A.1.6 *Identify, describe, and analyze genre of text.*

R7.A.1.6.1 *Identify and/or describe the author's intended purpose of text.*

R7.A.1.6.2 *Describe and/or analyze examples of text that support the author's intended purpose.*

Note: narrative and poetic text

R7.A.2 *Understand nonfiction appropriate to grade level.*

R7.A.2.6 *Identify, describe, and analyze genre of text.*

R7.A.2.6.1 *Identify and/or describe the author's intended purpose of text.*

R7.A.2.6.2 *Describe and/or analyze examples of text that support the author's intended purpose.*

Note: informational, persuasive, biographical, instructional (practical/how-to/advertisement) and editorial/essay text

Identify and use common organizational structures and graphic features to comprehend information.

R7.B.3 *Understand concepts and organization of nonfictional text.*

R7.B.3.3 *Identify, compare, explain, interpret, describe, and analyze how text organization clarifies meaning of nonfictional text.*

R7.B.3.3.1 *Identify, interpret, and/or analyze text organization, including sequence, question/answer, comparison/contrast, cause/effect, or problem/solution.*

R7.B.3.3.2 *Identify content that would fit in a specific section of text.*

R7.B.3.3.3 *Interpret graphics and charts and/or make connections between text and the content of graphics and charts.*

R7.B.3.3.4 *Identify, compare, explain, interpret, describe, and/or analyze the sequence of steps in a list of directions.*

Use knowledge of root words as well as context clues and glossaries to understand specialized vocabulary in the content areas during reading. Use these words accurately in speaking and writing.

R7.A.1 *Understand fiction appropriate to grade level.*

R7.A.1.2 *Identify and apply word recognition skills.*

R7.A.1.2.1 Identify how the meaning of a word is changed when an affix is added; identify the meaning of a word from the text with an affix.

R7.A.1.2.2 Define and/or apply how the meaning of words or phrases changes when using context clues given in explanatory sentences.

R7.A.2 *Understand nonfiction appropriate to grade level.*

R7.A.2.2 *Identify and apply word recognition skills.*

R7.A.2.2.1 Identify and apply how the meaning of a word is changed when an affix is added; identify and apply the meaning of a word from the text with an affix.

R7.A.2.2.2 Define and/or apply how the meaning of words or phrases changes when using context clues given in explanatory sentences.

**Identify basic facts and ideas in text using specific strategies (e.g., recall genre characteristics, set a purpose for reading, generate essential questions as aids to comprehension and clarify understanding through rereading and discussion).*

Expand a reading vocabulary by identifying and correctly using idioms and words with literal and figurative meanings. Use a dictionary or related reference.

R7.A.1 *Understand fiction appropriate to grade level.*

R7.A.1.1 *Identify and apply the meaning of vocabulary.*

R7.A.1.1.1 Identify and/or apply the meaning of multiple-meaning words used in text.

R7.A.1.1.2 Identify and/or apply a synonym or antonym of a word used in text.

R7.A.2 *Understand nonfiction appropriate to grade level.*

R7.A.2.1 *Identify and apply the meaning of vocabulary in nonfiction.*

R7.A.2.1.1 Identify and/or apply the meaning of multiple-meaning words used in text.

R7.A.2.1.2 Identify and/or apply the meaning of content-specific words used in text.

Understand the meaning of and apply key vocabulary across the various subject areas.

R7.A.1 *Understand fiction appropriate to grade level.*

R7.A.1.1 *Identify and apply the meaning of vocabulary.*

R7.A.1.1.1 Identify and/or apply the meaning of multiple-meaning words used in text.

R7.A.1.1.2 Identify and/or apply a synonym or antonym of a word used in text.

R7.A.2 *Understand nonfiction appropriate to grade level.*

R7.A.2.1 *Identify and apply the meaning of vocabulary in nonfiction.*

R7.A.2.1.1 Identify and/or apply the meaning of multiple-meaning words used in text.

R7.A.2.1.2 Identify and/or apply the meaning of content-specific words used in text.

R7.A.2.2 *Identify and apply word recognition skills.*

R7.A.2.2.1 Identify and apply how the meaning of a word is changed when an affix is added; identify and apply the meaning of a word from the text with an affix.

R7.A.2.2.2 Define and/or apply how the meaning of words or phrases changes when using context clues given in explanatory sentences.

Demonstrate after reading understanding and interpretation of both fiction and nonfiction text, including public documents.

Make, and support with evidence, assertions about texts. Compare and contrast texts using themes, settings, characters and ideas. Make extensions to related ideas, topics or information. Describe the context of a document. Analyze the positions, arguments and evidence in public documents.

R7.A.1 *Understand fiction appropriate to grade level.*

R7.A.1.3 *Make inferences, draw conclusions, and make generalizations based on text.*

R7.A.1.3.1 Make inferences and/or draw conclusions based on information from text.

R7.A.1.3.2 Cite evidence from text to support generalizations.

R7.A.1.4 *Identify and explain main ideas and relevant details.*

R7.A.1.4.1 Identify and/or explain stated or implied main ideas and relevant supporting details from text.

Note: Items may target specific paragraphs.

R7.A.1.5 *Summarize a fictional text as a whole.*

R7.A.1.5.1 Summarize the key details and/or events of a fictional text as a whole.

R7.A.1.6 *Identify, describe, and analyze genre of text.*

R7.A.1.6.1 Identify and/or describe the author's intended purpose of text.

R7.A.1.6.2 *Describe and/or analyze examples of text that support the author's intended purpose.*

Note: *narrative and poetic text*

R7.A.2 *Understand nonfiction appropriate to grade level.*

R7.A.2.3 *Make inferences, draw conclusions, and make generalizations based on text.*

R7.A.2.3.1 Make inferences and/or draw conclusions based on information from text.

R7.A.2.3.2 Cite evidence from text to support generalizations.

R7.A.2.4 *Identify and explain main ideas and relevant details.*

R7.A.2.4.1 Identify and/or explain stated or implied main ideas and relevant supporting details from text.

Note: Items may target specific paragraphs.

R7.A.2.5 *Summarize a nonfictional text as a whole.*

R7.A.2.5.1 Summarize the major points, processes, and/or events of a nonfictional text as a whole.

R7.A.2.6 *Identify, describe, and analyze genre of text.*

R7.A.2.6.1 Identify and/or describe the author's intended purpose of text.

R7.A.2.6.2 Describe and/or analyze examples of text that support the author's intended purpose.

Note: informational, persuasive, biographical, instructional (practical/how-to/advertisement) and editorial/essay text

R7.B.3 *Understand concepts and organization of nonfictional text.*

R7.B.3.1 *Interpret, describe, and analyze the characteristics and uses of facts and opinions in nonfictional text.*

R7.B.3.1.1 Interpret, describe, and/or analyze the use of facts and opinions to make a point or construct an argument in nonfictional text.

***Demonstrate fluency and comprehension in reading.**

Read familiar materials aloud with accuracy. Self-correct mistakes. Use appropriate rhythm, flow, meter and pronunciation. Read a variety of genres and types of text.

Demonstrate comprehension (Standard 1.1.8.G.). (Recommend: 25 books/year)

Reading Critically in All Content

Read and understand essential content of informational texts and documents in all academic areas.

Differentiate fact from opinion utilizing resources that go beyond traditional text (e.g., newspapers, magazines and periodicals) to electronic media. Distinguish between essential and nonessential information across texts and going beyond texts to a variety of media; identify bias and propaganda where present. Draw inferences based on a variety of information sources. Evaluate text organization and content to determine the author's purpose and effectiveness according to the author's theses, accuracy and thoroughness.

R7.A.1 *Understand fiction appropriate to grade level.*

R7.A.1.3 *Make inferences, draw conclusions, and make generalizations based on text.*

R7.A.1.3.1 Make inferences and/or draw conclusions based on information from text.

R7.A.1.3.2 Cite evidence from text to support generalizations.

R7.A.2 *Understand nonfiction appropriate to grade level.*

R7.A.2.3 *Make inferences, draw conclusions, and make generalizations based on text.*

R7.A.2.3.1 Make inferences and/or draw conclusions based on information from text.

R7.A.2.3.2 Cite evidence from text to support generalizations.

R7.A.2.4 *Identify and explain main ideas and relevant details.*

R7.A.2.4.1 Identify and/or explain stated or implied main ideas and relevant supporting details from text.

Note: Items may target specific paragraphs.

R7.A.2.5 *Summarize a nonfictional text as a whole.*

R7.A.2.5.1 Summarize the major points, processes, and/or events of a nonfictional text as a whole.

R7.B.3 *Understand concepts and organization of nonfictional text.*

R7.B.3.1 *Interpret, describe, and analyze the characteristics and uses of facts and opinions in nonfictional text.*

R7.B.3.1.1 Interpret, describe, and/or analyze the use of facts and opinions to make a point or construct an argument in nonfictional text.

R7.B.3.2 Distinguish between essential and nonessential information within or between texts.

R7.B.3.2.1 Identify, interpret, describe, and/or analyze bias and propaganda techniques in nonfictional text.

R7.B.3.3 Identify, compare, explain, interpret, describe, and analyze how text organization clarifies meaning of nonfictional text.

R7.B.3.3.1 Identify, interpret, and/or analyze text organization, including sequence, question/answer, comparison/contrast, cause/effect or problem/solution.

R7.B.3.3.2 Identify content that would fit in a specific section of text.

R7.B.3.3.3 Interpret graphics and charts and/or make connections between text and the content of graphics and charts.

R7.B.3.3.4 Identify, compare, explain, interpret, describe, and/or analyze the sequence of steps in a list of directions.

**Use and understand a variety of media and evaluate the quality of material produced.*

Compare and analyze how different media offer a unique perspective on the information presented. Analyze the techniques of particular media messages and their effect on a targeted audience. Use, design and develop a media project that expands understanding (e.g., authors and works from a particular historical period).

**Produce work in at least one literary genre that follows the conventions of the genre.*

Reading, Analyzing and Interpreting Literature

**Read and understand works of literature.*

Analyze the use of literary elements by an author including characterization, setting, plot, theme, point of view, tone and style.

R7.B.1 Understand components within and between texts.

R7.B.1.1 Interpret, compare, describe, analyze, and evaluate components of fiction and literary nonfiction.

R7.B.1.1.1 Interpret, compare, describe, analyze, and/or evaluate the relationships among the following within fiction and literary nonfiction:

Character (may also be called narrator, speaker, subject of a biography):

- Interpret, compare, describe, analyze, and/or evaluate character actions, motives, dialogue, emotions/feelings, traits, and relationships among characters within fictional and literary nonfictional text.
- Interpret, compare, describe, analyze, and/or evaluate the relationship between characters and other components of text.

Setting:

- Interpret, compare, describe, analyze, and/or evaluate the setting of fiction or literary nonfiction.
- Interpret, compare, describe, analyze, and/or evaluate the relationship between setting and other components of text.

Plot (may also be called action):

- Interpret, compare, describe, analyze, and/or evaluate elements of the plot (conflict, rising action, climax and/or resolution).
- Interpret, compare, describe, analyze, and/or evaluate the relationship between elements of the plot and other components of text.

Theme:

- Interpret, compare, describe, analyze, and/or evaluate the theme of fiction or literary nonfiction.
- Interpret, compare, describe, analyze and/or evaluate the relationship between the theme and other components of text.

R7.B.1.2 Make connections between texts.

R7.B.1.2.1 Interpret, compare, describe, analyze, and/or evaluate connections between texts.

R7.B.2 Understand literary devices in fictional and nonfictional text.

R7.B.2.2 Identify, interpret, describe, and analyze the point of view of the narrator in fictional and nonfictional text.

R7.B.2.2.1 Identify and/or describe point of view of the narrator as first person or third person point of view.

R7.B.2.2.2 Interpret and/or describe the effectiveness of the point of view used by the author.

Analyze the effect of various literary devices.

Sound techniques (e.g., rhyme, rhythm, meter, alliteration). Figurative language (e.g., personification, simile, metaphor, hyperbole, allusion).

R7.B.2 Understand literary devices in fictional and nonfictional text.

R7.B.2.1 Identify, interpret, describe, and analyze figurative language in fiction and nonfiction.

R7.B.2.1.1 Identify, interpret, describe, and/or analyze examples of personification, simile, metaphor, hyperbole, and imagery in text.

R7.B.2.1.2 Identify, interpret, describe, and/or analyze the author's purpose for and effectiveness at using figurative language in text.

**Identify poetic forms (e.g., ballad, sonnet, couplet).*

**Analyze drama to determine the reasons for a character's actions taking into account the situation and basic motivation of the character.*

Read and respond to nonfiction and fiction including poetry and drama.

R7.A.1 Understand fiction appropriate to grade level.

R7.A.1.6 Identify, describe, and analyze genre of text.

R7.A.1.6.1 Identify and/or describe the author's intended purpose of text.

R7.A.1.6.2 Describe and/or analyze examples of text that support the author's intended purpose.

Note: narrative and poetic text

R7.A.2 Understand nonfiction appropriate to grade level.

R7.A.2.6 Identify, describe, and analyze genre of text.

R7.A.2.6.1 Identify and/or describe the author's intended purpose of text.

R7.A.2.6.2 Describe and/or analyze examples of text that support the author's intended purpose.

Note: informational, persuasive, biographical, instructional (practical/how-to/advertisement) and editorial/essay text

R7.B.1 Understand components within and between texts.

R7.B.1.1 Interpret, compare, describe, analyze, and evaluate components of fiction and literary nonfiction.

R7.B.1.1.1 Interpret, compare, describe, analyze, and/or evaluate the relationships among the following within fiction and literary nonfiction:

Character (may also be called narrator, speaker, subject of a biography):

- Interpret, compare, describe, analyze, and/or evaluate character actions, motives, dialogue, emotions/feelings, traits, and relationships among characters within fictional and literary nonfictional text.
- Interpret, compare, describe, analyze, and/or evaluate the relationship between characters and other components of text.

Setting:

- Interpret, compare, describe, analyze, and/or evaluate the setting of fiction or literary nonfiction.
- Interpret, compare, describe, analyze, and/or evaluate the relationship between setting and other components of text.

Plot (may also be called action):

- Interpret, compare, describe, analyze, and/or evaluate elements of the plot (conflict, rising action, climax and/or resolution).
- Interpret, compare, describe, analyze, and/or evaluate the relationship between elements of the plot and other components of text.

Theme:

- Interpret, compare, describe, analyze, and/or evaluate the theme of fiction or literary nonfiction.
- Interpret, compare, describe, analyze and/or evaluate the relationship between the theme and other components of text.

R7.B.1.2 Make connections between texts.

R7.B.1.2.1 Interpret, compare, describe, analyze, and/or evaluate connections between texts.

Appendix C:
**2007–2008 Mathematics Assessment General Scoring
Guidelines**

PENNSYLVANIA DEPARTMENT OF EDUCATION

PSSA

General Description of Mathematics Scoring Guidelines

- 4 – The response demonstrates a *thorough* understanding of the mathematical concepts and procedures required by the task.**

The response provides correct answer(s) with clear and complete mathematical procedures shown and a correct explanation, as required by the task. Response may contain a minor “blemish” (e.g., missing \$) or omission in work or explanation that does not detract from demonstrating a *thorough* understanding.

- 3 – The response demonstrates a *general* understanding of the mathematical concepts and procedures required by the task.**

The response and explanation (as required by the task) are mostly complete and correct. The response may have minor errors or omissions that do not detract from demonstrating a *general* understanding.

- 2 – The response demonstrates a *partial* understanding of the mathematical concepts and procedures required by the task.**

The response is somewhat correct with *partial* understanding of the required mathematical concepts and/or procedures demonstrated and/or explained. The response may contain some work that is incomplete or unclear.

- 1 – The response demonstrates a *minimal* understanding of the mathematical concepts and procedures required by the task.**

- 0 – The response has no correct answer and *insufficient* evidence to demonstrate any understanding of the mathematical concepts and procedures required by the task for that grade level.**

Response may show only information copied from the question.

Special Categories within zero reported separately:

BLK (blank).....Blank, entirely erased, or written refusal to respond

OTOff task

IL.....Illegible

LOE.....Response in a language other than English

This document is available on the PDE website.

Appendix D:

2007–2008 Reading Assessment General Scoring Guidelines

PENNSYLVANIA DEPARTMENT OF EDUCATION
PSSA

**Pennsylvania Reading Assessment General Description of Scoring
Guidelines**

3 Points

- The response provides a complete answer to the task (e.g., a statement that offers a correct answer as well as text-based support).
- The response provides specific, appropriate and accurate details (e.g., naming, describing, explaining, or comparing) or examples.

2 Points

- The response provides a partial answer to the task (e.g., indicates some awareness of the task and at least one text-based detail).
- The response attempts to provide sufficient, appropriate details (e.g., naming, describing, explaining, or comparing) or examples; may contain minor inaccuracies.

1 Point

- The response provides an incomplete answer to the task (e.g., indicating either a misunderstanding of the task or no text-based details).
- The response provides insufficient or inappropriate details or examples that have a major effect on accuracy.
- The response consists entirely of relevant copied text.

0 Points

- The response provides insufficient material for scoring.
- The response is inaccurate in all aspects.

Categories within zero reported separately:

BLK (blank)...No response or written refusal to respond or too brief to determine response

OTOff task/topic

LOE.....Response in a language other than English

IL.....Illegible

This document is available on the PDE website.

2008 PSSA Technical Report for Reading and Mathematics: Grades 3–8 and 11

Appendix E:
2007 Test Book Section Layout Plan

2007 Mathematics and Reading Test Book Section Layout for Grades 4 – 8 & 11

Mathematics Core	Reading Core
core/common MC items	core/common MC items
3 core 4 pt OE items	4 core 3 pt OE items
66 points	52 points
Total	Total

The estimated administration time is 160 minutes for mathematics (including matrix items and embedded field test items.) The estimated administration time is 165 minutes for reading (including matrix items and embedded field test items).

Section	Content	Number of MC	MC Item Breakdown	Number of OE	OE Item Breakdown	Section Times (in minutes)
1	Mathematics	22	21–Common (Core) items (includes 4 non-calc) 1– non-calculator Field Test Item	2	2–Common (Core) items	55
2	Reading	20-24	20–24–Common (Core) items	2	2–Common (Core) items	60
3	Mathematics	22	11–Common (Core) items 5–Matrix items 6–Field Test items	2	1–Matrix 1–Field Test	55
4	Reading	16	6–Matrix items 10–Field Test items	2	1–Matrix 1–Field Test	50
5	Mathematics	22	22–Common (Core) items	1	1–Common (Core) item	50
6	Reading	16-20	16–20–Common (Core) items	2	2–Common (Core) items	55

Notes:

- 1) There will be 20 forms.
- 2) The ruler items may fall in Section 1, 3, or 5.
- 3) Sections 2 and 6 must equal a combined total of 40 MC items.
- Section 2 cannot be more than 24 items. Section 6 cannot be less than 16 items.
- 4) There can be 7 to 9 passages combined between sections 2, 4, and 6.
- 5) The break down for the number of MC items between sections 2 and 6 is: G4 24/16, G5, 24/16, G6 20/20, G7 20/20, G8 20/20, and G11 23/17.

2007 Mathematics and Reading Test Book Section Layout for Grade 3

Mathematics Core	Reading Core
core/common MC items	core/common MC items
54 (10 core linking)	40
3 core 4 pt OE items	2 core 3 pt OE items
12	6
Total	Total
66 points	46 points

The estimated administration time is 160 minutes for mathematics (including matrix items and embedded field test items.) The estimated administration time is 165 minutes for reading (including matrix items and embedded field test items).

Section	Content	Number of MC	MC Item Breakdown	Number of OE	OE Item Breakdown	Section Times (in minutes)
1	Mathematics	22	22–Common (Core) items	2	1–Common (Core) item 1–Matrix	55
2	Reading	24	24–Common (Core) items	1	1–Common (Core) item	65
3	Mathematics	22	10–Common (Core) items 4–Matrix items 8–Field Test items	2	1–Common (Core) item 1–Field Test	55
4	Reading	18	8–Matrix items 10–Field Test items	2	1–Matrix 1–Field Test	50
5	Mathematics	22	22–Common (Core) items	1	1–Common (Core) item	50
6	Reading	16	16–Common (Core) items	1	1–Common (Core) item	50

Notes:

- 1) There will be 16 forms.
- 2) The ruler items may fall in Section 1, 3, or 5.
- 3) Sections 2 and 6 must equal a combined total of 40 MC items.
- Section 2 cannot be more than 24 items. Section 6 cannot be less than 16 items.
- 4) There are 7 passages combined between sections 2, 4, and 6. (5 core, 1 matrix, and 1 FT).
- 5) The break down for the number of MC items between sections 2 and 6 is to be determined.

Appendix F:
**Assessment Anchor Content Standards (Assessment
Anchors)**
within Reporting Categories Summary

*Appendix F: Assessment Anchor Content Standards (Assessment Anchors)
within Reporting Categories Summary*

Table F–1. Grade 3 Mathematics Assessment Anchor Content Standards

Grade 03				Mathematics															
Reporting Category	Assessment Anchor	Descriptor (Sub-anchor)	Eligible Content	Focus	Points						Items								
					Student Scores (Core Points)		District Level Scores (Matrix Points)		Total Points (Core & Matrix)		Number of Items				Total Number of Items (Core & Matrix)				
					MC	CR	MC	CR	MC	CR	Total	Core		Matrix		Total			
					MC	CR	MC	CR	MC	CR	Total	MC	CR	MC	CR	MC	CR	Total	
A: Numbers and Operations	1			Understand relationships and representations of numbers and number systems		4		8		12	12		1		2		3	3	
	1	1	1	Match word to number	1		2		3	3		1		2			3	3	
	1	1	2	Differentiate between even & odd	2		2		4	4		2		2			4	4	
	1	1	3	Compare two whole numbers	2		2		4	4		2		2			4	4	
	1	1	4	Order a set of whole numbers	1		3		4	4		1		3			4	4	
	1	1	5	Match symbolic representation	1		3		4	4		1		3			4	4	
	1	2	1	Write fraction that corresponds to drawing	2				2	2		2					2	2	
	1	2	2	Draw representation of a fraction	1		2		3	3		1		2			3	3	
	1	3	1	Count a collection of bills & coins	1		3		4	4		1		3			4	4	
	1	3	2	Compare total values of combinations of coins	2		2		4	4		2		2			4	4	
	1	3	3	Make change up to \$5.00	3		1		4	4		3		1			4	4	
	Total For Assessment Anchor A.1					16	4	20	8	36	12	48	16	1	20	2	36	3	39
	2			Understand meanings, uses and relations of operations				4		4	4				1			1	1
	2	1	1	Represent multiplication as repeated addition	1		2		3	3		1		2			3		3
	2	1	2	Demonstrate inverse relationships	2				2	2		2					2		2
	2	1	3	Identify correct operation(s)	2		4		6	6		2		4			6		6
	Total For Assessment Anchor A.2					5		6	4	11	4	15	5		6	1	11	1	12
	3			Compute accurately/fluently and make reasonable estimates				8		8	8				2			2	2
	3	1	1	Solve single- & double-digit addition & subtraction problems	2		2		4	4		2		2			4		4
	3	1	2	Solve multiplication problems	1		3		4	4		1		3			4		4
3	1	3	Solve triple digit addition & subtraction problems	1		3		4	4		1		3			4		4	
3	2	1	Estimate sums and differences	1		3		4	4		1		3			4		4	
Total For Assessment Anchor A.3					5		11	8	16	8	24	5		11	2	16	2	18	
Total For Reporting Category A					26	4	37	20	63	24	87	26	1	37	5	63	6	69	

*Appendix F: Assessment Anchor Content Standards (Assessment Anchors)
within Reporting Categories Summary*

Table F–1 (continued). Grade 3 Mathematics Assessment Anchor Content Standards

Grade 03				Mathematics																
Reporting Category	Assessment Anchor	Descriptor (Sub-anchor)	Eligible Content	Focus	Points						Items									
					Student Scores (Core Points)		District Level Scores (Matrix Points)		Total Points (Core & Matrix)		Number of Items				Total Number of Items (Core & Matrix)					
					MC	CR	MC	CR	MC	CR	Total	Core		Matrix		MC	CR	Total		
												MC	CR	MC	CR	MC	CR	Total		
B: Measurement	1			Understand measurable attributes and units, systems, processes of measurement		4		8		12	12			1		2		3	3	
	1	1	1	Tell/show analog time to the minute			3		3		3				3			3	3	
	1	1	2	Find elapsed time	1		2		3		3	1		2				3	3	
	1	1	3	Identify times as AM or PM	1		1		2		2	1		1				2	2	
	1	2	1	Select appropriate unit for measurement	1		3		4		4	1		3				4	4	
	1	2	2	Compare and/or order objects by length, area, or weight			1		1		1			1				1	1	
	Total For Assessment Anchor B.1 Understand measurable attributes and units, systems, processes of measurement					3	4	10	8	13	12	25	3	1	10	2		13	3	16
	2			Apply techniques, tools & formulas to determine measurements																
	2	1	1	Use a ruler to nearest 1/2 inch	1		2		3		3	1		2				3	3	
	2	2	1	Match object with measurement	1		1		2		2	1		1				2	2	
	Total For Assessment Anchor B.2 Apply appropriate techniques, tools and formulas to determine measurements					2		3		5		5	2		3			5		5
	Total For Reporting Category B					5	4	13	8	18	12	30	5	1	13	2		18	3	21
C: Geometry	1			Analyze characteristics & properties of 2-D & 3-D shapes				8		8	8				2			2	2	
	1	1	1	Name/identify/describe 2-D shapes	2		1		3		3	2		1				3	3	
	1	1	2	Name/identify 3-D shapes	1		3		4		4	1		3				4	4	
	Total For Assessment Anchor C.1 Analyze characteristics and properties of two- and three-dimensional geometric shapes					3		4	8	7	8	15	3		4	2		7	2	9
	2			Identify and/or apply concepts of transformations or symmetry		4		4		8	8		1		1				2	2
	2	1	1	Identify/draw line of symmetry			3		3		3			3					3	3
	2	1	2	Identify symmetrical 2-D shapes	2		3		5		5	2		3				5	5	
Total For Assessment Anchor C.2 Identify and/or apply concepts of transformations or symmetry					2	4	6	4	8	8	16	2	1	6	1		8	2	10	
Total For Reporting Category C					5	4	10	12	15	16	31	5	1	10	3		15	4	19	

*Appendix F: Assessment Anchor Content Standards (Assessment Anchors)
within Reporting Categories Summary*

Table F–1 (continued). Grade 3 Mathematics Assessment Anchor Content Standards

Grade 03				Mathematics														
Reporting Category	Assessment Anchor	Descriptor (Sub-anchor)	Eligible Content	Focus	Points						Items							
					Student Scores (Core Points)		District Level Scores (Matrix Points)		Total Points (Core & Matrix)		Number of Items				Total Number of Items (Core & Matrix)			
					MC	CR	MC	CR	MC	CR	Total	MC	CR	MC	CR	MC	CR	Total
D: Algebraic Concepts	1			Understand patterns, relations and functions				8		8	8				2		2	2
	1	1	1	Extend or find a missing element in a pattern	2		1		3		3	2		1		3		3
	1	1	2	Identify/describe rule for a pattern	2		3		5		5	2		3		5		5
	Total For Assessment Anchor D.1 Understand patterns, relations and functions				4		4	8	8	8	16	4		4	2	8	2	10
	2			Represent/analyze mathematical situations				4		4	4				1		1	1
	2	1	1	Create or match a story			2		2		2			2		2		2
	2	1	2	Match number sentence to story	2		1		3		3	2		1		3		3
	2	2	1	Find a missing number	1		1		2		2	1		1		2		2
	2	2	2	Identify the missing symbol	2		2		4		4	2		2		4		4
	Total For Assessment Anchor D.2 Represent/analyze mathematical situations using numbers, symbols, words, tables and/or graphs				5		6	4	11	4	15	5		6	1	11	1	12
Total For Reporting Category D				9		10	12	19	12	31	9		10	3	19	3	22	
E: Data Analysis and Probability	1			Formulate/answer questions; organize, display, interpret or analyze data				12		12	12				3		3	3
	1	1	1	Analyze data shown on tables, charts, or bar graphs	2		1		3		3	2		1		3		3
	1	1	2	Describe, interpret and/or answer questions based on data	3		2		5		5	3		2		5		5
	1	2	1	Graph data	2		3		5		5	2		3		5		5
	1	2	2	Translate information from one type of display to another	2		4		6		6	2		4		6		6
	Total For Assessment Anchor E.1 Formulate or answer questions about data and/or organize, display, interpret or analyze data				9		10	12	19	12	31	9		10	3	19	3	22
Total For Reporting Category E				9		10	12	19	12	31	9		10	3	19	3	22	

*Appendix F: Assessment Anchor Content Standards (Assessment Anchors)
within Reporting Categories Summary*

Table F–2. Grade 3 Reading Assessment Anchor Content Standards

Grade 03				Reading																
Reporting Category	Assessment Anchor	Descriptor (Sub-anchor)	Eligible Content	Focus	Points						Items									
					Student Scores (Core Points)		District Level Scores (Matrix Points)		Total Points (Core & Matrix)		Number of Items (Core & Matrix)		Total Number of Items (Core & Matrix)							
					MC	CR	MC	CR	MC	CR	Total	MC	CR	MC	CR	MC	CR	Total		
A: Comprehension and Reading Skills	1	1	1	Identify meaning of multiple-meaning words			2		2		2			2		2		2		
	1	1	2	Identify synonym/antonym	2		9		11		11		2		9		11		11	
	1	2	1	Identify meaning of word with an affix/how meaning changes	1		1		2		2		1		1		2		2	
	1	2	2	Define words from context clues			3		3		3				3		3		3	
	1	3	1	Make inferences/draw conclusions	7		15	3	22	3	25		7		15	1	22	1	23	
	1	4	1	Identify main ideas/relevant details	3	3	19	3	22	6	28		3	1	19	1	22	2	24	
	1	5	1	Summarize key details and events of a text as a whole			3	3	3	3	6				3	1	3	1	4	
	1	6	1	Identify author's purpose for writing text	2		3		5		5		2		3		5		5	
	Total For Assessment Anchor A.1 Understand fiction appropriate to grade level.					15	3	55	9	70	12	82		15	1	55	3	70	4	74
	2	1	1	Identify meaning of multiple-meaning words			2		2		2				2		2		2	
	2	1	2	Identify meaning of content-specific words	1		2		3		3		1		2		3		3	
	2	2	1	Identify meaning of word with an affix/how meaning changes			3		3		3				3		3		3	
	2	2	2	Define words from context clues	1		1		2		2		1		1		2		2	
	2	3	1	Make inferences/draw conclusions	4		13	12	17	12	29		4		13	4	17	4	21	
	2	4	1	Identify main ideas/relevant details	7		17	3	24	3	27		7		17	1	24	1	25	
	2	5	1	Summarize major points/processes/events of a text as a whole	1		2		3		3		1		2		3		3	
	2	6	1	Identify author's purpose for writing text			3		3		3				3		3		3	
	Total For Assessment Anchor A.2 Understand nonfiction appropriate to grade level.					14		43	15	57	15	72		14		43	5	57	5	62
	Total For Reporting Category A					29	3	98	24	127	27	154		29	1	98	8	127	9	136

*Appendix F: Assessment Anchor Content Standards (Assessment Anchors)
within Reporting Categories Summary*

Table F–2 (continued). Grade 3 Reading Assessment Anchor Content Standards

Grade 03				Reading														
Reporting Category	Assessment Anchor	Descriptor (Sub-anchor)	Eligible Content	Focus	Points						Items							
					Student Scores (Core Points)		District Level Scores (Matrix Points)		Total Points (Core & Matrix)		Number of Items				Total Number of Items (Core & Matrix)			
					MC	CR	MC	CR	MC	CR	Total	MC	CR	MC	CR	MC	CR	Total
B: Interpretation and Analysis of Fictional and Nonfictional Text	1	1	1	Identify in fiction and literary nonfiction character (narrator/speaker/subject of a biography), setting, plot	5	3	22	24	27	27	54	5	1	22	8	27	9	36
	1	2	1	Connections between texts	1				1		1	1				1		1
	Total For Assessment Anchor B.1 Understand components within and between texts.				6	3	22	24	28	27	55	6	1	22	8	28	9	37
	2	1	1	Identify examples of personification	1		3		4		4	1		3		4		4
	Total For Assessment Anchor B.2 Understand literary devices in fictional and nonfictional text.				1		3		4		4	1		3		4		4
	3	1	1	Identify fact/opinion	1		5		6		6	1		5		6		6
	3	2	1	Identify exaggeration (bias)														
	3	3	1	Identify text organization (sequence, question/answer, comparison/contrast, cause/effect, problem/solution)	1				1		1	1				1		1
	3	3	2	Use headings to locate information or identify content that fits into a specific section	1				1		1	1				1		1
	3	3	3	Interpret and make connections between graphics/charts/texts														
	3	3	4	Sequence of steps in a list of directions	1				1		1	1				1		1
	Total For Assessment Anchor B.3 Understand concepts and organization of nonfictional text.				4		5		9		9	4		5		9		9
	Total For Reporting Category B				11	3	30	24	41	27	68	11	1	30	8	41	9	50

*Appendix F: Assessment Anchor Content Standards (Assessment Anchors)
within Reporting Categories Summary*

Table F–3. Grade 4 Mathematics Assessment Anchor Content Standards

Grade 04				Mathematics															
Reporting Category	Assessment Anchor	Descriptor (Sub-anchor)	Eligible Content	Focus	Points						Items								
					Student Scores (Core Points)		District Level Scores (Matrix Points)		Total Points (Core & Matrix)		Number of Items				Total Number of Items (Core & Matrix)				
					MC	CR	MC	CR	MC	CR	Total	MC	CR	MC	CR	MC	CR	Total	
	1			Understand relationships and representations of numbers and number systems		4		16		20	20		1		4		5	5	
	1	1	1	Match drawing to fraction, decimal, mixed number	2		3		5	5		2		3		5		5	
	1	1	2	Create a drawing or set to represent a fraction			1		1	1				1		1		1	
	1	1	3	Match standard form to word form (decimals)	2		5		7	7		2		5		7		7	
	1	1	4	Write in expanded, standard or word form (whole numbers)	1		4		5	5		1		4		5		5	
	1	2	1	Locate/identify fractions or decimals on number line	2		6		8	8		2		6		8		8	
	1	2	2	Compare/order whole numbers	1		2		3	3		1		2		3		3	
	1	3	1	Find/identify/list factors	2		8		10	10		2		8		10		10	
	1	3	2	Find/identify/list multiples	2		4		6	6		2		4		6		6	
	Total For Assessment Anchor A.1																		
	Understand relationships among and representations of numbers and number systems				12	4	33	16	45	20	65	12	1	33	4	45	5	50	
	2			Understand meanings, uses and relations of operations				12		12	12				3		3	3	
	2	1	1	Solve problems involving all operations (whole numbers)	2		4		6	6		2		4		6		6	
	2	1	2	Solve problems with decimals	3		5		8	8		3		5		8		8	
	Total For Assessment Anchor A.2																		
	Understand meanings, uses of operations and how they relate to each other				5		9	12	14	12	26	5		9	3	14	3	17	
	3			Compute accurately/fluently and make reasonable estimates				16		16	16				4		4	4	
	3	1	1	Round whole numbers	3		2		5	5		3		2		5		5	
	3	1	2	Round to nearest dollar	2		2		4	4		2		2		4		4	
	3	1	3	Estimate answers with whole numbers	2		1		3	3		2		1		3		3	
	3	2	1	Solve addition/subtraction problems involving decimals	1				1	1		1				1		1	
	3	2	2	Solve addition/subtraction problems involving fractions	1		1		2	2		1		1		2		2	
	Total For Assessment Anchor A.3																		
	Compute accurately and fluently and make reasonable estimates				9		6	16	15	16	31	9		6	4	15	4	19	
	Total For Reporting Category A				26	4	48	44	74	48	122	26	1	48	11	74	12	86	

*Appendix F: Assessment Anchor Content Standards (Assessment Anchors)
within Reporting Categories Summary*

Table F–3 (continued). Grade 4 Mathematics Assessment Anchor Content Standards

Grade 04				Mathematics															
Reporting Category	Assessment Anchor	Descriptor (Sub-anchor)	Eligible Content	Focus	Points						Items								
					Student Scores (Core Points)		District Level Scores (Matrix Points)		Total Points (Core & Matrix)		Number of Items				Total Number of Items (Core & Matrix)				
					MC	CR	MC	CR	MC	CR	Total	MC	CR	MC	CR	MC	CR	Total	
B: Measurement	1			Understand measurable attributes and units, systems, processes of measurement				16		16	16				4		4	4	
	1	1	1	Match analog time to digital time	1		3		4		4	1		3			4	4	
	1	1	2	Identify time	2		3		5		5	2		3			5	5	
	1	1	3	Calculate elapsed time			2		2		2			2			2	2	
	1	1	4	Determine beginning or ending time	1		1		2		2	1		1			2	2	
	Total For Assessment Anchor B.1 Understand measurable attributes and units, systems, processes of measurement				4		9	16	13	16	29	4		9	4		13	4	17
	2			Apply techniques, tools & formulas to determine measurements		4				4	4		1					1	1
	2	1	1	Use/read ruler to nearest 1/4 inch	1		4		5		5	1		4			5	5	
	2	2	1	Make reasonable estimates of measurement	1		4		5		5	1		4			5	5	
	Total For Assessment Anchor B.2 Apply appropriate techniques, tools and formulas to determine measurements				2	4	8		10	4	14	2	1	8			10	1	11
	Total For Reporting Category B				6	4	17	16	23	20	43	6	1	17	4		23	5	28
C: Geometry	1			Analyze characteristics & properties of 2-D & 3-D shapes				4		4	4				1		1	1	
	1	1	1	Identify/classify/compare 2-D figures	1		1		2		2	1		1			2	2	
	1	1	2	Classify 3-D figures, identify characteristics			1		1		1			1			1	1	
	1	2	1	Identify points/lines/segments/rays	1		2		3		3	1		2			3	3	
	1	2	2	Identify parallel/perpendicular lines	2		1		3		3	2		1			3	3	
	Total For Assessment Anchor C.1 Analyze characteristics and properties of two- and three-dimensional geometric shapes				4		5	4	9	4	13	4		5	1		9	1	10
	2			Identify and/or apply concepts of transformations and symmetry				4		4	4				1			1	1
	2	1	1	Identify/draw figures having one, two, or no lines of symmetry	2		4		6		6	2		4			6	6	
	Total For Assessment Anchor C.2 Identify and/or apply concepts of transformations and symmetry				2		4	4	6	4	10	2		4	1		6	1	7
	3			Locate points/describe relationships using the coordinate plane															
	3	1	1	Match or plot ordered pair	2		3		5		5	2		3			5	5	
Total For Assessment Anchor C.3 Locate points or describe relationships using the coordinate plane				2		3		5		5	2		3			5		5	
Total For Reporting Category C				8		12	8	20	8	28	8		12	2		20	2	22	

*Appendix F: Assessment Anchor Content Standards (Assessment Anchors)
within Reporting Categories Summary*

Table F–3 (continued). Grade 4 Mathematics Assessment Anchor Content Standards

Grade 04				Mathematics																
Reporting Category	Assessment Anchor	Descriptor (Sub-anchor)	Eligible Content	Focus	Points						Items									
					Student Scores (Core Points)		District Level Scores (Matrix Points)		Total Points (Core & Matrix)		Number of Items		Total Number of Items (Core & Matrix)							
					MC	CR	MC	CR	MC	CR	Total	MC	CR	MC	CR	MC	CR	Total		
D: Algebraic Concepts	1			Understand patterns, relations and functions																
	1	1	1	Extend or find a missing element in a numerical or geometric pattern	1		2		3		3		1		2		3		3	
	1	1	2	Identify/describe rule for numerical or geometric pattern	1		4		5		5		1		4		5		5	
	1	1	3	Create or replicate numerical or geometric pattern	1		2		3		3		1		2		3		3	
	1	2	1	Determine missing elements in function table given the rule	1		2		3		3		1		2		3		3	
	1	2	2	Determine rule given a table	2		3		5		5		2		3		5		5	
	Total For Assessment Anchor D.1				6		13		19		19		6		13		19		19	
	2			Represent/analyze mathematical situations				8		8		8				2		2		2
	2	1	1	Correlate story with expression or equation	1		2		3		3		1		2		3		3	
	2	2	1	Solve for missing number in equation	1		1		2		2		1		1		2		2	
	2	2	2	Identify the missing symbol	1		1		2		2		1		1		2		2	
Total For Assessment Anchor D.2				3		4	8	7	8	15	3	4	2	7	2	9				
Total For Reporting Category D				9		17	8	26	8	34	9	17	2	26	2	28				
E: Data Analysis and Probability	1			Formulate questions; organize, display, interpret or analyze data		4		4		8	8		1		1		2		2	
	1	1	1	Describe/interpret/answer questions based on data shown	1		3		4		4		1		3		4		4	
	1	2	1	Graph data or complete a graph	2				2		2		2				2		2	
	1	2	2	Translate data from one type of display to another	1		1		2		2		1		1		2		2	
	Total For Assessment Anchor E.1				4	4	4	4	8	8	16	4	1	4	1	8	2	10		
	3			Understand and apply basic concepts of probability																
	3	1	1	Make a prediction based on data or chance	1		2		3		3		1		2		3		3	
Total For Assessment Anchor E.3				1		2		3		3	1	2		3		3				
Total For Reporting Category E				5	4	6	4	11	8	19	5	1	6	1	11	2	13			

*Appendix F: Assessment Anchor Content Standards (Assessment Anchors)
within Reporting Categories Summary*

Table F–4. Grade 4 Reading Assessment Anchor Content Standards

Grade 04				Reading															
Reporting Category	Assessment Anchor	Descriptor (Sub-anchor)	Eligible Content	Focus	Points						Items								
					Student Scores (Core Points)		District Level Scores (Matrix Points)		Total Points (Core & Matrix)		Number of Items				Total Number of Items (Core & Matrix)				
					MC	CR	MC	CR	MC	CR	Total	Core		Matrix		MC	CR	Total	
												MC	CR	MC	CR	MC	CR	Total	
A: Comprehension and Reading Skills	1	1	1	Identify meaning of multiple-meaning words			2		2		2			2		2		2	
	1	1	2	Identify synonym/antonym	1		7		8		8	1		7		8		8	
	1	2	1	Identify meaning of word with an affix/how meaning changes			1		1		1			1		1		1	
	1	2	2	Define words from context clues	1		4		5		5	1		4		5		5	
	1	3	1	Make inferences/draw conclusions	8		9		17		17	8		9		17		17	
	1	4	1	Identify main ideas/relevant details	4		16	12	20	12	32	4		16	4	20	4	24	
	1	5	1	Summarize key details and events of a text as a whole		3	1	6	1	9	10		1	1	2	1	3	4	
	1	6	1	Identify author's purpose for writing text	1		8		9		9	1		8		9		9	
	Total For Assessment Anchor A.1 Understand fiction appropriate to grade level.					15	3	48	18	63	21	84	15	1	48	6	63	7	70
	2	1	1	Identify meaning of multiple-meaning words			2		2		2			2		2		2	
	2	1	2	Identify meaning of content-specific words															
	2	2	1	Identify meaning of word with an affix/how meaning changes	1		3		4		4	1		3		4		4	
	2	2	2	Define words from context clues	2		4		6		6	2		4		6		6	
	2	3	1	Make inferences/draw conclusions	3	6	5	9	8	15	23	3	2	5	3	8	5	13	
	2	4	1	Identify main ideas/relevant details	5		14	6	19	6	25	5		14	2	19	2	21	
	2	5	1	Summarize major points/processes/events of a text as a whole			1		1		1			1		1		1	
	2	6	1	Identify author's purpose for writing text			4		4		4			4		4		4	
	Total For Assessment Anchor A.2 Understand nonfiction appropriate to grade level.					11	6	33	15	44	21	65	11	2	33	5	44	7	51
	Total For Reporting Category A					26	9	81	33	107	42	149	26	3	81	11	107	14	121

*Appendix F: Assessment Anchor Content Standards (Assessment Anchors)
within Reporting Categories Summary*

Table F–4 (continued). Grade 4 Reading Assessment Anchor Content Standards

Grade 04				Reading														
Reporting Category	Assessment Anchor	Descriptor (Sub-anchor)	Eligible Content	Focus	Points						Items							
					Student Scores		District Level Scores		Total Points		Number of Items				Total Number of Items			
					(Core Points)		(Matrix Points)		(Core & Matrix)		Core		Matrix		(Core & Matrix)			
					MC	CR	MC	CR	MC	CR	Total	MC	CR	MC	CR	MC	CR	Total
B: Interpretation and Analysis of Fictional and Nonfictional Text	1	1	1	Identify in fiction and literary nonfiction character (narrator/speaker/subject of a biography), setting, plot	6	3	26	27	32	30	62	6	1	26	9	32	10	42
	1	2	1	Connections between texts	1				1		1	1				1		1
	Total For Assessment Anchor B.1 Understand components within and between texts.				7	3	26	27	33	30	63	7	1	26	9	33	10	43
	2	1	1	Identify examples of personification	1		1		2		2	1		1		2		2
	2	1	2	Identify examples of similes			4		4		4			4		4		4
	2	1	3	Identify examples of alliteration			1		1		1			1		1		1
	Total For Assessment Anchor B.2 Understand literary devices in fictional and nonfictional text.				1		6		7		7	1		6		7		7
	3	1	1	Identify fact/opinion	2		1		3		3	2		1		3		3
	3	2	1	Identify exaggeration (bias)														
	3	3	1	Identify text organization (sequence, question/answer, comparison/contrast, cause/effect, problem/solution)			3		3		3			3		3		3
	3	3	2	Use headings to locate information or identify content that fits into a specific section	2		2		4		4	2		2		4		4
	3	3	3	Interpret and make connections between graphics/charts/texts			1		1		1			1		1		1
	3	3	4	Sequence of steps in a list of directions	2				2		2	2				2		2
	Total For Assessment Anchor B.3 Understand concepts and organization of nonfictional text.				6		7		13		13	6		7		13		13
	Total For Reporting Category B				14	3	39	27	53	30	83	14	1	39	9	53	10	63

*Appendix F: Assessment Anchor Content Standards (Assessment Anchors)
within Reporting Categories Summary*

Table F–5. Grade 5 Mathematics Assessment Anchor Content Standards

Grade 05				Mathematics															
Reporting Category	Assessment Anchor	Descriptor (Sub-anchor)	Eligible Content	Focus	Points						Items								
					Student Scores (Core Points)		District Level Scores (Matrix Points)		Total Points (Core & Matrix)		Number of Items				Total Number of Items (Core & Matrix)				
					MC	CR	MC	CR	MC	CR	Total	MC	CR	MC	CR	MC	CR	Total	
A: Numbers and Operations	1			Understand relationships and representations of numbers and number systems				20		20	20				5		5	5	
	1	1	1	Use expanded notation	1		4		5		5	1		4		5		5	
	1	2	1	Read/write decimals	1		4		5		5	1		4		5		5	
	1	2	2	Identify number with place value	2		2		4		4	2		2		4		4	
	1	3	1	Compare whole numbers			2		2		2			2		2		2	
	1	3	2	Compare and/or order decimals	1		1		2		2	1		1		2		2	
	1	3	3	Compare proper fractions	2		4		6		6	2		4		6		6	
	1	4	1	Identify negative numbers on number line	1		5		6		6	1		5		6		6	
	1	4	2	Identify negative numbers on thermometer	1		4		5		5	1		4		5		5	
	1	5	1	Model fractions/mixed numbers	2		3		5		5	2		3		5		5	
	1	6	1	Name/identify prime and composite numbers	2		3		5		5	2		3		5		5	
	1	6	2	List/identify factors, multiples	2		3		5		5	2		3		5		5	
	Total For Assessment Anchor A.1																		
	Understand relationships among and representations of numbers and number systems					15		35	20	50	20	70	15		35	5	50	5	55
	2				Understand meanings, uses and relations of operations		4		12		16	16		1		3		4	4
	2	1	1		Solve problems involving all operations (whole numbers & decimals)	3		4		7		7	3		4		7		7
	2	1	2		Solve problems involving addition/subtraction (fractions)	2		1		3		3	2		1		3		3
	2	1	3		Choose correct operation			1		1		1			1		1		1
	Total For Assessment Anchor A.2																		
	Understand meanings, uses of operations and how they relate to each other					5	4	6	12	11	16	27	5	1	6	3	11	4	15
3				Compute accurately/fluently and make reasonable estimates															
3	1	1		Round whole numbers & decimals	1		5		6		6	1		5		6		6	
3	1	2		Estimate to solve	2				2		2	2				2		2	
3	2	1		Compute without calculator															
Total For Assessment Anchor A.3																			
Compute accurately and fluently and make reasonable estimates					3		5		8		8	3		5		8		8	
Total For Reporting Category A					23	4	46	32	69	36	105	23	1	46	8	69	9	78	

*Appendix F: Assessment Anchor Content Standards (Assessment Anchors)
within Reporting Categories Summary*

Table F–5 (continued). Grade 5 Mathematics Assessment Anchor Content Standards

Grade 05				Mathematics															
Reporting Category	Assessment Anchor	Descriptor (Sub-anchor)	Eligible Content	Focus	Points						Items								
					Student Scores		District Level Scores		Total Points		Number of Items				Total Number of Items				
					(Core Points)		(Matrix Points)		(Core & Matrix)		Core		Matrix		(Core & Matrix)				
					MC	CR	MC	CR	MC	CR	Total	MC	CR	MC	CR	MC	CR	Total	
B: Measurement	1			Understand measurable attributes and units, systems, processes of measurement				8		8	8				2		2	2	
	1	1	1	Select appropriate unit	2		1		3		3	2		1		3		3	
	1	2	1	Convert measurements	1		2		3		3	1		2		3		3	
	1	2	2	Add/subtract measurements	1				1		1	1				1		1	
	1	3	1	Estimate polygon perimeter/area			2		2		2			2		2		2	
	1	3	2	Estimate area of irregular figure	2		1		3		3	2		1		3		3	
	Total For Assessment Anchor B.1 Understand measurable attributes and units, systems, processes of measurement					6		6	8	12	8	20	6		6	2	12	2	14
	2			Apply techniques, tools & formulas to determine measurements				12		12	12				3		3	3	3
	2	1	1	Use a ruler to nearest 1/8 in. or cm	1		3		4		4	1		3		4		4	
	2	2	1	Find perimeter of square or rectangle or labeled figure															
	2	2	2	Find area of square or rectangle	1		3		4		4	1		3		4		4	
	2	2	3	Solve measurement problems	1		2		3		3	1		2		3		3	
Total For Assessment Anchor B.2 Apply appropriate techniques, tools and formulas to determine measurements					3		8	12	11	12	23	3		8	3	11	3	14	
Total For Reporting Category B					9		14	20	23	20	43	9		14	5	23	5	28	
C: Geometry	1			Analyze characteristics & properties of 2-D & 3-D shapes		4		12		16	16		1		3		4	4	
	1	1	1	Identify/classify/compare 3-D figures	1		2		3		3	1		2		3		3	
	1	1	2	Identify/classify/compare quadrilaterals	2		2		4		4	2		2		4		4	
	1	2	1	Identify/draw/label points, lines, segments, rays, planes			4		4		4			4		4		4	
	Total For Assessment Anchor C.1 Analyze characteristics and properties of two- and three-dimensional geometric shapes					3	4	8	12	11	16	27	3	1	8	3	11	4	15
	2			Identify and/or apply concepts of transformations or symmetry				4		4	4				1		1	1	
	2	1	1	Draw or identify translation, reflection, rotation	1		3		4		4	1		3		4		4	
	2	1	2	Draw/identify lines of symmetry	2		2		4		4	2		2		4		4	
Total For Assessment Anchor C.2 Identify and/or apply concepts of transformations or symmetry					3		5	4	8	4	12	3		5	1	8	1	9	
Total For Reporting Category C					6	4	13	16	19	20	39	6	1	13	4	19	5	24	

*Appendix F: Assessment Anchor Content Standards (Assessment Anchors)
within Reporting Categories Summary*

Table F–5 (continued). Grade 5 Mathematics Assessment Anchor Content Standards

Grade 05				Mathematics																				
Reporting Category	Assessment Anchor	Descriptor (Sub-anchor)	Eligible Content	Focus	Points						Items													
					Student Scores (Core Points)		District Level Scores (Matrix Points)		Total Points (Core & Matrix)		Number of Items				Total Number of Items (Core & Matrix)									
					MC	CR	MC	CR	MC	CR	Total	MC	CR	MC	CR	MC	CR	Total						
D: Algebraic Concepts	1			Understand patterns, relations and functions																				
	1	1	1	Extend or find a missing element in a numerical or geometric pattern	4		3		7		7		4		3		7		7					
	1	1	2	Create numerical or geometric pattern	2		4		6		6		2		4		6		6					
	1	2	1	Form/illustrate pattern rule	1		2		3		3		1		2		3		3					
	Total For Assessment Anchor D.1 Understand patterns, relations and functions				7		9		16		16		7		9		16		16					
	2			Represent/analyze mathematical situations				4		4	4					1		1		1				
	2	1	1	Solve for missing number	1		3		4		4		1		3		4		4					
	2	1	2	Match number sentence to story	2		3		5		5		2		3		5		5					
	Total For Assessment Anchor D.2 Represent/analyze mathematical situations using numbers, symbols, words, tables and/or graphs				3		6	4	9	4	13		3		6	1	9	1	10					
	Total For Reporting Category D				10		15	4	25	4	29		10		15	1	25	1	26					
E: Data Analysis and Probability	1			Formulate/answer questions; organize, display, interpret or analyze data				4		4	4				1		1		1					
	1	1	1	Interpret/display data	1		3		4		4		1		3		4		4					
	Total For Assessment Anchor E.1 Formulate or answer questions about data and/or organize, display, interpret or analyze data				1		3	4	4	4	8		1		3	1	4	1	5					
	2			Select and/or use appropriate statistical methods to analyze data		4				4	4		1				1		1					
	2	1	1	Determine the mean, median, range	1		2		3		3		1		2		3		3					
	2	1	2	Identify the mode in set of data	1		2		3		3		1		2		3		3					
	Total For Assessment Anchor E.2 Select and/or use appropriate statistical methods to analyze data				2	4	4		6	4	10		2	1	4		6	1	7					
	3			Understand/apply basic concepts of probability or outcomes				4		4	4					1		1		1				
	3	1	1	Predict/determine likelihood of outcomes	1		3		4		4		1		3		4		4					
	3	1	2	Determine probability of outcome	2		2		4		4		2		2		4		4					
Total For Assessment Anchor E.3 Understand and/or apply basic concepts of probability or outcomes				3		5	4	8	4	12		3		5	1	8	1	9						
Total For Reporting Category E				6	4	12	8	18	12	30		6	1	12	2	18	3	21						

*Appendix F: Assessment Anchor Content Standards (Assessment Anchors)
within Reporting Categories Summary*

Table F–6. Grade 5 Reading Assessment Anchor Content Standards

Grade 05				Reading																
Reporting Category	Assessment Anchor	Descriptor (Sub-anchor)	Eligible Content	Focus	Points						Items									
					Student Scores		District Level Scores		Total Points		Number of Items				Total Number of Items					
					(Core Points)		(Matrix Points)		(Core & Matrix)		Core		Matrix		(Core & Matrix)					
					MC	CR	MC	CR	MC	CR	Total	MC	CR	MC	CR	MC	CR	Total		
A: Comprehension and Reading Skills	1	1	1	Identify meaning of multiple-meaning words	1		2		3		3		1		2		3		3	
	1	1	2	Identify synonym/antonym	1				1		1		1				1		1	
	1	2	1	Identify meaning of word with an affix/how meaning changes			2		2		2				2		2		2	
	1	2	2	Define words from context clues	2		2		4		4		2		2		4		4	
	1	3	1	Make inferences/draw conclusions	3		13	3	16	3	19		3		13	1	16	1	17	
	1	3	2	Cite evidence from text to support generalizations	1				1		1		1				1		1	
	1	4	1	Identify and/or interpret main ideas/relevant details	2		5		7		7		2		5		7		7	
	1	5	1	Summarize key details and events of a text as a whole	1		1		2		2		1		1		2		2	
	1	6	1	Identify author's purpose for writing text	2		2		4		4		2		2		4		4	
	1	6	2	Identify text that supports the author's intended purpose																
	Total For Assessment Anchor A.1 Understand fiction appropriate to grade level.					13		27	3	40	3	43		13		27	1	40	1	41
	2	1	1	Identify meaning of multiple-meaning words	1		2		3		3		1		2		3		3	
	2	1	2	Identify meaning of content-specific words	1		4		5		5		1		4		5		5	
	2	2	1	Identify meaning of word with an affix/how meaning changes			3		3		3				3		3		3	
	2	2	2	Define words from context clues	2		3		5		5		2		3		5		5	
	2	3	1	Make inferences/draw conclusions	3	3	10	9	13	12	25		3	1	10	3	13	4	17	
	2	3	2	Cite evidence from text to support generalizations			2		2		2				2		2		2	
	2	4	1	Identify and/or interpret main ideas/relevant details	5	3	22	9	27	12	39		5	1	22	3	27	4	31	
	2	5	1	Summarize major points/processes/events of a text			1	3	1	3	4				1	1	1	1	2	
	2	6	1	Identify author's purpose for writing text	1		4		5		5		1		4		5		5	
2	6	2	Identify text that supports the author's intended purpose			2		2		2				2		2		2		
Total For Assessment Anchor A.2 Understand nonfiction appropriate to grade level.					13	6	53	21	66	27	93		13	2	53	7	66	9	75	
Total For Reporting Category A					26	6	80	24	106	30	136		26	2	80	8	106	10	116	

*Appendix F: Assessment Anchor Content Standards (Assessment Anchors)
within Reporting Categories Summary*

Table F–6 (continued). Grade 5 Reading Assessment Anchor Content Standards

Grade 05				Reading															
Reporting Category	Assessment Anchor	Descriptor (Sub-anchor)	Eligible Content	Focus	Points						Items								
					Student Scores (Core Points)		District Level Scores (Matrix Points)		Total Points (Core & Matrix)		Number of Items				Total Number of Items (Core & Matrix)				
					MC	CR	MC	CR	MC	CR	Total	MC	CR	MC	CR	MC	CR	Total	
	1	1	1	Identify in fiction and literary nonfiction character (narrator/speaker/subject of a biography), setting, plot, theme	6	3	7	24	13	27	40	6	1	7	8	13	9	22	
	1	2	1	Connections between texts	2	3	4	6	6	9	15	2	1	4	2	6	3	9	
	Total For Assessment Anchor B.1 Understand components within and between texts.				8	6	11	30	19	36	55	8	2	11	10	19	12	31	
B: Interpretation and Analysis of Fictional and Nonfictional Text	2	1	1	Identify examples of personification	1		2		3		3	1		2		3		3	
	2	1	2	Identify examples of similes			6		6		6			6		6		6	
	2	1	3	Identify/interpret examples of alliteration	1		1		2		2	1		1		2		2	
	2	1	4	Identify/interpret examples of metaphors			1		1		1			1		1		1	
	2	2	1	Identify point of view of the narrator as first or third person	1		3		4		4	1		3		4		4	
	2	2	2	Describe the effectiveness of the point of view used by the author															
		Total For Assessment Anchor B.2 Understand literary devices in fictional and nonfictional text.				3		13		16		16	3		13		16		16
	3	1	1	Identify fact/opinion	1		5		6		6	1		5		6		6	
	3	2	1	Identify exaggeration (bias)			1		1		1			1		1		1	
	3	3	1	Identify text organization (sequence, question/answer, comparison/contrast, cause/effect, problem/solution)	2		2		4		4	2		2		4		4	
	3	3	2	Use headings to locate information or identify content that fits into a specific section			3		3		3			3		3		3	
	3	3	3	Interpret and make connections between graphics/charts/texts			1	3	1	3	4			1	1	1	1	1	2
	3	3	4	Sequence of steps in a list of directions			3	3	3	3	6			3	1	3	1	4	
	Total For Assessment Anchor B.3 Understand concepts and organization of nonfictional text.				3		15	6	18	6	24	3		15	2	18	2	20	
	Total For Reporting Category B				14	6	39	36	53	42	95	14	2	39	12	53	14	67	

*Appendix F: Assessment Anchor Content Standards (Assessment Anchors)
within Reporting Categories Summary*

Table F–7. Grade 6 Mathematics Assessment Anchor Content Standards

Grade 06				Mathematics																	
Reporting Category	Assessment Anchor	Descriptor (Sub-anchor)	Eligible Content	Focus	Points						Items										
					Student Scores (Core Points)		District Level Scores (Matrix Points)		Total Points (Core & Matrix)		Number of Items				Total Number of Items (Core & Matrix)						
					MC	CR	MC	CR	MC	CR	Total	MC	CR	MC	CR	MC	CR	Total			
A: Numbers and Operations	1			Understand relationships and representations of numbers and number systems		4		12		16	16			1		3		4	4		
	1	1	1	Represent percents as fractions and/or decimals	1				1	1		1						1	1		
	1	1	2	Convert between fractions and decimals/differentiate between terminating & repeating decimals	2		3		5	5		2		3				5	5		
	1	1	3	Represent number in exponential form	1		2		3	3		1		2				3	3		
	1	1	4	Represent mixed number as an improper fraction			4		4	4				4				4	4		
	1	2	1	Compare/order rational numbers except integers	1		5		6	6		1		5				6	6		
	1	3	1	Find GCF of two numbers	2		3		5	5		2		3				5	5		
	1	3	2	Find LCM of two numbers	1		4		5	5		1		4				5	5		
	1	3	3	Use divisibility rules for 2, 3, 5 & 10 to solve problems																	
	1	4	1	Model percents	2		4		6	6		2		4				6	6		
	Total For Assessment Anchor A.1																				
	Understand relationships among and representations of numbers and number systems					10	4	25	12	35	16	51	10	1	25	3			35	4	39
	2				Understand meanings, uses and relations of operations																
	2	1	1		Complete equations by using properties: associative, commutative, distributive, Identity	1		7		8	8		1		7				8	8	
	Total For Assessment Anchor A.2																				
	Select /use operations to solve problems					1		7		8	8		1		7				8	8	
	3				Compute accurately/fluently and make reasonable estimates				8		8	8				2			2	2	
	3	1	1		Estimate to solve	2				2	2		2						2	2	
	3	2	1		Solve problems involving operations	3		1		4	4		3		1				4	4	
	Total For Assessment Anchor A.3																				
Compute accurately and fluently and make reasonable estimates					5		1	8	6	8	14	5		1	2			6	2	8	
Total For Reporting Category A					16	4	33	20	49	24	73	16	1	33	5			49	6	55	

*Appendix F: Assessment Anchor Content Standards (Assessment Anchors)
within Reporting Categories Summary*

Table F–7 (continued). Grade 6 Mathematics Assessment Anchor Content Standards

Grade 06				Mathematics															
Reporting Category	Assessment Anchor	Descriptor (Sub-anchor)	Eligible Content	Focus	Points						Items								
					Student Scores (Core Points)		District Level Scores (Matrix Points)		Total Points (Core & Matrix)		Number of Items		Total Number of Items (Core & Matrix)						
					MC	CR	MC	CR	MC	CR	Total	MC	CR	MC	CR	MC	CR	Total	
					MC	CR	MC	CR	MC	CR	Total	MC	CR	MC	CR	MC	CR	Total	
B: Measurement	1			Understand measurable attributes and units, systems, processes of measurement				8		8	8				2		2	2	
	1	1	1	Determine/compare elapsed time	1		6		7		7	1		6		7		7	
	Total For Assessment Anchor B.1																		
	Understand measurable attributes and units, systems, processes of measurement				1		6	8	7	8	15	1		6	2	7	2	9	
	2			Apply techniques, tools & formulas to determine measurements				4		4	4				1		1	1	
	2	1	1	Use ruler to nearest 1/16 in. or mm	2		3		5		5	2		3		5		5	
	2	1	2	Choose precise measurement															
	2	1	3	Measure angles using protractor	1		2		3		3	1		2		3		3	
	2	2	1	Find perimeter of any polygon	2				2		2	2				2		2	
	2	3	1	Define/label/identify angles	2				2		2	2				2		2	
Total For Assessment Anchor B.2																			
Apply appropriate techniques, tools and formulas to determine measurements				7		5	4	12	4	16	7		5	1	12	1	13		
Total For Reporting Category B					8		11	12	19	12	31	8		11	3	19	3	22	
C: Geometry	1			Analyze characteristics & properties of 2-D & 3-D shapes		4		8		12	12		1		2		3	3	
	1	1	1	Identify, classify, and compare types of polygons	2		3		5		5	2		3		5		5	
	1	1	2	Identify properties of all types of triangles	1		3		4		4	1		3		4		4	
	1	1	3	Solve radius/diameter problems	1		4		5		5	1		4		5		5	
	1	1	4	Identify/use polygon/circle degrees	2		2		4		4	2		2		4		4	
	1	2	1	Identify/describe/label parallel, perpendicular, and intersecting lines	1		1		2		2	1		1		2		2	
	1	2	2	Identify points, planes, lines, line segments, rays, angles, and vertices	1		2		3		3	1		2		3		3	
	Total For Assessment Anchor C.1																		
	Analyze characteristics and properties of two- and three-dimensional geometric shapes				8	4	15	8	23	12	35	8	1	15	2	23	3	26	
	3			Locate points/describe relationships using the coordinate plane				4		4	4				1		1	1	
3	1	1	Plot points in Quadrant I & on axes	1		4		5		5	1		4		5		5		
Total For Assessment Anchor C.3																			
Locate points or describe relationships using the coordinate plane				1		4	4	5	4	9	1		4	1	5	1	6		
Total For Reporting Category C					9	4	19	12	28	16	44	9	1	19	3	28	4	32	

*Appendix F: Assessment Anchor Content Standards (Assessment Anchors)
within Reporting Categories Summary*

Table F–7 (continued). Grade 6 Mathematics Assessment Anchor Content Standards

Grade 06				Mathematics																
Reporting Category	Assessment Anchor	Descriptor (Sub-anchor)	Eligible Content	Focus	Points						Items									
					Student Scores		District Level Scores		Total Points		Number of Items				Total Number of Items					
					(Core Points)		(Matrix Points)		(Core & Matrix)		Core		Matrix		(Core & Matrix)					
					MC	CR	MC	CR	MC	CR	Total	MC	CR	MC	CR	MC	CR	Total		
D: Algebraic Concepts	1			Understand patterns, relations and functions		4		8		12	12			1		2		3	3	
	1	1	1	Create/extend/complete pattern	3		3		6		6	3		3				6	6	
	1	2	1	Determine or illustrate pattern rule	2		4		6		6	2		4				6	6	
	Total For Assessment Anchor D.1 Understand patterns, relations and functions				5	4	7	8	12	12	24	5	1	7	2	12	3	15		
	2			Represent/analyze mathematical situations				4		4	4					1		1	1	
	2	1	1	Identify inverse operation to solve one step equation	2		3		5		5	2		3				5	5	
	2	1	2	Solve one-step equation	1		4		5		5	1		4				5	5	
	2	2	1	Match one variable, one-step equation/expression to situation	1		4		5		5	1		4				5	5	
	Total For Assessment Anchor D.2 Represent/analyze mathematical situations using numbers, symbols, words, tables and/or graphs				4		11	4	15	4	19	4		11	1	15	1	16		
	Total For Reporting Category D				9	4	18	12	27	16	43	9	1	18	3	27	4	31		
E: Data Analysis and Probability	1			Formulate/answer questions; organize, display, interpret or analyze data				4		4	4					1		1	1	
	1	1	1	Analyze data	2		3		5		5	2		3				5	5	
	1	1	2	Choose appropriate data representation	2		3		5		5	2		3				5	5	
	1	1	3	Display data in graphs, etc.	1		3		4		4	1		3				4	4	
	Total For Assessment Anchor E.1 Formulate or answer questions about data and/or organize, display, interpret or analyze data				5		9	4	14	4	18	5		9	1	14	1	15		
	2			Select/use appropriate statistical methods to analyze data				4		4	4					1		1	1	
	2	1	1	Determine/calculate mean, median, mode, range	3		2		5		5	3		2				5	5	
	Total For Assessment Anchor E.2 Select and/or use appropriate statistical methods to analyze data				3		2	4	5	4	9	3		2	1	5	1	6		
	3			Understand/apply basic concepts of probability or outcomes				16		16	16					4		4	4	
	3	1	1	Define/find probability	3		2		5		5	3		2				5	5	
3	1	2	Determine/show combinations	1		6		7		7	1		6				7	7		
Total For Assessment Anchor E.3 Understand and/or apply basic concepts of probability or outcomes				4		8	16	12	16	28	4		8	4	12	4	16			
Total For Reporting Category E				12		19	24	31	24	55	12		19	6	31	6	37			

*Appendix F: Assessment Anchor Content Standards (Assessment Anchors)
within Reporting Categories Summary*

Table F–8. Grade 6 Reading Assessment Anchor Content Standards

Grade 06				Reading																					
Reporting Category	Assessment Anchor	Descriptor (Sub-anchor)	Eligible Content	Focus	Points						Items														
					Student Scores (Core Points)		District Level Scores (Matrix Points)		Total Points (Core & Matrix)		Number of Items				Total Number of Items (Core & Matrix)										
					MC	CR	MC	CR	MC	CR	Total	Core	Matrix	MC	CR	MC	CR	Total							
A: Comprehension and Reading Skills	1	1	1	Apply meaning of multiple-meaning words in text																					
	1	1	2	Identify synonym/antonym			5		5		5			5			5		5				5	5	
	1	2	1	Identify meaning of word with an affix/how meaning changes			2		2		2			2			2		2				2	2	
	1	2	2	Define words from context clues																					
	1	3	1	Make inferences/draw conclusions	6		9	3	15	3	18	6		9	1		15	1	16				16	16	
	1	3	2	Cite evidence from text to support generalizations	1		1		2		2	1		1			2		2				2	2	
	1	4	1	Identify and/or interpret main ideas/relevant details	2		7		9		9	2		7			9		9				9	9	
	1	5	1	Summarize key details and events of a text as a whole	1		1		2		2	1		1			2		2				2	2	
	1	6	1	Identify author's purpose for writing text	2		2		4		4	2		2			4		4				4	4	
	1	6	2	Identify text that supports the author's intended purpose																					
	Total For Assessment Anchor A.1 Understand fiction appropriate to grade level.					12		27	3	39	3	42	12		27	1		39	1	40				40	40
	2	1	1	Apply meaning of multiple-meaning words in text	1				1		1	1					1		1				1	1	
	2	1	2	Identify meaning of content-specific words	1				1		1	1					1		1				1	1	
	2	2	1	Identify meaning of word with an affix/how meaning changes			1		1		1			1			1		1				1	1	
	2	2	2	Define words from context clues	2		6		8		8	2		6			8		8				8	8	
	2	3	1	Make inferences/draw conclusions	3	3	7	3	10	6	16	3	1	7	1		10	2	12				12	12	
	2	3	2	Cite evidence from text to support generalizations	2		2		4		4	2		2			4		4				4	4	
	2	4	1	Identify and/or interpret main ideas/relevant details	2	3	23	6	25	9	34	2	1	23	2		25	3	28				28	28	
	2	5	1	Summarize major points/processes/events of a text as a whole				3		3	3				1			1		1			1	1	
	2	6	1	Identify author's purpose for writing text			1		1		1			1			1		1				1	1	
	2	6	2	Identify text that supports the author's intended purpose			1		1		1			1			1		1				1	1	
	Total For Assessment Anchor A.2 Understand nonfiction appropriate to grade level.					11	6	41	12	52	18	70	11	2	41	4		52	6	58				58	58
Total For Reporting Category A					23	6	68	15	91	21	112	23	2	68	5		91	7	98				98	98	

*Appendix F: Assessment Anchor Content Standards (Assessment Anchors)
within Reporting Categories Summary*

Table F–8 (continued). Grade 6 Reading Assessment Anchor Content Standards

Grade 06				Reading																		
Reporting Category	Assessment Anchor	Descriptor (Sub-anchor)	Eligible Content	Focus	Points						Items											
					Student Scores (Core Points)		District Level Scores (Matrix Points)		Total Points (Core & Matrix)		Number of Items				Total Number of Items (Core & Matrix)							
					MC	CR	MC	CR	MC	CR	Total	MC	CR	MC	CR	MC	CR	Total				
					MC	CR	MC	CR	MC	CR	Total	MC	CR	MC	CR	MC	CR	Total				
B: Interpretation and Analysis of Fictional and Nonfictional Text	1	1	1	Identify in fiction and literary nonfiction character (narrator/speaker/subject of a biography), setting, plot, theme	4		19	21	23	21	44		4		19	7	23	7	30			
	1	2	1	Connections between texts	4	6	9	18	13	24	37		4	2	9	6	13	8	21			
	Total For Assessment Anchor B.1				Understand components within and between texts.				8	6	28	39	36	45	81	8	2	28	13	36	15	51
	2	1	1	Identify examples of personification	1		1		2		2		1		1		2		2			
	2	1	2	Identify examples of similes			2		2		2				2		2		2			
	2	1	3	Identify/interpret examples of alliteration	1				1	1	1		1				1		1			
	2	1	4	Identify/interpret examples of metaphors	2		2		4	4	2		2		2		4		4			
	2	2	1	Identify point of view of the narrator as first or third person			1		1	1			1		1		1		1			
	2	2	2	Describe the effectiveness of the point of view used by the author			1		1	1			1		1		1		1			
	Total For Assessment Anchor B.2				Understand literary devices in fictional and nonfictional text.				4		7		11		11	4		7		11		11
	3	1	1	Identify fact/opinion	1		4		5	5	1		4		5		5		5			
	3	2	1	Identify exaggeration (bias)			2		2	2			2		2		2		2			
	3	3	1	Identify text organization (sequence, question/answer, comparison/contrast, cause/effect, problem/solution)	2		2		4	4	2		2		4		4		4			
	3	3	2	Use headings to locate information or identify content that fits into a specific section	1		1		2	2	1		1		2		2		2			
	3	3	3	Interpret and make connections between graphics/charts/texts	1				1	1	1				1		1		1			
	3	3	4	Sequence of steps in a list of directions			2		2	2			2		2		2		2			
	Total For Assessment Anchor B.3				Understand concepts and organization of nonfictional text.				5		11		16		16	5		11		16		16
	Total For Reporting Category B				17	6	46	39	63	45	108	17	2	46	13	63	15	78				

*Appendix F: Assessment Anchor Content Standards (Assessment Anchors)
within Reporting Categories Summary*

Table F-9. Grade 7 Mathematics Assessment Anchor Content Standards

Grade 07				Mathematics															
Reporting Category	Assessment Anchor	Descriptor (Sub-anchor)	Eligible Content	Focus	Points						Items								
					Student Scores (Core Points)		District Level Scores (Matrix Points)		Total Points (Core & Matrix)		Number of Items				Total Number of Items (Core & Matrix)				
					MC	CR	MC	CR	MC	CR	Total	MC	CR	MC	CR	MC	CR	Total	
A: Numbers and Operations	1			Understand relationships and representations of numbers and number systems				4		4	4				1		1	1	
	1	1	1	Convert between fractions, decimals, percents	1				1		1	1					1		1
	1	2	1	Compare/order rational numbers	1			6		7	7	1		6			7		7
	1	2	2	Locate and identify rational numbers on a number line	1			1		2	2	1		1			2		2
	Total For Assessment Anchor A.1 Understand relationships among and representations of numbers and number systems				3			7	4	10	4	14	3		7	1	10	1	11
	2			Understand meanings, uses and relations of operations		4			16		20	20		1		4		5	5
	2	1	1	Use order of operations	1			1		2	2	1		1			2		2
	2	2	1	Write ratios to compare quantities	1			1		2	2	1		1			2		2
	2	2	2	Solve for a variable in proportions				2		2	2				2		2		2
	2	2	3	Use proportions to test equivalency	1			2		3	3	1		2			3		3
	2	2	4	Calculate/apply unit rates or unit prices	1			2		3	3	1		2			3		3
	2	2	5	Select and use ratios/proportions to solve problems				3		3	3			3			3		3
	2	2	6	Use proportions to find missing lengths in similar figures															
	Total For Assessment Anchor A.2 Understand meanings, uses of operations and how they relate to each other				4	4		11	16	15	20	35	4	1	11	4	15	5	20
	3			Compute accurately/fluently and make reasonable estimates					4		4	4				1		1	1
	3	1	1	Estimate answers involving operations with whole numbers, decimals, fractions and mixed numbers	2					2	2	2					2		2
	3	2	1	Solve problems involving operations with whole numbers, decimals, fractions and mixed numbers	2					2	2	2					2		2
	3	2	2	Solve problems involving addition/subtraction of integers	1					1	1	1					1		1
	Total For Assessment Anchor A.3 Compute accurately and fluently and make reasonable estimates				5				4	5	4	9	5			1	5	1	6
	Total For Reporting Category A				12	4		18	24	30	28	58	12	1	18	6	30	7	37

*Appendix F: Assessment Anchor Content Standards (Assessment Anchors)
within Reporting Categories Summary*

Table F–9 (continued). Grade 7 Mathematics Assessment Anchor Content Standards

Grade 07				Mathematics																		
Reporting Category	Assessment Anchor	Descriptor (Sub-anchor)	Eligible Content	Focus	Points						Items											
					Student Scores (Core Points)		District Level Scores (Matrix Points)		Total Points (Core & Matrix)		Number of Items				Total Number of Items (Core & Matrix)							
					MC	CR	MC	CR	MC	CR	Total	MC	CR	MC	CR	MC	CR	Total				
B: Measurement	1			Understand measurable attributes and units, systems, processes of measurement				4		4	4				1		1	1				
	1	1	1	Add/subtract/convert measurements	3		2		5		5	3		2		5		5				
	Total For Assessment Anchor B.1				Understand measurable attributes and units, systems, processes of measurement				3		2	4	5	4	9	3		2	1	5	1	6
	2			Apply techniques, tools & formulas to determine measurements				4		4	4				1		1	1				
	2	1	1	Find perimeter and/or area of compound figures	1		2		3		3	1		2		3		3				
	2	1	2	Find circumference/area of circles	2		3		5		5	2		3		5		5				
	2	1	3	Find area of triangles, parallelograms, trapezoids	1		4		5		5	1		4		5		5				
	2	2	1	Interpret and apply scale drawings	1		3		4		4	1		3		4		4				
	2	2	2	Determine appropriate scale for reduction and enlargement	2		3		5		5	2		3		5		5				
	Total For Assessment Anchor B.2				Apply appropriate techniques, tools and formulas to determine measurements				7		15	4	22	4	26	7		15	1	22	1	23
Total For Reporting Category B					10		17	8	27	8	35	10		17	2	27	2	29				
C: Geometry	1			Analyze characteristics & properties of 2-D & 3-D shapes				12		12	12			3		3	3					
	1	1	1	Identify diameter, radius, chord, circumference in circles	2		2		4		4	2		2		4		4				
	1	1	2	Solve problems using radius/diameter relationship	1		3		4		4	1		3		4		4				
	1	1	3	Identify parallel, perpendicular, and skew lines in a 3-dimensional figure	1				1		1	1				1		1				
	1	2	1	Identify similar/congruent polygons	2		2		4		4	2		2		4		4				
	1	2	2	Identify corresponding sides/angles	2		3		5		5	2		3		5		5				
	Total For Assessment Anchor C.1				Analyze characteristics and properties of two- and three-dimensional geometric shapes				8		10	12	18	12	30	8		10	3	18	3	21
	3			Locate points/describe relationships using the coordinate plane				8		8	8				2		2	2				
	3	1	1	Plot/identify ordered pairs	3		3		6		6	3		3		6		6				
	3	1	2	Identify Quadrants I, II, III, IV, x- and y- axes, and the origin on the coordinate plane	1		3		4		4	1		3		4		4				
Total For Assessment Anchor C.3				Locate points or describe relationships using the coordinate plane				4		6	8	10	8	18	4		6	2	10	2	12	
Total For Reporting Category C					12		16	20	28	20	48	12		16	5	28	5	33				

*Appendix F: Assessment Anchor Content Standards (Assessment Anchors)
within Reporting Categories Summary*

Table F–9 (continued). Grade 7 Mathematics Assessment Anchor Content Standards

Grade 07				Mathematics															
Reporting Category	Assessment Anchor	Descriptor (Sub-anchor)	Eligible Content	Focus	Points							Items							
					Student Scores (Core Points)		District Level Scores (Matrix Points)		Total Points (Core & Matrix)			Number of Items				Total Number of Items (Core & Matrix)			
					MC	CR	MC	CR	MC	CR	Total	MC	CR	MC	CR	MC	CR	Total	
D: Algebraic Concepts	1			Understand patterns, relations and functions				4		4	4				1		1	1	
	1	1	1	Describe/extend/complete pattern	3		5		8		8	3		5		8		8	
	Total For Assessment Anchor D.1 Understand patterns, relations and functions				3		5	4	8	4	12	3		5	1	8	1	9	
	2			Represent/analyze mathematical situations				4		4	4				1		1	1	
	2	1	1	Solve one-step equations	1		6		7		7	1		6		7		7	
	2	1	2	Use substitution of variables to simplify expression	1		7		8		8	1		7		8		8	
	2	2	1	Identify mathematical models	3		5		8		8	3		5		8		8	
	Total For Assessment Anchor D.2 Represent/analyze mathematical situations using numbers, symbols, words, tables and/or graphs				5		18	4	23	4	27	5		18	1	23	1	24	
	3			Analyze change in various contexts		4		4		8	8		1		1		2	2	
	3	1	1	Solve problems w/ constant rate of change	2		3		5		5	2		3		5		5	
	3	1	2	Describe or use a rate of change shown on a graph	1		5		6		6	1		5		6		6	
	Total For Assessment Anchor D.3 Analyze change in various contexts				3	4	8	4	11	8	19	3	1	8	1	11	2	13	
	Total For Reporting Category D					11	4	31	12	42	16	58	11	1	31	3	42	4	46
	E: Data Analysis and Probability	1			Formulate/answer questions; organize, display, interpret or analyze data														
		1	1	1	Analyze data	2		4		6		6	2		4		6		6
		Total For Assessment Anchor E.1 Formulate or answer questions about data and/or organize, display, interpret or analyze data				2		4		6		6	2		4		6		6
2				Select and/or use appropriate statistical methods to analyze data				8		8	8				2		2	2	
2		1	1	Identify/calculate mean, median, mode, range for a set of data	1		4		5		5	1		4		5		5	
2		1	2	Choose appropriate measure of central tendency for a situation	1		1		2		2	1		1		2		2	
Total For Assessment Anchor E.2 Select and/or use appropriate statistical methods to analyze data				2		5	8	7	8	15	2		5	2	7	2	9		
3				Understand/apply basic concepts of probability or outcomes		4		4		8	8		1		1		2	2	
3		1	1	Find theoretical probability of event	1		3		4		4	1		3		4		4	
3		1	2	Find theoretical probability of event not occurring	1		2		3		3	1		2		3		3	
3		1	3	Find experimental probability	1		2		3		3	1		2		3		3	
Total For Assessment Anchor E.3 Understand and/or apply basic concepts of probability or outcomes				3	4	7	4	10	8	18	3	1	7	1	10	2	12		
4				Develop/evaluate inferences and predictions based on data displays				4		4	4				1		1	1	
4		1	1	Predict/draw conclusions from displays or probability	2		2		4		4	2		2		4		4	
Total For Assessment Anchor E.4 Develop/evaluate inferences and predictions based on data displays				2		2	4	4	4	8	2		2	1	4	1	5		
Total For Reporting Category E					9	4	18	16	27	20	47	9	1	18	4	27	5	32	

*Appendix F: Assessment Anchor Content Standards (Assessment Anchors)
within Reporting Categories Summary*

Table F–10. Grade 7 Reading Assessment Anchor Content Standards

Grade 07				Reading																				
Reporting Category	Assessment Anchor	Descriptor (Sub-anchor)	Eligible Content	Focus	Points							Items												
					Student Scores (Core Points)		District Level Scores (Matrix Points)		Total Points (Core & Matrix)			Number of Items				Total Number of Items (Core & Matrix)								
					MC	CR	MC	CR	MC	CR	Total	MC	CR	MC	CR	MC	CR	Total						
A: Comprehension and Reading Skills	1	1	1	Apply meaning of multiple-meaning words in text			2		2		2			2		2		2		2		2		
	1	1	2	Identify synonym/antonym	3		3		6		6		3		3		6		6		6		6	
	1	2	1	Identify meaning of word with an affix/how meaning changes																				
	1	2	2	Define words from context clues	1		1		2		2		1		1		2		2		2		2	
	1	3	1	Make inferences/draw conclusions	1		9	3	10	3	13		1		9	1	10	1	11		11		11	
	1	3	2	Cite evidence from text to support generalizations	1		1		2		2		1		1		2		2		2		2	
	1	4	1	Identify and/or interpret main ideas/relevant details	2		7		9		9		2		7		9		9		9		9	
	1	5	1	Summarize key details and events of a text as a whole			2		2		2				2		2		2		2		2	
	1	6	1	Identify author's purpose for writing text	1		3		4		4		1		3		4		4		4		4	
	1	6	2	Identify text that supports the author's intended purpose			1		1		1				1		1		1		1		1	
	Total For Assessment Anchor A.1 Understand fiction appropriate to grade level.					9		29	3	38	3	41		9		29	1	38	1	39		39		39
	A: Comprehension and Reading Skills	2	1	1	Apply meaning of multiple-meaning words in text	1		6		7		7		1		6		7		7		7		7
		2	1	2	Identify meaning of content-specific words																			
		2	2	1	Identify meaning of word with an affix/how meaning changes			3		3		3				3		3		3		3		3
		2	2	2	Define words from context clues	2		2		4		4		2		2		4		4		4		4
		2	3	1	Make inferences/draw conclusions	2	3	11	9	13	12	25		2	1	11	3	13	4	17		17		17
		2	3	2	Cite evidence from text to support generalizations	1		3		4		4		1		3		4		4		4		4
		2	4	1	Identify and/or interpret main ideas/relevant details	4		10	3	14	3	17		4		10	1	14	1	15		15		15
		2	5	1	Summarize major points/processes/events of a text as a whole	2		1	6	3	6	9		2		1	2	3	2	5		5		5
2		6	1	Identify author's purpose for writing text	1		2		3		3		1		2		3		3		3		3	
2		6	2	Identify text that supports the author's intended purpose	1		5		6		6		1		5		6		6		6		6	
Total For Assessment Anchor A.2 Understand nonfiction appropriate to grade level.					14	3	43	18	57	21	78		14	1	43	6	57	7	64		64		64	
Total For Reporting Category A					23	3	72	21	95	24	119		23	1	72	7	95	8	103		103		103	

*Appendix F: Assessment Anchor Content Standards (Assessment Anchors)
within Reporting Categories Summary*

Table F–10 (continued). Grade 7 Reading Assessment Anchor Content Standards

Grade 07				Reading														
Reporting Category	Assessment Anchor	Descriptor (Sub-anchor)	Eligible Content	Focus	Points						Items							
					Student Scores		District Level Scores		Total Points		Number of Items				Total Number of Items			
					(Core Points)		(Matrix Points)		(Core & Matrix)		Core		Matrix		(Core & Matrix)			
					MC	CR	MC	CR	MC	CR	Total	MC	CR	MC	CR	MC	CR	Total
B: Interpretation and Analysis of Fictional and Nonfictional Text	1	1	1	Identify in fiction and literary nonfiction character (narrator/speaker/subject of a biography), setting, plot, theme	4	6	17	27	21	33	54	4	2	17	9	21	11	32
	1	2	1	Connections between texts	5	3	3	6	8	9	17	5	1	3	2	8	3	11
	Total For Assessment Anchor B.1 Understand components within and between texts.				9	9	20	33	29	42	71	9	3	20	11	29	14	43
	2	1	1	Interpret/analyze examples of personification, simile, alliteration, metaphor, hyperbole, and imagery	3		14		17		17	3		14		17		17
	2	1	2	Identify author's purpose/effectiveness of figurative language														
	2	2	1	Identify point of view of the narrator as first or third person														
	2	2	2	Describe the effectiveness of the point of view used by the author	1		3	3	4	3	7	1		3	1	4	1	5
	Total For Assessment Anchor B.2 Understand literary devices in fictional and nonfictional text.				4		17	3	21	3	24	4		17	1	21	1	22
	3	1	1	Use of facts and opinions to make a point/construct an argument	1		2	3	3	3	6	1		2	1	3	1	4
	3	2	1	Identify bias/propaganda techniques	1		1		2		2	1		1		2		2
	3	3	1	Analyze text organization (sequence, question/answer, comparison/contrast, cause/effect, problem/solution)			5		5		5			5		5		5
	3	3	2	Identify content that fits into a specific section	1		1		2		2	1		1		2		2
	3	3	3	Interpret and make connections between graphics/charts/texts														
	3	3	4	Sequence of steps in a list of directions	1		2		3		3	1		2		3		3
	Total For Assessment Anchor B.3 Understand concepts and organization of nonfictional text.				4		11	3	15	3	18	4		11	1	15	1	16
	Total For Reporting Category B				17	9	48	39	65	48	113	17	3	48	13	65	16	81

*Appendix F: Assessment Anchor Content Standards (Assessment Anchors)
within Reporting Categories Summary*

Table F–11. Grade 8 Mathematics Assessment Anchor Content Standards

Grade 08				Mathematics														
Reporting Category	Assessment Anchor	Descriptor (Sub-anchor)	Eligible Content	Focus	Points						Items							
					Student Scores (Core Points)		District Level Scores (Matrix Points)		Total Points (Core & Matrix)		Number of Items				Total Number of Items (Core & Matrix)			
					MC	CR	MC	CR	MC	CR	Total	MC	CR	MC	CR	MC	CR	Total
A: Numbers and Operations	1			Understand relationships and representations of numbers and number systems				8		8	8				2		2	2
	1	1	1	Use scientific notation or exponential forms	2		4		6		6	2		4		6		6
	1	1	2	Find the square/cube/square root	1				1		1	1				1		1
	Total For Assessment Anchor A.1 Understand relationships among and representations of numbers and number systems				3		4	8	7	8	15	3		4	2	7	2	9
	2			Understand meanings, uses and relations of operations				8		8	8				2		2	2
	2	1	1	Use order of operations to simplify	2				2		2	2				2		2
	2	2	1	Use ratios, proportions, percents to solve problems	2		3		5		5	2		3		5		5
	2	2	2	Represent or solve rate problems	2		3		5		5	2		3		5		5
	Total For Assessment Anchor A.2 Understand meanings, uses of operations and how they relate to each other				6		6	8	12	8	20	6		6	2	12	2	14
	3			Compute accurately/fluently and make reasonable estimates														
	3	1	1	Explain when to round up or down	1		2		3		3	1		2		3		3
	3	1	2	Explain when to estimate	1		1		2		2	1		1		2		2
	3	2	1	Estimate percent problems	2				2		2	2				2		2
	3	3	1	Compute with/without calculator	1		1		2		2	1		1		2		2
	Total For Assessment Anchor A.3 Compute accurately and fluently and make reasonable estimates				5		4		9		9	5		4		9		9
	Total For Reporting Category A				14		14	16	28	16	44	14		14	4	28	4	32

*Appendix F: Assessment Anchor Content Standards (Assessment Anchors)
within Reporting Categories Summary*

Table F–11 (continued). Grade 8 Mathematics Assessment Anchor Content Standards

Grade 08				Mathematics														
Reporting Category	Assessment Anchor	Descriptor (Sub-anchor)	Eligible Content	Focus	Points						Items							
					Student Scores (Core Points)		District Level Scores (Matrix Points)		Total Points (Core & Matrix)		Number of Items				Total Number of Items (Core & Matrix)			
					MC	CR	MC	CR	MC	CR	Total	Core	Matrix	MC	CR	MC	CR	Total
					MC	CR	MC	CR	MC	CR	Total	MC	CR	MC	CR	MC	CR	Total
B: Measurement	1			Understand measurable attributes and units, systems, processes of measurement				8		8	8				2		2	2
	1	1	1	Convert metric measurements	1		1		2		2	1		1		2		2
	1	1	2	Convert customary measurements	1		1		2		2	1		1		2		2
	1	1	3	Convert time			3		3		3			3		3		3
	1	1	4	Convert temperature	1		2		3		3	1		2		3		3
	Total For Assessment Anchor B.1 Understand measurable attributes and units, systems, processes of measurement				3		7	8	10	8	18	3		7	2	10	2	12
	2			Apply techniques, tools & formulas to determine measurements		4		4		8	8		1		1		2	2
	2	1	1	Determine total degrees of interior angles			1		1		1			1		1		1
	2	1	2	Determine the measurement of 1 interior angle of a polygon	1		2		3		3	1		2		3		3
	2	1	3	Determine the number of sides of a polygon given total degrees of interior angles	1		1		2		2	1		1		2		2
	2	2	1	Calculate surface area of cubes and rectangular prisms			2		2		2			2		2		2
	2	2	2	Calculate volume of cubes and rectangular prisms	1				1		1	1				1		1
	2	2	3	Determine appropriate type of measurement for a given situation			1		1		1			1		1		1
	Total For Assessment Anchor B.2 Apply appropriate techniques, tools and formulas to determine measurements				3	4	7	4	10	8	18	3	1	7	1	10	2	12
Total For Reporting Category B				6	4	14	12	20	16	36	6	1	14	3	20	4	24	
C: Geometry	1			Analyze characteristics & properties of 2-D & 3-D shapes				8		8	8				2		2	2
	1	1	1	Match the 3-dimensional figure w/ its net	2		3		5		5	2		3		5		5
	1	1	2	Define, identify, and use properties of angles formed by intersecting lines	2		2		4		4	2		2		4		4
	1	1	3	Define, identify, and use properties of angles formed when parallel lines are cut by a transversal	1		3		4		4	1		3		4		4
	1	2	1	Use the Pythagorean Theorem	1		6		7		7	1		6		7		7
	Total For Assessment Anchor C.1 Analyze characteristics and properties of two- and three-dimensional geometric shapes				6		14	8	20	8	28	6		14	2	20	2	22
	3			Locate points/describe relationships using the coordinate plane		4		4		8	8		1		1		2	2
	3	1	1	Plot/locate/identify ordered pairs	2		6		8		8	2		6		8		8
Total For Assessment Anchor C.3 Locate points or describe relationships using the coordinate plane				2	4	6	4	8	8	16	2	1	6	1	8	2	10	
Total For Reporting Category C				8	4	20	12	28	16	44	8	1	20	3	28	4	32	

Table F–11 (continued). Grade 8 Mathematics Assessment Anchor Content Standards

*Appendix F: Assessment Anchor Content Standards (Assessment Anchors)
within Reporting Categories Summary*

Grade 08					Mathematics															
Reporting Category	Assessment Anchor	Descriptor (Sub-anchor)	Eligible Content	Focus	Points						Items									
					Student Scores (Core Points)		District Level Scores (Matrix Points)		Total Points (Core & Matrix)		Number of Items				Total Number of Items (Core & Matrix)					
					MC	CR	MC	CR	MC	CR	Total	Core	Matrix	MC	CR	MC	CR	Total		
					MC	CR	MC	CR	MC	CR	Total	MC	CR	MC	CR	MC	CR	Total		
D: Algebraic Concepts	1			Understand patterns, relations and functions		4		12		16	16			1		3		4	4	
	1	1	1	Continue numeric/algebraic pattern	1		3		4	4	1		3				4		4	
	1	1	2	Find missing element in pattern	2		2		4	4	2		2				4		4	
	1	1	3	Write/state rule of function	3		3		6	6	3		3				6		6	
	Total For Assessment Anchor D.1 Understand patterns, relations and functions					6	4	8	12	14	16	30	6	1	8	3		14	4	18
	2			Represent/analyze mathematical situations				8		8	8					2		2	2	2
	2	1	1	Solve equations/inequalities	1		1		2	2	1		1				2		2	
	2	1	2	Use substitution to check solution	1		1		2	2	1		1				2		2	
	2	1	3	Simplify/substitute for expression	1		3		4	4	1		3				4		4	
	2	2	1	Match written situation to expression, equation, or inequality	2		2		4	4	2		2				4		4	
	2	2	2	Write/solve equation for a situation	2		7		9	9	2		7				9		9	
	Total For Assessment Anchor D.2 Represent/analyze mathematical situations using numbers, symbols, words, tables and/or graphs					7		14	8	21	8	29	7		14	2		21	2	23
	4			Describe/use models to represent quantitative relationships				4		4	4					1		1	1	1
	4	1	1	Graph linear function from x/y table			4		4	4			4				4		4	
	4	1	2	Match linear graph to x/y table	2				2	2	2						2		2	
	4	1	3	Match linear equation to x/y table	1		3		4	4	1		3				4		4	
	Total For Assessment Anchor D.4 Describe/use models to represent quantitative relationships					3		7	4	10	4	14	3		7	1		10	1	11
	Total For Reporting Category D					16	4	29	24	45	28	73	16	1	29	6		45	7	52
	E: Data Analysis and Probability	1			Formulate/answer questions; organize, display, interpret or analyze data				4		4	4				1		1	1	1
		1	1	1	Choose correct data representation	2		1		3	3	2		1			3		3	
1		1	2	Display and/or interpret data	1		6		7	7	1		6			7		7		
1		1	3	Interpret stem-and-leaf, box-and-whisker plots	1		3		4	4	1		3			4		4		
Total For Assessment Anchor E.1 Formulate or answer questions about data and/or organize, display, interpret or analyze data					4		10	4	14	4	18	4		10	1		14	1	15	
3				Understand/apply basic concepts of probability or outcomes				8		8	8				2		2	2	2	
3		1	1	Find probability	1		2		3	3	1		2			3		3		
3		2	1	Calculate show number of permutations/combinations	2		1		3	3	2		1			3		3		
Total For Assessment Anchor E.3 Understand and/or apply basic concepts of probability or outcomes					3		3	8	6	8	14	3		3	2		6	2	8	
4				Develop/evaluate inferences & predictions based on data				4		4	4				1		1	1	1	
4	1	1	Fit line to scatter plot; describe correlation	1		3		4	4	1		3			4		4			
4	1	2	Make predictions based on data	2		7		9	9	2		7			9		9			
Total For Assessment Anchor E.4 Develop/evaluate inferences & predictions or draw conclusions based on data or data displays					3		10	4	13	4	17	3		10	1		13	1	14	
Total For Reporting Category E					10		23	16	33	16	49	10		23	4		33	4	37	

*Appendix F: Assessment Anchor Content Standards (Assessment Anchors)
within Reporting Categories Summary*

Table F–12. Grade 8 Reading Assessment Anchor Content Standards

Grade 08				Reading																
Reporting Category	Assessment Anchor	Descriptor (Sub-anchor)	Eligible Content	Focus	Points						Items									
					Student Scores (Core Points)		District Level Scores (Matrix Points)		Total Points (Core & Matrix)		Number of Items				Total Number of Items (Core & Matrix)					
					MC	CR	MC	CR	MC	CR	Total	MC	CR	MC	CR	MC	CR	Total		
A: Comprehension and Reading Skills	1	1	1	Apply meaning of multiple-meaning words in text	1		1		2		2		1		1		2		2	
	1	1	2	Identify synonym/antonym	2		3		5		5		2		3		5		5	
	1	2	1	Identify meaning of word with an affix/how meaning changes			2		2		2				2		2		2	
	1	2	2	Define words from context clues			2		2		2				2		2		2	
	1	3	1	Make inferences/draw conclusions			9		9		9				9		9		9	
	1	3	2	Cite evidence from text to support generalizations			2		2		2				2		2		2	
	1	4	1	Identify and/or interpret main ideas/relevant details	5		7		12		12		5		7		12		12	
	1	5	1	Summarize key details and events of a text as a whole				3		3	3					1		1	1	
	1	6	1	Identify author's purpose for writing text			3		3		3				3		3		3	
	1	6	2	Identify text that supports the author's intended purpose				3		3	3					1		1	1	
	Total For Assessment Anchor A.1 Understand fiction appropriate to grade level.					8		29	6	37	6	43		8		29	2	37	2	39
	A: Comprehension and Reading Skills	2	1	1	Apply meaning of multiple-meaning words in text	1		2		3		3		1		2		3		3
		2	1	2	Identify meaning of content-specific words			1		1		1				1		1		1
		2	2	1	Identify meaning of word with an affix/how meaning changes	1		1		2		2		1		1		2		2
		2	2	2	Define words from context clues			2		2		2				2		2		2
		2	3	1	Make inferences/draw conclusions	3		9	21	12	21	33		3		9	7	12	7	19
		2	3	2	Cite evidence from text to support generalizations	1		4		5		5		1		4		5		5
		2	4	1	Identify and/or interpret main ideas/relevant details	6		15		21		21		6		15		21		21
		2	5	1	Summarize major points/processes/events of a text as a whole			2		2		2				2		2		2
		2	6	1	Identify author's purpose for writing text			4		4		4				4		4		4
2		6	2	Identify text that supports the author's intended purpose	3	3	2	3	5	6	11		3	1	2	1	5	2	7	
Total For Assessment Anchor A.2 Understand nonfiction appropriate to grade level.					15	3	42	24	57	27	84		15	1	42	8	57	9	66	
Total For Reporting Category A					23	3	71	30	94	33	127		23	1	71	10	94	11	105	

*Appendix F: Assessment Anchor Content Standards (Assessment Anchors)
within Reporting Categories Summary*

Table F–12 (continued). Grade 8 Reading Assessment Anchor Content Standards

Grade 08				Reading														
Reporting Category	Assessment Anchor	Descriptor (Sub-anchor)	Eligible Content	Focus	Points						Items							
					Student Scores		District Level Scores		Total Points		Number of Items				Total Number of Items			
					(Core Points)		(Matrix Points)		(Core & Matrix)		Core		Matrix		(Core & Matrix)			
					MC	CR	MC	CR	MC	CR	Total	MC	CR	MC	CR	MC	CR	Total
B: Interpretation and Analysis of Fictional and Nonfictional Text	1	1	1	Identify in fiction and literary nonfiction character (narrator/speaker/subject of a biography), setting, plot, theme	8	3	15	18	23	21	44	8	1	15	6	23	7	30
	1	2	1	Connections between texts	3	3	2	9	5	12	17	3	1	2	3	5	4	9
	Total For Assessment Anchor B.1 Understand components within and between texts.				11	6	17	27	28	33	61	11	2	17	9	28	11	39
	2	1	1	Interpret/analyze examples of personification, simile, metaphor, hyperbole, and imagery	2		14		16		16	2		14		16		16
	2	1	2	Identify author's purpose/effectiveness of figurative language			3		3		3			3		3		3
	2	2	1	Identify point of view of the narrator as first or third person	1		4		5		5	1		4		5		5
	2	2	2	Analyze the effectiveness of the point of view used by the author		3				3	3		1				1	1
	Total For Assessment Anchor B.2 Understand literary devices in fictional and nonfictional text.				3	3	21		24	3	27	3	1	21		24	1	25
	3	1	1	Use of facts and opinions to make a point/construct an argument	1		2		3		3	1		2		3		3
	3	2	1	Identify bias/propaganda techniques			1		1		1			1		1		1
	3	3	1	Analyze text organization (sequence, question/answer, comparison/contrast, cause/effect, problem/solution)	2		4		6		6	2		4		6		6
	3	3	2	Identify content that fits into a specific section			1		1		1			1		1		1
	3	3	3	Interpret and make connections between graphics/charts/texts			3		3		3			3		3		3
	3	3	4	Sequence of steps in a list of directions														
	Total For Assessment Anchor B.3 Understand concepts and organization of nonfictional text.				3		11		14		14	3		11		14		14
	Total For Reporting Category B				17	9	49	27	66	36	102	17	3	49	9	66	12	78

*Appendix F: Assessment Anchor Content Standards (Assessment Anchors)
within Reporting Categories Summary*

Table F–13. Grade 11 Mathematics Assessment Anchor Content Standards

Grade 11				Mathematics															
Reporting Category	Assessment Anchor	Descriptor (Sub-anchor)	Eligible Content	Focus	Points						Items								
					Student Scores (Core Points)		District Level Scores (Matrix Points)		Total Points (Core & Matrix)		Number of Items				Total Number of Items (Core & Matrix)				
					MC	CR	MC	CR	MC	CR	Total	MC	CR	MC	CR	MC	CR	Total	
A: Numbers and Operations	1			Understand relationships and representations of numbers and number systems				4		4	4				1		1	1	
	1	1	1	Find square root of an integer			1		1	1				1		1	1	1	
	1	1	2	Use scientific notation	1		1		2	2	2	1		1		2	2	2	
	1	1	3	Simplify square roots	1		1		2	2	2	1		1		2	2	2	
	1	2	1	Find/use GCF (monomial)			2		2	2			2		2		2	2	
	1	3	1	Identify irrational numbers on a number line	1		1		2	2	2	1		1		2	2	2	
	1	3	2	Compare and/or order real numbers			2		2	2			2		2		2	2	
	Total For Assessment Anchor A.1																		
	Understand relationships among and representations of numbers and number systems				3		8	4	11	4	15	3		8	1	11	1	12	12
	2			Understand meanings, uses and relations of operations				12		12	12				3		3	3	3
	2	1	1	Solve problems using operations with rational numbers	1		1		2	2	2	1		1		2		2	2
	2	1	2	Solve problems using direct and inverse proportions	1		1		2	2	2	1		1		2		2	2
	2	1	3	Identify/use proportional relationships	1		2		3	3	3	1		2		3		3	3
	2	2	1	Simplify expressions with exponents/roots/absolute value	2				2	2	2	2				2		2	2
	2	2	2	Simplify expressions involving operations of powers			1		1	1	1			1		1		1	1
	Total For Assessment Anchor A.2																		
	Understand meanings, uses of operations and how they relate to each other				5		5	12	10	12	22	5		5	3	10	3	13	13
	3			Compute accurately/fluently and make reasonable estimates															
	3	1	1	Use order of operations to simplify			1		1	1	1			1		1		1	1
	3	2	1	Use estimation to solve problems	2				2	2	2	2				2		2	2
Total For Assessment Anchor A.3																			
Compute accurately and fluently and make reasonable estimates				2		1		3	3	3	2		1		3		3	3	
Total For Reporting Category A				10		14	16	24	16	40	10		14	4	24	4	28	28	

*Appendix F: Assessment Anchor Content Standards (Assessment Anchors)
within Reporting Categories Summary*

Table F–13 (continued). Grade 11 Mathematics Assessment Anchor Content Standards

Grade 11					Mathematics														
Reporting Category	Assessment Anchor	Descriptor (Sub-anchor)	Eligible Content	Focus	Points						Items								
					Student Scores (Core Points)		District Level Scores (Matrix Points)		Total Points (Core & Matrix)		Number of Items				Total Number of Items (Core & Matrix)				
					MC	CR	MC	CR	MC	CR	Total	MC	CR	MC	CR	MC	CR	Total	
B: Measurement	2			Apply techniques, tools & formulas to determine measurements		4		4		8	8		1		1		2	2	
	2	1	1	Measure and/or compare angles	1		3		4	4		1		3		4		4	
	2	2	1	Calculate surface area of prisms, cylinders, cones, pyramids, and/or spheres			3		3	3				3		3		3	
	2	2	2	Calculate volume of prisms, cylinders, cones, pyramids, and/or spheres	1		3		4	4		1		3		4		4	
	2	2	3	Estimate area, perimeter, or circumference of irregular figure	1		1		2	2		1		1		2		2	
	2	2	4	Find missing length measurement	1		4		5	5		1		4		5		5	
	2	3	1	Describe effect of linear dimension change	1		2		3	3		1		2		3		3	
	Total For Assessment Anchor B.2 Apply appropriate techniques, tools and formulas to determine measurements					5	4	16	4	21	8	29	5	1	16	1	21	2	23
Total For Reporting Category B					5	4	16	4	21	8	29	5	1	16	1	21	2	23	
C: Geometry	1			Analyze characteristics & properties of 2-D & 3-D shapes				12		12	12				3		3	3	
	1	1	1	Recognize/use properties of circles			2		2	2				2		2		2	
	1	1	2	Recognize or use properties of arcs, angles, semicircles	1		1		2	2		1		1		2		2	
	1	2	1	Identify/use triangle properties	1		1		2	2		1		1		2		2	
	1	2	2	Recognize/use quadrilateral properties			1		1	1				1		1		1	
	1	2	3	Identify and/or use properties of isosceles and equilateral triangles	2		2		4	4		2		2		4		4	
	1	3	1	Recognize/use properties of congruent & similar polygons/solids	1		3		4	4		1		3		4		4	
	1	4	1	Use the Pythagorean Theorem	1		3		4	4		1		3		4		4	
	Total For Assessment Anchor C.1 Analyze characteristics and properties of two- and three-dimensional geometric shapes					6		13	12	19	12	31	6		13	3	19	3	22
	3			Locate points/describe relationships using the coordinate plane				4		4	4				1		1	1	
3	1	1	Find distance and/or midpoint	2		1		3	3		2		1		3		3		
3	1	2	Relate slope to perpendicularity and/or parallelism	2		1		3	3		2		1		3		3		
Total For Assessment Anchor C.3 Locate points or describe relationships using the coordinate plane					4		2	4	6	4	10	4		2	1	6	1	7	
Total For Reporting Category C					10		15	16	25	16	41	10		15	4	25	4	29	

*Appendix F: Assessment Anchor Content Standards (Assessment Anchors)
within Reporting Categories Summary*

Table F–13 (continued). Grade 11 Mathematics Assessment Anchor Content Standards

Grade 11					Mathematics															
Reporting Category	Assessment Anchor	Descriptor (Sub-anchor)	Eligible Content	Focus	Points						Items									
					Student Scores (Core Points)		District Level Scores (Matrix Points)		Total Points (Core & Matrix)		Number of Items				Total Number of Items (Core & Matrix)					
					MC	CR	MC	CR	MC	CR	Total	Core		Matrix		MC	CR	Total		
												MC	CR	MC	CR	MC	CR	Total		
D: Algebraic Concepts	1			Understand patterns, relations and functions				4		4	4				1		1	1		
	1	1	1	Analyze data for pattern; represent pattern algebraically/graphically	3				3		3	3					3		3	
	1	1	2	Determine if relation is a function			1		1		1			1				1		1
	1	1	3	Identify domain, range, and inverse of a relation	1				1		1	1						1		1
	Total For Assessment Anchor D.1 Understand patterns, relations and functions					4		1	4	5	4	9	4		1	1	5	1	6	
	2			Represent/analyze mathematical situations		4		12		16	16		1		3			4	4	
	2	1	1	Solve compound inequalities and/or graph solution sets on number line			1		1		1			1			1		1	
	2	1	2	Identify or graph linear inequalities on coordinate plane			3		3		3			3			3		3	
	2	1	3	Write and/or solve linear equation	3		3		6		6	3		3			6		6	
	2	1	4	Solve systems of equations	1		4		5		5	1		4			5		5	
	2	1	5	Solve quadratic equations using factoring	1		3		4		4	1		3			4		4	
	2	2	1	Add/subtract/multiply polynomials	1		4		5		5	1		4			5		5	
	2	2	2	Factor algebraic expressions	1		3		4		4	1		3			4		4	
	2	2	3	Simplify algebraic fractions	1		1		2		2	1		1			2		2	
	Total For Assessment Anchor D.2 Represent/analyze mathematical situations using numbers, symbols, words, tables and/or graphs					8	4	22	12	30	16	46	8	1	22	3	30	4	34	
	3			Analyze change in various contexts				8		8	8				2			2	2	
	3	1	1	Identify/describe rates of change	4		4		8		8	4		4			8		8	
	3	1	2	Determine relations in variable changes	1		1		2		2	1		1			2		2	
	3	2	1	Apply formula for slope of line	1		2		3		3	1		2			3		3	
	3	2	2	Write/identify linear equation	1		2		3		3	1		2			3		3	
	3	2	3	Compute slope and/or y-intercept	1		4		5		5	1		4			5		5	
	Total For Assessment Anchor D.3 Analyze change in various contexts					8		13	8	21	8	29	8		13	2	21	2	23	
	4			Describe/use models to represent quantitative relationships				4		4	4				1			1	1	
	4	1	1	Match graph to table/equation	2		4		6		6	2		4			6		6	
	Total For Assessment Anchor D.4 Describe or use models to represent quantitative relationships					2		4	4	6	4	10	2		4	1	6	1	7	
	Total For Reporting Category D					22	4	40	28	62	32	94	22	1	40	7	62	8	70	

*Appendix F: Assessment Anchor Content Standards (Assessment Anchors)
within Reporting Categories Summary*

Table F–13 (continued). Grade 11 Mathematics Assessment Anchor Content Standards

Grade 11				Mathematics														
Reporting Category	Assessment Anchor	Descriptor (Sub-anchor)	Eligible Content	Focus	Points						Items							
					Student Scores (Core Points)		District Level Scores (Matrix Points)		Total Points (Core & Matrix)		Number of Items				Total Number of Items (Core & Matrix)			
					MC	CR	MC	CR	MC	CR	Total	Core		Matrix		MC	CR	Total
												MC	CR	MC	CR	MC	CR	Total
E: Data Analysis and Probability	1			Formulate/answer questions; organize, display, interpret or analyze data				8		8	8				2		2	2
	1	1	1	Create and/or use appropriate graphical representations	1		1		2		2	1		1		2		2
	1	1	2	Answer questions based on displayed data	1		1		2		2	1		1		2		2
	Total For Assessment Anchor E.1 Formulate or answer questions about data and/or organize, display, interpret or analyze data				2		2	8	4	8	12	2		2	2	4	2	6
	2			Select and/or use appropriate statistical methods to analyze data				4		4	4				1		1	1
	2	1	1	Find or select appropriate measure of central tendency			1		1		1			1		1		1
	2	1	2	Calculate and/or interpret range, quartiles, interquartile range	1		2		3		3	1		2		3		3
	2	1	3	Describe influence of outliers			2		2		2			2		2		2
	Total For Assessment Anchor E.2 Select and/or use appropriate statistical methods to analyze data				1		5	4	6	4	10	1		5	1	6	1	7
	3			Understand/apply basic concepts of probability or outcomes				4		4	4				1		1	1
	3	1	1	Determine probabilities	1		1		2		2	1		1		2		2
	3	1	2	Determine, convert and/or compare probability and/or odds			1		1		1			1		1		1
	3	2	1	Determine number of permutations and/or combinations			1		1		1			1		1		1
	Total For Assessment Anchor E.3 Understand and/or apply basic concepts of probability or outcomes				1		3	4	4	4	8	1		3	1	4	1	5
	4			Develop/evaluate inferences, predictions or draw conclusions based on data		4				4	4		1				1	1
	4	1	1	Estimate or calculate predictions based on circle, line, bar graphs	1		1		2		2	1		1		2		2
	4	1	2	Use probability to predict outcomes			2		2		2			2		2		2
	4	2	1	Draw/write equation for best-fit line	1		1		2		2	1		1		2		2
	4	2	2	Predict using equations of best-fit lines	1		1		2		2	1		1		2		2
	Total For Assessment Anchor E.4 Develop and/or evaluate inferences and predictions or draw conclusions based on data or data displays				3	4	5		8	4	12	3	1	5		8	1	9
	Total For Reporting Category E				7	4	15	16	22	20	42	7	1	15	4	22	5	27

*Appendix F: Assessment Anchor Content Standards (Assessment Anchors)
within Reporting Categories Summary*

Table F–14. Grade 11 Reading Assessment Anchor Content Standards

Grade 11				Reading																
Reporting Category	Assessment Anchor	Descriptor (Sub-anchor)	Eligible Content	Focus	Points						Items									
					Student Scores (Core Points)		District Level Scores (Matrix Points)		Total Points (Core & Matrix)		Number of Items				Total Number of Items (Core & Matrix)					
					MC	CR	MC	CR	MC	CR	Total	MC	CR	MC	CR	MC	CR	Total		
A: Comprehension and Reading Skills	1	1	1	Apply meaning of multiple-meaning words in text	1		3		4		4		1		3		4		4	
	1	1	2	Identify synonym/antonym	2		6		8		8		2		6		8		8	
	1	2	1	Identify meaning of word with an affix/how meaning changes			2		2		2				2		2		2	
	1	2	2	Define words from context clues			3		3		3				3		3		3	
	1	3	1	Make inferences/draw conclusions	3		9		12		12		3		9		12		12	
	1	3	2	Cite evidence from text to support generalizations			1		1		1				1		1		1	
	1	4	1	Identify and/or interpret main ideas/relevant details	1		4		5		5		1		4		5		5	
	1	5	1	Summarize key details and events of a text as a whole			1		1		1				1		1		1	
	1	6	1	Identify author's purpose for writing text	1		1		2		2		1		1		2		2	
	1	6	2	Identify text that supports the author's intended purpose																
	Total For Assessment Anchor A.1 Understand fiction appropriate to grade level.					8		30		38		38		8		30		38		38
	A: Comprehension and Reading Skills	2	1	1	Apply meaning of multiple-meaning words in text	2		2		4		4		2		2		4		4
		2	1	2	Identify meaning of content-specific words			1		1		1				1		1		1
		2	2	1	Identify meaning of word with an affix/how meaning changes	1		2		3		3		1		2		3		3
		2	2	2	Define words from context clues	2		5		7		7		2		5		7		7
		2	3	1	Make inferences/draw conclusions	2	3	14	12	16	15	31		2	1	14	4	16	5	21
		2	3	2	Cite evidence from text to support generalizations	2		2		4		4		2		2		4		4
		2	4	1	Identify and/or interpret main ideas/relevant details	8		22	3	30	3	33		8		22	1	30	1	31
		2	5	1	Summarize major points/processes/events of a text as a whole															
2		6	1	Identify author's purpose for writing text			1		1		1				1		1		1	
2		6	2	Identify text that supports the author's intended purpose	1		1		2		2		1		1		2		2	
Total For Assessment Anchor A.2 Understand nonfiction appropriate to grade level.					18	3	50	15	68	18	86		18	1	50	5	68	6	74	
Total For Reporting Category A					26	3	80	15	106	18	124		26	1	80	5	106	6	112	

*Appendix F: Assessment Anchor Content Standards (Assessment Anchors)
within Reporting Categories Summary*

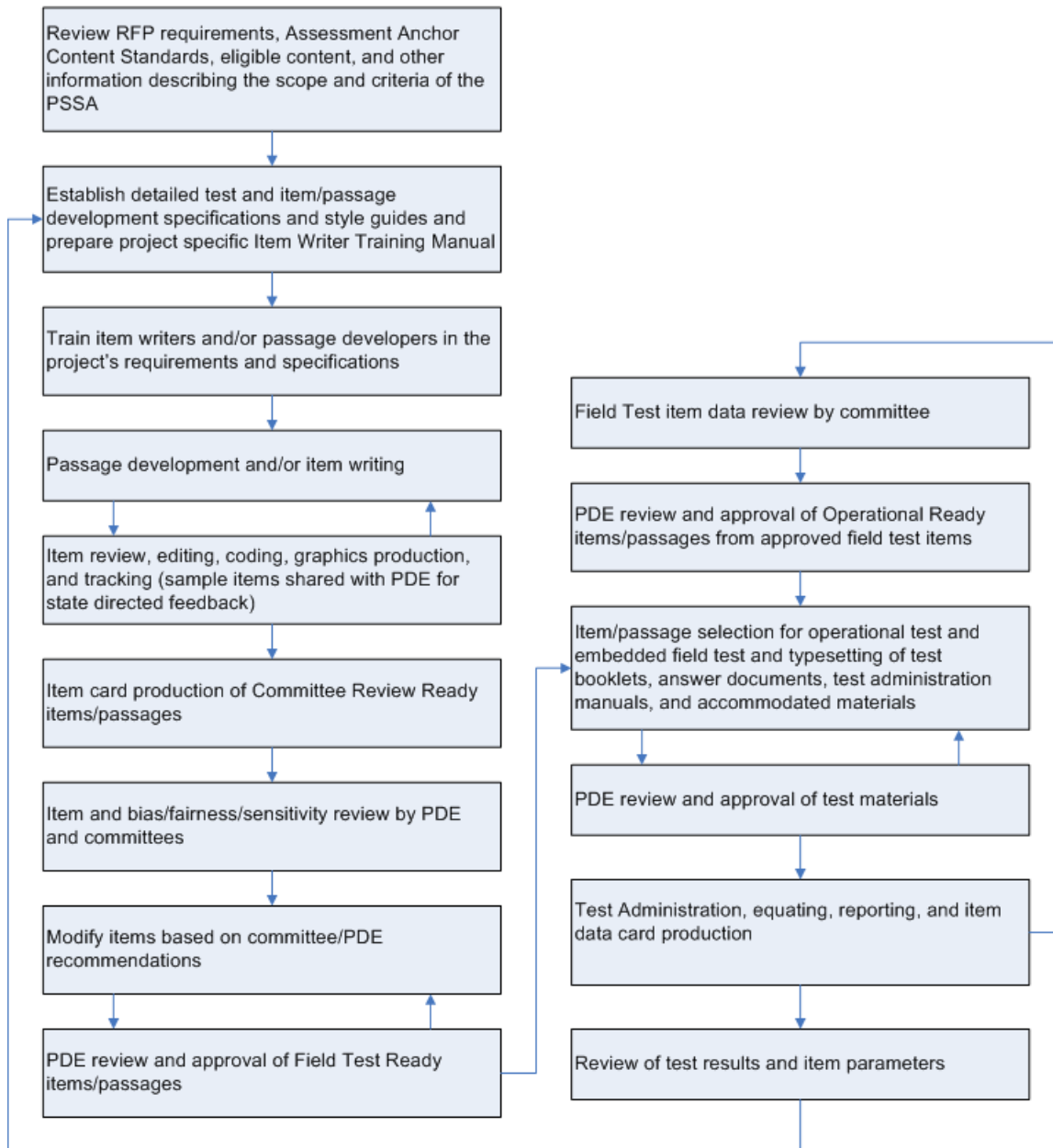
Table F–14 (continued). Grade 11 Reading Assessment Anchor Content Standards

Grade 11				Reading														
Reporting Category	Assessment Anchor	Descriptor (Sub-anchor)	Eligible Content	Focus	Points						Items							
					Student Scores (Core Points)		District Level Scores (Matrix Points)		Total Points (Core & Matrix)		Number of Items				Total Number of Items (Core & Matrix)			
					MC	CR	MC	CR	MC	CR	Total	Core		Matrix		MC	CR	Total
												MC	CR	MC	CR	MC	CR	Total
B: Interpretation and Analysis of Fictional and Nonfictional Text	1	1	1	Identify in fiction and literary nonfiction character (narrator/speaker/subject of a biography), setting, plot, theme, tone, style, mood, symbolism	5	3	13	30	18	33	51	5	1	13	10	18	11	29
	1	2	1	Connections between texts	1	3	2	9	3	12	15	1	1	2	3	3	4	7
	Total For Assessment Anchor B.1 Understand components within and between texts.				6	6	15	39	21	45	66	6	2	15	13	21	15	36
	2	1	1	Analyze examples of personification, simile, metaphor, hyperbole, satire, imagery, foreshadowing, flashbacks, and irony	2		11	3	13	3	16	2		11	1	13	1	14
	2	1	2	Identify author's purpose/effectiveness of figurative language			2		2		2			2		2		2
	2	2	1	Identify point of view of the narrator as first or third person			1		1		1			1		1		1
	2	2	2	Analyze the effectiveness of the point of view used by the author														
	Total For Assessment Anchor B.2 Understand literary devices in fictional and nonfictional text.				2		14	3	16	3	19	2		14	1	16	1	17
	3	1	1	Use of facts and opinions to make a point/construct an argument	1	3	1	3	2	6	8	1	1	1	1	2	2	4
	3	2	1	Identify bias/propaganda techniques	2		2		4		4	2		2		4		4
	3	2	2	Analyze the effectiveness of bias/propaganda techniques														
	3	3	1	Analyze the effect of text organization including use of headers	1		3		4		4	1		3		4		4
	3	3	2	Analyze author's purpose for text organization and content	1		3		4		4	1		3		4		4
	3	3	3	Analyze and make connections between graphics/charts/texts	1		2		3		3	1		2		3		3
	Total For Assessment Anchor B.3 Understand concepts and organization of nonfictional text.				6	3	11	3	17	6	23	6	1	11	1	17	2	19
	Total For Reporting Category B				14	9	40	45	54	54	108	14	3	40	15	54	18	72

*Appendix F: Assessment Anchor Content Standards (Assessment Anchors)
within Reporting Categories Summary*

Appendix G:
Item and Test Development Review Processes

**DRC Item and Test Development Process
Mathematics and Reading**



Appendix H:
Item Review Tally Form

PSSA Item Review Tally Form: 2004/2005 Item Content Review

Grade: 5

Content: Reading

Record actual edits and comments on Item Card

Passage Title:

ID #	Type	Status	Specify Change Location	Reason for Edit/Rejection
		A = Accepted as is AR = Accepted w/revisions R = Rejected	T = Textual edit D = Distractor edit C = Item characteristic edit	A = Content Alignment R = Rigor Level T = Technical Design
		*Record appropriate code	*Record appropriate code	*Record appropriate code
Passage	P		T D C	
52-0001	MC		T D C	
52-0002	MC		T D C	
52-0003	MC		T D C	
52-0004	MC		T D C	
52-0005	MC		T D C	
52-0006	MC		T D C	
52-0007	MC		T D C	
52-0008	MC		T D C	
52-0009	MC		T D C	
52-0010	MC		T D C	
52-0011	MC		T D C	
52-0012	MC		T D C	
52-0013	MC		T D C	
52-0014	MC		T D C	
52-0015	MC		T D C	
52-0016	MC		T D C	
54-0017	OE		T D C	
54-0018	OE		T D C	
54-0019	OE		T D C	

Required Signatures

Date

DRC
Signature

|

|

WestEd Signature

|

|

PDE
Signature

|

|

PSSA Item Review Tally Form: 2004/2005 Item Content Review

Grade: 5

Content: Mathematics

Record actual edits and comments on Item Card

ID #	Page #	Status	Specify Change Location	Reason for Edit/Rejection
		A = Accepted as is AR = Accepted w/revisions R = Rejected *Record appropriate code	T = Text edit G = Graphic edit D = Distracter edit C = Item characteristic edit	A = Content Alignment R = Rigor Level T = Technical Design *Record appropriate code
51-0001	1		T G D C	
51-0002	2		T G D C	
51-0003	3		T G D C	
51-0004	4		T G D C	
51-0005	5		T G D C	
51-0006	6		T G D C	
51-0007	7		T G D C	
51-0008	8		T G D C	
51-0009	9		T G D C	
51-0010	10		T G D C	
51-0011	11		T G D C	
51-0012	12		T G D C	
51-0013	13		T G D C	
51-0014	14		T G D C	
51-0015	15		T G D C	
51-0016	16		T G D C	
51-0017	17		T G D C	
51-0018	18		T G D C	
51-0019	19		T G D C	
51-0020	20		T G D C	
51-0021	21		T G D C	
51-0022	22		T G D C	
51-0023	23		T G D C	
51-0024	24		T G D C	
51-0025	25		T G D C	
51-0026	26		T G D C	

Required Signatures

Date

DRC Signature

|

|

WestEd Signature

|

|

PDE Signature

|

|

Appendix I:

PSSA New Item Review Cards and IVAN Card

**PSSA
New Item
Review**

Item	
	51-3174
Content Area	
Grade Level	
Rpt Category	
Asmt Anchor	
Sub-Anchor	
Eligible Content	
Primary Code	
Passage Title	
Passage ID	
Focus	
Item Type	
Points	
Depth of Knldg	
Est Difficulty	
Answer Key	
Calculator Use	

Distractor Analysis-A:
Distractor Analysis-B:
Distractor Analysis-C:
Distractor Analysis-D:

PSSA New Item Review	
Item	
	51-3173
Content Area	
Grade Level	
Rpt Category	
Asmt Anchor	
Sub-Anchor	
Eligible Content	
Primary Code	
Passage Title	
Passage ID	
Focus	
Item Type	
Points	
Depth of Knldg	
Est Difficulty	
Answer Key	
Calculator Use	

IVAN Item Card

Item content copyright Pennsylvania



Released: No

Item Status: accepted

Item Name	Item Type	Key	Grade	Subject	Report Category	Asmt Anchor	Sub Anchor	Eligible Content	Content Difficulty	DRP	Item Calculator
0808	MC	1	08	Math	A	3	3	1			No

Depth of Knowledge: 1

2. A list of numbers is shown below.

-5 -2 -1 0

What is the sum of the numbers shown above?

A -5
 B -2
 C -1
 D 0

Administration

Form Grade	Form Subject	Form Name	Sequence	Form Type	Month	Year	Report Category	Asmt Anchor	Sub-Anchor	Eligible Content	Day	Session	Calculator
08	Math	A	1	Field Test	May	2004	A	3	3	1	0		No

Statistics Detail

Label	P-Value	Pt. Bis. Corr.	Label	Value	DIF Analysis	Value
A*	0.696	0.449	N	928	White/Black	A-
B	0.145	-0.375	Outfit t	-3.900	Eco Disad	A-
C	0.084	-0.315	Logit	-1.260	Male/Female	B-
D	0.069	-0.259	Logit SE	0.079		
Omits	0.005					

Notes:

Accepted by Data Review Committee, August 04

Appendix J:

2007 Grades 3–8 and 11 Multiple-Choice Statistics

Table Legend

Column	Description
Cont.	Tested Content
Grade	Tested Grade
Pub. ID	Public item identification number
R.C.	Reporting category
D.O.K.	Depth of knowledge
N	Number of students
P-Val.	P-Value
Proportion [A-D, Omit]	Proportion selecting the response
Pt. Bis.	Item total correlation
Correlation [A-D]	Point biserial of the response
Logit	Rasch logit difficulty
Logit SE	Rasch logit difficulty standard error
Fit	Rasch outfit statistic

Appendix J: 2007 Grades 3–8 and 11 Multiple-Choice Statistics

Information					Proportions						Correlations					Rasch			
Cont.	Grade	Pub. ID	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Math	3	0001	C	1	127608	0.968	0.003	0.027	0.002	0.968	0.000	0.248	-0.149	-0.199	-0.110	0.248	-1.552	0.017	4.7
Math	3	0002	A	2	127608	0.928	0.029	0.928	0.011	0.030	0.001	0.350	-0.340	0.350	-0.246	-0.117	-0.612	0.012	6.4
Math	3	0003	A	2	127608	0.938	0.938	0.021	0.024	0.014	0.002	0.440	0.440	-0.307	-0.287	-0.284	-0.761	0.013	-9.9
Math	3	0004	E	2	127608	0.857	0.036	0.857	0.017	0.089	0.000	0.522	-0.168	0.522	-0.297	-0.547	0.363	0.009	-9.6
Math	3	0005	B	2	127608	0.774	0.017	0.057	0.151	0.774	0.001	0.242	-0.214	-0.250	-0.139	0.242	1.083	0.008	9.9
Math	3	0006	A	1	127608	0.800	0.021	0.800	0.129	0.048	0.002	0.417	-0.218	0.417	-0.387	-0.264	0.870	0.008	-4.0
Math	3	0007	E	2	127608	0.823	0.057	0.094	0.026	0.823	0.001	0.423	-0.409	-0.258	-0.294	0.423	0.674	0.008	-9.8
Math	3	0008	B	2	127608	0.856	0.091	0.022	0.856	0.027	0.004	0.382	-0.309	-0.264	0.382	-0.233	0.376	0.009	0.6
Math	3	0009	C	1	127608	0.962	0.020	0.006	0.007	0.962	0.005	0.327	-0.232	-0.214	-0.199	0.327	-1.352	0.016	-4.5
Math	3	0010	A	1	127608	0.902	0.034	0.009	0.055	0.902	0.001	0.398	-0.243	-0.286	-0.311	0.398	-0.161	0.010	-0.2
Math	3	0011	D	2	127608	0.792	0.128	0.792	0.024	0.055	0.001	0.456	-0.404	0.456	-0.203	-0.364	0.933	0.008	-9.9
Math	3	0012	A	1	127608	0.876	0.034	0.023	0.876	0.064	0.003	0.473	-0.261	-0.281	0.473	-0.431	0.146	0.009	-9.9
Math	3	0013	A	1	127608	0.888	0.011	0.053	0.047	0.888	0.001	0.409	-0.336	-0.326	-0.239	0.409	-0.004	0.010	5.0
Math	3	0014	A	1	127608	0.902	0.030	0.902	0.026	0.041	0.002	0.445	-0.215	0.445	-0.323	-0.369	-0.236	0.011	-9.9
Math	3	0015	C	1	127608	0.903	0.903	0.026	0.035	0.032	0.004	0.349	0.349	-0.236	-0.231	-0.239	-0.215	0.010	-2.2
Math	3	0016	A	1	127608	0.916	0.016	0.018	0.916	0.049	0.001	0.475	-0.200	-0.286	0.475	-0.423	-0.435	0.011	-9.9
Math	3	0017	C	1	127608	0.947	0.010	0.012	0.947	0.029	0.001	0.371	-0.238	-0.234	0.371	-0.256	-0.977	0.014	-5.5
Math	3	0018	A	1	127608	0.581	0.581	0.040	0.263	0.113	0.003	0.423	0.423	-0.395	-0.381	-0.405	2.347	0.007	-6.9
Math	3	0019	B	1	127608	0.907	0.073	0.907	0.014	0.006	0.001	0.330	-0.227	0.330	-0.314	-0.195	-0.229	0.011	9.9
Math	3	0020	A	2	127608	0.814	0.151	0.014	0.814	0.017	0.005	0.524	-0.503	-0.272	0.524	-0.308	0.736	0.008	-9.9
Math	3	0021	E	2	127608	0.897	0.060	0.015	0.020	0.897	0.007	0.276	-0.144	-0.203	-0.268	0.276	-0.109	0.010	9.9
Math	3	0022	B	2	127608	0.881	0.027	0.051	0.881	0.039	0.001	0.475	-0.363	-0.321	0.475	-0.347	0.059	0.010	-8.3
Math	3	0023	C	1	127608	0.978	0.016	0.978	0.004	0.002	0.000	0.241	-0.186	0.241	-0.122	-0.121	-1.981	0.020	1.0
Math	3	0024	B	2	127608	0.861	0.042	0.033	0.061	0.861	0.003	0.427	-0.372	-0.293	-0.260	0.427	0.296	0.009	-8.3
Math	3	0025	D	2	127608	0.909	0.909	0.021	0.034	0.032	0.003	0.408	0.408	-0.300	-0.312	-0.221	-0.309	0.011	-6.6
Math	3	0026	A	2	127608	0.879	0.036	0.060	0.024	0.879	0.000	0.480	-0.393	-0.339	-0.309	0.480	0.120	0.010	-9.9
Math	3	0027	A	1	127608	0.878	0.030	0.066	0.025	0.878	0.001	0.545	-0.323	-0.484	-0.359	0.545	0.147	0.009	-9.9
Math	3	0028	A	1	127608	0.952	0.017	0.952	0.014	0.014	0.004	0.420	-0.293	0.420	-0.252	-0.290	-1.100	0.014	-9.9
Math	3	0029	A	1	127608	0.787	0.056	0.068	0.787	0.082	0.007	0.504	-0.381	-0.435	0.504	-0.387	0.982	0.008	-9.9
Math	3	0030	E	2	127608	0.957	0.957	0.010	0.010	0.019	0.001	0.380	0.380	-0.229	-0.210	-0.264	-1.254	0.015	-9.9
Math	3	0031	A	1	127608	0.923	0.005	0.045	0.923	0.025	0.003	0.412	-0.218	-0.256	0.412	-0.377	-0.502	0.011	-9.9
Math	3	0032	C	1	127608	0.797	0.023	0.797	0.070	0.105	0.005	0.330	-0.327	0.330	-0.244	-0.221	0.895	0.008	9.9
Math	3	0033	A	1	127608	0.882	0.043	0.025	0.882	0.049	0.000	0.419	-0.365	-0.289	0.419	-0.232	0.092	0.010	-1.9
Math	3	0034	D	1	127608	0.860	0.032	0.037	0.860	0.067	0.004	0.373	-0.204	-0.246	0.373	-0.312	0.279	0.009	4.6
Math	3	0035	A	1	127608	0.719	0.179	0.719	0.040	0.054	0.008	0.407	-0.318	0.407	-0.340	-0.404	1.468	0.007	9.9
Math	3	0036	A	1	127608	0.955	0.014	0.013	0.017	0.955	0.001	0.435	-0.337	-0.250	-0.267	0.435	-1.217	0.015	-6.8
Math	3	0037	A	1	127608	0.947	0.004	0.012	0.947	0.037	0.001	0.411	-0.186	-0.174	0.411	-0.372	-0.977	0.014	-9.9
Math	3	0038	A	1	127608	0.952	0.022	0.013	0.952	0.012	0.002	0.290	-0.205	-0.181	0.290	-0.161	-1.093	0.014	9.9
Math	3	0039	D	2	127608	0.724	0.208	0.724	0.046	0.013	0.009	0.536	-0.516	0.536	-0.420	-0.348	1.457	0.007	-9.9
Math	3	0040	B	2	127608	0.816	0.110	0.024	0.048	0.816	0.002	0.462	-0.390	-0.335	-0.309	0.462	0.723	0.008	-9.9
Math	3	0041	A	1	127608	0.696	0.083	0.696	0.062	0.157	0.002	0.414	-0.273	0.414	-0.334	-0.402	1.630	0.007	9.4
Math	3	0042	A	2	127608	0.852	0.852	0.029	0.033	0.083	0.003	0.388	0.388	-0.284	-0.301	-0.266	0.397	0.009	-4.8
Math	3	0043	E	2	127608	0.970	0.014	0.970	0.011	0.003	0.001	0.369	-0.295	0.369	-0.203	-0.165	-1.642	0.017	-1.5

Appendix J: 2007 Grades 3–8 and 11 Multiple-Choice Statistics

Information					Proportions							Correlations					Rasch		
Cont.	Grade	Pub. ID	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Math	3	0044	B	1	127608	0.883	0.010	0.883	0.067	0.039	0.001	0.322	-0.163	0.322	-0.223	-0.261	0.031	0.010	7.2
Math	3	0045	A	1	127608	0.884	0.884	0.054	0.031	0.029	0.002	0.469	0.469	-0.318	-0.345	-0.345	0.030	0.010	-9.9
Math	3	0046	C	1	127608	0.940	0.013	0.018	0.024	0.940	0.004	0.319	-0.233	-0.197	-0.198	0.319	-0.809	0.013	3.3
Math	3	0047	E	2	127608	0.856	0.048	0.856	0.047	0.048	0.002	0.560	-0.400	0.560	-0.399	-0.464	0.365	0.009	-9.9
Math	3	0048	A	1	127608	0.962	0.011	0.013	0.962	0.011	0.003	0.408	-0.260	-0.273	0.408	-0.266	-1.390	0.016	-9.9
Math	3	0049	B	2	127608	0.517	0.037	0.517	0.243	0.189	0.014	0.270	-0.350	0.270	-0.200	-0.268	2.690	0.006	9.9
Math	3	0050	D	2	127608	0.960	0.021	0.008	0.010	0.960	0.001	0.288	-0.203	-0.157	-0.174	0.288	-1.289	0.015	2.0
Math	3	0051	A	1	127608	0.761	0.134	0.761	0.025	0.079	0.000	0.469	-0.309	0.469	-0.413	-0.483	1.169	0.007	-9.9
Math	3	0052	D	1	127608	0.905	0.905	0.033	0.021	0.029	0.012	0.403	0.403	-0.276	-0.226	-0.339	-0.231	0.011	-6.1
Math	3	0053	C	1	127608	0.947	0.008	0.033	0.011	0.947	0.001	0.347	-0.196	-0.238	-0.248	0.347	-1.036	0.014	1.3
Math	3	0054	A	2	127608	0.766	0.022	0.189	0.766	0.020	0.003	0.518	-0.320	-0.495	0.518	-0.333	1.118	0.008	-9.9
Math	3	0055	D	1	8268	0.930	0.930	0.048	0.010	0.007	0.006	0.270	0.270	-0.206	-0.171	-0.164	-0.706	0.046	2.6
Math	3	0056	B	2	8268	0.369	0.151	0.369	0.111	0.361	0.008	0.183	-0.264	0.183	-0.320	-0.093	3.258	0.026	9.9
Math	3	0057	E	2	8268	0.971	0.013	0.971	0.009	0.004	0.002	0.327	-0.229	0.327	-0.225	-0.148	-1.746	0.068	-1.1
Math	3	0058	A	2	8268	0.779	0.077	0.086	0.779	0.056	0.002	0.421	-0.266	-0.348	0.421	-0.353	0.911	0.030	-2.1
Math	3	0059	A	1	8268	0.938	0.030	0.938	0.017	0.013	0.002	0.338	-0.128	0.338	-0.264	-0.323	-0.864	0.049	3.4
Math	3	0060	A	2	8268	0.820	0.127	0.021	0.023	0.820	0.009	0.551	-0.541	-0.349	-0.233	0.551	0.585	0.032	-8.1
Math	3	0061	D	2	8268	0.938	0.938	0.004	0.014	0.043	0.001	0.433	0.433	-0.148	-0.307	-0.351	-0.860	0.049	-4.5
Math	3	0062	C	1	8268	0.933	0.012	0.933	0.014	0.040	0.001	0.331	-0.223	0.331	-0.226	-0.207	-0.770	0.047	-0.5
Math	3	0063	B	1	8268	0.511	0.265	0.511	0.150	0.072	0.003	0.197	-0.101	0.197	-0.227	-0.290	2.503	0.025	9.9
Math	3	0064	A	2	8268	0.897	0.024	0.057	0.897	0.017	0.005	0.441	-0.232	-0.360	0.441	-0.335	-0.208	0.040	-2.0
Math	3	0065	A	1	8268	0.825	0.077	0.825	0.044	0.036	0.018	0.505	-0.571	0.505	-0.265	-0.223	0.542	0.032	-2.7
Math	3	0066	E	2	8268	0.942	0.014	0.015	0.942	0.025	0.001	0.438	-0.327	-0.284	0.438	-0.263	-0.941	0.050	-2.8
Math	3	0067	D	2	8004	0.888	0.039	0.050	0.888	0.018	0.006	0.479	-0.390	-0.347	0.479	-0.273	-0.017	0.039	-5.9
Math	3	0068	A	2	8004	0.771	0.039	0.771	0.112	0.070	0.008	0.481	-0.296	0.481	-0.412	-0.391	1.048	0.030	-6.4
Math	3	0069	E	2	8004	0.987	0.003	0.003	0.004	0.987	0.003	0.214	-0.182	-0.135	-0.095	0.214	-2.517	0.100	0.0
Math	3	0070	B	1	8004	0.866	0.046	0.866	0.048	0.039	0.001	0.387	-0.349	0.387	-0.179	-0.288	0.231	0.036	0.1
Math	3	0071	C	1	8004	0.984	0.008	0.004	0.003	0.984	0.001	0.231	-0.138	-0.118	-0.188	0.231	-2.317	0.091	1.0
Math	3	0072	A	1	8004	0.758	0.047	0.066	0.129	0.758	0.001	0.439	-0.264	-0.205	-0.474	0.439	1.147	0.030	0.5
Math	3	0073	A	1	8004	0.823	0.031	0.823	0.113	0.033	0.001	0.519	-0.312	0.519	-0.496	-0.283	0.644	0.033	-7.5
Math	3	0074	A	1	8004	0.884	0.884	0.030	0.032	0.051	0.002	0.446	0.446	-0.285	-0.292	-0.352	0.028	0.038	-1.3
Math	3	0075	A	1	8004	0.898	0.041	0.898	0.032	0.019	0.009	0.457	-0.331	0.457	-0.303	-0.374	-0.149	0.040	-2.2
Math	3	0076	B	1	8004	0.895	0.895	0.023	0.043	0.038	0.001	0.256	0.256	-0.239	-0.152	-0.126	-0.099	0.040	5.5
Math	3	0077	D	2	8004	0.796	0.796	0.042	0.096	0.063	0.002	0.604	0.604	-0.415	-0.495	-0.548	0.860	0.031	-9.9
Math	3	0078	E	2	8004	0.927	0.030	0.016	0.927	0.024	0.003	0.366	-0.230	-0.217	0.366	-0.286	-0.572	0.046	1.1
Math	3	0079	D	1	7960	0.906	0.906	0.016	0.044	0.027	0.007	0.320	0.320	-0.214	-0.167	-0.276	-0.227	0.042	1.7
Math	3	0080	A	1	7960	0.904	0.036	0.032	0.018	0.904	0.010	0.358	-0.224	-0.272	-0.229	0.358	-0.195	0.042	0.6
Math	3	0081	A	2	7960	0.864	0.017	0.864	0.082	0.035	0.003	0.527	-0.358	0.527	-0.456	-0.327	0.276	0.036	-6.9
Math	3	0082	A	1	7960	0.879	0.036	0.052	0.879	0.033	0.001	0.446	-0.268	-0.301	0.446	-0.389	0.118	0.038	-4.3
Math	3	0083	A	1	7960	0.837	0.837	0.039	0.018	0.101	0.006	0.585	0.585	-0.340	-0.270	-0.589	0.546	0.034	-9.8
Math	3	0084	C	1	7960	0.911	0.056	0.911	0.026	0.003	0.004	0.340	-0.305	0.340	-0.193	-0.159	-0.306	0.043	1.3
Math	3	0085	E	2	7960	0.766	0.122	0.018	0.766	0.094	0.001	0.367	-0.254	-0.266	0.367	-0.351	1.115	0.030	4.1
Math	3	0086	A	1	7960	0.845	0.077	0.038	0.845	0.039	0.000	0.475	-0.313	-0.381	0.475	-0.395	0.470	0.035	-4.5

Appendix J: 2007 Grades 3–8 and 11 Multiple-Choice Statistics

Information					Proportions							Correlations					Rasch		
Cont.	Grade	Pub. ID	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Math	3	0087	B	1	7960	0.747	0.080	0.747	0.097	0.073	0.004	0.428	-0.423	0.428	-0.314	-0.284	1.248	0.029	-2.0
Math	3	0088	D	2	7960	0.893	0.893	0.032	0.020	0.046	0.010	0.549	0.549	-0.320	-0.340	-0.526	-0.051	0.040	-7.5
Math	3	0089	A	1	7960	0.885	0.885	0.029	0.031	0.055	0.001	0.518	0.518	-0.287	-0.346	-0.436	0.047	0.039	-8.6
Math	3	0090	A	2	7960	0.772	0.157	0.036	0.034	0.772	0.002	0.514	-0.520	-0.267	-0.267	0.514	1.070	0.030	-7.1
Math	3	0091	A	1	7980	0.930	0.930	0.038	0.009	0.017	0.006	0.372	0.372	-0.335	-0.108	-0.232	-0.608	0.047	-0.8
Math	3	0092	B	1	7980	0.850	0.032	0.850	0.045	0.072	0.001	0.374	-0.220	0.374	-0.290	-0.286	0.426	0.035	2.9
Math	3	0093	A	1	7980	0.662	0.662	0.066	0.051	0.217	0.004	0.421	0.421	-0.408	-0.283	-0.360	1.777	0.027	-2.1
Math	3	0094	D	1	7980	0.907	0.013	0.046	0.025	0.907	0.008	0.445	-0.343	-0.295	-0.335	0.445	-0.242	0.042	-4.1
Math	3	0095	C	1	7980	0.981	0.003	0.011	0.004	0.981	0.001	0.285	-0.191	-0.179	-0.173	0.285	-2.133	0.085	-1.8
Math	3	0096	A	1	7980	0.882	0.040	0.039	0.882	0.033	0.005	0.482	-0.362	-0.351	0.482	-0.321	0.082	0.038	-5.8
Math	3	0097	A	1	7980	0.929	0.047	0.006	0.016	0.929	0.001	0.322	-0.180	-0.232	-0.283	0.322	-0.593	0.047	2.1
Math	3	0098	E	2	7980	0.981	0.008	0.005	0.981	0.005	0.002	0.237	-0.199	-0.136	0.237	-0.088	-2.117	0.085	1.4
Math	3	0099	A	1	7980	0.865	0.024	0.054	0.865	0.054	0.002	0.468	-0.381	-0.335	0.468	-0.340	0.269	0.036	-1.8
Math	3	0100	A	2	7980	0.780	0.780	0.110	0.028	0.059	0.023	0.401	0.401	-0.307	-0.316	-0.350	1.015	0.030	0.3
Math	3	0101	E	2	7980	0.945	0.004	0.019	0.945	0.031	0.002	0.459	-0.170	-0.300	0.459	-0.392	-0.894	0.052	-4.2
Math	3	0102	B	2	7980	0.823	0.074	0.823	0.071	0.029	0.003	0.471	-0.396	0.471	-0.337	-0.341	0.671	0.033	-2.9
Math	3	0103	A	1	8003	0.864	0.864	0.027	0.078	0.025	0.006	0.572	0.572	-0.220	-0.543	-0.446	0.296	0.036	-7.6
Math	3	0104	E	2	8003	0.961	0.011	0.009	0.961	0.011	0.007	0.352	-0.264	-0.196	0.352	-0.240	-1.286	0.061	-2.2
Math	3	0105	C	1	8003	0.734	0.099	0.734	0.034	0.131	0.002	0.314	-0.246	0.314	-0.306	-0.220	1.345	0.029	7.3
Math	3	0106	A	1	8003	0.743	0.089	0.054	0.743	0.112	0.001	0.482	-0.411	-0.392	0.482	-0.369	1.286	0.029	-6.3
Math	3	0107	C	1	8003	0.929	0.014	0.929	0.021	0.033	0.003	0.392	-0.305	0.392	-0.231	-0.264	-0.568	0.047	-2.0
Math	3	0108	A	1	8003	0.930	0.014	0.930	0.030	0.023	0.003	0.498	-0.334	0.498	-0.348	-0.346	-0.584	0.047	-6.3
Math	3	0109	D	2	8003	0.844	0.006	0.099	0.844	0.042	0.009	0.425	-0.234	-0.351	0.425	-0.356	0.491	0.034	-1.1
Math	3	0110	A	1	8003	0.940	0.940	0.019	0.017	0.023	0.001	0.463	0.463	-0.260	-0.271	-0.377	-0.760	0.050	-4.7
Math	3	0111	D	2	8003	0.701	0.225	0.701	0.037	0.034	0.003	0.403	-0.367	0.403	-0.346	-0.214	1.553	0.028	-1.3
Math	3	0112	B	1	8003	0.695	0.695	0.143	0.085	0.071	0.005	0.261	0.261	-0.186	-0.216	-0.210	1.589	0.028	8.5
Math	3	0113	A	1	8003	0.879	0.025	0.022	0.054	0.879	0.019	0.363	-0.239	-0.340	-0.257	0.363	0.137	0.038	2.4
Math	3	0114	A	2	8003	0.639	0.022	0.044	0.639	0.293	0.002	0.567	-0.442	-0.490	0.567	-0.552	1.919	0.027	-9.9
Math	3	0115	A	1	7998	0.877	0.040	0.033	0.040	0.877	0.010	0.455	-0.362	-0.309	-0.316	0.455	0.157	0.037	-3.7
Math	3	0116	A	1	7998	0.865	0.865	0.024	0.077	0.021	0.012	0.535	0.535	-0.254	-0.510	-0.397	0.280	0.036	-6.3
Math	3	0117	C	1	7998	0.975	0.007	0.975	0.011	0.004	0.002	0.277	-0.195	0.277	-0.152	-0.189	-1.804	0.075	-1.2
Math	3	0118	E	2	7998	0.953	0.011	0.953	0.018	0.016	0.001	0.389	-0.333	0.389	-0.261	-0.169	-1.064	0.056	-1.5
Math	3	0119	A	1	7998	0.871	0.045	0.051	0.871	0.032	0.001	0.464	-0.379	-0.317	0.464	-0.310	0.223	0.037	-2.1
Math	3	0120	A	1	7998	0.921	0.034	0.921	0.008	0.036	0.001	0.460	-0.374	0.460	-0.234	-0.313	-0.430	0.045	-5.6
Math	3	0121	A	1	7998	0.912	0.912	0.035	0.028	0.021	0.004	0.458	0.458	-0.370	-0.289	-0.279	-0.293	0.043	-3.0
Math	3	0122	D	1	7998	0.772	0.035	0.146	0.046	0.772	0.002	0.486	-0.336	-0.465	-0.285	0.486	1.082	0.030	-6.6
Math	3	0123	B	1	7998	0.820	0.119	0.044	0.820	0.012	0.005	0.393	-0.342	-0.257	0.393	-0.252	0.702	0.033	1.1
Math	3	0124	C	1	7998	0.973	0.973	0.004	0.011	0.010	0.002	0.196	0.196	-0.109	-0.125	-0.124	-1.717	0.072	2.8
Math	3	0125	A	2	7998	0.914	0.025	0.043	0.914	0.013	0.004	0.320	-0.235	-0.201	0.320	-0.241	-0.330	0.043	2.6
Math	3	0126	E	2	7998	0.233	0.233	0.358	0.091	0.316	0.001	0.188	0.188	-0.192	-0.252	-0.255	4.185	0.030	9.9
Math	3	0127	A	1	8016	0.915	0.029	0.010	0.915	0.018	0.028	0.348	-0.319	-0.256	0.348	-0.218	-0.322	0.043	3.2
Math	3	0128	E	2	8016	0.855	0.855	0.048	0.028	0.064	0.004	0.452	0.452	-0.322	-0.208	-0.390	0.396	0.035	-4.8
Math	3	0129	A	2	8016	0.802	0.068	0.079	0.802	0.051	0.001	0.411	-0.240	-0.343	0.411	-0.341	0.867	0.031	-2.5

Appendix J: 2007 Grades 3–8 and 11 Multiple-Choice Statistics

Information						Proportions						Correlations					Rasch		
Cont.	Grade	Pub. ID	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Math	3	0130	C	1	8016	0.953	0.008	0.029	0.010	0.953	0.001	0.187	-0.144	-0.120	-0.096	0.187	-1.057	0.056	6.2
Math	3	0131	D	1	8016	0.943	0.019	0.943	0.008	0.023	0.007	0.290	-0.241	0.290	-0.193	-0.153	-0.835	0.052	1.2
Math	3	0132	A	1	8016	0.921	0.027	0.921	0.016	0.036	0.000	0.349	-0.242	0.349	-0.268	-0.209	-0.427	0.045	3.7
Math	3	0133	A	1	8016	0.615	0.041	0.050	0.615	0.290	0.003	0.339	-0.324	-0.279	0.339	-0.301	2.060	0.026	6.4
Math	3	0134	A	1	8016	0.919	0.013	0.052	0.919	0.012	0.003	0.392	-0.224	-0.302	0.392	-0.278	-0.385	0.044	-0.7
Math	3	0135	C	1	8016	0.965	0.004	0.025	0.004	0.965	0.002	0.308	-0.225	-0.245	-0.123	0.308	-1.391	0.064	0.5
Math	3	0136	E	2	8016	0.902	0.031	0.049	0.016	0.902	0.001	0.369	-0.247	-0.194	-0.370	0.369	-0.137	0.041	3.2
Math	3	0137	C	1	8016	0.948	0.038	0.948	0.007	0.007	0.001	0.384	-0.313	0.384	-0.181	-0.229	-0.935	0.053	-2.8
Math	3	0138	A	1	8016	0.889	0.040	0.889	0.027	0.043	0.002	0.422	-0.320	0.422	-0.367	-0.225	0.029	0.039	1.6
Math	3	0139	A	2	7922	0.915	0.041	0.022	0.915	0.015	0.006	0.465	-0.318	-0.379	0.465	-0.291	-0.357	0.044	-2.4
Math	3	0140	B	2	7922	0.868	0.048	0.037	0.868	0.031	0.015	0.335	-0.258	-0.250	0.335	-0.195	0.233	0.037	3.3
Math	3	0141	C	1	7922	0.960	0.960	0.026	0.003	0.007	0.003	0.230	0.230	-0.157	-0.164	-0.147	-1.274	0.060	2.3
Math	3	0142	A	1	7922	0.794	0.024	0.162	0.018	0.794	0.002	0.552	-0.291	-0.536	-0.283	0.552	0.904	0.031	-9.9
Math	3	0143	D	2	7922	0.927	0.927	0.037	0.011	0.022	0.003	0.410	0.410	-0.312	-0.326	-0.206	-0.542	0.046	-1.2
Math	3	0144	A	1	7922	0.909	0.036	0.028	0.021	0.909	0.005	0.484	-0.395	-0.324	-0.278	0.484	-0.272	0.043	-5.9
Math	3	0145	B	1	7922	0.896	0.003	0.009	0.896	0.091	0.000	0.295	-0.130	-0.155	0.295	-0.262	-0.088	0.040	1.1
Math	3	0146	B	2	7922	0.953	0.953	0.027	0.012	0.007	0.001	0.377	0.377	-0.271	-0.236	-0.229	-1.070	0.056	-3.1
Math	3	0147	A	1	7922	0.944	0.027	0.944	0.017	0.008	0.004	0.328	-0.236	0.328	-0.184	-0.229	-0.881	0.052	0.7
Math	3	0148	E	2	7922	0.830	0.080	0.065	0.022	0.830	0.001	0.408	-0.395	-0.169	-0.354	0.408	0.602	0.033	4.3
Math	3	0149	A	1	7922	0.759	0.113	0.759	0.046	0.081	0.001	0.366	-0.296	0.366	-0.296	-0.264	1.161	0.030	6.0
Math	3	0150	C	1	7922	0.926	0.926	0.013	0.010	0.049	0.002	0.303	0.303	-0.279	-0.195	-0.178	-0.533	0.046	3.8
Math	3	0151	A	1	8030	0.964	0.008	0.014	0.964	0.009	0.005	0.293	-0.229	-0.126	0.293	-0.238	-1.378	0.063	0.7
Math	3	0152	B	2	8030	0.768	0.087	0.768	0.094	0.039	0.011	0.293	-0.194	0.293	-0.277	-0.176	1.124	0.030	9.9
Math	3	0153	E	2	8030	0.897	0.036	0.022	0.897	0.039	0.003	0.430	-0.330	-0.276	0.430	-0.267	-0.076	0.040	0.2
Math	3	0154	A	1	8030	0.770	0.160	0.770	0.045	0.022	0.002	0.380	-0.308	0.380	-0.276	-0.333	1.110	0.030	1.8
Math	3	0155	A	1	8030	0.873	0.047	0.053	0.020	0.873	0.006	0.457	-0.312	-0.326	-0.376	0.457	0.207	0.037	-2.6
Math	3	0156	D	2	8030	0.891	0.891	0.037	0.015	0.054	0.003	0.481	0.481	-0.377	-0.300	-0.352	0.005	0.039	-4.0
Math	3	0157	A	1	8030	0.835	0.066	0.835	0.031	0.059	0.009	0.398	-0.279	0.398	-0.232	-0.337	0.592	0.034	-3.0
Math	3	0158	A	1	8030	0.894	0.894	0.022	0.032	0.051	0.001	0.456	0.456	-0.116	-0.350	-0.423	-0.039	0.040	-1.7
Math	3	0159	A	2	8030	0.716	0.245	0.018	0.716	0.019	0.001	0.531	-0.521	-0.372	0.531	-0.273	1.475	0.028	-9.4
Math	3	0160	E	2	8030	0.950	0.012	0.950	0.030	0.005	0.003	0.346	-0.245	0.346	-0.241	-0.189	-0.984	0.054	1.2
Math	3	0161	C	1	8030	0.986	0.986	0.003	0.002	0.001	0.007	0.160	0.160	-0.150	-0.120	-0.132	-2.447	0.099	3.2
Math	3	0162	B	1	8030	0.872	0.012	0.041	0.872	0.074	0.001	0.360	-0.228	-0.197	0.360	-0.313	0.220	0.037	2.2
Math	3	0163	B	1	7972	0.831	0.068	0.016	0.079	0.831	0.006	0.522	-0.432	-0.175	-0.479	0.522	0.626	0.033	-7.2
Math	3	0164	E	2	7972	0.917	0.027	0.019	0.031	0.917	0.004	0.470	-0.379	-0.205	-0.351	0.470	-0.359	0.044	-3.2
Math	3	0165	A	1	7972	0.954	0.016	0.954	0.013	0.015	0.002	0.425	-0.292	0.425	-0.253	-0.284	-1.088	0.057	-3.8
Math	3	0166	A	1	7972	0.858	0.083	0.858	0.028	0.023	0.007	0.534	-0.463	0.534	-0.361	-0.358	0.370	0.036	-7.6
Math	3	0167	C	1	7972	0.836	0.012	0.122	0.027	0.836	0.003	0.503	-0.265	-0.467	-0.303	0.503	0.581	0.034	-6.2
Math	3	0168	E	2	7972	0.916	0.916	0.011	0.012	0.059	0.001	0.434	0.434	-0.153	-0.243	-0.393	-0.349	0.044	-2.9
Math	3	0169	A	1	7972	0.888	0.031	0.040	0.040	0.888	0.002	0.538	-0.397	-0.419	-0.356	0.538	0.041	0.039	-7.0
Math	3	0170	B	1	7972	0.846	0.028	0.846	0.036	0.089	0.001	0.384	-0.217	0.384	-0.266	-0.328	0.491	0.035	1.8
Math	3	0171	A	1	7972	0.931	0.019	0.022	0.018	0.931	0.010	0.446	-0.316	-0.319	-0.289	0.446	-0.597	0.048	-4.3
Math	3	0172	D	2	7972	0.906	0.044	0.906	0.013	0.031	0.005	0.416	-0.379	0.416	-0.230	-0.228	-0.205	0.042	-1.1

Appendix J: 2007 Grades 3–8 and 11 Multiple-Choice Statistics

Information					Proportions							Correlations					Rasch		
Cont.	Grade	Pub. ID	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Math	3	0173	A	1	7972	0.591	0.050	0.591	0.305	0.046	0.008	0.374	-0.400	0.374	-0.329	-0.299	2.212	0.026	3.0
Math	3	0174	A	2	7972	0.588	0.588	0.122	0.153	0.135	0.001	0.440	0.440	-0.383	-0.473	-0.352	2.225	0.026	-3.7
Math	3	0175	C	1	7964	0.935	0.015	0.935	0.031	0.013	0.006	0.410	-0.221	0.410	-0.333	-0.244	-0.674	0.049	-3.7
Math	3	0176	D	2	7964	0.977	0.008	0.009	0.977	0.004	0.001	0.275	-0.185	-0.175	0.275	-0.141	-1.896	0.078	-0.4
Math	3	0177	A	1	7964	0.944	0.006	0.028	0.944	0.019	0.003	0.400	-0.234	-0.233	0.400	-0.342	-0.865	0.052	-0.9
Math	3	0178	A	1	7964	0.937	0.008	0.937	0.039	0.014	0.002	0.455	-0.152	0.455	-0.390	-0.310	-0.723	0.050	-5.3
Math	3	0179	D	2	7964	0.906	0.014	0.069	0.009	0.906	0.003	0.432	-0.286	-0.352	-0.270	0.432	-0.201	0.042	-2.0
Math	3	0180	A	1	7964	0.958	0.958	0.014	0.005	0.016	0.007	0.348	0.348	-0.245	-0.200	-0.264	-1.193	0.059	-0.1
Math	3	0181	B	1	7964	0.869	0.067	0.020	0.041	0.869	0.003	0.359	-0.326	-0.229	-0.166	0.359	0.249	0.037	2.0
Math	3	0182	C	1	7964	0.900	0.008	0.009	0.079	0.900	0.004	0.375	-0.231	-0.191	-0.323	0.375	-0.124	0.041	0.3
Math	3	0183	E	2	7964	0.943	0.010	0.018	0.027	0.943	0.001	0.391	-0.285	-0.217	-0.273	0.391	-0.836	0.052	0.7
Math	3	0184	A	1	7964	0.905	0.037	0.029	0.905	0.027	0.001	0.433	-0.309	-0.286	0.433	-0.306	-0.200	0.042	-0.5
Math	3	0185	A	1	7964	0.834	0.060	0.834	0.017	0.086	0.003	0.500	-0.531	0.500	-0.288	-0.304	0.589	0.034	-3.8
Math	3	0186	A	1	7964	0.842	0.020	0.065	0.842	0.070	0.002	0.492	-0.366	-0.411	0.492	-0.348	0.516	0.034	-3.4
Math	3	0187	A	2	7959	0.897	0.897	0.030	0.033	0.032	0.008	0.470	0.470	-0.422	-0.320	-0.248	-0.086	0.040	-2.8
Math	3	0188	A	1	7959	0.926	0.012	0.926	0.041	0.018	0.003	0.379	-0.283	0.379	-0.280	-0.198	-0.528	0.046	-1.2
Math	3	0189	C	1	7959	0.962	0.017	0.011	0.009	0.962	0.001	0.351	-0.230	-0.232	-0.198	0.351	-1.326	0.062	-3.4
Math	3	0190	D	2	7959	0.840	0.036	0.078	0.044	0.840	0.003	0.558	-0.414	-0.490	-0.351	0.558	0.537	0.034	-9.5
Math	3	0191	E	1	7959	0.913	0.017	0.913	0.034	0.029	0.007	0.360	-0.318	0.360	-0.276	-0.154	-0.316	0.043	4.5
Math	3	0192	E	2	7959	0.937	0.031	0.020	0.010	0.937	0.001	0.396	-0.329	-0.166	-0.261	0.396	-0.717	0.049	-0.2
Math	3	0193	C	1	7959	0.911	0.031	0.025	0.032	0.911	0.000	0.498	-0.326	-0.294	-0.414	0.498	-0.290	0.043	-6.9
Math	3	0194	A	2	7959	0.828	0.069	0.064	0.828	0.030	0.009	0.445	-0.333	-0.344	0.445	-0.355	0.640	0.033	-2.0
Math	3	0195	A	2	7959	0.789	0.107	0.050	0.037	0.789	0.016	0.341	-0.155	-0.395	-0.281	0.341	0.962	0.031	4.8
Math	3	0196	A	1	7959	0.957	0.957	0.014	0.014	0.015	0.001	0.433	0.433	-0.205	-0.267	-0.365	-1.177	0.058	-3.4
Math	3	0197	D	1	7959	0.844	0.031	0.844	0.111	0.013	0.002	0.381	-0.305	0.381	-0.286	-0.268	0.499	0.035	-0.8
Math	3	0198	A	2	7959	0.659	0.659	0.108	0.036	0.192	0.006	0.435	0.435	-0.388	-0.328	-0.384	1.827	0.027	-1.7
Math	3	0199	A	1	7970	0.906	0.038	0.030	0.017	0.906	0.008	0.373	-0.252	-0.262	-0.248	0.373	-0.203	0.042	0.9
Math	3	0200	B	1	7970	0.870	0.045	0.870	0.047	0.031	0.007	0.358	-0.310	0.358	-0.209	-0.211	0.242	0.037	0.0
Math	3	0201	A	2	7970	0.865	0.017	0.865	0.082	0.032	0.004	0.507	-0.338	0.507	-0.444	-0.301	0.292	0.036	-4.3
Math	3	0202	D	2	7970	0.886	0.040	0.055	0.886	0.016	0.002	0.536	-0.451	-0.411	0.536	-0.284	0.060	0.039	-7.2
Math	3	0203	A	2	7970	0.749	0.199	0.025	0.749	0.020	0.008	0.545	-0.549	-0.339	0.545	-0.258	1.262	0.029	-7.7
Math	3	0204	A	1	7970	0.863	0.863	0.051	0.056	0.027	0.003	0.355	0.355	-0.372	-0.124	-0.269	0.318	0.036	3.7
Math	3	0205	E	2	7970	0.913	0.024	0.028	0.031	0.913	0.002	0.386	-0.332	-0.130	-0.304	0.386	-0.303	0.043	1.2
Math	3	0206	C	1	7970	0.974	0.005	0.004	0.016	0.974	0.001	0.275	-0.198	-0.164	-0.167	0.275	-1.757	0.074	-1.0
Math	3	0207	B	2	7970	0.882	0.066	0.882	0.037	0.010	0.005	0.353	-0.278	0.353	-0.218	-0.267	0.104	0.038	3.5
Math	3	0208	D	2	7970	0.921	0.013	0.026	0.921	0.034	0.007	0.415	-0.318	-0.324	0.415	-0.254	-0.427	0.045	-1.6
Math	3	0209	A	1	7970	0.903	0.903	0.044	0.027	0.024	0.001	0.498	0.498	-0.414	-0.306	-0.306	-0.165	0.041	-3.7
Math	3	0210	A	1	7970	0.730	0.177	0.020	0.730	0.068	0.005	0.485	-0.477	-0.333	0.485	-0.301	1.389	0.029	-5.2
Math	3	0211	A	2	8004	0.768	0.034	0.768	0.122	0.068	0.008	0.497	-0.324	0.497	-0.430	-0.409	1.134	0.030	-7.3
Math	3	0212	E	2	8004	0.988	0.003	0.001	0.004	0.988	0.004	0.176	-0.155	-0.123	-0.082	0.176	-2.555	0.105	0.2
Math	3	0213	D	1	8004	0.919	0.919	0.013	0.039	0.026	0.003	0.296	0.296	-0.197	-0.151	-0.256	-0.376	0.044	3.4
Math	3	0214	A	1	8004	0.875	0.036	0.056	0.875	0.027	0.006	0.454	-0.285	-0.328	0.454	-0.389	0.200	0.037	-4.1
Math	3	0215	B	1	8004	0.801	0.057	0.020	0.117	0.801	0.004	0.298	-0.376	-0.248	-0.119	0.298	0.882	0.031	9.9

Appendix J: 2007 Grades 3–8 and 11 Multiple-Choice Statistics

Information					Proportions							Correlations					Rasch		
Cont.	Grade	Pub. ID	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Math	3	0216	C	1	8004	0.854	0.004	0.120	0.854	0.020	0.002	0.291	-0.259	-0.210	0.291	-0.268	0.418	0.035	3.4
Math	3	0217	A	1	8004	0.699	0.174	0.016	0.104	0.699	0.007	0.490	-0.431	-0.421	-0.438	0.490	1.591	0.028	-5.7
Math	3	0218	A	1	8004	0.887	0.887	0.033	0.046	0.031	0.002	0.433	0.433	-0.209	-0.320	-0.390	0.057	0.039	-3.1
Math	3	0219	E	2	8004	0.962	0.008	0.024	0.006	0.962	0.001	0.431	-0.274	-0.356	-0.165	0.431	-1.295	0.062	-5.1
Math	3	0220	A	1	8004	0.954	0.954	0.007	0.022	0.011	0.005	0.392	0.392	-0.231	-0.279	-0.263	-1.076	0.057	-4.2
Math	3	0221	A	1	8004	0.926	0.032	0.014	0.926	0.014	0.014	0.330	-0.174	-0.250	0.330	-0.329	-0.488	0.046	4.2
Math	3	0222	D	2	8004	0.980	0.005	0.003	0.010	0.980	0.001	0.192	-0.126	-0.115	-0.121	0.192	-2.029	0.083	3.9
Math	3	0223	A	2	7942	0.776	0.168	0.023	0.776	0.013	0.020	0.512	-0.482	-0.398	0.512	-0.319	1.068	0.030	-7.6
Math	3	0224	E	2	7942	0.941	0.023	0.941	0.021	0.009	0.004	0.379	-0.346	0.379	-0.168	-0.201	-0.789	0.051	1.3
Math	3	0225	A	1	7942	0.909	0.909	0.058	0.020	0.012	0.001	0.374	0.374	-0.227	-0.277	-0.337	-0.236	0.042	1.3
Math	3	0226	D	2	7942	0.850	0.020	0.046	0.850	0.083	0.002	0.523	-0.360	-0.356	0.523	-0.450	0.453	0.035	-6.7
Math	3	0227	B	1	7942	0.660	0.109	0.660	0.043	0.181	0.006	0.370	-0.199	0.370	-0.436	-0.355	1.819	0.027	5.8
Math	3	0228	E	2	7942	0.939	0.046	0.939	0.010	0.003	0.001	0.374	-0.283	0.374	-0.270	-0.191	-0.740	0.050	2.0
Math	3	0229	C	1	7942	0.943	0.943	0.022	0.016	0.018	0.001	0.419	0.419	-0.270	-0.266	-0.292	-0.826	0.052	-4.9
Math	3	0230	B	1	7942	0.684	0.684	0.087	0.162	0.064	0.003	0.361	0.361	-0.347	-0.291	-0.225	1.681	0.028	3.5
Math	3	0231	D	2	7942	0.713	0.041	0.017	0.713	0.211	0.018	0.331	-0.486	-0.400	0.331	-0.193	1.501	0.028	9.4
Math	3	0232	E	2	7942	0.963	0.005	0.011	0.963	0.019	0.001	0.243	-0.222	-0.156	0.243	-0.118	-1.349	0.063	1.4
Math	3	0233	A	2	7942	0.704	0.116	0.115	0.061	0.704	0.003	0.495	-0.477	-0.395	-0.369	0.495	1.555	0.028	-6.1
Math	3	0234	B	2	7942	0.841	0.841	0.104	0.029	0.020	0.006	0.480	0.480	-0.354	-0.383	-0.439	0.537	0.034	-2.5
Math	3	0235	A	1	7616	0.934	0.934	0.034	0.012	0.015	0.006	0.361	0.361	-0.337	-0.151	-0.163	-0.645	0.050	-1.1
Math	3	0236	B	1	7616	0.852	0.031	0.852	0.041	0.074	0.002	0.390	-0.210	0.390	-0.317	-0.303	0.433	0.036	0.6
Math	3	0237	A	1	7616	0.665	0.665	0.066	0.054	0.215	0.001	0.433	0.433	-0.430	-0.265	-0.379	1.780	0.028	-3.3
Math	3	0238	D	1	7616	0.914	0.010	0.045	0.025	0.914	0.005	0.438	-0.300	-0.302	-0.339	0.438	-0.315	0.044	-4.1
Math	3	0239	E	2	7616	0.967	0.967	0.007	0.017	0.006	0.001	0.393	0.393	-0.271	-0.305	-0.144	-1.445	0.067	-2.5
Math	3	0240	C	1	7616	0.785	0.133	0.785	0.080	0.002	0.000	0.291	-0.195	0.291	-0.300	-0.133	0.998	0.031	5.1
Math	3	0241	D	1	7616	0.736	0.103	0.065	0.091	0.736	0.004	0.437	-0.386	-0.387	-0.300	0.437	1.342	0.029	-3.9
Math	3	0242	A	1	7616	0.951	0.011	0.019	0.014	0.951	0.005	0.443	-0.331	-0.285	-0.295	0.443	-0.998	0.056	-3.1
Math	3	0243	A	2	7616	0.722	0.039	0.139	0.099	0.722	0.001	0.508	-0.434	-0.377	-0.522	0.508	1.434	0.029	-5.5
Math	3	0244	B	1	7616	0.636	0.097	0.636	0.085	0.179	0.002	0.380	-0.360	0.380	-0.342	-0.296	1.946	0.027	1.8
Math	3	0245	A	1	7616	0.801	0.087	0.801	0.048	0.060	0.004	0.550	-0.491	0.550	-0.396	-0.405	0.871	0.032	-9.9
Math	3	0246	A	1	7616	0.675	0.266	0.028	0.675	0.030	0.001	0.246	-0.164	-0.287	0.246	-0.323	1.720	0.028	9.9
Math	4	0247	A	1	128218	0.834	0.077	0.056	0.834	0.033	0.000	0.261	-0.181	-0.186	0.261	-0.157	-0.829	0.008	9.9
Math	4	0248	A	1	128218	0.771	0.156	0.771	0.052	0.020	0.000	0.380	-0.307	0.380	-0.276	-0.225	-0.352	0.007	-8.8
Math	4	0249	A	2	128218	0.727	0.085	0.114	0.727	0.073	0.000	0.527	-0.451	-0.358	0.527	-0.426	-0.070	0.007	-9.9
Math	4	0250	A	2	128218	0.735	0.100	0.081	0.735	0.083	0.001	0.504	-0.447	-0.342	0.504	-0.354	-0.118	0.007	-9.9
Math	4	0251	A	1	128218	0.910	0.910	0.014	0.047	0.029	0.000	0.354	0.354	-0.134	-0.297	-0.208	-1.616	0.010	-9.9
Math	4	0252	B	1	128218	0.638	0.638	0.223	0.086	0.051	0.001	0.407	0.407	-0.332	-0.488	-0.120	0.441	0.006	2.1
Math	4	0253	D	1	128218	0.564	0.341	0.049	0.045	0.564	0.001	0.371	-0.330	-0.349	-0.236	0.371	0.832	0.006	8.1
Math	4	0254	A	1	128218	0.633	0.101	0.065	0.633	0.200	0.000	0.393	-0.330	-0.262	0.393	-0.336	0.469	0.006	2.6
Math	4	0255	A	2	128218	0.501	0.042	0.501	0.372	0.083	0.002	0.309	-0.341	0.309	-0.225	-0.395	1.150	0.006	9.9
Math	4	0256	C	1	128218	0.406	0.274	0.406	0.217	0.102	0.001	0.252	-0.229	0.252	-0.258	-0.239	1.638	0.006	9.9
Math	4	0257	A	2	128218	0.429	0.538	0.017	0.429	0.015	0.001	0.433	-0.426	-0.341	0.433	-0.335	1.521	0.006	-9.9
Math	4	0258	C	1	128218	0.489	0.214	0.118	0.178	0.489	0.001	0.283	-0.140	-0.268	-0.372	0.283	1.213	0.006	9.9

Appendix J: 2007 Grades 3–8 and 11 Multiple-Choice Statistics

Information					Proportions							Correlations					Rasch		
Cont.	Grade	Pub. ID	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Math	4	0259	A	1	128218	0.682	0.241	0.040	0.682	0.036	0.001	0.416	-0.328	-0.387	0.416	-0.341	0.200	0.007	-2.1
Math	4	0260	C	1	128218	0.679	0.107	0.131	0.679	0.083	0.001	0.351	-0.277	-0.291	0.351	-0.228	0.218	0.007	8.4
Math	4	0261	A	1	128218	0.604	0.047	0.078	0.269	0.604	0.001	0.385	-0.406	-0.410	-0.266	0.385	0.625	0.006	5.4
Math	4	0262	B	1	128218	0.733	0.068	0.733	0.122	0.075	0.002	0.384	-0.311	0.384	-0.272	-0.283	-0.104	0.007	3.4
Math	4	0263	B	1	128218	0.590	0.104	0.121	0.183	0.590	0.001	0.486	-0.355	-0.458	-0.432	0.486	0.698	0.006	-9.9
Math	4	0264	E	2	128218	0.740	0.093	0.740	0.051	0.114	0.002	0.435	-0.348	0.435	-0.313	-0.315	-0.150	0.007	-9.9
Math	4	0265	A	1	128218	0.572	0.053	0.572	0.130	0.244	0.002	0.348	-0.314	0.348	-0.329	-0.262	0.790	0.006	9.9
Math	4	0266	E	2	128218	0.790	0.053	0.790	0.074	0.081	0.002	0.382	-0.284	0.382	-0.285	-0.250	-0.484	0.008	-1.4
Math	4	0267	D	2	128218	0.588	0.216	0.118	0.588	0.074	0.004	0.405	-0.385	-0.293	0.405	-0.313	0.707	0.006	-0.6
Math	4	0268	C	1	128218	0.901	0.022	0.066	0.011	0.901	0.000	0.313	-0.195	-0.242	-0.153	0.313	-1.500	0.010	-7.5
Math	4	0269	B	1	128218	0.677	0.027	0.157	0.138	0.677	0.000	0.541	-0.418	-0.489	-0.412	0.541	0.227	0.007	-9.9
Math	4	0270	A	2	128218	0.402	0.550	0.402	0.026	0.021	0.000	0.388	-0.383	0.388	-0.245	-0.340	1.660	0.006	9.9
Math	4	0271	E	2	128218	0.583	0.060	0.180	0.176	0.583	0.000	0.426	-0.403	-0.275	-0.432	0.426	0.736	0.006	-9.3
Math	4	0272	A	1	128218	0.856	0.059	0.856	0.054	0.030	0.000	0.324	-0.209	0.324	-0.223	-0.219	-1.023	0.009	-0.1
Math	4	0273	B	1	128218	0.400	0.400	0.127	0.097	0.375	0.001	0.238	0.238	-0.343	-0.317	-0.145	1.672	0.006	9.9
Math	4	0274	A	1	128218	0.711	0.060	0.711	0.159	0.068	0.001	0.356	-0.193	0.356	-0.327	-0.237	0.028	0.007	3.7
Math	4	0275	E	1	128218	0.885	0.015	0.039	0.060	0.885	0.000	0.215	-0.213	-0.151	-0.099	0.215	-1.312	0.009	9.9
Math	4	0276	A	2	128218	0.590	0.172	0.221	0.590	0.016	0.001	0.309	-0.362	-0.188	0.309	-0.249	0.698	0.006	9.9
Math	4	0277	A	2	128218	0.463	0.294	0.167	0.463	0.073	0.002	0.361	-0.343	-0.321	0.361	-0.354	1.342	0.006	9.9
Math	4	0278	C	1	128218	0.781	0.169	0.781	0.023	0.026	0.000	0.263	-0.195	0.263	-0.221	-0.183	-0.421	0.007	9.9
Math	4	0279	A	2	128218	0.895	0.895	0.036	0.009	0.060	0.000	0.418	0.418	-0.167	-0.181	-0.411	-1.424	0.010	-9.9
Math	4	0280	A	2	128218	0.720	0.059	0.104	0.720	0.116	0.001	0.441	-0.252	-0.296	0.441	-0.422	-0.024	0.007	-9.9
Math	4	0281	A	1	128218	0.670	0.670	0.067	0.123	0.139	0.000	0.494	0.494	-0.345	-0.358	-0.454	0.267	0.007	-9.9
Math	4	0282	E	2	128218	0.767	0.065	0.100	0.067	0.767	0.000	0.481	-0.359	-0.376	-0.328	0.481	-0.327	0.007	-9.9
Math	4	0283	D	2	128218	0.837	0.086	0.039	0.037	0.837	0.000	0.397	-0.333	-0.221	-0.230	0.397	-0.852	0.008	-9.9
Math	4	0284	B	1	128218	0.852	0.064	0.022	0.852	0.061	0.000	0.380	-0.249	-0.237	0.380	-0.289	-0.981	0.009	-5.2
Math	4	0285	E	2	128218	0.738	0.738	0.103	0.061	0.097	0.001	0.550	0.550	-0.433	-0.396	-0.441	-0.133	0.007	-9.9
Math	4	0286	B	1	128218	0.755	0.013	0.099	0.755	0.131	0.000	0.439	-0.206	-0.319	0.439	-0.388	-0.247	0.007	-9.9
Math	4	0287	D	2	128218	0.787	0.787	0.076	0.082	0.054	0.001	0.365	0.365	-0.315	-0.264	-0.182	-0.460	0.007	-1.0
Math	4	0288	B	1	128218	0.568	0.287	0.037	0.568	0.106	0.001	0.301	-0.228	-0.385	0.301	-0.267	0.810	0.006	9.9
Math	4	0289	E	1	128218	0.761	0.041	0.039	0.761	0.158	0.001	0.488	-0.353	-0.287	0.488	-0.418	-0.286	0.007	-9.9
Math	4	0290	D	1	128218	0.785	0.088	0.062	0.064	0.785	0.001	0.506	-0.384	-0.381	-0.345	0.506	-0.449	0.007	-9.9
Math	4	0291	A	2	128218	0.845	0.104	0.024	0.026	0.845	0.001	0.548	-0.498	-0.283	-0.273	0.548	-0.920	0.008	-9.9
Math	4	0292	A	2	128218	0.651	0.109	0.065	0.174	0.651	0.001	0.397	-0.344	-0.356	-0.285	0.397	0.373	0.007	3.8
Math	4	0293	B	2	128218	0.422	0.140	0.422	0.390	0.046	0.001	0.303	-0.491	0.303	-0.188	-0.321	1.553	0.006	9.9
Math	4	0294	A	1	128218	0.636	0.636	0.114	0.092	0.157	0.001	0.280	0.280	-0.156	-0.241	-0.259	0.453	0.006	9.9
Math	4	0295	D	1	128218	0.852	0.852	0.059	0.050	0.037	0.001	0.427	0.427	-0.298	-0.290	-0.281	-0.987	0.009	-9.9
Math	4	0296	A	1	128218	0.676	0.109	0.088	0.126	0.676	0.001	0.471	-0.345	-0.327	-0.436	0.471	0.236	0.007	-9.9
Math	4	0297	E	1	128218	0.914	0.021	0.026	0.038	0.914	0.001	0.382	-0.240	-0.248	-0.252	0.382	-1.668	0.011	-9.9
Math	4	0298	E	2	128218	0.763	0.048	0.763	0.113	0.075	0.001	0.476	-0.358	0.476	-0.349	-0.362	-0.297	0.007	-9.9
Math	4	0299	A	1	128218	0.613	0.613	0.162	0.096	0.127	0.001	0.401	0.401	-0.395	-0.397	-0.207	0.576	0.006	8.9
Math	4	0300	E	2	128218	0.726	0.125	0.070	0.078	0.726	0.002	0.507	-0.439	-0.366	-0.346	0.507	-0.058	0.007	-9.9
Math	4	0301	A	2	6874	0.795	0.132	0.795	0.037	0.035	0.001	0.495	-0.412	0.495	-0.321	-0.310	-0.618	0.033	-7.2

Appendix J: 2007 Grades 3–8 and 11 Multiple-Choice Statistics

Information					Proportions							Correlations					Rasch		
Cont.	Grade	Pub. ID	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Math	4	0302	E	2	6874	0.828	0.048	0.021	0.828	0.103	0.000	0.414	-0.347	-0.226	0.414	-0.286	-0.876	0.035	-4.0
Math	4	0303	D	1	6874	0.809	0.036	0.055	0.099	0.809	0.000	0.508	-0.303	-0.376	-0.400	0.508	-0.725	0.034	-9.6
Math	4	0304	A	1	6874	0.784	0.070	0.070	0.784	0.075	0.001	0.464	-0.306	-0.401	0.464	-0.297	-0.537	0.032	-5.5
Math	4	0305	C	1	6874	0.740	0.740	0.074	0.047	0.137	0.000	0.342	0.342	-0.302	-0.284	-0.205	-0.247	0.030	2.9
Math	4	0306	C	1	6874	0.738	0.098	0.111	0.052	0.738	0.000	0.404	-0.279	-0.326	-0.285	0.404	-0.233	0.030	-2.7
Math	4	0307	B	1	6874	0.706	0.111	0.706	0.130	0.052	0.001	0.496	-0.397	0.496	-0.402	-0.345	-0.032	0.029	-7.6
Math	4	0308	E	2	6874	0.574	0.081	0.196	0.574	0.147	0.001	0.442	-0.335	-0.456	0.442	-0.299	0.688	0.027	-2.4
Math	4	0309	D	2	6874	0.712	0.712	0.088	0.063	0.135	0.001	0.381	0.381	-0.339	-0.350	-0.215	-0.072	0.030	3.0
Math	4	0310	A	1	6874	0.828	0.038	0.828	0.041	0.092	0.001	0.481	-0.298	0.481	-0.281	-0.403	-0.876	0.035	-7.0
Math	4	0311	A	1	6874	0.659	0.029	0.257	0.054	0.659	0.001	0.289	-0.250	-0.231	-0.227	0.289	0.237	0.028	9.7
Math	4	0312	A	1	6874	0.881	0.024	0.039	0.052	0.881	0.003	0.437	-0.272	-0.248	-0.351	0.437	-1.379	0.040	-6.6
Math	4	0313	A	1	6381	0.774	0.157	0.774	0.023	0.045	0.001	0.394	-0.324	0.394	-0.269	-0.253	-0.383	0.033	-1.9
Math	4	0314	C	1	6381	0.645	0.167	0.146	0.645	0.041	0.001	0.369	-0.362	-0.272	0.369	-0.190	0.391	0.029	2.4
Math	4	0315	A	1	6381	0.544	0.336	0.050	0.069	0.544	0.001	0.344	-0.297	-0.327	-0.293	0.344	0.914	0.028	5.4
Math	4	0316	A	1	6381	0.879	0.879	0.083	0.020	0.016	0.001	0.399	0.399	-0.325	-0.244	-0.208	-1.262	0.041	-4.1
Math	4	0317	E	1	6381	0.928	0.015	0.928	0.017	0.039	0.000	0.268	-0.174	0.268	-0.197	-0.148	-1.904	0.051	0.2
Math	4	0318	B	1	6381	0.734	0.064	0.080	0.121	0.734	0.001	0.457	-0.327	-0.366	-0.339	0.457	-0.119	0.031	-5.6
Math	4	0319	E	1	6381	0.938	0.018	0.938	0.022	0.021	0.001	0.266	-0.177	0.266	-0.190	-0.119	-2.074	0.054	-2.3
Math	4	0320	C	1	6381	0.895	0.039	0.025	0.040	0.895	0.000	0.325	-0.231	-0.185	-0.202	0.325	-1.442	0.043	-2.2
Math	4	0321	D	2	6381	0.753	0.138	0.035	0.074	0.753	0.001	0.548	-0.490	-0.317	-0.377	0.548	-0.239	0.032	-9.9
Math	4	0322	A	1	6381	0.898	0.031	0.898	0.039	0.031	0.001	0.406	-0.267	0.406	-0.252	-0.282	-1.476	0.044	-6.2
Math	4	0323	B	1	6381	0.788	0.788	0.020	0.157	0.033	0.001	0.423	0.423	-0.185	-0.381	-0.262	-0.482	0.033	-1.5
Math	4	0324	A	1	6381	0.832	0.033	0.056	0.832	0.076	0.004	0.396	-0.248	-0.228	0.396	-0.330	-0.815	0.036	-2.3
Math	4	0325	A	2	6390	0.592	0.255	0.592	0.127	0.025	0.001	0.362	-0.384	0.362	-0.193	-0.223	0.671	0.028	2.5
Math	4	0326	A	2	6390	0.707	0.141	0.101	0.707	0.049	0.001	0.441	-0.386	-0.301	0.441	-0.317	0.043	0.030	-4.0
Math	4	0327	A	1	6390	0.859	0.038	0.052	0.859	0.049	0.001	0.358	-0.300	-0.231	0.358	-0.197	-1.062	0.039	-1.1
Math	4	0328	A	1	6390	0.882	0.078	0.882	0.014	0.024	0.001	0.337	-0.316	0.337	-0.136	-0.135	-1.295	0.041	-2.2
Math	4	0329	C	1	6390	0.846	0.105	0.023	0.025	0.846	0.000	0.395	-0.321	-0.255	-0.222	0.395	-0.938	0.037	-3.2
Math	4	0330	E	2	6390	0.808	0.144	0.025	0.021	0.808	0.001	0.326	-0.251	-0.204	-0.247	0.326	-0.628	0.035	3.5
Math	4	0331	A	1	6390	0.607	0.071	0.607	0.179	0.141	0.002	0.444	-0.389	0.444	-0.216	-0.545	0.593	0.029	-2.3
Math	4	0332	C	1	6390	0.684	0.075	0.061	0.179	0.684	0.001	0.416	-0.331	-0.287	-0.345	0.416	0.176	0.030	-2.1
Math	4	0333	A	1	6390	0.830	0.067	0.036	0.830	0.066	0.001	0.370	-0.233	-0.278	0.370	-0.263	-0.804	0.036	-0.7
Math	4	0334	A	1	6390	0.677	0.032	0.230	0.059	0.677	0.001	0.272	-0.235	-0.217	-0.191	0.272	0.215	0.030	8.6
Math	4	0335	B	1	6390	0.751	0.105	0.082	0.062	0.751	0.001	0.489	-0.401	-0.376	-0.310	0.489	-0.227	0.032	-6.7
Math	4	0336	E	1	6390	0.947	0.947	0.010	0.015	0.025	0.003	0.346	0.346	-0.193	-0.184	-0.266	-2.262	0.058	-4.1
Math	4	0337	A	2	6377	0.513	0.223	0.513	0.134	0.130	0.000	0.401	-0.423	0.401	-0.296	-0.310	1.079	0.028	1.1
Math	4	0338	A	1	6377	0.760	0.054	0.126	0.760	0.060	0.000	0.396	-0.303	-0.235	0.396	-0.374	-0.264	0.032	-2.0
Math	4	0339	D	1	6377	0.766	0.108	0.766	0.077	0.047	0.001	0.455	-0.330	0.455	-0.336	-0.348	-0.302	0.032	-5.3
Math	4	0340	C	1	6377	0.775	0.068	0.775	0.055	0.102	0.001	0.401	-0.284	0.401	-0.203	-0.350	-0.360	0.033	-3.5
Math	4	0341	A	1	6377	0.833	0.025	0.117	0.833	0.024	0.001	0.462	-0.309	-0.364	0.462	-0.311	-0.794	0.036	-5.4
Math	4	0342	A	1	6377	0.905	0.045	0.024	0.905	0.024	0.001	0.340	-0.228	-0.182	0.340	-0.248	-1.540	0.045	-2.6
Math	4	0343	B	1	6377	0.604	0.038	0.604	0.255	0.102	0.001	0.294	-0.410	0.294	-0.171	-0.300	0.626	0.028	9.9
Math	4	0344	A	1	6377	0.639	0.192	0.639	0.090	0.078	0.001	0.495	-0.434	0.495	-0.359	-0.407	0.443	0.029	-8.3

Appendix J: 2007 Grades 3–8 and 11 Multiple-Choice Statistics

Information					Proportions							Correlations					Rasch		
Cont.	Grade	Pub. ID	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Math	4	0345	E	2	6377	0.924	0.032	0.023	0.924	0.019	0.001	0.351	-0.254	-0.200	0.351	-0.212	-1.808	0.050	-3.7
Math	4	0346	B	1	6377	0.485	0.072	0.485	0.094	0.347	0.001	0.349	-0.387	0.349	-0.383	-0.268	1.217	0.028	6.8
Math	4	0347	A	2	6377	0.782	0.081	0.080	0.782	0.056	0.001	0.468	-0.383	-0.294	0.468	-0.353	-0.408	0.033	-6.3
Math	4	0348	A	1	6377	0.851	0.045	0.057	0.851	0.042	0.004	0.245	-0.142	-0.138	0.245	-0.201	-0.954	0.038	2.7
Math	4	0349	A	2	6382	0.686	0.115	0.686	0.070	0.128	0.000	0.422	-0.245	0.422	-0.354	-0.392	0.198	0.030	-1.7
Math	4	0350	B	1	6382	0.790	0.098	0.031	0.080	0.790	0.000	0.280	-0.189	-0.265	-0.169	0.280	-0.459	0.033	4.7
Math	4	0351	A	2	6382	0.647	0.647	0.136	0.089	0.126	0.002	0.357	0.357	-0.249	-0.209	-0.370	0.407	0.029	1.6
Math	4	0352	D	1	6382	0.839	0.839	0.054	0.028	0.077	0.001	0.307	0.307	-0.259	-0.165	-0.190	-0.841	0.037	-0.5
Math	4	0353	A	1	6382	0.776	0.083	0.108	0.776	0.031	0.001	0.418	-0.272	-0.331	0.418	-0.302	-0.359	0.033	-3.8
Math	4	0354	A	1	6382	0.840	0.034	0.050	0.840	0.074	0.001	0.311	-0.191	-0.206	0.311	-0.219	-0.846	0.037	0.1
Math	4	0355	D	2	6382	0.752	0.090	0.067	0.089	0.752	0.001	0.449	-0.319	-0.359	-0.323	0.449	-0.203	0.032	-6.1
Math	4	0356	C	1	6382	0.703	0.136	0.125	0.703	0.034	0.001	0.392	-0.316	-0.309	0.392	-0.254	0.098	0.030	-2.0
Math	4	0357	B	1	6382	0.894	0.025	0.059	0.020	0.894	0.001	0.281	-0.269	-0.131	-0.182	0.281	-1.388	0.043	1.3
Math	4	0358	A	2	6382	0.862	0.077	0.033	0.862	0.026	0.001	0.429	-0.320	-0.287	0.429	-0.261	-1.045	0.039	-6.1
Math	4	0359	D	1	6382	0.853	0.853	0.044	0.062	0.040	0.002	0.382	0.382	-0.269	-0.269	-0.229	-0.957	0.038	-4.2
Math	4	0360	A	1	6382	0.541	0.057	0.061	0.541	0.338	0.004	0.303	-0.235	-0.322	0.303	-0.250	0.953	0.028	7.6
Math	4	0361	A	1	6407	0.877	0.014	0.065	0.043	0.877	0.000	0.361	-0.195	-0.279	-0.230	0.361	-1.241	0.041	-2.1
Math	4	0362	D	1	6407	0.778	0.778	0.063	0.058	0.099	0.001	0.412	0.412	-0.324	-0.339	-0.245	-0.411	0.033	-2.0
Math	4	0363	B	1	6407	0.856	0.027	0.856	0.103	0.012	0.001	0.336	-0.212	0.336	-0.265	-0.194	-1.039	0.038	-1.9
Math	4	0364	A	1	6407	0.809	0.809	0.076	0.061	0.051	0.001	0.406	0.406	-0.205	-0.300	-0.375	-0.640	0.035	-2.9
Math	4	0365	A	1	6407	0.633	0.056	0.146	0.164	0.633	0.000	0.418	-0.412	-0.363	-0.285	0.418	0.454	0.029	-1.7
Math	4	0366	E	2	6407	0.807	0.145	0.022	0.025	0.807	0.001	0.331	-0.247	-0.215	-0.267	0.331	-0.621	0.034	3.4
Math	4	0367	A	1	6407	0.555	0.555	0.055	0.169	0.220	0.001	0.471	0.471	-0.359	-0.385	-0.459	0.859	0.028	-5.4
Math	4	0368	A	1	6407	0.657	0.068	0.238	0.657	0.036	0.001	0.409	-0.297	-0.355	0.409	-0.306	0.326	0.029	-2.1
Math	4	0369	E	2	6407	0.937	0.019	0.024	0.018	0.937	0.001	0.314	-0.230	-0.169	-0.192	0.314	-2.069	0.054	-1.6
Math	4	0370	D	2	6407	0.941	0.018	0.022	0.017	0.941	0.001	0.323	-0.184	-0.232	-0.180	0.323	-2.146	0.055	-4.1
Math	4	0371	C	1	6407	0.564	0.564	0.239	0.123	0.072	0.002	0.318	0.318	-0.254	-0.300	-0.288	0.812	0.028	9.4
Math	4	0372	A	1	6407	0.691	0.066	0.137	0.102	0.691	0.004	0.446	-0.356	-0.336	-0.350	0.446	0.131	0.030	-4.0
Math	4	0373	A	1	6390	0.751	0.014	0.016	0.218	0.751	0.000	0.407	-0.239	-0.211	-0.372	0.407	-0.212	0.032	-2.3
Math	4	0374	A	1	6390	0.567	0.131	0.038	0.263	0.567	0.000	0.361	-0.391	-0.356	-0.252	0.361	0.808	0.028	3.8
Math	4	0375	A	2	6390	0.508	0.378	0.060	0.053	0.508	0.000	0.255	-0.161	-0.350	-0.337	0.255	1.102	0.028	9.9
Math	4	0376	D	2	6390	0.612	0.165	0.612	0.136	0.085	0.002	0.414	-0.322	0.414	-0.329	-0.370	0.579	0.028	-2.7
Math	4	0377	B	1	6390	0.554	0.200	0.042	0.554	0.203	0.000	0.357	-0.280	-0.292	0.357	-0.326	0.873	0.028	3.8
Math	4	0378	E	2	6390	0.931	0.026	0.931	0.018	0.024	0.001	0.305	-0.223	0.305	-0.176	-0.167	-1.925	0.051	-2.6
Math	4	0379	A	2	6390	0.607	0.165	0.079	0.146	0.607	0.002	0.485	-0.472	-0.318	-0.405	0.485	0.604	0.028	-7.0
Math	4	0380	B	1	6390	0.832	0.832	0.032	0.084	0.051	0.001	0.328	0.328	-0.196	-0.235	-0.237	-0.796	0.036	2.0
Math	4	0381	A	1	6390	0.607	0.068	0.607	0.100	0.225	0.001	0.477	-0.387	0.477	-0.312	-0.458	0.605	0.028	-6.1
Math	4	0382	C	1	6390	0.781	0.075	0.102	0.781	0.041	0.001	0.432	-0.329	-0.311	0.432	-0.305	-0.412	0.033	-4.4
Math	4	0383	D	2	6390	0.661	0.185	0.661	0.085	0.068	0.001	0.344	-0.158	0.344	-0.346	-0.405	0.317	0.029	4.1
Math	4	0384	E	2	6390	0.786	0.055	0.065	0.786	0.087	0.006	0.495	-0.364	-0.415	0.495	-0.326	-0.446	0.033	-7.9
Math	4	0385	A	1	6399	0.899	0.023	0.035	0.041	0.899	0.001	0.264	-0.208	-0.137	-0.170	0.264	-1.446	0.044	2.7
Math	4	0386	A	2	6399	0.804	0.043	0.048	0.804	0.104	0.000	0.507	-0.298	-0.295	0.507	-0.454	-0.558	0.034	-9.3
Math	4	0387	E	2	6399	0.937	0.020	0.937	0.023	0.019	0.000	0.303	-0.201	0.303	-0.182	-0.182	-2.029	0.054	-3.3

Appendix J: 2007 Grades 3–8 and 11 Multiple-Choice Statistics

Information					Proportions							Correlations					Rasch		
Cont.	Grade	Pub. ID	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Math	4	0388	B	2	6399	0.672	0.087	0.169	0.672	0.072	0.000	0.450	-0.438	-0.315	0.450	-0.342	0.284	0.030	-3.2
Math	4	0389	A	2	6399	0.769	0.077	0.094	0.769	0.059	0.001	0.520	-0.374	-0.434	0.520	-0.344	-0.308	0.033	-9.6
Math	4	0390	E	1	6399	0.932	0.018	0.025	0.024	0.932	0.001	0.320	-0.244	-0.158	-0.210	0.320	-1.923	0.052	-3.4
Math	4	0391	D	2	6399	0.809	0.052	0.809	0.092	0.046	0.001	0.461	-0.393	0.461	-0.312	-0.289	-0.592	0.035	-6.5
Math	4	0392	A	1	6399	0.812	0.063	0.812	0.052	0.073	0.000	0.468	-0.295	0.468	-0.323	-0.373	-0.613	0.035	-7.5
Math	4	0393	A	1	6399	0.729	0.156	0.082	0.729	0.033	0.000	0.471	-0.389	-0.329	0.471	-0.364	-0.050	0.031	-6.0
Math	4	0394	A	1	6399	0.737	0.126	0.737	0.085	0.050	0.002	0.453	-0.319	0.453	-0.348	-0.390	-0.099	0.031	-4.8
Math	4	0395	B	1	6399	0.842	0.842	0.045	0.053	0.057	0.003	0.310	0.310	-0.213	-0.262	-0.157	-0.868	0.037	1.5
Math	4	0396	E	2	6399	0.948	0.011	0.025	0.948	0.012	0.004	0.248	-0.134	-0.185	0.248	-0.148	-2.242	0.058	-1.0
Math	4	0397	A	1	6421	0.776	0.163	0.027	0.776	0.034	0.000	0.384	-0.318	-0.227	0.384	-0.270	-0.375	0.033	-1.8
Math	4	0398	C	2	6421	0.827	0.052	0.045	0.827	0.075	0.000	0.355	-0.232	-0.237	0.355	-0.254	-0.756	0.036	-2.2
Math	4	0399	E	1	6421	0.905	0.022	0.905	0.055	0.017	0.001	0.253	-0.237	0.253	-0.128	-0.163	-1.552	0.045	3.1
Math	4	0400	A	1	6421	0.666	0.234	0.666	0.083	0.016	0.001	0.371	-0.224	0.371	-0.484	-0.255	0.293	0.029	1.7
Math	4	0401	A	2	6421	0.658	0.658	0.068	0.085	0.187	0.002	0.582	0.582	-0.454	-0.377	-0.559	0.336	0.029	-9.9
Math	4	0402	A	1	6421	0.818	0.040	0.016	0.125	0.818	0.000	0.444	-0.260	-0.377	0.444	-0.280	-0.688	0.035	-5.6
Math	4	0403	B	1	6421	0.859	0.021	0.101	0.017	0.859	0.000	0.335	-0.211	-0.257	-0.214	0.335	-1.043	0.039	0.0
Math	4	0404	D	2	6421	0.832	0.832	0.053	0.076	0.038	0.001	0.484	0.484	-0.343	-0.343	-0.339	-0.799	0.036	-7.7
Math	4	0405	A	1	6421	0.738	0.066	0.738	0.093	0.103	0.000	0.407	-0.309	0.407	-0.240	-0.357	-0.128	0.031	-2.2
Math	4	0406	A	1	6421	0.633	0.222	0.090	0.633	0.055	0.001	0.431	-0.350	-0.369	0.431	-0.350	0.475	0.029	-2.9
Math	4	0407	C	1	6421	0.965	0.965	0.011	0.016	0.005	0.001	0.254	0.254	-0.168	-0.159	-0.148	-2.711	0.070	-3.3
Math	4	0408	E	2	6421	0.799	0.151	0.026	0.799	0.020	0.004	0.292	-0.224	-0.194	0.292	-0.224	-0.542	0.034	4.7
Math	4	0409	A	1	6404	0.847	0.025	0.847	0.097	0.031	0.001	0.389	-0.196	0.389	-0.346	-0.193	-0.931	0.037	-1.1
Math	4	0410	B	1	6404	0.764	0.067	0.093	0.764	0.075	0.001	0.436	-0.240	-0.316	0.436	-0.393	-0.300	0.032	-3.9
Math	4	0411	A	1	6404	0.792	0.026	0.130	0.051	0.792	0.000	0.290	-0.267	-0.176	-0.237	0.290	-0.497	0.034	5.6
Math	4	0412	D	2	6404	0.778	0.091	0.778	0.056	0.075	0.000	0.412	-0.312	0.412	-0.315	-0.268	-0.393	0.033	-2.3
Math	4	0413	C	1	6404	0.946	0.946	0.017	0.025	0.010	0.001	0.296	0.296	-0.182	-0.208	-0.155	-2.229	0.057	-2.9
Math	4	0414	A	2	6404	0.545	0.151	0.140	0.545	0.163	0.001	0.442	-0.516	-0.394	0.442	-0.273	0.925	0.028	-2.5
Math	4	0415	D	2	6404	0.459	0.152	0.250	0.139	0.459	0.001	0.553	-0.615	-0.587	-0.376	0.553	1.359	0.028	-9.9
Math	4	0416	B	1	6404	0.541	0.153	0.124	0.541	0.182	0.000	0.547	-0.438	-0.535	0.547	-0.513	0.947	0.028	-9.9
Math	4	0417	A	1	6404	0.928	0.014	0.928	0.046	0.012	0.000	0.328	-0.158	0.328	-0.258	-0.188	-1.890	0.051	-3.1
Math	4	0418	E	1	6404	0.955	0.955	0.016	0.013	0.016	0.000	0.324	0.324	-0.182	-0.201	-0.220	-2.436	0.062	-5.0
Math	4	0419	A	1	6404	0.621	0.120	0.139	0.621	0.118	0.001	0.412	-0.337	-0.393	0.412	-0.275	0.536	0.029	-0.3
Math	4	0420	A	1	6404	0.517	0.163	0.079	0.236	0.517	0.005	0.373	-0.427	-0.251	-0.289	0.373	1.066	0.028	3.3
Math	4	0421	A	1	6413	0.848	0.028	0.024	0.848	0.098	0.000	0.429	-0.191	-0.216	0.429	-0.392	-0.959	0.038	-5.2
Math	4	0422	C	1	6413	0.906	0.043	0.020	0.906	0.031	0.000	0.331	-0.244	-0.187	0.331	-0.198	-1.576	0.045	-2.3
Math	4	0423	D	1	6413	0.743	0.054	0.113	0.090	0.743	0.000	0.477	-0.319	-0.441	-0.297	0.477	-0.168	0.032	-6.2
Math	4	0424	A	1	6413	0.822	0.085	0.045	0.822	0.047	0.000	0.416	-0.358	-0.245	0.416	-0.241	-0.731	0.035	-3.4
Math	4	0425	A	1	6413	0.700	0.700	0.156	0.057	0.085	0.001	0.430	0.430	-0.382	-0.313	-0.275	0.091	0.030	-3.3
Math	4	0426	A	1	6413	0.877	0.026	0.065	0.877	0.031	0.000	0.384	-0.238	-0.255	0.384	-0.283	-1.242	0.041	-2.4
Math	4	0427	A	2	6413	0.589	0.153	0.589	0.222	0.033	0.002	0.495	-0.321	0.495	-0.509	-0.433	0.695	0.028	-6.9
Math	4	0428	C	1	6413	0.682	0.050	0.682	0.139	0.128	0.001	0.430	-0.242	0.430	-0.327	-0.405	0.199	0.030	-2.9
Math	4	0429	A	1	6413	0.628	0.032	0.292	0.046	0.628	0.001	0.428	-0.377	-0.375	-0.333	0.428	0.492	0.029	-0.9
Math	4	0430	B	1	6413	0.796	0.060	0.063	0.796	0.079	0.001	0.394	-0.222	-0.269	0.394	-0.332	-0.534	0.034	-1.9

Appendix J: 2007 Grades 3–8 and 11 Multiple-Choice Statistics

Information					Proportions							Correlations					Rasch		
Cont.	Grade	Pub. ID	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Math	4	0431	A	1	6413	0.933	0.013	0.012	0.933	0.041	0.001	0.329	-0.164	-0.159	0.329	-0.271	-1.993	0.052	-2.5
Math	4	0432	E	2	6413	0.940	0.012	0.016	0.029	0.940	0.003	0.251	-0.185	-0.149	-0.142	0.251	-2.125	0.055	-0.1
Math	4	0433	A	1	6390	0.752	0.015	0.021	0.211	0.752	0.001	0.414	-0.245	-0.211	-0.379	0.414	-0.195	0.032	-2.4
Math	4	0434	A	1	6390	0.337	0.112	0.283	0.337	0.267	0.001	0.202	-0.310	-0.103	0.202	-0.261	1.974	0.029	9.9
Math	4	0435	A	1	6390	0.721	0.052	0.721	0.171	0.054	0.001	0.409	-0.254	0.409	-0.356	-0.284	-0.007	0.031	-1.4
Math	4	0436	E	2	6390	0.542	0.542	0.048	0.216	0.193	0.001	0.402	0.402	-0.290	-0.365	-0.361	0.943	0.028	-1.4
Math	4	0437	C	1	6390	0.532	0.223	0.532	0.067	0.178	0.001	0.246	-0.298	0.246	-0.181	-0.122	0.995	0.028	9.9
Math	4	0438	A	1	6390	0.435	0.043	0.320	0.201	0.435	0.001	0.448	-0.403	-0.489	-0.360	0.448	1.469	0.028	-3.9
Math	4	0439	D	1	6390	0.959	0.959	0.016	0.011	0.012	0.000	0.264	0.264	-0.145	-0.170	-0.171	-2.492	0.065	-2.3
Math	4	0440	B	1	6390	0.831	0.831	0.062	0.058	0.048	0.001	0.433	0.433	-0.283	-0.287	-0.337	-0.760	0.036	-5.8
Math	4	0441	C	1	6390	0.641	0.054	0.217	0.641	0.085	0.001	0.200	-0.185	-0.149	0.200	-0.146	0.441	0.029	9.9
Math	4	0442	A	1	6390	0.524	0.139	0.524	0.259	0.077	0.001	0.403	-0.290	0.403	-0.420	-0.294	1.032	0.028	-1.2
Math	4	0443	A	1	6390	0.916	0.029	0.916	0.038	0.016	0.001	0.369	-0.191	0.369	-0.309	-0.195	-1.665	0.047	-4.9
Math	4	0444	A	2	6390	0.876	0.876	0.049	0.027	0.045	0.003	0.343	0.343	-0.170	-0.267	-0.266	-1.180	0.040	0.4
Math	4	0445	A	2	6420	0.305	0.270	0.305	0.176	0.248	0.001	0.278	-0.328	0.278	-0.257	-0.304	2.162	0.030	9.8
Math	4	0446	E	1	6420	0.974	0.008	0.974	0.013	0.005	0.000	0.192	-0.130	0.192	-0.089	-0.138	-3.024	0.080	-1.1
Math	4	0447	A	1	6420	0.732	0.098	0.732	0.086	0.082	0.001	0.495	-0.319	0.495	-0.412	-0.411	-0.086	0.031	-6.8
Math	4	0448	A	2	6420	0.881	0.881	0.024	0.058	0.035	0.000	0.426	0.426	-0.249	-0.344	-0.242	-1.262	0.041	-6.1
Math	4	0449	D	1	6420	0.785	0.036	0.088	0.785	0.091	0.001	0.376	-0.266	-0.229	0.376	-0.316	-0.435	0.033	0.1
Math	4	0450	A	1	6420	0.822	0.040	0.095	0.042	0.822	0.000	0.375	-0.290	-0.229	-0.302	0.375	-0.718	0.035	0.4
Math	4	0451	A	1	6420	0.409	0.089	0.409	0.441	0.059	0.001	0.385	-0.198	0.385	-0.405	-0.407	1.607	0.028	3.6
Math	4	0452	E	1	6420	0.810	0.075	0.029	0.810	0.086	0.001	0.520	-0.475	-0.294	0.520	-0.339	-0.622	0.035	-8.7
Math	4	0453	B	1	6420	0.737	0.050	0.151	0.737	0.061	0.001	0.428	-0.377	-0.284	0.428	-0.360	-0.120	0.031	-2.2
Math	4	0454	A	1	6420	0.668	0.168	0.668	0.083	0.080	0.001	0.345	-0.191	0.345	-0.332	-0.334	0.284	0.029	3.6
Math	4	0455	A	1	6420	0.838	0.061	0.034	0.838	0.067	0.000	0.421	-0.172	-0.251	0.421	-0.429	-0.849	0.037	-3.2
Math	4	0456	C	1	6420	0.831	0.073	0.025	0.067	0.831	0.004	0.135	-0.056	-0.167	-0.088	0.135	-0.791	0.036	9.9
Math	4	0457	A	1	6365	0.703	0.030	0.250	0.703	0.016	0.000	0.399	-0.301	-0.355	0.399	-0.219	0.093	0.030	-0.8
Math	4	0458	E	1	6365	0.904	0.904	0.020	0.035	0.041	0.000	0.341	0.341	-0.174	-0.222	-0.253	-1.517	0.045	-1.7
Math	4	0459	A	1	6365	0.764	0.069	0.764	0.144	0.022	0.001	0.452	-0.229	0.452	-0.439	-0.245	-0.282	0.032	-5.1
Math	4	0460	A	2	6365	0.652	0.160	0.652	0.096	0.089	0.002	0.446	-0.256	0.446	-0.371	-0.495	0.379	0.029	-4.3
Math	4	0461	A	1	6365	0.679	0.034	0.263	0.679	0.023	0.001	0.341	-0.312	-0.271	0.341	-0.273	0.232	0.030	2.4
Math	4	0462	C	1	6365	0.704	0.082	0.139	0.704	0.074	0.000	0.370	-0.308	-0.289	0.370	-0.238	0.087	0.030	-0.2
Math	4	0463	E	1	6365	0.904	0.904	0.027	0.018	0.050	0.001	0.270	0.270	-0.175	-0.126	-0.201	-1.511	0.045	0.6
Math	4	0464	C	1	6365	0.828	0.828	0.044	0.100	0.025	0.001	0.271	0.271	-0.165	-0.233	-0.109	-0.752	0.036	4.0
Math	4	0465	A	2	6365	0.472	0.178	0.135	0.213	0.472	0.002	0.478	-0.484	-0.592	-0.333	0.478	1.292	0.028	-6.8
Math	4	0466	A	1	6365	0.806	0.088	0.806	0.065	0.040	0.001	0.451	-0.392	0.451	-0.300	-0.241	-0.575	0.034	-4.4
Math	4	0467	B	1	6365	0.732	0.063	0.155	0.732	0.049	0.001	0.411	-0.273	-0.352	0.411	-0.269	-0.076	0.031	-3.3
Math	4	0468	C	1	6365	0.597	0.077	0.123	0.200	0.597	0.004	0.197	-0.035	-0.182	-0.206	0.197	0.668	0.028	9.9
Math	4	0469	A	2	6411	0.584	0.089	0.584	0.218	0.108	0.001	0.418	-0.358	0.418	-0.282	-0.477	0.723	0.028	-1.1
Math	4	0470	D	2	6411	0.356	0.380	0.139	0.356	0.123	0.002	0.239	-0.170	-0.335	0.239	-0.321	1.861	0.029	9.9
Math	4	0471	A	1	6411	0.833	0.021	0.079	0.833	0.066	0.002	0.460	-0.268	-0.260	0.460	-0.434	-0.799	0.036	-7.1
Math	4	0472	B	1	6411	0.776	0.107	0.776	0.095	0.021	0.001	0.369	-0.348	0.369	-0.217	-0.208	-0.370	0.033	0.5
Math	4	0473	C	1	6411	0.630	0.277	0.035	0.630	0.057	0.001	0.346	-0.308	-0.236	0.346	-0.253	0.491	0.029	1.9

Appendix J: 2007 Grades 3–8 and 11 Multiple-Choice Statistics

Information					Proportions							Correlations					Rasch		
Cont.	Grade	Pub. ID	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Math	4	0474	B	1	6411	0.634	0.634	0.244	0.041	0.080	0.001	0.413	0.413	-0.344	-0.380	-0.306	0.469	0.029	-2.7
Math	4	0475	C	1	6411	0.795	0.013	0.021	0.170	0.795	0.001	0.341	-0.236	-0.293	-0.262	0.341	-0.503	0.034	1.5
Math	4	0476	E	1	6411	0.941	0.014	0.016	0.029	0.941	0.001	0.365	-0.214	-0.220	-0.251	0.365	-2.104	0.055	-5.6
Math	4	0477	B	1	6411	0.878	0.033	0.013	0.878	0.075	0.001	0.279	-0.116	-0.132	0.279	-0.255	-1.219	0.041	1.9
Math	4	0478	A	1	6411	0.580	0.104	0.580	0.256	0.058	0.001	0.432	-0.369	0.432	-0.381	-0.370	0.745	0.028	-2.7
Math	4	0479	A	1	6411	0.859	0.859	0.048	0.050	0.041	0.001	0.436	0.436	-0.267	-0.276	-0.358	-1.026	0.038	-5.9
Math	4	0480	A	1	6411	0.975	0.008	0.975	0.010	0.005	0.003	0.188	-0.101	0.188	-0.108	-0.117	-3.027	0.081	-0.4
Math	4	0481	A	1	6395	0.757	0.046	0.162	0.757	0.035	0.001	0.485	-0.369	-0.414	0.485	-0.274	-0.240	0.032	-6.4
Math	4	0482	A	1	6395	0.529	0.044	0.294	0.529	0.131	0.001	0.281	-0.281	-0.177	0.281	-0.353	1.007	0.028	9.7
Math	4	0483	B	1	6395	0.618	0.229	0.618	0.095	0.057	0.001	0.170	-0.035	0.170	-0.284	-0.189	0.555	0.028	9.9
Math	4	0484	D	2	6395	0.802	0.056	0.072	0.802	0.069	0.001	0.450	-0.364	-0.370	0.450	-0.226	-0.556	0.034	-6.3
Math	4	0485	A	1	6395	0.657	0.080	0.657	0.131	0.131	0.001	0.441	-0.280	0.441	-0.422	-0.325	0.347	0.029	-4.8
Math	4	0486	C	1	6395	0.749	0.749	0.147	0.079	0.024	0.002	0.381	0.381	-0.275	-0.324	-0.247	-0.186	0.032	-1.7
Math	4	0487	A	1	6395	0.676	0.225	0.676	0.061	0.037	0.001	0.389	-0.351	0.389	-0.184	-0.363	0.242	0.029	-1.7
Math	4	0488	D	2	6395	0.578	0.116	0.219	0.085	0.578	0.000	0.361	-0.316	-0.283	-0.335	0.361	0.759	0.028	3.1
Math	4	0489	E	1	6395	0.670	0.160	0.082	0.670	0.087	0.000	0.455	-0.307	-0.363	0.455	-0.458	0.278	0.029	-3.8
Math	4	0490	A	1	6395	0.708	0.708	0.055	0.069	0.166	0.002	0.457	0.457	-0.285	-0.389	-0.375	0.063	0.030	-3.7
Math	4	0491	A	1	6395	0.671	0.671	0.118	0.076	0.133	0.002	0.443	0.443	-0.360	-0.359	-0.330	0.273	0.029	-4.6
Math	4	0492	C	1	6395	0.845	0.845	0.020	0.039	0.092	0.004	0.329	0.329	-0.228	-0.288	-0.196	-0.898	0.037	0.8
Math	4	0493	A	1	6360	0.758	0.090	0.758	0.117	0.035	0.001	0.369	-0.114	0.369	-0.417	-0.233	-0.237	0.032	1.7
Math	4	0494	A	2	6360	0.637	0.129	0.123	0.111	0.637	0.001	0.382	-0.340	-0.269	-0.324	0.382	0.471	0.029	2.8
Math	4	0495	B	1	6360	0.769	0.206	0.769	0.013	0.011	0.000	0.376	-0.342	0.376	-0.201	-0.216	-0.317	0.033	-1.1
Math	4	0496	D	2	6360	0.718	0.718	0.082	0.144	0.056	0.000	0.543	0.543	-0.445	-0.443	-0.387	0.012	0.031	-9.9
Math	4	0497	B	2	6360	0.643	0.157	0.105	0.094	0.643	0.001	0.427	-0.320	-0.368	-0.353	0.427	0.436	0.029	-2.3
Math	4	0498	C	1	6360	0.503	0.503	0.146	0.097	0.252	0.002	0.205	0.205	-0.211	-0.271	-0.113	1.148	0.028	9.9
Math	4	0499	A	2	6360	0.872	0.027	0.031	0.872	0.069	0.001	0.469	-0.291	-0.293	0.469	-0.361	-1.151	0.040	-7.3
Math	4	0500	E	2	6360	0.927	0.041	0.020	0.012	0.927	0.000	0.349	-0.259	-0.215	-0.184	0.349	-1.854	0.051	-3.3
Math	4	0501	C	1	6360	0.718	0.096	0.718	0.118	0.067	0.001	0.429	-0.326	0.429	-0.333	-0.321	0.011	0.031	-3.7
Math	4	0502	A	1	6360	0.911	0.911	0.035	0.027	0.025	0.001	0.398	0.398	-0.237	-0.288	-0.255	-1.621	0.047	-5.7
Math	4	0503	D	2	6360	0.789	0.070	0.086	0.052	0.789	0.002	0.516	-0.355	-0.431	-0.350	0.516	-0.454	0.034	-9.6
Math	4	0504	B	1	6360	0.847	0.847	0.072	0.022	0.055	0.005	0.371	0.371	-0.307	-0.248	-0.212	-0.910	0.038	-0.8
Math	4	0505	A	1	6377	0.699	0.019	0.246	0.699	0.034	0.001	0.384	-0.238	-0.312	0.384	-0.373	0.109	0.030	-0.1
Math	4	0506	D	2	6377	0.368	0.314	0.202	0.114	0.368	0.001	0.382	-0.403	-0.339	-0.408	0.382	1.852	0.029	4.5
Math	4	0507	A	1	6377	0.792	0.052	0.792	0.134	0.021	0.001	0.419	-0.245	0.419	-0.353	-0.288	-0.491	0.034	-3.8
Math	4	0508	A	1	6377	0.675	0.227	0.675	0.080	0.016	0.002	0.369	-0.264	0.369	-0.396	-0.244	0.245	0.030	0.2
Math	4	0509	C	2	6377	0.770	0.174	0.024	0.770	0.032	0.000	0.426	-0.394	-0.225	0.426	-0.220	-0.337	0.033	-4.2
Math	4	0510	E	1	6377	0.958	0.009	0.011	0.020	0.958	0.000	0.264	-0.145	-0.165	-0.173	0.264	-2.498	0.064	1.0
Math	4	0511	A	1	6377	0.741	0.118	0.043	0.095	0.741	0.001	0.472	-0.348	-0.383	-0.360	0.472	-0.146	0.031	-5.9
Math	4	0512	A	1	6377	0.790	0.156	0.019	0.790	0.034	0.001	0.418	-0.364	-0.255	0.418	-0.243	-0.471	0.034	-4.6
Math	4	0513	C	1	6377	0.919	0.011	0.056	0.012	0.919	0.001	0.279	-0.183	-0.204	-0.145	0.279	-1.742	0.048	0.7
Math	4	0514	D	2	6377	0.959	0.012	0.019	0.009	0.959	0.000	0.230	-0.180	-0.119	-0.125	0.230	-2.523	0.065	0.8
Math	4	0515	E	2	6377	0.721	0.184	0.721	0.056	0.038	0.001	0.277	-0.159	0.277	-0.277	-0.275	-0.021	0.031	9.1
Math	4	0516	A	1	6377	0.605	0.320	0.605	0.039	0.033	0.003	0.307	-0.219	0.307	-0.341	-0.391	0.621	0.028	9.6

Appendix J: 2007 Grades 3–8 and 11 Multiple-Choice Statistics

Information						Proportions						Correlations					Rasch		
Cont.	Grade	Pub. ID	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Math	4	0517	A	1	6368	0.707	0.707	0.030	0.115	0.147	0.001	0.419	0.419	-0.238	-0.378	-0.316	0.066	0.030	-2.3
Math	4	0518	A	1	6368	0.795	0.795	0.107	0.069	0.028	0.000	0.412	0.412	-0.312	-0.276	-0.303	-0.512	0.034	-3.8
Math	4	0519	A	1	6368	0.664	0.222	0.083	0.031	0.664	0.000	0.552	-0.529	-0.401	-0.305	0.552	0.311	0.029	-9.9
Math	4	0520	D	2	6368	0.777	0.090	0.777	0.100	0.032	0.000	0.446	-0.382	0.446	-0.311	-0.273	-0.388	0.033	-4.6
Math	4	0521	B	2	6368	0.563	0.563	0.144	0.105	0.186	0.001	0.385	0.385	-0.287	-0.331	-0.362	0.844	0.028	2.2
Math	4	0522	E	2	6368	0.536	0.536	0.052	0.228	0.182	0.002	0.434	0.434	-0.366	-0.386	-0.390	0.971	0.028	-2.8
Math	4	0523	B	1	6368	0.870	0.014	0.014	0.870	0.101	0.001	0.297	-0.175	-0.129	0.297	-0.252	-1.129	0.040	-0.1
Math	4	0524	C	1	6368	0.802	0.027	0.140	0.030	0.802	0.001	0.292	-0.188	-0.220	-0.219	0.292	-0.550	0.034	3.4
Math	4	0525	A	1	6368	0.827	0.827	0.059	0.082	0.030	0.001	0.415	0.415	-0.228	-0.359	-0.266	-0.744	0.036	-3.7
Math	4	0526	E	1	6368	0.817	0.817	0.016	0.148	0.019	0.000	0.453	0.453	-0.218	-0.440	-0.134	-0.666	0.035	-5.8
Math	4	0527	A	1	6368	0.526	0.090	0.282	0.101	0.526	0.001	0.370	-0.389	-0.320	-0.283	0.370	1.019	0.028	2.4
Math	4	0528	A	1	6368	0.850	0.022	0.039	0.850	0.085	0.004	0.377	-0.264	-0.215	0.377	-0.300	-0.944	0.038	-2.9
Math	4	0529	A	1	6294	0.909	0.013	0.065	0.909	0.011	0.001	0.267	-0.173	-0.192	0.267	-0.159	-1.602	0.046	1.9
Math	4	0530	D	2	6294	0.839	0.028	0.839	0.024	0.107	0.000	0.347	-0.211	0.347	-0.163	-0.294	-0.858	0.037	-0.4
Math	4	0531	C	1	6294	0.928	0.028	0.017	0.025	0.928	0.000	0.281	-0.203	-0.146	-0.179	0.281	-1.870	0.051	-0.4
Math	4	0532	A	1	6294	0.917	0.917	0.037	0.031	0.014	0.000	0.260	0.260	-0.253	-0.069	-0.162	-1.698	0.048	1.2
Math	4	0533	A	2	6294	0.700	0.174	0.082	0.700	0.042	0.001	0.523	-0.529	-0.339	0.523	-0.236	0.110	0.030	-9.4
Math	4	0534	B	1	6294	0.720	0.197	0.720	0.022	0.060	0.001	0.385	-0.335	0.385	-0.205	-0.282	-0.007	0.031	0.1
Math	4	0535	E	1	6294	0.790	0.790	0.185	0.015	0.009	0.000	0.490	0.490	-0.460	-0.275	-0.174	-0.467	0.034	-7.1
Math	4	0536	D	2	6294	0.885	0.885	0.029	0.036	0.048	0.001	0.401	0.401	-0.242	-0.227	-0.316	-1.309	0.042	-4.1
Math	4	0537	A	1	6294	0.589	0.148	0.190	0.072	0.589	0.001	0.282	-0.249	-0.147	-0.375	0.282	0.713	0.029	9.9
Math	4	0538	A	1	6294	0.871	0.034	0.065	0.871	0.030	0.001	0.425	-0.297	-0.303	0.425	-0.256	-1.149	0.040	-6.0
Math	4	0539	A	2	6294	0.718	0.090	0.140	0.718	0.051	0.001	0.483	-0.449	-0.344	0.483	-0.336	0.002	0.031	-5.6
Math	4	0540	A	2	6294	0.916	0.916	0.034	0.022	0.025	0.003	0.395	0.395	-0.236	-0.269	-0.266	-1.703	0.048	-5.3
Math	5	0541	A	1	131709	0.849	0.045	0.067	0.849	0.039	0.000	0.424	-0.288	-0.292	0.424	-0.294	-0.617	0.008	-9.9
Math	5	0542	A	1	131709	0.746	0.179	0.009	0.066	0.746	0.000	0.400	-0.398	-0.178	-0.188	0.400	0.155	0.007	-8.3
Math	5	0543	A	2	131709	0.651	0.051	0.241	0.651	0.056	0.000	0.289	-0.222	-0.207	0.289	-0.284	0.721	0.007	9.9
Math	5	0544	A	2	131709	0.684	0.054	0.151	0.684	0.110	0.000	0.404	-0.303	-0.290	0.404	-0.370	0.533	0.007	9.9
Math	5	0545	B	1	131709	0.367	0.035	0.195	0.367	0.402	0.001	0.282	-0.410	-0.424	0.282	-0.185	2.219	0.006	9.9
Math	5	0546	A	1	131709	0.947	0.013	0.947	0.028	0.011	0.000	0.306	-0.215	0.306	-0.185	-0.182	-1.906	0.013	-6.9
Math	5	0547	D	1	131709	0.617	0.104	0.041	0.617	0.238	0.001	0.484	-0.293	-0.214	0.484	-0.514	0.907	0.006	-9.9
Math	5	0548	C	1	131709	0.802	0.802	0.010	0.020	0.168	0.001	0.435	0.435	-0.204	-0.278	-0.386	-0.231	0.008	-9.9
Math	5	0549	A	2	131709	0.740	0.042	0.092	0.126	0.740	0.001	0.463	-0.413	-0.319	-0.349	0.463	0.196	0.007	-9.9
Math	5	0550	A	1	131709	0.770	0.770	0.063	0.023	0.143	0.001	0.270	0.270	-0.271	-0.275	-0.120	-0.001	0.007	9.9
Math	5	0551	A	1	131709	0.656	0.656	0.252	0.048	0.043	0.001	0.394	0.394	-0.315	-0.335	-0.330	0.693	0.007	1.9
Math	5	0552	B	1	131709	0.866	0.041	0.866	0.055	0.037	0.001	0.338	-0.252	0.338	-0.259	-0.150	-0.776	0.009	1.5
Math	5	0553	E	1	131709	0.802	0.013	0.080	0.104	0.802	0.001	0.389	-0.202	-0.260	-0.333	0.389	-0.231	0.008	1.6
Math	5	0554	D	1	131709	0.509	0.431	0.042	0.016	0.509	0.001	0.365	-0.326	-0.377	-0.296	0.365	1.467	0.006	9.9
Math	5	0555	A	1	131709	0.677	0.142	0.078	0.677	0.102	0.001	0.430	-0.314	-0.385	0.430	-0.321	0.572	0.007	-9.7
Math	5	0556	A	2	131709	0.450	0.450	0.028	0.069	0.451	0.001	0.480	0.480	-0.391	-0.438	-0.469	1.774	0.006	-9.9
Math	5	0557	E	2	131709	0.695	0.178	0.034	0.091	0.695	0.001	0.465	-0.399	-0.309	-0.349	0.465	0.468	0.007	-9.9
Math	5	0558	A	1	131709	0.886	0.886	0.060	0.014	0.039	0.001	0.340	0.340	-0.363	-0.234	-0.051	-0.991	0.009	9.9
Math	5	0559	D	2	131709	0.817	0.059	0.065	0.057	0.817	0.001	0.445	-0.318	-0.319	-0.301	0.445	-0.346	0.008	-9.9

Appendix J: 2007 Grades 3–8 and 11 Multiple-Choice Statistics

Information					Proportions							Correlations					Rasch		
Cont.	Grade	Pub. ID	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Math	5	0560	C	1	131709	0.722	0.167	0.085	0.722	0.024	0.001	0.404	-0.356	-0.274	0.404	-0.241	0.308	0.007	-5.2
Math	5	0561	C	1	131709	0.819	0.819	0.040	0.118	0.020	0.002	0.344	0.344	-0.234	-0.256	-0.239	-0.366	0.008	8.2
Math	5	0562	B	1	131709	0.675	0.675	0.039	0.122	0.163	0.000	0.356	0.356	-0.348	-0.142	-0.365	0.585	0.007	9.9
Math	5	0563	E	2	131709	0.639	0.139	0.639	0.077	0.144	0.001	0.459	-0.219	0.459	-0.412	-0.498	0.788	0.006	-9.9
Math	5	0564	E	2	131709	0.600	0.230	0.062	0.600	0.108	0.000	0.442	-0.360	-0.397	0.442	-0.396	0.998	0.006	-4.8
Math	5	0565	D	1	131709	0.571	0.084	0.162	0.571	0.183	0.000	0.338	-0.345	-0.241	0.338	-0.297	1.151	0.006	9.9
Math	5	0566	A	1	131709	0.682	0.682	0.109	0.193	0.015	0.000	0.473	0.473	-0.515	-0.328	-0.316	0.548	0.007	-8.3
Math	5	0567	D	2	131709	0.646	0.176	0.646	0.091	0.086	0.001	0.402	-0.275	0.402	-0.389	-0.336	0.749	0.006	-1.2
Math	5	0568	C	1	131709	0.656	0.094	0.083	0.166	0.656	0.001	0.473	-0.425	-0.400	-0.348	0.473	0.695	0.007	-9.9
Math	5	0569	B	1	131709	0.689	0.129	0.689	0.145	0.037	0.000	0.454	-0.383	0.454	-0.405	-0.218	0.505	0.007	-9.9
Math	5	0570	A	1	131709	0.505	0.283	0.108	0.103	0.505	0.001	0.345	-0.251	-0.355	-0.390	0.345	1.490	0.006	9.9
Math	5	0571	E	2	131709	0.821	0.065	0.053	0.061	0.821	0.000	0.326	-0.314	-0.138	-0.204	0.326	-0.379	0.008	8.0
Math	5	0572	C	1	131709	0.634	0.070	0.634	0.232	0.064	0.001	0.406	-0.311	0.406	-0.354	-0.307	0.815	0.006	2.7
Math	5	0573	A	1	131709	0.919	0.040	0.031	0.010	0.919	0.000	0.361	-0.269	-0.233	-0.178	0.361	-1.421	0.011	-9.9
Math	5	0574	E	1	131709	0.847	0.080	0.047	0.847	0.025	0.000	0.495	-0.381	-0.412	0.495	-0.205	-0.603	0.008	-9.9
Math	5	0575	C	2	131709	0.560	0.560	0.241	0.106	0.092	0.001	0.416	0.416	-0.377	-0.380	-0.314	1.206	0.006	2.2
Math	5	0576	A	2	131709	0.839	0.026	0.046	0.088	0.839	0.000	0.475	-0.275	-0.301	-0.391	0.475	-0.529	0.008	-9.9
Math	5	0577	A	2	131709	0.577	0.188	0.577	0.091	0.143	0.001	0.392	-0.365	0.392	-0.375	-0.262	1.121	0.006	9.9
Math	5	0578	E	1	131709	0.876	0.012	0.064	0.876	0.049	0.000	0.466	-0.196	-0.363	0.466	-0.343	-0.879	0.009	-9.9
Math	5	0579	B	2	131709	0.843	0.033	0.042	0.843	0.082	0.000	0.438	-0.257	-0.289	0.438	-0.349	-0.562	0.008	-9.5
Math	5	0580	C	1	131709	0.634	0.634	0.125	0.166	0.074	0.000	0.364	0.364	-0.317	-0.268	-0.282	0.813	0.006	9.9
Math	5	0581	B	1	131709	0.637	0.219	0.042	0.637	0.101	0.001	0.367	-0.228	-0.357	0.367	-0.381	0.801	0.006	9.9
Math	5	0582	E	1	131709	0.616	0.126	0.124	0.133	0.616	0.001	0.467	-0.460	-0.318	-0.388	0.467	0.910	0.006	-9.9
Math	5	0583	A	1	131709	0.514	0.211	0.514	0.180	0.094	0.001	0.402	-0.270	0.402	-0.446	-0.386	1.443	0.006	9.1
Math	5	0584	C	1	131709	0.629	0.027	0.629	0.216	0.127	0.000	0.405	-0.194	0.405	-0.254	-0.520	0.839	0.006	9.9
Math	5	0585	A	1	131709	0.696	0.696	0.078	0.065	0.161	0.001	0.400	0.400	-0.239	-0.385	-0.317	0.466	0.007	7.2
Math	5	0586	A	1	131709	0.508	0.165	0.508	0.080	0.245	0.001	0.379	-0.450	0.379	-0.367	-0.243	1.474	0.006	9.9
Math	5	0587	E	2	131709	0.928	0.928	0.044	0.015	0.012	0.000	0.354	0.354	-0.271	-0.220	-0.165	-1.562	0.011	-9.9
Math	5	0588	A	2	131709	0.624	0.055	0.046	0.273	0.624	0.001	0.463	-0.210	-0.367	-0.455	0.463	0.866	0.006	-9.9
Math	5	0589	E	2	131709	0.691	0.080	0.691	0.051	0.176	0.001	0.406	-0.300	0.406	-0.336	-0.318	0.492	0.007	-1.8
Math	5	0590	A	1	131709	0.835	0.030	0.835	0.047	0.087	0.001	0.388	-0.312	0.388	-0.211	-0.288	-0.494	0.008	-7.4
Math	5	0591	C	1	131709	0.564	0.373	0.049	0.564	0.013	0.001	0.367	-0.347	-0.280	0.367	-0.229	1.188	0.006	9.9
Math	5	0592	A	1	131709	0.786	0.786	0.049	0.069	0.095	0.001	0.523	0.523	-0.353	-0.451	-0.357	-0.113	0.007	-9.9
Math	5	0593	A	1	131709	0.929	0.013	0.022	0.929	0.035	0.001	0.410	-0.216	-0.230	0.410	-0.323	-1.579	0.011	-9.9
Math	5	0594	A	1	131709	0.680	0.229	0.680	0.073	0.015	0.002	0.351	-0.270	0.351	-0.322	-0.291	0.554	0.007	9.9
Math	5	0595	A	1	7052	0.491	0.321	0.156	0.030	0.491	0.000	0.528	-0.571	-0.413	-0.274	0.528	1.426	0.027	-8.9
Math	5	0596	A	2	7052	0.515	0.293	0.515	0.032	0.159	0.001	0.578	-0.567	0.578	-0.319	-0.556	1.304	0.027	-9.9
Math	5	0597	A	1	7052	0.543	0.251	0.080	0.126	0.543	0.001	0.490	-0.374	-0.523	-0.485	0.490	1.155	0.027	-3.7
Math	5	0598	A	2	7052	0.675	0.044	0.675	0.145	0.135	0.001	0.499	-0.346	0.499	-0.503	-0.314	0.427	0.029	-5.2
Math	5	0599	E	2	7052	0.784	0.054	0.058	0.784	0.103	0.001	0.494	-0.375	-0.323	0.494	-0.380	-0.277	0.032	-5.7
Math	5	0600	B	1	7052	0.913	0.026	0.913	0.030	0.030	0.001	0.316	-0.234	0.316	-0.180	-0.190	-1.536	0.045	0.1
Math	5	0601	C	1	7052	0.660	0.027	0.285	0.027	0.660	0.001	0.250	-0.267	-0.187	-0.229	0.250	0.515	0.029	9.9
Math	5	0602	A	2	7052	0.442	0.148	0.293	0.442	0.116	0.001	0.489	-0.432	-0.610	0.489	-0.188	1.684	0.027	-4.1

Appendix J: 2007 Grades 3–8 and 11 Multiple-Choice Statistics

Information					Proportions							Correlations					Rasch		
Cont.	Grade	Pub. ID	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Math	5	0603	A	2	7052	0.704	0.059	0.112	0.124	0.704	0.001	0.463	-0.375	-0.281	-0.411	0.463	0.258	0.029	-3.5
Math	5	0604	A	1	7052	0.729	0.200	0.036	0.729	0.033	0.001	0.493	-0.461	-0.319	0.493	-0.227	0.097	0.030	-5.7
Math	5	0605	B	1	7052	0.561	0.134	0.287	0.561	0.018	0.001	0.457	-0.460	-0.393	0.457	-0.299	1.059	0.027	-0.9
Math	5	0606	D	1	7052	0.884	0.056	0.884	0.043	0.015	0.002	0.359	-0.233	0.359	-0.269	-0.215	-1.162	0.040	-0.1
Math	5	0607	A	2	6548	0.429	0.429	0.183	0.178	0.209	0.000	0.344	0.344	-0.386	-0.450	-0.161	1.838	0.028	7.9
Math	5	0608	D	2	6548	0.618	0.264	0.618	0.023	0.094	0.001	0.247	-0.086	0.247	-0.203	-0.449	0.864	0.029	9.9
Math	5	0609	A	2	6548	0.895	0.061	0.015	0.028	0.895	0.001	0.224	-0.085	-0.219	-0.189	0.224	-1.142	0.043	5.1
Math	5	0610	B	2	6548	0.653	0.079	0.101	0.166	0.653	0.002	0.515	-0.410	-0.498	-0.376	0.515	0.674	0.029	-7.8
Math	5	0611	E	2	6548	0.796	0.116	0.796	0.047	0.040	0.001	0.427	-0.313	0.427	-0.341	-0.271	-0.228	0.034	-3.3
Math	5	0612	A	1	6548	0.739	0.739	0.047	0.186	0.027	0.001	0.406	0.406	-0.321	-0.325	-0.285	0.162	0.031	0.9
Math	5	0613	E	1	6548	0.698	0.046	0.073	0.182	0.698	0.002	0.372	-0.263	-0.333	-0.270	0.372	0.414	0.030	3.2
Math	5	0614	A	1	6548	0.869	0.063	0.869	0.043	0.024	0.001	0.358	-0.264	0.358	-0.245	-0.193	-0.851	0.039	-1.0
Math	5	0615	B	2	6548	0.570	0.176	0.140	0.113	0.570	0.001	0.536	-0.467	-0.526	-0.397	0.536	1.118	0.028	-9.1
Math	5	0616	A	2	6548	0.487	0.076	0.279	0.157	0.487	0.001	0.362	-0.242	-0.362	-0.309	0.362	1.544	0.028	5.4
Math	5	0617	A	1	6548	0.847	0.034	0.054	0.847	0.062	0.002	0.419	-0.291	-0.274	0.419	-0.298	-0.648	0.037	-3.2
Math	5	0618	D	2	6548	0.684	0.684	0.078	0.206	0.029	0.003	0.424	0.424	-0.344	-0.334	-0.322	0.495	0.030	-3.8
Math	5	0619	A	1	6600	0.843	0.081	0.048	0.028	0.843	0.001	0.354	-0.240	-0.256	-0.243	0.354	-0.570	0.037	1.9
Math	5	0620	A	1	6600	0.622	0.216	0.095	0.622	0.066	0.002	0.460	-0.409	-0.396	0.460	-0.292	0.866	0.028	-4.9
Math	5	0621	A	2	6600	0.555	0.175	0.076	0.193	0.555	0.001	0.495	-0.514	-0.359	-0.405	0.495	1.211	0.028	-7.6
Math	5	0622	D	2	6600	0.430	0.501	0.044	0.430	0.024	0.000	0.307	-0.263	-0.418	0.307	-0.370	1.843	0.028	9.9
Math	5	0623	A	2	6600	0.820	0.053	0.080	0.045	0.820	0.001	0.451	-0.359	-0.309	-0.290	0.451	-0.379	0.035	-3.2
Math	5	0624	E	2	6600	0.776	0.118	0.027	0.776	0.079	0.001	0.423	-0.323	-0.284	0.423	-0.312	-0.050	0.032	-3.2
Math	5	0625	A	1	6600	0.394	0.029	0.030	0.394	0.544	0.001	0.446	-0.388	-0.347	0.446	-0.440	2.029	0.028	-1.6
Math	5	0626	B	1	6600	0.477	0.318	0.477	0.143	0.060	0.001	0.305	-0.198	0.305	-0.359	-0.418	1.605	0.028	9.9
Math	5	0627	D	2	6600	0.407	0.407	0.112	0.136	0.344	0.000	0.259	0.259	-0.372	-0.408	-0.125	1.962	0.028	9.9
Math	5	0628	D	2	6600	0.915	0.047	0.915	0.020	0.017	0.001	0.355	-0.246	0.355	-0.235	-0.204	-1.361	0.046	-2.4
Math	5	0629	A	1	6600	0.414	0.178	0.414	0.107	0.300	0.002	0.324	-0.363	0.324	-0.452	-0.215	1.928	0.028	9.9
Math	5	0630	C	2	6600	0.665	0.165	0.087	0.082	0.665	0.002	0.385	-0.392	-0.200	-0.272	0.385	0.632	0.029	3.5
Math	5	0631	A	2	6622	0.863	0.080	0.863	0.037	0.019	0.000	0.399	-0.349	0.399	-0.185	-0.235	-0.785	0.039	-2.3
Math	5	0632	E	2	6622	0.826	0.085	0.032	0.826	0.058	0.000	0.361	-0.276	-0.241	0.361	-0.222	-0.445	0.035	-1.5
Math	5	0633	D	2	6622	0.696	0.207	0.696	0.058	0.039	0.000	0.398	-0.346	0.398	-0.283	-0.262	0.442	0.030	1.9
Math	5	0634	B	1	6622	0.820	0.050	0.065	0.820	0.065	0.000	0.462	-0.304	-0.306	0.462	-0.363	-0.396	0.035	-5.3
Math	5	0635	A	2	6622	0.606	0.043	0.606	0.319	0.030	0.001	0.545	-0.307	0.545	-0.530	-0.401	0.944	0.028	-9.9
Math	5	0636	B	1	6622	0.624	0.017	0.069	0.624	0.288	0.000	0.484	-0.336	-0.484	0.484	-0.410	0.846	0.029	-6.1
Math	5	0637	E	1	6622	0.821	0.821	0.083	0.058	0.037	0.000	0.316	0.316	-0.258	-0.161	-0.221	-0.405	0.035	1.9
Math	5	0638	A	2	6622	0.521	0.220	0.165	0.094	0.521	0.000	0.392	-0.510	-0.162	-0.296	0.392	1.385	0.028	5.3
Math	5	0639	C	1	6622	0.603	0.256	0.070	0.603	0.070	0.001	0.325	-0.252	-0.276	0.325	-0.297	0.960	0.028	7.6
Math	5	0640	A	1	6622	0.910	0.016	0.028	0.910	0.046	0.000	0.367	-0.191	-0.287	0.367	-0.232	-1.318	0.045	-2.7
Math	5	0641	D	2	6622	0.654	0.107	0.129	0.109	0.654	0.001	0.554	-0.460	-0.444	-0.462	0.554	0.684	0.029	-9.9
Math	5	0642	A	1	6622	0.743	0.743	0.093	0.088	0.073	0.001	0.456	0.456	-0.391	-0.303	-0.322	0.154	0.031	-3.5
Math	5	0643	A	2	6548	0.755	0.157	0.755	0.058	0.030	0.000	0.235	-0.172	0.235	-0.174	-0.177	0.081	0.032	9.0
Math	5	0644	A	1	6548	0.822	0.822	0.120	0.028	0.029	0.000	0.343	0.343	-0.231	-0.238	-0.278	-0.409	0.035	-0.3
Math	5	0645	A	2	6548	0.680	0.178	0.680	0.087	0.054	0.001	0.433	-0.272	0.433	-0.394	-0.431	0.539	0.030	-1.9

Appendix J: 2007 Grades 3–8 and 11 Multiple-Choice Statistics

Information					Proportions							Correlations					Rasch		
Cont.	Grade	Pub. ID	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Math	5	0646	D	2	6548	0.714	0.034	0.166	0.084	0.714	0.001	0.433	-0.329	-0.322	-0.366	0.433	0.335	0.030	-2.4
Math	5	0647	C	1	6548	0.878	0.020	0.878	0.033	0.067	0.001	0.317	-0.177	0.317	-0.195	-0.240	-0.931	0.041	0.9
Math	5	0648	E	1	6548	0.511	0.182	0.511	0.050	0.255	0.001	0.295	-0.352	0.295	-0.196	-0.221	1.429	0.028	9.9
Math	5	0649	C	1	6548	0.809	0.054	0.048	0.088	0.809	0.001	0.440	-0.334	-0.332	-0.285	0.440	-0.308	0.034	-2.9
Math	5	0650	A	1	6548	0.666	0.195	0.073	0.066	0.666	0.001	0.492	-0.488	-0.252	-0.366	0.492	0.618	0.029	-2.7
Math	5	0651	A	1	6548	0.708	0.050	0.063	0.708	0.179	0.001	0.358	-0.386	-0.092	0.358	-0.320	0.373	0.030	4.2
Math	5	0652	D	2	6548	0.690	0.071	0.185	0.053	0.690	0.000	0.374	-0.267	-0.305	-0.289	0.374	0.477	0.030	1.7
Math	5	0653	E	1	6548	0.850	0.850	0.041	0.072	0.037	0.001	0.313	0.313	-0.197	-0.214	-0.224	-0.651	0.037	2.4
Math	5	0654	B	1	6548	0.794	0.136	0.026	0.041	0.794	0.003	0.394	-0.275	-0.282	-0.346	0.394	-0.194	0.034	0.4
Math	5	0655	A	2	6554	0.863	0.063	0.863	0.052	0.021	0.000	0.403	-0.344	0.403	-0.223	-0.244	-0.739	0.039	-1.7
Math	5	0656	C	1	6554	0.953	0.011	0.014	0.021	0.953	0.000	0.309	-0.170	-0.208	-0.190	0.309	-2.062	0.061	-3.2
Math	5	0657	A	2	6554	0.726	0.056	0.200	0.726	0.017	0.002	0.453	-0.321	-0.409	0.453	-0.214	0.314	0.031	-5.8
Math	5	0658	D	2	6554	0.783	0.103	0.067	0.783	0.045	0.001	0.441	-0.303	-0.346	0.441	-0.321	-0.071	0.033	-3.8
Math	5	0659	A	1	6554	0.859	0.027	0.859	0.053	0.060	0.000	0.393	-0.236	0.393	-0.243	-0.313	-0.697	0.038	0.0
Math	5	0660	A	2	6554	0.729	0.066	0.139	0.065	0.729	0.001	0.506	-0.425	-0.417	-0.312	0.506	0.295	0.031	-5.7
Math	5	0661	A	1	6554	0.709	0.057	0.206	0.709	0.027	0.001	0.539	-0.337	-0.530	0.539	-0.216	0.418	0.030	-8.5
Math	5	0662	C	1	6554	0.725	0.229	0.725	0.018	0.027	0.000	0.328	-0.289	0.328	-0.148	-0.252	0.318	0.031	6.1
Math	5	0663	A	1	6554	0.925	0.015	0.015	0.925	0.044	0.001	0.342	-0.170	-0.195	0.342	-0.267	-1.500	0.049	-2.1
Math	5	0664	D	1	6554	0.555	0.395	0.024	0.025	0.555	0.001	0.332	-0.283	-0.332	-0.334	0.332	1.267	0.028	7.9
Math	5	0665	E	1	6554	0.911	0.013	0.911	0.051	0.023	0.001	0.307	-0.193	0.307	-0.238	-0.147	-1.299	0.046	0.7
Math	5	0666	B	1	6554	0.898	0.022	0.011	0.898	0.066	0.002	0.322	-0.165	-0.137	0.322	-0.275	-1.124	0.044	-1.0
Math	5	0667	A	1	6565	0.796	0.796	0.073	0.070	0.060	0.000	0.419	0.419	-0.178	-0.359	-0.368	-0.156	0.033	-1.9
Math	5	0668	A	2	6565	0.448	0.074	0.448	0.418	0.060	0.001	0.482	-0.308	0.482	-0.501	-0.400	1.786	0.028	-4.6
Math	5	0669	A	2	6565	0.325	0.219	0.274	0.180	0.325	0.003	0.324	-0.357	-0.396	-0.243	0.324	2.441	0.029	8.5
Math	5	0670	E	1	6565	0.851	0.851	0.075	0.041	0.031	0.001	0.319	0.319	-0.169	-0.271	-0.232	-0.604	0.037	1.8
Math	5	0671	C	1	6565	0.760	0.030	0.196	0.012	0.760	0.000	0.368	-0.309	-0.304	-0.207	0.368	0.093	0.032	1.6
Math	5	0672	B	2	6565	0.902	0.022	0.902	0.018	0.057	0.001	0.297	-0.170	0.297	-0.173	-0.224	-1.145	0.044	0.5
Math	5	0673	E	2	6565	0.804	0.095	0.804	0.054	0.046	0.001	0.427	-0.344	0.427	-0.271	-0.294	-0.217	0.034	-0.2
Math	5	0674	C	2	6565	0.466	0.174	0.194	0.466	0.164	0.001	0.268	-0.420	-0.226	0.268	-0.088	1.695	0.028	9.9
Math	5	0675	D	2	6565	0.707	0.206	0.707	0.047	0.040	0.000	0.374	-0.327	0.374	-0.248	-0.248	0.425	0.030	2.4
Math	5	0676	A	1	6565	0.671	0.671	0.224	0.063	0.041	0.000	0.497	0.497	-0.435	-0.357	-0.394	0.635	0.029	-6.7
Math	5	0677	A	1	6565	0.657	0.083	0.116	0.657	0.143	0.001	0.427	-0.396	-0.266	0.427	-0.359	0.711	0.029	-1.8
Math	5	0678	A	2	6565	0.782	0.126	0.782	0.050	0.038	0.003	0.514	-0.444	0.514	-0.308	-0.345	-0.059	0.033	-6.6
Math	5	0679	A	1	6565	0.495	0.495	0.049	0.144	0.312	0.000	0.452	0.452	-0.268	-0.388	-0.463	1.566	0.028	-3.6
Math	5	0680	A	1	6565	0.720	0.061	0.101	0.117	0.720	0.001	0.479	-0.390	-0.421	-0.306	0.479	0.366	0.030	-5.9
Math	5	0681	A	1	6565	0.821	0.821	0.135	0.021	0.022	0.001	0.387	0.387	-0.319	-0.241	-0.233	-0.330	0.035	-3.2
Math	5	0682	C	1	6565	0.610	0.065	0.085	0.610	0.238	0.001	0.357	-0.332	-0.312	0.357	-0.271	0.978	0.028	3.5
Math	5	0683	A	2	6565	0.716	0.092	0.103	0.089	0.716	0.001	0.515	-0.393	-0.391	-0.410	0.515	0.390	0.030	-8.7
Math	5	0684	D	2	6565	0.672	0.271	0.036	0.020	0.672	0.001	0.245	-0.165	-0.281	-0.258	0.245	0.645	0.029	9.9
Math	5	0685	A	1	6565	0.816	0.112	0.816	0.046	0.025	0.001	0.238	-0.080	0.238	-0.279	-0.217	-0.291	0.035	9.9
Math	5	0686	B	1	6565	0.935	0.018	0.020	0.026	0.935	0.001	0.328	-0.230	-0.229	-0.173	0.328	-1.625	0.052	-2.0
Math	5	0687	A	1	6565	0.918	0.019	0.032	0.029	0.918	0.001	0.400	-0.214	-0.269	-0.277	0.400	-1.353	0.047	-4.8
Math	5	0688	D	2	6565	0.641	0.192	0.641	0.126	0.039	0.002	0.393	-0.385	0.393	-0.260	-0.253	0.816	0.029	0.5

Appendix J: 2007 Grades 3–8 and 11 Multiple-Choice Statistics

Information					Proportions							Correlations					Rasch		
Cont.	Grade	Pub. ID	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Math	5	0689	A	3	6565	0.893	0.893	0.045	0.036	0.024	0.002	0.467	0.467	-0.336	-0.357	-0.225	-1.024	0.042	-7.7
Math	5	0690	E	1	6565	0.376	0.052	0.168	0.401	0.376	0.003	0.342	-0.374	-0.485	-0.261	0.342	2.177	0.028	9.1
Math	5	0691	A	2	6576	0.703	0.038	0.703	0.174	0.083	0.000	0.431	-0.280	0.431	-0.400	-0.274	0.437	0.030	-1.9
Math	5	0692	C	1	6576	0.779	0.113	0.089	0.018	0.779	0.001	0.379	-0.288	-0.283	-0.242	0.379	-0.040	0.032	-2.5
Math	5	0693	A	1	6576	0.740	0.021	0.740	0.229	0.010	0.000	0.379	-0.279	0.379	-0.336	-0.198	0.211	0.031	-0.4
Math	5	0694	A	2	6576	0.665	0.215	0.093	0.026	0.665	0.000	0.418	-0.423	-0.221	-0.232	0.418	0.652	0.029	-4.4
Math	5	0695	A	2	6576	0.616	0.281	0.616	0.051	0.051	0.000	0.404	-0.350	0.404	-0.343	-0.285	0.914	0.028	-0.2
Math	5	0696	D	1	6576	0.861	0.861	0.022	0.012	0.104	0.000	0.192	0.192	-0.206	-0.171	-0.094	-0.706	0.038	6.1
Math	5	0697	A	2	6576	0.357	0.149	0.120	0.372	0.357	0.001	0.401	-0.455	-0.467	-0.368	0.401	2.241	0.029	0.8
Math	5	0698	A	1	6576	0.644	0.213	0.103	0.644	0.039	0.001	0.438	-0.352	-0.377	0.438	-0.360	0.771	0.029	-2.8
Math	5	0699	B	1	6576	0.700	0.195	0.700	0.083	0.022	0.001	0.325	-0.255	0.325	-0.252	-0.266	0.458	0.030	2.9
Math	5	0700	D	2	6576	0.501	0.501	0.115	0.173	0.210	0.001	0.411	0.411	-0.361	-0.372	-0.375	1.502	0.028	-0.1
Math	5	0701	C	2	6576	0.581	0.141	0.156	0.581	0.121	0.001	0.416	-0.396	-0.374	0.416	-0.270	1.097	0.028	-0.6
Math	5	0702	E	2	6576	0.711	0.711	0.029	0.116	0.141	0.003	0.345	0.345	-0.180	-0.301	-0.275	0.391	0.030	5.8
Math	5	0703	A	2	6571	0.872	0.069	0.036	0.872	0.023	0.000	0.416	-0.336	-0.275	0.416	-0.200	-0.818	0.040	-3.4
Math	5	0704	C	1	6571	0.825	0.041	0.076	0.825	0.058	0.000	0.347	-0.215	-0.260	0.347	-0.236	-0.389	0.035	0.0
Math	5	0705	A	1	6571	0.573	0.222	0.573	0.168	0.037	0.000	0.359	-0.284	0.359	-0.312	-0.369	1.158	0.028	5.2
Math	5	0706	A	1	6571	0.825	0.825	0.092	0.038	0.044	0.001	0.464	0.464	-0.319	-0.304	-0.378	-0.391	0.035	-5.6
Math	5	0707	A	1	6571	0.699	0.274	0.699	0.013	0.014	0.000	0.416	-0.398	0.416	-0.210	-0.182	0.472	0.030	2.1
Math	5	0708	D	1	6571	0.680	0.054	0.099	0.166	0.680	0.001	0.452	-0.447	-0.326	-0.346	0.452	0.582	0.030	-3.8
Math	5	0709	A	1	6571	0.427	0.427	0.044	0.457	0.071	0.001	0.507	0.507	-0.367	-0.499	-0.555	1.899	0.028	-6.5
Math	5	0710	D	2	6571	0.677	0.677	0.094	0.026	0.202	0.002	0.485	0.485	-0.469	-0.283	-0.384	0.599	0.029	-5.7
Math	5	0711	C	1	6571	0.767	0.100	0.027	0.106	0.767	0.000	0.437	-0.341	-0.252	-0.349	0.437	0.043	0.032	-2.7
Math	5	0712	E	2	6571	0.776	0.145	0.043	0.776	0.035	0.001	0.355	-0.252	-0.326	0.355	-0.234	-0.019	0.033	4.7
Math	5	0713	B	1	6571	0.880	0.043	0.030	0.045	0.880	0.001	0.351	-0.234	-0.216	-0.234	0.351	-0.904	0.041	-3.3
Math	5	0714	A	1	6571	0.490	0.490	0.386	0.028	0.095	0.002	0.594	0.594	-0.596	-0.266	-0.595	1.582	0.028	-9.9
Math	5	0715	A	1	6587	0.593	0.112	0.189	0.593	0.104	0.000	0.259	-0.416	-0.079	0.259	-0.195	1.022	0.028	9.9
Math	5	0716	A	1	6587	0.791	0.791	0.071	0.022	0.115	0.000	0.388	0.388	-0.295	-0.243	-0.295	-0.139	0.033	0.9
Math	5	0717	A	1	6587	0.789	0.016	0.789	0.167	0.027	0.000	0.438	-0.218	0.438	-0.391	-0.262	-0.125	0.033	-4.4
Math	5	0718	C	1	6587	0.609	0.265	0.057	0.068	0.609	0.001	0.203	-0.103	-0.266	-0.227	0.203	0.938	0.028	9.9
Math	5	0719	C	1	6587	0.593	0.014	0.593	0.028	0.365	0.000	0.343	-0.256	0.343	-0.283	-0.312	1.023	0.028	7.4
Math	5	0720	D	2	6587	0.673	0.269	0.673	0.038	0.020	0.001	0.407	-0.354	0.407	-0.324	-0.280	0.599	0.029	-1.7
Math	5	0721	D	2	6587	0.865	0.021	0.066	0.047	0.865	0.000	0.244	-0.163	-0.200	-0.112	0.244	-0.756	0.039	3.8
Math	5	0722	C	1	6587	0.481	0.224	0.163	0.131	0.481	0.001	0.410	-0.364	-0.325	-0.460	0.410	1.588	0.028	0.3
Math	5	0723	A	1	6587	0.377	0.377	0.150	0.309	0.163	0.001	0.404	0.404	-0.164	-0.489	-0.482	2.120	0.028	3.0
Math	5	0724	E	1	6587	0.914	0.049	0.016	0.914	0.020	0.001	0.284	-0.169	-0.206	0.284	-0.190	-1.317	0.046	1.7
Math	5	0725	B	1	6587	0.871	0.015	0.073	0.040	0.871	0.000	0.346	-0.221	-0.224	-0.264	0.346	-0.808	0.039	-1.1
Math	5	0726	A	1	6587	0.451	0.451	0.226	0.181	0.140	0.002	0.326	0.326	-0.304	-0.267	-0.328	1.737	0.028	8.9
Math	5	0727	A	2	6565	0.552	0.552	0.102	0.156	0.189	0.000	0.533	0.533	-0.373	-0.465	-0.561	1.253	0.028	-9.6
Math	5	0728	A	1	6565	0.799	0.164	0.019	0.017	0.799	0.001	0.375	-0.304	-0.288	-0.230	0.375	-0.197	0.034	-0.5
Math	5	0729	E	2	6565	0.701	0.193	0.055	0.701	0.050	0.001	0.498	-0.448	-0.323	0.498	-0.348	0.447	0.030	-7.4
Math	5	0730	A	1	6565	0.798	0.090	0.798	0.076	0.035	0.001	0.325	-0.253	0.325	-0.199	-0.231	-0.186	0.034	1.2
Math	5	0731	B	1	6565	0.866	0.065	0.044	0.023	0.866	0.000	0.372	-0.274	-0.231	-0.244	0.372	-0.771	0.039	-2.8

Appendix J: 2007 Grades 3–8 and 11 Multiple-Choice Statistics

Information					Proportions							Correlations					Rasch		
Cont.	Grade	Pub. ID	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Math	5	0732	A	1	6565	0.699	0.126	0.039	0.699	0.136	0.000	0.371	-0.267	-0.316	0.371	-0.291	0.457	0.030	1.1
Math	5	0733	B	1	6565	0.537	0.357	0.537	0.087	0.018	0.001	0.230	-0.149	0.230	-0.329	-0.265	1.327	0.028	9.9
Math	5	0734	D	1	6565	0.858	0.032	0.053	0.858	0.056	0.001	0.433	-0.269	-0.324	0.433	-0.282	-0.690	0.038	-6.0
Math	5	0735	E	1	6565	0.790	0.113	0.067	0.790	0.028	0.001	0.470	-0.366	-0.350	0.470	-0.311	-0.131	0.033	-5.0
Math	5	0736	C	1	6565	0.898	0.068	0.898	0.021	0.012	0.000	0.354	-0.273	0.354	-0.191	-0.220	-1.121	0.043	-3.5
Math	5	0737	A	1	6565	0.753	0.753	0.127	0.065	0.052	0.002	0.423	0.423	-0.303	-0.324	-0.309	0.121	0.032	-5.0
Math	5	0738	A	1	6565	0.610	0.610	0.088	0.251	0.048	0.003	0.460	0.460	-0.340	-0.403	-0.441	0.951	0.028	-3.6
Math	5	0739	A	1	6535	0.466	0.051	0.169	0.314	0.466	0.000	0.504	-0.410	-0.425	-0.529	0.504	1.697	0.028	-8.2
Math	5	0740	A	1	6535	0.903	0.017	0.051	0.029	0.903	0.000	0.368	-0.268	-0.234	-0.235	0.368	-1.177	0.044	-3.2
Math	5	0741	A	1	6535	0.767	0.150	0.039	0.767	0.043	0.000	0.439	-0.375	-0.287	0.439	-0.267	0.038	0.032	-3.4
Math	5	0742	E	1	6535	0.724	0.724	0.215	0.041	0.020	0.000	0.366	0.366	-0.301	-0.303	-0.230	0.316	0.031	1.9
Math	5	0743	B	2	6535	0.582	0.075	0.200	0.582	0.142	0.002	0.331	-0.301	-0.374	0.331	-0.130	1.109	0.028	8.1
Math	5	0744	B	1	6535	0.395	0.113	0.395	0.221	0.270	0.001	0.322	-0.373	0.322	-0.295	-0.304	2.065	0.028	9.9
Math	5	0745	A	1	6535	0.803	0.149	0.803	0.023	0.025	0.000	0.430	-0.374	0.430	-0.192	-0.312	-0.221	0.034	-3.2
Math	5	0746	C	1	6535	0.880	0.880	0.035	0.041	0.043	0.000	0.311	0.311	-0.283	-0.184	-0.146	-0.910	0.041	0.2
Math	5	0747	B	1	6535	0.709	0.056	0.207	0.028	0.709	0.000	0.495	-0.431	-0.415	-0.289	0.495	0.410	0.030	-7.9
Math	5	0748	A	1	6535	0.847	0.031	0.103	0.847	0.018	0.001	0.413	-0.276	-0.328	0.413	-0.226	-0.578	0.037	-4.7
Math	5	0749	A	1	6535	0.863	0.863	0.037	0.033	0.067	0.000	0.520	0.520	-0.338	-0.296	-0.426	-0.732	0.039	-9.5
Math	5	0750	E	1	6535	0.842	0.042	0.078	0.034	0.842	0.003	0.289	-0.230	-0.169	-0.203	0.289	-0.538	0.037	3.8
Math	5	0751	A	2	6573	0.717	0.045	0.103	0.134	0.717	0.000	0.482	-0.379	-0.395	-0.364	0.482	0.347	0.031	-3.7
Math	5	0752	A	2	6573	0.463	0.197	0.072	0.267	0.463	0.001	0.382	-0.194	-0.311	-0.483	0.382	1.709	0.028	4.8
Math	5	0753	B	1	6573	0.841	0.034	0.074	0.049	0.841	0.001	0.536	-0.376	-0.448	-0.306	0.536	-0.545	0.037	-8.9
Math	5	0754	A	1	6573	0.830	0.141	0.830	0.013	0.014	0.000	0.347	-0.302	0.347	-0.185	-0.190	-0.452	0.036	1.0
Math	5	0755	E	1	6573	0.662	0.186	0.058	0.662	0.093	0.002	0.451	-0.392	-0.274	0.451	-0.386	0.670	0.029	-2.4
Math	5	0756	C	1	6573	0.900	0.046	0.900	0.013	0.041	0.000	0.336	-0.240	0.336	-0.207	-0.210	-1.158	0.044	-1.9
Math	5	0757	A	1	6573	0.534	0.534	0.347	0.073	0.046	0.000	0.390	0.390	-0.314	-0.471	-0.337	1.348	0.028	4.4
Math	5	0758	A	1	6573	0.717	0.101	0.037	0.717	0.145	0.000	0.395	-0.241	-0.291	0.395	-0.357	0.347	0.031	1.5
Math	5	0759	A	1	6573	0.801	0.801	0.028	0.112	0.058	0.001	0.513	0.513	-0.265	-0.467	-0.321	-0.215	0.034	-7.4
Math	5	0760	B	2	6573	0.381	0.322	0.201	0.381	0.095	0.000	0.413	-0.417	-0.498	0.413	-0.262	2.136	0.029	1.5
Math	5	0761	E	1	6573	0.742	0.104	0.742	0.091	0.063	0.001	0.339	-0.286	0.339	-0.212	-0.240	0.189	0.031	3.8
Math	5	0762	C	1	6573	0.801	0.050	0.042	0.801	0.105	0.002	0.276	-0.183	-0.240	0.276	-0.177	-0.218	0.034	8.1
Math	5	0763	A	1	6541	0.511	0.511	0.142	0.146	0.200	0.000	0.345	0.345	-0.305	-0.261	-0.330	1.475	0.028	6.9
Math	5	0764	A	1	6541	0.709	0.709	0.089	0.159	0.043	0.000	0.573	0.573	-0.470	-0.492	-0.355	0.414	0.030	-9.9
Math	5	0765	A	2	6541	0.581	0.168	0.581	0.148	0.102	0.000	0.372	-0.400	0.372	-0.244	-0.266	1.118	0.028	2.7
Math	5	0766	B	1	6541	0.843	0.035	0.057	0.843	0.064	0.001	0.417	-0.217	-0.323	0.417	-0.309	-0.542	0.037	-1.9
Math	5	0767	D	2	6541	0.747	0.035	0.747	0.023	0.194	0.000	0.469	-0.276	0.469	-0.218	-0.439	0.177	0.031	-4.8
Math	5	0768	E	1	6541	0.864	0.022	0.034	0.079	0.864	0.001	0.327	-0.249	-0.259	-0.188	0.327	-0.736	0.039	1.6
Math	5	0769	C	1	6541	0.647	0.070	0.647	0.157	0.125	0.001	0.445	-0.254	0.445	-0.277	-0.536	0.769	0.029	2.0
Math	5	0770	B	1	6541	0.778	0.088	0.778	0.069	0.064	0.000	0.407	-0.312	0.407	-0.395	-0.167	-0.034	0.033	0.2
Math	5	0771	A	1	6541	0.910	0.020	0.052	0.910	0.016	0.002	0.329	-0.202	-0.231	0.329	-0.204	-1.268	0.046	-0.4
Math	5	0772	A	1	6541	0.778	0.778	0.147	0.034	0.040	0.001	0.466	0.466	-0.403	-0.283	-0.285	-0.031	0.033	-5.8
Math	5	0773	A	2	6541	0.842	0.099	0.032	0.842	0.026	0.000	0.514	-0.451	-0.312	0.514	-0.259	-0.531	0.037	-8.9
Math	5	0774	E	2	6541	0.557	0.106	0.176	0.159	0.557	0.002	0.402	-0.273	-0.459	-0.277	0.402	1.243	0.028	1.1

Appendix J: 2007 Grades 3–8 and 11 Multiple-Choice Statistics

Information					Proportions							Correlations					Rasch		
Cont.	Grade	Pub. ID	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Math	5	0775	A	1	6541	0.512	0.312	0.045	0.131	0.512	0.000	0.516	-0.554	-0.335	-0.362	0.516	1.457	0.028	-9.5
Math	5	0776	D	1	6541	0.924	0.924	0.024	0.022	0.030	0.000	0.418	0.418	-0.247	-0.248	-0.307	-1.495	0.049	-6.1
Math	5	0777	E	2	6541	0.614	0.026	0.294	0.614	0.066	0.000	0.529	-0.323	-0.515	0.529	-0.368	0.931	0.029	-8.7
Math	5	0778	A	2	6541	0.642	0.093	0.642	0.182	0.081	0.001	0.480	-0.391	0.480	-0.396	-0.400	0.781	0.029	-3.5
Math	5	0779	B	2	6541	0.599	0.067	0.599	0.287	0.045	0.001	0.429	-0.370	0.429	-0.408	-0.194	1.011	0.028	-1.3
Math	5	0780	C	1	6541	0.757	0.073	0.055	0.114	0.757	0.001	0.444	-0.372	-0.274	-0.332	0.444	0.091	0.032	-3.4
Math	5	0781	D	1	6541	0.887	0.054	0.887	0.045	0.013	0.001	0.453	-0.358	0.453	-0.303	-0.214	-1.011	0.042	-6.0
Math	5	0782	A	2	6541	0.578	0.168	0.578	0.114	0.139	0.001	0.382	-0.348	0.382	-0.295	-0.311	1.117	0.028	3.0
Math	5	0783	B	1	6541	0.603	0.603	0.256	0.080	0.060	0.000	0.372	0.372	-0.345	-0.344	-0.166	0.986	0.028	3.2
Math	5	0784	A	1	6541	0.825	0.034	0.109	0.825	0.032	0.000	0.412	-0.325	-0.300	0.412	-0.258	-0.412	0.036	-1.3
Math	5	0785	A	2	6541	0.682	0.054	0.164	0.098	0.682	0.002	0.515	-0.409	-0.469	-0.342	0.515	0.555	0.030	-7.9
Math	5	0786	C	1	6541	0.819	0.047	0.819	0.085	0.046	0.002	0.464	-0.253	0.464	-0.354	-0.379	-0.361	0.035	-4.2
Math	5	0787	A	1	6563	0.535	0.262	0.162	0.535	0.041	0.000	0.485	-0.517	-0.386	0.485	-0.250	1.341	0.028	-8.1
Math	5	0788	A	2	6563	0.449	0.466	0.041	0.042	0.449	0.000	0.302	-0.233	-0.460	-0.423	0.302	1.792	0.028	9.9
Math	5	0789	D	2	6563	0.725	0.054	0.163	0.725	0.058	0.001	0.425	-0.368	-0.366	0.425	-0.218	0.313	0.031	-1.9
Math	5	0790	C	1	6563	0.718	0.084	0.062	0.136	0.718	0.001	0.424	-0.333	-0.336	-0.311	0.424	0.356	0.030	-2.6
Math	5	0791	E	2	6563	0.720	0.074	0.088	0.720	0.117	0.002	0.519	-0.348	-0.419	0.519	-0.426	0.342	0.030	-9.0
Math	5	0792	A	1	6563	0.717	0.051	0.094	0.717	0.138	0.001	0.394	-0.343	-0.327	0.394	-0.258	0.362	0.030	0.0
Math	5	0793	D	2	6563	0.701	0.701	0.088	0.143	0.067	0.000	0.327	0.327	-0.291	-0.245	-0.189	0.454	0.030	2.1
Math	5	0794	C	1	6563	0.624	0.014	0.258	0.624	0.103	0.001	0.230	-0.222	-0.129	0.230	-0.295	0.883	0.028	9.9
Math	5	0795	A	1	6563	0.658	0.259	0.658	0.017	0.064	0.002	0.341	-0.259	0.341	-0.281	-0.333	0.697	0.029	4.7
Math	5	0796	A	1	6563	0.857	0.857	0.061	0.048	0.033	0.001	0.363	0.363	-0.223	-0.241	-0.275	-0.664	0.038	-2.7
Math	5	0797	A	2	6563	0.534	0.385	0.040	0.039	0.534	0.001	0.380	-0.343	-0.330	-0.340	0.380	1.344	0.028	4.1
Math	5	0798	B	1	6563	0.927	0.011	0.927	0.044	0.014	0.003	0.318	-0.171	0.318	-0.247	-0.189	-1.508	0.050	-2.9
Math	5	0799	A	1	6523	0.677	0.677	0.085	0.130	0.107	0.000	0.317	0.317	-0.204	-0.340	-0.151	0.571	0.029	2.5
Math	5	0800	E	1	6523	0.746	0.746	0.016	0.219	0.019	0.000	0.485	0.485	-0.198	-0.463	-0.252	0.159	0.031	-4.9
Math	5	0801	B	1	6523	0.414	0.156	0.414	0.240	0.189	0.001	0.308	-0.494	0.308	-0.151	-0.274	1.959	0.028	9.9
Math	5	0802	D	2	6523	0.573	0.573	0.105	0.146	0.174	0.001	0.295	0.295	-0.277	-0.224	-0.241	1.136	0.028	9.2
Math	5	0803	A	2	6523	0.719	0.096	0.095	0.089	0.719	0.001	0.527	-0.514	-0.378	-0.333	0.527	0.331	0.030	-9.3
Math	5	0804	C	1	6523	0.566	0.109	0.566	0.189	0.135	0.001	0.455	-0.462	0.455	-0.403	-0.309	1.168	0.028	-4.1
Math	5	0805	E	2	6523	0.795	0.010	0.021	0.795	0.173	0.001	0.303	-0.224	-0.197	0.303	-0.249	-0.174	0.033	4.8
Math	5	0806	A	1	6523	0.669	0.051	0.669	0.099	0.178	0.002	0.406	-0.328	0.406	-0.248	-0.360	0.615	0.029	-0.9
Math	5	0807	A	1	6523	0.780	0.080	0.780	0.021	0.118	0.000	0.413	-0.362	0.413	-0.252	-0.286	-0.070	0.033	-0.8
Math	5	0808	D	2	6523	0.583	0.100	0.215	0.101	0.583	0.000	0.344	-0.380	-0.216	-0.322	0.344	1.079	0.028	8.3
Math	5	0809	A	1	6523	0.808	0.018	0.808	0.088	0.085	0.001	0.486	-0.265	0.486	-0.352	-0.400	-0.274	0.034	-7.4
Math	5	0810	C	1	6523	0.824	0.080	0.013	0.079	0.824	0.003	0.466	-0.350	-0.247	-0.370	0.466	-0.403	0.035	-6.0
Math	5	0811	A	1	6546	0.666	0.666	0.121	0.127	0.085	0.000	0.490	0.490	-0.307	-0.442	-0.460	0.642	0.029	-4.6
Math	5	0812	D	2	6546	0.778	0.029	0.137	0.778	0.055	0.001	0.410	-0.282	-0.291	0.410	-0.351	-0.053	0.033	1.2
Math	5	0813	A	1	6546	0.803	0.803	0.080	0.063	0.053	0.001	0.475	0.475	-0.331	-0.373	-0.316	-0.234	0.034	-6.2
Math	5	0814	E	2	6546	0.739	0.739	0.138	0.049	0.073	0.001	0.352	0.352	-0.202	-0.296	-0.321	0.207	0.031	2.5
Math	5	0815	B	1	6546	0.588	0.074	0.250	0.087	0.588	0.000	0.444	-0.438	-0.368	-0.352	0.444	1.071	0.028	-1.7
Math	5	0816	A	1	6546	0.563	0.288	0.078	0.069	0.563	0.001	0.362	-0.368	-0.238	-0.203	0.362	1.191	0.028	4.0
Math	5	0817	D	1	6546	0.914	0.914	0.014	0.015	0.056	0.000	0.288	0.288	-0.176	-0.182	-0.200	-1.343	0.047	-1.1

Appendix J: 2007 Grades 3–8 and 11 Multiple-Choice Statistics

Information					Proportions							Correlations					Rasch		
Cont.	Grade	Pub. ID	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Math	5	0818	A	2	6546	0.675	0.125	0.075	0.123	0.675	0.001	0.496	-0.356	-0.401	-0.441	0.496	0.590	0.030	-5.8
Math	5	0819	A	1	6546	0.728	0.053	0.190	0.029	0.728	0.000	0.447	-0.280	-0.417	-0.232	0.447	0.277	0.031	-1.7
Math	5	0820	A	1	6546	0.643	0.052	0.643	0.118	0.185	0.001	0.385	-0.343	0.385	-0.268	-0.334	0.769	0.029	2.6
Math	5	0821	C	2	6546	0.404	0.217	0.218	0.159	0.404	0.002	0.391	-0.393	-0.413	-0.340	0.391	2.005	0.028	3.9
Math	5	0822	D	1	6546	0.749	0.032	0.198	0.749	0.016	0.005	0.266	-0.193	-0.212	0.266	-0.208	0.139	0.032	7.6
Math	5	0823	A	1	6534	0.506	0.038	0.315	0.140	0.506	0.000	0.512	-0.376	-0.533	-0.390	0.512	1.468	0.028	-9.4
Math	5	0824	C	2	6534	0.385	0.248	0.164	0.201	0.385	0.001	0.223	-0.242	-0.270	-0.156	0.223	2.109	0.029	9.9
Math	5	0825	A	1	6534	0.807	0.077	0.807	0.088	0.027	0.001	0.451	-0.271	0.451	-0.387	-0.298	-0.287	0.034	-5.5
Math	5	0826	D	2	6534	0.848	0.066	0.044	0.848	0.042	0.001	0.408	-0.279	-0.284	0.408	-0.274	-0.627	0.037	-3.0
Math	5	0827	A	1	6534	0.642	0.125	0.642	0.126	0.105	0.002	0.429	-0.358	0.429	-0.350	-0.318	0.760	0.029	-2.8
Math	5	0828	B	2	6534	0.721	0.107	0.721	0.146	0.024	0.002	0.423	-0.304	0.423	-0.367	-0.278	0.298	0.031	-0.9
Math	5	0829	A	1	6534	0.903	0.903	0.058	0.025	0.012	0.001	0.340	0.340	-0.279	-0.151	-0.219	-1.234	0.045	-1.9
Math	5	0830	A	1	6534	0.865	0.079	0.865	0.034	0.021	0.001	0.409	-0.329	0.409	-0.223	-0.265	-0.803	0.039	-2.3
Math	5	0831	D	2	6534	0.527	0.126	0.085	0.527	0.261	0.001	0.268	-0.210	-0.295	0.268	-0.229	1.361	0.028	9.9
Math	5	0832	B	1	6534	0.678	0.678	0.028	0.088	0.205	0.001	0.476	0.476	-0.317	-0.548	-0.321	0.555	0.030	-3.4
Math	5	0833	E	1	6534	0.729	0.056	0.729	0.080	0.133	0.001	0.517	-0.338	0.517	-0.331	-0.480	0.246	0.031	-8.0
Math	5	0834	A	1	6534	0.745	0.745	0.038	0.052	0.163	0.002	0.463	0.463	-0.365	-0.333	-0.365	0.146	0.032	-4.1
Math	6	0835	A	2	135506	0.729	0.729	0.167	0.061	0.043	0.000	0.483	0.483	-0.418	-0.370	-0.250	-0.176	0.007	-9.9
Math	6	0836	A	1	135506	0.610	0.126	0.610	0.178	0.085	0.001	0.331	-0.313	0.331	-0.267	-0.210	0.500	0.006	9.9
Math	6	0837	A	2	135506	0.833	0.036	0.833	0.086	0.045	0.000	0.410	-0.219	0.410	-0.292	-0.333	-0.909	0.008	-9.9
Math	6	0838	A	2	135506	0.863	0.043	0.076	0.863	0.018	0.000	0.356	-0.224	-0.292	0.356	-0.166	-1.179	0.008	3.0
Math	6	0839	C	1	135506	0.930	0.014	0.027	0.029	0.930	0.001	0.187	-0.160	-0.066	-0.131	0.187	-2.000	0.011	9.9
Math	6	0840	D	2	135506	0.710	0.710	0.234	0.031	0.024	0.001	0.272	0.272	-0.186	-0.317	-0.217	-0.060	0.007	9.9
Math	6	0841	D	2	135506	0.549	0.090	0.146	0.214	0.549	0.001	0.375	-0.439	-0.276	-0.300	0.375	0.821	0.006	9.9
Math	6	0842	B	1	135506	0.648	0.135	0.102	0.648	0.114	0.001	0.464	-0.321	-0.380	0.464	-0.422	0.295	0.006	-9.9
Math	6	0843	D	2	135506	0.839	0.136	0.012	0.012	0.839	0.001	0.401	-0.344	-0.280	-0.227	0.401	-0.961	0.008	-9.9
Math	6	0844	A	1	135506	0.641	0.031	0.253	0.074	0.641	0.001	0.449	-0.269	-0.499	-0.104	0.449	0.333	0.006	-6.1
Math	6	0845	E	2	135506	0.476	0.071	0.214	0.476	0.237	0.002	0.377	-0.314	-0.434	0.377	-0.278	1.196	0.006	9.9
Math	6	0846	B	1	135506	0.914	0.056	0.914	0.015	0.013	0.001	0.269	-0.193	0.269	-0.144	-0.174	-1.760	0.010	3.9
Math	6	0847	A	2	135506	0.567	0.293	0.047	0.567	0.092	0.001	0.507	-0.449	-0.349	0.507	-0.507	0.727	0.006	-9.9
Math	6	0848	B	1	135506	0.612	0.115	0.612	0.239	0.031	0.002	0.356	-0.401	0.356	-0.241	-0.254	0.489	0.006	9.9
Math	6	0849	C	1	135506	0.694	0.071	0.192	0.042	0.694	0.001	0.349	-0.393	-0.209	-0.270	0.349	0.038	0.007	9.9
Math	6	0850	A	1	135506	0.810	0.073	0.062	0.054	0.810	0.001	0.519	-0.403	-0.377	-0.322	0.519	-0.729	0.008	-9.9
Math	6	0851	D	2	135506	0.574	0.574	0.236	0.149	0.040	0.001	0.552	0.552	-0.488	-0.513	-0.411	0.692	0.006	-9.9
Math	6	0852	D	1	135506	0.618	0.108	0.114	0.159	0.618	0.002	0.454	-0.338	-0.334	-0.437	0.454	0.460	0.006	-9.9
Math	6	0853	E	2	135506	0.911	0.021	0.027	0.041	0.911	0.001	0.380	-0.241	-0.236	-0.255	0.380	-1.717	0.010	-9.9
Math	6	0854	C	2	135506	0.631	0.122	0.631	0.205	0.041	0.002	0.521	-0.448	0.521	-0.443	-0.391	0.391	0.006	-9.9
Math	6	0855	E	2	135506	0.644	0.035	0.258	0.061	0.644	0.003	0.510	-0.360	-0.470	-0.355	0.510	0.320	0.006	-9.9
Math	6	0856	C	1	135506	0.840	0.006	0.011	0.143	0.840	0.000	0.296	-0.148	-0.169	-0.259	0.296	-0.972	0.008	7.4
Math	6	0857	C	1	135506	0.619	0.161	0.096	0.122	0.619	0.001	0.505	-0.516	-0.298	-0.402	0.505	0.451	0.006	-9.9
Math	6	0858	A	2	135506	0.538	0.538	0.362	0.082	0.018	0.000	0.320	0.320	-0.255	-0.355	-0.295	0.875	0.006	9.9
Math	6	0859	D	1	135506	0.657	0.068	0.047	0.228	0.657	0.000	0.533	-0.342	-0.348	-0.507	0.533	0.246	0.006	-9.9
Math	6	0860	E	2	135506	0.774	0.013	0.174	0.774	0.039	0.000	0.397	-0.257	-0.359	0.397	-0.194	-0.464	0.007	-7.0

Appendix J: 2007 Grades 3–8 and 11 Multiple-Choice Statistics

Information					Proportions							Correlations					Rasch		
Cont.	Grade	Pub. ID	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Math	6	0861	D	2	135506	0.747	0.121	0.046	0.086	0.747	0.000	0.503	-0.415	-0.392	-0.332	0.503	-0.287	0.007	-9.9
Math	6	0862	A	1	135506	0.692	0.125	0.044	0.692	0.138	0.000	0.312	-0.221	-0.303	0.312	-0.218	0.046	0.007	9.9
Math	6	0863	A	1	135506	0.407	0.407	0.249	0.164	0.178	0.003	0.243	0.243	-0.205	-0.253	-0.256	1.556	0.006	9.9
Math	6	0864	E	2	135506	0.548	0.259	0.074	0.118	0.548	0.001	0.553	-0.589	-0.388	-0.391	0.553	0.823	0.006	-9.9
Math	6	0865	D	2	135506	0.736	0.133	0.077	0.054	0.736	0.000	0.347	-0.263	-0.301	-0.195	0.347	-0.215	0.007	9.9
Math	6	0866	C	1	135506	0.739	0.145	0.739	0.030	0.085	0.001	0.338	-0.282	0.338	-0.195	-0.237	-0.235	0.007	9.9
Math	6	0867	B	1	135506	0.740	0.052	0.016	0.740	0.193	0.000	0.259	-0.314	-0.170	0.259	-0.154	-0.242	0.007	9.9
Math	6	0868	E	2	135506	0.595	0.238	0.063	0.595	0.103	0.000	0.540	-0.455	-0.467	0.540	-0.505	0.579	0.006	-9.9
Math	6	0869	D	1	135506	0.716	0.017	0.716	0.249	0.017	0.000	0.393	-0.244	0.393	-0.355	-0.233	-0.096	0.007	3.1
Math	6	0870	A	2	135506	0.740	0.099	0.093	0.740	0.067	0.000	0.313	-0.283	-0.200	0.313	-0.195	-0.244	0.007	9.9
Math	6	0871	B	1	135506	0.486	0.486	0.031	0.249	0.233	0.000	0.345	0.345	-0.286	-0.223	-0.417	1.140	0.006	9.9
Math	6	0872	A	1	135506	0.532	0.155	0.532	0.082	0.230	0.001	0.367	-0.328	0.367	-0.412	-0.269	0.907	0.006	9.9
Math	6	0873	C	1	135506	0.797	0.062	0.797	0.038	0.102	0.001	0.402	-0.253	0.402	-0.325	-0.289	-0.630	0.007	-9.9
Math	6	0874	E	2	135506	0.742	0.742	0.094	0.085	0.077	0.001	0.452	0.452	-0.388	-0.309	-0.306	-0.253	0.007	-9.9
Math	6	0875	C	1	135506	0.787	0.157	0.032	0.787	0.023	0.000	0.457	-0.406	-0.285	0.457	-0.216	-0.559	0.007	-9.9
Math	6	0876	C	2	135506	0.568	0.124	0.178	0.568	0.129	0.001	0.387	-0.403	-0.319	0.387	-0.257	0.721	0.006	9.9
Math	6	0877	D	2	135506	0.915	0.030	0.915	0.041	0.013	0.001	0.334	-0.206	0.334	-0.231	-0.203	-1.781	0.010	-8.2
Math	6	0878	C	1	135506	0.662	0.662	0.082	0.106	0.149	0.001	0.451	0.451	-0.317	-0.364	-0.383	0.219	0.006	-9.9
Math	6	0879	A	1	135506	0.886	0.009	0.038	0.066	0.886	0.000	0.272	-0.186	-0.274	-0.117	0.272	-1.415	0.009	9.9
Math	6	0880	E	2	135506	0.650	0.085	0.110	0.650	0.154	0.001	0.332	-0.234	-0.252	0.332	-0.282	0.285	0.006	9.9
Math	6	0881	C	2	135506	0.466	0.204	0.079	0.251	0.466	0.001	0.330	-0.340	-0.467	-0.208	0.330	1.248	0.006	9.9
Math	6	0882	A	2	135506	0.605	0.158	0.605	0.119	0.117	0.001	0.416	-0.331	0.416	-0.351	-0.337	0.527	0.006	-6.2
Math	6	0883	C	1	135506	0.869	0.039	0.869	0.067	0.024	0.001	0.377	-0.252	0.377	-0.276	-0.207	-1.243	0.009	-9.9
Math	6	0884	D	1	135506	0.492	0.100	0.079	0.328	0.492	0.001	0.461	-0.484	-0.408	-0.399	0.461	1.113	0.006	-9.9
Math	6	0885	A	1	135506	0.586	0.163	0.116	0.586	0.132	0.002	0.422	-0.424	-0.353	0.422	-0.269	0.625	0.006	-0.6
Math	6	0886	B	1	135506	0.779	0.779	0.100	0.072	0.047	0.001	0.497	0.497	-0.386	-0.357	-0.332	-0.503	0.007	-9.9
Math	6	0887	D	2	135506	0.510	0.039	0.294	0.156	0.510	0.001	0.300	-0.342	-0.214	-0.319	0.300	1.021	0.006	9.9
Math	6	0888	A	2	135506	0.588	0.112	0.118	0.180	0.588	0.002	0.459	-0.452	-0.349	-0.369	0.459	0.619	0.006	-9.9
Math	6	0889	A	1	7319	0.561	0.168	0.156	0.561	0.114	0.000	0.416	-0.340	-0.401	0.416	-0.301	0.594	0.027	3.1
Math	6	0890	C	2	7319	0.600	0.074	0.091	0.600	0.234	0.001	0.504	-0.329	-0.311	0.504	-0.514	0.392	0.027	-5.5
Math	6	0891	E	2	7319	0.573	0.573	0.092	0.106	0.227	0.001	0.441	0.441	-0.379	-0.391	-0.363	0.531	0.027	-0.6
Math	6	0892	B	2	7319	0.618	0.046	0.618	0.141	0.193	0.001	0.459	-0.287	0.459	-0.310	-0.458	0.292	0.027	-3.8
Math	6	0893	D	1	7319	0.742	0.742	0.144	0.072	0.040	0.002	0.415	0.415	-0.320	-0.306	-0.286	-0.428	0.030	-1.2
Math	6	0894	A	1	7319	0.763	0.057	0.109	0.068	0.763	0.002	0.540	-0.418	-0.441	-0.339	0.540	-0.570	0.030	-8.7
Math	6	0895	A	1	7319	0.948	0.948	0.019	0.020	0.012	0.001	0.316	0.316	-0.211	-0.209	-0.155	-2.545	0.055	-4.6
Math	6	0896	B	2	7319	0.500	0.414	0.500	0.057	0.028	0.001	0.445	-0.461	0.445	-0.202	-0.265	0.913	0.027	0.5
Math	6	0897	E	2	7319	0.246	0.088	0.337	0.246	0.326	0.002	0.261	-0.481	-0.356	0.261	-0.156	2.336	0.030	9.9
Math	6	0898	A	1	7319	0.352	0.177	0.252	0.219	0.352	0.001	0.454	-0.630	-0.555	-0.236	0.454	1.698	0.028	-1.0
Math	6	0899	C	1	7319	0.821	0.821	0.019	0.149	0.010	0.001	0.341	0.341	-0.182	-0.297	-0.171	-0.994	0.033	1.0
Math	6	0900	D	1	7319	0.874	0.071	0.032	0.022	0.874	0.001	0.440	-0.354	-0.289	-0.197	0.440	-1.474	0.038	-7.7
Math	6	0901	A	1	6760	0.568	0.156	0.568	0.141	0.134	0.001	0.369	-0.302	0.369	-0.276	-0.356	0.666	0.028	4.4
Math	6	0902	A	1	6760	0.740	0.032	0.740	0.150	0.076	0.001	0.501	-0.379	0.501	-0.429	-0.317	-0.298	0.031	-6.7
Math	6	0903	D	2	6760	0.735	0.072	0.163	0.735	0.028	0.001	0.346	-0.295	-0.246	0.346	-0.240	-0.267	0.030	4.2

Appendix J: 2007 Grades 3–8 and 11 Multiple-Choice Statistics

Information					Proportions							Correlations					Rasch		
Cont.	Grade	Pub. ID	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Math	6	0904	C	1	6760	0.951	0.951	0.013	0.028	0.008	0.001	0.294	0.294	-0.177	-0.215	-0.132	-2.477	0.058	-5.1
Math	6	0905	E	2	6760	0.597	0.244	0.597	0.056	0.101	0.001	0.588	-0.549	0.588	-0.365	-0.511	0.512	0.028	-9.9
Math	6	0906	A	1	6760	0.530	0.299	0.074	0.095	0.530	0.001	0.513	-0.536	-0.433	-0.282	0.513	0.862	0.027	-8.5
Math	6	0907	E	2	6760	0.763	0.763	0.170	0.041	0.024	0.001	0.392	0.392	-0.352	-0.184	-0.252	-0.451	0.031	-1.9
Math	6	0908	D	1	6760	0.827	0.020	0.134	0.827	0.018	0.001	0.436	-0.245	-0.380	0.436	-0.215	-0.919	0.035	-6.4
Math	6	0909	A	1	6760	0.859	0.014	0.086	0.039	0.859	0.001	0.432	-0.243	-0.348	-0.263	0.432	-1.201	0.037	-4.1
Math	6	0910	A	1	6760	0.843	0.026	0.033	0.843	0.096	0.001	0.282	-0.167	-0.195	0.282	-0.199	-1.058	0.036	2.5
Math	6	0911	D	1	6760	0.479	0.273	0.479	0.137	0.108	0.002	0.258	-0.195	0.258	-0.250	-0.270	1.119	0.027	9.9
Math	6	0912	B	1	6760	0.241	0.573	0.241	0.076	0.107	0.003	0.184	-0.099	0.184	-0.425	-0.474	2.457	0.031	9.9
Math	6	0913	A	1	6764	0.884	0.016	0.046	0.054	0.884	0.000	0.260	-0.225	-0.133	-0.179	0.260	-1.410	0.040	4.2
Math	6	0914	D	2	6764	0.757	0.010	0.172	0.757	0.061	0.000	0.284	-0.202	-0.173	0.284	-0.314	-0.353	0.031	9.1
Math	6	0915	A	2	6764	0.486	0.324	0.040	0.486	0.149	0.000	0.534	-0.593	-0.309	0.534	-0.372	1.136	0.027	-9.9
Math	6	0916	E	2	6764	0.711	0.711	0.092	0.175	0.021	0.001	0.630	0.630	-0.485	-0.571	-0.379	-0.069	0.030	-9.9
Math	6	0917	E	2	6764	0.495	0.229	0.181	0.495	0.094	0.001	0.413	-0.469	-0.312	0.413	-0.301	1.089	0.027	1.0
Math	6	0918	A	1	6764	0.920	0.047	0.016	0.016	0.920	0.001	0.383	-0.296	-0.223	-0.196	0.383	-1.862	0.047	-5.7
Math	6	0919	C	1	6764	0.411	0.132	0.331	0.123	0.411	0.002	0.502	-0.552	-0.495	-0.443	0.502	1.518	0.028	-5.5
Math	6	0920	E	2	6764	0.840	0.840	0.051	0.094	0.015	0.000	0.303	0.303	-0.188	-0.223	-0.224	-0.974	0.036	2.4
Math	6	0921	D	1	6764	0.667	0.256	0.052	0.023	0.667	0.001	0.539	-0.489	-0.414	-0.323	0.539	0.186	0.029	-9.9
Math	6	0922	A	1	6764	0.831	0.073	0.050	0.045	0.831	0.001	0.502	-0.388	-0.348	-0.307	0.502	-0.904	0.035	-9.5
Math	6	0923	B	1	6764	0.930	0.019	0.930	0.033	0.017	0.001	0.307	-0.236	0.307	-0.182	-0.165	-2.028	0.050	-1.5
Math	6	0924	A	1	6764	0.819	0.067	0.819	0.054	0.058	0.003	0.326	-0.260	0.326	-0.210	-0.197	-0.800	0.034	3.6
Math	6	0925	A	1	6750	0.692	0.112	0.138	0.692	0.058	0.000	0.443	-0.422	-0.367	0.443	-0.195	0.074	0.029	-1.5
Math	6	0926	B	2	6750	0.850	0.028	0.051	0.071	0.850	0.000	0.375	-0.284	-0.253	-0.244	0.375	-1.041	0.037	-1.1
Math	6	0927	D	2	6750	0.696	0.072	0.696	0.081	0.150	0.001	0.449	-0.388	0.449	-0.348	-0.322	0.048	0.029	-3.9
Math	6	0928	E	2	6750	0.935	0.014	0.015	0.035	0.935	0.000	0.388	-0.196	-0.223	-0.299	0.388	-2.088	0.051	-7.2
Math	6	0929	C	1	6750	0.615	0.169	0.149	0.065	0.615	0.001	0.513	-0.407	-0.442	-0.466	0.513	0.499	0.028	-8.9
Math	6	0930	A	1	6750	0.695	0.091	0.149	0.695	0.065	0.001	0.433	-0.344	-0.374	0.433	-0.255	0.054	0.029	-2.6
Math	6	0931	B	1	6750	0.696	0.034	0.213	0.056	0.696	0.000	0.492	-0.323	-0.448	-0.317	0.492	0.049	0.029	-6.4
Math	6	0932	A	1	6750	0.651	0.084	0.651	0.143	0.120	0.001	0.472	-0.332	0.472	-0.436	-0.330	0.304	0.029	-6.8
Math	6	0933	D	1	6750	0.801	0.801	0.046	0.065	0.087	0.001	0.449	0.449	-0.298	-0.379	-0.284	-0.642	0.033	-5.1
Math	6	0934	D	1	6750	0.463	0.131	0.171	0.233	0.463	0.001	0.374	-0.336	-0.459	-0.260	0.374	1.276	0.027	6.1
Math	6	0935	A	1	6750	0.675	0.102	0.118	0.675	0.102	0.003	0.459	-0.430	-0.359	0.459	-0.294	0.172	0.029	-3.8
Math	6	0936	C	1	6750	0.831	0.009	0.831	0.013	0.142	0.004	0.365	-0.170	0.365	-0.188	-0.329	-0.878	0.035	-1.1
Math	6	0937	A	1	6730	0.689	0.115	0.100	0.096	0.689	0.000	0.483	-0.497	-0.337	-0.279	0.483	0.067	0.029	-4.8
Math	6	0938	A	2	6730	0.362	0.429	0.110	0.099	0.362	0.000	0.529	-0.602	-0.427	-0.410	0.529	1.788	0.029	-9.9
Math	6	0939	D	1	6730	0.606	0.237	0.097	0.059	0.606	0.000	0.507	-0.466	-0.348	-0.427	0.507	0.519	0.028	-8.0
Math	6	0940	C	2	6730	0.800	0.800	0.118	0.045	0.037	0.000	0.377	0.377	-0.278	-0.289	-0.228	-0.653	0.033	0.4
Math	6	0941	A	1	6730	0.743	0.105	0.081	0.071	0.743	0.000	0.502	-0.458	-0.342	-0.316	0.502	-0.265	0.031	-6.0
Math	6	0942	B	1	6730	0.862	0.051	0.056	0.031	0.862	0.000	0.331	-0.237	-0.178	-0.256	0.331	-1.173	0.038	1.0
Math	6	0943	C	1	6730	0.816	0.816	0.092	0.079	0.013	0.000	0.454	0.454	-0.340	-0.364	-0.207	-0.778	0.034	-6.4
Math	6	0944	D	1	6730	0.760	0.760	0.071	0.093	0.076	0.000	0.446	0.446	-0.332	-0.378	-0.256	-0.372	0.031	-4.4
Math	6	0945	A	1	6730	0.375	0.503	0.375	0.039	0.082	0.000	0.397	-0.353	0.397	-0.373	-0.563	1.717	0.028	3.4
Math	6	0946	E	2	6730	0.523	0.523	0.157	0.197	0.122	0.001	0.388	0.388	-0.372	-0.325	-0.329	0.951	0.028	3.0

Appendix J: 2007 Grades 3–8 and 11 Multiple-Choice Statistics

Information					Proportions							Correlations					Rasch		
Cont.	Grade	Pub. ID	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Math	6	0947	C	1	6730	0.368	0.368	0.223	0.204	0.204	0.001	0.397	0.397	-0.465	-0.339	-0.403	1.755	0.028	3.0
Math	6	0948	A	1	6730	0.734	0.065	0.117	0.734	0.081	0.003	0.479	-0.339	-0.374	0.479	-0.362	-0.207	0.031	-6.6
Math	6	0949	A	1	6737	0.628	0.147	0.151	0.628	0.073	0.000	0.563	-0.444	-0.526	0.563	-0.428	0.390	0.028	-9.9
Math	6	0950	D	2	6737	0.778	0.169	0.024	0.028	0.778	0.000	0.459	-0.407	-0.250	-0.269	0.459	-0.497	0.032	-7.2
Math	6	0951	A	2	6737	0.806	0.088	0.806	0.050	0.055	0.000	0.489	-0.341	0.489	-0.326	-0.393	-0.700	0.033	-4.9
Math	6	0952	C	1	6737	0.807	0.168	0.012	0.807	0.012	0.001	0.333	-0.294	-0.203	0.333	-0.146	-0.704	0.033	1.2
Math	6	0953	A	1	6737	0.641	0.038	0.280	0.041	0.641	0.000	0.553	-0.311	-0.539	-0.320	0.553	0.323	0.028	-9.9
Math	6	0954	B	1	6737	0.433	0.433	0.105	0.297	0.165	0.000	0.162	0.162	-0.381	-0.023	-0.185	1.385	0.027	9.9
Math	6	0955	E	2	6737	0.633	0.056	0.147	0.163	0.633	0.001	0.411	-0.382	-0.320	-0.325	0.411	0.364	0.028	-1.5
Math	6	0956	D	2	6737	0.204	0.204	0.134	0.343	0.318	0.001	0.064	0.064	-0.245	-0.024	-0.053	2.721	0.033	9.9
Math	6	0957	C	1	6737	0.466	0.105	0.132	0.466	0.296	0.001	0.346	-0.354	-0.298	0.346	-0.305	1.214	0.027	6.5
Math	6	0958	B	1	6737	0.505	0.505	0.124	0.173	0.197	0.001	0.454	0.454	-0.337	-0.368	-0.504	1.020	0.027	-3.1
Math	6	0959	D	1	6737	0.802	0.802	0.062	0.042	0.094	0.001	0.331	0.331	-0.255	-0.293	-0.174	-0.666	0.033	1.4
Math	6	0960	A	1	6737	0.786	0.018	0.786	0.155	0.038	0.003	0.548	-0.295	0.548	-0.477	-0.385	-0.553	0.032	-9.9
Math	6	0961	A	1	6736	0.903	0.026	0.036	0.903	0.035	0.000	0.347	-0.251	-0.220	0.347	-0.206	-1.614	0.043	-2.5
Math	6	0962	D	2	6736	0.891	0.053	0.044	0.891	0.010	0.000	0.419	-0.318	-0.304	0.419	-0.152	-1.476	0.041	-7.5
Math	6	0963	A	2	6736	0.434	0.360	0.058	0.147	0.434	0.001	0.486	-0.550	-0.408	-0.303	0.486	1.387	0.028	-6.2
Math	6	0964	B	2	6736	0.470	0.470	0.251	0.157	0.120	0.001	0.403	0.403	-0.319	-0.389	-0.445	1.202	0.027	1.6
Math	6	0965	E	1	6736	0.742	0.054	0.110	0.093	0.742	0.001	0.286	-0.244	-0.220	-0.159	0.286	-0.258	0.031	5.6
Math	6	0966	C	2	6736	0.451	0.112	0.242	0.193	0.451	0.001	0.293	-0.257	-0.260	-0.292	0.293	1.297	0.027	9.9
Math	6	0967	A	1	6736	0.148	0.230	0.522	0.097	0.148	0.002	0.166	-0.305	-0.132	-0.365	0.166	3.201	0.037	9.9
Math	6	0968	E	2	6736	0.687	0.187	0.687	0.092	0.033	0.001	0.456	-0.469	0.456	-0.254	-0.209	0.073	0.029	-4.8
Math	6	0969	D	1	6736	0.449	0.459	0.449	0.057	0.033	0.001	0.308	-0.244	0.308	-0.422	-0.374	1.311	0.027	9.9
Math	6	0970	B	1	6736	0.537	0.537	0.073	0.240	0.148	0.001	0.385	0.385	-0.299	-0.283	-0.428	0.866	0.027	3.4
Math	6	0971	A	1	6736	0.827	0.091	0.827	0.031	0.050	0.001	0.542	-0.471	0.542	-0.252	-0.374	-0.856	0.035	-9.9
Math	6	0972	C	1	6736	0.585	0.066	0.316	0.585	0.031	0.002	0.432	-0.373	-0.384	0.432	-0.294	0.619	0.028	-2.6
Math	6	0973	A	1	6736	0.527	0.210	0.527	0.156	0.106	0.001	0.244	-0.259	0.244	-0.233	-0.092	0.941	0.027	9.9
Math	6	0974	D	2	6736	0.905	0.011	0.072	0.905	0.012	0.000	0.325	-0.165	-0.275	0.325	-0.147	-1.636	0.044	-3.0
Math	6	0975	A	1	6736	0.824	0.101	0.041	0.033	0.824	0.000	0.516	-0.445	-0.310	-0.290	0.516	-0.819	0.035	-9.9
Math	6	0976	B	1	6736	0.315	0.098	0.315	0.434	0.152	0.000	0.281	-0.347	0.281	-0.243	-0.368	2.052	0.029	9.9
Math	6	0977	E	2	6736	0.665	0.049	0.216	0.070	0.665	0.000	0.212	-0.195	-0.120	-0.240	0.212	0.218	0.029	9.9
Math	6	0978	C	1	6736	0.821	0.821	0.045	0.119	0.014	0.000	0.284	0.284	-0.332	-0.136	-0.193	-0.797	0.034	6.1
Math	6	0979	B	1	6736	0.650	0.070	0.650	0.219	0.060	0.001	0.474	-0.363	0.474	-0.412	-0.352	0.299	0.029	-5.4
Math	6	0980	C	1	6736	0.688	0.127	0.125	0.688	0.059	0.001	0.477	-0.293	-0.483	0.477	-0.315	0.087	0.029	-5.7
Math	6	0981	E	2	6736	0.676	0.676	0.256	0.040	0.027	0.001	0.356	0.356	-0.302	-0.267	-0.248	0.153	0.029	2.3
Math	6	0982	C	1	6736	0.604	0.083	0.186	0.127	0.604	0.001	0.475	-0.451	-0.393	-0.373	0.475	0.546	0.028	-4.9
Math	6	0983	A	1	6736	0.640	0.026	0.083	0.640	0.250	0.001	0.430	-0.366	-0.367	0.430	-0.354	0.354	0.028	-0.8
Math	6	0984	D	1	6736	0.719	0.065	0.103	0.110	0.719	0.003	0.515	-0.398	-0.384	-0.410	0.515	-0.098	0.030	-8.9
Math	6	0985	A	2	6735	0.491	0.491	0.154	0.207	0.147	0.001	0.487	0.487	-0.365	-0.458	-0.513	1.085	0.027	-5.9
Math	6	0986	B	2	6735	0.653	0.137	0.115	0.653	0.094	0.001	0.384	-0.274	-0.358	0.384	-0.266	0.246	0.029	0.4
Math	6	0987	E	2	6735	0.832	0.024	0.109	0.035	0.832	0.000	0.381	-0.191	-0.352	-0.169	0.381	-0.922	0.035	-1.4
Math	6	0988	A	1	6735	0.843	0.057	0.055	0.045	0.843	0.001	0.342	-0.226	-0.219	-0.244	0.342	-1.009	0.036	-0.6
Math	6	0989	B	1	6735	0.785	0.118	0.034	0.785	0.062	0.001	0.290	-0.139	-0.262	0.290	-0.266	-0.562	0.032	6.9

Appendix J: 2007 Grades 3–8 and 11 Multiple-Choice Statistics

Information					Proportions							Correlations					Rasch		
Cont.	Grade	Pub. ID	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Math	6	0990	D	1	6735	0.725	0.725	0.061	0.192	0.021	0.000	0.463	0.463	-0.358	-0.396	-0.233	-0.170	0.030	-6.6
Math	6	0991	A	1	6735	0.633	0.081	0.139	0.633	0.146	0.001	0.500	-0.359	-0.350	0.500	-0.487	0.354	0.028	-8.1
Math	6	0992	E	2	6735	0.839	0.839	0.056	0.061	0.045	0.000	0.396	0.396	-0.261	-0.263	-0.287	-0.976	0.036	-3.5
Math	6	0993	E	2	6735	0.796	0.079	0.796	0.075	0.049	0.001	0.458	-0.316	0.458	-0.327	-0.341	-0.639	0.033	-5.8
Math	6	0994	A	1	6735	0.461	0.426	0.052	0.461	0.060	0.001	0.384	-0.358	-0.397	0.384	-0.294	1.236	0.027	3.7
Math	6	0995	C	1	6735	0.757	0.109	0.757	0.047	0.084	0.002	0.445	-0.352	0.445	-0.355	-0.277	-0.373	0.031	-4.7
Math	6	0996	B	1	6735	0.478	0.025	0.478	0.278	0.215	0.005	0.308	-0.312	0.308	-0.310	-0.238	1.151	0.027	9.9
Math	6	0997	A	1	6723	0.598	0.145	0.166	0.598	0.090	0.000	0.491	-0.463	-0.371	0.491	-0.414	0.564	0.028	-6.8
Math	6	0998	D	1	6723	0.718	0.718	0.047	0.207	0.025	0.002	0.318	0.318	-0.292	-0.228	-0.255	-0.106	0.030	4.3
Math	6	0999	C	1	6723	0.794	0.023	0.794	0.145	0.037	0.001	0.374	-0.265	0.374	-0.280	-0.277	-0.611	0.033	0.1
Math	6	1000	E	2	6723	0.688	0.044	0.220	0.688	0.048	0.001	0.353	-0.303	-0.223	0.353	-0.409	0.073	0.029	4.5
Math	6	1001	B	2	6723	0.513	0.101	0.513	0.254	0.131	0.001	0.474	-0.437	0.474	-0.466	-0.347	1.002	0.027	-4.2
Math	6	1002	A	1	6723	0.536	0.287	0.077	0.536	0.097	0.002	0.396	-0.316	-0.439	0.396	-0.333	0.884	0.028	3.2
Math	6	1003	E	2	6723	0.896	0.896	0.044	0.039	0.020	0.001	0.375	0.375	-0.268	-0.243	-0.212	-1.539	0.042	-3.3
Math	6	1004	D	1	6723	0.653	0.116	0.653	0.133	0.097	0.001	0.459	-0.351	0.459	-0.432	-0.312	0.271	0.029	-4.0
Math	6	1005	B	1	6723	0.144	0.144	0.071	0.540	0.243	0.002	0.042	0.042	-0.366	0.019	-0.111	3.254	0.037	9.9
Math	6	1006	A	2	6723	0.690	0.220	0.048	0.690	0.041	0.001	0.491	-0.450	-0.366	0.491	-0.257	0.063	0.029	-6.9
Math	6	1007	C	1	6723	0.890	0.019	0.047	0.041	0.890	0.002	0.400	-0.240	-0.246	-0.305	0.400	-1.471	0.041	-4.0
Math	6	1008	A	1	6723	0.823	0.823	0.068	0.069	0.037	0.002	0.393	0.393	-0.285	-0.335	-0.167	-0.830	0.035	-1.4
Math	6	1009	A	1	6766	0.746	0.133	0.085	0.746	0.035	0.000	0.436	-0.344	-0.369	0.436	-0.209	-0.245	0.031	-5.0
Math	6	1010	A	1	6766	0.685	0.167	0.685	0.086	0.061	0.001	0.574	-0.533	0.574	-0.460	-0.325	0.122	0.029	-9.9
Math	6	1011	C	1	6766	0.845	0.845	0.136	0.009	0.010	0.000	0.330	0.330	-0.287	-0.166	-0.187	-0.975	0.036	0.0
Math	6	1012	E	2	6766	0.706	0.706	0.136	0.052	0.106	0.000	0.405	0.405	-0.336	-0.376	-0.238	0.003	0.029	-0.1
Math	6	1013	B	1	6766	0.906	0.017	0.026	0.051	0.906	0.001	0.302	-0.185	-0.197	-0.201	0.302	-1.613	0.044	-0.2
Math	6	1014	C	1	6766	0.449	0.109	0.198	0.449	0.243	0.001	0.331	-0.411	-0.329	0.331	-0.246	1.344	0.027	8.1
Math	6	1015	D	1	6766	0.788	0.030	0.046	0.135	0.788	0.000	0.453	-0.300	-0.348	-0.344	0.453	-0.526	0.032	-5.2
Math	6	1016	B	2	6766	0.551	0.098	0.260	0.551	0.091	0.001	0.332	-0.355	-0.238	0.332	-0.305	0.835	0.027	5.7
Math	6	1017	E	2	6766	0.464	0.464	0.066	0.156	0.313	0.001	0.257	0.257	-0.327	-0.274	-0.185	1.267	0.027	9.9
Math	6	1018	E	2	6766	0.724	0.128	0.724	0.130	0.017	0.001	0.299	-0.320	0.299	-0.135	-0.228	-0.108	0.030	5.2
Math	6	1019	C	1	6766	0.546	0.224	0.115	0.114	0.546	0.001	0.302	-0.163	-0.413	-0.260	0.302	0.859	0.027	9.7
Math	6	1020	A	1	6766	0.719	0.187	0.045	0.719	0.046	0.003	0.396	-0.312	-0.295	0.396	-0.295	-0.077	0.030	-1.3
Math	6	1021	A	1	6773	0.757	0.022	0.125	0.095	0.757	0.001	0.329	-0.239	-0.214	-0.286	0.329	-0.329	0.031	5.8
Math	6	1022	D	1	6773	0.734	0.049	0.046	0.734	0.170	0.001	0.409	-0.336	-0.252	0.409	-0.328	-0.180	0.030	-0.5
Math	6	1023	A	3	6773	0.593	0.043	0.142	0.221	0.593	0.001	0.399	-0.395	-0.427	-0.259	0.399	0.614	0.028	2.9
Math	6	1024	C	1	6773	0.721	0.170	0.061	0.721	0.047	0.001	0.435	-0.347	-0.374	0.435	-0.252	-0.098	0.030	-4.3
Math	6	1025	A	1	6773	0.816	0.072	0.051	0.061	0.816	0.000	0.535	-0.439	-0.375	-0.338	0.535	-0.750	0.034	-9.6
Math	6	1026	E	2	6773	0.547	0.278	0.547	0.071	0.103	0.001	0.282	-0.216	0.282	-0.348	-0.212	0.849	0.027	9.9
Math	6	1027	C	1	6773	0.653	0.153	0.164	0.029	0.653	0.000	0.440	-0.392	-0.357	-0.264	0.440	0.291	0.029	-2.9
Math	6	1028	D	1	6773	0.772	0.772	0.036	0.148	0.043	0.001	0.483	0.483	-0.276	-0.420	-0.316	-0.433	0.032	-8.1
Math	6	1029	A	1	6773	0.813	0.097	0.044	0.813	0.045	0.001	0.379	-0.211	-0.306	0.379	-0.313	-0.729	0.034	-1.6
Math	6	1030	E	2	6773	0.606	0.140	0.153	0.606	0.100	0.001	0.520	-0.407	-0.557	0.520	-0.303	0.543	0.028	-9.0
Math	6	1031	D	1	6773	0.558	0.558	0.138	0.076	0.226	0.001	0.284	0.284	-0.238	-0.313	-0.212	0.793	0.027	9.9
Math	6	1032	B	1	6773	0.533	0.075	0.533	0.220	0.171	0.001	0.452	-0.334	0.452	-0.405	-0.436	0.922	0.027	-2.0

Appendix J: 2007 Grades 3–8 and 11 Multiple-Choice Statistics

Information					Proportions							Correlations					Rasch		
Cont.	Grade	Pub. ID	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Math	6	1033	A	1	6777	0.892	0.024	0.043	0.041	0.892	0.000	0.233	-0.195	-0.114	-0.152	0.233	-1.474	0.041	4.1
Math	6	1034	A	1	6777	0.792	0.033	0.137	0.792	0.037	0.001	0.499	-0.297	-0.425	0.499	-0.321	-0.583	0.033	-9.5
Math	6	1035	D	1	6777	0.699	0.183	0.699	0.056	0.062	0.001	0.383	-0.289	0.383	-0.346	-0.262	0.013	0.029	-0.1
Math	6	1036	A	1	6777	0.917	0.050	0.015	0.917	0.018	0.000	0.338	-0.285	-0.208	0.338	-0.123	-1.796	0.046	-2.7
Math	6	1037	E	2	6777	0.858	0.858	0.045	0.078	0.019	0.000	0.238	0.238	-0.192	-0.125	-0.193	-1.124	0.037	6.3
Math	6	1038	E	2	6777	0.434	0.437	0.092	0.036	0.434	0.000	0.420	-0.376	-0.448	-0.416	0.420	1.400	0.028	2.1
Math	6	1039	A	1	6777	0.541	0.541	0.333	0.053	0.073	0.001	0.531	0.531	-0.475	-0.481	-0.479	0.857	0.027	-9.9
Math	6	1040	A	2	6777	0.608	0.119	0.608	0.145	0.127	0.001	0.362	-0.327	0.362	-0.262	-0.302	0.511	0.028	3.4
Math	6	1041	C	1	6777	0.813	0.813	0.146	0.021	0.019	0.000	0.345	0.345	-0.272	-0.236	-0.219	-0.740	0.034	-0.1
Math	6	1042	D	1	6777	0.575	0.106	0.069	0.248	0.575	0.001	0.412	-0.471	-0.390	-0.268	0.412	0.681	0.028	-0.5
Math	6	1043	C	1	6777	0.824	0.060	0.048	0.067	0.824	0.001	0.316	-0.220	-0.243	-0.187	0.316	-0.830	0.034	2.5
Math	6	1044	A	1	6777	0.529	0.229	0.139	0.529	0.098	0.005	0.358	-0.289	-0.319	0.358	-0.359	0.916	0.027	5.4
Math	6	1045	A	2	6764	0.666	0.207	0.062	0.666	0.065	0.000	0.490	-0.480	-0.317	0.490	-0.280	0.212	0.029	-6.2
Math	6	1046	E	2	6764	0.336	0.234	0.117	0.312	0.336	0.001	0.370	-0.347	-0.387	-0.419	0.370	1.918	0.029	3.7
Math	6	1047	C	1	6764	0.718	0.049	0.035	0.198	0.718	0.000	0.447	-0.313	-0.299	-0.383	0.447	-0.086	0.030	-3.5
Math	6	1048	D	2	6764	0.742	0.742	0.158	0.064	0.036	0.001	0.467	0.467	-0.362	-0.368	-0.331	-0.234	0.031	-5.9
Math	6	1049	A	1	6764	0.788	0.788	0.062	0.069	0.080	0.001	0.322	0.322	-0.224	-0.228	-0.222	-0.541	0.032	3.1
Math	6	1050	A	1	6764	0.647	0.169	0.647	0.055	0.127	0.001	0.462	-0.450	0.462	-0.337	-0.286	0.315	0.028	-5.6
Math	6	1051	C	1	6764	0.356	0.493	0.356	0.043	0.108	0.000	0.241	-0.194	0.241	-0.387	-0.315	1.808	0.028	9.9
Math	6	1052	E	2	6764	0.934	0.934	0.020	0.024	0.021	0.000	0.293	0.293	-0.207	-0.178	-0.162	-2.058	0.051	-0.1
Math	6	1053	B	1	6764	0.724	0.724	0.213	0.031	0.032	0.000	0.452	0.452	-0.381	-0.333	-0.305	-0.122	0.030	-5.7
Math	6	1054	D	1	6764	0.935	0.033	0.935	0.023	0.008	0.001	0.273	-0.218	0.273	-0.147	-0.135	-2.071	0.051	0.4
Math	6	1055	A	1	6764	0.818	0.013	0.050	0.118	0.818	0.002	0.397	-0.239	-0.288	-0.307	0.397	-0.767	0.034	-3.0
Math	6	1056	E	2	6764	0.649	0.039	0.649	0.050	0.258	0.004	0.323	-0.309	0.323	-0.342	-0.221	0.303	0.028	7.3
Math	6	1057	A	1	6735	0.667	0.128	0.037	0.667	0.167	0.001	0.388	-0.164	-0.234	0.388	-0.445	0.197	0.029	0.5
Math	6	1058	A	1	6735	0.948	0.948	0.027	0.015	0.010	0.000	0.319	0.319	-0.215	-0.209	-0.163	-2.351	0.057	-4.0
Math	6	1059	D	2	6735	0.730	0.044	0.127	0.098	0.730	0.001	0.498	-0.270	-0.413	-0.407	0.498	-0.171	0.030	-7.7
Math	6	1060	A	1	6735	0.882	0.882	0.054	0.034	0.029	0.001	0.327	0.327	-0.228	-0.205	-0.203	-1.365	0.040	-0.6
Math	6	1061	E	2	6735	0.468	0.470	0.035	0.027	0.468	0.001	0.290	-0.257	-0.283	-0.320	0.290	1.238	0.027	9.9
Math	6	1062	C	1	6735	0.801	0.110	0.801	0.029	0.059	0.001	0.388	-0.312	0.388	-0.276	-0.227	-0.651	0.033	-2.1
Math	6	1063	B	1	6735	0.923	0.923	0.043	0.018	0.015	0.001	0.338	0.338	-0.231	-0.222	-0.190	-1.898	0.048	-3.1
Math	6	1064	A	1	6735	0.828	0.082	0.045	0.044	0.828	0.001	0.508	-0.418	-0.327	-0.304	0.508	-0.862	0.035	-9.7
Math	6	1065	A	2	6735	0.680	0.178	0.680	0.092	0.049	0.001	0.562	-0.528	0.562	-0.466	-0.247	0.123	0.029	-9.9
Math	6	1066	C	1	6735	0.758	0.758	0.078	0.028	0.136	0.001	0.317	0.317	-0.182	-0.236	-0.267	-0.347	0.031	5.8
Math	6	1067	D	1	6735	0.565	0.565	0.279	0.077	0.078	0.001	0.369	0.369	-0.243	-0.446	-0.365	0.742	0.028	5.6
Math	6	1068	E	2	6735	0.612	0.186	0.060	0.612	0.138	0.004	0.569	-0.513	-0.441	0.569	-0.465	0.497	0.028	-9.9
Math	6	1069	A	1	6718	0.690	0.166	0.054	0.690	0.091	0.000	0.396	-0.340	-0.308	0.396	-0.246	0.092	0.029	-2.1
Math	6	1070	D	2	6718	0.744	0.744	0.146	0.085	0.024	0.001	0.460	0.460	-0.375	-0.350	-0.280	-0.234	0.031	-5.8
Math	6	1071	E	2	6718	0.422	0.166	0.137	0.422	0.274	0.001	0.424	-0.495	-0.306	0.424	-0.416	1.505	0.028	0.0
Math	6	1072	A	1	6718	0.554	0.212	0.117	0.115	0.554	0.001	0.404	-0.319	-0.376	-0.350	0.404	0.821	0.028	-0.3
Math	6	1073	A	1	6718	0.548	0.047	0.045	0.359	0.548	0.001	0.503	-0.400	-0.321	-0.488	0.503	0.856	0.028	-7.8
Math	6	1074	C	1	6718	0.720	0.720	0.100	0.083	0.095	0.001	0.477	0.477	-0.393	-0.437	-0.256	-0.086	0.030	-5.9
Math	6	1075	A	1	6718	0.466	0.329	0.117	0.466	0.087	0.001	0.321	-0.228	-0.424	0.321	-0.319	1.269	0.028	9.9

Appendix J: 2007 Grades 3–8 and 11 Multiple-Choice Statistics

Information					Proportions							Correlations					Rasch		
Cont.	Grade	Pub. ID	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Math	6	1076	D	1	6718	0.574	0.097	0.137	0.191	0.574	0.002	0.399	-0.370	-0.302	-0.345	0.399	0.720	0.028	1.8
Math	6	1077	C	1	6718	0.657	0.120	0.089	0.132	0.657	0.002	0.412	-0.408	-0.258	-0.292	0.412	0.277	0.029	-1.1
Math	6	1078	C	2	6718	0.590	0.068	0.228	0.590	0.112	0.002	0.488	-0.295	-0.531	0.488	-0.290	0.636	0.028	-5.6
Math	6	1079	A	1	6718	0.866	0.014	0.043	0.075	0.866	0.001	0.361	-0.219	-0.145	-0.334	0.361	-1.181	0.038	-1.5
Math	6	1080	B	1	6718	0.770	0.065	0.770	0.114	0.048	0.004	0.412	-0.361	0.412	-0.266	-0.278	-0.403	0.032	-3.1
Math	6	1081	A	2	6757	0.617	0.194	0.617	0.107	0.082	0.000	0.438	-0.462	0.438	-0.265	-0.281	0.464	0.028	-2.0
Math	6	1082	C	1	6757	0.789	0.094	0.090	0.789	0.026	0.000	0.395	-0.326	-0.313	0.395	-0.151	-0.567	0.033	-0.1
Math	6	1083	D	2	6757	0.583	0.098	0.214	0.104	0.583	0.001	0.546	-0.461	-0.508	-0.421	0.546	0.637	0.028	-9.9
Math	6	1084	A	2	6757	0.445	0.445	0.302	0.210	0.042	0.000	0.436	0.436	-0.544	-0.247	-0.329	1.343	0.027	-1.0
Math	6	1085	A	2	6757	0.496	0.496	0.165	0.143	0.194	0.002	0.309	0.309	-0.252	-0.314	-0.274	1.084	0.027	9.9
Math	6	1086	E	2	6757	0.782	0.086	0.055	0.077	0.782	0.000	0.549	-0.465	-0.353	-0.387	0.549	-0.517	0.032	-9.9
Math	6	1087	D	1	6757	0.869	0.869	0.044	0.055	0.031	0.000	0.433	0.433	-0.272	-0.296	-0.307	-1.234	0.038	-7.1
Math	6	1088	B	1	6757	0.599	0.103	0.060	0.599	0.236	0.001	0.264	-0.163	-0.298	0.264	-0.210	0.556	0.028	9.9
Math	6	1089	A	1	6757	0.797	0.029	0.797	0.028	0.145	0.001	0.337	-0.251	0.337	-0.239	-0.244	-0.624	0.033	-0.4
Math	6	1090	A	1	6757	0.819	0.117	0.035	0.819	0.028	0.001	0.528	-0.492	-0.236	0.528	-0.298	-0.790	0.034	-9.6
Math	6	1091	E	1	6757	0.959	0.012	0.959	0.015	0.012	0.002	0.232	-0.124	0.232	-0.164	-0.117	-2.610	0.063	-0.3
Math	6	1092	E	2	6757	0.627	0.210	0.627	0.116	0.043	0.004	0.419	-0.422	0.419	-0.229	-0.339	0.411	0.028	0.8
Math	6	1093	A	2	6732	0.377	0.090	0.399	0.134	0.377	0.000	0.263	-0.365	-0.215	-0.281	0.263	1.717	0.028	9.9
Math	6	1094	B	2	6732	0.532	0.056	0.532	0.197	0.215	0.000	0.480	-0.360	0.480	-0.550	-0.344	0.945	0.027	-5.7
Math	6	1095	D	2	6732	0.757	0.037	0.071	0.134	0.757	0.001	0.507	-0.309	-0.409	-0.403	0.507	-0.313	0.031	-8.8
Math	6	1096	E	2	6732	0.837	0.030	0.837	0.052	0.081	0.000	0.353	-0.235	0.353	-0.304	-0.202	-0.905	0.036	-0.6
Math	6	1097	A	1	6732	0.549	0.089	0.061	0.300	0.549	0.001	0.480	-0.418	-0.321	-0.456	0.480	0.856	0.027	-6.8
Math	6	1098	D	1	6732	0.803	0.803	0.107	0.043	0.045	0.001	0.413	0.413	-0.329	-0.326	-0.213	-0.631	0.033	-3.1
Math	6	1099	C	2	6732	0.393	0.084	0.245	0.275	0.393	0.002	0.358	-0.424	-0.367	-0.308	0.358	1.633	0.028	4.2
Math	6	1100	E	2	6732	0.792	0.012	0.792	0.046	0.148	0.001	0.396	-0.235	0.396	-0.218	-0.351	-0.552	0.033	-1.9
Math	6	1101	C	1	6732	0.577	0.577	0.264	0.107	0.051	0.001	0.362	0.362	-0.252	-0.396	-0.347	0.706	0.028	4.6
Math	6	1102	B	1	6732	0.221	0.221	0.354	0.160	0.264	0.001	0.142	0.142	-0.227	-0.129	-0.103	2.643	0.032	9.9
Math	6	1103	D	1	6732	0.396	0.332	0.145	0.396	0.124	0.003	0.126	-0.089	-0.250	0.126	-0.040	1.618	0.028	9.9
Math	6	1104	A	2	6732	0.484	0.406	0.071	0.484	0.036	0.003	0.564	-0.598	-0.384	0.564	-0.267	1.171	0.027	-9.9
Math	6	1105	A	2	6770	0.550	0.084	0.550	0.147	0.218	0.000	0.419	-0.345	0.419	-0.273	-0.446	0.849	0.027	0.9
Math	6	1106	B	1	6770	0.906	0.906	0.035	0.029	0.028	0.000	0.371	0.371	-0.225	-0.244	-0.250	-1.614	0.044	-4.7
Math	6	1107	C	1	6770	0.760	0.080	0.093	0.067	0.760	0.001	0.470	-0.297	-0.398	-0.338	0.470	-0.328	0.031	-4.8
Math	6	1108	A	2	6770	0.719	0.052	0.097	0.131	0.719	0.001	0.422	-0.205	-0.365	-0.340	0.422	-0.066	0.030	-3.1
Math	6	1109	E	2	6770	0.753	0.124	0.753	0.043	0.078	0.001	0.262	-0.156	0.262	-0.226	-0.200	-0.280	0.031	5.9
Math	6	1110	A	2	6770	0.876	0.089	0.024	0.011	0.876	0.000	0.421	-0.373	-0.214	-0.179	0.421	-1.268	0.039	-6.1
Math	6	1111	A	1	6770	0.581	0.161	0.581	0.146	0.110	0.002	0.431	-0.365	0.431	-0.393	-0.322	0.689	0.028	-2.5
Math	6	1112	E	2	6770	0.745	0.028	0.066	0.160	0.745	0.001	0.390	-0.271	-0.259	-0.325	0.390	-0.237	0.031	-1.2
Math	6	1113	A	1	6770	0.637	0.047	0.251	0.637	0.065	0.001	0.535	-0.320	-0.546	0.535	-0.264	0.393	0.028	-9.9
Math	6	1114	A	2	6770	0.490	0.372	0.490	0.056	0.082	0.001	0.452	-0.475	0.452	-0.426	-0.180	1.154	0.027	-2.9
Math	6	1115	E	2	6770	0.574	0.196	0.184	0.574	0.044	0.001	0.555	-0.537	-0.479	0.555	-0.381	0.724	0.028	-9.9
Math	6	1116	B	1	6770	0.222	0.083	0.506	0.222	0.186	0.003	0.126	-0.282	-0.084	0.126	-0.222	2.665	0.032	9.9
Math	6	1117	A	2	6724	0.793	0.036	0.133	0.793	0.037	0.000	0.455	-0.305	-0.364	0.455	-0.298	-0.567	0.033	-5.3
Math	6	1118	C	1	6724	0.714	0.714	0.083	0.152	0.048	0.001	0.412	0.412	-0.206	-0.374	-0.336	-0.051	0.030	-0.3

Appendix J: 2007 Grades 3–8 and 11 Multiple-Choice Statistics

Information					Proportions							Correlations					Rasch		
Cont.	Grade	Pub. ID	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Math	6	1119	A	1	6724	0.885	0.885	0.044	0.041	0.030	0.000	0.483	0.483	-0.311	-0.346	-0.312	-1.374	0.041	-9.9
Math	6	1120	B	2	6724	0.790	0.037	0.103	0.790	0.070	0.000	0.426	-0.242	-0.415	0.426	-0.212	-0.546	0.033	-2.1
Math	6	1121	D	2	6724	0.865	0.865	0.050	0.027	0.057	0.001	0.435	0.435	-0.311	-0.288	-0.280	-1.175	0.038	-6.0
Math	6	1122	B	1	6724	0.816	0.088	0.816	0.029	0.066	0.001	0.358	-0.255	0.358	-0.295	-0.218	-0.745	0.034	1.1
Math	6	1123	B	1	6724	0.351	0.018	0.057	0.573	0.351	0.001	0.266	-0.404	-0.453	-0.222	0.266	1.868	0.029	9.9
Math	6	1124	A	1	6724	0.847	0.065	0.028	0.059	0.847	0.001	0.375	-0.304	-0.220	-0.223	0.375	-1.007	0.037	-2.3
Math	6	1125	E	2	6724	0.915	0.022	0.915	0.033	0.028	0.001	0.314	-0.185	0.314	-0.216	-0.191	-1.761	0.046	-2.5
Math	6	1126	C	1	6724	0.854	0.854	0.035	0.064	0.046	0.001	0.297	0.297	-0.237	-0.200	-0.158	-1.070	0.037	2.1
Math	6	1127	D	1	6724	0.891	0.038	0.891	0.059	0.010	0.003	0.297	-0.211	0.297	-0.202	-0.180	-1.446	0.042	1.5
Math	6	1128	A	1	6724	0.590	0.146	0.590	0.102	0.156	0.006	0.530	-0.457	0.530	-0.264	-0.576	0.639	0.028	-9.8
Math	7	1129	A	2	140692	0.620	0.203	0.155	0.620	0.022	0.000	0.588	-0.608	-0.467	0.588	-0.175	0.305	0.006	-9.9
Math	7	1130	A	2	140692	0.629	0.246	0.102	0.629	0.022	0.000	0.582	-0.571	-0.447	0.582	-0.225	0.255	0.006	-9.9
Math	7	1131	A	1	140692	0.492	0.075	0.492	0.062	0.370	0.000	0.295	-0.345	0.295	-0.295	-0.226	0.988	0.006	9.9
Math	7	1132	A	2	140692	0.538	0.313	0.538	0.096	0.052	0.001	0.417	-0.356	0.417	-0.390	-0.368	0.748	0.006	9.9
Math	7	1133	D	2	140692	0.759	0.127	0.017	0.759	0.097	0.000	0.213	-0.118	-0.181	0.213	-0.194	-0.530	0.007	9.9
Math	7	1134	A	2	140692	0.466	0.222	0.466	0.286	0.025	0.001	0.400	-0.359	0.400	-0.385	-0.361	1.129	0.006	9.9
Math	7	1135	C	1	140692	0.793	0.793	0.056	0.083	0.068	0.001	0.487	0.487	-0.350	-0.332	-0.365	-0.765	0.007	-9.9
Math	7	1136	C	1	140692	0.615	0.084	0.204	0.615	0.096	0.001	0.397	-0.389	-0.331	0.397	-0.261	0.336	0.006	9.9
Math	7	1137	D	2	140692	0.821	0.011	0.040	0.128	0.821	0.000	0.398	-0.196	-0.384	-0.274	0.398	-0.981	0.008	-2.3
Math	7	1138	E	1	140692	0.579	0.102	0.579	0.156	0.161	0.001	0.446	-0.272	0.446	-0.342	-0.484	0.527	0.006	-3.1
Math	7	1139	E	2	140692	0.457	0.332	0.127	0.082	0.457	0.001	0.475	-0.428	-0.468	-0.479	0.475	1.172	0.006	-6.3
Math	7	1140	D	2	140692	0.587	0.101	0.172	0.139	0.587	0.002	0.411	-0.278	-0.351	-0.381	0.411	0.487	0.006	8.8
Math	7	1141	D	2	140692	0.576	0.189	0.174	0.576	0.061	0.001	0.511	-0.490	-0.472	0.511	-0.265	0.546	0.006	-9.9
Math	7	1142	A	2	140692	0.885	0.036	0.044	0.885	0.033	0.001	0.457	-0.286	-0.316	0.457	-0.301	-1.590	0.009	-9.9
Math	7	1143	A	1	140692	0.628	0.048	0.098	0.628	0.224	0.001	0.521	-0.360	-0.472	0.521	-0.439	0.260	0.006	-9.9
Math	7	1144	B	1	140692	0.809	0.077	0.079	0.035	0.809	0.001	0.431	-0.298	-0.330	-0.274	0.431	-0.888	0.007	-9.9
Math	7	1145	D	1	140692	0.704	0.122	0.704	0.148	0.024	0.001	0.489	-0.423	0.489	-0.392	-0.246	-0.178	0.007	-9.9
Math	7	1146	A	2	140692	0.469	0.419	0.469	0.070	0.040	0.002	0.305	-0.236	0.305	-0.385	-0.349	1.109	0.006	9.9
Math	7	1147	E	1	140692	0.745	0.118	0.100	0.745	0.036	0.001	0.520	-0.452	-0.371	0.520	-0.324	-0.434	0.007	-9.9
Math	7	1148	E	2	140692	0.893	0.893	0.076	0.019	0.012	0.001	0.358	0.358	-0.280	-0.224	-0.176	-1.674	0.009	-9.9
Math	7	1149	A	2	140692	0.565	0.122	0.565	0.103	0.207	0.003	0.457	-0.482	0.457	-0.381	-0.331	0.606	0.006	-7.2
Math	7	1150	C	1	140692	0.905	0.046	0.031	0.905	0.017	0.000	0.271	-0.200	-0.155	0.271	-0.154	-1.825	0.010	6.9
Math	7	1151	D	1	140692	0.482	0.124	0.291	0.102	0.482	0.001	0.450	-0.482	-0.398	-0.384	0.450	1.041	0.006	-3.2
Math	7	1152	D	2	140692	0.719	0.086	0.111	0.719	0.083	0.001	0.440	-0.339	-0.297	0.440	-0.358	-0.269	0.007	-9.9
Math	7	1153	E	2	140692	0.501	0.065	0.501	0.151	0.282	0.001	0.304	-0.371	0.304	-0.365	-0.172	0.942	0.006	9.9
Math	7	1154	C	1	140692	0.758	0.087	0.758	0.041	0.113	0.000	0.477	-0.395	0.477	-0.290	-0.351	-0.522	0.007	-9.9
Math	7	1155	D	1	140692	0.912	0.912	0.033	0.023	0.031	0.000	0.433	0.433	-0.270	-0.281	-0.289	-1.919	0.010	-9.9
Math	7	1156	B	2	140692	0.621	0.155	0.117	0.621	0.105	0.001	0.552	-0.508	-0.366	0.552	-0.501	0.300	0.006	-9.9
Math	7	1157	E	2	140692	0.653	0.653	0.126	0.214	0.007	0.000	0.492	0.492	-0.405	-0.456	-0.179	0.120	0.006	-9.9
Math	7	1158	A	2	140692	0.625	0.185	0.625	0.081	0.107	0.001	0.432	-0.258	0.432	-0.396	-0.449	0.276	0.006	8.6
Math	7	1159	E	2	140692	0.656	0.179	0.656	0.076	0.088	0.001	0.385	-0.259	0.385	-0.325	-0.352	0.105	0.006	9.9
Math	7	1160	C	1	140692	0.533	0.074	0.305	0.533	0.088	0.001	0.491	-0.373	-0.488	0.491	-0.340	0.773	0.006	-9.9
Math	7	1161	E	1	140692	0.820	0.820	0.085	0.056	0.038	0.001	0.426	0.426	-0.297	-0.320	-0.272	-0.976	0.008	-9.9

Appendix J: 2007 Grades 3–8 and 11 Multiple-Choice Statistics

Information					Proportions							Correlations					Rasch		
Cont.	Grade	Pub. ID	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Math	7	1162	E	2	140692	0.689	0.183	0.044	0.083	0.689	0.000	0.541	-0.456	-0.381	-0.427	0.541	-0.089	0.007	-9.9
Math	7	1163	B	1	140692	0.705	0.058	0.138	0.705	0.098	0.001	0.545	-0.324	-0.464	0.545	-0.448	-0.182	0.007	-9.9
Math	7	1164	B	1	140692	0.633	0.303	0.633	0.042	0.021	0.000	0.448	-0.447	0.448	-0.205	-0.209	0.235	0.006	-3.9
Math	7	1165	D	1	140692	0.774	0.087	0.107	0.774	0.032	0.001	0.545	-0.464	0.448	0.545	-0.272	-0.627	0.007	-9.9
Math	7	1166	D	2	140692	0.589	0.589	0.081	0.157	0.171	0.001	0.367	0.367	-0.329	-0.390	-0.205	0.476	0.006	9.9
Math	7	1167	E	2	140692	0.712	0.108	0.712	0.079	0.100	0.001	0.484	-0.439	0.484	-0.298	-0.353	-0.226	0.007	-9.9
Math	7	1168	D	2	140692	0.583	0.077	0.096	0.243	0.583	0.001	0.425	-0.328	-0.407	-0.347	0.425	0.506	0.006	8.1
Math	7	1169	C	1	140692	0.796	0.024	0.796	0.022	0.157	0.000	0.414	-0.228	0.414	-0.276	-0.348	-0.790	0.007	-7.1
Math	7	1170	A	1	140692	0.764	0.063	0.101	0.764	0.071	0.001	0.426	-0.372	-0.291	0.426	-0.269	-0.558	0.007	-6.6
Math	7	1171	A	1	140692	0.694	0.073	0.104	0.128	0.694	0.001	0.374	-0.347	-0.193	-0.321	0.374	-0.116	0.007	9.9
Math	7	1172	B	1	140692	0.539	0.138	0.061	0.539	0.261	0.001	0.488	-0.285	-0.371	0.488	-0.536	0.743	0.006	-9.9
Math	7	1173	D	2	140692	0.634	0.098	0.134	0.132	0.634	0.001	0.444	-0.370	-0.364	-0.356	0.444	0.228	0.006	0.7
Math	7	1174	C	1	140692	0.844	0.045	0.063	0.047	0.844	0.001	0.357	-0.213	-0.258	-0.246	0.357	-1.180	0.008	9.9
Math	7	1175	A	1	140692	0.827	0.055	0.056	0.827	0.061	0.001	0.432	-0.310	-0.314	0.432	-0.267	-1.030	0.008	-9.9
Math	7	1176	E	2	140692	0.455	0.077	0.070	0.455	0.397	0.001	0.248	-0.255	-0.209	0.248	-0.225	1.184	0.006	9.9
Math	7	1177	C	1	140692	0.724	0.101	0.059	0.115	0.724	0.001	0.507	-0.427	-0.397	-0.345	0.507	-0.300	0.007	-9.9
Math	7	1178	D	1	140692	0.485	0.096	0.095	0.485	0.322	0.002	0.199	-0.250	-0.260	0.199	-0.110	1.025	0.006	9.9
Math	7	1179	D	2	140692	0.431	0.302	0.123	0.142	0.431	0.001	0.398	-0.314	-0.511	-0.383	0.398	1.312	0.006	9.9
Math	7	1180	E	2	140692	0.799	0.062	0.070	0.799	0.067	0.001	0.411	-0.244	-0.313	0.411	-0.302	-0.811	0.007	-3.6
Math	7	1181	C	1	140692	0.787	0.039	0.108	0.787	0.065	0.001	0.439	-0.278	-0.402	0.439	-0.217	-0.722	0.007	-9.9
Math	7	1182	B	2	140692	0.602	0.138	0.602	0.074	0.183	0.003	0.410	-0.408	0.410	-0.319	-0.291	0.405	0.006	9.9
Math	7	1183	A	1	7619	0.574	0.112	0.155	0.574	0.158	0.000	0.401	-0.376	-0.356	0.401	-0.279	0.419	0.027	5.2
Math	7	1184	A	1	7619	0.842	0.066	0.031	0.060	0.842	0.001	0.556	-0.411	-0.331	-0.407	0.556	-1.325	0.034	-9.9
Math	7	1185	C	1	7619	0.533	0.533	0.179	0.092	0.195	0.000	0.413	0.413	-0.421	-0.379	-0.288	0.642	0.026	6.5
Math	7	1186	D	1	7619	0.749	0.140	0.072	0.749	0.039	0.001	0.522	-0.469	-0.359	0.522	-0.267	-0.607	0.030	-7.8
Math	7	1187	E	2	7619	0.544	0.276	0.544	0.112	0.067	0.001	0.513	-0.532	0.513	-0.371	-0.331	0.582	0.027	-4.4
Math	7	1188	D	2	7619	0.426	0.044	0.087	0.442	0.426	0.001	0.334	-0.460	-0.264	-0.303	0.334	1.212	0.027	9.9
Math	7	1189	C	1	7619	0.767	0.767	0.111	0.083	0.036	0.001	0.448	0.448	-0.327	-0.350	-0.284	-0.735	0.030	-1.1
Math	7	1190	B	2	7619	0.584	0.050	0.584	0.187	0.177	0.002	0.470	-0.330	0.470	-0.461	-0.363	0.369	0.027	0.0
Math	7	1191	A	2	7619	0.647	0.647	0.212	0.079	0.061	0.002	0.501	0.501	-0.408	-0.392	-0.421	0.018	0.027	-2.8
Math	7	1192	D	2	7619	0.726	0.101	0.109	0.062	0.726	0.001	0.567	-0.413	-0.476	-0.401	0.567	-0.458	0.029	-9.9
Math	7	1193	E	2	7619	0.524	0.218	0.092	0.524	0.166	0.001	0.433	-0.483	-0.412	0.433	-0.224	0.692	0.026	3.8
Math	7	1194	C	2	7619	0.255	0.081	0.255	0.540	0.123	0.002	0.173	-0.434	0.173	-0.105	-0.291	2.220	0.030	9.9
Math	7	1195	A	2	7071	0.638	0.136	0.154	0.638	0.072	0.000	0.479	-0.522	-0.361	0.479	-0.218	0.163	0.028	-2.8
Math	7	1196	A	1	7071	0.831	0.831	0.066	0.078	0.025	0.000	0.364	0.364	-0.270	-0.222	-0.272	-1.102	0.035	-0.2
Math	7	1197	E	2	7071	0.526	0.050	0.352	0.071	0.526	0.001	0.490	-0.485	-0.432	-0.448	0.490	0.757	0.027	-3.9
Math	7	1198	C	1	7071	0.417	0.080	0.417	0.231	0.271	0.001	0.273	-0.491	0.273	-0.291	-0.144	1.328	0.027	9.9
Math	7	1199	B	2	7071	0.435	0.295	0.435	0.173	0.096	0.002	0.345	-0.318	0.345	-0.312	-0.341	1.235	0.027	9.9
Math	7	1200	D	2	7071	0.545	0.545	0.115	0.178	0.161	0.001	0.451	0.451	-0.412	-0.405	-0.352	0.661	0.027	-0.8
Math	7	1201	A	2	7071	0.310	0.051	0.089	0.549	0.310	0.001	0.266	-0.486	-0.482	-0.190	0.266	1.923	0.029	9.9
Math	7	1202	E	2	7071	0.550	0.248	0.105	0.550	0.095	0.001	0.295	-0.127	-0.350	0.295	-0.393	0.633	0.027	9.9
Math	7	1203	C	1	7071	0.634	0.168	0.081	0.115	0.634	0.001	0.463	-0.369	-0.398	-0.369	0.463	0.188	0.028	-1.7
Math	7	1204	E	2	7071	0.842	0.055	0.842	0.071	0.031	0.000	0.494	-0.264	0.494	-0.436	-0.298	-1.197	0.035	-7.2

Appendix J: 2007 Grades 3–8 and 11 Multiple-Choice Statistics

Information						Proportions						Correlations					Rasch		
Cont.	Grade	Pub. ID	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Math	7	1205	C	1	7071	0.673	0.045	0.078	0.202	0.673	0.001	0.275	-0.203	-0.204	-0.226	0.275	-0.035	0.029	9.9
Math	7	1206	D	2	7071	0.576	0.576	0.145	0.190	0.085	0.003	0.464	0.464	-0.440	-0.338	-0.420	0.497	0.027	-3.5
Math	7	1207	A	1	7042	0.594	0.120	0.216	0.594	0.068	0.001	0.293	-0.179	-0.273	0.293	-0.247	0.428	0.028	9.9
Math	7	1208	C	2	7042	0.760	0.186	0.044	0.760	0.009	0.000	0.396	-0.378	-0.193	0.396	-0.164	-0.549	0.031	0.1
Math	7	1209	A	2	7042	0.780	0.033	0.780	0.129	0.057	0.000	0.456	-0.274	0.456	-0.338	-0.370	-0.684	0.032	-5.7
Math	7	1210	D	1	7042	0.768	0.061	0.107	0.768	0.062	0.001	0.520	-0.415	-0.379	0.520	-0.355	-0.601	0.031	-8.6
Math	7	1211	E	2	7042	0.640	0.092	0.640	0.175	0.092	0.001	0.567	-0.391	0.567	-0.562	-0.387	0.181	0.028	-9.5
Math	7	1212	C	1	7042	0.560	0.097	0.097	0.242	0.560	0.002	0.397	-0.329	-0.397	-0.309	0.397	0.608	0.027	4.0
Math	7	1213	D	2	7042	0.454	0.105	0.165	0.454	0.276	0.000	0.357	-0.212	-0.358	0.357	-0.358	1.166	0.027	9.9
Math	7	1214	A	1	7042	0.590	0.091	0.147	0.170	0.590	0.002	0.465	-0.437	-0.445	-0.321	0.465	0.453	0.028	0.5
Math	7	1215	A	2	7042	0.391	0.072	0.391	0.477	0.058	0.001	0.293	-0.377	0.293	-0.234	-0.354	1.498	0.028	9.9
Math	7	1216	D	2	7042	0.718	0.173	0.046	0.060	0.718	0.001	0.491	-0.387	-0.381	-0.368	0.491	-0.277	0.030	-5.0
Math	7	1217	C	1	7042	0.775	0.056	0.775	0.115	0.052	0.002	0.420	-0.279	0.420	-0.318	-0.298	-0.648	0.032	-2.4
Math	7	1218	D	2	7042	0.573	0.132	0.073	0.573	0.218	0.003	0.345	-0.392	-0.368	0.345	-0.179	0.539	0.027	9.9
Math	7	1219	A	1	7044	0.448	0.448	0.165	0.259	0.127	0.000	0.386	0.386	-0.472	-0.330	-0.265	1.209	0.027	6.7
Math	7	1220	E	2	7044	0.916	0.017	0.035	0.031	0.916	0.001	0.397	-0.210	-0.293	-0.245	0.397	-1.958	0.045	-5.9
Math	7	1221	D	1	7044	0.647	0.647	0.161	0.121	0.069	0.001	0.390	0.390	-0.321	-0.298	-0.284	0.162	0.028	0.2
Math	7	1222	B	1	7044	0.475	0.060	0.475	0.426	0.038	0.002	0.474	-0.443	0.474	-0.452	-0.310	1.071	0.027	-2.0
Math	7	1223	A	1	7044	0.830	0.040	0.083	0.047	0.830	0.001	0.489	-0.329	-0.372	-0.313	0.489	-1.039	0.034	-8.7
Math	7	1224	C	1	7044	0.577	0.095	0.577	0.214	0.112	0.002	0.304	-0.284	0.304	-0.316	-0.124	0.540	0.027	9.9
Math	7	1225	A	2	7044	0.594	0.123	0.143	0.594	0.139	0.001	0.587	-0.550	-0.513	0.587	-0.439	0.449	0.028	-9.9
Math	7	1226	A	2	7044	0.770	0.147	0.770	0.032	0.050	0.001	0.317	-0.136	0.317	-0.302	-0.366	-0.592	0.031	9.9
Math	7	1227	C	1	7044	0.770	0.169	0.032	0.028	0.770	0.001	0.418	-0.349	-0.260	-0.282	0.418	-0.591	0.031	-1.1
Math	7	1228	B	2	7044	0.483	0.203	0.483	0.099	0.213	0.002	0.306	-0.368	0.306	-0.327	-0.132	1.028	0.027	9.9
Math	7	1229	D	2	7044	0.586	0.586	0.065	0.262	0.085	0.002	0.512	0.512	-0.426	-0.446	-0.416	0.490	0.027	-7.3
Math	7	1230	E	2	7044	0.518	0.231	0.518	0.114	0.134	0.002	0.474	-0.427	0.474	-0.514	-0.337	0.846	0.027	-1.8
Math	7	1231	A	1	7017	0.335	0.058	0.575	0.335	0.032	0.000	0.347	-0.272	-0.350	0.347	-0.323	1.816	0.029	8.6
Math	7	1232	A	1	7017	0.652	0.122	0.095	0.652	0.131	0.000	0.531	-0.510	-0.309	0.531	-0.446	0.132	0.028	-8.7
Math	7	1233	C	1	7017	0.872	0.021	0.076	0.031	0.872	0.000	0.230	-0.174	-0.128	-0.177	0.230	-1.439	0.038	5.9
Math	7	1234	E	2	7017	0.474	0.222	0.474	0.063	0.241	0.000	0.503	-0.538	0.503	-0.313	-0.457	1.073	0.027	-4.0
Math	7	1235	D	2	7017	0.416	0.082	0.107	0.416	0.395	0.001	0.221	-0.379	-0.351	0.221	-0.102	1.376	0.027	9.9
Math	7	1236	D	2	7017	0.496	0.496	0.139	0.122	0.242	0.000	0.443	0.443	-0.471	-0.389	-0.355	0.956	0.027	0.0
Math	7	1237	B	2	7017	0.533	0.191	0.533	0.191	0.084	0.001	0.374	-0.175	0.374	-0.388	-0.476	0.764	0.027	7.0
Math	7	1238	E	3	7017	0.242	0.277	0.264	0.217	0.242	0.001	0.374	-0.342	-0.562	-0.392	0.374	2.390	0.031	4.0
Math	7	1239	C	1	7017	0.228	0.306	0.185	0.278	0.228	0.002	0.182	-0.255	-0.240	-0.152	0.182	2.484	0.032	9.9
Math	7	1240	D	1	7017	0.849	0.849	0.066	0.042	0.041	0.001	0.476	0.476	-0.333	-0.342	-0.301	-1.217	0.036	-8.0
Math	7	1241	D	2	7017	0.441	0.441	0.485	0.022	0.051	0.000	0.385	0.385	-0.329	-0.397	-0.577	1.243	0.027	5.9
Math	7	1242	A	1	7017	0.726	0.065	0.131	0.726	0.076	0.003	0.401	-0.243	-0.382	0.401	-0.236	-0.305	0.030	0.5
Math	7	1243	A	1	7012	0.752	0.039	0.072	0.137	0.752	0.000	0.374	-0.282	-0.249	-0.290	0.374	-0.463	0.031	1.0
Math	7	1244	C	1	7012	0.385	0.140	0.315	0.160	0.385	0.000	0.286	-0.383	-0.233	-0.280	0.286	1.549	0.028	9.9
Math	7	1245	A	1	7012	0.869	0.040	0.030	0.061	0.869	0.001	0.450	-0.222	-0.273	-0.388	0.450	-1.394	0.038	-5.6
Math	7	1246	B	2	7012	0.520	0.216	0.520	0.162	0.101	0.001	0.392	-0.235	0.392	-0.435	-0.414	0.846	0.027	4.9
Math	7	1247	D	1	7012	0.636	0.147	0.125	0.090	0.636	0.001	0.393	-0.301	-0.335	-0.330	0.393	0.230	0.028	6.0

Appendix J: 2007 Grades 3–8 and 11 Multiple-Choice Statistics

Information						Proportions						Correlations					Rasch		
Cont.	Grade	Pub. ID	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Math	7	1248	E	1	7012	0.879	0.052	0.035	0.879	0.033	0.001	0.443	-0.307	-0.298	0.443	-0.279	-1.503	0.039	-7.1
Math	7	1249	E	2	7012	0.524	0.135	0.275	0.065	0.524	0.001	0.487	-0.591	-0.333	-0.462	0.487	0.825	0.027	-4.3
Math	7	1250	A	2	7012	0.761	0.093	0.761	0.081	0.063	0.002	0.423	-0.287	0.423	-0.339	-0.289	-0.518	0.031	-1.7
Math	7	1251	B	2	7012	0.319	0.223	0.319	0.307	0.146	0.004	0.178	-0.208	0.178	-0.139	-0.227	1.914	0.029	9.9
Math	7	1252	D	1	7012	0.707	0.042	0.228	0.707	0.022	0.002	0.300	-0.279	-0.213	0.300	-0.267	-0.173	0.029	8.9
Math	7	1253	D	2	7012	0.912	0.030	0.912	0.023	0.033	0.001	0.409	-0.245	0.409	-0.227	-0.317	-1.911	0.045	-5.3
Math	7	1254	C	1	7012	0.676	0.158	0.078	0.676	0.086	0.003	0.491	-0.389	-0.449	0.491	-0.328	0.010	0.029	-6.6
Math	7	1255	A	1	7020	0.753	0.043	0.072	0.131	0.753	0.000	0.388	-0.303	-0.249	-0.299	0.388	-0.480	0.031	0.4
Math	7	1256	E	1	7020	0.632	0.632	0.099	0.133	0.134	0.001	0.409	0.409	-0.321	-0.286	-0.381	0.247	0.028	5.1
Math	7	1257	A	2	7020	0.653	0.173	0.069	0.104	0.653	0.002	0.499	-0.451	-0.327	-0.378	0.499	0.131	0.028	-6.9
Math	7	1258	E	1	7020	0.830	0.066	0.066	0.830	0.036	0.001	0.375	-0.172	-0.363	0.375	-0.227	-1.057	0.035	3.0
Math	7	1259	B	1	7020	0.636	0.117	0.636	0.107	0.138	0.001	0.462	-0.273	0.462	-0.372	-0.466	0.224	0.028	-1.9
Math	7	1260	C	1	7020	0.843	0.049	0.070	0.037	0.843	0.001	0.382	-0.235	-0.252	-0.300	0.382	-1.166	0.036	1.4
Math	7	1261	C	1	7020	0.731	0.133	0.081	0.731	0.053	0.001	0.498	-0.372	-0.456	0.498	-0.277	-0.339	0.030	-7.1
Math	7	1262	D	2	7020	0.624	0.041	0.097	0.624	0.235	0.003	0.342	-0.249	0.342	-0.274	0.292	0.028	7.4	
Math	7	1263	A	1	7020	0.701	0.139	0.701	0.076	0.082	0.003	0.465	-0.382	0.465	-0.365	-0.307	-0.147	0.029	-4.6
Math	7	1264	D	2	7020	0.763	0.117	0.050	0.763	0.068	0.002	0.488	-0.435	-0.282	0.488	-0.312	-0.547	0.031	-5.9
Math	7	1265	E	2	7020	0.471	0.099	0.471	0.205	0.222	0.003	0.312	-0.330	0.312	-0.431	-0.109	1.106	0.027	9.9
Math	7	1266	B	2	7020	0.373	0.274	0.249	0.373	0.102	0.003	0.413	-0.605	-0.259	0.413	-0.310	1.628	0.028	3.3
Math	7	1267	A	1	7009	0.386	0.091	0.386	0.390	0.132	0.000	0.297	-0.149	0.297	-0.347	-0.229	1.567	0.028	9.9
Math	7	1268	C	1	7009	0.833	0.057	0.051	0.833	0.059	0.001	0.400	-0.308	-0.289	0.400	-0.222	-1.059	0.035	-3.4
Math	7	1269	A	1	7009	0.883	0.883	0.056	0.023	0.038	0.001	0.379	0.379	-0.292	-0.233	-0.213	-1.544	0.040	-2.8
Math	7	1270	A	1	7009	0.669	0.266	0.038	0.669	0.026	0.000	0.419	-0.360	-0.329	0.419	-0.291	0.053	0.029	0.8
Math	7	1271	E	2	7009	0.471	0.351	0.130	0.471	0.048	0.000	0.480	-0.431	-0.478	0.480	-0.488	1.115	0.027	-0.9
Math	7	1272	D	2	7009	0.765	0.765	0.082	0.097	0.055	0.001	0.473	0.473	-0.318	-0.385	-0.320	-0.543	0.031	-5.5
Math	7	1273	E	2	7009	0.857	0.066	0.857	0.064	0.013	0.000	0.215	-0.130	0.215	-0.138	-0.200	-1.282	0.037	9.8
Math	7	1274	A	2	7009	0.557	0.252	0.075	0.115	0.557	0.001	0.393	-0.213	-0.440	-0.478	0.393	0.665	0.027	5.4
Math	7	1275	A	2	7009	0.769	0.047	0.127	0.769	0.056	0.001	0.387	-0.303	-0.246	0.387	-0.315	-0.571	0.031	0.9
Math	7	1276	D	2	7009	0.660	0.224	0.062	0.660	0.054	0.000	0.480	-0.414	-0.400	0.480	-0.295	0.105	0.029	-4.7
Math	7	1277	B	1	7009	0.454	0.164	0.454	0.360	0.022	0.000	0.517	-0.657	0.517	-0.431	-0.339	1.204	0.027	-6.4
Math	7	1278	B	2	7009	0.687	0.687	0.150	0.078	0.082	0.002	0.596	0.596	-0.483	-0.474	-0.482	-0.054	0.029	-9.9
Math	7	1279	A	1	7001	0.602	0.602	0.213	0.107	0.077	0.000	0.456	0.456	-0.365	-0.382	-0.430	0.389	0.028	-0.1
Math	7	1280	E	2	7001	0.538	0.538	0.095	0.290	0.076	0.001	0.486	0.486	-0.247	-0.488	-0.470	0.732	0.027	0.1
Math	7	1281	D	1	7001	0.640	0.079	0.640	0.171	0.108	0.001	0.433	-0.425	0.433	-0.372	-0.244	0.181	0.028	-1.0
Math	7	1282	A	1	7001	0.832	0.046	0.832	0.103	0.018	0.001	0.472	-0.343	0.472	-0.358	-0.280	-1.091	0.035	-6.0
Math	7	1283	D	1	7001	0.840	0.840	0.066	0.061	0.032	0.001	0.405	0.405	-0.311	-0.248	-0.260	-1.158	0.035	-3.6
Math	7	1284	C	1	7001	0.790	0.790	0.039	0.023	0.146	0.001	0.369	0.369	-0.237	-0.272	-0.285	-0.762	0.032	1.2
Math	7	1285	D	2	7001	0.850	0.029	0.043	0.075	0.850	0.002	0.491	-0.288	-0.326	-0.377	0.491	-1.250	0.036	-8.2
Math	7	1286	C	1	7001	0.681	0.681	0.105	0.138	0.074	0.001	0.477	0.477	-0.432	-0.333	-0.359	-0.053	0.029	-3.5
Math	7	1287	B	2	7001	0.412	0.295	0.412	0.196	0.094	0.003	0.244	-0.192	0.244	-0.328	-0.155	1.391	0.028	9.9
Math	7	1288	D	1	7001	0.529	0.195	0.162	0.112	0.529	0.002	0.426	-0.291	-0.440	-0.417	0.426	0.779	0.027	3.7
Math	7	1289	E	1	7001	0.803	0.096	0.063	0.803	0.037	0.002	0.319	-0.256	-0.180	0.319	-0.216	-0.853	0.033	3.4
Math	7	1290	D	1	7001	0.821	0.821	0.090	0.047	0.039	0.003	0.508	0.508	-0.365	-0.387	-0.332	-1.000	0.034	-8.0

Appendix J: 2007 Grades 3–8 and 11 Multiple-Choice Statistics

Information					Proportions							Correlations					Rasch		
Cont.	Grade	Pub. ID	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Math	7	1291	A	1	7015	0.424	0.132	0.357	0.087	0.424	0.000	0.486	-0.393	-0.492	-0.503	0.486	1.347	0.028	-4.0
Math	7	1292	B	2	7015	0.366	0.366	0.162	0.247	0.224	0.001	0.255	0.255	-0.362	-0.180	-0.244	1.667	0.028	9.9
Math	7	1293	C	1	7015	0.763	0.082	0.105	0.763	0.050	0.001	0.440	-0.321	-0.320	0.440	-0.329	-0.543	0.031	-2.5
Math	7	1294	C	1	7015	0.739	0.202	0.030	0.029	0.739	0.000	0.484	-0.447	-0.321	-0.219	0.484	-0.384	0.030	-3.7
Math	7	1295	A	1	7015	0.719	0.719	0.044	0.213	0.023	0.001	0.227	0.227	-0.342	-0.091	-0.273	-0.257	0.030	9.9
Math	7	1296	E	1	7015	0.920	0.013	0.029	0.920	0.038	0.000	0.287	-0.149	-0.148	0.287	-0.230	-2.025	0.046	1.1
Math	7	1297	D	1	7015	0.579	0.210	0.112	0.579	0.096	0.002	0.447	-0.364	-0.424	0.447	-0.336	0.534	0.028	-1.7
Math	7	1298	D	2	7015	0.497	0.497	0.201	0.142	0.158	0.002	0.374	0.374	-0.346	-0.326	-0.320	0.964	0.027	5.9
Math	7	1299	A	2	7015	0.758	0.074	0.118	0.758	0.047	0.002	0.471	-0.344	-0.377	0.471	-0.300	-0.513	0.031	-4.1
Math	7	1300	E	1	7015	0.559	0.146	0.559	0.227	0.066	0.002	0.505	-0.363	0.505	-0.519	-0.396	0.641	0.027	-3.9
Math	7	1301	B	1	7015	0.393	0.308	0.250	0.393	0.047	0.003	0.403	-0.425	-0.349	0.403	-0.435	1.517	0.028	6.8
Math	7	1302	C	1	7015	0.326	0.326	0.163	0.115	0.392	0.003	0.213	0.213	-0.208	-0.305	-0.190	1.891	0.029	9.9
Math	7	1303	A	1	6996	0.674	0.035	0.205	0.674	0.086	0.001	0.338	-0.217	-0.245	0.338	-0.328	0.018	0.029	8.3
Math	7	1304	A	2	6996	0.753	0.188	0.753	0.023	0.035	0.000	0.481	-0.396	0.481	-0.286	-0.396	-0.477	0.031	-3.9
Math	7	1305	A	2	6996	0.629	0.131	0.086	0.629	0.153	0.001	0.474	-0.360	-0.332	0.474	-0.434	0.275	0.028	-4.0
Math	7	1306	D	1	6996	0.788	0.139	0.788	0.047	0.025	0.001	0.496	-0.426	0.496	-0.315	-0.272	-0.716	0.032	-7.5
Math	7	1307	C	1	6996	0.835	0.103	0.025	0.035	0.835	0.001	0.425	-0.321	-0.265	-0.295	0.425	-1.091	0.035	-2.5
Math	7	1308	B	1	6996	0.393	0.396	0.147	0.393	0.061	0.003	0.356	-0.332	-0.436	0.356	-0.211	1.531	0.028	9.9
Math	7	1309	A	1	6996	0.842	0.049	0.048	0.060	0.842	0.000	0.495	-0.405	-0.290	-0.335	0.495	-1.156	0.036	-7.3
Math	7	1310	D	2	6996	0.729	0.165	0.059	0.729	0.047	0.001	0.425	-0.316	-0.394	0.425	-0.250	-0.315	0.030	-1.4
Math	7	1311	C	1	6996	0.536	0.150	0.536	0.216	0.096	0.001	0.413	-0.366	0.413	-0.337	-0.379	0.774	0.027	3.2
Math	7	1312	A	2	6996	0.508	0.368	0.080	0.042	0.508	0.001	0.340	-0.248	-0.466	-0.357	0.340	0.920	0.027	9.9
Math	7	1313	E	2	6996	0.599	0.599	0.085	0.267	0.047	0.001	0.589	0.589	-0.295	-0.605	-0.483	0.438	0.028	-9.8
Math	7	1314	C	1	6996	0.725	0.023	0.025	0.226	0.725	0.001	0.423	-0.252	-0.303	-0.368	0.423	-0.289	0.030	-1.2
Math	7	1315	A	1	7011	0.651	0.651	0.083	0.091	0.174	0.001	0.270	0.270	-0.193	-0.150	-0.248	0.125	0.029	9.9
Math	7	1316	D	1	7011	0.898	0.020	0.055	0.898	0.026	0.001	0.412	-0.258	-0.283	0.412	-0.269	-1.762	0.042	-5.3
Math	7	1317	E	2	7011	0.893	0.893	0.035	0.059	0.012	0.000	0.313	0.313	-0.213	-0.217	-0.172	-1.704	0.041	0.9
Math	7	1318	B	1	7011	0.676	0.046	0.200	0.676	0.076	0.001	0.509	-0.352	-0.479	0.509	-0.292	-0.017	0.029	-7.8
Math	7	1319	A	2	7011	0.651	0.120	0.651	0.128	0.099	0.002	0.508	-0.378	0.508	-0.447	-0.382	0.126	0.028	-7.0
Math	7	1320	D	2	7011	0.725	0.164	0.725	0.057	0.053	0.001	0.451	-0.350	0.451	-0.390	-0.288	-0.315	0.030	-0.1
Math	7	1321	E	2	7011	0.923	0.019	0.028	0.029	0.923	0.001	0.342	-0.181	-0.261	-0.198	0.342	-2.107	0.047	-1.7
Math	7	1322	C	1	7011	0.700	0.700	0.221	0.039	0.039	0.001	0.298	0.298	-0.221	-0.277	-0.220	-0.163	0.029	9.5
Math	7	1323	A	2	7011	0.881	0.032	0.881	0.055	0.031	0.001	0.433	-0.226	0.433	-0.319	-0.310	-1.565	0.040	-6.3
Math	7	1324	C	1	7011	0.798	0.078	0.798	0.057	0.066	0.001	0.419	-0.293	0.419	-0.341	-0.253	-0.816	0.033	-1.7
Math	7	1325	D	1	7011	0.608	0.135	0.608	0.186	0.069	0.002	0.369	-0.443	0.369	-0.196	-0.285	0.368	0.028	7.8
Math	7	1326	E	2	7011	0.823	0.019	0.020	0.823	0.136	0.002	0.466	-0.290	-0.255	0.466	-0.399	-1.014	0.034	-4.5
Math	7	1327	A	1	6992	0.648	0.204	0.648	0.087	0.061	0.000	0.455	-0.460	0.455	-0.162	-0.405	0.167	0.028	-0.1
Math	7	1328	C	1	6992	0.705	0.052	0.108	0.135	0.705	0.001	0.486	-0.365	-0.380	-0.378	0.486	-0.164	0.030	-5.2
Math	7	1329	E	1	6992	0.898	0.025	0.027	0.898	0.049	0.000	0.316	-0.221	-0.187	0.316	-0.202	-1.736	0.042	-1.6
Math	7	1330	A	1	6992	0.690	0.037	0.690	0.073	0.200	0.001	0.537	-0.233	0.537	-0.466	-0.477	-0.074	0.029	-9.8
Math	7	1331	D	2	6992	0.747	0.146	0.747	0.037	0.068	0.001	0.398	-0.240	0.398	-0.294	-0.396	-0.431	0.031	4.1
Math	7	1332	A	2	6992	0.514	0.514	0.148	0.287	0.050	0.001	0.362	0.362	-0.375	-0.286	-0.344	0.890	0.027	9.0
Math	7	1333	D	1	6992	0.716	0.063	0.716	0.080	0.139	0.002	0.538	-0.371	0.538	-0.444	-0.418	-0.231	0.030	-9.2

Appendix J: 2007 Grades 3–8 and 11 Multiple-Choice Statistics

Information						Proportions						Correlations					Rasch		
Cont.	Grade	Pub. ID	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Math	7	1334	A	2	6992	0.628	0.161	0.048	0.162	0.628	0.001	0.591	-0.445	-0.425	-0.580	0.591	0.280	0.028	-9.9
Math	7	1335	B	2	6992	0.602	0.197	0.147	0.602	0.052	0.002	0.438	-0.426	-0.363	0.438	-0.212	0.421	0.028	2.4
Math	7	1336	E	2	6992	0.716	0.104	0.054	0.716	0.125	0.001	0.436	-0.310	-0.324	0.436	-0.348	-0.234	0.030	-1.0
Math	7	1337	D	2	6992	0.580	0.580	0.174	0.173	0.072	0.001	0.274	0.274	-0.162	-0.269	-0.262	0.543	0.028	9.9
Math	7	1338	E	2	6992	0.491	0.491	0.303	0.129	0.074	0.002	0.457	0.457	-0.406	-0.411	-0.455	1.009	0.027	1.5
Math	7	1339	A	1	6968	0.412	0.211	0.140	0.236	0.412	0.001	0.306	-0.346	-0.256	-0.273	0.306	1.387	0.028	9.9
Math	7	1340	A	2	6968	0.344	0.222	0.224	0.344	0.209	0.001	0.212	-0.102	-0.185	0.212	-0.369	1.753	0.028	9.9
Math	7	1341	A	1	6968	0.721	0.164	0.033	0.081	0.721	0.001	0.338	-0.180	-0.306	-0.344	0.338	-0.278	0.030	5.8
Math	7	1342	D	2	6968	0.779	0.095	0.779	0.063	0.061	0.001	0.405	-0.185	0.405	-0.341	-0.374	-0.662	0.032	1.8
Math	7	1343	D	1	6968	0.635	0.084	0.635	0.242	0.037	0.001	0.558	-0.329	0.558	-0.568	-0.322	0.217	0.028	-9.9
Math	7	1344	B	1	6968	0.493	0.196	0.271	0.493	0.038	0.001	0.432	-0.512	-0.319	0.432	-0.314	0.967	0.027	1.8
Math	7	1345	B	2	6968	0.506	0.241	0.125	0.506	0.125	0.003	0.312	-0.203	-0.324	0.312	-0.344	0.900	0.027	9.9
Math	7	1346	E	2	6968	0.853	0.082	0.853	0.032	0.031	0.001	0.448	-0.312	0.448	-0.309	-0.307	-1.261	0.037	-5.1
Math	7	1347	A	1	6968	0.843	0.843	0.052	0.050	0.053	0.001	0.505	0.505	-0.311	-0.318	-0.419	-1.168	0.036	-8.6
Math	7	1348	C	1	6968	0.744	0.066	0.744	0.052	0.137	0.001	0.431	-0.322	0.431	-0.346	-0.305	-0.424	0.031	-3.0
Math	7	1349	A	2	6968	0.623	0.181	0.140	0.623	0.055	0.001	0.438	-0.305	-0.442	0.438	-0.292	0.283	0.028	-2.4
Math	7	1350	D	2	6968	0.337	0.337	0.155	0.290	0.215	0.002	0.308	0.308	-0.440	-0.178	-0.397	1.794	0.028	9.9
Math	7	1351	A	2	6978	0.615	0.143	0.615	0.124	0.117	0.000	0.391	-0.359	0.391	-0.274	-0.316	0.361	0.028	2.6
Math	7	1352	B	2	6978	0.478	0.133	0.158	0.231	0.478	0.002	0.331	-0.310	-0.181	-0.379	0.331	1.086	0.027	9.9
Math	7	1353	D	2	6978	0.558	0.132	0.088	0.220	0.558	0.001	0.477	-0.474	-0.417	-0.379	0.477	0.665	0.027	-3.1
Math	7	1354	A	2	6978	0.627	0.151	0.627	0.139	0.081	0.001	0.349	-0.277	0.349	-0.273	-0.281	0.297	0.028	6.4
Math	7	1355	D	2	6978	0.753	0.175	0.753	0.038	0.034	0.000	0.485	-0.444	0.485	-0.266	-0.273	-0.459	0.031	-6.4
Math	7	1356	D	1	6978	0.712	0.712	0.094	0.108	0.084	0.001	0.506	0.506	-0.394	-0.354	-0.432	-0.192	0.030	-6.3
Math	7	1357	B	1	6978	0.643	0.172	0.150	0.643	0.034	0.001	0.537	-0.492	-0.447	0.537	-0.290	0.207	0.028	-8.7
Math	7	1358	C	1	6978	0.782	0.077	0.782	0.105	0.035	0.001	0.446	-0.283	0.446	-0.384	-0.267	-0.659	0.032	-4.9
Math	7	1359	D	1	6978	0.717	0.109	0.717	0.063	0.110	0.001	0.495	-0.483	0.495	-0.312	-0.323	-0.228	0.030	-3.6
Math	7	1360	A	2	6978	0.338	0.338	0.242	0.174	0.244	0.001	0.308	0.308	-0.482	-0.048	-0.362	1.833	0.029	9.9
Math	7	1361	C	2	6978	0.319	0.319	0.047	0.055	0.579	0.001	0.216	0.216	-0.459	-0.366	-0.165	1.945	0.029	9.9
Math	7	1362	D	2	6978	0.465	0.229	0.142	0.163	0.465	0.001	0.429	-0.348	-0.462	-0.413	0.429	1.152	0.027	2.6
Math	7	1363	A	1	6974	0.658	0.040	0.073	0.229	0.658	0.000	0.415	-0.268	-0.308	-0.363	0.415	0.113	0.028	-0.8
Math	7	1364	A	1	6974	0.670	0.097	0.670	0.121	0.111	0.001	0.414	-0.359	0.414	-0.301	-0.308	0.042	0.029	-0.2
Math	7	1365	C	1	6974	0.626	0.158	0.073	0.141	0.626	0.001	0.345	-0.176	-0.329	-0.355	0.345	0.285	0.028	8.5
Math	7	1366	E	1	6974	0.684	0.150	0.684	0.085	0.080	0.001	0.457	-0.309	0.457	-0.375	-0.405	-0.039	0.029	-2.7
Math	7	1367	C	1	6974	0.650	0.059	0.044	0.650	0.247	0.001	0.382	-0.298	-0.347	0.382	-0.299	0.156	0.028	2.1
Math	7	1368	D	2	6974	0.534	0.534	0.199	0.196	0.070	0.001	0.274	0.274	-0.223	-0.243	-0.235	0.772	0.027	9.9
Math	7	1369	A	2	6974	0.847	0.060	0.032	0.847	0.061	0.001	0.410	-0.175	-0.281	0.410	-0.381	-1.179	0.036	-1.4
Math	7	1370	E	2	6974	0.334	0.221	0.334	0.107	0.336	0.002	0.167	-0.120	0.167	-0.243	-0.172	1.829	0.028	9.9
Math	7	1371	D	2	6974	0.705	0.111	0.069	0.705	0.114	0.001	0.458	-0.293	-0.390	0.458	-0.380	-0.166	0.029	-3.1
Math	7	1372	B	2	6974	0.739	0.739	0.087	0.138	0.034	0.001	0.393	0.393	-0.349	-0.261	-0.267	-0.377	0.030	0.7
Math	7	1373	A	1	6974	0.860	0.860	0.043	0.059	0.037	0.001	0.474	0.474	-0.327	-0.297	-0.354	-1.299	0.037	-7.0
Math	7	1374	E	2	6974	0.679	0.119	0.679	0.034	0.167	0.002	0.342	-0.351	0.342	-0.287	-0.201	-0.008	0.029	9.0
Math	7	1375	A	1	6965	0.385	0.185	0.144	0.285	0.385	0.000	0.393	-0.340	-0.467	-0.373	0.393	1.544	0.028	6.3
Math	7	1376	B	2	6965	0.432	0.115	0.255	0.195	0.432	0.002	0.373	-0.445	-0.367	-0.270	0.373	1.307	0.027	7.7

Appendix J: 2007 Grades 3–8 and 11 Multiple-Choice Statistics

Information					Proportions							Correlations					Rasch		
Cont.	Grade	Pub. ID	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Math	7	1377	D	2	6965	0.750	0.750	0.080	0.097	0.072	0.000	0.509	0.509	-0.389	-0.378	-0.368	-0.451	0.031	-8.3
Math	7	1378	D	1	6965	0.363	0.163	0.175	0.298	0.363	0.001	0.363	-0.505	-0.447	-0.235	0.363	1.684	0.028	7.3
Math	7	1379	E	2	6965	0.542	0.273	0.542	0.064	0.121	0.001	0.240	-0.091	0.240	-0.380	-0.298	0.731	0.027	9.9
Math	7	1380	B	2	6965	0.590	0.137	0.103	0.590	0.170	0.001	0.520	-0.568	-0.432	0.520	-0.334	0.482	0.028	-8.3
Math	7	1381	E	2	6965	0.280	0.230	0.280	0.406	0.083	0.001	0.111	-0.239	0.111	-0.005	-0.273	2.148	0.030	9.9
Math	7	1382	A	1	6965	0.901	0.046	0.027	0.901	0.026	0.000	0.389	-0.304	-0.216	0.389	-0.217	-1.747	0.042	-4.6
Math	7	1383	D	2	6965	0.749	0.148	0.062	0.039	0.749	0.001	0.416	-0.307	-0.329	-0.285	0.416	-0.435	0.031	-2.0
Math	7	1384	A	2	6965	0.550	0.550	0.218	0.097	0.134	0.001	0.417	0.417	-0.374	-0.465	-0.257	0.688	0.027	1.1
Math	7	1385	C	1	6965	0.489	0.489	0.070	0.347	0.092	0.002	0.336	0.336	-0.305	-0.345	-0.190	1.001	0.027	9.9
Math	7	1386	B	2	6965	0.703	0.056	0.208	0.703	0.031	0.002	0.564	-0.317	-0.545	0.564	-0.339	-0.149	0.029	-9.3
Math	7	1387	A	1	6999	0.556	0.242	0.116	0.085	0.556	0.001	0.450	-0.396	-0.402	-0.340	0.450	0.651	0.027	-0.9
Math	7	1388	D	2	6999	0.646	0.093	0.208	0.646	0.052	0.001	0.453	-0.383	-0.375	0.453	-0.309	0.167	0.028	-3.2
Math	7	1389	E	2	6999	0.869	0.032	0.038	0.869	0.059	0.001	0.460	-0.309	-0.281	0.460	-0.333	-1.410	0.038	-8.0
Math	7	1390	A	2	6999	0.764	0.062	0.764	0.128	0.045	0.001	0.345	-0.330	0.345	-0.261	-0.131	-0.555	0.031	3.3
Math	7	1391	B	2	6999	0.452	0.068	0.395	0.452	0.085	0.001	0.483	-0.563	-0.493	0.483	-0.239	1.211	0.027	-1.4
Math	7	1392	A	1	6999	0.780	0.126	0.041	0.052	0.780	0.001	0.542	-0.473	-0.307	-0.359	0.542	-0.663	0.032	-9.9
Math	7	1393	C	2	6999	0.570	0.570	0.045	0.284	0.100	0.000	0.273	0.273	-0.327	-0.112	-0.433	0.578	0.027	9.9
Math	7	1394	A	2	6999	0.353	0.032	0.289	0.325	0.353	0.001	0.398	-0.273	-0.470	-0.373	0.398	1.723	0.028	3.8
Math	7	1395	E	1	6999	0.759	0.045	0.759	0.050	0.145	0.001	0.515	-0.328	0.515	-0.268	-0.476	-0.519	0.031	-8.1
Math	7	1396	A	2	6999	0.514	0.296	0.514	0.098	0.090	0.002	0.354	-0.238	0.354	-0.379	-0.406	0.868	0.027	8.0
Math	7	1397	B	2	6999	0.528	0.131	0.169	0.528	0.170	0.001	0.297	-0.224	-0.294	0.297	-0.237	0.796	0.027	9.9
Math	7	1398	D	2	6999	0.476	0.476	0.135	0.173	0.212	0.003	0.443	0.443	-0.397	-0.387	-0.417	1.065	0.027	1.0
Math	7	1399	A	1	6972	0.477	0.300	0.477	0.134	0.089	0.001	0.300	-0.230	0.300	-0.430	-0.155	1.082	0.027	9.9
Math	7	1400	A	2	6972	0.631	0.099	0.156	0.113	0.631	0.001	0.520	-0.413	-0.460	-0.387	0.520	0.264	0.028	-7.8
Math	7	1401	E	1	6972	0.699	0.050	0.142	0.699	0.108	0.001	0.387	-0.290	-0.299	0.387	-0.295	-0.123	0.029	2.7
Math	7	1402	C	1	6972	0.805	0.038	0.028	0.805	0.130	0.000	0.391	-0.249	-0.275	0.391	-0.302	-0.827	0.033	-1.3
Math	7	1403	B	2	6972	0.535	0.535	0.169	0.147	0.148	0.001	0.498	0.498	-0.422	-0.375	-0.526	0.779	0.027	-4.8
Math	7	1404	D	2	6972	0.579	0.076	0.579	0.277	0.067	0.001	0.504	-0.431	0.504	-0.428	-0.453	0.544	0.028	-5.7
Math	7	1405	A	2	6972	0.746	0.041	0.746	0.054	0.158	0.001	0.514	-0.351	0.514	-0.344	-0.434	-0.417	0.031	-8.5
Math	7	1406	C	2	6972	0.819	0.074	0.066	0.039	0.819	0.001	0.413	-0.187	-0.386	-0.296	0.413	-0.948	0.034	0.9
Math	7	1407	B	2	6972	0.732	0.093	0.133	0.732	0.041	0.001	0.487	-0.406	-0.388	0.487	-0.261	-0.331	0.030	-7.4
Math	7	1408	A	1	6972	0.647	0.109	0.647	0.055	0.188	0.001	0.299	-0.297	0.299	-0.310	-0.155	0.178	0.028	9.6
Math	7	1409	A	1	6972	0.800	0.800	0.080	0.101	0.018	0.001	0.490	0.490	-0.392	-0.380	-0.248	-0.796	0.033	-6.2
Math	7	1410	D	1	6972	0.789	0.084	0.062	0.789	0.062	0.002	0.480	-0.378	-0.300	0.480	-0.343	-0.717	0.032	-7.5
Math	7	1411	A	1	6987	0.759	0.759	0.144	0.048	0.049	0.000	0.368	0.368	-0.223	-0.366	-0.269	-0.502	0.031	2.5
Math	7	1412	D	2	6987	0.881	0.064	0.881	0.037	0.016	0.001	0.367	-0.271	0.367	-0.236	-0.203	-1.520	0.040	-3.5
Math	7	1413	B	2	6987	0.654	0.075	0.142	0.654	0.129	0.001	0.392	-0.427	-0.352	0.392	-0.170	0.136	0.028	0.7
Math	7	1414	E	2	6987	0.570	0.570	0.134	0.196	0.099	0.001	0.479	0.479	-0.338	-0.391	-0.523	0.591	0.027	-4.1
Math	7	1415	D	2	6987	0.543	0.159	0.543	0.159	0.139	0.001	0.458	-0.383	0.458	-0.438	-0.364	0.738	0.027	-1.1
Math	7	1416	A	2	6987	0.540	0.255	0.129	0.540	0.075	0.001	0.380	-0.314	-0.374	0.380	-0.297	0.744	0.027	4.8
Math	7	1417	A	2	6987	0.660	0.170	0.660	0.090	0.078	0.002	0.501	-0.425	0.501	-0.395	-0.353	0.105	0.028	-8.3
Math	7	1418	C	2	6987	0.584	0.053	0.305	0.057	0.584	0.001	0.376	-0.317	-0.297	-0.403	0.376	0.515	0.027	5.8
Math	7	1419	D	1	6987	0.547	0.064	0.547	0.144	0.245	0.001	0.331	-0.337	0.331	-0.430	-0.165	0.706	0.027	9.9

Appendix J: 2007 Grades 3–8 and 11 Multiple-Choice Statistics

Information					Proportions							Correlations					Rasch		
Cont.	Grade	Pub. ID	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Math	7	1420	B	1	6987	0.571	0.215	0.571	0.145	0.067	0.002	0.416	-0.437	0.416	-0.288	-0.257	0.582	0.027	2.1
Math	7	1421	E	2	6987	0.832	0.015	0.035	0.116	0.832	0.001	0.204	-0.210	-0.308	-0.043	0.204	-1.043	0.035	9.9
Math	7	1422	E	1	6987	0.351	0.286	0.138	0.351	0.222	0.003	0.254	-0.248	-0.333	0.254	-0.218	1.740	0.028	9.9
Math	8	1423	A	1	143430	0.797	0.018	0.138	0.047	0.797	0.000	0.453	-0.290	-0.419	-0.206	0.453	-0.578	0.007	-8.7
Math	8	1424	A	1	143430	0.349	0.485	0.128	0.349	0.038	0.001	0.345	-0.380	-0.280	0.345	-0.217	1.975	0.006	9.9
Math	8	1425	A	2	143430	0.692	0.079	0.063	0.165	0.692	0.000	0.517	-0.332	-0.394	-0.471	0.517	0.113	0.006	-9.9
Math	8	1426	A	1	143430	0.300	0.448	0.191	0.300	0.060	0.001	0.346	-0.422	-0.271	0.346	-0.243	2.262	0.007	9.9
Math	8	1427	D	2	143430	0.926	0.022	0.036	0.926	0.015	0.001	0.294	-0.198	-0.200	0.294	-0.147	-1.906	0.011	3.2
Math	8	1428	B	1	143430	0.483	0.255	0.184	0.483	0.076	0.002	0.420	-0.422	-0.396	0.420	-0.266	1.250	0.006	9.9
Math	8	1429	C	1	143430	0.421	0.421	0.263	0.166	0.147	0.002	0.376	0.376	-0.274	-0.433	-0.438	1.574	0.006	9.9
Math	8	1430	A	1	143430	0.597	0.048	0.271	0.597	0.082	0.002	0.429	-0.402	-0.349	0.429	-0.367	0.648	0.006	-3.2
Math	8	1431	D	1	143430	0.702	0.080	0.134	0.702	0.082	0.003	0.508	-0.381	-0.401	0.508	-0.388	0.054	0.007	-9.9
Math	8	1432	C	1	143430	0.353	0.163	0.073	0.409	0.353	0.001	0.301	-0.270	-0.496	-0.273	0.301	1.949	0.006	9.9
Math	8	1433	E	2	143430	0.750	0.165	0.038	0.046	0.750	0.001	0.437	-0.378	-0.274	-0.276	0.437	-0.247	0.007	-1.0
Math	8	1434	E	2	143430	0.432	0.128	0.094	0.345	0.432	0.001	0.393	-0.608	-0.403	-0.272	0.393	1.518	0.006	9.9
Math	8	1435	C	2	143430	0.633	0.633	0.036	0.300	0.030	0.001	0.374	0.374	-0.349	-0.307	-0.315	0.451	0.006	9.9
Math	8	1436	D	2	143430	0.575	0.575	0.158	0.154	0.111	0.002	0.492	0.492	-0.472	-0.339	-0.472	0.765	0.006	-9.9
Math	8	1437	A	2	143430	0.786	0.039	0.055	0.786	0.119	0.001	0.438	-0.342	-0.276	0.438	-0.337	-0.495	0.007	-5.5
Math	8	1438	B	1	143430	0.729	0.139	0.089	0.042	0.729	0.001	0.458	-0.312	-0.389	-0.368	0.458	-0.113	0.007	-9.9
Math	8	1439	C	1	143430	0.743	0.123	0.118	0.743	0.014	0.001	0.435	-0.317	-0.382	0.435	-0.228	-0.204	0.007	-7.3
Math	8	1440	B	1	143430	0.648	0.184	0.648	0.138	0.027	0.002	0.389	-0.406	0.389	-0.232	-0.205	0.366	0.006	9.9
Math	8	1441	D	2	143430	0.655	0.074	0.125	0.144	0.655	0.002	0.574	-0.444	-0.509	-0.461	0.574	0.328	0.006	-9.9
Math	8	1442	B	1	143430	0.833	0.833	0.030	0.096	0.040	0.002	0.408	0.408	-0.284	-0.285	-0.290	-0.866	0.008	-6.9
Math	8	1443	D	1	143430	0.738	0.072	0.100	0.738	0.087	0.003	0.477	-0.323	-0.384	0.477	-0.355	-0.168	0.007	-9.9
Math	8	1444	D	2	143430	0.747	0.183	0.747	0.048	0.022	0.000	0.230	-0.168	0.230	-0.179	-0.186	-0.226	0.007	9.9
Math	8	1445	E	2	143430	0.649	0.076	0.100	0.649	0.175	0.001	0.478	-0.375	-0.295	0.478	-0.448	0.364	0.006	-9.9
Math	8	1446	B	1	143430	0.600	0.600	0.057	0.267	0.075	0.001	0.503	0.503	-0.418	-0.465	-0.351	0.629	0.006	-9.9
Math	8	1447	E	2	143430	0.519	0.204	0.132	0.144	0.519	0.001	0.385	-0.428	-0.278	-0.306	0.385	1.063	0.006	9.9
Math	8	1448	C	1	143430	0.754	0.092	0.754	0.066	0.088	0.001	0.269	-0.186	0.269	-0.216	-0.178	-0.274	0.007	9.9
Math	8	1449	C	2	143430	0.754	0.040	0.136	0.754	0.068	0.001	0.323	-0.248	-0.320	0.323	-0.092	-0.277	0.007	9.9
Math	8	1450	B	1	143430	0.763	0.763	0.089	0.064	0.082	0.001	0.588	0.588	-0.443	-0.422	-0.470	-0.333	0.007	-9.9
Math	8	1451	D	1	143430	0.763	0.167	0.763	0.055	0.015	0.001	0.404	-0.326	0.404	-0.318	-0.211	-0.333	0.007	-4.9
Math	8	1452	A	2	143430	0.698	0.698	0.163	0.093	0.045	0.001	0.441	0.441	-0.364	-0.286	-0.378	0.080	0.007	-9.9
Math	8	1453	E	2	143430	0.792	0.128	0.046	0.792	0.034	0.001	0.466	-0.368	-0.337	0.466	-0.301	-0.544	0.007	-9.9
Math	8	1454	D	1	143430	0.696	0.696	0.153	0.053	0.097	0.001	0.489	0.489	-0.381	-0.362	-0.401	0.090	0.006	-9.9
Math	8	1455	C	1	143430	0.714	0.026	0.213	0.046	0.714	0.000	0.380	-0.312	-0.309	-0.273	0.380	-0.020	0.007	9.9
Math	8	1456	C	1	143430	0.699	0.065	0.699	0.146	0.090	0.000	0.330	-0.305	0.330	-0.112	-0.389	0.076	0.007	9.9
Math	8	1457	E	1	143430	0.558	0.200	0.076	0.558	0.165	0.001	0.469	-0.357	-0.352	0.469	-0.495	0.854	0.006	-9.9
Math	8	1458	B	2	143430	0.619	0.161	0.619	0.174	0.045	0.001	0.446	-0.404	0.446	-0.368	-0.285	0.530	0.006	-6.3
Math	8	1459	D	2	143430	0.717	0.717	0.155	0.077	0.050	0.001	0.518	0.518	-0.440	-0.401	-0.321	-0.039	0.007	-9.9
Math	8	1460	D	2	143430	0.765	0.068	0.125	0.765	0.041	0.000	0.545	-0.441	-0.439	0.545	-0.312	-0.349	0.007	-9.9
Math	8	1461	E	2	143430	0.733	0.060	0.733	0.160	0.047	0.000	0.422	-0.293	0.422	-0.302	-0.400	-0.140	0.007	4.6
Math	8	1462	C	1	143430	0.442	0.230	0.124	0.203	0.442	0.001	0.189	-0.162	-0.238	-0.156	0.189	1.463	0.006	9.9

Appendix J: 2007 Grades 3–8 and 11 Multiple-Choice Statistics

Information					Proportions							Correlations					Rasch		
Cont.	Grade	Pub. ID	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Math	8	1463	A	2	143430	0.882	0.882	0.039	0.050	0.028	0.000	0.392	0.392	-0.276	-0.256	-0.243	-1.332	0.009	-9.9
Math	8	1464	B	1	143430	0.561	0.054	0.182	0.202	0.561	0.002	0.415	-0.378	-0.335	-0.367	0.415	0.841	0.006	6.2
Math	8	1465	C	2	143430	0.749	0.094	0.749	0.090	0.067	0.001	0.396	-0.266	0.396	-0.327	-0.273	-0.240	0.007	3.0
Math	8	1466	D	1	143430	0.855	0.034	0.061	0.855	0.049	0.001	0.414	-0.294	-0.247	0.414	-0.308	-1.063	0.008	-8.2
Math	8	1467	C	1	143430	0.519	0.519	0.287	0.118	0.076	0.001	0.465	0.465	-0.463	-0.287	-0.454	1.062	0.006	-9.9
Math	8	1468	D	2	143430	0.641	0.153	0.641	0.116	0.088	0.001	0.436	-0.296	0.436	-0.418	-0.348	0.405	0.006	-1.5
Math	8	1469	E	2	143430	0.919	0.019	0.037	0.919	0.024	0.001	0.359	-0.234	-0.201	0.359	-0.258	-1.805	0.010	-9.9
Math	8	1470	C	1	143430	0.818	0.045	0.014	0.122	0.818	0.001	0.209	-0.279	-0.212	-0.058	0.209	-0.743	0.008	9.9
Math	8	1471	A	1	143430	0.557	0.059	0.232	0.151	0.557	0.001	0.324	-0.313	-0.234	-0.316	0.324	0.860	0.006	9.9
Math	8	1472	B	1	143430	0.754	0.199	0.022	0.754	0.024	0.001	0.461	-0.404	-0.298	0.461	-0.276	-0.279	0.007	-9.9
Math	8	1473	D	2	143430	0.885	0.019	0.047	0.048	0.885	0.001	0.422	-0.246	-0.358	-0.229	0.422	-1.363	0.009	-9.9
Math	8	1474	D	1	143430	0.624	0.078	0.180	0.116	0.624	0.001	0.495	-0.363	-0.435	-0.413	0.495	0.498	0.006	-9.9
Math	8	1475	E	2	143430	0.715	0.151	0.715	0.056	0.076	0.001	0.591	-0.536	0.591	-0.340	-0.463	-0.026	0.007	-9.9
Math	8	1476	B	1	143430	0.674	0.039	0.222	0.674	0.064	0.002	0.544	-0.323	-0.542	0.544	-0.291	0.222	0.006	-9.9
Math	8	1477	A	1	7764	0.667	0.269	0.667	0.036	0.027	0.001	0.313	-0.250	0.313	-0.263	-0.232	0.111	0.027	5.9
Math	8	1478	E	2	7764	0.625	0.062	0.185	0.625	0.128	0.001	0.409	-0.329	-0.390	0.409	-0.254	0.355	0.027	1.6
Math	8	1479	D	1	7764	0.680	0.180	0.680	0.059	0.080	0.001	0.378	-0.393	0.378	-0.300	-0.112	0.036	0.028	8.8
Math	8	1480	B	1	7764	0.561	0.149	0.215	0.561	0.074	0.002	0.410	-0.442	-0.365	0.410	-0.158	0.703	0.026	3.9
Math	8	1481	A	2	7764	0.666	0.666	0.136	0.071	0.127	0.001	0.483	0.483	-0.432	-0.473	-0.275	0.122	0.027	-2.8
Math	8	1482	C	1	7764	0.588	0.146	0.118	0.147	0.588	0.001	0.419	-0.370	-0.337	-0.348	0.419	0.556	0.026	4.1
Math	8	1483	C	2	7764	0.655	0.072	0.143	0.655	0.129	0.001	0.366	-0.309	-0.291	0.366	-0.267	0.184	0.027	5.6
Math	8	1484	D	1	7764	0.760	0.760	0.095	0.086	0.057	0.001	0.565	0.565	-0.476	-0.400	-0.377	-0.469	0.030	-9.9
Math	8	1485	D	1	7764	0.562	0.562	0.186	0.134	0.115	0.002	0.541	0.541	-0.522	-0.438	-0.426	0.695	0.026	-7.1
Math	8	1486	A	2	7764	0.432	0.045	0.057	0.464	0.432	0.001	0.416	-0.393	-0.520	-0.373	0.416	1.383	0.026	7.0
Math	8	1487	B	1	7764	0.787	0.787	0.038	0.137	0.036	0.002	0.367	0.367	-0.297	-0.265	-0.232	-0.663	0.031	0.5
Math	8	1488	E	2	7764	0.856	0.029	0.051	0.856	0.062	0.002	0.512	-0.296	-0.345	0.512	-0.403	-1.235	0.035	-9.0
Math	8	1489	A	1	7168	0.664	0.117	0.116	0.664	0.102	0.001	0.322	-0.259	-0.226	0.322	-0.258	0.248	0.028	7.8
Math	8	1490	C	2	7168	0.768	0.768	0.072	0.129	0.030	0.000	0.383	0.383	-0.256	-0.317	-0.232	-0.402	0.031	1.6
Math	8	1491	E	2	7168	0.656	0.188	0.656	0.103	0.051	0.001	0.523	-0.444	0.523	-0.433	-0.370	0.294	0.028	-9.0
Math	8	1492	D	1	7168	0.422	0.110	0.154	0.422	0.312	0.002	0.200	-0.358	-0.340	0.200	-0.017	1.539	0.027	9.9
Math	8	1493	A	1	7168	0.661	0.061	0.661	0.176	0.101	0.001	0.483	-0.329	0.483	-0.372	-0.443	0.265	0.028	-6.3
Math	8	1494	A	2	7168	0.776	0.083	0.061	0.776	0.078	0.001	0.358	-0.258	-0.254	0.358	-0.249	-0.456	0.031	2.4
Math	8	1495	E	2	7168	0.739	0.739	0.083	0.112	0.064	0.001	0.404	0.404	-0.306	-0.308	-0.269	-0.203	0.030	0.1
Math	8	1496	D	1	7168	0.641	0.641	0.093	0.154	0.109	0.003	0.524	0.524	-0.444	-0.449	-0.385	0.377	0.028	-7.7
Math	8	1497	A	1	7168	0.889	0.032	0.889	0.032	0.046	0.001	0.450	-0.218	0.450	-0.335	-0.332	-1.449	0.040	-6.6
Math	8	1498	B	1	7168	0.578	0.578	0.115	0.059	0.247	0.001	0.519	0.519	-0.493	-0.472	-0.419	0.720	0.027	-7.1
Math	8	1499	D	2	7168	0.676	0.086	0.140	0.676	0.096	0.002	0.429	-0.394	-0.367	0.429	-0.235	0.183	0.029	-1.9
Math	8	1500	C	1	7168	0.709	0.709	0.090	0.036	0.164	0.001	0.584	0.584	-0.314	-0.379	-0.594	-0.016	0.029	-9.8
Math	8	1501	A	1	7150	0.669	0.112	0.115	0.669	0.103	0.001	0.321	-0.240	-0.239	0.321	-0.259	0.235	0.028	7.5
Math	8	1502	D	2	7150	0.337	0.041	0.337	0.353	0.267	0.003	0.287	-0.258	0.287	-0.229	-0.390	2.021	0.028	9.9
Math	8	1503	B	1	7150	0.465	0.118	0.087	0.465	0.328	0.002	0.538	-0.575	-0.401	0.538	-0.528	1.327	0.027	-9.9
Math	8	1504	E	1	7150	0.867	0.012	0.867	0.019	0.101	0.001	0.268	-0.163	0.268	-0.163	-0.207	-1.202	0.038	3.2
Math	8	1505	E	1	7150	0.772	0.043	0.772	0.039	0.145	0.001	0.382	-0.249	0.382	-0.301	-0.289	-0.413	0.031	3.2

Appendix J: 2007 Grades 3–8 and 11 Multiple-Choice Statistics

Information					Proportions							Correlations					Rasch		
Cont.	Grade	Pub. ID	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Math	8	1506	A	2	7150	0.575	0.053	0.338	0.575	0.033	0.001	0.362	-0.435	-0.277	0.362	-0.352	0.751	0.027	9.9
Math	8	1507	D	1	7150	0.775	0.070	0.112	0.775	0.041	0.002	0.516	-0.379	-0.435	0.516	-0.286	-0.439	0.031	-8.2
Math	8	1508	B	1	7150	0.508	0.233	0.103	0.154	0.508	0.001	0.464	-0.410	-0.400	-0.456	0.464	1.100	0.027	-1.9
Math	8	1509	D	1	7150	0.606	0.606	0.116	0.186	0.090	0.001	0.425	0.425	-0.355	-0.371	-0.312	0.585	0.028	1.9
Math	8	1510	B	1	7150	0.541	0.079	0.144	0.235	0.541	0.002	0.537	-0.528	-0.506	-0.447	0.537	0.930	0.027	-9.6
Math	8	1511	D	1	7150	0.588	0.163	0.588	0.118	0.127	0.002	0.489	-0.301	0.489	-0.465	-0.489	0.680	0.027	-4.4
Math	8	1512	C	2	7150	0.603	0.603	0.216	0.110	0.068	0.003	0.458	0.458	-0.421	-0.428	-0.213	0.598	0.028	-2.4
Math	8	1513	A	2	7181	0.579	0.180	0.579	0.106	0.135	0.000	0.412	-0.362	0.412	-0.268	-0.400	0.735	0.027	3.0
Math	8	1514	E	2	7181	0.697	0.067	0.697	0.181	0.053	0.001	0.394	-0.314	0.394	-0.307	-0.289	0.066	0.029	1.8
Math	8	1515	B	1	7181	0.802	0.108	0.802	0.069	0.020	0.001	0.500	-0.449	0.500	-0.325	-0.233	-0.641	0.033	-6.3
Math	8	1516	A	2	7181	0.603	0.032	0.332	0.603	0.033	0.001	0.525	-0.361	-0.483	0.525	-0.438	0.605	0.028	-8.8
Math	8	1517	D	1	7181	0.598	0.598	0.093	0.207	0.101	0.002	0.463	0.463	-0.430	-0.408	-0.304	0.631	0.027	-2.5
Math	8	1518	C	1	7181	0.839	0.031	0.839	0.022	0.106	0.001	0.409	-0.309	0.409	-0.238	-0.303	-0.946	0.035	-1.5
Math	8	1519	D	2	7181	0.400	0.556	0.029	0.400	0.014	0.001	0.256	-0.234	-0.308	0.256	-0.285	1.679	0.027	9.9
Math	8	1520	E	2	7181	0.871	0.019	0.086	0.871	0.023	0.001	0.422	-0.279	-0.337	0.422	-0.218	-1.248	0.038	-3.6
Math	8	1521	E	2	7181	0.796	0.038	0.072	0.093	0.796	0.001	0.431	-0.268	-0.348	-0.299	0.431	-0.596	0.032	-0.9
Math	8	1522	A	1	7181	0.693	0.693	0.132	0.090	0.084	0.001	0.424	0.424	-0.310	-0.312	-0.359	0.093	0.029	1.0
Math	8	1523	D	1	7181	0.896	0.896	0.037	0.037	0.028	0.001	0.467	0.467	-0.308	-0.339	-0.274	-1.537	0.041	-8.0
Math	8	1524	D	2	7181	0.776	0.059	0.077	0.776	0.086	0.002	0.512	-0.361	-0.378	0.512	-0.387	-0.446	0.032	-8.0
Math	8	1525	A	1	7145	0.758	0.052	0.107	0.758	0.083	0.001	0.463	-0.370	-0.255	0.463	-0.427	-0.315	0.031	-3.1
Math	8	1526	C	2	7145	0.827	0.074	0.062	0.827	0.036	0.000	0.324	-0.278	-0.196	0.324	-0.172	-0.832	0.034	3.9
Math	8	1527	E	1	7145	0.649	0.141	0.164	0.045	0.649	0.001	0.439	-0.425	-0.321	-0.306	0.439	0.345	0.028	1.2
Math	8	1528	D	1	7145	0.535	0.128	0.215	0.535	0.121	0.001	0.362	-0.317	-0.318	0.362	-0.297	0.960	0.027	7.3
Math	8	1529	A	2	7145	0.741	0.049	0.741	0.139	0.070	0.000	0.382	-0.249	0.382	-0.261	-0.346	-0.209	0.030	1.2
Math	8	1530	B	1	7145	0.465	0.067	0.465	0.119	0.347	0.001	0.408	-0.326	0.408	-0.405	-0.377	1.322	0.027	4.6
Math	8	1531	A	1	7145	0.848	0.038	0.038	0.848	0.074	0.001	0.383	-0.307	-0.288	0.383	-0.209	-1.018	0.036	-1.3
Math	8	1532	D	2	7145	0.237	0.386	0.171	0.202	0.237	0.003	0.306	-0.310	-0.341	-0.437	0.306	2.638	0.031	9.7
Math	8	1533	C	2	7145	0.530	0.045	0.530	0.341	0.083	0.001	0.450	-0.303	0.450	-0.445	-0.302	0.983	0.027	-1.4
Math	8	1534	B	1	7145	0.646	0.210	0.646	0.089	0.053	0.001	0.434	-0.419	0.434	-0.325	-0.204	0.364	0.028	1.2
Math	8	1535	D	2	7145	0.570	0.072	0.260	0.095	0.570	0.002	0.373	-0.318	-0.290	-0.357	0.373	0.774	0.027	5.3
Math	8	1536	E	2	7145	0.707	0.096	0.707	0.105	0.090	0.003	0.381	-0.342	0.381	-0.244	-0.270	0.009	0.029	2.2
Math	8	1537	A	1	7149	0.680	0.108	0.111	0.680	0.101	0.000	0.319	-0.234	-0.223	0.319	-0.270	0.172	0.029	7.7
Math	8	1538	B	2	7149	0.389	0.179	0.229	0.389	0.198	0.004	0.340	-0.397	-0.366	0.340	-0.230	1.727	0.028	9.9
Math	8	1539	A	1	7149	0.630	0.025	0.630	0.168	0.175	0.001	0.417	-0.292	0.417	-0.297	-0.419	0.455	0.028	3.3
Math	8	1540	E	2	7149	0.792	0.036	0.096	0.075	0.792	0.001	0.528	-0.365	-0.449	-0.339	0.528	-0.560	0.032	-7.4
Math	8	1541	A	1	7149	0.875	0.053	0.033	0.875	0.037	0.001	0.463	-0.376	-0.270	0.463	-0.268	-1.277	0.038	-6.3
Math	8	1542	D	2	7149	0.339	0.197	0.240	0.339	0.223	0.002	0.348	-0.447	-0.370	0.348	-0.273	2.006	0.028	9.9
Math	8	1543	D	2	7149	0.666	0.058	0.177	0.098	0.666	0.001	0.408	-0.314	-0.318	-0.333	0.408	0.253	0.028	0.2
Math	8	1544	B	2	7149	0.482	0.375	0.482	0.102	0.039	0.002	0.345	-0.287	0.345	-0.369	-0.303	1.233	0.027	8.3
Math	8	1545	A	1	7149	0.546	0.101	0.217	0.546	0.135	0.000	0.496	-0.478	-0.366	0.496	-0.505	0.902	0.027	-6.7
Math	8	1546	E	2	7149	0.520	0.097	0.132	0.248	0.520	0.002	0.421	-0.381	-0.426	-0.338	0.421	1.035	0.027	1.3
Math	8	1547	D	1	7149	0.772	0.772	0.079	0.083	0.065	0.001	0.540	0.540	-0.398	-0.429	-0.365	-0.412	0.031	-9.9
Math	8	1548	D	2	7149	0.610	0.073	0.610	0.149	0.166	0.002	0.448	-0.304	0.448	-0.394	-0.395	0.560	0.028	-0.6

Appendix J: 2007 Grades 3–8 and 11 Multiple-Choice Statistics

Information					Proportions							Correlations					Rasch		
Cont.	Grade	Pub. ID	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Math	8	1549	A	1	7182	0.661	0.137	0.142	0.661	0.060	0.001	0.352	-0.266	-0.282	0.352	-0.279	0.300	0.028	5.9
Math	8	1550	D	1	7182	0.867	0.022	0.088	0.867	0.023	0.001	0.401	-0.241	-0.351	0.401	-0.153	-1.173	0.037	-4.9
Math	8	1551	E	2	7182	0.671	0.077	0.671	0.213	0.038	0.001	0.256	-0.311	0.256	-0.130	-0.223	0.245	0.028	9.9
Math	8	1552	B	1	7182	0.780	0.113	0.071	0.780	0.034	0.002	0.513	-0.436	-0.347	0.513	-0.305	-0.450	0.032	-9.2
Math	8	1553	D	1	7182	0.674	0.674	0.130	0.097	0.098	0.001	0.531	0.531	-0.428	-0.419	-0.431	0.226	0.028	-6.1
Math	8	1554	A	1	7182	0.833	0.039	0.077	0.833	0.050	0.001	0.374	-0.287	-0.242	0.374	-0.243	-0.856	0.034	-0.8
Math	8	1555	B	1	7182	0.597	0.087	0.597	0.124	0.189	0.002	0.441	-0.337	0.441	-0.374	-0.370	0.656	0.027	-1.2
Math	8	1556	C	1	7182	0.501	0.226	0.116	0.155	0.501	0.002	0.347	-0.262	-0.353	-0.336	0.347	1.160	0.027	9.1
Math	8	1557	E	2	7182	0.675	0.281	0.023	0.019	0.675	0.001	0.523	-0.493	-0.345	-0.279	0.523	0.220	0.028	-5.0
Math	8	1558	D	2	7182	0.661	0.152	0.661	0.121	0.064	0.002	0.484	-0.353	0.484	-0.431	-0.368	0.303	0.028	-6.4
Math	8	1559	A	1	7182	0.635	0.049	0.635	0.226	0.088	0.002	0.434	-0.314	0.434	-0.351	-0.376	0.446	0.028	-2.5
Math	8	1560	D	1	7182	0.751	0.049	0.156	0.751	0.041	0.002	0.418	-0.320	-0.300	0.418	-0.341	-0.249	0.030	0.2
Math	8	1561	A	1	7133	0.644	0.644	0.140	0.192	0.024	0.001	0.492	0.492	-0.412	-0.428	-0.326	0.422	0.028	-5.9
Math	8	1562	C	2	7133	0.892	0.033	0.021	0.055	0.892	0.000	0.325	-0.152	-0.194	-0.269	0.325	-1.431	0.041	2.2
Math	8	1563	D	1	7133	0.727	0.107	0.119	0.727	0.045	0.001	0.313	-0.123	-0.360	0.313	-0.191	-0.069	0.030	8.9
Math	8	1564	A	2	7133	0.778	0.027	0.778	0.078	0.117	0.001	0.440	-0.301	0.440	-0.416	-0.260	-0.411	0.032	-3.0
Math	8	1565	B	1	7133	0.639	0.176	0.639	0.140	0.043	0.001	0.455	-0.446	0.455	-0.309	-0.305	0.447	0.028	-1.4
Math	8	1566	C	2	7133	0.735	0.034	0.065	0.735	0.165	0.000	0.504	-0.344	-0.385	0.504	-0.413	-0.123	0.030	-6.5
Math	8	1567	A	2	7133	0.570	0.034	0.379	0.570	0.017	0.001	0.540	-0.482	-0.506	0.540	-0.362	0.825	0.027	-9.0
Math	8	1568	D	1	7133	0.545	0.229	0.109	0.115	0.545	0.002	0.366	-0.289	-0.324	-0.333	0.366	0.957	0.027	6.4
Math	8	1569	C	1	7133	0.855	0.855	0.114	0.018	0.013	0.000	0.455	0.455	-0.396	-0.253	-0.215	-1.041	0.037	-6.1
Math	8	1570	E	2	7133	0.753	0.045	0.168	0.753	0.032	0.001	0.496	-0.347	-0.434	0.496	-0.268	-0.240	0.031	-6.8
Math	8	1571	B	1	7133	0.751	0.166	0.751	0.062	0.019	0.001	0.449	-0.368	0.449	-0.338	-0.281	-0.229	0.031	-2.9
Math	8	1572	D	2	7133	0.680	0.073	0.171	0.680	0.074	0.002	0.499	-0.405	-0.441	0.499	-0.305	0.216	0.029	-5.9
Math	8	1573	A	1	7152	0.715	0.117	0.715	0.122	0.045	0.000	0.412	-0.394	0.412	-0.256	-0.276	-0.023	0.030	1.5
Math	8	1574	E	2	7152	0.809	0.096	0.044	0.809	0.051	0.001	0.347	-0.179	-0.298	0.347	-0.284	-0.670	0.033	2.8
Math	8	1575	A	2	7152	0.892	0.026	0.892	0.046	0.036	0.001	0.396	-0.258	0.396	-0.254	-0.268	-1.462	0.041	-4.2
Math	8	1576	A	2	7152	0.854	0.854	0.074	0.040	0.031	0.001	0.453	0.453	-0.283	-0.344	-0.331	-1.065	0.036	-5.1
Math	8	1577	D	2	7152	0.431	0.120	0.363	0.085	0.431	0.001	0.491	-0.615	-0.458	-0.400	0.491	1.534	0.027	-5.5
Math	8	1578	D	1	7152	0.686	0.206	0.686	0.077	0.030	0.001	0.417	-0.320	0.417	-0.376	-0.298	0.154	0.029	1.3
Math	8	1579	C	2	7152	0.640	0.075	0.231	0.640	0.054	0.001	0.462	-0.407	-0.387	0.462	-0.340	0.423	0.028	-0.1
Math	8	1580	B	1	7152	0.492	0.128	0.175	0.204	0.492	0.001	0.470	-0.619	-0.437	-0.307	0.470	1.214	0.027	0.6
Math	8	1581	C	2	7152	0.807	0.807	0.041	0.049	0.102	0.000	0.346	0.346	-0.216	-0.254	-0.249	-0.661	0.033	2.9
Math	8	1582	E	2	7152	0.880	0.031	0.880	0.058	0.030	0.001	0.407	-0.216	0.407	-0.304	-0.275	-1.332	0.039	-4.7
Math	8	1583	D	2	7152	0.807	0.079	0.036	0.807	0.077	0.001	0.331	-0.133	-0.290	0.331	-0.293	-0.655	0.033	7.1
Math	8	1584	A	1	7152	0.644	0.644	0.133	0.129	0.093	0.002	0.518	0.518	-0.354	-0.464	-0.456	0.400	0.028	-7.8
Math	8	1585	A	1	7170	0.510	0.510	0.200	0.155	0.135	0.000	0.320	0.320	-0.319	-0.265	-0.235	1.084	0.027	9.9
Math	8	1586	A	1	7170	0.695	0.028	0.061	0.215	0.695	0.001	0.412	-0.297	-0.271	-0.362	0.412	0.078	0.029	1.5
Math	8	1587	C	1	7170	0.794	0.046	0.036	0.124	0.794	0.001	0.494	-0.332	-0.345	-0.389	0.494	-0.568	0.032	-5.6
Math	8	1588	C	1	7170	0.718	0.718	0.193	0.067	0.022	0.001	0.409	0.409	-0.340	-0.300	-0.246	-0.059	0.029	-1.9
Math	8	1589	E	2	7170	0.653	0.042	0.076	0.227	0.653	0.001	0.358	-0.254	-0.389	-0.251	0.358	0.324	0.028	6.5
Math	8	1590	D	1	7170	0.410	0.278	0.183	0.410	0.127	0.001	0.353	-0.396	-0.396	0.353	-0.160	1.609	0.027	9.0
Math	8	1591	A	1	7170	0.799	0.067	0.799	0.080	0.054	0.001	0.416	-0.267	0.416	-0.257	-0.367	-0.605	0.032	-2.5

Appendix J: 2007 Grades 3–8 and 11 Multiple-Choice Statistics

Information					Proportions							Correlations					Rasch		
Cont.	Grade	Pub. ID	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Math	8	1592	E	1	7170	0.580	0.580	0.060	0.132	0.227	0.001	0.458	0.458	-0.411	-0.351	-0.409	0.721	0.027	-2.0
Math	8	1593	E	2	7170	0.180	0.247	0.431	0.140	0.180	0.002	0.284	-0.401	-0.331	-0.310	0.284	3.061	0.034	9.4
Math	8	1594	D	2	7170	0.585	0.165	0.088	0.161	0.585	0.001	0.470	-0.300	-0.435	-0.468	0.470	0.695	0.027	-3.3
Math	8	1595	C	2	7170	0.189	0.697	0.058	0.055	0.189	0.001	0.233	-0.219	-0.409	-0.419	0.233	2.987	0.033	9.9
Math	8	1596	D	2	7170	0.525	0.525	0.172	0.151	0.151	0.001	0.542	0.542	-0.483	-0.476	-0.502	1.010	0.027	-9.4
Math	8	1597	A	2	7183	0.466	0.159	0.466	0.284	0.090	0.001	0.420	-0.361	0.420	-0.407	-0.383	1.347	0.027	1.5
Math	8	1598	C	1	7183	0.600	0.096	0.160	0.143	0.600	0.002	0.328	-0.256	-0.305	-0.244	0.328	0.654	0.027	9.9
Math	8	1599	B	1	7183	0.592	0.134	0.592	0.161	0.112	0.002	0.444	-0.300	0.444	-0.410	-0.395	0.696	0.027	-2.2
Math	8	1600	B	1	7183	0.623	0.078	0.087	0.212	0.623	0.001	0.503	-0.328	-0.472	-0.445	0.503	0.533	0.027	-5.0
Math	8	1601	D	1	7183	0.874	0.087	0.025	0.874	0.013	0.000	0.216	-0.103	-0.224	0.216	-0.172	-1.217	0.038	8.5
Math	8	1602	D	1	7183	0.489	0.090	0.294	0.125	0.489	0.002	0.404	-0.460	-0.322	-0.370	0.404	1.230	0.027	4.0
Math	8	1603	B	2	7183	0.325	0.193	0.194	0.286	0.325	0.002	0.377	-0.468	-0.491	-0.274	0.377	2.107	0.028	6.7
Math	8	1604	D	2	7183	0.707	0.125	0.096	0.707	0.071	0.001	0.343	-0.360	-0.204	0.343	-0.173	0.055	0.029	4.4
Math	8	1605	C	2	7183	0.913	0.913	0.049	0.021	0.016	0.001	0.306	0.306	-0.211	-0.188	-0.188	-1.684	0.044	-0.7
Math	8	1606	E	1	7183	0.702	0.702	0.091	0.093	0.112	0.002	0.479	0.479	-0.389	-0.319	-0.400	0.081	0.029	-3.7
Math	8	1607	A	1	7183	0.823	0.031	0.823	0.078	0.067	0.001	0.366	-0.268	0.366	-0.226	-0.277	-0.744	0.034	0.2
Math	8	1608	C	2	7183	0.600	0.600	0.170	0.123	0.105	0.002	0.351	0.351	-0.295	-0.136	-0.439	0.654	0.027	6.7
Math	8	1609	A	2	7143	0.486	0.192	0.486	0.180	0.141	0.000	0.385	-0.231	0.385	-0.381	-0.461	1.228	0.027	5.1
Math	8	1610	A	2	7143	0.798	0.057	0.798	0.036	0.108	0.001	0.408	-0.378	0.408	-0.310	-0.230	-0.586	0.033	2.1
Math	8	1611	E	2	7143	0.679	0.153	0.056	0.679	0.112	0.000	0.571	-0.532	-0.395	0.571	-0.412	0.195	0.029	-9.9
Math	8	1612	C	2	7143	0.522	0.269	0.522	0.152	0.056	0.001	0.469	-0.416	0.469	-0.494	-0.270	1.041	0.027	-2.9
Math	8	1613	B	1	7143	0.657	0.657	0.038	0.155	0.149	0.001	0.562	0.562	-0.430	-0.464	-0.487	0.319	0.028	-9.9
Math	8	1614	D	2	7143	0.751	0.111	0.067	0.069	0.751	0.001	0.505	-0.326	-0.410	-0.426	0.505	-0.253	0.030	-4.7
Math	8	1615	C	2	7143	0.789	0.014	0.101	0.096	0.789	0.001	0.313	-0.190	-0.240	-0.227	0.313	-0.515	0.032	5.4
Math	8	1616	E	2	7143	0.546	0.214	0.181	0.546	0.058	0.001	0.520	-0.536	-0.428	0.520	-0.331	0.918	0.027	-8.6
Math	8	1617	E	2	7143	0.616	0.616	0.062	0.054	0.267	0.001	0.348	0.348	-0.294	-0.285	-0.284	0.547	0.028	7.4
Math	8	1618	C	1	7143	0.353	0.113	0.250	0.283	0.353	0.002	0.397	-0.493	-0.366	-0.403	0.397	1.936	0.028	5.9
Math	8	1619	D	2	7143	0.684	0.090	0.083	0.684	0.142	0.002	0.391	-0.230	-0.255	0.391	-0.387	0.166	0.029	3.6
Math	8	1620	A	2	7143	0.549	0.047	0.375	0.549	0.026	0.003	0.503	-0.437	-0.463	0.503	-0.428	0.900	0.027	-6.4
Math	8	1621	A	2	7122	0.655	0.076	0.156	0.655	0.113	0.000	0.328	-0.220	-0.302	0.328	-0.226	0.344	0.028	6.6
Math	8	1622	A	2	7122	0.825	0.065	0.825	0.085	0.023	0.001	0.445	-0.244	0.445	-0.407	-0.232	-0.794	0.034	-6.3
Math	8	1623	E	1	7122	0.874	0.051	0.874	0.046	0.029	0.001	0.478	-0.366	0.478	-0.300	-0.298	-1.246	0.039	-7.3
Math	8	1624	D	2	7122	0.753	0.753	0.055	0.125	0.066	0.001	0.485	0.485	-0.355	-0.391	-0.321	-0.254	0.031	-6.5
Math	8	1625	D	2	7122	0.620	0.620	0.079	0.240	0.060	0.001	0.409	0.409	-0.403	-0.302	-0.342	0.536	0.028	1.2
Math	8	1626	D	1	7122	0.787	0.111	0.062	0.787	0.038	0.001	0.516	-0.407	-0.386	0.516	-0.317	-0.497	0.032	-8.2
Math	8	1627	E	2	7122	0.825	0.055	0.825	0.057	0.061	0.002	0.376	-0.306	0.376	-0.272	-0.200	-0.788	0.034	0.3
Math	8	1628	C	2	7122	0.809	0.809	0.067	0.025	0.098	0.001	0.380	0.380	-0.273	-0.251	-0.274	-0.661	0.033	-0.4
Math	8	1629	D	1	7122	0.440	0.098	0.227	0.233	0.440	0.002	0.302	-0.295	-0.268	-0.294	0.302	1.477	0.027	9.9
Math	8	1630	E	1	7122	0.286	0.064	0.205	0.286	0.443	0.001	0.154	-0.306	-0.091	0.154	-0.165	2.332	0.029	9.9
Math	8	1631	A	2	7122	0.742	0.067	0.742	0.053	0.136	0.001	0.290	-0.268	0.290	-0.294	-0.133	-0.183	0.030	9.9
Math	8	1632	D	1	7122	0.833	0.060	0.833	0.058	0.047	0.002	0.509	-0.342	0.509	-0.345	-0.386	-0.854	0.035	-8.7
Math	8	1633	A	2	7145	0.507	0.027	0.122	0.507	0.344	0.000	0.259	-0.233	-0.196	0.259	-0.243	1.117	0.027	9.9
Math	8	1634	C	2	7145	0.685	0.055	0.090	0.169	0.685	0.001	0.458	-0.337	-0.432	-0.332	0.458	0.159	0.029	-2.4

Appendix J: 2007 Grades 3–8 and 11 Multiple-Choice Statistics

Information						Proportions						Correlations					Rasch		
Cont.	Grade	Pub. ID	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Math	8	1635	A	2	7145	0.451	0.451	0.265	0.175	0.107	0.001	0.356	0.356	-0.257	-0.396	-0.371	1.403	0.027	9.6
Math	8	1636	D	2	7145	0.636	0.636	0.145	0.134	0.083	0.002	0.447	0.447	-0.333	-0.379	-0.372	0.436	0.028	-2.8
Math	8	1637	D	1	7145	0.739	0.018	0.225	0.739	0.017	0.001	0.427	-0.291	-0.379	0.427	-0.245	-0.172	0.030	-2.1
Math	8	1638	C	2	7145	0.699	0.127	0.699	0.074	0.097	0.003	0.398	-0.351	0.398	-0.221	-0.311	0.078	0.029	-0.2
Math	8	1639	A	2	7145	0.758	0.052	0.093	0.094	0.758	0.002	0.459	-0.339	-0.280	-0.398	0.459	-0.299	0.031	-3.7
Math	8	1640	C	2	7145	0.256	0.555	0.116	0.072	0.256	0.001	0.205	-0.179	-0.316	-0.326	0.205	2.505	0.030	9.9
Math	8	1641	C	1	7145	0.697	0.697	0.096	0.124	0.081	0.001	0.465	0.465	-0.340	-0.383	-0.362	0.088	0.029	-0.6
Math	8	1642	E	2	7145	0.354	0.354	0.258	0.258	0.128	0.001	0.167	0.167	-0.281	-0.031	-0.182	1.920	0.028	9.9
Math	8	1643	D	1	7145	0.709	0.086	0.709	0.141	0.063	0.002	0.426	-0.325	0.426	-0.405	-0.189	0.014	0.029	0.2
Math	8	1644	E	2	7145	0.866	0.024	0.029	0.866	0.079	0.002	0.463	-0.276	-0.252	0.463	-0.384	-1.157	0.037	-6.8
Math	8	1645	A	2	7095	0.494	0.242	0.494	0.143	0.120	0.001	0.365	-0.259	0.365	-0.289	-0.481	1.213	0.027	7.3
Math	8	1646	B	1	7095	0.413	0.211	0.184	0.191	0.413	0.002	0.351	-0.275	-0.438	-0.320	0.351	1.640	0.027	9.9
Math	8	1647	E	1	7095	0.765	0.026	0.765	0.100	0.108	0.000	0.507	-0.338	0.507	-0.381	-0.407	-0.337	0.031	-6.3
Math	8	1648	D	1	7095	0.746	0.122	0.065	0.066	0.746	0.000	0.556	-0.393	-0.474	-0.431	0.556	-0.207	0.031	-9.1
Math	8	1649	A	1	7095	0.912	0.052	0.014	0.021	0.912	0.001	0.434	-0.355	-0.201	-0.244	0.434	-1.700	0.044	-7.6
Math	8	1650	E	1	7095	0.764	0.119	0.063	0.053	0.764	0.001	0.405	-0.256	-0.320	-0.328	0.405	-0.324	0.031	-1.3
Math	8	1651	D	2	7095	0.431	0.431	0.201	0.311	0.056	0.001	0.281	0.281	-0.248	-0.268	-0.292	1.544	0.027	9.9
Math	8	1652	D	2	7095	0.752	0.075	0.085	0.086	0.752	0.002	0.496	-0.431	-0.377	-0.317	0.496	-0.244	0.031	-4.2
Math	8	1653	C	2	7095	0.683	0.092	0.033	0.190	0.683	0.001	0.411	-0.347	-0.269	-0.332	0.411	0.185	0.029	3.0
Math	8	1654	E	2	7095	0.870	0.068	0.870	0.042	0.018	0.001	0.367	-0.231	0.367	-0.294	-0.214	-1.204	0.038	-0.5
Math	8	1655	E	2	7095	0.554	0.554	0.052	0.169	0.224	0.002	0.440	0.440	-0.463	-0.471	-0.294	0.899	0.027	2.0
Math	8	1656	A	2	7095	0.701	0.109	0.054	0.133	0.701	0.002	0.512	-0.457	-0.402	-0.353	0.512	0.076	0.029	-6.9
Math	8	1657	A	1	7116	0.642	0.052	0.642	0.068	0.237	0.000	0.257	-0.180	0.257	-0.281	-0.178	0.413	0.028	9.9
Math	8	1658	D	1	7116	0.781	0.052	0.781	0.079	0.087	0.001	0.539	-0.339	0.539	-0.374	-0.458	-0.440	0.032	-9.4
Math	8	1659	D	2	7116	0.681	0.681	0.100	0.087	0.129	0.002	0.435	0.435	-0.350	-0.390	-0.286	0.196	0.029	0.2
Math	8	1660	A	2	7116	0.882	0.882	0.050	0.030	0.036	0.001	0.467	0.467	-0.302	-0.341	-0.298	-1.315	0.039	-9.1
Math	8	1661	B	1	7116	0.660	0.072	0.660	0.215	0.052	0.001	0.429	-0.236	0.429	-0.404	-0.317	0.316	0.028	0.4
Math	8	1662	C	2	7116	0.881	0.042	0.018	0.058	0.881	0.001	0.316	-0.313	-0.195	-0.130	0.316	-1.323	0.039	3.9
Math	8	1663	D	1	7116	0.515	0.220	0.123	0.515	0.141	0.001	0.425	-0.468	-0.336	0.425	-0.292	1.086	0.027	0.4
Math	8	1664	C	1	7116	0.674	0.052	0.118	0.154	0.674	0.002	0.511	-0.447	-0.460	-0.362	0.511	0.233	0.029	-6.1
Math	8	1665	A	1	7116	0.605	0.098	0.605	0.134	0.162	0.002	0.484	-0.418	0.484	-0.292	-0.478	0.617	0.027	-6.2
Math	8	1666	A	1	7116	0.796	0.796	0.108	0.025	0.070	0.001	0.517	0.517	-0.398	-0.302	-0.409	-0.557	0.032	-8.5
Math	8	1667	E	2	7116	0.935	0.018	0.033	0.935	0.013	0.001	0.359	-0.206	-0.272	0.359	-0.174	-2.070	0.050	-6.1
Math	8	1668	D	2	7116	0.933	0.022	0.019	0.933	0.023	0.003	0.251	-0.145	-0.155	0.251	-0.153	-2.037	0.050	0.7
Math	8	1669	A	1	7140	0.696	0.696	0.061	0.088	0.155	0.000	0.515	0.515	-0.362	-0.304	-0.494	0.096	0.029	-7.9
Math	8	1670	D	1	7140	0.745	0.745	0.108	0.067	0.078	0.001	0.432	0.432	-0.333	-0.303	-0.310	-0.206	0.030	-2.7
Math	8	1671	D	1	7140	0.801	0.105	0.801	0.059	0.035	0.000	0.351	-0.370	0.351	-0.173	-0.104	-0.595	0.033	3.0
Math	8	1672	B	2	7140	0.537	0.157	0.143	0.537	0.162	0.001	0.464	-0.416	-0.424	0.464	-0.396	0.965	0.027	-2.0
Math	8	1673	E	2	7140	0.598	0.598	0.183	0.100	0.118	0.001	0.342	0.342	-0.334	-0.248	-0.231	0.643	0.027	7.1
Math	8	1674	C	1	7140	0.418	0.043	0.513	0.418	0.025	0.001	0.311	-0.362	-0.278	0.311	-0.323	1.586	0.027	9.9
Math	8	1675	E	2	7140	0.954	0.954	0.013	0.022	0.010	0.001	0.304	0.304	-0.194	-0.194	-0.166	-2.450	0.058	-3.5
Math	8	1676	B	1	7140	0.316	0.359	0.180	0.143	0.316	0.002	0.402	-0.429	-0.485	-0.385	0.402	2.152	0.029	2.7
Math	8	1677	C	2	7140	0.681	0.199	0.024	0.094	0.681	0.001	0.474	-0.482	-0.246	-0.266	0.474	0.186	0.029	-3.6

Appendix J: 2007 Grades 3–8 and 11 Multiple-Choice Statistics

Information					Proportions							Correlations					Rasch		
Cont.	Grade	Pub. ID	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Math	8	1678	D	2	7140	0.721	0.100	0.721	0.147	0.031	0.001	0.430	-0.320	0.430	-0.356	-0.285	-0.051	0.029	-1.6
Math	8	1679	B	2	7140	0.375	0.216	0.242	0.164	0.375	0.002	0.386	-0.372	-0.386	-0.405	0.386	1.816	0.028	6.2
Math	8	1680	E	2	7140	0.755	0.043	0.110	0.089	0.755	0.003	0.502	-0.409	-0.408	-0.322	0.502	-0.272	0.031	-6.8
Math	8	1681	A	1	7112	0.404	0.034	0.404	0.118	0.444	0.000	0.373	-0.196	0.373	-0.365	-0.372	1.666	0.027	7.6
Math	8	1682	D	2	7112	0.781	0.039	0.063	0.116	0.781	0.001	0.481	-0.218	-0.384	-0.398	0.481	-0.431	0.032	-6.0
Math	8	1683	C	1	7112	0.564	0.072	0.128	0.564	0.234	0.002	0.519	-0.398	-0.421	0.519	-0.505	0.845	0.027	-7.2
Math	8	1684	E	1	7112	0.549	0.185	0.549	0.125	0.141	0.001	0.378	-0.232	0.378	-0.394	-0.380	0.926	0.027	6.9
Math	8	1685	A	1	7112	0.548	0.119	0.293	0.548	0.040	0.001	0.359	-0.364	-0.280	0.359	-0.340	0.934	0.027	7.2
Math	8	1686	C	2	7112	0.795	0.073	0.061	0.795	0.071	0.001	0.391	-0.312	-0.285	0.391	-0.227	-0.533	0.032	-0.8
Math	8	1687	C	1	7112	0.644	0.066	0.104	0.644	0.185	0.001	0.474	-0.364	-0.387	0.474	-0.393	0.413	0.028	-4.5
Math	8	1688	E	2	7112	0.275	0.121	0.074	0.528	0.275	0.001	0.243	-0.461	-0.343	-0.191	0.243	2.397	0.030	9.9
Math	8	1689	B	1	7112	0.321	0.321	0.101	0.324	0.252	0.002	0.270	0.270	-0.393	-0.178	-0.355	2.122	0.028	9.9
Math	8	1690	D	2	7112	0.654	0.084	0.137	0.654	0.123	0.001	0.565	-0.417	-0.489	0.565	-0.456	0.355	0.028	-9.9
Math	8	1691	E	2	7112	0.672	0.095	0.672	0.197	0.035	0.001	0.479	-0.294	0.479	-0.469	-0.298	0.256	0.028	-4.3
Math	8	1692	C	1	7112	0.745	0.745	0.024	0.148	0.082	0.002	0.498	0.498	-0.314	-0.363	-0.462	-0.187	0.030	-4.0
Math	8	1693	A	2	7093	0.501	0.129	0.229	0.501	0.141	0.001	0.387	-0.342	-0.356	0.387	-0.341	1.185	0.027	4.7
Math	8	1694	A	1	7093	0.731	0.731	0.080	0.146	0.043	0.000	0.372	0.372	-0.251	-0.334	-0.191	-0.085	0.030	1.8
Math	8	1695	D	1	7093	0.651	0.651	0.097	0.164	0.086	0.001	0.557	0.557	-0.473	-0.459	-0.431	0.390	0.028	-9.2
Math	8	1696	D	1	7093	0.586	0.054	0.245	0.113	0.586	0.001	0.452	-0.424	-0.366	-0.406	0.452	0.744	0.027	-1.8
Math	8	1697	C	1	7093	0.790	0.034	0.135	0.040	0.790	0.000	0.497	-0.265	-0.425	-0.355	0.497	-0.485	0.032	-5.7
Math	8	1698	E	2	7093	0.663	0.030	0.262	0.663	0.045	0.001	0.358	-0.329	-0.272	0.358	-0.334	0.323	0.028	5.7
Math	8	1699	D	1	7093	0.746	0.746	0.081	0.083	0.090	0.001	0.526	0.526	-0.358	-0.445	-0.385	-0.180	0.030	-8.3
Math	8	1700	C	2	7093	0.474	0.030	0.474	0.182	0.313	0.001	0.382	-0.427	0.382	-0.351	-0.341	1.325	0.027	7.4
Math	8	1701	A	2	7093	0.731	0.074	0.106	0.731	0.087	0.002	0.418	-0.353	-0.279	0.418	-0.317	-0.085	0.030	2.0
Math	8	1702	B	1	7093	0.425	0.126	0.272	0.425	0.176	0.001	0.310	-0.394	-0.287	0.310	-0.230	1.579	0.027	9.9
Math	8	1703	B	1	7093	0.431	0.304	0.146	0.120	0.431	0.000	0.499	-0.506	-0.518	-0.420	0.499	1.549	0.027	-5.1
Math	8	1704	D	2	7093	0.683	0.103	0.163	0.683	0.049	0.002	0.294	-0.178	-0.236	0.294	-0.285	0.205	0.029	9.9
Math	8	1705	A	2	7087	0.547	0.142	0.215	0.547	0.096	0.001	0.306	-0.245	-0.237	0.306	-0.321	0.941	0.027	9.9
Math	8	1706	D	2	7087	0.699	0.699	0.078	0.131	0.091	0.001	0.550	0.550	-0.394	-0.485	-0.398	0.105	0.029	-9.9
Math	8	1707	E	1	7087	0.747	0.016	0.117	0.747	0.120	0.000	0.546	-0.296	-0.436	0.546	-0.458	-0.198	0.030	-9.9
Math	8	1708	C	1	7087	0.599	0.111	0.599	0.239	0.048	0.001	0.502	-0.397	0.502	-0.486	-0.283	0.665	0.028	-7.2
Math	8	1709	A	1	7087	0.538	0.134	0.287	0.538	0.040	0.001	0.405	-0.424	-0.312	0.405	-0.409	0.990	0.027	2.8
Math	8	1710	D	1	7087	0.824	0.061	0.824	0.087	0.028	0.001	0.473	-0.332	0.473	-0.380	-0.258	-0.765	0.034	-5.7
Math	8	1711	C	1	7087	0.501	0.250	0.078	0.501	0.169	0.002	0.311	-0.162	-0.451	0.311	-0.330	1.178	0.027	9.9
Math	8	1712	B	1	7087	0.631	0.160	0.631	0.137	0.069	0.002	0.413	-0.403	0.413	-0.292	-0.251	0.489	0.028	-0.6
Math	8	1713	D	1	7087	0.650	0.166	0.104	0.080	0.650	0.001	0.396	-0.290	-0.302	-0.371	0.396	0.387	0.028	1.9
Math	8	1714	C	2	7087	0.953	0.010	0.953	0.012	0.023	0.001	0.297	-0.140	0.297	-0.172	-0.217	-2.426	0.058	-3.5
Math	8	1715	D	1	7087	0.747	0.126	0.747	0.081	0.044	0.001	0.471	-0.312	0.471	-0.406	-0.350	-0.201	0.030	-5.6
Math	8	1716	A	2	7087	0.282	0.408	0.083	0.225	0.282	0.003	0.292	-0.202	-0.381	-0.475	0.292	2.383	0.030	9.9
Math	11	1717	A	1	137107	0.680	0.058	0.194	0.068	0.680	0.001	0.530	-0.470	-0.458	-0.310	0.530	-0.367	0.007	-9.9
Math	11	1718	A	2	137107	0.614	0.199	0.614	0.116	0.069	0.001	0.337	-0.183	0.337	-0.369	-0.301	-0.001	0.006	9.9
Math	11	1719	A	1	137107	0.703	0.071	0.145	0.703	0.079	0.002	0.394	-0.261	-0.327	0.394	-0.282	-0.500	0.007	2.9
Math	11	1720	A	1	137107	0.605	0.605	0.179	0.109	0.106	0.001	0.442	0.442	-0.304	-0.458	-0.358	0.052	0.006	-3.1

Appendix J: 2007 Grades 3–8 and 11 Multiple-Choice Statistics

Information					Proportions							Correlations					Rasch		
Cont.	Grade	Pub. ID	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Math	11	1721	C	1	137107	0.904	0.058	0.904	0.020	0.017	0.001	0.258	-0.181	0.258	-0.146	-0.169	-2.115	0.010	9.9
Math	11	1722	A	1	137107	0.365	0.056	0.201	0.376	0.365	0.002	0.473	-0.475	-0.676	-0.377	0.473	1.323	0.006	-9.9
Math	11	1723	D	1	137107	0.840	0.039	0.840	0.078	0.042	0.001	0.491	-0.258	0.491	-0.416	-0.307	-1.454	0.008	-9.9
Math	11	1724	B	1	137107	0.583	0.090	0.583	0.225	0.098	0.004	0.376	-0.471	0.376	-0.243	-0.271	0.168	0.006	9.9
Math	11	1725	D	1	137107	0.713	0.713	0.181	0.065	0.039	0.001	0.492	0.492	-0.427	-0.355	-0.274	-0.558	0.007	-9.9
Math	11	1726	B	2	137107	0.264	0.147	0.490	0.264	0.097	0.002	0.217	-0.367	-0.205	0.217	-0.151	1.929	0.007	9.9
Math	11	1727	D	1	137107	0.625	0.145	0.098	0.128	0.625	0.003	0.430	-0.314	-0.334	-0.379	0.430	-0.056	0.006	-5.7
Math	11	1728	C	1	137107	0.597	0.121	0.088	0.191	0.597	0.003	0.491	-0.422	-0.359	-0.422	0.491	0.095	0.006	-9.9
Math	11	1729	B	1	137107	0.712	0.103	0.712	0.125	0.059	0.001	0.550	-0.385	0.550	-0.432	-0.485	-0.550	0.007	-9.9
Math	11	1730	D	2	137107	0.502	0.502	0.259	0.157	0.073	0.009	0.381	0.381	-0.366	-0.328	-0.259	0.589	0.006	9.9
Math	11	1731	B	2	137107	0.755	0.084	0.060	0.755	0.100	0.001	0.279	-0.325	-0.246	0.279	-0.046	-0.825	0.007	9.9
Math	11	1732	D	1	137107	0.576	0.080	0.140	0.200	0.576	0.003	0.419	-0.349	-0.348	-0.350	0.419	0.202	0.006	1.8
Math	11	1733	E	2	137107	0.854	0.069	0.854	0.059	0.016	0.001	0.338	-0.273	0.338	-0.209	-0.169	-1.579	0.008	-0.7
Math	11	1734	E	1	137107	0.650	0.084	0.650	0.107	0.155	0.004	0.473	-0.308	0.473	-0.418	-0.389	-0.194	0.006	-9.9
Math	11	1735	D	1	137107	0.566	0.107	0.129	0.566	0.195	0.003	0.373	-0.367	-0.352	0.373	-0.230	0.256	0.006	9.9
Math	11	1736	E	2	137107	0.456	0.196	0.289	0.456	0.054	0.004	0.332	-0.399	-0.246	0.332	-0.277	0.829	0.006	9.9
Math	11	1737	D	1	137107	0.627	0.179	0.034	0.155	0.627	0.004	0.377	-0.254	-0.320	-0.356	0.377	-0.066	0.006	9.9
Math	11	1738	B	1	137107	0.829	0.072	0.050	0.049	0.829	0.000	0.345	-0.242	-0.203	-0.257	0.345	-1.361	0.008	9.9
Math	11	1739	D	1	137107	0.707	0.707	0.120	0.139	0.032	0.002	0.521	0.521	-0.446	-0.414	-0.305	-0.525	0.007	-9.9
Math	11	1740	E	1	137107	0.883	0.042	0.033	0.883	0.041	0.000	0.405	-0.316	-0.244	0.405	-0.231	-1.869	0.009	-9.9
Math	11	1741	B	1	137107	0.656	0.164	0.656	0.113	0.063	0.004	0.406	-0.395	0.406	-0.283	-0.225	-0.230	0.006	5.3
Math	11	1742	A	1	137107	0.673	0.124	0.166	0.673	0.037	0.001	0.428	-0.398	-0.341	0.428	-0.208	-0.323	0.006	3.6
Math	11	1743	D	1	137107	0.639	0.246	0.639	0.070	0.044	0.001	0.465	-0.423	0.465	-0.302	-0.331	-0.132	0.006	-9.9
Math	11	1744	D	2	137107	0.515	0.515	0.174	0.209	0.097	0.005	0.435	0.435	-0.375	-0.396	-0.385	0.519	0.006	3.1
Math	11	1745	C	2	137107	0.710	0.077	0.156	0.057	0.710	0.001	0.411	-0.438	-0.210	-0.365	0.411	-0.539	0.007	9.9
Math	11	1746	C	1	137107	0.573	0.573	0.194	0.157	0.072	0.003	0.511	0.511	-0.535	-0.408	-0.293	0.218	0.006	-9.9
Math	11	1747	B	2	137107	0.513	0.388	0.513	0.060	0.038	0.001	0.438	-0.416	0.438	-0.400	-0.231	0.533	0.006	0.7
Math	11	1748	C	2	137107	0.612	0.078	0.269	0.612	0.041	0.001	0.364	-0.254	-0.306	0.364	-0.354	0.014	0.006	9.9
Math	11	1749	E	2	137107	0.855	0.044	0.855	0.046	0.054	0.001	0.358	-0.208	0.358	-0.295	-0.209	-1.586	0.008	-4.4
Math	11	1750	E	2	137107	0.775	0.775	0.042	0.136	0.046	0.001	0.408	0.408	-0.293	-0.297	-0.297	-0.953	0.007	-6.7
Math	11	1751	D	2	137107	0.705	0.081	0.024	0.189	0.705	0.001	0.374	-0.161	-0.290	-0.370	0.374	-0.511	0.007	9.9
Math	11	1752	C	2	137107	0.308	0.308	0.227	0.111	0.352	0.002	0.321	0.321	-0.301	-0.507	-0.308	1.649	0.007	9.9
Math	11	1753	B	2	137107	0.455	0.266	0.455	0.166	0.111	0.003	0.352	-0.452	0.352	-0.276	-0.128	0.837	0.006	9.9
Math	11	1754	E	2	137107	0.815	0.110	0.815	0.042	0.032	0.001	0.478	-0.384	0.478	-0.305	-0.291	-1.247	0.008	-9.9
Math	11	1755	D	1	137107	0.506	0.506	0.260	0.172	0.059	0.003	0.483	0.483	-0.457	-0.430	-0.370	0.566	0.006	-9.9
Math	11	1756	D	1	137107	0.854	0.077	0.034	0.854	0.034	0.001	0.264	-0.140	-0.218	0.264	-0.183	-1.572	0.008	9.3
Math	11	1757	D	1	137107	0.585	0.138	0.585	0.122	0.154	0.001	0.441	-0.405	0.441	-0.381	-0.308	0.157	0.006	-6.0
Math	11	1758	B	2	137107	0.693	0.693	0.114	0.060	0.131	0.001	0.455	0.455	-0.354	-0.282	-0.380	-0.439	0.007	-9.9
Math	11	1759	D	2	137107	0.661	0.191	0.073	0.074	0.661	0.001	0.492	-0.407	-0.375	-0.381	0.492	-0.256	0.006	-9.9
Math	11	1760	E	2	137107	0.597	0.256	0.597	0.083	0.062	0.002	0.317	-0.238	0.317	-0.303	-0.276	0.095	0.006	9.9
Math	11	1761	D	1	137107	0.471	0.194	0.471	0.215	0.116	0.004	0.305	-0.160	0.305	-0.334	-0.343	0.752	0.006	9.9
Math	11	1762	D	1	137107	0.767	0.767	0.067	0.071	0.094	0.001	0.526	0.526	-0.357	-0.411	-0.390	-0.901	0.007	-9.9
Math	11	1763	E	2	137107	0.791	0.070	0.077	0.061	0.791	0.001	0.517	-0.418	-0.373	-0.322	0.517	-1.067	0.007	-9.9

Appendix J: 2007 Grades 3–8 and 11 Multiple-Choice Statistics

Information					Proportions							Correlations					Rasch		
Cont.	Grade	Pub. ID	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Math	11	1764	D	1	137107	0.598	0.137	0.598	0.192	0.070	0.002	0.378	-0.245	0.378	-0.344	-0.332	0.090	0.006	9.9
Math	11	1765	D	2	137107	0.669	0.055	0.105	0.168	0.669	0.003	0.498	-0.353	-0.427	-0.390	0.498	-0.300	0.006	-9.9
Math	11	1766	C	1	137107	0.684	0.205	0.073	0.684	0.036	0.001	0.409	-0.339	-0.293	0.409	-0.309	-0.388	0.007	5.2
Math	11	1767	E	2	137107	0.879	0.024	0.032	0.063	0.879	0.001	0.406	-0.244	-0.276	0.280	0.406	-1.825	0.009	-9.9
Math	11	1768	D	2	137107	0.509	0.315	0.086	0.509	0.088	0.002	0.510	-0.493	-0.500	0.510	-0.313	0.553	0.006	-9.9
Math	11	1769	B	1	137107	0.891	0.047	0.040	0.891	0.020	0.001	0.430	-0.313	-0.297	0.430	-0.208	-1.956	0.009	-9.9
Math	11	1770	D	2	137107	0.634	0.163	0.634	0.100	0.099	0.004	0.421	-0.355	0.421	-0.362	-0.272	-0.105	0.006	-3.9
Math	11	1771	A	2	7348	0.668	0.120	0.668	0.085	0.127	0.001	0.432	-0.301	0.432	-0.316	-0.382	-0.389	0.028	-1.0
Math	11	1772	D	2	7348	0.726	0.075	0.075	0.726	0.122	0.003	0.360	-0.287	-0.303	0.360	-0.221	-0.732	0.029	3.5
Math	11	1773	A	1	7348	0.851	0.851	0.095	0.036	0.017	0.001	0.484	0.484	-0.379	-0.338	-0.250	-1.650	0.035	-8.5
Math	11	1774	E	2	7348	0.444	0.070	0.444	0.256	0.228	0.002	0.278	-0.341	0.278	-0.161	-0.323	0.794	0.027	9.9
Math	11	1775	C	2	7348	0.576	0.142	0.216	0.576	0.062	0.004	0.353	-0.234	-0.317	0.353	-0.333	0.110	0.027	6.0
Math	11	1776	D	1	7348	0.560	0.106	0.560	0.203	0.126	0.004	0.482	-0.459	0.482	-0.358	-0.451	0.190	0.027	-4.7
Math	11	1777	D	2	7348	0.632	0.119	0.080	0.166	0.632	0.004	0.530	-0.364	-0.452	-0.476	0.530	-0.190	0.027	-8.1
Math	11	1778	A	2	7348	0.734	0.734	0.121	0.085	0.058	0.001	0.548	0.548	-0.459	-0.418	-0.339	-0.788	0.029	-9.0
Math	11	1779	B	2	7348	0.511	0.166	0.511	0.200	0.119	0.004	0.298	-0.219	0.298	-0.289	-0.255	0.447	0.027	9.9
Math	11	1780	C	1	7348	0.366	0.103	0.202	0.326	0.366	0.004	0.424	-0.513	-0.487	-0.337	0.424	1.213	0.027	3.7
Math	11	1781	E	1	7348	0.337	0.410	0.337	0.124	0.125	0.004	0.199	-0.350	0.199	-0.120	0.148	1.372	0.028	9.9
Math	11	1782	D	2	7348	0.243	0.171	0.257	0.323	0.243	0.007	0.266	-0.279	-0.340	-0.273	0.266	1.956	0.030	9.9
Math	11	1783	A	2	6891	0.523	0.104	0.106	0.523	0.266	0.001	0.512	-0.407	-0.191	0.512	-0.597	0.474	0.027	-6.2
Math	11	1784	B	1	6891	0.593	0.160	0.153	0.593	0.091	0.002	0.456	-0.416	-0.429	0.456	-0.250	0.105	0.028	-0.2
Math	11	1785	D	2	6891	0.418	0.418	0.233	0.156	0.190	0.003	0.449	0.449	-0.410	-0.484	-0.399	1.024	0.028	1.6
Math	11	1786	D	1	6891	0.548	0.136	0.111	0.548	0.203	0.002	0.501	-0.491	-0.398	0.501	-0.406	0.345	0.028	-6.6
Math	11	1787	C	1	6891	0.710	0.107	0.710	0.123	0.059	0.002	0.366	-0.266	0.366	-0.288	-0.256	-0.550	0.030	2.5
Math	11	1788	E	2	6891	0.429	0.088	0.429	0.122	0.357	0.003	0.381	-0.346	0.381	-0.445	-0.320	0.962	0.028	7.1
Math	11	1789	C	2	6891	0.541	0.100	0.098	0.259	0.541	0.001	0.362	-0.362	-0.397	-0.247	0.362	0.377	0.028	8.5
Math	11	1790	D	1	6891	0.712	0.066	0.070	0.151	0.712	0.001	0.460	-0.349	-0.322	-0.369	0.460	-0.564	0.030	-3.3
Math	11	1791	E	2	6891	0.665	0.133	0.665	0.148	0.052	0.001	0.463	-0.316	0.463	-0.457	-0.259	-0.288	0.029	-5.2
Math	11	1792	D	2	6891	0.265	0.198	0.295	0.236	0.265	0.006	0.323	-0.387	-0.319	-0.389	0.323	1.909	0.031	9.9
Math	11	1793	D	2	6891	0.571	0.571	0.101	0.137	0.189	0.002	0.444	0.444	-0.448	-0.455	-0.262	0.222	0.028	-1.1
Math	11	1794	D	1	6891	0.588	0.132	0.176	0.588	0.099	0.004	0.477	-0.428	-0.401	0.477	-0.349	0.131	0.028	-3.6
Math	11	1795	A	2	6853	0.531	0.104	0.101	0.531	0.263	0.001	0.489	-0.377	-0.161	0.489	-0.581	0.438	0.027	-3.3
Math	11	1796	D	2	6853	0.771	0.771	0.066	0.067	0.095	0.001	0.446	0.446	-0.299	-0.407	-0.274	-0.930	0.032	-3.8
Math	11	1797	D	2	6853	0.484	0.484	0.123	0.226	0.162	0.004	0.493	0.493	-0.466	-0.437	-0.455	0.682	0.027	-4.6
Math	11	1798	B	1	6853	0.501	0.094	0.052	0.351	0.501	0.001	0.542	-0.563	-0.490	-0.488	0.542	0.594	0.027	-9.9
Math	11	1799	E	1	6853	0.683	0.107	0.683	0.171	0.036	0.002	0.472	-0.374	0.472	-0.392	-0.313	-0.380	0.029	-5.7
Math	11	1800	C	2	6853	0.699	0.139	0.070	0.699	0.090	0.001	0.534	-0.461	-0.363	0.534	-0.387	-0.476	0.029	-9.9
Math	11	1801	D	1	6853	0.493	0.135	0.493	0.155	0.212	0.005	0.368	-0.303	0.368	-0.359	-0.312	0.636	0.027	7.3
Math	11	1802	D	1	6853	0.409	0.029	0.055	0.409	0.505	0.001	0.146	-0.269	-0.341	0.146	-0.081	1.073	0.028	9.9
Math	11	1803	A	2	6853	0.814	0.078	0.097	0.814	0.011	0.001	0.494	-0.342	-0.431	0.494	-0.193	-1.245	0.034	-8.4
Math	11	1804	E	2	6853	0.512	0.254	0.512	0.144	0.087	0.002	0.348	-0.250	0.348	-0.356	-0.355	0.535	0.027	9.9
Math	11	1805	D	1	6853	0.448	0.448	0.165	0.171	0.213	0.002	0.482	0.482	-0.360	-0.512	-0.475	0.867	0.028	-2.8
Math	11	1806	C	1	6853	0.597	0.081	0.597	0.140	0.179	0.003	0.424	-0.211	0.424	-0.299	-0.465	0.092	0.028	-0.1

Appendix J: 2007 Grades 3–8 and 11 Multiple-Choice Statistics

Information					Proportions							Correlations					Rasch		
Cont.	Grade	Pub. ID	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Math	11	1807	A	2	6853	0.639	0.122	0.639	0.191	0.047	0.002	0.419	-0.462	0.419	-0.260	-0.293	-0.129	0.028	0.9
Math	11	1808	B	1	6853	0.331	0.173	0.331	0.450	0.041	0.005	0.304	-0.424	0.304	-0.264	-0.281	1.481	0.029	9.9
Math	11	1809	D	2	6853	0.635	0.272	0.635	0.048	0.043	0.001	0.466	-0.435	0.466	-0.246	-0.378	-0.110	0.028	-2.8
Math	11	1810	D	1	6853	0.655	0.177	0.067	0.655	0.097	0.003	0.401	-0.286	-0.353	0.401	-0.314	-0.222	0.028	-1.2
Math	11	1811	E	1	6853	0.624	0.108	0.624	0.128	0.138	0.002	0.397	-0.422	0.397	-0.269	-0.283	-0.049	0.028	3.1
Math	11	1812	B	2	6853	0.734	0.076	0.076	0.734	0.112	0.002	0.229	-0.216	-0.234	0.229	-0.062	-0.682	0.030	8.8
Math	11	1813	A	2	6853	0.445	0.058	0.445	0.349	0.147	0.001	0.322	-0.335	0.322	-0.194	-0.492	0.870	0.027	9.9
Math	11	1814	D	1	6853	0.636	0.263	0.048	0.053	0.636	0.001	0.386	-0.281	-0.391	-0.366	0.386	-0.114	0.028	4.7
Math	11	1815	D	2	6853	0.738	0.738	0.077	0.152	0.030	0.001	0.509	0.509	-0.393	-0.419	-0.285	-0.707	0.030	-9.2
Math	11	1816	B	2	6853	0.477	0.266	0.145	0.477	0.110	0.002	0.491	-0.580	-0.318	0.491	-0.341	0.704	0.027	-5.8
Math	11	1817	C	1	6853	0.780	0.105	0.059	0.780	0.055	0.002	0.208	-0.061	-0.171	0.208	-0.240	-0.983	0.032	9.9
Math	11	1818	D	2	6853	0.323	0.233	0.217	0.221	0.323	0.005	0.305	-0.316	-0.340	-0.290	0.305	1.523	0.029	9.9
Math	11	1819	A	2	6848	0.611	0.611	0.212	0.113	0.061	0.002	0.374	0.374	-0.262	-0.358	-0.316	0.023	0.028	4.7
Math	11	1820	D	1	6848	0.853	0.018	0.072	0.057	0.853	0.000	0.436	-0.214	-0.338	-0.305	0.436	-1.560	0.037	-6.6
Math	11	1821	E	2	6848	0.254	0.254	0.068	0.625	0.052	0.001	0.275	0.275	-0.356	-0.262	-0.377	1.973	0.031	9.9
Math	11	1822	C	1	6848	0.654	0.118	0.138	0.088	0.654	0.001	0.397	-0.127	-0.418	-0.382	0.397	-0.209	0.028	2.9
Math	11	1823	D	1	6848	0.387	0.387	0.167	0.136	0.305	0.005	0.236	0.236	-0.364	-0.310	-0.096	1.191	0.028	9.9
Math	11	1824	B	1	6848	0.670	0.082	0.670	0.121	0.125	0.002	0.476	-0.403	0.476	-0.361	-0.348	-0.297	0.029	-6.9
Math	11	1825	A	1	6848	0.672	0.089	0.672	0.169	0.068	0.001	0.357	-0.434	0.357	-0.171	-0.264	-0.312	0.029	6.4
Math	11	1826	C	1	6848	0.521	0.296	0.080	0.100	0.521	0.003	0.566	-0.549	-0.418	-0.481	0.566	0.493	0.027	-9.4
Math	11	1827	D	1	6848	0.681	0.070	0.115	0.681	0.131	0.002	0.445	-0.368	-0.380	0.445	-0.288	-0.360	0.029	-1.8
Math	11	1828	B	1	6848	0.807	0.807	0.059	0.078	0.054	0.001	0.515	0.515	-0.369	-0.364	-0.367	-1.183	0.033	-9.9
Math	11	1829	E	1	6848	0.182	0.041	0.182	0.444	0.329	0.003	0.194	-0.217	0.194	-0.135	-0.359	2.491	0.034	9.9
Math	11	1830	D	2	6848	0.645	0.097	0.191	0.645	0.063	0.005	0.402	-0.301	-0.330	0.402	-0.306	-0.160	0.028	0.2
Math	11	1831	A	2	6847	0.547	0.177	0.547	0.175	0.100	0.001	0.378	-0.269	0.378	-0.366	-0.341	0.372	0.028	6.2
Math	11	1832	A	1	6847	0.773	0.060	0.084	0.773	0.083	0.001	0.423	-0.338	-0.289	0.423	-0.288	-0.928	0.032	-3.0
Math	11	1833	D	2	6847	0.274	0.129	0.296	0.274	0.296	0.006	0.225	-0.388	-0.229	0.225	-0.176	1.863	0.030	9.9
Math	11	1834	E	2	6847	0.401	0.401	0.115	0.184	0.300	0.000	0.332	0.332	-0.235	-0.301	-0.374	1.129	0.028	9.9
Math	11	1835	D	1	6847	0.642	0.081	0.212	0.062	0.642	0.002	0.543	-0.367	-0.506	-0.388	0.543	-0.136	0.028	-9.9
Math	11	1836	B	2	6847	0.637	0.048	0.196	0.117	0.637	0.002	0.455	-0.232	-0.390	-0.404	0.455	-0.104	0.028	-3.2
Math	11	1837	D	1	6847	0.490	0.490	0.102	0.184	0.222	0.002	0.493	0.493	-0.366	-0.478	-0.460	0.664	0.027	-5.1
Math	11	1838	B	1	6847	0.755	0.042	0.100	0.755	0.102	0.001	0.333	-0.231	-0.268	0.333	-0.219	-0.808	0.031	3.4
Math	11	1839	D	2	6847	0.356	0.211	0.287	0.143	0.356	0.002	0.460	-0.569	-0.418	-0.428	0.460	1.374	0.029	-0.3
Math	11	1840	D	1	6847	0.608	0.608	0.137	0.148	0.106	0.001	0.474	0.474	-0.383	-0.357	-0.447	0.051	0.028	-2.6
Math	11	1841	C	1	6847	0.526	0.526	0.042	0.359	0.072	0.001	0.380	0.380	-0.323	-0.335	-0.342	0.480	0.027	4.8
Math	11	1842	E	1	6847	0.725	0.071	0.725	0.109	0.091	0.003	0.488	-0.404	0.488	-0.424	-0.269	-0.613	0.030	-5.6
Math	11	1843	A	1	6853	0.512	0.106	0.167	0.214	0.512	0.001	0.399	-0.320	-0.327	-0.386	0.399	0.530	0.027	2.8
Math	11	1844	E	1	6853	0.740	0.740	0.041	0.053	0.164	0.001	0.279	0.279	-0.190	-0.175	-0.226	-0.723	0.030	8.0
Math	11	1845	D	2	6853	0.571	0.165	0.571	0.190	0.072	0.001	0.296	-0.325	0.296	-0.188	-0.200	0.225	0.028	9.9
Math	11	1846	C	1	6853	0.581	0.027	0.190	0.581	0.196	0.005	0.179	-0.146	-0.211	0.179	-0.095	0.173	0.028	9.9
Math	11	1847	A	2	6853	0.599	0.599	0.195	0.089	0.115	0.002	0.526	0.526	-0.485	-0.391	-0.418	0.076	0.028	-9.9
Math	11	1848	D	2	6853	0.762	0.072	0.120	0.762	0.045	0.001	0.429	-0.392	-0.265	0.429	-0.296	-0.864	0.031	-0.8
Math	11	1849	B	2	6853	0.515	0.035	0.088	0.515	0.359	0.002	0.373	-0.286	-0.356	0.373	-0.319	0.512	0.027	5.4

Appendix J: 2007 Grades 3–8 and 11 Multiple-Choice Statistics

Information					Proportions							Correlations					Rasch		
Cont.	Grade	Pub. ID	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Math	11	1850	C	1	6853	0.771	0.082	0.771	0.093	0.053	0.001	0.362	-0.314	0.362	-0.147	-0.328	-0.925	0.031	-0.1
Math	11	1851	A	2	6853	0.663	0.096	0.187	0.663	0.051	0.002	0.436	-0.259	-0.407	0.436	-0.308	-0.270	0.029	-3.8
Math	11	1852	E	1	6853	0.326	0.463	0.326	0.105	0.102	0.004	0.232	-0.295	0.232	-0.206	-0.021	1.515	0.029	9.9
Math	11	1853	D	1	6853	0.604	0.124	0.090	0.177	0.604	0.004	0.488	-0.304	-0.411	-0.463	0.488	0.053	0.028	-7.0
Math	11	1854	E	2	6853	0.560	0.142	0.207	0.560	0.086	0.004	0.435	-0.185	-0.470	0.435	-0.420	0.279	0.027	-0.2
Math	11	1855	A	2	6806	0.683	0.162	0.683	0.106	0.048	0.001	0.525	-0.546	0.525	-0.309	-0.278	-0.392	0.029	-7.5
Math	11	1856	B	1	6806	0.517	0.059	0.184	0.234	0.517	0.006	0.390	-0.310	-0.353	-0.344	0.390	0.499	0.028	3.4
Math	11	1857	C	1	6806	0.503	0.503	0.215	0.173	0.107	0.002	0.441	0.441	-0.416	-0.390	-0.354	0.572	0.028	-0.9
Math	11	1858	D	1	6806	0.624	0.066	0.624	0.218	0.091	0.002	0.539	-0.371	0.539	-0.529	-0.331	-0.063	0.028	-9.1
Math	11	1859	D	2	6806	0.445	0.388	0.445	0.086	0.078	0.002	0.408	-0.361	0.408	-0.422	-0.369	0.870	0.028	4.8
Math	11	1860	E	2	6806	0.687	0.063	0.085	0.687	0.165	0.001	0.497	-0.379	-0.286	0.497	-0.457	-0.416	0.029	-6.2
Math	11	1861	D	1	6806	0.334	0.300	0.227	0.334	0.136	0.003	0.200	-0.069	-0.361	0.200	-0.219	1.476	0.029	9.9
Math	11	1862	C	2	6806	0.665	0.208	0.076	0.665	0.049	0.001	0.434	-0.350	-0.384	0.434	-0.258	-0.293	0.029	-4.0
Math	11	1863	D	1	6806	0.629	0.104	0.112	0.150	0.629	0.004	0.412	-0.317	-0.368	-0.301	0.412	-0.094	0.028	-0.3
Math	11	1864	D	2	6806	0.824	0.824	0.033	0.118	0.023	0.001	0.498	0.498	-0.269	-0.460	-0.207	-1.340	0.035	-9.0
Math	11	1865	B	2	6806	0.535	0.174	0.535	0.159	0.130	0.002	0.351	-0.449	0.351	-0.343	-0.052	0.407	0.028	7.8
Math	11	1866	A	2	6806	0.202	0.441	0.180	0.173	0.202	0.004	0.093	0.035	-0.362	-0.207	0.093	2.332	0.033	9.9
Math	11	1867	A	2	6796	0.482	0.164	0.196	0.156	0.482	0.001	0.436	-0.334	-0.472	-0.364	0.436	0.681	0.028	1.2
Math	11	1868	E	1	6796	0.738	0.024	0.738	0.094	0.141	0.003	0.478	-0.264	0.478	-0.358	-0.398	-0.730	0.031	-6.3
Math	11	1869	A	1	6796	0.725	0.105	0.043	0.725	0.126	0.001	0.444	-0.404	-0.346	0.444	-0.261	-0.649	0.030	-2.9
Math	11	1870	D	2	6796	0.495	0.133	0.495	0.088	0.282	0.003	0.399	-0.097	0.399	-0.339	-0.504	0.615	0.028	5.4
Math	11	1871	D	1	6796	0.414	0.414	0.218	0.271	0.094	0.003	0.281	0.281	-0.290	-0.244	-0.271	1.036	0.028	9.9
Math	11	1872	B	1	6796	0.469	0.469	0.189	0.191	0.149	0.003	0.478	0.478	-0.328	-0.506	-0.512	0.748	0.028	-2.0
Math	11	1873	D	2	6796	0.562	0.104	0.177	0.562	0.155	0.002	0.506	-0.423	-0.464	0.506	-0.391	0.265	0.028	-7.5
Math	11	1874	C	1	6796	0.619	0.122	0.619	0.152	0.104	0.002	0.458	-0.250	0.458	-0.487	-0.345	-0.039	0.028	-2.9
Math	11	1875	A	2	6796	0.425	0.174	0.102	0.425	0.296	0.002	0.423	-0.355	-0.468	0.423	-0.391	0.979	0.028	2.4
Math	11	1876	D	2	6796	0.323	0.183	0.321	0.170	0.323	0.002	0.283	-0.365	-0.219	-0.356	0.283	1.547	0.029	9.9
Math	11	1877	E	1	6796	0.805	0.090	0.805	0.056	0.047	0.001	0.342	-0.196	0.342	-0.297	-0.224	-1.191	0.033	2.2
Math	11	1878	B	1	6796	0.608	0.608	0.061	0.265	0.062	0.003	0.509	0.509	-0.310	-0.508	-0.289	0.019	0.028	-8.0
Math	11	1879	A	2	6789	0.485	0.161	0.192	0.161	0.485	0.001	0.440	-0.328	-0.479	-0.372	0.440	0.681	0.028	0.2
Math	11	1880	E	2	6789	0.520	0.209	0.520	0.131	0.137	0.003	0.338	-0.272	0.338	-0.265	-0.349	0.500	0.028	8.5
Math	11	1881	D	1	6789	0.299	0.108	0.337	0.253	0.299	0.003	0.246	-0.382	-0.202	-0.265	0.246	1.703	0.030	9.9
Math	11	1882	B	2	6789	0.665	0.132	0.665	0.126	0.076	0.001	0.319	-0.297	0.319	-0.255	-0.166	-0.275	0.029	9.9
Math	11	1883	C	1	6789	0.395	0.226	0.395	0.162	0.216	0.001	0.417	-0.319	0.417	-0.483	-0.431	1.157	0.028	4.9
Math	11	1884	D	1	6789	0.689	0.086	0.099	0.123	0.689	0.002	0.587	-0.394	-0.485	-0.494	0.587	-0.414	0.029	-9.9
Math	11	1885	E	1	6789	0.209	0.209	0.627	0.089	0.074	0.001	0.202	0.202	-0.191	-0.294	-0.316	2.301	0.033	9.9
Math	11	1886	B	2	6789	0.658	0.084	0.094	0.658	0.163	0.001	0.477	-0.270	-0.396	0.477	-0.431	-0.237	0.029	-2.9
Math	11	1887	D	1	6789	0.517	0.517	0.099	0.289	0.095	0.001	0.487	0.487	-0.438	-0.514	-0.215	0.517	0.028	-5.2
Math	11	1888	D	2	6789	0.590	0.179	0.590	0.152	0.074	0.004	0.464	-0.434	0.464	-0.386	-0.280	0.132	0.028	-4.6
Math	11	1889	A	2	6789	0.645	0.645	0.175	0.100	0.078	0.001	0.397	0.397	-0.308	-0.326	-0.320	-0.165	0.029	3.1
Math	11	1890	C	1	6789	0.598	0.107	0.191	0.598	0.101	0.003	0.397	-0.423	-0.336	0.397	-0.208	0.093	0.028	1.5
Math	11	1891	A	2	6841	0.679	0.083	0.107	0.679	0.131	0.001	0.397	-0.376	-0.304	0.397	-0.253	-0.349	0.029	2.0
Math	11	1892	C	1	6841	0.494	0.494	0.342	0.112	0.047	0.005	0.440	0.440	-0.375	-0.460	-0.407	0.630	0.027	1.2

Appendix J: 2007 Grades 3–8 and 11 Multiple-Choice Statistics

Information					Proportions							Correlations					Rasch		
Cont.	Grade	Pub. ID	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Math	11	1893	B	1	6841	0.846	0.080	0.055	0.846	0.018	0.001	0.387	-0.266	-0.305	0.387	-0.195	-1.500	0.036	-4.0
Math	11	1894	D	2	6841	0.656	0.656	0.099	0.074	0.168	0.002	0.543	0.543	-0.463	-0.447	-0.418	-0.221	0.029	-9.7
Math	11	1895	A	2	6841	0.536	0.350	0.536	0.071	0.040	0.003	0.280	-0.214	0.280	-0.384	-0.146	0.416	0.027	9.9
Math	11	1896	E	1	6841	0.400	0.147	0.400	0.270	0.175	0.009	0.258	-0.243	0.258	-0.260	-0.215	1.124	0.028	9.9
Math	11	1897	A	2	6841	0.628	0.628	0.092	0.138	0.139	0.002	0.459	0.459	-0.286	-0.397	-0.405	-0.064	0.028	-3.8
Math	11	1898	B	2	6841	0.236	0.197	0.258	0.236	0.306	0.002	0.236	-0.594	-0.383	0.236	0.057	2.091	0.032	9.9
Math	11	1899	C	2	6841	0.464	0.084	0.252	0.464	0.195	0.005	0.325	-0.240	-0.317	0.325	-0.294	0.788	0.027	8.9
Math	11	1900	E	1	6841	0.614	0.170	0.614	0.119	0.095	0.002	0.298	-0.176	0.298	-0.269	-0.302	0.009	0.028	9.9
Math	11	1901	D	1	6841	0.657	0.083	0.657	0.127	0.131	0.002	0.441	-0.253	0.441	-0.433	-0.327	-0.224	0.029	-2.7
Math	11	1902	D	1	6841	0.435	0.206	0.200	0.155	0.435	0.005	0.397	-0.340	-0.433	-0.342	0.397	0.936	0.028	3.7
Math	11	1903	A	2	6796	0.872	0.008	0.044	0.872	0.075	0.001	0.308	-0.126	-0.187	0.308	-0.254	-1.740	0.039	1.8
Math	11	1904	C	2	6796	0.696	0.085	0.696	0.158	0.060	0.001	0.367	-0.270	0.367	-0.269	-0.306	-0.441	0.029	3.4
Math	11	1905	D	2	6796	0.671	0.118	0.124	0.671	0.083	0.004	0.278	-0.214	-0.210	0.278	-0.199	-0.299	0.029	7.4
Math	11	1906	D	2	6796	0.597	0.597	0.118	0.113	0.170	0.003	0.323	0.323	-0.269	-0.256	-0.250	0.107	0.028	6.4
Math	11	1907	E	2	6796	0.547	0.296	0.076	0.079	0.547	0.001	0.519	-0.444	-0.507	-0.463	0.519	0.364	0.028	-8.2
Math	11	1908	A	1	6796	0.659	0.080	0.659	0.179	0.078	0.003	0.564	-0.435	0.564	-0.491	-0.404	-0.232	0.029	-9.9
Math	11	1909	D	1	6796	0.417	0.453	0.064	0.063	0.417	0.002	0.227	-0.185	-0.280	-0.264	0.227	1.036	0.028	9.9
Math	11	1910	C	2	6796	0.623	0.107	0.100	0.168	0.623	0.002	0.345	-0.045	-0.320	-0.405	0.345	-0.035	0.028	5.7
Math	11	1911	A	2	6796	0.439	0.052	0.439	0.418	0.091	0.001	0.159	-0.185	0.159	-0.041	-0.449	0.923	0.028	9.9
Math	11	1912	D	1	6796	0.704	0.102	0.109	0.704	0.083	0.002	0.535	-0.397	-0.463	0.535	-0.356	-0.487	0.030	-9.9
Math	11	1913	D	2	6796	0.281	0.240	0.281	0.320	0.156	0.003	0.127	-0.251	0.127	-0.064	-0.114	1.800	0.030	9.9
Math	11	1914	B	2	6796	0.819	0.076	0.819	0.065	0.038	0.002	0.495	-0.381	0.495	-0.341	-0.301	-1.268	0.034	-9.9
Math	11	1915	A	1	6804	0.331	0.110	0.299	0.259	0.331	0.001	0.394	-0.441	-0.400	-0.397	0.394	1.508	0.029	4.1
Math	11	1916	D	1	6804	0.508	0.015	0.508	0.225	0.251	0.001	0.492	-0.334	0.492	-0.526	-0.412	0.566	0.027	-6.2
Math	11	1917	D	1	6804	0.303	0.103	0.263	0.329	0.303	0.003	0.333	-0.396	-0.434	-0.264	0.333	1.673	0.030	9.1
Math	11	1918	A	1	6804	0.538	0.035	0.318	0.538	0.109	0.000	0.371	-0.367	-0.268	0.371	-0.427	0.414	0.028	5.8
Math	11	1919	C	2	6804	0.583	0.209	0.094	0.112	0.583	0.001	0.407	-0.309	-0.401	-0.355	0.407	0.177	0.028	3.7
Math	11	1920	E	2	6804	0.902	0.036	0.032	0.902	0.028	0.000	0.344	-0.209	-0.259	0.344	-0.190	-2.087	0.043	-3.2
Math	11	1921	D	1	6804	0.556	0.111	0.556	0.166	0.165	0.002	0.403	-0.357	0.403	-0.310	-0.347	0.321	0.028	0.3
Math	11	1922	A	2	6804	0.712	0.048	0.105	0.712	0.134	0.002	0.488	-0.337	-0.403	0.488	-0.377	-0.537	0.030	-5.4
Math	11	1923	B	1	6804	0.461	0.182	0.245	0.111	0.461	0.002	0.480	-0.441	-0.468	-0.417	0.480	0.807	0.028	-3.8
Math	11	1924	E	2	6804	0.691	0.033	0.691	0.087	0.187	0.001	0.317	-0.260	0.317	-0.328	-0.195	-0.416	0.029	9.1
Math	11	1925	D	1	6804	0.748	0.114	0.096	0.748	0.041	0.001	0.475	-0.401	-0.337	0.475	-0.290	-0.765	0.031	-6.3
Math	11	1926	D	2	6804	0.380	0.316	0.167	0.133	0.380	0.005	0.423	-0.369	-0.429	-0.503	0.423	1.237	0.028	2.4
Math	11	1927	A	2	6857	0.650	0.024	0.063	0.262	0.650	0.001	0.458	-0.286	-0.291	-0.430	0.458	-0.181	0.028	-1.5
Math	11	1928	E	1	6857	0.840	0.035	0.840	0.108	0.017	0.000	0.405	-0.266	0.405	-0.333	-0.191	-1.443	0.036	-3.4
Math	11	1929	C	2	6857	0.705	0.094	0.705	0.147	0.053	0.001	0.403	-0.151	0.403	-0.392	-0.355	-0.496	0.030	1.4
Math	11	1930	A	2	6857	0.650	0.650	0.118	0.108	0.122	0.001	0.476	0.476	-0.425	-0.372	-0.338	-0.181	0.028	-3.6
Math	11	1931	A	2	6857	0.741	0.022	0.079	0.156	0.741	0.001	0.506	-0.264	-0.391	-0.425	0.506	-0.720	0.031	-9.0
Math	11	1932	D	1	6857	0.632	0.209	0.082	0.074	0.632	0.002	0.451	-0.390	-0.355	-0.327	0.451	-0.079	0.028	-2.2
Math	11	1933	D	2	6857	0.789	0.135	0.789	0.048	0.028	0.001	0.442	-0.323	0.442	-0.375	-0.254	-1.043	0.032	-4.7
Math	11	1934	C	1	6857	0.347	0.218	0.117	0.315	0.347	0.003	0.449	-0.462	-0.393	-0.490	0.449	1.428	0.029	0.1
Math	11	1935	D	2	6857	0.411	0.411	0.260	0.238	0.087	0.003	0.375	0.375	-0.371	-0.328	-0.378	1.077	0.028	6.8

Appendix J: 2007 Grades 3–8 and 11 Multiple-Choice Statistics

Information						Proportions						Correlations					Rasch		
Cont.	Grade	Pub. ID	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Math	11	1936	E	2	6857	0.625	0.099	0.138	0.625	0.134	0.004	0.438	-0.403	-0.404	0.438	-0.257	-0.040	0.028	-1.3
Math	11	1937	C	1	6857	0.842	0.842	0.104	0.031	0.022	0.001	0.271	0.271	-0.159	-0.234	-0.198	-1.468	0.036	4.0
Math	11	1938	B	2	6857	0.719	0.091	0.719	0.111	0.074	0.004	0.309	-0.201	0.309	-0.259	-0.209	-0.581	0.030	4.2
Math	11	1939	A	1	6835	0.441	0.175	0.207	0.176	0.441	0.002	0.305	-0.203	-0.314	-0.341	0.305	0.883	0.028	9.9
Math	11	1940	D	2	6835	0.416	0.108	0.416	0.351	0.121	0.004	0.399	-0.270	0.399	-0.440	-0.298	1.015	0.028	5.1
Math	11	1941	D	2	6835	0.523	0.523	0.181	0.177	0.117	0.002	0.473	0.473	-0.382	-0.405	-0.469	0.457	0.028	-1.8
Math	11	1942	C	2	6835	0.593	0.593	0.128	0.180	0.097	0.000	0.555	0.555	-0.364	-0.540	-0.490	0.088	0.028	-9.9
Math	11	1943	D	1	6835	0.357	0.180	0.343	0.357	0.117	0.003	0.410	-0.338	-0.495	0.410	-0.283	1.333	0.029	4.5
Math	11	1944	D	1	6835	0.656	0.104	0.128	0.656	0.110	0.001	0.459	-0.437	-0.352	0.459	-0.287	-0.253	0.029	-4.1
Math	11	1945	E	2	6835	0.799	0.046	0.799	0.127	0.028	0.000	0.340	-0.248	0.340	-0.250	-0.215	-1.150	0.033	1.8
Math	11	1946	E	2	6835	0.711	0.711	0.088	0.108	0.090	0.002	0.451	0.451	-0.323	-0.413	-0.277	-0.572	0.030	-2.8
Math	11	1947	D	1	6835	0.659	0.075	0.097	0.659	0.167	0.002	0.396	-0.308	-0.360	0.396	-0.265	-0.268	0.029	-1.0
Math	11	1948	D	1	6835	0.568	0.142	0.182	0.568	0.105	0.003	0.381	-0.277	-0.345	0.381	-0.321	0.220	0.028	3.2
Math	11	1949	A	2	6835	0.614	0.154	0.614	0.097	0.133	0.001	0.464	-0.303	0.464	-0.416	-0.421	-0.020	0.028	-4.7
Math	11	1950	E	2	6835	0.345	0.347	0.191	0.345	0.114	0.003	0.124	-0.024	-0.245	0.124	-0.170	1.402	0.029	9.9
Math	11	1951	A	1	6844	0.468	0.130	0.236	0.165	0.468	0.001	0.381	-0.408	-0.412	-0.193	0.381	0.778	0.028	5.7
Math	11	1952	D	2	6844	0.454	0.454	0.172	0.156	0.212	0.005	0.299	0.299	-0.261	-0.373	-0.207	0.846	0.028	9.9
Math	11	1953	B	2	6844	0.715	0.715	0.109	0.092	0.084	0.001	0.407	0.407	-0.285	-0.301	-0.328	-0.556	0.030	0.2
Math	11	1954	D	2	6844	0.546	0.105	0.180	0.163	0.546	0.006	0.441	-0.374	-0.378	-0.388	0.441	0.372	0.028	-2.1
Math	11	1955	B	2	6844	0.602	0.244	0.083	0.602	0.070	0.001	0.555	-0.485	-0.423	0.555	-0.485	0.079	0.028	-9.9
Math	11	1956	D	1	6844	0.655	0.655	0.227	0.081	0.035	0.001	0.584	0.584	-0.552	-0.423	-0.325	-0.214	0.029	-9.9
Math	11	1957	D	1	6844	0.556	0.556	0.138	0.170	0.132	0.004	0.530	0.530	-0.428	-0.478	-0.453	0.318	0.028	-8.7
Math	11	1958	B	2	6844	0.381	0.376	0.157	0.381	0.083	0.003	0.257	-0.254	-0.253	0.257	-0.195	1.242	0.028	9.9
Math	11	1959	D	1	6844	0.522	0.188	0.129	0.157	0.522	0.003	0.535	-0.517	-0.541	-0.383	0.535	0.496	0.028	-8.7
Math	11	1960	B	1	6844	0.671	0.130	0.671	0.105	0.093	0.001	0.425	-0.369	0.425	-0.298	-0.311	-0.304	0.029	0.4
Math	11	1961	A	1	6844	0.784	0.784	0.065	0.040	0.109	0.002	0.451	0.451	-0.288	-0.270	-0.379	-1.020	0.032	-3.6
Math	11	1962	E	2	6844	0.917	0.036	0.026	0.917	0.018	0.002	0.318	-0.152	-0.258	0.318	-0.206	-2.303	0.046	0.3
Math	11	1963	A	1	6828	0.714	0.064	0.123	0.714	0.098	0.001	0.297	-0.208	-0.175	0.297	-0.277	-0.555	0.030	9.2
Math	11	1964	E	2	6828	0.619	0.619	0.141	0.122	0.114	0.003	0.514	0.514	-0.330	-0.476	-0.471	-0.014	0.028	-7.5
Math	11	1965	E	2	6828	0.489	0.134	0.184	0.193	0.489	0.001	0.366	-0.357	-0.403	-0.237	0.366	0.668	0.028	5.8
Math	11	1966	D	2	6828	0.495	0.200	0.126	0.176	0.495	0.002	0.499	-0.490	-0.415	-0.443	0.499	0.633	0.028	-6.3
Math	11	1967	A	2	6828	0.580	0.310	0.053	0.580	0.056	0.001	0.267	-0.147	-0.370	0.267	-0.344	0.192	0.028	9.9
Math	11	1968	D	2	6828	0.498	0.498	0.175	0.226	0.100	0.001	0.521	0.521	-0.344	-0.590	-0.462	0.621	0.028	-5.9
Math	11	1969	D	2	6828	0.285	0.244	0.315	0.152	0.285	0.004	0.365	-0.419	-0.423	-0.330	0.365	1.787	0.030	5.8
Math	11	1970	B	2	6828	0.258	0.450	0.258	0.179	0.111	0.002	0.363	-0.395	0.363	-0.255	-0.620	1.960	0.031	5.6
Math	11	1971	A	1	6828	0.860	0.860	0.048	0.055	0.036	0.001	0.490	0.490	-0.345	-0.373	-0.273	-1.637	0.037	-8.8
Math	11	1972	D	2	6828	0.564	0.105	0.190	0.139	0.564	0.002	0.513	-0.383	-0.459	-0.479	0.513	0.276	0.028	-5.8
Math	11	1973	E	2	6828	0.508	0.124	0.225	0.508	0.141	0.002	0.318	-0.355	-0.228	0.318	-0.286	0.567	0.028	9.9
Math	11	1974	C	2	6828	0.509	0.116	0.098	0.274	0.509	0.004	0.405	-0.216	-0.335	-0.438	0.405	0.562	0.028	2.2
Math	11	1975	A	2	6833	0.594	0.166	0.167	0.594	0.072	0.001	0.341	-0.341	-0.228	0.341	-0.268	0.107	0.028	9.0
Math	11	1976	A	1	6833	0.651	0.137	0.651	0.145	0.065	0.001	0.463	-0.426	0.463	-0.346	-0.307	-0.200	0.028	-4.1
Math	11	1977	E	2	6833	0.433	0.141	0.158	0.433	0.260	0.008	0.244	-0.180	-0.228	0.244	-0.247	0.940	0.028	9.9
Math	11	1978	B	2	6833	0.595	0.095	0.595	0.108	0.200	0.002	0.252	-0.188	0.252	-0.238	-0.181	0.102	0.028	9.9

Appendix J: 2007 Grades 3–8 and 11 Multiple-Choice Statistics

Information					Proportions							Correlations					Rasch		
Cont.	Grade	Pub. ID	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Math	11	1979	D	2	6833	0.617	0.286	0.617	0.059	0.037	0.001	0.338	-0.271	0.338	-0.336	-0.208	-0.015	0.028	4.9
Math	11	1980	A	2	6833	0.790	0.790	0.029	0.043	0.136	0.001	0.407	0.407	-0.273	-0.357	-0.281	-1.060	0.032	-1.7
Math	11	1981	C	2	6833	0.790	0.077	0.067	0.065	0.790	0.000	0.556	-0.466	-0.389	-0.347	0.556	-1.058	0.032	-9.9
Math	11	1982	D	1	6833	0.305	0.305	0.139	0.291	0.262	0.004	0.410	0.410	-0.495	-0.440	-0.389	1.657	0.030	3.7
Math	11	1983	E	1	6833	0.771	0.029	0.176	0.771	0.022	0.002	0.219	-0.211	-0.131	0.219	-0.208	-0.927	0.032	9.9
Math	11	1984	B	2	6833	0.417	0.115	0.386	0.417	0.078	0.004	0.413	-0.425	-0.423	0.413	-0.232	1.030	0.028	4.3
Math	11	1985	A	2	6833	0.671	0.671	0.099	0.087	0.141	0.001	0.510	0.510	-0.309	-0.472	-0.423	-0.312	0.029	-8.1
Math	11	1986	D	1	6833	0.709	0.709	0.108	0.088	0.092	0.003	0.423	0.423	-0.296	-0.298	-0.348	-0.531	0.030	-1.9
Math	11	1987	A	1	6798	0.757	0.075	0.757	0.077	0.089	0.002	0.462	-0.392	0.462	-0.318	-0.295	-0.828	0.031	-4.3
Math	11	1988	D	2	6798	0.672	0.085	0.672	0.145	0.095	0.003	0.545	-0.345	0.545	-0.465	-0.462	-0.315	0.029	-9.8
Math	11	1989	A	1	6798	0.716	0.138	0.716	0.054	0.090	0.001	0.514	-0.473	0.514	-0.325	-0.334	-0.575	0.030	-8.4
Math	11	1990	D	1	6798	0.564	0.061	0.068	0.305	0.564	0.001	0.468	-0.382	-0.436	-0.397	0.468	0.273	0.028	-1.9
Math	11	1991	C	2	6798	0.566	0.178	0.566	0.215	0.040	0.001	0.448	-0.405	0.448	-0.383	-0.335	0.264	0.028	-1.8
Math	11	1992	C	2	6798	0.406	0.406	0.179	0.239	0.170	0.005	0.419	0.419	-0.407	-0.434	-0.372	1.089	0.028	2.3
Math	11	1993	C	1	6798	0.446	0.037	0.189	0.326	0.446	0.002	0.105	-0.289	-0.037	-0.095	0.105	0.878	0.028	9.9
Math	11	1994	A	2	6798	0.655	0.655	0.116	0.123	0.104	0.002	0.470	0.470	-0.431	-0.364	-0.317	-0.218	0.029	-4.1
Math	11	1995	A	1	6798	0.705	0.705	0.083	0.169	0.042	0.001	0.451	0.451	-0.315	-0.381	-0.301	-0.505	0.030	-4.6
Math	11	1996	D	1	6798	0.374	0.085	0.374	0.245	0.290	0.005	0.197	-0.276	0.197	-0.200	-0.150	1.262	0.028	9.9
Math	11	1997	B	2	6798	0.313	0.313	0.128	0.168	0.389	0.002	0.401	0.401	-0.402	-0.443	-0.409	1.605	0.029	4.7
Math	11	1998	D	1	6798	0.297	0.475	0.174	0.297	0.051	0.003	0.134	-0.050	-0.292	0.134	-0.275	1.704	0.030	9.9
Math	11	1999	A	1	6787	0.561	0.056	0.168	0.561	0.213	0.002	0.228	-0.229	-0.326	0.228	-0.057	0.288	0.028	9.9
Math	11	2000	A	1	6787	0.687	0.116	0.687	0.053	0.143	0.001	0.389	-0.204	0.389	-0.324	-0.360	-0.392	0.029	0.4
Math	11	2001	C	1	6787	0.594	0.032	0.156	0.594	0.215	0.002	0.220	-0.188	-0.187	0.220	-0.172	0.120	0.028	9.9
Math	11	2002	B	2	6787	0.473	0.473	0.341	0.085	0.098	0.002	0.469	0.469	-0.414	-0.432	-0.460	0.744	0.027	-4.2
Math	11	2003	D	1	6787	0.884	0.023	0.884	0.042	0.050	0.000	0.402	-0.248	0.402	-0.297	-0.249	-1.850	0.040	-5.3
Math	11	2004	C	2	6787	0.654	0.118	0.654	0.140	0.085	0.002	0.509	-0.418	0.509	-0.409	-0.377	-0.207	0.029	-9.4
Math	11	2005	D	1	6787	0.697	0.064	0.137	0.101	0.697	0.001	0.519	-0.371	-0.430	-0.390	0.519	-0.450	0.029	-9.1
Math	11	2006	D	2	6787	0.550	0.123	0.550	0.240	0.082	0.006	0.300	-0.295	0.300	-0.284	-0.122	0.348	0.028	9.7
Math	11	2007	D	1	6787	0.653	0.083	0.164	0.098	0.653	0.002	0.398	-0.422	-0.224	-0.352	0.398	-0.197	0.028	3.7
Math	11	2008	B	2	6787	0.852	0.852	0.041	0.046	0.061	0.001	0.382	0.382	-0.281	-0.282	-0.207	-1.540	0.037	-4.5
Math	11	2009	E	2	6787	0.238	0.238	0.368	0.240	0.151	0.004	0.229	0.229	-0.251	-0.191	-0.373	2.078	0.032	9.9
Math	11	2010	C	2	6787	0.285	0.316	0.285	0.205	0.191	0.003	0.284	-0.310	0.284	-0.324	-0.258	1.773	0.030	9.9
Reading	3	2011	A		127194	0.917	0.035	0.027	0.021	0.917	0.001	0.417	-0.272	-0.263	-0.271	0.417	-1.949	0.011	-9.9
Reading	3	2012	B		127194	0.686	0.104	0.686	0.084	0.124	0.002	0.349	-0.293	0.349	-0.241	-0.265	-0.039	0.007	9.9
Reading	3	2013	A		127194	0.732	0.083	0.063	0.732	0.118	0.004	0.375	-0.318	-0.315	0.375	-0.221	-0.309	0.007	6.7
Reading	3	2014	A		127194	0.694	0.081	0.203	0.694	0.015	0.007	0.305	-0.303	-0.202	0.305	-0.283	-0.060	0.007	9.9
Reading	3	2015	A		127194	0.796	0.068	0.796	0.109	0.026	0.001	0.432	-0.317	0.432	-0.315	-0.313	-0.750	0.008	-9.9
Reading	3	2016	A		127194	0.817	0.073	0.817	0.055	0.050	0.005	0.443	-0.362	0.443	-0.315	-0.246	-0.920	0.008	-9.9
Reading	3	2017	A		127194	0.732	0.049	0.059	0.158	0.732	0.002	0.406	-0.388	-0.357	-0.249	0.406	-0.302	0.007	7.0
Reading	3	2018	B		127194	0.724	0.724	0.114	0.102	0.051	0.010	0.437	0.437	-0.273	-0.391	-0.347	-0.261	0.007	-8.4
Reading	3	2019	A		127194	0.744	0.744	0.066	0.092	0.097	0.001	0.400	0.400	-0.339	-0.293	-0.257	-0.364	0.007	-5.6
Reading	3	2020	A		127194	0.758	0.141	0.758	0.059	0.039	0.003	0.348	-0.170	0.348	-0.340	-0.331	-0.473	0.007	8.1
Reading	3	2021	A		127194	0.790	0.053	0.123	0.033	0.790	0.001	0.469	-0.317	-0.384	-0.290	0.469	-0.700	0.008	-9.9

Appendix J: 2007 Grades 3–8 and 11 Multiple-Choice Statistics

Information					Proportions							Correlations					Rasch		
Cont.	Grade	Pub. ID	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Reading	3	2022	A		127194	0.696	0.127	0.088	0.696	0.087	0.002	0.495	-0.463	-0.328	0.495	-0.346	-0.105	0.007	-9.9
Reading	3	2023	B		127194	0.363	0.237	0.160	0.234	0.363	0.006	0.274	-0.289	-0.187	-0.341	0.274	1.699	0.007	9.9
Reading	3	2024	A		127194	0.630	0.174	0.103	0.630	0.081	0.012	0.500	-0.383	-0.458	0.500	0.427	0.292	0.007	-9.9
Reading	3	2025	B		127194	0.575	0.056	0.575	0.066	0.300	0.003	0.452	-0.410	0.452	-0.438	-0.375	0.571	0.006	-9.9
Reading	3	2026	B		127194	0.738	0.142	0.064	0.051	0.738	0.005	0.304	-0.140	-0.265	-0.333	0.304	-0.345	0.007	9.9
Reading	3	2027	B		127194	0.461	0.208	0.461	0.197	0.128	0.005	0.348	-0.342	0.348	-0.317	-0.296	1.183	0.006	9.9
Reading	3	2028	A		127194	0.457	0.335	0.131	0.457	0.071	0.006	0.418	-0.353	-0.436	0.418	-0.456	1.199	0.006	8.5
Reading	3	2029	A		127194	0.886	0.026	0.038	0.886	0.042	0.008	0.510	-0.312	-0.363	0.510	-0.357	-1.539	0.009	-9.9
Reading	3	2030	A		127194	0.425	0.382	0.095	0.091	0.425	0.006	0.305	-0.235	-0.327	-0.427	0.305	1.371	0.006	9.9
Reading	3	2031	A		127194	0.634	0.076	0.071	0.209	0.634	0.009	0.479	-0.426	-0.434	-0.365	0.479	0.281	0.007	-9.9
Reading	3	2032	A		127194	0.622	0.622	0.123	0.131	0.118	0.007	0.370	0.370	-0.277	-0.268	-0.336	0.346	0.007	9.9
Reading	3	2033	A		127194	0.671	0.168	0.671	0.051	0.103	0.007	0.319	-0.207	0.319	-0.381	-0.210	0.085	0.007	9.9
Reading	3	2034	B		127194	0.564	0.108	0.118	0.564	0.202	0.009	0.395	-0.405	-0.304	0.395	-0.311	0.624	0.006	9.9
Reading	3	2035	A		127194	0.921	0.030	0.017	0.030	0.921	0.001	0.429	-0.310	-0.241	-0.274	0.429	-2.018	0.011	-9.9
Reading	3	2036	A		127194	0.714	0.714	0.170	0.068	0.046	0.001	0.416	0.416	-0.349	-0.260	-0.336	-0.200	0.007	-3.7
Reading	3	2037	A		127194	0.696	0.119	0.696	0.051	0.134	0.001	0.483	-0.440	0.483	-0.326	-0.345	-0.085	0.007	-9.9
Reading	3	2038	B		127194	0.627	0.160	0.117	0.627	0.095	0.001	0.439	-0.338	-0.400	0.439	-0.344	0.299	0.007	-8.6
Reading	3	2039	A		127194	0.821	0.066	0.821	0.046	0.062	0.005	0.507	-0.367	0.507	-0.308	-0.398	-0.936	0.008	-9.9
Reading	3	2040	A		127194	0.707	0.103	0.081	0.107	0.707	0.002	0.530	-0.465	-0.424	-0.358	0.530	-0.144	0.007	-9.9
Reading	3	2041	A		127194	0.589	0.159	0.141	0.589	0.107	0.003	0.395	-0.329	-0.330	0.395	-0.326	0.528	0.006	7.7
Reading	3	2042	A		127194	0.634	0.171	0.127	0.634	0.062	0.006	0.520	-0.426	-0.433	0.520	-0.439	0.275	0.007	-9.9
Reading	3	2043	B		127194	0.720	0.071	0.720	0.103	0.104	0.002	0.513	-0.393	0.513	-0.369	-0.418	-0.235	0.007	-9.9
Reading	3	2044	A		127194	0.712	0.712	0.173	0.052	0.060	0.003	0.376	0.376	-0.224	-0.405	-0.305	-0.173	0.007	9.9
Reading	3	2045	A		127194	0.403	0.248	0.067	0.403	0.278	0.005	0.284	-0.328	-0.532	0.284	-0.149	1.474	0.006	9.9
Reading	3	2046	A		127194	0.678	0.080	0.130	0.106	0.678	0.006	0.528	-0.352	-0.420	-0.478	0.528	0.028	0.007	-9.9
Reading	3	2047	A		127194	0.684	0.096	0.684	0.175	0.037	0.008	0.598	-0.563	0.598	-0.471	-0.437	-0.028	0.007	-9.9
Reading	3	2048	A		127194	0.577	0.577	0.079	0.029	0.312	0.002	0.292	0.292	-0.315	-0.404	-0.196	0.585	0.006	9.9
Reading	3	2049	A		127194	0.640	0.055	0.152	0.640	0.149	0.005	0.519	-0.416	-0.524	0.519	-0.344	0.238	0.007	-9.9
Reading	3	2050	B		127194	0.524	0.044	0.338	0.090	0.524	0.003	0.377	-0.456	-0.293	-0.393	0.377	0.857	0.006	9.9
Reading	3	2051	B		8160	0.781	0.011	0.106	0.781	0.102	0.000	0.417	-0.252	-0.262	0.417	-0.392	-0.690	0.030	-1.4
Reading	3	2052	A		8160	0.607	0.151	0.204	0.037	0.607	0.001	0.387	-0.317	-0.309	-0.408	0.387	0.357	0.026	3.4
Reading	3	2053	A		8160	0.890	0.890	0.037	0.039	0.032	0.001	0.479	0.479	-0.312	-0.339	-0.299	-1.666	0.038	-9.9
Reading	3	2054	A		8160	0.850	0.027	0.075	0.044	0.850	0.004	0.466	-0.300	-0.325	-0.339	0.466	-1.247	0.034	-8.6
Reading	3	2055	A		8160	0.848	0.048	0.036	0.848	0.067	0.001	0.414	-0.316	-0.301	0.414	-0.245	-1.234	0.034	-2.8
Reading	3	2056	A		8160	0.838	0.034	0.838	0.072	0.053	0.003	0.483	-0.287	0.483	-0.358	-0.348	-1.146	0.033	-9.9
Reading	3	2057	A		8160	0.570	0.159	0.570	0.184	0.085	0.001	0.357	-0.292	0.357	-0.326	-0.275	0.551	0.025	6.2
Reading	3	2058	A		8160	0.683	0.683	0.129	0.032	0.131	0.026	0.431	0.431	-0.376	-0.366	-0.324	-0.066	0.027	-3.1
Reading	3	2059	A	2	8160	0.655	0.113	0.196	0.655	0.033	0.002	0.335	-0.414	-0.162	0.335	-0.280	0.093	0.026	7.3
Reading	3	2060	A	1	8160	0.408	0.372	0.408	0.059	0.158	0.003	0.250	-0.139	0.250	-0.428	-0.361	1.383	0.025	9.9
Reading	3	2061	B	2	8160	0.531	0.111	0.063	0.290	0.531	0.005	0.386	-0.404	-0.344	-0.297	0.386	0.753	0.025	3.0
Reading	3	2062	B	1	8160	0.742	0.051	0.742	0.035	0.168	0.004	0.263	-0.324	0.263	-0.268	-0.105	-0.427	0.028	9.9
Reading	3	2063	A	2	8160	0.511	0.261	0.148	0.074	0.511	0.006	0.425	-0.333	-0.432	-0.432	0.425	0.855	0.025	-0.4
Reading	3	2064	A	2	8160	0.656	0.090	0.095	0.149	0.656	0.010	0.418	-0.344	-0.414	-0.274	0.418	0.091	0.026	1.5

Appendix J: 2007 Grades 3–8 and 11 Multiple-Choice Statistics

Information						Proportions						Correlations					Rasch		
Cont.	Grade	Pub. ID	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Reading	3	2065	A	2	8160	0.581	0.581	0.033	0.075	0.310	0.002	0.298	0.298	-0.385	-0.368	-0.180	0.495	0.025	9.9
Reading	3	2066	B	2	8160	0.530	0.191	0.202	0.530	0.070	0.006	0.399	-0.242	-0.422	0.399	-0.447	0.758	0.025	2.0
Reading	3	2067	A	2	8160	0.585	0.585	0.249	0.114	0.049	0.003	0.346	0.346	-0.273	-0.305	-0.307	0.474	0.025	6.0
Reading	3	2068	B	2	8160	0.646	0.086	0.167	0.091	0.646	0.010	0.450	-0.362	-0.368	-0.373	0.450	0.145	0.026	-2.8
Reading	3	2069	B		7993	0.782	0.009	0.103	0.782	0.106	0.000	0.414	-0.227	-0.262	0.414	-0.385	-0.679	0.030	-0.7
Reading	3	2070	A		7993	0.620	0.143	0.197	0.039	0.620	0.002	0.392	-0.323	-0.304	-0.395	0.392	0.329	0.026	2.1
Reading	3	2071	A		7993	0.898	0.898	0.036	0.031	0.034	0.001	0.465	0.465	-0.316	-0.326	-0.276	-1.755	0.040	-9.9
Reading	3	2072	A		7993	0.851	0.026	0.077	0.042	0.851	0.004	0.466	-0.300	-0.320	-0.346	0.466	-1.250	0.034	-7.4
Reading	3	2073	A		7993	0.860	0.045	0.030	0.860	0.064	0.001	0.387	-0.295	-0.278	0.387	-0.224	-1.334	0.035	-1.5
Reading	3	2074	A		7993	0.839	0.032	0.839	0.072	0.052	0.005	0.476	-0.286	0.476	-0.363	-0.332	-1.141	0.033	-9.0
Reading	3	2075	A		7993	0.577	0.158	0.577	0.184	0.078	0.002	0.373	-0.314	0.373	-0.338	-0.266	0.557	0.026	6.2
Reading	3	2076	A		7993	0.695	0.695	0.126	0.028	0.123	0.027	0.415	0.415	-0.373	-0.349	-0.303	-0.107	0.028	0.4
Reading	3	2077	B	2	7993	0.780	0.058	0.052	0.780	0.108	0.002	0.537	-0.421	-0.374	0.537	-0.400	-0.664	0.030	-9.9
Reading	3	2078	A	2	7993	0.666	0.165	0.666	0.069	0.097	0.002	0.331	-0.273	0.331	-0.279	-0.222	0.066	0.027	7.8
Reading	3	2079	A	2	7993	0.798	0.125	0.025	0.041	0.798	0.011	0.445	-0.325	-0.351	-0.345	0.445	-0.798	0.031	-1.8
Reading	3	2080	B	2	7993	0.634	0.634	0.051	0.057	0.255	0.003	0.444	0.444	-0.445	-0.385	-0.347	0.247	0.026	1.1
Reading	3	2081	A	2	7993	0.808	0.041	0.808	0.038	0.110	0.003	0.438	-0.378	0.438	-0.329	-0.274	-0.875	0.031	-3.5
Reading	3	2082	A	2	7993	0.802	0.802	0.074	0.100	0.021	0.002	0.408	0.408	-0.338	-0.262	-0.295	-0.828	0.031	-1.3
Reading	3	2083	A	2	7993	0.716	0.058	0.716	0.140	0.081	0.004	0.513	-0.388	0.513	-0.375	-0.445	-0.233	0.028	-6.9
Reading	3	2084	B	2	7993	0.675	0.088	0.094	0.675	0.136	0.007	0.478	-0.457	-0.425	0.478	-0.289	0.014	0.027	-4.0
Reading	3	2085	B	2	7993	0.770	0.770	0.053	0.079	0.094	0.004	0.553	0.553	-0.398	-0.457	-0.394	-0.591	0.030	-9.1
Reading	3	2086	A	2	7993	0.555	0.139	0.103	0.195	0.555	0.008	0.419	-0.374	-0.492	-0.277	0.419	0.676	0.026	1.2
Reading	3	2087	A		7935	0.847	0.069	0.036	0.048	0.847	0.001	0.427	-0.311	-0.340	-0.233	0.427	-1.169	0.034	-4.4
Reading	3	2088	A		7935	0.600	0.183	0.161	0.055	0.600	0.001	0.401	-0.261	-0.391	-0.420	0.401	0.444	0.026	2.8
Reading	3	2089	A		7935	0.649	0.099	0.649	0.211	0.040	0.001	0.298	-0.359	0.298	-0.149	-0.313	0.179	0.026	9.9
Reading	3	2090	A		7935	0.673	0.092	0.177	0.673	0.056	0.002	0.363	-0.289	-0.257	0.363	-0.345	0.044	0.027	4.2
Reading	3	2091	A		7935	0.773	0.062	0.773	0.131	0.033	0.001	0.564	-0.409	0.564	-0.461	-0.385	-0.580	0.030	-9.9
Reading	3	2092	A		7935	0.903	0.903	0.039	0.025	0.030	0.003	0.475	0.475	-0.308	-0.313	-0.326	-1.763	0.040	-9.9
Reading	3	2093	B		7935	0.657	0.163	0.111	0.067	0.657	0.002	0.384	-0.327	-0.265	-0.309	0.384	0.132	0.027	1.0
Reading	3	2094	A		7935	0.862	0.025	0.862	0.045	0.055	0.013	0.414	-0.280	0.414	-0.281	-0.300	-1.309	0.035	-5.1
Reading	3	2095	A	2	7935	0.582	0.582	0.101	0.144	0.171	0.002	0.327	0.327	-0.316	-0.331	-0.186	0.535	0.026	8.9
Reading	3	2096	A	2	7935	0.594	0.243	0.093	0.594	0.067	0.003	0.466	-0.348	-0.487	0.466	-0.408	0.477	0.026	-4.8
Reading	3	2097	A	2	7935	0.704	0.092	0.704	0.084	0.108	0.011	0.390	-0.193	0.390	-0.366	-0.326	-0.140	0.028	1.3
Reading	3	2098	A	2	7935	0.666	0.084	0.153	0.093	0.666	0.004	0.511	-0.450	-0.400	-0.394	0.511	0.083	0.027	-9.6
Reading	3	2099	B	2	7935	0.383	0.196	0.383	0.207	0.209	0.006	0.197	-0.276	0.197	-0.131	-0.190	1.555	0.026	9.9
Reading	3	2100	A	2	7935	0.757	0.757	0.091	0.063	0.088	0.002	0.428	0.428	-0.350	-0.298	-0.290	-0.469	0.029	-3.0
Reading	3	2101	A	2	7935	0.533	0.182	0.115	0.533	0.166	0.003	0.337	-0.300	-0.253	0.337	-0.322	0.790	0.025	7.0
Reading	3	2102	A	2	7935	0.431	0.289	0.137	0.135	0.431	0.008	0.331	-0.227	-0.430	-0.367	0.331	1.305	0.025	9.2
Reading	3	2103	B	2	7935	0.644	0.644	0.109	0.139	0.103	0.005	0.417	0.417	-0.394	-0.323	-0.288	0.205	0.026	-0.9
Reading	3	2104	A	2	7935	0.374	0.126	0.134	0.374	0.350	0.016	0.100	-0.342	-0.288	0.100	0.086	1.601	0.026	9.9
Reading	3	2105	A		7957	0.845	0.071	0.035	0.048	0.845	0.001	0.418	-0.289	-0.322	-0.257	0.418	-1.156	0.034	-4.6
Reading	3	2106	A		7957	0.592	0.183	0.169	0.055	0.592	0.002	0.383	-0.241	-0.383	-0.409	0.383	0.484	0.026	4.9
Reading	3	2107	A		7957	0.663	0.091	0.663	0.205	0.039	0.001	0.292	-0.329	0.292	-0.152	-0.323	0.096	0.027	9.9

Appendix J: 2007 Grades 3–8 and 11 Multiple-Choice Statistics

Information					Proportions							Correlations					Rasch		
Cont.	Grade	Pub. ID	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Reading	3	2108	A		7957	0.666	0.096	0.176	0.666	0.059	0.003	0.353	-0.271	-0.233	0.353	-0.383	0.081	0.027	5.1
Reading	3	2109	A		7957	0.773	0.066	0.773	0.122	0.037	0.001	0.565	-0.403	0.565	-0.454	-0.419	-0.588	0.030	-9.9
Reading	3	2110	A		7957	0.905	0.905	0.039	0.023	0.030	0.003	0.481	0.481	-0.327	-0.312	-0.316	-1.802	0.041	-9.9
Reading	3	2111	B		7957	0.665	0.160	0.104	0.069	0.665	0.003	0.384	-0.332	-0.262	-0.306	0.384	0.089	0.027	1.8
Reading	3	2112	A		7957	0.870	0.022	0.870	0.047	0.047	0.012	0.422	-0.285	0.422	-0.295	-0.285	-1.399	0.036	-5.6
Reading	3	2113	A	2	7957	0.646	0.203	0.067	0.646	0.082	0.002	0.465	-0.446	-0.400	0.465	-0.254	0.196	0.026	-3.0
Reading	3	2114	A	2	7957	0.319	0.049	0.596	0.319	0.034	0.002	0.201	-0.481	-0.144	0.201	-0.376	1.912	0.027	9.9
Reading	3	2115	A	2	7957	0.649	0.128	0.105	0.113	0.649	0.005	0.467	-0.418	-0.427	-0.287	0.467	0.177	0.026	-5.1
Reading	3	2116	A	1	7957	0.653	0.051	0.653	0.039	0.255	0.002	0.327	-0.364	0.327	-0.305	-0.219	0.154	0.027	5.6
Reading	3	2117	A	2	7957	0.803	0.075	0.036	0.077	0.803	0.009	0.525	-0.406	-0.340	-0.393	0.525	-0.807	0.031	-9.9
Reading	3	2118	B	2	7957	0.494	0.119	0.494	0.316	0.067	0.004	0.237	-0.168	0.237	-0.192	-0.328	0.990	0.025	9.9
Reading	3	2119	A	2	7957	0.811	0.041	0.811	0.064	0.076	0.007	0.481	-0.400	0.481	-0.375	-0.290	-0.872	0.031	-7.1
Reading	3	2120	A	2	7957	0.752	0.752	0.069	0.095	0.081	0.003	0.321	0.321	-0.237	-0.223	-0.214	-0.445	0.029	0.1
Reading	3	2121	A	2	7957	0.517	0.243	0.102	0.517	0.134	0.003	0.529	-0.490	-0.499	0.529	-0.465	0.871	0.025	-9.9
Reading	3	2122	A	2	7957	0.489	0.489	0.084	0.243	0.175	0.010	0.304	0.304	-0.291	-0.242	-0.305	1.015	0.025	9.9
Reading	3	2123	A		7986	0.825	0.825	0.048	0.045	0.082	0.001	0.492	0.492	-0.376	-0.316	-0.347	-0.975	0.032	-9.7
Reading	3	2124	A		7986	0.816	0.098	0.033	0.816	0.051	0.001	0.474	-0.348	-0.370	0.474	-0.302	-0.906	0.032	-8.2
Reading	3	2125	A		7986	0.579	0.339	0.579	0.044	0.037	0.001	0.372	-0.307	0.372	-0.313	-0.391	0.556	0.026	3.5
Reading	3	2126	A		7986	0.827	0.043	0.068	0.827	0.060	0.002	0.492	-0.333	-0.358	0.492	-0.344	-0.992	0.032	-9.2
Reading	3	2127	A		7986	0.820	0.068	0.029	0.083	0.820	0.001	0.418	-0.318	-0.245	-0.297	0.418	-0.934	0.032	-5.5
Reading	3	2128	A		7986	0.740	0.061	0.027	0.166	0.740	0.005	0.373	-0.316	-0.330	-0.254	0.373	-0.365	0.028	2.2
Reading	3	2129	B		7986	0.491	0.153	0.194	0.491	0.161	0.002	0.323	-0.354	-0.245	0.323	-0.275	1.005	0.025	9.9
Reading	3	2130	A		7986	0.670	0.115	0.670	0.098	0.101	0.015	0.501	-0.422	0.501	-0.359	-0.431	0.059	0.027	-9.3
Reading	3	2131	A		7986	0.666	0.122	0.666	0.187	0.023	0.003	0.290	-0.366	0.290	-0.130	-0.221	0.085	0.027	9.9
Reading	3	2132	A		7986	0.555	0.240	0.083	0.555	0.117	0.005	0.301	-0.272	-0.286	0.301	-0.218	0.677	0.025	9.9
Reading	3	2133	A		7986	0.713	0.061	0.148	0.713	0.077	0.001	0.357	-0.296	-0.256	0.357	-0.278	-0.194	0.028	5.4
Reading	3	2134	A		7986	0.439	0.381	0.439	0.132	0.042	0.006	0.320	-0.288	0.320	-0.277	-0.449	1.275	0.025	9.9
Reading	3	2135	B		7986	0.817	0.817	0.080	0.055	0.044	0.003	0.456	0.456	-0.330	-0.336	-0.287	-0.911	0.032	-7.2
Reading	3	2136	A		7986	0.776	0.147	0.040	0.028	0.776	0.009	0.436	-0.332	-0.322	-0.341	0.436	-0.603	0.030	-4.1
Reading	3	2137	B		7986	0.674	0.115	0.674	0.080	0.130	0.001	0.402	-0.327	0.402	-0.369	-0.258	0.037	0.027	0.5
Reading	3	2138	B		7986	0.784	0.064	0.054	0.784	0.092	0.005	0.443	-0.371	-0.380	0.443	-0.233	-0.660	0.030	-4.2
Reading	3	2139	A		7986	0.605	0.605	0.074	0.060	0.257	0.003	0.339	0.339	-0.364	-0.404	-0.201	0.417	0.026	7.7
Reading	3	2140	A		7986	0.628	0.181	0.109	0.078	0.628	0.004	0.452	-0.324	-0.450	-0.359	0.452	0.292	0.026	-4.7
Reading	3	2141	A		7984	0.830	0.830	0.046	0.042	0.082	0.001	0.496	0.496	-0.369	-0.305	-0.364	-1.018	0.032	-9.9
Reading	3	2142	A		7984	0.813	0.102	0.034	0.813	0.050	0.001	0.468	-0.351	-0.365	0.468	-0.291	-0.877	0.031	-7.8
Reading	3	2143	A		7984	0.594	0.322	0.594	0.045	0.037	0.002	0.384	-0.316	0.384	-0.324	-0.390	0.479	0.026	3.0
Reading	3	2144	A		7984	0.827	0.039	0.068	0.827	0.063	0.003	0.499	-0.325	-0.372	0.499	-0.354	-0.989	0.032	-9.9
Reading	3	2145	A		7984	0.824	0.067	0.031	0.078	0.824	0.000	0.431	-0.325	-0.258	-0.305	0.431	-0.964	0.032	-6.5
Reading	3	2146	A		7984	0.740	0.061	0.027	0.169	0.740	0.004	0.372	-0.325	-0.320	-0.254	0.372	-0.359	0.028	2.4
Reading	3	2147	B		7984	0.491	0.159	0.181	0.491	0.167	0.001	0.358	-0.371	-0.298	0.358	-0.301	1.009	0.025	6.1
Reading	3	2148	A		7984	0.676	0.121	0.676	0.064	0.124	0.016	0.492	-0.407	0.492	-0.360	-0.409	0.029	0.027	-8.0
Reading	3	2149	B	1	7984	0.642	0.073	0.642	0.178	0.105	0.001	0.217	-0.073	0.217	-0.183	-0.237	0.219	0.026	9.9
Reading	3	2150	A	2	7984	0.394	0.394	0.290	0.222	0.091	0.002	-0.045	-0.045	0.051	0.106	-0.097	1.506	0.026	9.9

Appendix J: 2007 Grades 3–8 and 11 Multiple-Choice Statistics

Information					Proportions							Correlations					Rasch		
Cont.	Grade	Pub. ID	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Reading	3	2151	A	2	7984	0.802	0.105	0.043	0.044	0.802	0.006	0.437	-0.326	-0.309	-0.310	0.437	-0.791	0.031	-5.2
Reading	3	2152	A	2	7984	0.630	0.079	0.630	0.137	0.152	0.001	0.422	-0.380	0.422	-0.286	-0.373	0.283	0.026	-1.7
Reading	3	2153	A	2	7984	0.865	0.063	0.035	0.032	0.865	0.004	0.479	-0.376	-0.279	-0.309	0.479	-1.338	0.035	-9.6
Reading	3	2154	A	2	7984	0.876	0.047	0.876	0.056	0.016	0.006	0.391	-0.313	0.391	-0.235	-0.254	-1.444	0.036	-4.6
Reading	3	2155	A	2	7984	0.731	0.731	0.086	0.084	0.098	0.001	0.461	0.461	-0.420	-0.324	-0.291	-0.304	0.028	-6.6
Reading	3	2156	A	2	7984	0.430	0.141	0.390	0.430	0.037	0.002	0.442	-0.444	-0.417	0.442	-0.454	1.322	0.025	-2.3
Reading	3	2157	A	2	7984	0.789	0.789	0.065	0.085	0.057	0.004	0.412	0.412	-0.346	-0.245	-0.298	-0.699	0.030	-3.8
Reading	3	2158	A	2	7984	0.738	0.080	0.057	0.738	0.121	0.004	0.391	-0.269	-0.287	0.391	-0.313	-0.347	0.028	-0.7
Reading	3	2159	B		7989	0.830	0.094	0.035	0.830	0.041	0.000	0.454	-0.334	-0.327	0.454	-0.297	-1.002	0.033	-5.5
Reading	3	2160	B		7989	0.752	0.752	0.161	0.051	0.035	0.001	0.402	0.402	-0.302	-0.315	-0.288	-0.422	0.029	-1.1
Reading	3	2161	A		7989	0.510	0.145	0.134	0.210	0.510	0.001	0.267	-0.276	-0.372	-0.108	0.267	0.945	0.025	9.9
Reading	3	2162	A		7989	0.797	0.079	0.797	0.054	0.067	0.002	0.510	-0.453	0.510	-0.308	-0.333	-0.744	0.031	-8.2
Reading	3	2163	B		7989	0.715	0.106	0.715	0.068	0.109	0.001	0.494	-0.437	0.494	-0.372	-0.335	-0.186	0.028	-6.9
Reading	3	2164	A		7989	0.735	0.040	0.053	0.735	0.167	0.004	0.449	-0.369	-0.404	0.449	-0.312	-0.310	0.028	-1.7
Reading	3	2165	A		7989	0.840	0.840	0.037	0.074	0.047	0.001	0.487	0.487	-0.327	-0.346	-0.351	-1.094	0.033	-8.5
Reading	3	2166	B		7989	0.818	0.020	0.818	0.031	0.126	0.006	0.411	-0.299	0.411	-0.258	-0.328	-0.904	0.032	-2.0
Reading	3	2167	A	2	7989	0.779	0.779	0.111	0.045	0.064	0.001	0.435	0.435	-0.337	-0.324	-0.282	-0.611	0.030	-3.6
Reading	3	2168	B	2	7989	0.485	0.485	0.201	0.124	0.186	0.004	0.357	0.357	-0.338	-0.375	-0.274	1.072	0.025	7.4
Reading	3	2169	A	1	7989	0.708	0.101	0.088	0.096	0.708	0.007	0.469	-0.402	-0.304	-0.366	0.469	-0.138	0.028	-7.6
Reading	3	2170	A	2	7989	0.726	0.726	0.183	0.058	0.032	0.001	0.441	0.441	-0.358	-0.313	-0.352	-0.255	0.028	-2.5
Reading	3	2171	A	2	7989	0.845	0.042	0.845	0.080	0.030	0.003	0.529	-0.368	0.529	-0.410	-0.322	-1.137	0.034	-9.9
Reading	3	2172	A	2	7989	0.676	0.159	0.067	0.676	0.095	0.003	0.482	-0.352	-0.439	0.482	-0.383	0.052	0.027	-6.5
Reading	3	2173	A	2	7989	0.625	0.147	0.625	0.098	0.122	0.009	0.454	-0.387	0.454	-0.431	-0.311	0.340	0.026	-4.4
Reading	3	2174	A	2	7989	0.475	0.210	0.174	0.475	0.138	0.002	0.395	-0.457	-0.316	0.395	-0.280	1.128	0.025	4.8
Reading	3	2175	B	2	7989	0.580	0.139	0.145	0.132	0.580	0.005	0.451	-0.425	-0.388	-0.346	0.451	0.581	0.026	-1.5
Reading	3	2176	A	2	7989	0.659	0.119	0.076	0.139	0.659	0.007	0.488	-0.430	-0.369	-0.381	0.488	0.150	0.027	-5.4
Reading	3	2177	B		7905	0.829	0.098	0.031	0.829	0.041	0.000	0.424	-0.312	-0.298	0.424	-0.274	-1.022	0.033	-4.9
Reading	3	2178	B		7905	0.754	0.754	0.153	0.053	0.039	0.001	0.394	0.394	-0.288	-0.321	-0.283	-0.460	0.029	-0.8
Reading	3	2179	A		7905	0.505	0.149	0.139	0.205	0.505	0.001	0.283	-0.284	-0.388	-0.126	0.283	0.928	0.025	9.9
Reading	3	2180	A		7905	0.797	0.078	0.797	0.053	0.069	0.004	0.522	-0.457	0.522	-0.322	-0.345	-0.766	0.031	-9.9
Reading	3	2181	B		7905	0.710	0.113	0.710	0.066	0.110	0.001	0.489	-0.427	0.489	-0.359	-0.346	-0.180	0.028	-7.0
Reading	3	2182	A		7905	0.735	0.042	0.057	0.735	0.159	0.006	0.448	-0.365	-0.398	0.448	-0.307	-0.335	0.028	-4.1
Reading	3	2183	A		7905	0.837	0.837	0.036	0.074	0.051	0.001	0.505	0.505	-0.338	-0.357	-0.369	-1.088	0.033	-9.9
Reading	3	2184	B		7905	0.819	0.021	0.819	0.033	0.121	0.005	0.410	-0.314	0.410	-0.281	-0.308	-0.938	0.032	-2.9
Reading	3	2185	A	2	7905	0.802	0.125	0.802	0.058	0.014	0.001	0.349	-0.302	0.349	-0.208	-0.192	-0.801	0.031	1.6
Reading	3	2186	A	2	7905	0.524	0.205	0.197	0.070	0.524	0.004	0.375	-0.347	-0.292	-0.388	0.375	0.833	0.025	5.2
Reading	3	2187	A	2	7905	0.547	0.173	0.179	0.099	0.547	0.002	0.403	-0.339	-0.343	-0.392	0.403	0.713	0.026	1.4
Reading	3	2188	A	2	7905	0.696	0.101	0.696	0.121	0.071	0.011	0.325	-0.228	0.325	-0.239	-0.274	-0.096	0.027	5.6
Reading	3	2189	A	2	7905	0.766	0.766	0.043	0.092	0.095	0.004	0.516	0.516	-0.388	-0.402	-0.370	-0.543	0.029	-9.9
Reading	3	2190	A	1	7905	0.596	0.121	0.047	0.596	0.228	0.008	0.519	-0.542	-0.401	0.519	-0.411	0.457	0.026	-9.9
Reading	3	2191	A	2	7905	0.516	0.166	0.220	0.516	0.096	0.002	0.415	-0.447	-0.274	0.415	-0.445	0.870	0.025	0.3
Reading	3	2192	A	2	7905	0.339	0.273	0.339	0.255	0.131	0.002	0.290	-0.241	0.290	-0.329	-0.368	1.793	0.026	9.9
Reading	3	2193	B	2	7905	0.630	0.150	0.103	0.630	0.115	0.001	0.441	-0.304	-0.451	0.441	-0.353	0.277	0.026	-0.7

Appendix J: 2007 Grades 3–8 and 11 Multiple-Choice Statistics

Information					Proportions							Correlations					Rasch		
Cont.	Grade	Pub. ID	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Reading	3	2194	A	2	7905	0.548	0.548	0.076	0.143	0.221	0.013	0.263	0.263	-0.401	-0.255	-0.127	0.710	0.026	9.9
Reading	3	2195	B		8016	0.834	0.089	0.033	0.834	0.043	0.000	0.431	-0.325	-0.293	0.431	-0.272	-1.038	0.033	-5.1
Reading	3	2196	B		8016	0.757	0.757	0.153	0.052	0.037	0.001	0.387	0.387	-0.284	-0.302	-0.285	-0.455	0.029	-0.3
Reading	3	2197	A		8016	0.501	0.143	0.136	0.218	0.501	0.001	0.286	-0.284	-0.425	-0.114	0.286	0.976	0.025	9.9
Reading	3	2198	A		8016	0.799	0.079	0.799	0.052	0.067	0.002	0.518	-0.446	0.518	-0.323	-0.344	-0.754	0.031	-9.7
Reading	3	2199	B		8016	0.720	0.103	0.720	0.063	0.112	0.001	0.482	-0.417	0.482	-0.362	-0.331	-0.218	0.028	-6.5
Reading	3	2200	A		8016	0.729	0.043	0.056	0.729	0.168	0.004	0.463	-0.386	-0.409	0.463	-0.325	-0.269	0.028	-4.5
Reading	3	2201	A		8016	0.843	0.843	0.038	0.074	0.043	0.002	0.507	0.507	-0.345	-0.378	-0.340	-1.113	0.033	-9.7
Reading	3	2202	B		8016	0.826	0.020	0.826	0.033	0.116	0.006	0.425	-0.288	0.425	-0.287	-0.336	-0.967	0.032	-4.0
Reading	3	2203	A	2	8016	0.856	0.058	0.856	0.072	0.014	0.001	0.370	-0.188	0.370	-0.368	-0.120	-1.234	0.035	-1.0
Reading	3	2204	A	2	8016	0.467	0.467	0.299	0.049	0.185	0.001	0.276	0.276	-0.270	-0.198	-0.257	1.153	0.025	9.9
Reading	3	2205	A	2	8016	0.802	0.098	0.067	0.024	0.802	0.009	0.379	-0.204	-0.348	-0.285	0.379	-0.776	0.031	-0.5
Reading	3	2206	A	2	8016	0.739	0.080	0.102	0.077	0.739	0.003	0.460	-0.387	-0.296	-0.368	0.460	-0.333	0.028	-5.0
Reading	3	2207	A	2	8016	0.652	0.652	0.041	0.270	0.031	0.005	0.519	0.519	-0.309	-0.504	-0.297	0.182	0.026	-8.9
Reading	3	2208	B	3	8016	0.570	0.127	0.054	0.242	0.570	0.007	0.325	-0.333	-0.356	-0.208	0.325	0.626	0.025	9.8
Reading	3	2209	B	2	8016	0.582	0.084	0.198	0.582	0.135	0.001	0.332	-0.376	-0.230	0.332	-0.277	0.564	0.026	8.8
Reading	3	2210	A	2	8016	0.762	0.109	0.762	0.057	0.070	0.002	0.453	-0.380	0.453	-0.266	-0.323	-0.487	0.029	-6.0
Reading	3	2211	A	3	8016	0.683	0.178	0.063	0.683	0.073	0.002	0.429	-0.290	-0.380	0.429	-0.382	0.006	0.027	-2.8
Reading	3	2212	B	2	8016	0.648	0.063	0.648	0.053	0.231	0.006	0.312	-0.368	0.312	-0.243	-0.208	0.208	0.026	9.6
Reading	3	2213	A		7941	0.725	0.165	0.038	0.725	0.070	0.001	0.419	-0.351	-0.315	0.419	-0.282	-0.221	0.028	-2.7
Reading	3	2214	A		7941	0.765	0.765	0.102	0.058	0.072	0.003	0.426	0.426	-0.289	-0.342	-0.317	-0.476	0.029	-3.5
Reading	3	2215	B		7941	0.796	0.063	0.095	0.045	0.796	0.001	0.520	-0.410	-0.397	-0.322	0.520	-0.698	0.031	-9.9
Reading	3	2216	A		7941	0.659	0.659	0.073	0.076	0.187	0.005	0.409	0.409	-0.305	-0.362	-0.330	0.171	0.027	2.3
Reading	3	2217	A		7941	0.510	0.408	0.067	0.510	0.014	0.001	0.367	-0.287	-0.552	0.367	-0.321	0.967	0.025	5.0
Reading	3	2218	A		7941	0.756	0.139	0.756	0.028	0.072	0.005	0.440	-0.394	0.440	-0.334	-0.238	-0.421	0.029	-4.3
Reading	3	2219	B		7941	0.365	0.155	0.365	0.108	0.368	0.004	0.154	-0.130	0.154	-0.369	-0.080	1.720	0.026	9.9
Reading	3	2220	A		7941	0.723	0.088	0.061	0.723	0.120	0.008	0.475	-0.412	-0.388	0.475	-0.316	-0.205	0.028	-6.1
Reading	3	2221	B	2	7941	0.659	0.079	0.048	0.213	0.659	0.001	0.494	-0.449	-0.440	-0.377	0.494	0.176	0.027	-8.4
Reading	3	2222	A	2	7941	0.572	0.140	0.229	0.572	0.056	0.002	0.379	-0.371	-0.288	0.379	-0.336	0.642	0.026	4.7
Reading	3	2223	A	2	7941	0.772	0.070	0.074	0.079	0.772	0.005	0.520	-0.310	-0.423	-0.421	0.520	-0.529	0.030	-9.9
Reading	3	2224	A	2	7941	0.450	0.264	0.065	0.450	0.213	0.007	0.380	-0.308	-0.416	0.380	-0.396	1.269	0.025	4.1
Reading	3	2225	A	2	7941	0.666	0.187	0.666	0.088	0.058	0.002	0.495	-0.399	0.495	-0.407	-0.377	0.134	0.027	-9.5
Reading	3	2226	A	2	7941	0.630	0.166	0.134	0.064	0.630	0.005	0.547	-0.428	-0.504	-0.462	0.547	0.335	0.026	-9.9
Reading	3	2227	B	2	7941	0.717	0.101	0.717	0.083	0.093	0.005	0.502	-0.361	0.502	-0.460	-0.352	-0.171	0.028	-6.9
Reading	3	2228	A	2	7941	0.772	0.058	0.772	0.054	0.114	0.001	0.430	-0.345	0.430	-0.292	-0.311	-0.527	0.030	-2.8
Reading	3	2229	B	2	7941	0.834	0.047	0.058	0.834	0.057	0.004	0.343	-0.146	-0.267	0.343	-0.285	-1.001	0.033	2.4
Reading	3	2230	A	2	7941	0.411	0.411	0.169	0.246	0.170	0.005	0.182	0.182	-0.349	-0.130	-0.061	1.475	0.026	9.9
Reading	3	2231	A		7944	0.724	0.168	0.043	0.724	0.065	0.000	0.427	-0.345	-0.337	0.427	-0.290	-0.242	0.028	-5.5
Reading	3	2232	A		7944	0.753	0.753	0.102	0.066	0.075	0.003	0.443	0.443	-0.286	-0.372	-0.333	-0.419	0.028	-6.9
Reading	3	2233	B		7944	0.801	0.058	0.089	0.051	0.801	0.001	0.508	-0.382	-0.372	-0.341	0.508	-0.750	0.030	-9.9
Reading	3	2234	A		7944	0.652	0.652	0.080	0.081	0.183	0.004	0.435	0.435	-0.309	-0.404	-0.345	0.169	0.026	-3.4
Reading	3	2235	A		7944	0.507	0.406	0.070	0.507	0.017	0.001	0.374	-0.287	-0.562	0.374	-0.348	0.908	0.025	0.1
Reading	3	2236	A		7944	0.756	0.141	0.756	0.030	0.070	0.003	0.446	-0.395	0.446	-0.309	-0.260	-0.440	0.029	-6.7

Appendix J: 2007 Grades 3–8 and 11 Multiple-Choice Statistics

Information					Proportions							Correlations					Rasch		
Cont.	Grade	Pub. ID	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Reading	3	2237	B		7944	0.366	0.158	0.366	0.108	0.365	0.003	0.173	-0.141	0.173	-0.376	-0.105	1.617	0.026	9.9
Reading	3	2238	A		7944	0.723	0.087	0.064	0.723	0.120	0.007	0.495	-0.413	-0.413	0.495	-0.343	-0.230	0.028	-9.7
Reading	3	2239	A	2	7944	0.346	0.346	0.340	0.026	0.286	0.001	0.024	0.024	-0.018	-0.204	0.003	1.723	0.026	9.9
Reading	3	2240	A	2	7944	0.518	0.166	0.259	0.055	0.518	0.002	0.299	-0.240	-0.233	-0.398	0.299	0.854	0.025	6.8
Reading	3	2241	A	2	7944	0.501	0.080	0.501	0.090	0.326	0.003	0.403	-0.392	0.403	-0.398	-0.348	0.939	0.025	-1.1
Reading	3	2242	A	2	7944	0.538	0.168	0.090	0.538	0.197	0.007	0.225	-0.194	-0.050	0.225	-0.258	0.758	0.025	9.9
Reading	3	2243	A	2	7944	0.591	0.591	0.221	0.137	0.048	0.002	0.298	0.298	-0.221	-0.266	-0.293	0.488	0.025	6.8
Reading	3	2244	A	2	7944	0.663	0.168	0.069	0.095	0.663	0.005	0.165	-0.096	-0.177	-0.138	0.165	0.111	0.026	9.9
Reading	3	2245	A	2	7944	0.590	0.207	0.100	0.590	0.099	0.004	0.035	0.046	-0.099	0.035	-0.078	0.494	0.025	9.9
Reading	3	2246	A	2	7944	0.358	0.358	0.115	0.294	0.229	0.005	0.101	0.101	-0.214	0.034	-0.200	1.662	0.026	9.9
Reading	3	2247	A	2	7944	0.440	0.177	0.207	0.174	0.440	0.002	0.243	-0.281	-0.218	-0.194	0.243	1.241	0.025	9.9
Reading	3	2248	B	3	7944	0.359	0.524	0.359	0.090	0.024	0.003	0.330	-0.276	0.330	-0.521	-0.429	1.655	0.026	5.9
Reading	3	2249	B		7939	0.803	0.098	0.803	0.040	0.058	0.001	0.468	-0.456	0.468	-0.163	-0.314	-0.774	0.031	-5.7
Reading	3	2250	A		7939	0.727	0.043	0.727	0.207	0.022	0.001	0.389	-0.322	0.389	-0.298	-0.343	-0.248	0.028	0.6
Reading	3	2251	B		7939	0.769	0.031	0.161	0.769	0.037	0.001	0.430	-0.335	-0.332	0.430	-0.306	-0.526	0.030	-3.7
Reading	3	2252	A		7939	0.906	0.028	0.034	0.906	0.031	0.001	0.473	-0.324	-0.299	0.473	-0.316	-1.786	0.041	-9.9
Reading	3	2253	A		7939	0.791	0.083	0.029	0.791	0.094	0.004	0.463	-0.413	-0.248	0.463	-0.309	-0.681	0.031	-7.3
Reading	3	2254	A		7939	0.685	0.685	0.046	0.039	0.230	0.001	0.492	0.492	-0.442	-0.341	-0.408	0.008	0.027	-8.1
Reading	3	2255	A		7939	0.808	0.090	0.057	0.043	0.808	0.002	0.504	-0.364	-0.395	-0.327	0.504	-0.816	0.031	-9.6
Reading	3	2256	B		7939	0.791	0.027	0.791	0.032	0.142	0.008	0.396	-0.356	0.396	-0.372	-0.249	-0.683	0.031	1.6
Reading	3	2257	A		7939	0.661	0.231	0.081	0.026	0.661	0.001	0.380	-0.292	-0.341	-0.335	0.380	0.149	0.027	2.0
Reading	3	2258	A		7939	0.790	0.045	0.790	0.070	0.092	0.003	0.452	-0.269	0.452	-0.323	-0.371	-0.677	0.031	-3.9
Reading	3	2259	A		7939	0.730	0.092	0.089	0.730	0.085	0.003	0.542	-0.345	-0.470	0.542	-0.430	-0.269	0.028	-9.9
Reading	3	2260	A		7939	0.468	0.468	0.206	0.221	0.099	0.006	0.281	0.281	-0.160	-0.320	-0.325	1.162	0.025	9.9
Reading	3	2261	A		7939	0.684	0.117	0.087	0.104	0.684	0.008	0.470	-0.390	-0.383	-0.341	0.470	0.013	0.027	-6.2
Reading	3	2262	A		7939	0.623	0.190	0.088	0.623	0.098	0.002	0.376	-0.273	-0.399	0.376	-0.269	0.356	0.026	2.6
Reading	3	2263	A		7939	0.454	0.147	0.454	0.104	0.289	0.005	0.395	-0.441	0.395	-0.456	-0.287	1.231	0.025	4.6
Reading	3	2264	B		7939	0.669	0.119	0.669	0.100	0.105	0.006	0.444	-0.386	0.444	-0.344	-0.327	0.098	0.027	-2.7
Reading	3	2265	A		7939	0.705	0.705	0.128	0.121	0.042	0.003	0.343	0.343	-0.179	-0.299	-0.356	-0.113	0.028	4.3
Reading	3	2266	A		7939	0.396	0.188	0.257	0.396	0.147	0.012	0.287	-0.274	-0.232	0.287	-0.366	1.532	0.026	9.9
Reading	3	2267	B		7950	0.796	0.103	0.796	0.042	0.057	0.002	0.474	-0.453	0.474	-0.192	-0.310	-0.748	0.031	-5.4
Reading	3	2268	A		7950	0.723	0.044	0.723	0.212	0.019	0.001	0.385	-0.323	0.385	-0.297	-0.321	-0.246	0.028	1.3
Reading	3	2269	B		7950	0.781	0.028	0.153	0.781	0.038	0.001	0.409	-0.315	-0.311	0.409	-0.287	-0.639	0.030	-1.7
Reading	3	2270	A		7950	0.899	0.025	0.038	0.899	0.037	0.001	0.477	-0.305	-0.299	0.477	-0.343	-1.740	0.040	-9.9
Reading	3	2271	A		7950	0.791	0.082	0.033	0.791	0.089	0.004	0.486	-0.426	-0.283	0.486	-0.321	-0.714	0.031	-8.1
Reading	3	2272	A		7950	0.682	0.682	0.051	0.039	0.228	0.001	0.502	0.502	-0.450	-0.322	-0.423	0.008	0.027	-7.8
Reading	3	2273	A		7950	0.805	0.084	0.063	0.046	0.805	0.002	0.508	-0.369	-0.400	-0.322	0.508	-0.820	0.031	-9.6
Reading	3	2274	B		7950	0.794	0.027	0.794	0.030	0.141	0.007	0.397	-0.341	0.397	-0.348	-0.262	-0.737	0.031	1.0
Reading	3	2275	B		7950	0.954	0.015	0.013	0.016	0.954	0.001	0.356	-0.227	-0.209	-0.224	0.356	-2.671	0.056	-7.0
Reading	3	2276	A		7950	0.661	0.141	0.047	0.661	0.148	0.002	0.282	-0.155	-0.313	0.282	-0.238	0.127	0.027	9.9
Reading	3	2277	B		7950	0.929	0.043	0.929	0.008	0.011	0.008	0.401	-0.354	0.401	-0.176	-0.202	-2.175	0.046	-6.7
Reading	3	2278	A		7950	0.742	0.089	0.105	0.062	0.742	0.002	0.526	-0.418	-0.421	-0.341	0.526	-0.368	0.029	-9.9
Reading	3	2279	B		7950	0.352	0.103	0.289	0.352	0.252	0.003	0.303	-0.405	-0.338	0.303	-0.233	1.766	0.026	9.9

Appendix J: 2007 Grades 3–8 and 11 Multiple-Choice Statistics

Information					Proportions							Correlations					Rasch		
Cont.	Grade	Pub. ID	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Reading	3	2280	B		7950	0.892	0.892	0.029	0.035	0.034	0.010	0.436	0.436	-0.279	-0.287	-0.328	-1.643	0.039	-6.9
Reading	3	2281	A		7950	0.629	0.135	0.142	0.629	0.091	0.002	0.578	-0.526	-0.479	0.578	-0.449	0.307	0.026	-9.9
Reading	3	2282	A		7950	0.379	0.545	0.379	0.040	0.034	0.003	0.264	-0.205	0.264	-0.437	-0.499	1.623	0.026	9.9
Reading	3	2283	A		7950	0.572	0.238	0.114	0.072	0.572	0.003	0.350	-0.185	-0.399	-0.437	0.350	0.618	0.026	9.5
Reading	3	2284	B		7950	0.618	0.060	0.247	0.618	0.065	0.010	0.489	-0.423	-0.424	0.489	-0.391	0.366	0.026	-5.9
Reading	3	2285	B		7979	0.805	0.098	0.805	0.043	0.053	0.002	0.455	-0.436	0.455	-0.188	-0.286	-0.798	0.031	-4.9
Reading	3	2286	A		7979	0.727	0.040	0.727	0.209	0.023	0.002	0.397	-0.321	0.397	-0.308	-0.343	-0.253	0.028	1.3
Reading	3	2287	B		7979	0.775	0.027	0.156	0.775	0.042	0.001	0.417	-0.305	-0.335	0.417	-0.273	-0.575	0.030	-2.4
Reading	3	2288	A		7979	0.907	0.026	0.036	0.907	0.031	0.001	0.465	-0.308	-0.295	0.465	-0.318	-1.811	0.041	-9.9
Reading	3	2289	A		7979	0.792	0.082	0.029	0.792	0.093	0.004	0.463	-0.412	-0.260	0.463	-0.306	-0.703	0.031	-7.5
Reading	3	2290	A		7979	0.690	0.690	0.041	0.038	0.231	0.001	0.493	0.493	-0.408	-0.335	-0.422	-0.025	0.027	-7.9
Reading	3	2291	A		7979	0.804	0.089	0.057	0.048	0.804	0.002	0.493	-0.361	-0.390	-0.306	0.493	-0.795	0.031	-9.9
Reading	3	2292	B		7979	0.794	0.026	0.794	0.032	0.141	0.007	0.400	-0.329	0.400	-0.360	-0.266	-0.718	0.031	1.0
Reading	3	2293	A		7979	0.760	0.154	0.050	0.760	0.029	0.007	0.583	-0.524	-0.401	0.583	-0.341	-0.473	0.029	-9.9
Reading	3	2294	B		7979	0.662	0.050	0.084	0.188	0.662	0.015	0.389	-0.397	-0.388	-0.238	0.389	0.135	0.027	2.3
Reading	3	2295	A		7979	0.446	0.043	0.446	0.475	0.033	0.002	0.233	-0.410	0.233	-0.167	-0.381	1.276	0.025	9.9
Reading	3	2296	A		7979	0.661	0.102	0.163	0.067	0.661	0.006	0.535	-0.420	-0.459	-0.415	0.535	0.139	0.027	-9.9
Reading	3	2297	B		7979	0.766	0.766	0.046	0.081	0.103	0.003	0.313	0.313	-0.359	-0.129	-0.229	-0.517	0.030	9.3
Reading	3	2298	A		7979	0.787	0.073	0.787	0.084	0.051	0.005	0.552	-0.391	0.552	-0.437	-0.395	-0.665	0.030	-9.9
Reading	3	2299	A		7979	0.620	0.141	0.129	0.620	0.109	0.002	0.510	-0.568	-0.343	0.510	-0.351	0.372	0.026	-7.1
Reading	3	2300	B		7979	0.655	0.655	0.264	0.036	0.041	0.004	0.445	0.445	-0.377	-0.317	-0.400	0.176	0.027	-1.3
Reading	3	2301	A		7979	0.400	0.381	0.400	0.125	0.091	0.002	0.294	-0.252	0.294	-0.238	-0.441	1.514	0.026	9.9
Reading	3	2302	A		7979	0.577	0.123	0.040	0.239	0.577	0.021	0.309	-0.441	-0.394	-0.126	0.309	0.601	0.026	9.9
Reading	3	2303	A		7919	0.834	0.834	0.063	0.052	0.050	0.001	0.393	0.393	-0.280	-0.288	-0.232	-1.047	0.033	-2.6
Reading	3	2304	A		7919	0.824	0.053	0.035	0.824	0.086	0.002	0.493	-0.299	-0.379	0.493	-0.378	-0.964	0.032	-8.5
Reading	3	2305	A		7919	0.753	0.062	0.753	0.112	0.072	0.001	0.459	-0.372	0.459	-0.324	-0.333	-0.436	0.029	-6.3
Reading	3	2306	B		7919	0.650	0.112	0.138	0.097	0.650	0.003	0.383	-0.307	-0.315	-0.296	0.383	0.187	0.027	3.8
Reading	3	2307	A		7919	0.694	0.072	0.694	0.056	0.174	0.004	0.333	-0.259	0.333	-0.252	-0.262	-0.062	0.027	6.4
Reading	3	2308	A		7919	0.469	0.287	0.058	0.469	0.180	0.006	0.310	-0.288	-0.267	0.310	-0.305	1.137	0.025	9.9
Reading	3	2309	A		7919	0.644	0.075	0.644	0.135	0.145	0.001	0.465	-0.399	0.465	-0.410	-0.345	0.220	0.027	-4.0
Reading	3	2310	A		7919	0.734	0.139	0.081	0.044	0.734	0.002	0.449	-0.435	-0.232	-0.309	0.449	-0.310	0.028	-3.1
Reading	3	2311	A	1	7919	0.754	0.116	0.021	0.754	0.109	0.001	0.466	-0.484	-0.302	0.466	-0.240	-0.440	0.029	-3.7
Reading	3	2312	B	2	7919	0.826	0.065	0.058	0.049	0.826	0.002	0.540	-0.384	-0.412	-0.358	0.540	-0.975	0.032	-9.9
Reading	3	2313	A	2	7919	0.563	0.044	0.563	0.157	0.226	0.009	0.428	-0.426	0.428	-0.370	-0.361	0.653	0.026	0.8
Reading	3	2314	A	2	7919	0.761	0.761	0.111	0.059	0.067	0.002	0.406	0.406	-0.279	-0.322	-0.295	-0.488	0.029	-2.4
Reading	3	2315	A	2	7919	0.437	0.437	0.193	0.133	0.232	0.005	0.309	0.309	-0.371	-0.340	-0.197	1.303	0.026	9.9
Reading	3	2316	A	1	7919	0.544	0.307	0.117	0.031	0.544	0.001	0.394	-0.345	-0.363	-0.339	0.394	0.753	0.026	2.8
Reading	3	2317	B	2	7919	0.815	0.029	0.033	0.815	0.120	0.003	0.405	-0.318	-0.281	0.405	-0.291	-0.884	0.032	-1.8
Reading	3	2318	A	2	7919	0.878	0.878	0.056	0.036	0.024	0.006	0.432	0.432	-0.279	-0.320	-0.284	-1.465	0.037	-6.0
Reading	3	2319	A	2	7919	0.597	0.076	0.597	0.247	0.077	0.003	0.366	-0.289	0.366	-0.307	-0.339	0.479	0.026	7.4
Reading	3	2320	A	2	7919	0.693	0.146	0.693	0.121	0.034	0.006	0.398	-0.353	0.398	-0.247	-0.343	-0.059	0.027	-1.3
Reading	3	2321	A		7597	0.825	0.825	0.068	0.053	0.054	0.001	0.404	0.404	-0.306	-0.277	-0.250	-0.977	0.033	-3.3
Reading	3	2322	A		7597	0.827	0.054	0.035	0.827	0.083	0.001	0.503	-0.303	-0.376	0.503	-0.391	-0.996	0.033	-8.5

Appendix J: 2007 Grades 3–8 and 11 Multiple-Choice Statistics

Information					Proportions							Correlations					Rasch		
Cont.	Grade	Pub. ID	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Reading	3	2323	A		7597	0.759	0.061	0.759	0.104	0.075	0.001	0.434	-0.346	0.434	-0.289	-0.327	-0.488	0.030	-4.6
Reading	3	2324	B		7597	0.649	0.110	0.145	0.093	0.649	0.003	0.388	-0.318	-0.308	-0.304	0.388	0.188	0.027	3.5
Reading	3	2325	A		7597	0.698	0.074	0.698	0.059	0.166	0.004	0.336	-0.259	0.336	-0.294	-0.244	-0.095	0.028	5.7
Reading	3	2326	A		7597	0.453	0.297	0.058	0.453	0.187	0.005	0.310	-0.270	-0.276	0.310	-0.332	1.218	0.026	9.9
Reading	3	2327	A		7597	0.640	0.074	0.640	0.136	0.149	0.000	0.458	-0.390	0.458	-0.405	-0.337	0.236	0.027	-2.5
Reading	3	2328	A		7597	0.733	0.144	0.079	0.044	0.733	0.001	0.444	-0.436	-0.213	-0.310	0.444	-0.311	0.029	-1.9
Reading	3	2329	B	1	7597	0.790	0.023	0.790	0.042	0.138	0.007	0.317	-0.315	0.317	-0.192	-0.226	-0.708	0.031	6.7
Reading	3	2330	B	2	7597	0.488	0.304	0.160	0.036	0.488	0.013	0.340	-0.331	-0.257	-0.381	0.340	1.037	0.026	9.6
Reading	3	2331	A	2	7597	0.863	0.863	0.030	0.084	0.022	0.001	0.382	0.382	-0.295	-0.236	-0.287	-1.322	0.036	-1.3
Reading	3	2332	A	1	7597	0.773	0.166	0.027	0.773	0.029	0.005	0.292	-0.216	-0.241	0.292	-0.204	-0.586	0.030	6.4
Reading	3	2333	A	2	7597	0.908	0.034	0.908	0.018	0.037	0.003	0.467	-0.345	0.467	-0.243	-0.316	-1.846	0.042	-9.9
Reading	3	2334	A	2	7597	0.549	0.110	0.549	0.233	0.105	0.004	0.480	-0.481	0.480	-0.340	-0.525	0.724	0.026	-5.1
Reading	3	2335	A	2	7597	0.785	0.113	0.064	0.785	0.036	0.001	0.564	-0.478	-0.404	0.564	-0.338	-0.671	0.031	-9.9
Reading	3	2336	B	2	7597	0.712	0.712	0.177	0.059	0.049	0.003	0.582	0.582	-0.482	-0.467	-0.434	-0.185	0.028	-9.9
Reading	3	2337	A	2	7597	0.606	0.218	0.095	0.079	0.606	0.002	0.405	-0.345	-0.308	-0.353	0.405	0.423	0.027	1.3
Reading	3	2338	A	2	7597	0.767	0.075	0.069	0.767	0.076	0.014	0.410	-0.220	-0.334	0.410	-0.350	-0.541	0.030	0.4
Reading	4	2339	A		127768	0.883	0.035	0.019	0.062	0.883	0.000	0.474	-0.318	-0.258	-0.364	0.474	-1.477	0.009	-9.9
Reading	4	2340	A		127768	0.803	0.113	0.035	0.803	0.048	0.000	0.445	-0.332	-0.313	0.445	-0.325	-0.760	0.008	-9.9
Reading	4	2341	A		127768	0.608	0.145	0.608	0.078	0.168	0.001	0.275	-0.207	0.275	-0.382	-0.140	0.419	0.006	9.9
Reading	4	2342	A		127768	0.797	0.049	0.056	0.797	0.097	0.001	0.537	-0.351	-0.354	0.537	-0.453	-0.713	0.008	-9.9
Reading	4	2343	A		127768	0.300	0.181	0.050	0.468	0.300	0.001	0.206	-0.371	-0.417	-0.123	0.206	1.998	0.007	9.9
Reading	4	2344	B		127768	0.622	0.186	0.056	0.622	0.135	0.001	0.475	-0.502	-0.383	0.475	-0.269	0.343	0.006	-9.9
Reading	4	2345	A		127768	0.778	0.052	0.121	0.778	0.046	0.003	0.431	-0.295	-0.333	0.431	-0.314	-0.577	0.007	-9.9
Reading	4	2346	A	2	127768	0.811	0.043	0.041	0.811	0.105	0.001	0.379	-0.358	-0.285	0.379	-0.207	-0.818	0.008	-7.2
Reading	4	2347	B	2	127768	0.763	0.075	0.763	0.089	0.073	0.001	0.493	-0.358	0.493	-0.368	-0.368	-0.473	0.007	-9.9
Reading	4	2348	A	2	127768	0.601	0.192	0.168	0.601	0.037	0.001	0.380	-0.323	-0.299	0.380	-0.365	0.453	0.006	4.1
Reading	4	2349	A	2	127768	0.613	0.238	0.094	0.053	0.613	0.001	0.418	-0.298	-0.380	-0.456	0.418	0.392	0.006	-8.8
Reading	4	2350	B	2	127768	0.393	0.271	0.093	0.240	0.393	0.002	0.183	-0.218	-0.322	-0.068	0.183	1.496	0.006	9.9
Reading	4	2351	A	2	127768	0.612	0.057	0.200	0.129	0.612	0.002	0.371	-0.374	-0.229	-0.371	0.371	0.395	0.006	8.2
Reading	4	2352	A	2	127768	0.692	0.041	0.087	0.692	0.178	0.001	0.415	-0.266	-0.325	0.415	-0.354	-0.042	0.007	-4.0
Reading	4	2353	A	2	127768	0.606	0.129	0.141	0.122	0.606	0.002	0.412	-0.432	-0.325	-0.268	0.412	0.429	0.006	-6.9
Reading	4	2354	A	2	127768	0.663	0.049	0.663	0.119	0.165	0.003	0.419	-0.352	0.419	-0.282	-0.378	0.124	0.007	-7.2
Reading	4	2355	A	2	127768	0.741	0.055	0.052	0.741	0.149	0.003	0.380	-0.410	-0.350	0.380	-0.188	-0.332	0.007	9.9
Reading	4	2356	A	2	127768	0.378	0.207	0.210	0.378	0.201	0.003	0.329	-0.296	-0.316	0.329	-0.376	1.574	0.006	9.9
Reading	4	2357	B	2	127768	0.615	0.615	0.039	0.311	0.031	0.003	0.332	0.332	-0.349	-0.257	-0.309	0.380	0.006	9.9
Reading	4	2358	A	2	127768	0.698	0.098	0.139	0.698	0.060	0.003	0.488	-0.309	-0.456	0.488	-0.348	-0.075	0.007	-9.9
Reading	4	2359	B	2	127768	0.511	0.123	0.511	0.192	0.169	0.004	0.312	-0.279	0.312	-0.342	-0.205	0.904	0.006	9.9
Reading	4	2360	B	2	127768	0.538	0.175	0.167	0.115	0.538	0.004	0.372	-0.327	-0.348	-0.296	0.372	0.773	0.006	9.1
Reading	4	2361	B	2	127768	0.683	0.155	0.086	0.071	0.683	0.004	0.347	-0.185	-0.296	-0.385	0.347	0.010	0.007	9.9
Reading	4	2362	B	2	127768	0.798	0.798	0.071	0.067	0.057	0.007	0.385	0.385	-0.278	-0.253	-0.289	-0.720	0.008	-5.7
Reading	4	2363	A	2	127768	0.742	0.742	0.065	0.041	0.152	0.000	0.396	0.396	-0.175	-0.341	-0.350	-0.338	0.007	-7.5
Reading	4	2364	A	1	127768	0.674	0.122	0.674	0.156	0.047	0.000	0.381	-0.333	0.381	-0.281	-0.272	0.060	0.007	-6.8
Reading	4	2365	A	2	127768	0.607	0.307	0.062	0.607	0.022	0.001	0.302	-0.211	-0.371	0.302	-0.310	0.420	0.006	9.9

Appendix J: 2007 Grades 3–8 and 11 Multiple-Choice Statistics

Information					Proportions							Correlations					Rasch		
Cont.	Grade	Pub. ID	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Reading	4	2366	A	2	127768	0.816	0.816	0.048	0.080	0.056	0.000	0.416	0.416	-0.369	-0.250	-0.280	-0.855	0.008	-9.9
Reading	4	2367	A	2	127768	0.363	0.363	0.346	0.145	0.146	0.001	0.301	0.301	-0.186	-0.465	-0.395	1.655	0.006	9.9
Reading	4	2368	B	2	127768	0.461	0.295	0.143	0.100	0.461	0.001	0.205	-0.172	-0.190	-0.235	0.205	1.156	0.006	9.9
Reading	4	2369	B	2	127768	0.574	0.574	0.135	0.127	0.162	0.001	0.322	0.322	-0.273	-0.262	-0.275	0.590	0.006	9.9
Reading	4	2370	B	2	127768	0.630	0.098	0.630	0.113	0.155	0.003	0.392	-0.278	0.392	-0.337	-0.340	0.299	0.006	2.1
Reading	4	2371	B		127768	0.871	0.871	0.044	0.049	0.035	0.001	0.460	0.460	-0.311	-0.333	-0.281	-1.346	0.009	-9.9
Reading	4	2372	A		127768	0.625	0.066	0.625	0.058	0.249	0.002	0.311	-0.330	0.311	-0.385	-0.173	0.325	0.006	9.9
Reading	4	2373	A		127768	0.734	0.094	0.087	0.734	0.082	0.002	0.428	-0.340	-0.353	0.428	-0.263	-0.293	0.007	-9.9
Reading	4	2374	A		127768	0.848	0.031	0.070	0.048	0.848	0.002	0.473	-0.318	-0.373	-0.279	0.473	-1.128	0.008	-9.9
Reading	4	2375	A		127768	0.557	0.330	0.036	0.557	0.075	0.002	0.382	-0.329	-0.414	0.382	-0.312	0.679	0.006	9.9
Reading	4	2376	A		127768	0.728	0.128	0.728	0.103	0.038	0.002	0.386	-0.208	0.386	-0.363	-0.348	-0.255	0.007	7.3
Reading	4	2377	A		127768	0.692	0.099	0.061	0.146	0.692	0.002	0.496	-0.449	-0.402	-0.348	0.496	-0.037	0.007	-9.9
Reading	4	2378	A		127768	0.748	0.748	0.098	0.068	0.082	0.003	0.488	0.488	-0.330	-0.368	-0.407	-0.380	0.007	-9.9
Reading	4	2379	B		6730	0.770	0.059	0.062	0.108	0.770	0.000	0.370	-0.336	-0.268	-0.220	0.370	-0.639	0.032	-0.3
Reading	4	2380	A		6730	0.784	0.123	0.030	0.784	0.062	0.000	0.506	-0.426	-0.325	0.506	-0.331	-0.736	0.032	-9.9
Reading	4	2381	A		6730	0.848	0.065	0.848	0.042	0.044	0.001	0.408	-0.251	0.408	-0.287	-0.302	-1.238	0.037	-4.9
Reading	4	2382	A		6730	0.696	0.696	0.204	0.042	0.057	0.001	0.485	0.485	-0.364	-0.380	-0.461	-0.178	0.029	-7.6
Reading	4	2383	A		6730	0.599	0.251	0.599	0.056	0.092	0.001	0.328	-0.195	0.328	-0.404	-0.358	0.348	0.028	7.0
Reading	4	2384	A		6730	0.693	0.156	0.085	0.693	0.063	0.003	0.374	-0.231	-0.361	0.374	-0.304	-0.157	0.029	-0.1
Reading	4	2385	A	2	6730	0.381	0.235	0.381	0.227	0.154	0.003	0.154	-0.263	0.154	-0.042	-0.140	1.435	0.028	9.9
Reading	4	2386	A	2	6730	0.611	0.611	0.132	0.150	0.104	0.003	0.180	0.180	-0.023	-0.208	-0.194	0.285	0.028	9.9
Reading	4	2387	B	2	6730	0.499	0.183	0.202	0.499	0.111	0.004	0.253	-0.217	-0.206	0.253	-0.254	0.846	0.027	9.9
Reading	4	2388	B	2	6730	0.529	0.280	0.125	0.529	0.062	0.003	0.276	-0.198	-0.197	0.276	-0.412	0.702	0.027	9.9
Reading	4	2389	A	2	6730	0.537	0.537	0.260	0.142	0.058	0.003	0.375	0.375	-0.352	-0.295	-0.350	0.660	0.027	2.9
Reading	4	2390	A	2	6730	0.706	0.115	0.153	0.706	0.022	0.003	0.356	-0.380	-0.197	0.356	-0.240	-0.235	0.030	2.5
Reading	4	2391	A	2	6730	0.766	0.058	0.098	0.074	0.766	0.003	0.420	-0.263	-0.304	-0.353	0.420	-0.609	0.032	-2.8
Reading	4	2392	A	2	6730	0.399	0.195	0.399	0.328	0.075	0.003	0.173	-0.274	0.173	-0.026	-0.377	1.343	0.027	9.9
Reading	4	2393	A	2	6730	0.549	0.110	0.226	0.110	0.549	0.003	0.277	-0.188	-0.288	-0.195	0.277	0.601	0.027	9.9
Reading	4	2394	B	3	6730	0.672	0.088	0.672	0.128	0.107	0.006	0.413	-0.322	0.413	-0.276	-0.377	-0.038	0.029	-2.1
Reading	4	2395	A		6364	0.742	0.742	0.087	0.100	0.071	0.000	0.399	0.399	-0.380	-0.322	-0.159	-0.374	0.032	-1.0
Reading	4	2396	A		6364	0.528	0.528	0.189	0.248	0.034	0.000	0.447	0.447	-0.484	-0.340	-0.413	0.805	0.028	-3.6
Reading	4	2397	A		6364	0.725	0.139	0.047	0.725	0.089	0.000	0.521	-0.456	-0.439	0.521	-0.323	-0.263	0.031	-9.1
Reading	4	2398	A		6364	0.844	0.844	0.091	0.044	0.021	0.000	0.382	0.382	-0.232	-0.307	-0.302	-1.135	0.038	0.0
Reading	4	2399	A		6364	0.628	0.104	0.098	0.169	0.628	0.000	0.331	-0.312	-0.389	-0.160	0.331	0.288	0.029	6.9
Reading	4	2400	B		6364	0.823	0.058	0.094	0.823	0.023	0.002	0.414	-0.270	-0.333	0.414	-0.272	-0.951	0.036	-3.5
Reading	4	2401	A	2	6364	0.386	0.386	0.249	0.195	0.169	0.002	0.372	0.372	-0.443	-0.275	-0.365	1.523	0.029	6.7
Reading	4	2402	B	2	6364	0.781	0.068	0.085	0.781	0.065	0.001	0.551	-0.394	-0.461	0.551	-0.362	-0.634	0.033	-9.9
Reading	4	2403	B	2	6364	0.536	0.165	0.128	0.169	0.536	0.002	0.436	-0.355	-0.357	-0.429	0.436	0.766	0.028	-3.8
Reading	4	2404	A	2	6364	0.797	0.057	0.078	0.797	0.064	0.003	0.451	-0.334	-0.359	0.451	-0.276	-0.752	0.034	-2.9
Reading	4	2405	A	1	6364	0.731	0.118	0.731	0.083	0.066	0.002	0.528	-0.472	0.528	-0.394	-0.320	-0.303	0.031	-9.9
Reading	4	2406	B	2	6364	0.666	0.113	0.136	0.082	0.666	0.001	0.486	-0.374	-0.393	-0.408	0.486	0.080	0.030	-7.6
Reading	4	2407	A	2	6364	0.674	0.090	0.171	0.674	0.062	0.002	0.476	-0.415	-0.371	0.476	-0.364	0.036	0.030	-6.7
Reading	4	2408	B	2	6364	0.578	0.578	0.153	0.114	0.153	0.002	0.368	0.368	-0.245	-0.360	-0.337	0.552	0.028	2.0

Appendix J: 2007 Grades 3–8 and 11 Multiple-Choice Statistics

Information					Proportions							Correlations					Rasch		
Cont.	Grade	Pub. ID	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Reading	4	2409	B	2	6364	0.617	0.076	0.168	0.135	0.617	0.003	0.445	-0.466	-0.360	-0.312	0.445	0.350	0.029	-5.0
Reading	4	2410	A	2	6364	0.698	0.059	0.698	0.073	0.164	0.006	0.311	-0.367	0.311	-0.254	-0.160	-0.103	0.030	5.5
Reading	4	2411	A		6372	0.796	0.037	0.796	0.129	0.037	0.000	0.353	-0.314	0.353	-0.201	-0.325	-0.729	0.034	2.8
Reading	4	2412	A		6372	0.641	0.208	0.063	0.086	0.641	0.000	0.296	-0.085	-0.398	-0.369	0.296	0.226	0.029	7.4
Reading	4	2413	A		6372	0.612	0.034	0.297	0.612	0.056	0.000	0.366	-0.388	-0.325	0.366	-0.196	0.381	0.029	0.8
Reading	4	2414	B		6372	0.452	0.095	0.320	0.132	0.452	0.001	0.286	-0.412	-0.197	-0.290	0.286	1.188	0.028	9.9
Reading	4	2415	A		6372	0.459	0.145	0.185	0.459	0.210	0.001	0.240	-0.312	-0.241	0.240	-0.137	1.154	0.028	9.9
Reading	4	2416	B		6372	0.763	0.763	0.073	0.063	0.099	0.002	0.246	0.246	-0.189	-0.230	-0.126	-0.498	0.032	8.8
Reading	4	2417	A	2	6372	0.411	0.237	0.411	0.109	0.243	0.001	0.316	-0.337	0.316	-0.358	-0.248	1.396	0.028	8.5
Reading	4	2418	A	2	6372	0.745	0.044	0.079	0.131	0.745	0.001	0.500	-0.405	-0.347	-0.398	0.500	-0.377	0.032	-8.2
Reading	4	2419	B	2	6372	0.753	0.099	0.078	0.068	0.753	0.001	0.523	-0.325	-0.461	-0.410	0.523	-0.430	0.032	-9.4
Reading	4	2420	B	2	6372	0.721	0.721	0.123	0.090	0.064	0.002	0.481	0.481	-0.418	-0.328	-0.343	-0.232	0.031	-8.6
Reading	4	2421	B	2	6372	0.730	0.085	0.128	0.730	0.054	0.002	0.492	-0.415	-0.388	0.492	-0.308	-0.283	0.031	-8.5
Reading	4	2422	B	2	6372	0.679	0.073	0.155	0.679	0.090	0.001	0.458	-0.445	-0.322	0.458	-0.346	0.017	0.030	-6.3
Reading	4	2423	A	2	6372	0.579	0.051	0.110	0.257	0.579	0.003	0.259	-0.341	-0.268	-0.141	0.259	0.553	0.028	9.9
Reading	4	2424	A	2	6372	0.851	0.851	0.059	0.033	0.054	0.002	0.482	0.482	-0.338	-0.356	-0.315	-1.181	0.038	-8.1
Reading	4	2425	A	1	6372	0.885	0.033	0.885	0.053	0.027	0.002	0.438	-0.324	0.438	-0.284	-0.279	-1.525	0.042	-6.4
Reading	4	2426	A	2	6372	0.838	0.050	0.056	0.838	0.052	0.003	0.518	-0.378	-0.360	0.518	-0.368	-1.069	0.037	-9.9
Reading	4	2427	A		6368	0.504	0.222	0.117	0.504	0.156	0.000	0.245	-0.242	-0.315	0.245	-0.109	0.930	0.028	9.9
Reading	4	2428	B		6368	0.468	0.168	0.468	0.191	0.172	0.000	0.318	-0.247	0.318	-0.379	-0.243	1.106	0.028	7.0
Reading	4	2429	A		6368	0.740	0.059	0.740	0.071	0.128	0.001	0.352	-0.306	0.352	-0.320	-0.189	-0.326	0.031	-1.0
Reading	4	2430	A		6368	0.531	0.323	0.531	0.045	0.098	0.000	0.323	-0.269	0.323	-0.320	-0.308	0.797	0.028	6.1
Reading	4	2431	A		6368	0.774	0.104	0.027	0.774	0.094	0.000	0.354	-0.330	-0.296	0.354	-0.162	-0.549	0.033	-0.7
Reading	4	2432	A		6368	0.765	0.122	0.073	0.037	0.765	0.002	0.426	-0.351	-0.268	-0.315	0.426	-0.490	0.032	-5.9
Reading	4	2433	A	1	6368	0.761	0.761	0.054	0.069	0.114	0.001	0.366	0.366	-0.336	-0.269	-0.224	-0.464	0.032	1.5
Reading	4	2434	A	2	6368	0.468	0.105	0.468	0.328	0.098	0.001	0.257	-0.332	0.257	-0.188	-0.252	1.106	0.028	9.9
Reading	4	2435	A	2	6368	0.672	0.174	0.060	0.672	0.092	0.001	0.505	-0.459	-0.378	0.505	-0.351	0.072	0.029	-9.8
Reading	4	2436	A	2	6368	0.575	0.141	0.202	0.079	0.575	0.001	0.400	-0.246	-0.424	-0.311	0.400	0.578	0.028	-1.9
Reading	4	2437	B	2	6368	0.627	0.087	0.080	0.627	0.204	0.001	0.328	-0.340	-0.350	0.328	-0.175	0.313	0.029	2.9
Reading	4	2438	A	1	6368	0.789	0.052	0.086	0.071	0.789	0.001	0.506	-0.322	-0.433	-0.345	0.506	-0.656	0.033	-9.9
Reading	4	2439	B	2	6368	0.689	0.049	0.689	0.037	0.223	0.001	0.362	-0.355	0.362	-0.404	-0.229	-0.024	0.030	0.1
Reading	4	2440	A	2	6368	0.622	0.622	0.068	0.125	0.181	0.002	0.409	0.409	-0.349	-0.420	-0.266	0.337	0.029	-1.8
Reading	4	2441	A	2	6368	0.506	0.163	0.116	0.212	0.506	0.003	0.254	-0.177	-0.266	-0.244	0.254	0.922	0.028	9.9
Reading	4	2442	A	2	6368	0.495	0.292	0.495	0.160	0.047	0.005	0.288	-0.250	0.288	-0.226	-0.371	0.972	0.028	9.3
Reading	4	2443	A		6362	0.811	0.047	0.028	0.114	0.811	0.000	0.430	-0.358	-0.318	-0.283	0.430	-0.813	0.035	-5.1
Reading	4	2444	B		6362	0.693	0.088	0.693	0.065	0.152	0.001	0.338	-0.286	0.338	-0.267	-0.242	-0.029	0.030	3.8
Reading	4	2445	A		6362	0.828	0.110	0.042	0.020	0.828	0.000	0.527	-0.420	-0.383	-0.326	0.527	-0.943	0.036	-9.9
Reading	4	2446	A		6362	0.656	0.152	0.117	0.074	0.656	0.000	0.306	-0.251	-0.167	-0.326	0.306	0.182	0.029	7.0
Reading	4	2447	B		6362	0.782	0.085	0.055	0.782	0.077	0.000	0.498	-0.372	-0.357	0.498	-0.365	-0.598	0.033	-9.6
Reading	4	2448	B		6362	0.783	0.783	0.094	0.061	0.060	0.001	0.378	0.378	-0.303	-0.219	-0.285	-0.604	0.033	-1.5
Reading	4	2449	A	1	6362	0.616	0.616	0.218	0.134	0.030	0.001	0.324	0.324	-0.254	-0.282	-0.288	0.392	0.029	5.8
Reading	4	2450	B	2	6362	0.833	0.055	0.056	0.833	0.055	0.001	0.508	-0.363	-0.390	0.508	-0.318	-0.990	0.037	-9.9
Reading	4	2451	B	2	6362	0.723	0.026	0.076	0.172	0.723	0.002	0.398	-0.289	-0.348	-0.292	0.398	-0.209	0.031	-2.1

Appendix J: 2007 Grades 3–8 and 11 Multiple-Choice Statistics

Information					Proportions							Correlations					Rasch		
Cont.	Grade	Pub. ID	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Reading	4	2452	A	1	6362	0.737	0.060	0.095	0.737	0.106	0.001	0.471	-0.310	-0.376	0.471	-0.370	-0.296	0.032	-7.5
Reading	4	2453	A	2	6362	0.734	0.172	0.734	0.056	0.036	0.001	0.400	-0.307	0.400	-0.274	-0.340	-0.273	0.031	-1.5
Reading	4	2454	A	2	6362	0.887	0.036	0.040	0.887	0.035	0.001	0.409	-0.273	-0.299	0.409	-0.232	-1.518	0.042	-4.1
Reading	4	2455	B	2	6362	0.832	0.832	0.060	0.051	0.056	0.001	0.383	0.383	-0.245	-0.299	-0.246	-0.978	0.036	-1.1
Reading	4	2456	A	1	6362	0.712	0.092	0.072	0.122	0.712	0.001	0.398	-0.352	-0.338	-0.241	0.398	-0.138	0.031	-0.3
Reading	4	2457	B	2	6362	0.647	0.647	0.054	0.186	0.110	0.002	0.429	0.429	-0.403	-0.375	-0.274	0.228	0.029	-4.1
Reading	4	2458	A	2	6362	0.742	0.120	0.742	0.044	0.092	0.003	0.450	-0.365	0.450	-0.263	-0.365	-0.325	0.032	-5.2
Reading	4	2459	A	2	6386	0.850	0.037	0.065	0.850	0.048	0.000	0.503	-0.333	-0.373	0.503	-0.341	-1.166	0.038	-9.9
Reading	4	2460	B	2	6386	0.804	0.080	0.063	0.053	0.804	0.000	0.352	-0.194	-0.273	-0.284	0.352	-0.780	0.034	0.2
Reading	4	2461	A	2	6386	0.864	0.031	0.864	0.059	0.045	0.001	0.489	-0.315	0.489	-0.342	-0.349	-1.292	0.039	-9.4
Reading	4	2462	A	2	6386	0.750	0.052	0.750	0.096	0.100	0.000	0.511	-0.430	0.511	-0.378	-0.367	-0.411	0.032	-9.7
Reading	4	2463	A	2	6386	0.746	0.044	0.067	0.746	0.143	0.000	0.369	-0.316	-0.355	0.369	-0.208	-0.381	0.032	0.6
Reading	4	2464	B	2	6386	0.733	0.733	0.046	0.139	0.079	0.003	0.388	0.388	-0.251	-0.339	-0.260	-0.304	0.031	-1.6
Reading	4	2465	A	1	6386	0.731	0.109	0.731	0.078	0.080	0.003	0.262	-0.217	0.262	-0.302	-0.041	-0.286	0.031	5.5
Reading	4	2466	A	1	6386	0.829	0.829	0.049	0.073	0.047	0.003	0.405	0.405	-0.237	-0.335	-0.257	-0.977	0.036	-4.0
Reading	4	2467	B	2	6386	0.401	0.256	0.108	0.231	0.401	0.004	0.261	-0.195	-0.271	-0.305	0.261	1.424	0.028	9.9
Reading	4	2468	A	2	6386	0.578	0.054	0.220	0.578	0.144	0.003	0.325	-0.368	-0.243	0.325	-0.267	0.551	0.028	5.5
Reading	4	2469	A	1	6386	0.513	0.223	0.513	0.042	0.217	0.005	0.221	-0.131	0.221	-0.338	-0.210	0.872	0.028	9.9
Reading	4	2470	A	2	6386	0.498	0.498	0.096	0.117	0.284	0.003	0.194	0.194	-0.249	-0.247	-0.092	0.942	0.028	9.9
Reading	4	2471	A	2	6386	0.736	0.051	0.060	0.149	0.736	0.003	0.394	-0.342	-0.395	-0.221	0.394	-0.319	0.031	-1.2
Reading	4	2472	A	2	6386	0.402	0.310	0.402	0.070	0.215	0.003	0.281	-0.228	0.281	-0.414	-0.265	1.420	0.028	9.9
Reading	4	2473	A	2	6386	0.473	0.094	0.154	0.473	0.274	0.004	0.247	-0.235	-0.423	0.247	-0.089	1.067	0.028	9.9
Reading	4	2474	B	2	6386	0.631	0.225	0.069	0.631	0.070	0.005	0.460	-0.404	-0.364	0.460	-0.349	0.278	0.029	-6.4
Reading	4	2475	A	2	6376	0.878	0.878	0.046	0.057	0.019	0.000	0.385	0.385	-0.279	-0.292	-0.165	-1.431	0.041	-4.9
Reading	4	2476	B	2	6376	0.771	0.158	0.771	0.027	0.044	0.000	0.179	-0.132	0.179	-0.212	-0.063	-0.534	0.033	9.9
Reading	4	2477	A	2	6376	0.855	0.064	0.035	0.045	0.855	0.000	0.477	-0.357	-0.242	-0.380	0.477	-1.198	0.038	-7.8
Reading	4	2478	A	1	6376	0.808	0.031	0.080	0.808	0.080	0.000	0.528	-0.348	-0.403	0.528	-0.395	-0.804	0.035	-9.9
Reading	4	2479	A	2	6376	0.747	0.130	0.747	0.049	0.073	0.000	0.496	-0.433	0.496	-0.302	-0.362	-0.377	0.032	-8.6
Reading	4	2480	B	2	6376	0.848	0.062	0.040	0.848	0.048	0.001	0.486	-0.383	-0.316	0.486	-0.308	-1.136	0.038	-9.7
Reading	4	2481	A	1	6376	0.665	0.125	0.030	0.665	0.179	0.001	0.288	-0.264	-0.315	0.288	-0.172	0.111	0.029	5.7
Reading	4	2482	B	2	6376	0.413	0.202	0.413	0.114	0.269	0.002	0.195	-0.283	0.195	-0.301	-0.053	1.383	0.028	9.9
Reading	4	2483	A	1	6376	0.798	0.074	0.058	0.798	0.067	0.002	0.501	-0.345	-0.359	0.501	-0.379	-0.729	0.034	-9.9
Reading	4	2484	A	2	6376	0.634	0.634	0.118	0.138	0.106	0.002	0.361	0.361	-0.260	-0.249	-0.385	0.276	0.029	1.7
Reading	4	2485	A	2	6376	0.330	0.330	0.077	0.496	0.094	0.002	-0.033	-0.033	-0.315	0.177	-0.254	1.811	0.029	9.9
Reading	4	2486	A	2	6376	0.713	0.069	0.155	0.059	0.713	0.002	0.440	-0.361	-0.312	-0.367	0.440	-0.164	0.031	-4.8
Reading	4	2487	A	2	6376	0.746	0.079	0.746	0.069	0.105	0.002	0.503	-0.363	0.503	-0.344	-0.419	-0.367	0.032	-9.0
Reading	4	2488	A	2	6376	0.363	0.204	0.215	0.363	0.214	0.003	0.147	-0.210	-0.119	0.147	-0.114	1.636	0.029	9.9
Reading	4	2489	A	2	6376	0.338	0.338	0.309	0.146	0.204	0.002	0.134	0.134	-0.085	-0.233	-0.134	1.766	0.029	9.9
Reading	4	2490	A	2	6376	0.694	0.054	0.076	0.173	0.694	0.003	0.474	-0.460	-0.440	-0.302	0.474	-0.055	0.030	-7.5
Reading	4	2491	A	1	6383	0.757	0.162	0.757	0.039	0.041	0.000	0.279	-0.161	0.279	-0.341	-0.190	-0.434	0.032	6.7
Reading	4	2492	A	2	6383	0.780	0.041	0.018	0.161	0.780	0.000	0.264	-0.346	-0.282	-0.112	0.264	-0.587	0.033	9.5
Reading	4	2493	A	1	6383	0.478	0.478	0.104	0.230	0.186	0.000	0.368	0.368	-0.275	-0.275	-0.450	1.083	0.028	4.8
Reading	4	2494	A	2	6383	0.842	0.047	0.070	0.842	0.039	0.001	0.473	-0.305	-0.370	0.473	-0.301	-1.075	0.037	-7.9

Appendix J: 2007 Grades 3–8 and 11 Multiple-Choice Statistics

Information					Proportions							Correlations					Rasch		
Cont.	Grade	Pub. ID	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Reading	4	2495	B	2	6383	0.855	0.020	0.855	0.092	0.033	0.001	0.410	-0.266	0.410	-0.274	-0.344	-1.190	0.038	-2.9
Reading	4	2496	B	2	6383	0.789	0.789	0.085	0.046	0.078	0.002	0.322	0.322	-0.199	-0.269	-0.237	-0.648	0.034	3.4
Reading	4	2497	A	1	6383	0.851	0.057	0.851	0.050	0.040	0.001	0.371	-0.271	0.371	-0.266	-0.205	-1.156	0.038	-2.4
Reading	4	2498	A	2	6383	0.804	0.804	0.136	0.026	0.031	0.001	0.485	0.485	-0.378	-0.365	-0.347	-0.765	0.035	-7.3
Reading	4	2499	A	1	6383	0.696	0.148	0.063	0.091	0.696	0.001	0.377	-0.266	-0.337	-0.289	0.377	-0.055	0.030	-0.4
Reading	4	2500	A	2	6383	0.721	0.051	0.100	0.124	0.721	0.002	0.450	-0.334	-0.287	-0.404	0.450	-0.204	0.031	-4.9
Reading	4	2501	B	2	6383	0.709	0.121	0.709	0.032	0.135	0.002	0.527	-0.465	0.527	-0.361	-0.406	-0.128	0.031	-9.9
Reading	4	2502	A	2	6383	0.450	0.085	0.385	0.450	0.077	0.002	0.408	-0.406	-0.408	0.408	-0.299	1.221	0.028	-2.0
Reading	4	2503	B	2	6383	0.778	0.133	0.041	0.046	0.778	0.002	0.550	-0.485	-0.338	-0.359	0.550	-0.577	0.033	-9.9
Reading	4	2504	A	2	6383	0.749	0.056	0.080	0.749	0.113	0.001	0.437	-0.324	-0.349	0.437	-0.311	-0.381	0.032	-4.7
Reading	4	2505	B	2	6383	0.772	0.027	0.129	0.070	0.772	0.002	0.530	-0.295	-0.540	-0.253	0.530	-0.533	0.033	-9.9
Reading	4	2506	B	2	6383	0.671	0.671	0.043	0.047	0.234	0.004	0.485	0.485	-0.364	-0.345	-0.428	0.090	0.030	-8.4
Reading	4	2507	A	1	6403	0.915	0.036	0.030	0.020	0.915	0.000	0.459	-0.332	-0.308	-0.248	0.459	-1.886	0.047	-9.9
Reading	4	2508	B	1	6403	0.866	0.021	0.059	0.866	0.053	0.000	0.382	-0.297	-0.251	0.382	-0.247	-1.306	0.039	-3.8
Reading	4	2509	A	1	6403	0.712	0.032	0.084	0.172	0.712	0.000	0.473	-0.281	-0.539	0.309	0.473	-0.157	0.031	-6.2
Reading	4	2510	A	2	6403	0.857	0.048	0.857	0.074	0.020	0.001	0.361	-0.234	0.361	-0.250	-0.272	-1.221	0.039	-1.4
Reading	4	2511	B	2	6403	0.834	0.091	0.834	0.039	0.036	0.000	0.427	-0.337	0.427	-0.269	-0.274	-1.014	0.037	-5.5
Reading	4	2512	B	2	6403	0.756	0.756	0.088	0.079	0.076	0.001	0.392	0.392	-0.318	-0.277	-0.274	-0.435	0.032	-0.5
Reading	4	2513	A	2	6403	0.353	0.353	0.442	0.032	0.173	0.001	0.050	0.050	0.025	-0.213	-0.159	1.691	0.029	9.9
Reading	4	2514	B	2	6403	0.483	0.098	0.397	0.483	0.021	0.001	0.098	-0.350	0.035	0.098	-0.314	1.041	0.028	9.9
Reading	4	2515	A	2	6403	0.708	0.708	0.120	0.095	0.075	0.002	0.367	0.367	-0.235	-0.242	-0.379	-0.137	0.030	0.2
Reading	4	2516	B	2	6403	0.822	0.076	0.038	0.061	0.822	0.001	0.571	-0.444	-0.341	-0.440	0.571	-0.918	0.036	-9.9
Reading	4	2517	B	2	6403	0.589	0.589	0.169	0.051	0.189	0.001	0.472	0.472	-0.384	-0.508	-0.401	0.513	0.028	-7.0
Reading	4	2518	A	2	6403	0.703	0.099	0.703	0.067	0.128	0.001	0.405	-0.337	0.405	-0.444	-0.206	-0.104	0.030	-1.1
Reading	4	2519	A	2	6403	0.527	0.136	0.527	0.264	0.071	0.001	0.338	-0.391	0.338	-0.202	-0.422	0.824	0.028	8.9
Reading	4	2520	A	1	6403	0.464	0.215	0.043	0.276	0.464	0.001	0.343	-0.393	-0.410	-0.238	0.343	1.132	0.028	6.2
Reading	4	2521	A	2	6403	0.816	0.102	0.035	0.816	0.045	0.002	0.496	-0.386	-0.343	0.496	-0.339	-0.868	0.035	-9.1
Reading	4	2522	A	2	6403	0.749	0.119	0.749	0.052	0.078	0.002	0.465	-0.354	0.465	-0.358	-0.344	-0.387	0.032	-5.6
Reading	4	2523	B	2	6393	0.618	0.281	0.618	0.088	0.012	0.000	0.362	-0.320	0.362	-0.300	-0.280	0.363	0.029	2.4
Reading	4	2524	B	2	6393	0.538	0.310	0.114	0.037	0.538	0.000	0.318	-0.231	-0.360	-0.372	0.318	0.771	0.028	7.1
Reading	4	2525	A	2	6393	0.870	0.062	0.045	0.022	0.870	0.000	0.444	-0.282	-0.339	-0.291	0.444	-1.352	0.040	-7.9
Reading	4	2526	B	2	6393	0.648	0.648	0.252	0.064	0.035	0.000	0.481	0.481	-0.438	-0.311	-0.404	0.205	0.029	-6.9
Reading	4	2527	B	2	6393	0.820	0.049	0.069	0.820	0.061	0.000	0.432	-0.262	-0.341	0.432	-0.299	-0.896	0.036	-5.4
Reading	4	2528	B	2	6393	0.900	0.900	0.015	0.034	0.050	0.001	0.450	0.450	-0.194	-0.299	-0.367	-1.685	0.044	-8.9
Reading	4	2529	A	2	6393	0.472	0.399	0.472	0.073	0.055	0.001	0.222	-0.119	0.222	-0.400	-0.328	1.096	0.028	9.9
Reading	4	2530	A	1	6393	0.851	0.051	0.052	0.851	0.046	0.000	0.418	-0.290	-0.294	0.418	-0.274	-1.163	0.038	-4.8
Reading	4	2531	A	2	6393	0.859	0.859	0.063	0.049	0.028	0.000	0.399	0.399	-0.262	-0.283	-0.281	-1.239	0.039	-3.3
Reading	4	2532	A	2	6393	0.193	0.193	0.638	0.105	0.063	0.001	0.039	0.039	0.032	-0.263	-0.375	2.662	0.034	9.9
Reading	4	2533	A	2	6393	0.797	0.102	0.041	0.059	0.797	0.001	0.430	-0.345	-0.263	-0.300	0.430	-0.719	0.034	-4.6
Reading	4	2534	A	2	6393	0.660	0.078	0.103	0.660	0.158	0.001	0.421	-0.343	-0.362	0.421	-0.312	0.141	0.029	-3.8
Reading	4	2535	A	2	6393	0.721	0.095	0.075	0.721	0.108	0.001	0.422	-0.327	-0.368	0.422	-0.269	-0.210	0.031	-3.9
Reading	4	2536	B	2	6393	0.555	0.134	0.555	0.187	0.121	0.002	0.417	-0.396	0.417	-0.274	-0.443	0.686	0.028	-2.4
Reading	4	2537	B	2	6393	0.545	0.246	0.545	0.085	0.123	0.001	0.361	-0.267	0.361	-0.421	-0.322	0.738	0.028	4.4

Appendix J: 2007 Grades 3–8 and 11 Multiple-Choice Statistics

Information						Proportions						Correlations					Rasch		
Cont.	Grade	Pub. ID	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Reading	4	2538	A	2	6393	0.676	0.140	0.129	0.053	0.676	0.002	0.393	-0.240	-0.342	-0.396	0.393	0.049	0.030	0.9
Reading	4	2539	A	2	6394	0.859	0.041	0.079	0.859	0.021	0.000	0.361	-0.320	-0.238	0.361	-0.166	-1.227	0.039	-2.8
Reading	4	2540	B	2	6394	0.649	0.278	0.042	0.030	0.649	0.000	0.448	-0.382	-0.425	-0.304	0.448	0.205	0.029	-5.1
Reading	4	2541	A	2	6394	0.743	0.743	0.074	0.126	0.056	0.001	0.484	0.484	-0.378	-0.418	-0.270	-0.341	0.032	-7.9
Reading	4	2542	A	2	6394	0.776	0.069	0.776	0.052	0.102	0.000	0.468	-0.355	0.468	-0.349	-0.330	-0.561	0.033	-6.4
Reading	4	2543	B	2	6394	0.556	0.036	0.128	0.556	0.280	0.000	0.408	-0.436	-0.313	0.408	-0.365	0.693	0.028	-1.2
Reading	4	2544	A	2	6394	0.632	0.090	0.029	0.632	0.249	0.001	0.385	-0.376	-0.361	0.385	-0.290	0.300	0.029	1.8
Reading	4	2545	A	1	6394	0.605	0.605	0.037	0.183	0.173	0.002	0.411	0.411	-0.328	-0.322	-0.368	0.439	0.029	-3.8
Reading	4	2546	A	2	6394	0.557	0.155	0.557	0.096	0.190	0.002	0.323	-0.362	0.323	-0.337	-0.157	0.686	0.028	6.0
Reading	4	2547	B	2	6394	0.775	0.068	0.065	0.775	0.090	0.002	0.554	-0.389	-0.442	0.554	-0.417	-0.555	0.033	-9.9
Reading	4	2548	A	2	6394	0.698	0.067	0.137	0.096	0.698	0.002	0.478	-0.421	-0.339	-0.389	0.478	-0.071	0.030	-7.4
Reading	4	2549	B	2	6394	0.539	0.155	0.192	0.539	0.112	0.002	0.424	-0.390	-0.411	0.424	-0.286	0.777	0.028	-2.4
Reading	4	2550	A	2	6394	0.552	0.217	0.161	0.552	0.068	0.002	0.348	-0.249	-0.308	0.348	-0.394	0.711	0.028	4.8
Reading	4	2551	B	2	6394	0.448	0.280	0.131	0.140	0.448	0.002	0.395	-0.306	-0.370	-0.496	0.395	1.232	0.028	0.8
Reading	4	2552	B	2	6394	0.653	0.147	0.653	0.118	0.080	0.003	0.419	-0.269	0.419	-0.367	-0.399	0.184	0.029	-1.9
Reading	4	2553	A	2	6394	0.466	0.466	0.129	0.088	0.313	0.003	0.330	0.330	-0.430	-0.453	-0.190	1.140	0.028	6.0
Reading	4	2554	A	1	6394	0.648	0.142	0.648	0.079	0.127	0.004	0.471	-0.355	0.471	-0.390	-0.411	0.214	0.029	-7.9
Reading	4	2555	A	2	6370	0.610	0.283	0.046	0.610	0.061	0.000	0.382	-0.275	-0.417	0.382	-0.391	0.419	0.029	0.3
Reading	4	2556	A	2	6370	0.707	0.707	0.120	0.061	0.111	0.000	0.399	0.399	-0.322	-0.358	-0.254	-0.119	0.031	-2.1
Reading	4	2557	A	2	6370	0.780	0.065	0.100	0.780	0.054	0.000	0.499	-0.368	-0.393	0.499	-0.333	-0.587	0.033	-9.8
Reading	4	2558	B	2	6370	0.730	0.089	0.087	0.091	0.730	0.001	0.502	-0.363	-0.392	-0.401	0.502	-0.259	0.031	-8.9
Reading	4	2559	A	2	6370	0.724	0.091	0.724	0.080	0.104	0.000	0.448	-0.246	0.448	-0.382	-0.397	-0.218	0.031	-4.6
Reading	4	2560	A	2	6370	0.583	0.152	0.084	0.583	0.179	0.002	0.416	-0.332	-0.419	0.416	-0.337	0.559	0.028	-2.2
Reading	4	2561	A	1	6370	0.751	0.153	0.049	0.751	0.046	0.001	0.531	-0.434	-0.413	0.531	-0.362	-0.392	0.032	-9.9
Reading	4	2562	B	2	6370	0.290	0.096	0.290	0.498	0.113	0.002	0.130	-0.323	0.130	-0.042	-0.314	2.065	0.030	9.9
Reading	4	2563	A	2	6370	0.853	0.033	0.853	0.077	0.035	0.002	0.468	-0.352	0.468	-0.298	-0.349	-1.168	0.038	-6.5
Reading	4	2564	A	2	6370	0.773	0.116	0.045	0.773	0.063	0.002	0.523	-0.388	-0.402	0.523	-0.392	-0.539	0.033	-9.9
Reading	4	2565	A	2	6370	0.854	0.854	0.065	0.039	0.038	0.002	0.469	0.469	-0.342	-0.311	-0.312	-1.186	0.038	-8.9
Reading	4	2566	A	2	6370	0.719	0.112	0.106	0.719	0.061	0.002	0.471	-0.278	-0.455	0.471	-0.339	-0.190	0.031	-7.0
Reading	4	2567	A	2	6370	0.649	0.077	0.125	0.649	0.147	0.002	0.520	-0.411	-0.428	0.520	-0.442	0.212	0.029	-9.9
Reading	4	2568	A	2	6370	0.605	0.605	0.166	0.057	0.169	0.002	0.422	0.422	-0.270	-0.425	-0.394	0.443	0.029	-2.3
Reading	4	2569	A	2	6370	0.389	0.182	0.341	0.084	0.389	0.003	0.210	-0.267	-0.088	-0.483	0.210	1.532	0.028	9.9
Reading	4	2570	B	2	6370	0.723	0.059	0.042	0.173	0.723	0.004	0.411	-0.344	-0.339	-0.302	0.411	-0.212	0.031	-1.0
Reading	4	2571	A	2	6403	0.712	0.111	0.128	0.712	0.049	0.000	0.412	-0.331	-0.333	0.412	-0.270	-0.165	0.030	-2.2
Reading	4	2572	B	2	6403	0.711	0.711	0.122	0.068	0.099	0.000	0.400	0.400	-0.280	-0.298	-0.340	-0.161	0.030	-1.2
Reading	4	2573	A	2	6403	0.516	0.516	0.154	0.265	0.064	0.000	0.234	0.234	-0.246	-0.157	-0.258	0.868	0.028	9.9
Reading	4	2574	A	2	6403	0.482	0.035	0.293	0.189	0.482	0.000	0.387	-0.427	-0.323	-0.379	0.387	1.037	0.028	1.4
Reading	4	2575	B	2	6403	0.531	0.224	0.121	0.123	0.531	0.001	0.367	-0.241	-0.396	-0.370	0.367	0.796	0.028	2.6
Reading	4	2576	A	2	6403	0.795	0.030	0.795	0.099	0.074	0.002	0.423	-0.326	0.423	-0.303	-0.307	-0.709	0.034	-3.7
Reading	4	2577	A	1	6403	0.770	0.087	0.770	0.088	0.054	0.001	0.468	-0.316	0.468	-0.346	-0.389	-0.536	0.033	-5.1
Reading	4	2578	A	2	6403	0.704	0.037	0.031	0.227	0.704	0.001	0.437	-0.343	-0.369	-0.357	0.437	-0.120	0.030	-3.2
Reading	4	2579	A	2	6403	0.754	0.754	0.165	0.020	0.059	0.002	0.315	0.315	-0.264	-0.244	-0.175	-0.430	0.032	1.7
Reading	4	2580	B	2	6403	0.473	0.061	0.220	0.473	0.243	0.002	0.213	-0.284	-0.118	0.213	-0.224	1.080	0.028	9.9

Appendix J: 2007 Grades 3–8 and 11 Multiple-Choice Statistics

Information						Proportions						Correlations					Rasch		
Cont.	Grade	Pub. ID	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Reading	4	2581	A	2	6403	0.792	0.792	0.082	0.050	0.075	0.001	0.466	0.466	-0.413	-0.375	-0.225	-0.686	0.034	-5.4
Reading	4	2582	B	2	6403	0.660	0.058	0.660	0.042	0.238	0.002	0.415	-0.348	0.415	-0.357	-0.331	0.129	0.029	-1.4
Reading	4	2583	A	2	6403	0.844	0.844	0.077	0.045	0.032	0.001	0.469	0.469	-0.330	-0.348	-0.295	-1.105	0.037	-9.2
Reading	4	2584	A	2	6403	0.586	0.109	0.039	0.264	0.586	0.001	0.493	-0.413	-0.472	-0.434	0.493	0.520	0.028	-9.4
Reading	4	2585	A	2	6403	0.821	0.069	0.047	0.821	0.061	0.001	0.505	-0.383	-0.357	0.505	-0.338	-0.913	0.035	-9.4
Reading	4	2586	A	2	6403	0.856	0.028	0.050	0.063	0.856	0.003	0.509	-0.341	-0.360	-0.366	0.509	-1.209	0.038	-9.9
Reading	4	2587	A		6353	0.747	0.121	0.747	0.053	0.080	0.000	0.393	-0.355	0.393	-0.307	-0.193	-0.351	0.032	-3.3
Reading	4	2588	A		6353	0.834	0.039	0.042	0.834	0.084	0.000	0.470	-0.347	-0.348	0.470	-0.314	-0.993	0.037	-8.1
Reading	4	2589	A		6353	0.633	0.072	0.171	0.124	0.633	0.000	0.312	-0.245	-0.228	-0.275	0.312	0.308	0.029	4.3
Reading	4	2590	A		6353	0.730	0.730	0.067	0.130	0.071	0.001	0.484	0.484	-0.322	-0.378	-0.409	-0.247	0.031	-8.6
Reading	4	2591	A		6353	0.752	0.140	0.065	0.752	0.042	0.000	0.302	-0.142	-0.288	0.302	-0.303	-0.388	0.032	4.1
Reading	4	2592	A		6353	0.748	0.047	0.174	0.028	0.748	0.003	0.434	-0.387	-0.314	-0.349	0.434	-0.363	0.032	-4.5
Reading	4	2593	B	2	6353	0.855	0.035	0.037	0.072	0.855	0.001	0.455	-0.388	-0.368	-0.235	0.455	-1.178	0.038	-6.1
Reading	4	2594	A	2	6353	0.579	0.579	0.066	0.192	0.161	0.001	0.408	0.408	-0.297	-0.378	-0.341	0.587	0.028	-1.2
Reading	4	2595	A	2	6353	0.474	0.102	0.474	0.222	0.191	0.002	0.120	-0.336	0.120	-0.066	-0.010	1.106	0.028	9.9
Reading	4	2596	A	2	6353	0.774	0.088	0.104	0.774	0.031	0.002	0.359	-0.224	-0.269	0.359	-0.320	-0.536	0.033	1.0
Reading	4	2597	A	1	6353	0.756	0.141	0.756	0.059	0.042	0.002	0.497	-0.431	0.497	-0.288	-0.376	-0.412	0.032	-8.6
Reading	4	2598	A	2	6353	0.795	0.075	0.033	0.795	0.094	0.002	0.519	-0.402	-0.366	0.519	-0.382	-0.685	0.034	-9.8
Reading	4	2599	B	2	6353	0.800	0.076	0.052	0.800	0.070	0.002	0.346	-0.215	-0.324	0.346	-0.209	-0.719	0.034	4.5
Reading	4	2600	A	2	6353	0.814	0.056	0.079	0.814	0.048	0.002	0.487	-0.355	-0.352	0.487	-0.337	-0.826	0.035	-7.4
Reading	4	2601	A	2	6353	0.597	0.237	0.117	0.047	0.597	0.002	0.427	-0.362	-0.349	-0.416	0.427	0.494	0.028	-2.6
Reading	4	2602	B	2	6353	0.511	0.511	0.192	0.113	0.180	0.003	0.387	0.387	-0.362	-0.366	-0.320	0.924	0.028	1.6
Reading	4	2603	A		6395	0.702	0.099	0.702	0.103	0.095	0.000	0.417	-0.282	0.417	-0.359	-0.319	-0.109	0.030	-3.7
Reading	4	2604	B		6395	0.716	0.716	0.098	0.065	0.118	0.001	0.521	0.521	-0.419	-0.399	-0.397	-0.189	0.030	-9.9
Reading	4	2605	A		6395	0.679	0.072	0.679	0.155	0.094	0.000	0.353	-0.302	0.353	-0.246	-0.286	0.022	0.030	0.9
Reading	4	2606	A		6395	0.679	0.169	0.063	0.679	0.089	0.000	0.461	-0.354	-0.394	0.461	-0.374	0.024	0.030	-6.5
Reading	4	2607	B		6395	0.736	0.077	0.094	0.736	0.092	0.001	0.384	-0.280	-0.304	0.384	-0.267	-0.309	0.031	-2.8
Reading	4	2608	B		6395	0.581	0.140	0.228	0.049	0.581	0.002	0.373	-0.308	-0.320	-0.325	0.373	0.538	0.028	1.3
Reading	4	2609	B	2	6395	0.466	0.466	0.373	0.034	0.127	0.001	0.315	0.315	-0.247	-0.386	-0.358	1.105	0.028	7.9
Reading	4	2610	B	2	6395	0.368	0.108	0.172	0.368	0.351	0.001	0.086	-0.352	-0.125	0.086	0.040	1.592	0.028	9.9
Reading	4	2611	A	2	6395	0.634	0.123	0.634	0.161	0.080	0.001	0.275	-0.228	0.275	-0.216	-0.202	0.265	0.029	7.7
Reading	4	2612	B	2	6395	0.504	0.227	0.091	0.504	0.176	0.002	0.303	-0.291	-0.331	0.303	-0.200	0.916	0.028	8.4
Reading	4	2613	B	2	6395	0.659	0.074	0.122	0.143	0.659	0.001	0.469	-0.392	-0.361	-0.395	0.469	0.134	0.029	-5.6
Reading	4	2614	B	2	6395	0.508	0.179	0.230	0.508	0.080	0.002	0.319	-0.295	-0.252	0.319	-0.336	0.897	0.028	6.1
Reading	4	2615	A	2	6395	0.522	0.223	0.175	0.078	0.522	0.001	0.366	-0.355	-0.249	-0.403	0.366	0.831	0.028	1.9
Reading	4	2616	A	2	6395	0.681	0.681	0.132	0.134	0.051	0.002	0.472	0.472	-0.372	-0.385	-0.366	0.011	0.030	-7.7
Reading	4	2617	B	2	6395	0.418	0.169	0.418	0.201	0.210	0.001	0.272	-0.337	0.272	-0.223	-0.224	1.344	0.028	9.9
Reading	4	2618	A	2	6395	0.623	0.210	0.623	0.074	0.088	0.005	0.512	-0.451	0.512	-0.373	-0.443	0.323	0.029	-9.9
Reading	4	2619	A		6373	0.689	0.225	0.689	0.018	0.068	0.000	0.371	-0.315	0.371	-0.206	-0.319	0.012	0.030	1.4
Reading	4	2620	A		6373	0.757	0.757	0.105	0.061	0.076	0.000	0.461	0.461	-0.291	-0.346	-0.415	-0.402	0.032	-4.3
Reading	4	2621	A		6373	0.498	0.098	0.233	0.169	0.498	0.001	0.232	-0.273	-0.139	-0.245	0.232	0.995	0.028	9.9
Reading	4	2622	A		6373	0.745	0.062	0.039	0.153	0.745	0.000	0.443	-0.390	-0.344	-0.308	0.443	-0.326	0.032	-4.9
Reading	4	2623	B		6373	0.673	0.193	0.066	0.673	0.068	0.000	0.312	-0.210	-0.281	0.312	-0.290	0.102	0.030	7.8

Appendix J: 2007 Grades 3–8 and 11 Multiple-Choice Statistics

Information					Proportions							Correlations					Rasch		
Cont.	Grade	Pub. ID	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Reading	4	2624	A		6373	0.726	0.034	0.726	0.083	0.155	0.002	0.331	-0.348	0.331	-0.269	-0.207	-0.209	0.031	3.4
Reading	4	2625	A	2	6373	0.706	0.706	0.120	0.085	0.087	0.003	0.305	0.305	-0.177	-0.265	-0.253	-0.092	0.030	4.7
Reading	4	2626	A	2	6373	0.703	0.049	0.703	0.157	0.089	0.002	0.382	-0.312	0.382	-0.289	-0.283	-0.074	0.030	-0.9
Reading	4	2627	A	2	6373	0.672	0.129	0.116	0.079	0.672	0.003	0.453	-0.342	-0.371	-0.376	0.453	0.101	0.030	-5.5
Reading	4	2628	A	2	6373	0.789	0.789	0.105	0.060	0.042	0.003	0.429	0.429	-0.273	-0.344	-0.329	-0.632	0.034	-4.6
Reading	4	2629	A	1	6373	0.748	0.060	0.068	0.748	0.120	0.003	0.492	-0.388	-0.412	0.492	-0.333	-0.353	0.032	-8.8
Reading	4	2630	A	2	6373	0.565	0.094	0.178	0.159	0.565	0.003	0.421	-0.440	-0.420	-0.255	0.421	0.668	0.028	-1.7
Reading	4	2631	B	2	6373	0.570	0.114	0.570	0.122	0.190	0.003	0.382	-0.379	0.382	-0.343	-0.272	0.639	0.028	0.1
Reading	4	2632	B	2	6373	0.728	0.096	0.102	0.728	0.071	0.003	0.492	-0.382	-0.369	0.492	-0.384	-0.222	0.031	-9.0
Reading	4	2633	B	2	6373	0.391	0.085	0.364	0.157	0.391	0.003	0.248	-0.371	-0.191	-0.258	0.248	1.533	0.028	9.9
Reading	4	2634	A	2	6373	0.689	0.689	0.123	0.087	0.097	0.004	0.453	0.453	-0.288	-0.389	-0.408	0.006	0.030	-4.8
Reading	4	2635	B		6344	0.886	0.886	0.025	0.077	0.012	0.000	0.431	0.431	-0.254	-0.361	-0.206	-1.478	0.042	-7.3
Reading	4	2636	A		6344	0.793	0.057	0.793	0.124	0.026	0.000	0.408	-0.334	0.408	-0.283	-0.292	-0.659	0.034	-4.3
Reading	4	2637	A		6344	0.524	0.139	0.070	0.524	0.266	0.000	0.245	-0.087	-0.281	0.245	-0.270	0.866	0.028	9.9
Reading	4	2638	A		6344	0.560	0.211	0.560	0.186	0.042	0.001	0.457	-0.427	0.457	-0.385	-0.422	0.688	0.028	-6.8
Reading	4	2639	A		6344	0.705	0.081	0.161	0.052	0.705	0.000	0.482	-0.329	-0.420	-0.365	0.482	-0.093	0.030	-7.8
Reading	4	2640	B		6344	0.861	0.042	0.035	0.060	0.861	0.002	0.483	-0.352	-0.337	-0.323	0.483	-1.222	0.039	-9.7
Reading	4	2641	A	1	6344	0.373	0.063	0.434	0.128	0.373	0.002	0.304	-0.426	-0.317	-0.180	0.304	1.610	0.029	5.1
Reading	4	2642	B	2	6344	0.624	0.139	0.624	0.151	0.084	0.002	0.390	-0.327	0.390	-0.309	-0.320	0.352	0.029	-0.4
Reading	4	2643	A	2	6344	0.382	0.193	0.382	0.059	0.364	0.003	0.322	-0.265	0.322	-0.434	-0.314	1.565	0.028	7.7
Reading	4	2644	A	2	6344	0.561	0.561	0.201	0.156	0.079	0.002	0.439	0.439	-0.289	-0.509	-0.350	0.675	0.028	-4.9
Reading	4	2645	B	2	6344	0.669	0.093	0.100	0.669	0.135	0.002	0.511	-0.507	-0.447	0.511	-0.313	0.113	0.030	-9.4
Reading	4	2646	A	1	6344	0.255	0.297	0.231	0.255	0.214	0.003	0.212	-0.279	-0.185	0.212	-0.229	2.267	0.031	9.9
Reading	4	2647	A	1	6344	0.512	0.132	0.512	0.265	0.087	0.003	0.127	-0.239	0.127	0.048	-0.278	0.915	0.028	9.9
Reading	4	2648	A	2	6344	0.438	0.279	0.151	0.438	0.128	0.002	0.235	-0.215	-0.237	0.235	-0.196	1.281	0.028	9.9
Reading	4	2649	A	2	6344	0.694	0.067	0.055	0.179	0.694	0.004	0.412	-0.461	-0.437	-0.214	0.412	-0.031	0.030	1.0
Reading	4	2650	A	1	6344	0.632	0.632	0.168	0.063	0.131	0.005	0.493	0.493	-0.373	-0.413	-0.460	0.310	0.029	-9.3
Reading	4	2651	A		6366	0.763	0.079	0.129	0.028	0.763	0.000	0.430	-0.361	-0.349	-0.180	0.430	-0.462	0.032	-4.3
Reading	4	2652	A		6366	0.693	0.099	0.096	0.693	0.110	0.001	0.287	-0.181	-0.197	0.287	-0.257	-0.031	0.030	4.1
Reading	4	2653	A		6366	0.575	0.123	0.112	0.188	0.575	0.001	0.303	-0.265	-0.316	-0.206	0.303	0.600	0.028	7.0
Reading	4	2654	A		6366	0.608	0.078	0.608	0.105	0.206	0.002	0.332	-0.348	0.332	-0.299	-0.227	0.431	0.029	5.0
Reading	4	2655	B		6366	0.750	0.095	0.081	0.071	0.750	0.002	0.554	-0.473	-0.393	-0.401	0.554	-0.377	0.032	-9.9
Reading	4	2656	A	1	6366	0.924	0.924	0.030	0.022	0.022	0.002	0.385	0.385	-0.294	-0.225	-0.215	-2.003	0.050	-6.0
Reading	4	2657	A	2	6366	0.654	0.218	0.079	0.047	0.654	0.002	0.296	-0.122	-0.369	-0.353	0.296	0.186	0.029	6.3
Reading	4	2658	A	2	6366	0.772	0.129	0.053	0.044	0.772	0.002	0.506	-0.408	-0.336	-0.381	0.506	-0.526	0.033	-9.6
Reading	4	2659	B	2	6366	0.768	0.137	0.047	0.768	0.045	0.003	0.468	-0.380	-0.329	0.468	-0.315	-0.501	0.033	-6.5
Reading	4	2660	A	1	6366	0.806	0.806	0.063	0.065	0.062	0.003	0.449	0.449	-0.326	-0.345	-0.282	-0.771	0.035	-7.1
Reading	4	2661	A	2	6366	0.700	0.028	0.075	0.194	0.700	0.003	0.408	-0.332	-0.469	-0.251	0.408	-0.076	0.030	-1.1
Reading	4	2662	A	2	6366	0.452	0.061	0.437	0.452	0.047	0.003	0.166	-0.290	-0.097	0.166	-0.264	1.209	0.028	9.9
Reading	4	2663	B	2	6366	0.802	0.100	0.060	0.802	0.034	0.003	0.504	-0.392	-0.357	0.504	-0.346	-0.746	0.034	-9.9
Reading	4	2664	B	2	6366	0.686	0.067	0.686	0.147	0.096	0.003	0.409	-0.370	0.409	-0.272	-0.345	0.005	0.030	-1.8
Reading	4	2665	A	2	6366	0.523	0.073	0.523	0.330	0.070	0.004	0.273	-0.259	0.273	-0.175	-0.438	0.859	0.028	9.9
Reading	4	2666	A		6354	0.746	0.067	0.073	0.746	0.114	0.000	0.494	-0.437	-0.380	0.494	-0.323	-0.365	0.032	-9.4

Appendix J: 2007 Grades 3–8 and 11 Multiple-Choice Statistics

Information					Proportions							Correlations					Rasch		
Cont.	Grade	Pub. ID	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Reading	4	2667	A		6354	0.787	0.787	0.051	0.101	0.061	0.000	0.347	0.347	-0.314	-0.225	-0.215	-0.641	0.034	0.7
Reading	4	2668	A		6354	0.506	0.506	0.088	0.222	0.182	0.001	0.250	0.250	-0.287	-0.154	-0.260	0.937	0.028	9.9
Reading	4	2669	B		6354	0.705	0.705	0.060	0.093	0.141	0.000	0.581	0.581	-0.441	-0.431	-0.505	-0.114	0.031	-9.9
Reading	4	2670	A		6354	0.853	0.853	0.050	0.032	0.064	0.000	0.506	0.506	-0.378	-0.316	-0.359	-1.179	0.038	-9.9
Reading	4	2671	A		6354	0.796	0.029	0.098	0.796	0.075	0.002	0.501	-0.331	-0.371	0.501	-0.391	-0.705	0.034	-9.4
Reading	4	2672	A	1	6354	0.449	0.435	0.449	0.080	0.035	0.002	0.298	-0.262	0.298	-0.337	-0.271	1.225	0.028	9.9
Reading	4	2673	A	2	6354	0.894	0.894	0.031	0.048	0.025	0.001	0.497	0.497	-0.292	-0.387	-0.310	-1.629	0.044	-9.9
Reading	4	2674	B	2	6354	0.762	0.048	0.080	0.762	0.108	0.001	0.421	-0.329	-0.366	0.421	-0.253	-0.479	0.033	-2.9
Reading	4	2675	A	2	6354	0.802	0.054	0.097	0.044	0.802	0.002	0.444	-0.297	-0.338	-0.318	0.444	-0.769	0.035	-4.1
Reading	4	2676	B	2	6354	0.672	0.064	0.217	0.672	0.045	0.002	0.385	-0.350	-0.278	0.385	-0.342	0.073	0.030	-1.0
Reading	4	2677	A	1	6354	0.831	0.831	0.040	0.098	0.030	0.002	0.441	0.441	-0.354	-0.295	-0.316	-0.998	0.037	-3.5
Reading	4	2678	A	1	6354	0.772	0.055	0.772	0.087	0.083	0.003	0.490	-0.331	0.490	-0.330	-0.418	-0.548	0.033	-8.3
Reading	4	2679	A	1	6354	0.845	0.070	0.039	0.043	0.845	0.002	0.480	-0.341	-0.335	-0.323	0.480	-1.129	0.038	-9.4
Reading	4	2680	B	1	6354	0.746	0.067	0.746	0.091	0.094	0.002	0.453	-0.394	0.453	-0.290	-0.343	-0.375	0.032	-4.6
Reading	4	2681	B	2	6354	0.548	0.548	0.153	0.184	0.112	0.004	0.336	0.336	-0.304	-0.262	-0.318	0.729	0.028	5.8
Reading	4	2682	A		6279	0.728	0.176	0.728	0.058	0.038	0.000	0.408	-0.308	0.408	-0.269	-0.401	-0.251	0.031	-1.6
Reading	4	2683	A		6279	0.775	0.775	0.078	0.126	0.021	0.000	0.422	0.422	-0.338	-0.309	-0.290	-0.557	0.033	-4.9
Reading	4	2684	A		6279	0.567	0.340	0.567	0.063	0.030	0.000	0.271	-0.168	0.271	-0.391	-0.339	0.631	0.028	9.9
Reading	4	2685	A		6279	0.567	0.166	0.030	0.236	0.567	0.001	0.428	-0.312	-0.390	-0.419	0.428	0.627	0.028	-2.6
Reading	4	2686	A		6279	0.693	0.119	0.067	0.693	0.120	0.001	0.367	-0.311	-0.277	0.367	-0.271	-0.045	0.030	2.6
Reading	4	2687	B		6279	0.832	0.065	0.052	0.050	0.832	0.002	0.560	-0.439	-0.372	-0.389	0.560	-0.984	0.037	-9.9
Reading	4	2688	A	1	6279	0.790	0.054	0.121	0.790	0.034	0.002	0.490	-0.437	-0.383	0.490	-0.229	-0.667	0.034	-8.3
Reading	4	2689	A	2	6279	0.858	0.038	0.858	0.033	0.070	0.001	0.356	-0.278	0.356	-0.283	-0.190	-1.231	0.039	-0.2
Reading	4	2690	A	2	6279	0.721	0.721	0.165	0.047	0.062	0.002	0.356	0.356	-0.237	-0.335	-0.292	-0.214	0.031	2.5
Reading	4	2691	B	2	6279	0.726	0.144	0.060	0.726	0.067	0.002	0.425	-0.301	-0.318	0.425	-0.359	-0.243	0.031	-3.7
Reading	4	2692	A	2	6279	0.322	0.093	0.318	0.265	0.322	0.002	0.331	-0.455	-0.352	-0.304	0.331	1.871	0.030	6.4
Reading	4	2693	B	1	6279	0.764	0.044	0.764	0.071	0.118	0.001	0.474	-0.325	0.474	-0.360	-0.359	-0.488	0.033	-7.7
Reading	4	2694	B	2	6279	0.533	0.108	0.213	0.533	0.144	0.002	0.272	-0.313	-0.184	0.272	-0.237	0.797	0.028	9.9
Reading	4	2695	B	2	6279	0.550	0.143	0.132	0.173	0.550	0.002	0.242	-0.314	-0.192	-0.133	0.242	0.714	0.028	9.9
Reading	4	2696	A	2	6279	0.571	0.571	0.096	0.071	0.260	0.002	0.327	0.327	-0.440	-0.304	-0.192	0.607	0.028	5.9
Reading	4	2697	A	2	6279	0.775	0.077	0.775	0.092	0.053	0.003	0.497	-0.387	0.497	-0.342	-0.393	-0.564	0.033	-7.5
Reading	5	2698	A	1	131301	0.736	0.082	0.075	0.106	0.736	0.000	0.477	-0.405	-0.298	-0.367	0.477	-0.167	0.007	-9.9
Reading	5	2699	B	2	131301	0.517	0.358	0.086	0.517	0.038	0.001	0.388	-0.351	-0.330	0.388	-0.365	1.017	0.006	7.8
Reading	5	2700	A	1	131301	0.683	0.089	0.049	0.683	0.178	0.000	0.398	-0.401	-0.354	0.398	-0.235	0.146	0.007	-4.5
Reading	5	2701	B	2	131301	0.700	0.080	0.174	0.045	0.700	0.001	0.451	-0.363	-0.343	-0.361	0.451	0.048	0.007	-9.9
Reading	5	2702	A	2	131301	0.778	0.132	0.059	0.030	0.778	0.001	0.415	-0.289	-0.344	-0.301	0.415	-0.442	0.007	-9.9
Reading	5	2703	B	2	131301	0.634	0.077	0.634	0.165	0.123	0.001	0.296	-0.229	0.296	-0.169	-0.316	0.416	0.006	9.9
Reading	5	2704	A	2	131301	0.688	0.688	0.041	0.096	0.173	0.001	0.406	0.406	-0.358	-0.380	-0.263	0.117	0.007	-3.0
Reading	5	2705	A	2	131301	0.718	0.056	0.718	0.144	0.080	0.002	0.507	-0.429	0.507	-0.392	-0.372	-0.056	0.007	-9.9
Reading	5	2706	A		131301	0.716	0.101	0.716	0.062	0.119	0.001	0.430	-0.343	0.430	-0.343	-0.295	-0.046	0.007	-9.9
Reading	5	2707	A		131301	0.839	0.037	0.839	0.085	0.038	0.000	0.457	-0.280	0.457	-0.342	-0.316	-0.912	0.008	-9.9
Reading	5	2708	A		131301	0.514	0.139	0.253	0.514	0.091	0.002	0.315	-0.329	-0.183	0.315	-0.387	1.031	0.006	9.9
Reading	5	2709	A		131301	0.504	0.504	0.135	0.252	0.108	0.001	0.348	0.348	-0.347	-0.266	-0.358	1.082	0.006	9.9

Appendix J: 2007 Grades 3–8 and 11 Multiple-Choice Statistics

Information					Proportions							Correlations					Rasch		
Cont.	Grade	Pub. ID	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Reading	5	2710	A		131301	0.840	0.074	0.840	0.031	0.053	0.001	0.471	-0.341	0.471	-0.291	-0.338	-0.918	0.008	-9.9
Reading	5	2711	B		131301	0.568	0.568	0.076	0.087	0.267	0.001	0.295	0.295	-0.301	-0.374	-0.169	0.759	0.006	9.9
Reading	5	2712	A		131301	0.621	0.224	0.621	0.059	0.094	0.002	0.434	-0.313	0.434	-0.400	-0.411	0.486	0.006	-9.9
Reading	5	2713	A		131301	0.637	0.085	0.127	0.147	0.637	0.004	0.503	-0.388	-0.408	-0.431	0.503	0.403	0.006	-9.9
Reading	5	2714	A	1	131301	0.415	0.347	0.415	0.091	0.144	0.003	0.293	-0.260	0.293	-0.345	-0.264	1.538	0.006	9.9
Reading	5	2715	A	1	131301	0.706	0.706	0.112	0.056	0.123	0.002	0.516	0.516	-0.388	-0.405	-0.407	0.015	0.007	-9.9
Reading	5	2716	B	2	131301	0.809	0.056	0.065	0.067	0.809	0.002	0.533	-0.375	-0.357	-0.408	0.533	-0.662	0.008	-9.9
Reading	5	2717	A	2	131301	0.637	0.105	0.161	0.093	0.637	0.003	0.289	-0.245	-0.216	-0.212	0.289	0.399	0.006	9.9
Reading	5	2718	A	2	131301	0.666	0.122	0.156	0.666	0.052	0.003	0.415	-0.330	-0.314	0.415	-0.343	0.240	0.007	-9.9
Reading	5	2719	B	2	131301	0.704	0.704	0.091	0.076	0.125	0.003	0.254	0.254	-0.154	-0.153	-0.236	0.026	0.007	9.9
Reading	5	2720	A	2	131301	0.592	0.027	0.157	0.592	0.220	0.003	0.353	-0.381	-0.278	0.353	-0.289	0.638	0.006	9.9
Reading	5	2721	A	2	131301	0.578	0.065	0.131	0.578	0.221	0.004	0.429	-0.410	-0.379	0.429	-0.337	0.709	0.006	-9.9
Reading	5	2722	B		131301	0.915	0.016	0.915	0.040	0.029	0.000	0.390	-0.207	0.390	-0.264	-0.278	-1.717	0.010	-9.9
Reading	5	2723	A		131301	0.758	0.151	0.758	0.020	0.071	0.000	0.481	-0.406	0.481	-0.298	-0.340	-0.307	0.007	-9.9
Reading	5	2724	B		131301	0.622	0.117	0.134	0.127	0.622	0.001	0.371	-0.261	-0.338	-0.301	0.371	0.482	0.006	9.3
Reading	5	2725	A		131301	0.564	0.191	0.035	0.564	0.209	0.000	0.308	-0.237	-0.308	0.308	-0.273	0.784	0.006	9.9
Reading	5	2726	A		131301	0.673	0.673	0.103	0.038	0.186	0.001	0.322	0.322	-0.295	-0.385	-0.181	0.205	0.007	9.9
Reading	5	2727	B		131301	0.890	0.025	0.028	0.890	0.055	0.000	0.409	-0.298	-0.264	0.409	-0.261	-1.410	0.009	-9.9
Reading	5	2728	A		131301	0.870	0.067	0.870	0.038	0.023	0.002	0.387	-0.264	0.387	-0.262	-0.265	-1.188	0.009	-9.9
Reading	5	2729	A	2	131301	0.717	0.087	0.175	0.717	0.020	0.001	0.320	-0.268	-0.251	0.320	-0.158	-0.049	0.007	9.9
Reading	5	2730	B	1	131301	0.584	0.119	0.062	0.584	0.233	0.001	0.433	-0.355	-0.370	0.433	-0.371	0.676	0.006	-9.9
Reading	5	2731	A	2	131301	0.312	0.445	0.070	0.171	0.312	0.002	0.217	-0.192	-0.324	-0.253	0.217	2.097	0.007	9.9
Reading	5	2732	A	2	131301	0.679	0.679	0.052	0.108	0.159	0.002	0.404	0.404	-0.392	-0.253	-0.331	0.169	0.007	-3.1
Reading	5	2733	A	2	131301	0.449	0.449	0.283	0.038	0.228	0.002	0.349	0.349	-0.337	-0.419	-0.285	1.363	0.006	9.9
Reading	5	2734	A	2	131301	0.675	0.075	0.675	0.148	0.099	0.002	0.386	-0.325	0.386	-0.294	-0.284	0.191	0.007	-2.6
Reading	5	2735	B	1	131301	0.556	0.104	0.116	0.221	0.556	0.002	0.383	-0.409	-0.350	-0.269	0.383	0.823	0.006	8.2
Reading	5	2736	B	2	131301	0.573	0.179	0.097	0.573	0.148	0.002	0.369	-0.248	-0.378	0.369	-0.331	0.736	0.006	9.9
Reading	5	2737	B	2	131301	0.787	0.088	0.093	0.787	0.029	0.003	0.324	-0.288	-0.168	0.324	-0.241	-0.500	0.007	9.9
Reading	5	2738	A	1	6933	0.765	0.064	0.074	0.096	0.765	0.000	0.516	-0.422	-0.315	-0.413	0.516	-0.483	0.031	-9.6
Reading	5	2739	A	2	6933	0.815	0.086	0.048	0.050	0.815	0.000	0.475	-0.339	-0.350	-0.321	0.475	-0.845	0.034	-8.7
Reading	5	2740	A	2	6933	0.777	0.067	0.777	0.048	0.106	0.001	0.444	-0.304	0.444	-0.290	-0.352	-0.567	0.032	-5.3
Reading	5	2741	A	2	6933	0.861	0.051	0.055	0.861	0.033	0.000	0.470	-0.336	-0.301	0.470	-0.324	-1.257	0.038	-9.3
Reading	5	2742	A	2	6933	0.453	0.341	0.147	0.453	0.058	0.000	0.279	-0.167	-0.355	0.279	-0.424	1.225	0.027	9.9
Reading	5	2743	A	2	6933	0.856	0.021	0.069	0.856	0.053	0.001	0.484	-0.300	-0.327	0.484	-0.375	-1.203	0.037	-9.9
Reading	5	2744	A	2	6933	0.893	0.893	0.031	0.039	0.035	0.002	0.411	0.411	-0.207	-0.323	-0.262	-1.603	0.042	-6.5
Reading	5	2745	A	2	6933	0.910	0.032	0.033	0.024	0.910	0.002	0.459	-0.293	-0.322	-0.275	0.459	-1.812	0.044	-9.9
Reading	5	2746	A	2	6933	0.604	0.186	0.123	0.084	0.604	0.003	0.463	-0.337	-0.413	-0.433	0.463	0.460	0.028	-4.7
Reading	5	2747	A	2	6933	0.314	0.392	0.131	0.314	0.160	0.003	0.220	-0.209	-0.253	0.220	-0.238	1.956	0.028	9.9
Reading	5	2748	A	2	6933	0.794	0.042	0.794	0.110	0.051	0.003	0.479	-0.340	0.479	-0.343	-0.353	-0.685	0.033	-8.7
Reading	5	2749	A	2	6933	0.472	0.053	0.103	0.369	0.472	0.003	0.260	-0.436	-0.372	-0.138	0.260	1.133	0.027	9.9
Reading	5	2750	A	3	6933	0.742	0.742	0.112	0.086	0.057	0.002	0.444	0.444	-0.356	-0.320	-0.285	-0.327	0.030	-5.8
Reading	5	2751	B	2	6933	0.819	0.057	0.819	0.073	0.049	0.002	0.532	-0.388	0.532	-0.381	-0.364	-0.879	0.034	-9.9
Reading	5	2752	B	2	6933	0.322	0.262	0.262	0.322	0.150	0.003	0.092	-0.015	-0.066	0.092	-0.268	1.909	0.028	9.9

Appendix J: 2007 Grades 3–8 and 11 Multiple-Choice Statistics

Information					Proportions							Correlations					Rasch		
Cont.	Grade	Pub. ID	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Reading	5	2753	B	2	6933	0.421	0.421	0.160	0.195	0.221	0.003	0.227	0.227	-0.262	-0.187	-0.209	1.388	0.027	9.9
Reading	5	2754	A		6526	0.665	0.177	0.056	0.103	0.665	0.000	0.394	-0.364	-0.382	-0.186	0.394	0.240	0.029	0.3
Reading	5	2755	A		6526	0.842	0.045	0.842	0.093	0.019	0.000	0.456	-0.312	0.456	-0.357	-0.256	-0.958	0.037	-7.6
Reading	5	2756	A		6526	0.702	0.086	0.037	0.702	0.175	0.000	0.488	-0.396	-0.299	0.488	-0.408	0.028	0.030	-8.4
Reading	5	2757	A		6526	0.773	0.773	0.084	0.083	0.059	0.001	0.459	0.459	-0.345	-0.353	-0.296	-0.423	0.032	-6.6
Reading	5	2758	A		6526	0.806	0.806	0.088	0.046	0.060	0.000	0.476	0.476	-0.352	-0.386	-0.293	-0.657	0.034	-6.5
Reading	5	2759	A		6526	0.795	0.795	0.020	0.113	0.070	0.001	0.367	0.367	-0.257	-0.241	-0.308	-0.580	0.034	1.2
Reading	5	2760	A	3	6526	0.882	0.029	0.071	0.882	0.017	0.001	0.423	-0.312	-0.347	0.423	-0.129	-1.341	0.041	-6.5
Reading	5	2761	A	2	6526	0.797	0.118	0.797	0.036	0.048	0.001	0.502	-0.411	0.502	-0.308	-0.346	-0.595	0.034	-8.8
Reading	5	2762	B	2	6526	0.587	0.106	0.587	0.065	0.240	0.001	0.406	-0.437	0.406	-0.386	-0.272	0.655	0.028	-0.3
Reading	5	2763	A	2	6526	0.752	0.059	0.134	0.054	0.752	0.001	0.389	-0.293	-0.272	-0.311	0.389	-0.281	0.032	-0.3
Reading	5	2764	A	2	6526	0.547	0.547	0.079	0.211	0.161	0.001	0.364	0.364	-0.411	-0.260	-0.318	0.856	0.028	3.4
Reading	5	2765	A	3	6526	0.597	0.117	0.104	0.597	0.180	0.002	0.291	-0.304	-0.252	0.291	-0.175	0.601	0.028	8.3
Reading	5	2766	B	2	6526	0.537	0.100	0.219	0.143	0.537	0.002	0.368	-0.332	-0.313	-0.298	0.368	0.909	0.028	3.3
Reading	5	2767	B	2	6526	0.274	0.274	0.155	0.295	0.273	0.001	0.106	0.106	-0.169	-0.121	-0.081	2.297	0.031	9.9
Reading	5	2768	B	3	6526	0.713	0.713	0.189	0.037	0.058	0.002	0.437	0.437	-0.332	-0.338	-0.366	-0.037	0.030	-4.8
Reading	5	2769	B	1	6526	0.718	0.057	0.059	0.718	0.161	0.004	0.345	-0.323	-0.259	0.345	-0.227	-0.069	0.030	1.8
Reading	5	2770	A		6586	0.735	0.735	0.020	0.211	0.034	0.000	0.310	0.310	-0.221	-0.257	-0.202	-0.170	0.031	2.3
Reading	5	2771	A		6586	0.771	0.118	0.053	0.771	0.057	0.000	0.489	-0.387	-0.379	0.489	-0.298	-0.407	0.032	-8.7
Reading	5	2772	B		6586	0.630	0.057	0.630	0.267	0.046	0.001	0.296	-0.346	0.296	-0.192	-0.282	0.425	0.028	6.2
Reading	5	2773	A		6586	0.624	0.184	0.624	0.056	0.134	0.001	0.396	-0.297	0.396	-0.325	-0.343	0.455	0.028	-0.8
Reading	5	2774	A		6586	0.618	0.189	0.083	0.618	0.109	0.001	0.399	-0.311	-0.322	0.399	-0.339	0.490	0.028	-2.1
Reading	5	2775	A		6586	0.732	0.093	0.041	0.132	0.732	0.002	0.445	-0.362	-0.351	-0.312	0.445	-0.154	0.031	-5.2
Reading	5	2776	A	1	6586	0.822	0.053	0.822	0.068	0.056	0.002	0.442	-0.311	0.442	-0.316	-0.291	-0.778	0.035	-7.0
Reading	5	2777	A	2	6586	0.366	0.091	0.068	0.473	0.366	0.002	0.269	-0.451	-0.407	-0.191	0.269	1.766	0.028	9.9
Reading	5	2778	A	2	6586	0.830	0.830	0.050	0.031	0.087	0.002	0.491	0.491	-0.339	-0.329	-0.362	-0.844	0.035	-9.9
Reading	5	2779	A	2	6586	0.721	0.721	0.052	0.180	0.044	0.002	0.451	0.451	-0.359	-0.343	-0.359	-0.088	0.030	-4.8
Reading	5	2780	A	3	6586	0.525	0.078	0.344	0.050	0.525	0.002	0.297	-0.415	-0.185	-0.356	0.297	0.958	0.028	9.7
Reading	5	2781	B	2	6586	0.652	0.093	0.062	0.652	0.190	0.002	0.305	-0.275	-0.337	0.305	-0.170	0.307	0.029	6.9
Reading	5	2782	B	2	6586	0.745	0.745	0.136	0.085	0.032	0.002	0.416	0.416	-0.310	-0.307	-0.318	-0.234	0.031	-3.3
Reading	5	2783	A	2	6586	0.413	0.413	0.204	0.055	0.326	0.003	0.154	0.154	-0.179	-0.339	-0.071	1.523	0.028	9.9
Reading	5	2784	A	2	6586	0.747	0.068	0.747	0.113	0.069	0.003	0.486	-0.363	0.486	-0.365	-0.350	-0.247	0.031	-9.1
Reading	5	2785	A	2	6586	0.642	0.129	0.064	0.162	0.642	0.003	0.479	-0.414	-0.347	-0.389	0.479	0.360	0.029	-6.5
Reading	5	2786	A	2	6615	0.803	0.085	0.043	0.068	0.803	0.000	0.388	-0.297	-0.302	-0.223	0.388	-0.654	0.034	-1.4
Reading	5	2787	A	1	6615	0.877	0.016	0.074	0.877	0.033	0.000	0.427	-0.247	-0.335	0.427	-0.258	-1.310	0.040	-7.1
Reading	5	2788	A	1	6615	0.856	0.856	0.029	0.063	0.051	0.001	0.450	0.450	-0.268	-0.318	-0.324	-1.100	0.038	-7.0
Reading	5	2789	A	2	6615	0.778	0.097	0.046	0.078	0.778	0.001	0.452	-0.339	-0.366	-0.287	0.452	-0.466	0.033	-6.0
Reading	5	2790	A	2	6615	0.668	0.668	0.214	0.052	0.065	0.001	0.409	0.409	-0.302	-0.331	-0.382	0.216	0.029	-1.8
Reading	5	2791	A	2	6615	0.872	0.048	0.043	0.872	0.035	0.002	0.355	-0.275	-0.168	0.355	-0.262	-1.253	0.040	-0.5
Reading	5	2792	A	3	6615	0.777	0.097	0.777	0.074	0.050	0.002	0.510	-0.455	0.510	-0.320	-0.318	-0.461	0.033	-9.3
Reading	5	2793	A	2	6615	0.632	0.083	0.200	0.083	0.632	0.002	0.371	-0.298	-0.260	-0.383	0.371	0.409	0.028	3.0
Reading	5	2794	A	1	6615	0.856	0.041	0.064	0.856	0.038	0.001	0.394	-0.277	-0.273	0.394	-0.246	-1.093	0.038	-3.9
Reading	5	2795	A	2	6615	0.426	0.426	0.051	0.389	0.132	0.002	0.242	0.242	-0.444	-0.126	-0.356	1.458	0.028	9.9

Appendix J: 2007 Grades 3–8 and 11 Multiple-Choice Statistics

Information					Proportions							Correlations					Rasch		
Cont.	Grade	Pub. ID	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Reading	5	2796	A	3	6615	0.515	0.145	0.200	0.138	0.515	0.002	0.333	-0.243	-0.423	-0.175	0.333	1.010	0.028	8.9
Reading	5	2797	A	1	6615	0.840	0.044	0.840	0.082	0.032	0.002	0.425	-0.302	0.425	-0.284	-0.302	-0.950	0.036	-5.0
Reading	5	2798	A	3	6615	0.629	0.629	0.039	0.196	0.133	0.002	0.397	0.397	-0.339	-0.325	-0.315	0.426	0.028	0.0
Reading	5	2799	A	2	6615	0.611	0.112	0.144	0.611	0.131	0.002	0.413	-0.382	-0.329	0.413	-0.315	0.524	0.028	-0.5
Reading	5	2800	A	1	6615	0.554	0.132	0.554	0.180	0.131	0.002	0.431	-0.417	0.431	-0.297	-0.426	0.815	0.028	-2.0
Reading	5	2801	B	2	6615	0.794	0.069	0.064	0.794	0.070	0.002	0.496	-0.394	-0.333	0.496	-0.349	-0.581	0.033	-8.1
Reading	5	2802	A	2	6533	0.823	0.823	0.026	0.109	0.042	0.000	0.441	0.441	-0.274	-0.359	-0.276	-0.795	0.035	-7.0
Reading	5	2803	B	2	6533	0.882	0.042	0.022	0.053	0.882	0.000	0.273	-0.140	-0.233	-0.185	0.273	-1.341	0.041	4.1
Reading	5	2804	B	2	6533	0.693	0.077	0.128	0.693	0.102	0.000	0.416	-0.331	-0.379	0.416	-0.239	0.069	0.030	-3.2
Reading	5	2805	A	2	6533	0.744	0.083	0.094	0.744	0.078	0.000	0.358	-0.336	-0.190	0.358	-0.262	-0.241	0.031	0.2
Reading	5	2806	A	1	6533	0.738	0.088	0.738	0.070	0.103	0.000	0.425	-0.359	0.425	-0.280	-0.290	-0.202	0.031	-6.6
Reading	5	2807	A	2	6533	0.771	0.105	0.771	0.086	0.037	0.002	0.419	-0.307	0.419	-0.308	-0.310	-0.411	0.032	-4.4
Reading	5	2808	A	2	6533	0.680	0.680	0.094	0.107	0.118	0.001	0.304	0.304	-0.256	-0.209	-0.237	0.138	0.029	6.6
Reading	5	2809	A	2	6533	0.860	0.038	0.064	0.037	0.860	0.001	0.269	-0.205	-0.148	-0.193	0.269	-1.116	0.038	0.8
Reading	5	2810	B	2	6533	0.601	0.126	0.601	0.209	0.061	0.002	0.338	-0.244	0.338	-0.303	-0.273	0.561	0.028	3.0
Reading	5	2811	B	2	6533	0.871	0.871	0.056	0.041	0.029	0.001	0.403	0.403	-0.261	-0.284	-0.268	-1.224	0.039	-5.7
Reading	5	2812	B	2	6533	0.827	0.040	0.048	0.827	0.084	0.001	0.407	-0.288	-0.262	0.407	-0.299	-0.825	0.035	-4.8
Reading	5	2813	A	2	6533	0.399	0.209	0.399	0.263	0.128	0.001	0.252	-0.214	0.252	-0.214	-0.321	1.568	0.028	9.9
Reading	5	2814	A	2	6533	0.874	0.874	0.032	0.049	0.043	0.001	0.412	0.412	-0.287	-0.254	-0.288	-1.252	0.040	-7.1
Reading	5	2815	A	2	6533	0.416	0.103	0.163	0.316	0.416	0.002	0.231	-0.394	-0.261	-0.125	0.231	1.479	0.028	9.9
Reading	5	2816	A	2	6533	0.567	0.567	0.113	0.213	0.105	0.002	0.377	0.377	-0.274	-0.367	-0.289	0.732	0.028	0.7
Reading	5	2817	A	2	6533	0.546	0.199	0.125	0.546	0.128	0.003	0.333	-0.266	-0.311	0.333	-0.289	0.840	0.028	4.9
Reading	5	2818	A		6540	0.812	0.070	0.812	0.026	0.091	0.000	0.507	-0.372	0.507	-0.292	-0.403	-0.672	0.035	-9.9
Reading	5	2819	A		6540	0.887	0.041	0.887	0.050	0.022	0.000	0.450	-0.297	0.450	-0.313	-0.285	-1.375	0.042	-9.2
Reading	5	2820	B		6540	0.432	0.059	0.432	0.106	0.402	0.001	0.348	-0.277	0.348	-0.421	-0.302	1.466	0.028	9.9
Reading	5	2821	A		6540	0.737	0.076	0.737	0.032	0.154	0.001	0.394	-0.347	0.394	-0.274	-0.281	-0.150	0.031	0.2
Reading	5	2822	A		6540	0.776	0.094	0.075	0.776	0.054	0.001	0.455	-0.330	-0.329	0.455	-0.325	-0.409	0.033	-7.1
Reading	5	2823	A		6540	0.752	0.138	0.060	0.752	0.048	0.001	0.406	-0.260	-0.328	0.406	-0.360	-0.247	0.032	-0.5
Reading	5	2824	A	2	6540	0.784	0.101	0.074	0.039	0.784	0.001	0.473	-0.354	-0.339	-0.336	0.473	-0.465	0.033	-7.2
Reading	5	2825	A	2	6540	0.881	0.062	0.881	0.036	0.019	0.002	0.329	-0.231	0.329	-0.207	-0.207	-1.305	0.041	-0.7
Reading	5	2826	A	2	6540	0.540	0.540	0.242	0.061	0.155	0.002	0.339	0.339	-0.236	-0.413	-0.301	0.928	0.028	6.3
Reading	5	2827	B	2	6540	0.745	0.105	0.076	0.071	0.745	0.002	0.508	-0.320	-0.438	-0.406	0.508	-0.204	0.031	-8.4
Reading	5	2828	A	2	6540	0.524	0.250	0.091	0.133	0.524	0.002	0.362	-0.249	-0.371	-0.379	0.362	1.008	0.028	4.1
Reading	5	2829	A	2	6540	0.718	0.718	0.107	0.076	0.097	0.002	0.424	0.424	-0.330	-0.334	-0.290	-0.031	0.030	-3.8
Reading	5	2830	A	2	6540	0.858	0.030	0.858	0.062	0.046	0.002	0.483	-0.273	0.483	-0.355	-0.348	-1.071	0.038	-8.8
Reading	5	2831	A	2	6540	0.789	0.789	0.048	0.068	0.093	0.002	0.496	0.496	-0.346	-0.448	-0.301	-0.497	0.033	-7.6
Reading	5	2832	A	2	6540	0.691	0.040	0.199	0.068	0.691	0.002	0.374	-0.385	-0.262	-0.311	0.374	0.128	0.030	4.9
Reading	5	2833	B	2	6540	0.402	0.180	0.301	0.402	0.113	0.004	0.119	-0.285	0.053	0.119	-0.232	1.620	0.028	9.9
Reading	5	2834	A	2	6548	0.722	0.199	0.025	0.722	0.054	0.000	0.317	-0.231	-0.269	0.317	-0.268	-0.057	0.030	3.6
Reading	5	2835	A	2	6548	0.796	0.051	0.796	0.098	0.055	0.000	0.352	-0.301	0.352	-0.194	-0.279	-0.542	0.033	0.3
Reading	5	2836	A	2	6548	0.815	0.815	0.152	0.025	0.008	0.000	0.353	0.353	-0.270	-0.328	-0.173	-0.686	0.035	-1.1
Reading	5	2837	A	2	6548	0.765	0.175	0.036	0.024	0.765	0.000	0.334	-0.213	-0.325	-0.307	0.334	-0.325	0.032	1.6
Reading	5	2838	B	2	6548	0.836	0.068	0.063	0.836	0.033	0.000	0.445	-0.354	-0.293	0.445	-0.267	-0.860	0.036	-7.0

Appendix J: 2007 Grades 3–8 and 11 Multiple-Choice Statistics

Information						Proportions						Correlations					Rasch		
Cont.	Grade	Pub. ID	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Reading	5	2839	A	1	6548	0.750	0.035	0.137	0.750	0.076	0.001	0.368	-0.285	-0.252	0.368	-0.301	-0.230	0.031	-0.6
Reading	5	2840	A	1	6548	0.910	0.032	0.910	0.029	0.027	0.001	0.414	-0.302	0.414	-0.243	-0.258	-1.639	0.046	-6.6
Reading	5	2841	A	2	6548	0.833	0.833	0.041	0.087	0.038	0.001	0.367	0.367	-0.237	-0.228	-0.315	-0.834	0.036	-0.9
Reading	5	2842	B	2	6548	0.732	0.093	0.108	0.064	0.732	0.002	0.510	-0.376	-0.391	-0.399	0.510	-0.117	0.031	-9.9
Reading	5	2843	B	3	6548	0.172	0.475	0.172	0.234	0.116	0.002	0.059	0.026	0.059	-0.113	-0.366	3.002	0.035	9.9
Reading	5	2844	A	2	6548	0.461	0.130	0.105	0.461	0.302	0.002	0.245	-0.251	-0.258	0.245	-0.187	1.309	0.028	9.9
Reading	5	2845	A	2	6548	0.778	0.038	0.091	0.778	0.090	0.002	0.484	-0.342	-0.388	0.484	-0.332	-0.416	0.033	-9.0
Reading	5	2846	A	2	6548	0.659	0.241	0.071	0.027	0.659	0.002	0.424	-0.301	-0.451	-0.372	0.424	0.305	0.029	-3.4
Reading	5	2847	A	1	6548	0.896	0.029	0.896	0.037	0.036	0.002	0.457	-0.297	0.457	-0.287	-0.321	-1.467	0.043	-8.7
Reading	5	2848	B	2	6548	0.794	0.050	0.074	0.794	0.080	0.002	0.497	-0.357	-0.375	0.497	-0.350	-0.530	0.033	-9.4
Reading	5	2849	A	2	6548	0.777	0.777	0.115	0.059	0.045	0.003	0.401	0.401	-0.267	-0.306	-0.328	-0.412	0.033	-2.7
Reading	5	2850	A		6559	0.756	0.032	0.756	0.125	0.087	0.000	0.434	-0.315	0.434	-0.400	-0.233	-0.249	0.031	-5.2
Reading	5	2851	A		6559	0.649	0.649	0.238	0.058	0.054	0.000	0.355	0.355	-0.268	-0.227	-0.410	0.370	0.028	1.5
Reading	5	2852	B		6559	0.669	0.125	0.669	0.099	0.107	0.000	0.455	-0.301	0.455	-0.426	-0.359	0.265	0.029	-6.8
Reading	5	2853	A		6559	0.773	0.122	0.047	0.773	0.058	0.000	0.466	-0.361	-0.344	-0.344	-0.315	-0.357	0.032	-9.0
Reading	5	2854	B		6559	0.690	0.177	0.085	0.047	0.690	0.000	0.343	-0.322	-0.179	-0.263	0.343	0.148	0.029	1.9
Reading	5	2855	A		6559	0.659	0.041	0.018	0.659	0.280	0.002	0.285	-0.317	-0.280	0.285	-0.202	0.316	0.029	5.0
Reading	5	2856	A	2	6559	0.527	0.125	0.527	0.182	0.164	0.001	0.261	-0.265	0.261	-0.192	-0.227	0.983	0.027	9.9
Reading	5	2857	A	2	6559	0.862	0.061	0.036	0.862	0.040	0.001	0.368	-0.177	-0.268	0.368	-0.318	-1.060	0.038	-1.6
Reading	5	2858	B	3	6559	0.438	0.180	0.126	0.254	0.438	0.002	0.359	-0.456	-0.361	-0.247	0.359	1.416	0.027	3.4
Reading	5	2859	A	2	6559	0.574	0.574	0.153	0.067	0.204	0.001	0.194	0.194	-0.153	-0.281	-0.117	0.754	0.028	9.9
Reading	5	2860	A	2	6559	0.600	0.117	0.163	0.600	0.119	0.001	0.438	-0.407	-0.345	0.438	-0.351	0.624	0.028	-5.6
Reading	5	2861	A	2	6559	0.210	0.156	0.271	0.362	0.210	0.001	0.008	-0.029	-0.052	0.031	0.008	2.690	0.032	9.9
Reading	5	2862	B	2	6559	0.390	0.135	0.336	0.390	0.138	0.001	0.033	-0.147	0.089	0.033	-0.174	1.659	0.028	9.9
Reading	5	2863	B	2	6559	0.773	0.064	0.773	0.095	0.066	0.002	0.468	-0.355	0.468	-0.334	-0.349	-0.361	0.032	-8.1
Reading	5	2864	B	3	6559	0.760	0.050	0.113	0.074	0.760	0.002	0.383	-0.331	-0.231	-0.314	0.383	-0.275	0.031	-1.9
Reading	5	2865	B	2	6559	0.633	0.173	0.633	0.108	0.084	0.003	0.482	-0.404	0.482	-0.412	-0.364	0.457	0.028	-9.9
Reading	5	2866	A	2	6559	0.722	0.119	0.033	0.125	0.722	0.000	0.486	-0.481	-0.242	-0.336	0.486	-0.062	0.030	-7.5
Reading	5	2867	A	2	6559	0.558	0.558	0.063	0.235	0.143	0.001	0.369	0.369	-0.355	-0.300	-0.314	0.827	0.028	1.8
Reading	5	2868	A	2	6559	0.769	0.021	0.769	0.113	0.095	0.000	0.403	-0.198	0.403	-0.388	-0.240	-0.362	0.032	-1.1
Reading	5	2869	A	2	6559	0.822	0.822	0.106	0.036	0.036	0.001	0.440	0.440	-0.336	-0.261	-0.327	-0.745	0.035	-6.2
Reading	5	2870	A	2	6559	0.678	0.678	0.167	0.057	0.097	0.000	0.422	0.422	-0.293	-0.287	-0.415	0.195	0.029	-3.9
Reading	5	2871	B	2	6559	0.640	0.089	0.640	0.057	0.213	0.001	0.322	-0.304	0.322	-0.313	-0.210	0.406	0.029	5.7
Reading	5	2872	B	1	6559	0.203	0.103	0.203	0.071	0.622	0.000	0.189	-0.476	0.189	-0.277	-0.157	2.781	0.033	9.9
Reading	5	2873	A	2	6559	0.793	0.059	0.089	0.058	0.793	0.000	0.509	-0.383	-0.352	-0.388	0.509	-0.528	0.033	-9.5
Reading	5	2874	A	2	6559	0.824	0.058	0.073	0.824	0.044	0.001	0.437	-0.327	-0.340	0.437	-0.236	-0.760	0.035	-5.3
Reading	5	2875	B	2	6559	0.813	0.076	0.813	0.060	0.051	0.000	0.423	-0.311	0.423	-0.280	-0.292	-0.673	0.034	-6.0
Reading	5	2876	A	2	6559	0.502	0.152	0.227	0.117	0.502	0.002	0.234	-0.268	-0.113	-0.276	0.234	1.104	0.028	9.9
Reading	5	2877	B	2	6559	0.414	0.258	0.414	0.114	0.211	0.002	0.392	-0.384	0.392	-0.485	-0.296	1.545	0.028	5.3
Reading	5	2878	B	3	6559	0.738	0.738	0.107	0.104	0.050	0.001	0.412	0.412	-0.346	-0.290	-0.269	-0.158	0.031	-3.5
Reading	5	2879	A	2	6559	0.543	0.178	0.087	0.543	0.190	0.001	0.317	-0.287	-0.378	0.317	-0.196	0.901	0.028	6.3
Reading	5	2880	B	2	6559	0.746	0.044	0.746	0.066	0.142	0.002	0.482	-0.389	0.482	-0.370	-0.353	-0.205	0.031	-8.3
Reading	5	2881	B	2	6559	0.874	0.874	0.047	0.036	0.041	0.002	0.435	0.435	-0.282	-0.273	-0.322	-1.212	0.040	-6.5

Appendix J: 2007 Grades 3–8 and 11 Multiple-Choice Statistics

Information					Proportions							Correlations					Rasch		
Cont.	Grade	Pub. ID	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Reading	5	2882	A	2	6559	0.785	0.785	0.127	0.069	0.019	0.000	0.394	0.394	-0.282	-0.311	-0.276	-0.492	0.033	-3.1
Reading	5	2883	A	2	6559	0.773	0.049	0.773	0.074	0.103	0.000	0.486	-0.324	0.486	-0.320	-0.411	-0.407	0.032	-8.9
Reading	5	2884	A	2	6559	0.552	0.070	0.552	0.185	0.192	0.000	0.324	-0.150	0.324	-0.383	-0.243	0.839	0.028	7.9
Reading	5	2885	B	2	6559	0.588	0.095	0.151	0.588	0.166	0.000	0.343	-0.342	-0.284	0.343	-0.251	0.660	0.028	4.8
Reading	5	2886	A	1	6559	0.710	0.127	0.087	0.075	0.710	0.000	0.517	-0.412	-0.384	-0.403	0.517	-0.004	0.030	-9.9
Reading	5	2887	B	2	6559	0.452	0.417	0.452	0.064	0.066	0.001	0.221	-0.110	0.221	-0.373	-0.426	1.339	0.028	9.9
Reading	5	2888	A	2	6559	0.711	0.084	0.082	0.711	0.121	0.002	0.445	-0.330	-0.395	0.445	-0.308	-0.010	0.030	-5.2
Reading	5	2889	A	2	6559	0.538	0.098	0.538	0.143	0.219	0.002	0.357	-0.316	0.357	-0.299	-0.320	0.913	0.028	4.2
Reading	5	2890	A	2	6559	0.860	0.046	0.860	0.042	0.050	0.003	0.454	-0.340	0.454	-0.278	-0.304	-1.095	0.038	-8.1
Reading	5	2891	B	2	6559	0.433	0.436	0.060	0.433	0.069	0.003	0.274	-0.189	-0.374	0.274	-0.438	1.435	0.028	9.9
Reading	5	2892	B	1	6559	0.679	0.072	0.679	0.124	0.122	0.003	0.476	-0.370	0.476	-0.378	-0.374	0.174	0.029	-9.0
Reading	5	2893	A	2	6559	0.667	0.050	0.084	0.196	0.667	0.002	0.498	-0.420	-0.419	-0.391	0.498	0.239	0.029	-8.9
Reading	5	2894	B	2	6559	0.772	0.067	0.124	0.772	0.033	0.003	0.451	-0.324	-0.358	0.451	-0.289	-0.399	0.032	-8.3
Reading	5	2895	B	2	6559	0.724	0.143	0.054	0.075	0.724	0.003	0.447	-0.309	-0.366	-0.374	0.447	-0.092	0.030	-6.6
Reading	5	2896	B	1	6559	0.804	0.804	0.045	0.095	0.053	0.003	0.455	0.455	-0.317	-0.332	-0.325	-0.624	0.034	-8.7
Reading	5	2897	A	3	6559	0.665	0.153	0.095	0.084	0.665	0.004	0.337	-0.267	-0.278	-0.239	0.337	0.249	0.029	5.4
Reading	5	2898	A	2	6578	0.690	0.690	0.035	0.241	0.034	0.000	0.319	0.319	-0.229	-0.248	-0.292	0.131	0.029	2.5
Reading	5	2899	A	2	6578	0.654	0.116	0.161	0.068	0.654	0.001	0.481	-0.416	-0.360	-0.400	0.481	0.328	0.029	-7.3
Reading	5	2900	A	2	6578	0.448	0.215	0.140	0.448	0.195	0.002	0.271	-0.259	-0.186	0.271	-0.308	1.367	0.027	9.9
Reading	5	2901	B	2	6578	0.707	0.130	0.707	0.030	0.132	0.001	0.281	-0.165	0.281	-0.319	-0.222	0.035	0.030	8.5
Reading	5	2902	A	2	6578	0.718	0.063	0.101	0.718	0.117	0.001	0.382	-0.326	-0.308	0.382	-0.239	-0.032	0.030	-0.1
Reading	5	2903	A	2	6578	0.810	0.106	0.048	0.810	0.034	0.002	0.440	-0.363	-0.300	0.440	-0.244	-0.646	0.034	-5.1
Reading	5	2904	B	2	6578	0.878	0.054	0.029	0.037	0.878	0.001	0.457	-0.345	-0.299	-0.270	0.457	-1.247	0.040	-9.0
Reading	5	2905	A	2	6578	0.658	0.658	0.107	0.104	0.130	0.001	0.384	0.384	-0.368	-0.281	-0.259	0.307	0.029	-1.3
Reading	5	2906	A	2	6578	0.750	0.112	0.032	0.105	0.750	0.001	0.466	-0.308	-0.346	-0.402	0.466	-0.227	0.031	-6.5
Reading	5	2907	B	2	6578	0.529	0.102	0.254	0.529	0.114	0.002	0.375	-0.463	-0.270	0.375	-0.310	0.968	0.027	3.1
Reading	5	2908	B	2	6578	0.809	0.809	0.141	0.029	0.020	0.001	0.447	0.447	-0.362	-0.313	-0.265	-0.637	0.034	-6.7
Reading	5	2909	B	2	6578	0.370	0.216	0.370	0.207	0.205	0.002	0.145	-0.129	0.145	-0.181	-0.122	1.756	0.028	9.9
Reading	5	2910	A	2	6578	0.632	0.090	0.632	0.222	0.054	0.001	0.304	-0.217	0.304	-0.215	-0.357	0.446	0.028	6.4
Reading	5	2911	B	3	6578	0.592	0.096	0.246	0.592	0.065	0.002	0.407	-0.505	-0.257	0.407	-0.352	0.654	0.028	-1.4
Reading	5	2912	A	2	6578	0.580	0.088	0.580	0.039	0.291	0.001	0.375	-0.297	0.375	-0.379	-0.310	0.713	0.028	1.9
Reading	5	2913	A	3	6578	0.579	0.579	0.214	0.117	0.088	0.002	0.273	0.273	-0.156	-0.276	-0.308	0.718	0.028	9.9
Reading	5	2914	A	2	6548	0.770	0.099	0.770	0.065	0.065	0.000	0.393	-0.370	0.393	-0.226	-0.236	-0.362	0.032	-0.3
Reading	5	2915	B	2	6548	0.479	0.140	0.251	0.479	0.131	0.000	0.273	-0.333	-0.070	0.273	-0.450	1.222	0.027	9.9
Reading	5	2916	B	2	6548	0.852	0.852	0.107	0.023	0.018	0.000	0.302	0.302	-0.216	-0.217	-0.202	-0.994	0.037	0.7
Reading	5	2917	B	2	6548	0.844	0.050	0.032	0.074	0.844	0.000	0.403	-0.231	-0.221	-0.348	0.403	-0.924	0.037	-5.2
Reading	5	2918	B	2	6548	0.813	0.051	0.075	0.813	0.060	0.000	0.448	-0.332	-0.313	0.448	-0.302	-0.670	0.034	-6.6
Reading	5	2919	B	2	6548	0.738	0.154	0.039	0.738	0.068	0.001	0.474	-0.419	-0.311	0.474	-0.307	-0.150	0.031	-7.6
Reading	5	2920	A	3	6548	0.713	0.101	0.713	0.075	0.110	0.001	0.500	-0.413	0.500	-0.383	-0.370	0.003	0.030	-8.4
Reading	5	2921	A	2	6548	0.326	0.349	0.326	0.246	0.079	0.001	0.295	-0.354	0.295	-0.183	-0.445	2.004	0.029	9.9
Reading	5	2922	A	1	6548	0.668	0.134	0.076	0.119	0.668	0.002	0.385	-0.327	-0.352	-0.236	0.385	0.255	0.029	-1.0
Reading	5	2923	B	2	6548	0.595	0.595	0.210	0.082	0.112	0.001	0.142	0.142	0.001	-0.303	-0.145	0.646	0.028	9.9
Reading	5	2924	A	1	6548	0.719	0.090	0.719	0.116	0.073	0.001	0.433	-0.312	0.433	-0.324	-0.346	-0.035	0.030	-6.0

Appendix J: 2007 Grades 3–8 and 11 Multiple-Choice Statistics

Information						Proportions						Correlations					Rasch		
Cont.	Grade	Pub. ID	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Reading	5	2925	A	2	6548	0.864	0.072	0.028	0.035	0.864	0.001	0.381	-0.259	-0.249	-0.265	0.381	-1.105	0.039	-3.6
Reading	5	2926	A	2	6548	0.427	0.115	0.347	0.108	0.427	0.002	0.330	-0.471	-0.258	-0.282	0.330	1.477	0.028	7.4
Reading	5	2927	A	2	6548	0.582	0.054	0.264	0.582	0.099	0.001	0.331	-0.345	-0.268	0.331	-0.253	0.709	0.028	6.5
Reading	5	2928	B	2	6548	0.744	0.744	0.065	0.099	0.091	0.001	0.460	0.460	-0.347	-0.355	-0.326	-0.188	0.031	-6.8
Reading	5	2929	A	2	6548	0.710	0.070	0.151	0.710	0.066	0.002	0.470	-0.364	-0.372	0.470	-0.353	0.016	0.030	-7.8
Reading	5	2930	B	2	6508	0.794	0.144	0.012	0.049	0.794	0.000	0.470	-0.430	-0.260	-0.258	0.470	-0.503	0.033	-7.3
Reading	5	2931	B	2	6508	0.786	0.089	0.054	0.071	0.786	0.000	0.535	-0.398	-0.390	-0.396	0.535	-0.442	0.033	-9.9
Reading	5	2932	A	1	6508	0.583	0.098	0.170	0.583	0.148	0.001	0.382	-0.371	-0.264	0.382	-0.346	0.721	0.028	0.6
Reading	5	2933	A	2	6508	0.675	0.080	0.675	0.142	0.103	0.000	0.385	-0.275	0.385	-0.269	-0.353	0.240	0.029	-2.6
Reading	5	2934	A	2	6508	0.704	0.704	0.089	0.177	0.030	0.000	0.470	0.470	-0.298	-0.419	-0.356	0.075	0.030	-7.8
Reading	5	2935	A	2	6508	0.837	0.837	0.062	0.062	0.037	0.002	0.432	0.432	-0.269	-0.348	-0.279	-0.835	0.036	-5.2
Reading	5	2936	A		6508	0.612	0.220	0.056	0.112	0.612	0.001	0.381	-0.349	-0.340	-0.246	0.381	0.576	0.028	-0.4
Reading	5	2937	B	2	6508	0.552	0.552	0.218	0.076	0.154	0.001	0.139	0.139	-0.034	-0.126	-0.215	0.876	0.028	9.9
Reading	5	2938	A	2	6508	0.342	0.244	0.292	0.342	0.121	0.001	0.145	-0.060	-0.159	0.145	-0.280	1.926	0.029	9.9
Reading	5	2939	A	2	6508	0.465	0.359	0.465	0.046	0.128	0.002	0.264	-0.226	0.264	-0.340	-0.233	1.304	0.027	9.9
Reading	5	2940	B	2	6508	0.745	0.070	0.745	0.079	0.104	0.002	0.430	-0.325	0.430	-0.351	-0.283	-0.169	0.031	-5.2
Reading	5	2941	B	2	6508	0.577	0.181	0.099	0.140	0.577	0.001	0.385	-0.304	-0.303	-0.362	0.385	0.752	0.028	1.0
Reading	5	2942	A	2	6508	0.568	0.315	0.084	0.568	0.033	0.002	0.276	-0.179	-0.323	0.276	-0.357	0.798	0.028	9.7
Reading	5	2943	B	2	6508	0.392	0.181	0.251	0.392	0.174	0.002	0.347	-0.395	-0.279	0.347	-0.371	1.665	0.028	5.7
Reading	5	2944	B	2	6508	0.555	0.555	0.348	0.053	0.043	0.002	0.196	0.196	-0.067	-0.370	-0.364	0.863	0.028	9.9
Reading	5	2945	A	2	6508	0.779	0.041	0.030	0.147	0.779	0.003	0.340	-0.276	-0.266	-0.234	0.340	-0.394	0.033	0.8
Reading	5	2946	A	2	6553	0.804	0.121	0.026	0.804	0.049	0.000	0.314	-0.210	-0.275	0.314	-0.212	-0.591	0.034	0.1
Reading	5	2947	A	3	6553	0.599	0.143	0.115	0.599	0.143	0.000	0.379	-0.191	-0.388	0.379	-0.387	0.625	0.028	2.6
Reading	5	2948	A	2	6553	0.666	0.129	0.666	0.084	0.121	0.001	0.543	-0.413	0.543	-0.451	-0.460	0.273	0.029	-9.9
Reading	5	2949	B	2	6553	0.793	0.793	0.059	0.073	0.075	0.000	0.470	0.470	-0.367	-0.308	-0.341	-0.509	0.033	-8.5
Reading	5	2950	B		6553	0.524	0.118	0.161	0.196	0.524	0.000	0.243	-0.366	-0.100	-0.204	0.243	0.997	0.027	9.9
Reading	5	2951	A	2	6553	0.644	0.101	0.644	0.105	0.149	0.001	0.333	-0.220	0.333	-0.284	-0.273	0.389	0.028	1.5
Reading	5	2952	A	2	6553	0.789	0.033	0.789	0.126	0.050	0.002	0.425	-0.271	0.425	-0.363	-0.246	-0.480	0.033	-4.8
Reading	5	2953	A	2	6553	0.560	0.560	0.077	0.162	0.200	0.002	0.258	0.258	-0.376	-0.248	-0.107	0.819	0.028	9.9
Reading	5	2954	B	2	6553	0.705	0.187	0.060	0.046	0.705	0.003	0.477	-0.402	-0.334	-0.354	0.477	0.054	0.030	-7.8
Reading	5	2955	A	2	6553	0.705	0.168	0.086	0.705	0.039	0.002	0.424	-0.306	-0.352	0.424	-0.352	0.055	0.030	-4.7
Reading	5	2956	B	2	6553	0.790	0.790	0.112	0.040	0.055	0.002	0.288	0.288	-0.137	-0.265	-0.256	-0.492	0.033	5.4
Reading	5	2957	B	2	6553	0.808	0.036	0.808	0.080	0.073	0.002	0.440	-0.280	0.440	-0.352	-0.286	-0.625	0.034	-7.2
Reading	5	2958	B	2	6553	0.586	0.086	0.127	0.586	0.198	0.003	0.338	-0.313	-0.348	0.338	-0.208	0.691	0.028	4.6
Reading	5	2959	A	2	6553	0.584	0.151	0.151	0.112	0.584	0.002	0.287	-0.075	-0.339	-0.312	0.287	0.701	0.028	8.3
Reading	5	2960	B	3	6553	0.615	0.615	0.268	0.063	0.052	0.002	0.209	0.209	-0.110	-0.245	-0.274	0.541	0.028	9.9
Reading	5	2961	B	2	6553	0.628	0.050	0.220	0.628	0.099	0.003	0.390	-0.423	-0.275	0.390	-0.334	0.476	0.028	-1.2
Reading	5	2962	A	2	6523	0.902	0.066	0.025	0.007	0.902	0.000	0.332	-0.249	-0.244	-0.135	0.332	-1.529	0.044	-0.8
Reading	5	2963	A	2	6523	0.834	0.834	0.122	0.035	0.008	0.000	0.454	0.454	-0.393	-0.293	-0.206	-0.838	0.036	-7.4
Reading	5	2964	A	2	6523	0.812	0.046	0.024	0.116	0.812	0.001	0.431	-0.325	-0.223	-0.341	0.431	-0.663	0.034	-5.3
Reading	5	2965	A	2	6523	0.806	0.058	0.030	0.806	0.105	0.000	0.415	-0.350	-0.299	0.415	-0.259	-0.618	0.034	-4.8
Reading	5	2966	A	2	6523	0.647	0.241	0.647	0.051	0.060	0.001	0.377	-0.279	0.377	-0.317	-0.379	0.370	0.029	1.3
Reading	5	2967	B	2	6523	0.704	0.704	0.156	0.080	0.059	0.001	0.458	0.458	-0.322	-0.395	-0.384	0.052	0.030	-6.0

Appendix J: 2007 Grades 3–8 and 11 Multiple-Choice Statistics

Information						Proportions						Correlations					Rasch		
Cont.	Grade	Pub. ID	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Reading	5	2968	A	1	6523	0.923	0.032	0.923	0.032	0.012	0.000	0.374	-0.275	0.374	-0.232	-0.204	-1.829	0.049	-5.6
Reading	5	2969	A	2	6523	0.833	0.073	0.046	0.048	0.833	0.001	0.512	-0.455	-0.302	-0.294	0.512	-0.830	0.036	-9.9
Reading	5	2970	A	2	6523	0.892	0.892	0.040	0.030	0.036	0.001	0.365	0.365	-0.209	-0.280	-0.231	-1.415	0.042	-2.9
Reading	5	2971	A	2	6523	0.517	0.222	0.100	0.160	0.517	0.001	0.302	-0.186	-0.334	-0.309	0.302	1.028	0.027	8.4
Reading	5	2972	B	2	6523	0.317	0.200	0.157	0.317	0.325	0.002	0.267	-0.317	-0.345	0.267	-0.232	2.046	0.029	9.9
Reading	5	2973	A	2	6523	0.646	0.098	0.646	0.201	0.054	0.001	0.372	-0.283	0.372	-0.307	-0.308	0.375	0.029	1.0
Reading	5	2974	B	2	6523	0.684	0.191	0.057	0.684	0.066	0.002	0.442	-0.363	-0.339	0.442	-0.338	0.168	0.029	-5.1
Reading	5	2975	B	2	6523	0.793	0.793	0.108	0.052	0.045	0.001	0.491	0.491	-0.381	-0.353	-0.325	-0.522	0.033	-8.7
Reading	5	2976	A	2	6523	0.507	0.168	0.029	0.294	0.507	0.001	0.209	-0.246	-0.363	-0.114	0.209	1.080	0.027	9.9
Reading	5	2977	B	2	6523	0.562	0.156	0.562	0.113	0.167	0.002	0.362	-0.270	0.362	-0.396	-0.278	0.806	0.028	3.6
Reading	5	2978	B	2	6519	0.714	0.056	0.186	0.043	0.714	0.000	0.357	-0.289	-0.275	-0.247	0.357	-0.011	0.030	0.2
Reading	5	2979	A	2	6519	0.517	0.517	0.330	0.061	0.092	0.001	0.378	0.378	-0.382	-0.380	-0.181	1.031	0.028	2.5
Reading	5	2980	A	1	6519	0.633	0.080	0.197	0.090	0.633	0.000	0.468	-0.439	-0.368	-0.347	0.468	0.441	0.028	-8.3
Reading	5	2981	B	2	6519	0.711	0.035	0.047	0.711	0.206	0.000	0.417	-0.373	-0.363	0.417	-0.304	0.006	0.030	-2.8
Reading	5	2982	A	2	6519	0.622	0.060	0.140	0.177	0.622	0.001	0.326	-0.336	-0.260	-0.236	0.326	0.499	0.028	6.1
Reading	5	2983	B	2	6519	0.416	0.434	0.416	0.097	0.050	0.002	0.276	-0.199	0.276	-0.362	-0.426	1.535	0.028	9.9
Reading	5	2984	A	1	6519	0.526	0.056	0.526	0.237	0.180	0.001	0.229	-0.322	0.229	-0.140	-0.218	0.989	0.028	9.9
Reading	5	2985	A	2	6519	0.716	0.105	0.108	0.069	0.716	0.001	0.548	-0.435	-0.437	-0.400	0.548	-0.021	0.030	-9.9
Reading	5	2986	A	2	6519	0.670	0.095	0.085	0.670	0.148	0.001	0.383	-0.334	-0.307	0.383	-0.260	0.244	0.029	-1.3
Reading	5	2987	A	2	6519	0.586	0.586	0.104	0.042	0.265	0.002	0.389	0.389	-0.453	-0.378	-0.256	0.686	0.028	0.0
Reading	5	2988	B	2	6519	0.534	0.235	0.534	0.146	0.083	0.002	0.363	-0.259	0.363	-0.388	-0.325	0.950	0.028	1.0
Reading	5	2989	A	2	6519	0.807	0.083	0.059	0.049	0.807	0.001	0.485	-0.339	-0.367	-0.335	0.485	-0.623	0.034	-9.0
Reading	5	2990	A	2	6519	0.746	0.746	0.124	0.087	0.041	0.001	0.408	0.408	-0.257	-0.364	-0.298	-0.205	0.031	-3.0
Reading	5	2991	B	2	6519	0.794	0.073	0.061	0.069	0.794	0.001	0.515	-0.353	-0.363	-0.405	0.515	-0.528	0.033	-9.9
Reading	5	2992	B	2	6519	0.587	0.187	0.110	0.114	0.587	0.002	0.467	-0.381	-0.403	-0.408	0.467	0.680	0.028	-5.6
Reading	5	2993	B	2	6519	0.495	0.243	0.495	0.136	0.123	0.003	0.320	-0.192	0.320	-0.366	-0.360	1.143	0.028	7.8
Reading	5	2994	A		6550	0.879	0.045	0.879	0.059	0.017	0.000	0.367	-0.274	0.367	-0.244	-0.207	-1.269	0.040	-3.3
Reading	5	2995	A		6550	0.856	0.024	0.059	0.856	0.061	0.000	0.381	-0.249	-0.255	0.381	-0.272	-1.045	0.038	-3.4
Reading	5	2996	A		6550	0.800	0.800	0.097	0.052	0.050	0.000	0.331	0.331	-0.282	-0.222	-0.170	-0.582	0.034	1.6
Reading	5	2997	A		6550	0.896	0.041	0.022	0.896	0.040	0.000	0.372	-0.217	-0.242	0.372	-0.268	-1.454	0.043	-4.6
Reading	5	2998	A		6550	0.696	0.038	0.200	0.696	0.065	0.001	0.258	-0.243	-0.142	0.258	-0.291	0.086	0.030	9.9
Reading	5	2999	A		6550	0.466	0.042	0.098	0.392	0.466	0.001	0.284	-0.479	-0.453	-0.155	0.284	1.277	0.027	9.9
Reading	5	3000	B	2	6550	0.818	0.081	0.051	0.818	0.049	0.000	0.369	-0.268	-0.328	0.369	-0.168	-0.723	0.035	-1.3
Reading	5	3001	A	1	6550	0.742	0.742	0.043	0.035	0.179	0.001	0.323	0.323	-0.316	-0.301	-0.198	-0.194	0.031	3.4
Reading	5	3002	A	2	6550	0.616	0.097	0.040	0.616	0.245	0.001	0.363	-0.299	-0.379	0.363	-0.277	0.522	0.028	1.2
Reading	5	3003	A	2	6550	0.606	0.231	0.062	0.099	0.606	0.001	0.377	-0.346	-0.324	-0.239	0.377	0.572	0.028	1.2
Reading	5	3004	A	2	6550	0.566	0.566	0.045	0.344	0.044	0.001	0.233	0.233	-0.393	-0.113	-0.371	0.780	0.028	9.9
Reading	5	3005	A	2	6550	0.876	0.024	0.876	0.057	0.041	0.001	0.447	-0.246	0.447	-0.343	-0.298	-1.248	0.040	-9.2
Reading	5	3006	B	2	6550	0.632	0.075	0.102	0.632	0.190	0.001	0.373	-0.400	-0.247	0.373	-0.281	0.437	0.028	0.8
Reading	5	3007	B	2	6550	0.845	0.031	0.081	0.041	0.845	0.002	0.444	-0.310	-0.311	-0.305	0.444	-0.953	0.037	-7.3
Reading	5	3008	B	2	6550	0.762	0.055	0.120	0.062	0.762	0.002	0.526	-0.418	-0.387	-0.391	0.526	-0.318	0.032	-9.9
Reading	5	3009	B	2	6550	0.800	0.128	0.800	0.034	0.036	0.002	0.509	-0.426	0.509	-0.306	-0.344	-0.585	0.034	-9.9
Reading	5	3010	B		6515	0.826	0.826	0.044	0.056	0.075	0.000	0.437	0.437	-0.295	-0.319	-0.295	-0.799	0.036	-8.2

Appendix J: 2007 Grades 3–8 and 11 Multiple-Choice Statistics

Information					Proportions							Correlations					Rasch		
Cont.	Grade	Pub. ID	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Reading	5	3011	B		6515	0.724	0.190	0.061	0.024	0.724	0.000	0.498	-0.458	-0.324	-0.271	0.498	-0.092	0.031	-9.0
Reading	5	3012	A		6515	0.882	0.028	0.882	0.045	0.045	0.000	0.431	-0.232	0.431	-0.279	-0.333	-1.323	0.041	-8.8
Reading	5	3013	A		6515	0.748	0.075	0.025	0.748	0.151	0.000	0.377	-0.366	-0.326	0.377	-0.222	-0.245	0.032	2.3
Reading	5	3014	A		6515	0.792	0.792	0.072	0.043	0.093	0.000	0.356	0.356	-0.190	-0.327	-0.257	-0.538	0.033	0.8
Reading	5	3015	A		6515	0.759	0.096	0.759	0.086	0.058	0.001	0.484	-0.401	0.484	-0.334	-0.323	-0.317	0.032	-8.3
Reading	5	3016	A	1	6515	0.911	0.036	0.019	0.911	0.033	0.001	0.304	-0.261	-0.174	0.304	-0.136	-1.691	0.046	-0.2
Reading	5	3017	A	2	6515	0.730	0.108	0.730	0.065	0.096	0.001	0.450	-0.373	0.450	-0.309	-0.308	-0.128	0.031	-5.3
Reading	5	3018	A	2	6515	0.838	0.838	0.027	0.078	0.056	0.001	0.477	0.477	-0.284	-0.360	-0.332	-0.910	0.036	-9.2
Reading	5	3019	A	2	6515	0.863	0.069	0.863	0.034	0.033	0.001	0.503	-0.396	0.503	-0.310	-0.312	-1.140	0.039	-9.9
Reading	5	3020	A	2	6515	0.798	0.054	0.064	0.082	0.798	0.001	0.450	-0.332	-0.288	-0.341	0.450	-0.591	0.034	-5.4
Reading	5	3021	B	2	6515	0.806	0.079	0.062	0.806	0.052	0.001	0.498	-0.344	-0.377	0.498	-0.341	-0.651	0.034	-8.5
Reading	5	3022	B	2	6515	0.602	0.602	0.196	0.068	0.133	0.001	0.382	0.382	-0.292	-0.363	-0.311	0.593	0.028	2.2
Reading	5	3023	B	2	6515	0.561	0.286	0.091	0.561	0.061	0.001	0.350	-0.259	-0.315	0.350	-0.414	0.805	0.028	6.4
Reading	5	3024	A	2	6515	0.536	0.027	0.217	0.219	0.536	0.001	0.324	-0.370	-0.313	-0.238	0.324	0.928	0.028	7.2
Reading	5	3025	A	2	6515	0.787	0.058	0.787	0.036	0.118	0.002	0.438	-0.250	0.438	-0.331	-0.365	-0.508	0.033	-3.4
Reading	5	3026	A		6532	0.809	0.032	0.118	0.809	0.040	0.000	0.452	-0.313	-0.359	0.452	-0.285	-0.679	0.034	-6.4
Reading	5	3027	A		6532	0.861	0.861	0.094	0.028	0.017	0.000	0.474	0.474	-0.412	-0.253	-0.247	-1.121	0.038	-9.3
Reading	5	3028	A		6532	0.739	0.081	0.076	0.739	0.104	0.000	0.334	-0.246	-0.208	0.334	-0.263	-0.197	0.031	1.4
Reading	5	3029	A		6532	0.595	0.182	0.196	0.026	0.595	0.000	0.289	-0.191	-0.281	-0.286	0.289	0.609	0.028	9.4
Reading	5	3030	B		6532	0.815	0.057	0.815	0.062	0.066	0.000	0.454	-0.335	0.454	-0.289	-0.338	-0.720	0.035	-6.6
Reading	5	3031	A		6532	0.717	0.093	0.114	0.073	0.717	0.002	0.398	-0.378	-0.176	-0.378	0.398	-0.063	0.030	-0.4
Reading	5	3032	B	2	6532	0.663	0.663	0.043	0.129	0.164	0.002	0.312	0.312	-0.319	-0.290	-0.170	0.258	0.029	3.5
Reading	5	3033	A	1	6532	0.903	0.035	0.903	0.037	0.024	0.001	0.445	-0.291	0.445	-0.309	-0.269	-1.580	0.044	-9.8
Reading	5	3034	A	1	6532	0.784	0.784	0.044	0.136	0.034	0.002	0.357	0.357	-0.249	-0.254	-0.283	-0.486	0.033	0.5
Reading	5	3035	A	2	6532	0.575	0.065	0.247	0.111	0.575	0.001	0.358	-0.422	-0.286	-0.268	0.358	0.718	0.028	5.1
Reading	5	3036	A	2	6532	0.519	0.246	0.105	0.519	0.128	0.002	0.417	-0.446	-0.362	0.417	-0.242	1.001	0.028	-1.5
Reading	5	3037	A	2	6532	0.838	0.024	0.838	0.061	0.074	0.002	0.477	-0.300	0.477	-0.360	-0.327	-0.908	0.036	-9.7
Reading	5	3038	B	3	6532	0.310	0.359	0.128	0.199	0.310	0.002	0.160	-0.115	-0.211	-0.230	0.160	2.069	0.029	9.9
Reading	5	3039	B	2	6532	0.676	0.236	0.031	0.676	0.055	0.002	0.289	-0.196	-0.355	0.289	-0.237	0.184	0.029	8.5
Reading	5	3040	B	2	6532	0.523	0.120	0.270	0.085	0.523	0.002	0.344	-0.385	-0.210	-0.415	0.344	0.980	0.028	5.9
Reading	5	3041	A	2	6532	0.787	0.058	0.077	0.787	0.073	0.004	0.487	-0.363	-0.336	0.487	-0.368	-0.507	0.033	-8.8
Reading	5	3042	A		6517	0.842	0.053	0.842	0.074	0.031	0.000	0.366	-0.292	0.366	-0.234	-0.220	-0.942	0.037	-2.4
Reading	5	3043	B		6517	0.671	0.012	0.199	0.671	0.118	0.000	0.341	-0.260	-0.215	0.341	-0.375	0.202	0.029	4.1
Reading	5	3044	A		6517	0.661	0.189	0.091	0.059	0.661	0.000	0.510	-0.406	-0.385	-0.477	0.510	0.257	0.029	-9.9
Reading	5	3045	B		6517	0.616	0.109	0.228	0.616	0.046	0.000	0.365	-0.354	-0.250	0.365	-0.371	0.497	0.028	2.6
Reading	5	3046	B		6517	0.783	0.040	0.127	0.050	0.783	0.000	0.348	-0.263	-0.230	-0.284	0.348	-0.485	0.033	0.3
Reading	5	3047	A		6517	0.795	0.049	0.795	0.036	0.118	0.001	0.409	-0.268	0.409	-0.239	-0.339	-0.573	0.033	-4.0
Reading	5	3048	B	2	6517	0.831	0.831	0.076	0.055	0.036	0.002	0.400	0.400	-0.301	-0.327	-0.170	-0.848	0.036	-5.3
Reading	5	3049	A	3	6517	0.444	0.223	0.444	0.030	0.301	0.002	0.142	-0.138	0.142	-0.384	-0.073	1.343	0.028	9.9
Reading	5	3050	A	2	6517	0.686	0.046	0.104	0.686	0.161	0.003	0.470	-0.410	-0.442	0.470	-0.305	0.117	0.029	-7.1
Reading	5	3051	A	3	6517	0.539	0.539	0.219	0.057	0.181	0.003	0.168	0.168	-0.189	-0.312	-0.012	0.879	0.028	9.9
Reading	5	3052	A	2	6517	0.687	0.687	0.091	0.103	0.117	0.003	0.450	0.450	-0.373	-0.391	-0.292	0.112	0.029	-6.3
Reading	5	3053	A	2	6517	0.841	0.074	0.042	0.841	0.040	0.002	0.472	-0.369	-0.319	0.472	-0.277	-0.934	0.036	-9.5

Appendix J: 2007 Grades 3–8 and 11 Multiple-Choice Statistics

Information					Proportions							Correlations					Rasch		
Cont.	Grade	Pub. ID	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Reading	5	3054	B	2	6517	0.795	0.049	0.090	0.064	0.795	0.002	0.508	-0.330	-0.407	-0.350	0.508	-0.570	0.033	-9.9
Reading	5	3055	B	2	6517	0.605	0.104	0.053	0.605	0.235	0.002	0.322	-0.359	-0.401	0.322	-0.171	0.552	0.028	6.9
Reading	5	3056	A	2	6517	0.572	0.123	0.572	0.248	0.054	0.003	0.266	-0.275	0.266	-0.159	-0.305	0.716	0.028	9.9
Reading	5	3057	A	1	6517	0.367	0.400	0.050	0.179	0.367	0.004	0.118	-0.048	-0.346	-0.157	0.118	1.735	0.028	9.9
Reading	6	3058	A		135079	0.759	0.052	0.759	0.075	0.114	0.000	0.386	-0.312	0.386	-0.273	-0.266	-0.563	0.007	-7.3
Reading	6	3059	B		135079	0.780	0.066	0.112	0.780	0.041	0.000	0.389	-0.270	-0.274	0.389	-0.302	-0.704	0.007	-8.0
Reading	6	3060	A		135079	0.404	0.211	0.120	0.404	0.264	0.001	0.403	-0.396	-0.396	0.403	-0.408	1.338	0.006	5.9
Reading	6	3061	A		135079	0.675	0.675	0.058	0.251	0.016	0.000	0.306	0.306	-0.404	-0.186	-0.286	-0.056	0.006	9.9
Reading	6	3062	A		135079	0.728	0.728	0.096	0.067	0.107	0.001	0.468	0.468	-0.445	-0.333	-0.280	-0.367	0.007	-9.9
Reading	6	3063	A	2	135079	0.713	0.049	0.171	0.713	0.066	0.001	0.377	-0.304	-0.315	0.377	-0.219	-0.278	0.007	-2.2
Reading	6	3064	A	2	135079	0.634	0.132	0.634	0.092	0.141	0.001	0.394	-0.274	0.394	-0.291	-0.375	0.166	0.006	-0.2
Reading	6	3065	A	2	135079	0.492	0.241	0.200	0.492	0.065	0.001	0.381	-0.340	-0.341	0.381	-0.351	0.890	0.006	9.9
Reading	6	3066	A	2	135079	0.671	0.067	0.671	0.124	0.136	0.001	0.438	-0.328	0.438	-0.378	-0.315	-0.033	0.006	-9.9
Reading	6	3067	A	2	135079	0.521	0.168	0.144	0.166	0.521	0.001	0.270	-0.383	-0.054	-0.244	0.270	0.748	0.006	9.9
Reading	6	3068	A	2	135079	0.471	0.212	0.471	0.103	0.212	0.002	0.308	-0.268	0.308	-0.339	-0.267	0.995	0.006	9.9
Reading	6	3069	A	2	135079	0.671	0.089	0.164	0.074	0.671	0.003	0.359	-0.324	-0.235	-0.303	0.359	-0.033	0.006	9.2
Reading	6	3070	A	2	135079	0.754	0.123	0.754	0.044	0.075	0.003	0.346	-0.265	0.346	-0.272	-0.208	-0.532	0.007	6.7
Reading	6	3071	A	2	135079	0.877	0.877	0.042	0.034	0.045	0.003	0.361	0.361	-0.269	-0.285	-0.159	-1.506	0.009	-3.3
Reading	6	3072	B	2	135079	0.700	0.049	0.200	0.700	0.048	0.003	0.371	-0.350	-0.264	0.371	-0.279	-0.203	0.007	6.1
Reading	6	3073	A	2	135079	0.461	0.087	0.298	0.461	0.150	0.003	0.377	-0.479	-0.321	0.377	-0.295	1.048	0.006	9.9
Reading	6	3074	B	2	135079	0.699	0.699	0.055	0.054	0.188	0.004	0.497	0.497	-0.398	-0.408	-0.381	-0.191	0.007	-9.9
Reading	6	3075	B	3	135079	0.474	0.144	0.474	0.344	0.034	0.004	0.361	-0.303	0.361	-0.328	-0.407	0.982	0.006	9.9
Reading	6	3076	B	3	135079	0.745	0.076	0.105	0.070	0.745	0.004	0.543	-0.290	-0.474	-0.449	0.543	-0.470	0.007	-9.9
Reading	6	3077	B	3	135079	0.664	0.156	0.057	0.664	0.118	0.005	0.502	-0.461	-0.334	0.502	-0.377	0.003	0.006	-9.9
Reading	6	3078	B		135079	0.728	0.186	0.027	0.728	0.059	0.000	0.485	-0.424	-0.348	0.485	-0.303	-0.366	0.007	-9.9
Reading	6	3079	A		135079	0.816	0.023	0.816	0.137	0.023	0.000	0.371	-0.221	0.371	-0.284	-0.290	-0.970	0.008	-8.8
Reading	6	3080	A		135079	0.580	0.309	0.081	0.029	0.580	0.000	0.287	-0.178	-0.373	-0.339	0.287	0.445	0.006	9.9
Reading	6	3081	A		135079	0.794	0.048	0.107	0.794	0.050	0.000	0.413	-0.305	-0.291	0.413	-0.293	-0.804	0.007	-9.9
Reading	6	3082	A		135079	0.592	0.090	0.592	0.097	0.219	0.001	0.377	-0.304	0.377	-0.274	-0.343	0.385	0.006	9.9
Reading	6	3083	B	2	135079	0.613	0.075	0.152	0.159	0.613	0.001	0.342	-0.233	-0.371	-0.219	0.342	0.277	0.006	9.9
Reading	6	3084	A	2	135079	0.713	0.713	0.078	0.177	0.030	0.001	0.360	0.360	-0.297	-0.268	-0.267	-0.277	0.007	6.9
Reading	6	3085	B	2	135079	0.742	0.160	0.742	0.077	0.020	0.001	0.364	-0.305	0.364	-0.241	-0.250	-0.453	0.007	8.1
Reading	6	3086	A	1	135079	0.487	0.073	0.033	0.405	0.487	0.001	0.260	-0.366	-0.399	-0.172	0.260	0.917	0.006	9.9
Reading	6	3087	A	2	135079	0.721	0.101	0.058	0.721	0.118	0.001	0.358	-0.233	-0.322	0.358	-0.257	-0.325	0.007	9.9
Reading	6	3088	B	2	135079	0.523	0.320	0.523	0.064	0.091	0.002	0.378	-0.288	0.378	-0.413	-0.385	0.738	0.006	9.9
Reading	6	3089	B	1	135079	0.513	0.295	0.049	0.140	0.513	0.002	0.355	-0.273	-0.394	-0.368	0.355	0.787	0.006	9.9
Reading	6	3090	B	2	135079	0.682	0.097	0.118	0.682	0.101	0.002	0.437	-0.386	-0.343	0.437	-0.285	-0.095	0.007	-9.9
Reading	6	3091	B	2	135079	0.445	0.060	0.193	0.445	0.297	0.004	0.322	-0.354	-0.257	0.322	-0.307	1.130	0.006	9.9
Reading	6	3092	A		135079	0.769	0.109	0.044	0.769	0.074	0.004	0.455	-0.347	-0.313	0.455	-0.322	-0.627	0.007	-9.9
Reading	6	3093	A		135079	0.436	0.294	0.103	0.162	0.436	0.005	0.374	-0.291	-0.482	-0.353	0.374	1.173	0.006	9.9
Reading	6	3094	A		135079	0.660	0.058	0.219	0.660	0.058	0.005	0.478	-0.406	-0.372	0.478	-0.394	0.026	0.006	-9.9
Reading	6	3095	A		135079	0.696	0.696	0.054	0.149	0.096	0.005	0.386	0.386	-0.325	-0.241	-0.331	-0.176	0.007	-6.3
Reading	6	3096	A		135079	0.647	0.121	0.044	0.182	0.647	0.005	0.409	-0.304	-0.389	-0.324	0.409	0.095	0.006	-1.8

Appendix J: 2007 Grades 3–8 and 11 Multiple-Choice Statistics

Information					Proportions							Correlations					Rasch		
Cont.	Grade	Pub. ID	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Reading	6	3097	B		135079	0.845	0.046	0.055	0.049	0.845	0.005	0.534	-0.364	-0.373	-0.372	0.534	-1.205	0.008	-9.9
Reading	6	3098	A	1	7180	0.662	0.023	0.051	0.264	0.662	0.000	0.276	-0.289	-0.354	-0.166	0.276	-0.129	0.028	9.9
Reading	6	3099	A	1	7180	0.734	0.088	0.099	0.734	0.079	0.000	0.528	-0.425	-0.415	0.528	-0.349	-0.559	0.030	-9.9
Reading	6	3100	B	1	7180	0.644	0.138	0.157	0.644	0.060	0.000	0.313	-0.324	-0.179	0.313	-0.235	-0.031	0.028	7.8
Reading	6	3101	A	2	7180	0.725	0.725	0.095	0.099	0.081	0.000	0.532	0.532	-0.373	-0.426	-0.415	-0.503	0.029	-9.9
Reading	6	3102	B	2	7180	0.656	0.214	0.073	0.056	0.656	0.000	0.299	-0.186	-0.295	-0.288	0.299	-0.098	0.028	8.7
Reading	6	3103	A	2	7180	0.656	0.119	0.656	0.131	0.092	0.001	0.458	-0.351	0.458	-0.415	-0.313	-0.098	0.028	-4.0
Reading	6	3104	B	2	7180	0.766	0.071	0.766	0.072	0.089	0.002	0.467	-0.322	0.467	-0.344	-0.352	-0.770	0.031	-5.1
Reading	6	3105	A	2	7180	0.800	0.800	0.048	0.118	0.032	0.001	0.376	0.376	-0.351	-0.237	-0.229	-1.019	0.032	0.3
Reading	6	3106	A	2	7180	0.728	0.105	0.728	0.104	0.060	0.002	0.451	-0.421	0.451	-0.249	-0.343	-0.521	0.030	-2.6
Reading	6	3107	B	2	7180	0.604	0.604	0.079	0.207	0.108	0.002	0.366	0.366	-0.325	-0.262	-0.339	0.188	0.027	5.0
Reading	6	3108	B	2	7180	0.837	0.053	0.050	0.057	0.837	0.001	0.448	-0.311	-0.300	-0.303	0.448	-1.317	0.035	-6.3
Reading	6	3109	A	2	7180	0.771	0.081	0.071	0.771	0.074	0.002	0.438	-0.303	-0.355	0.438	-0.281	-0.806	0.031	-3.7
Reading	6	3110	A	2	7180	0.867	0.050	0.044	0.867	0.036	0.002	0.473	-0.310	-0.336	0.473	-0.295	-1.594	0.037	-9.9
Reading	6	3111	B	2	7180	0.754	0.754	0.145	0.045	0.054	0.002	0.346	0.346	-0.164	-0.343	-0.332	-0.690	0.030	4.6
Reading	6	3112	A	2	7180	0.475	0.113	0.334	0.075	0.475	0.002	0.310	-0.407	-0.209	-0.341	0.310	0.847	0.027	9.9
Reading	6	3113	A	2	7180	0.691	0.091	0.133	0.083	0.691	0.002	0.458	-0.354	-0.325	-0.386	0.458	-0.299	0.029	-4.4
Reading	6	3114	A	2	6747	0.747	0.052	0.059	0.747	0.142	0.000	0.539	-0.359	-0.442	0.539	-0.422	-0.517	0.031	-9.9
Reading	6	3115	A	2	6747	0.634	0.119	0.098	0.634	0.149	0.000	0.409	-0.308	-0.452	0.409	-0.246	0.145	0.028	0.2
Reading	6	3116	B	2	6747	0.776	0.143	0.040	0.040	0.776	0.000	0.450	-0.352	-0.332	-0.294	0.450	-0.715	0.032	-5.8
Reading	6	3117	B	2	6747	0.862	0.056	0.862	0.043	0.039	0.000	0.445	-0.313	0.445	-0.291	-0.297	-1.411	0.038	-6.7
Reading	6	3118	B	2	6747	0.667	0.140	0.667	0.092	0.099	0.001	0.408	-0.282	0.408	-0.321	-0.356	-0.041	0.029	-0.7
Reading	6	3119	B	2	6747	0.769	0.769	0.122	0.057	0.050	0.001	0.318	0.318	-0.177	-0.268	-0.273	-0.663	0.032	4.7
Reading	6	3120	A	2	6747	0.626	0.107	0.126	0.626	0.140	0.002	0.389	-0.371	-0.250	0.389	-0.320	0.187	0.028	0.3
Reading	6	3121	A	2	6747	0.403	0.078	0.276	0.242	0.403	0.002	0.341	-0.396	-0.440	-0.188	0.341	1.328	0.028	6.7
Reading	6	3122	A	2	6747	0.797	0.087	0.797	0.065	0.049	0.002	0.521	-0.405	0.521	-0.360	-0.345	-0.866	0.033	-9.9
Reading	6	3123	B	2	6747	0.726	0.076	0.072	0.122	0.726	0.003	0.482	-0.351	-0.359	-0.375	0.482	-0.388	0.030	-8.1
Reading	6	3124	A	2	6747	0.829	0.829	0.080	0.036	0.051	0.003	0.442	0.442	-0.310	-0.348	-0.275	-1.117	0.035	-5.3
Reading	6	3125	B	2	6747	0.728	0.108	0.089	0.728	0.072	0.003	0.450	-0.322	-0.342	0.450	-0.345	-0.398	0.030	-5.8
Reading	6	3126	A	2	6747	0.547	0.126	0.547	0.225	0.098	0.003	0.324	-0.303	0.324	-0.238	-0.304	0.597	0.027	6.4
Reading	6	3127	A	2	6747	0.220	0.100	0.060	0.617	0.220	0.003	0.257	-0.556	-0.470	-0.204	0.257	2.393	0.032	9.9
Reading	6	3128	B	2	6747	0.566	0.566	0.054	0.250	0.127	0.003	0.300	0.300	-0.401	-0.195	-0.271	0.501	0.028	9.9
Reading	6	3129	B	2	6747	0.746	0.130	0.746	0.077	0.044	0.004	0.335	-0.168	0.335	-0.321	-0.300	-0.514	0.031	6.5
Reading	6	3130	B	2	6743	0.553	0.553	0.089	0.171	0.187	0.000	0.365	0.365	-0.386	-0.228	-0.346	0.574	0.027	3.0
Reading	6	3131	B	1	6743	0.759	0.097	0.045	0.759	0.098	0.000	0.436	-0.313	-0.332	0.436	-0.317	-0.574	0.031	-5.5
Reading	6	3132	A	2	6743	0.725	0.107	0.052	0.725	0.115	0.001	0.466	-0.427	-0.329	0.466	-0.297	-0.360	0.030	-6.7
Reading	6	3133	A	2	6743	0.812	0.045	0.812	0.050	0.093	0.000	0.329	-0.218	0.329	0.281	-0.195	-0.944	0.034	1.1
Reading	6	3134	B	2	6743	0.355	0.161	0.098	0.385	0.355	0.001	0.284	-0.522	-0.441	-0.135	0.284	1.576	0.028	8.4
Reading	6	3135	B	2	6743	0.622	0.622	0.227	0.040	0.109	0.001	0.273	0.273	-0.239	-0.203	-0.203	0.218	0.028	9.3
Reading	6	3136	A	1	6743	0.630	0.120	0.107	0.140	0.630	0.003	0.537	-0.423	-0.447	-0.466	0.537	0.177	0.028	-9.9
Reading	6	3137	A	2	6743	0.657	0.657	0.235	0.053	0.053	0.002	0.433	0.433	-0.341	-0.357	-0.348	0.032	0.028	-4.6
Reading	6	3138	B	2	6743	0.698	0.698	0.122	0.075	0.102	0.002	0.517	0.517	-0.387	-0.434	-0.395	-0.196	0.029	-9.9
Reading	6	3139	A	1	6743	0.699	0.068	0.111	0.120	0.699	0.002	0.437	-0.309	-0.269	-0.408	0.437	-0.202	0.029	-5.7

Appendix J: 2007 Grades 3–8 and 11 Multiple-Choice Statistics

Information						Proportions						Correlations					Rasch		
Cont.	Grade	Pub. ID	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Reading	6	3140	A	2	6743	0.529	0.116	0.185	0.529	0.166	0.002	0.353	-0.389	-0.349	0.353	-0.195	0.693	0.027	5.7
Reading	6	3141	B	1	6743	0.759	0.055	0.086	0.759	0.097	0.002	0.457	-0.381	-0.331	0.457	-0.305	-0.573	0.031	-6.0
Reading	6	3142	A	2	6743	0.511	0.053	0.511	0.378	0.055	0.002	0.238	-0.391	0.238	-0.124	-0.363	0.784	0.027	9.9
Reading	6	3143	B	2	6743	0.446	0.041	0.446	0.211	0.300	0.002	0.150	-0.357	0.150	-0.235	-0.009	1.107	0.027	9.9
Reading	6	3144	B	2	6743	0.702	0.096	0.047	0.702	0.153	0.002	0.428	-0.302	-0.336	0.428	-0.343	-0.219	0.029	-5.2
Reading	6	3145	B	2	6743	0.727	0.727	0.101	0.104	0.066	0.002	0.424	0.424	-0.310	-0.304	-0.341	-0.371	0.030	-4.4
Reading	6	3146	B	2	6734	0.679	0.162	0.679	0.059	0.100	0.000	0.311	-0.267	0.311	-0.244	-0.192	-0.082	0.029	3.8
Reading	6	3147	B	2	6734	0.876	0.061	0.028	0.034	0.876	0.000	0.425	-0.289	-0.283	-0.280	0.425	-1.504	0.039	-7.9
Reading	6	3148	A	2	6734	0.720	0.720	0.161	0.067	0.052	0.000	0.425	0.425	-0.306	-0.361	-0.327	-0.322	0.030	-3.5
Reading	6	3149	B	2	6734	0.570	0.311	0.570	0.090	0.027	0.001	0.378	-0.310	0.378	-0.366	-0.304	0.495	0.027	0.9
Reading	6	3150	B	2	6734	0.561	0.091	0.044	0.561	0.302	0.001	0.259	-0.268	-0.294	0.259	-0.178	0.538	0.027	9.9
Reading	6	3151	A	2	6734	0.618	0.128	0.053	0.618	0.199	0.002	0.232	-0.191	-0.219	0.232	-0.179	0.249	0.028	9.9
Reading	6	3152	A	2	6734	0.678	0.678	0.091	0.124	0.106	0.002	0.412	0.412	-0.288	-0.340	-0.320	-0.075	0.029	-3.3
Reading	6	3153	A	2	6734	0.791	0.099	0.060	0.791	0.049	0.000	0.398	-0.321	-0.301	0.398	-0.211	-0.785	0.033	-1.5
Reading	6	3154	A	2	6734	0.626	0.091	0.112	0.626	0.169	0.002	0.315	-0.271	-0.336	0.315	-0.180	0.204	0.028	7.5
Reading	6	3155	A	1	6734	0.612	0.612	0.308	0.039	0.040	0.001	0.369	0.369	-0.269	-0.405	-0.401	0.278	0.028	1.9
Reading	6	3156	B	2	6734	0.797	0.068	0.797	0.083	0.051	0.001	0.506	-0.367	0.506	-0.368	-0.352	-0.825	0.033	-9.9
Reading	6	3157	A	3	6734	0.578	0.578	0.084	0.144	0.192	0.001	0.318	0.318	-0.347	-0.264	-0.217	0.455	0.027	5.6
Reading	6	3158	A	2	6734	0.278	0.186	0.096	0.439	0.278	0.002	0.241	-0.253	-0.415	-0.223	0.241	2.010	0.030	9.9
Reading	6	3159	B	2	6734	0.660	0.145	0.660	0.076	0.117	0.001	0.476	-0.351	0.476	-0.431	-0.373	0.021	0.029	-7.4
Reading	6	3160	A	2	6734	0.511	0.163	0.193	0.129	0.511	0.003	0.442	-0.460	-0.285	-0.476	0.442	0.789	0.027	-4.0
Reading	6	3161	B	2	6734	0.685	0.060	0.685	0.069	0.183	0.003	0.465	-0.443	0.465	-0.447	-0.298	-0.118	0.029	-5.4
Reading	6	3162	A	2	6719	0.760	0.123	0.760	0.061	0.055	0.000	0.462	-0.399	0.462	-0.298	-0.289	-0.571	0.031	-7.0
Reading	6	3163	B	2	6719	0.818	0.113	0.037	0.031	0.818	0.000	0.466	-0.353	-0.324	-0.318	0.466	-0.991	0.034	-6.4
Reading	6	3164	B	2	6719	0.570	0.086	0.263	0.570	0.079	0.000	0.308	-0.346	-0.184	0.308	-0.345	0.490	0.027	8.8
Reading	6	3165	A	2	6719	0.443	0.132	0.103	0.321	0.443	0.000	0.366	-0.373	-0.474	-0.277	0.366	1.122	0.027	4.8
Reading	6	3166	A	2	6719	0.699	0.157	0.099	0.699	0.044	0.000	0.367	-0.239	-0.340	0.367	-0.262	-0.200	0.029	-1.1
Reading	6	3167	B	2	6719	0.362	0.149	0.170	0.317	0.362	0.002	0.236	-0.376	-0.228	-0.164	0.236	1.535	0.028	9.9
Reading	6	3168	A	2	6719	0.400	0.196	0.328	0.400	0.074	0.002	0.327	-0.462	-0.209	0.327	-0.418	1.340	0.028	5.5
Reading	6	3169	A	2	6719	0.573	0.064	0.309	0.573	0.053	0.001	0.233	-0.351	-0.099	0.233	-0.356	0.473	0.027	9.9
Reading	6	3170	A	2	6719	0.602	0.180	0.602	0.182	0.034	0.001	0.402	-0.317	0.402	-0.357	-0.321	0.328	0.028	-1.4
Reading	6	3171	A	2	6719	0.835	0.049	0.034	0.081	0.835	0.001	0.381	-0.275	-0.285	-0.237	0.381	-1.123	0.035	-5.0
Reading	6	3172	A	2	6719	0.694	0.119	0.694	0.154	0.031	0.001	0.406	-0.284	0.406	-0.341	-0.322	-0.173	0.029	-3.3
Reading	6	3173	A	2	6719	0.549	0.549	0.102	0.153	0.194	0.002	0.267	0.267	-0.265	-0.266	-0.170	0.597	0.027	9.9
Reading	6	3174	A	2	6719	0.620	0.308	0.620	0.039	0.031	0.001	0.326	-0.236	0.326	-0.357	-0.359	0.233	0.028	5.3
Reading	6	3175	A	3	6719	0.410	0.410	0.300	0.216	0.072	0.001	0.345	0.345	-0.253	-0.422	-0.371	1.288	0.028	7.0
Reading	6	3176	B	2	6719	0.643	0.084	0.136	0.135	0.643	0.001	0.478	-0.443	-0.365	-0.369	0.478	0.114	0.028	-8.5
Reading	6	3177	A	2	6719	0.809	0.809	0.055	0.091	0.043	0.002	0.410	0.410	-0.291	-0.258	-0.340	-0.916	0.034	-3.5
Reading	6	3178	A	1	6721	0.774	0.085	0.774	0.093	0.048	0.000	0.413	-0.354	0.413	-0.238	-0.306	-0.660	0.032	-3.8
Reading	6	3179	A	2	6721	0.649	0.191	0.087	0.649	0.072	0.001	0.379	-0.376	-0.260	0.379	-0.211	0.087	0.028	2.4
Reading	6	3180	B	2	6721	0.888	0.888	0.071	0.023	0.018	0.000	0.420	0.420	-0.342	-0.232	-0.225	-1.629	0.041	-8.5
Reading	6	3181	A	1	6721	0.400	0.017	0.400	0.147	0.437	0.000	0.418	-0.291	0.418	-0.359	-0.435	1.355	0.028	0.2
Reading	6	3182	B	2	6721	0.540	0.143	0.146	0.540	0.170	0.001	0.332	-0.346	-0.284	0.332	-0.230	0.655	0.027	7.3

Appendix J: 2007 Grades 3–8 and 11 Multiple-Choice Statistics

Information					Proportions							Correlations					Rasch		
Cont.	Grade	Pub. ID	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Reading	6	3183	B	2	6721	0.563	0.179	0.126	0.563	0.130	0.002	0.317	-0.238	-0.293	0.317	-0.273	0.535	0.027	7.7
Reading	6	3184	A	2	6721	0.864	0.061	0.050	0.024	0.864	0.001	0.441	-0.328	-0.291	-0.268	0.441	-1.385	0.038	-8.7
Reading	6	3185	A	1	6721	0.461	0.056	0.461	0.406	0.075	0.001	0.298	-0.366	0.298	-0.228	-0.350	1.044	0.027	9.9
Reading	6	3186	A	2	6721	0.662	0.152	0.662	0.057	0.126	0.002	0.387	-0.339	0.387	-0.334	-0.250	0.019	0.029	0.9
Reading	6	3187	B	2	6721	0.681	0.133	0.066	0.681	0.118	0.002	0.400	-0.328	-0.352	0.400	-0.264	-0.086	0.029	-1.0
Reading	6	3188	A	2	6721	0.637	0.637	0.043	0.119	0.199	0.002	0.395	0.395	-0.361	-0.297	-0.325	0.155	0.028	-1.0
Reading	6	3189	A	1	6721	0.817	0.817	0.075	0.064	0.042	0.001	0.491	0.491	-0.352	-0.322	-0.366	-0.976	0.034	-9.9
Reading	6	3190	B	2	6721	0.826	0.054	0.826	0.062	0.055	0.001	0.526	-0.363	0.526	-0.381	-0.368	-1.048	0.035	-9.9
Reading	6	3191	B	3	6721	0.436	0.112	0.109	0.341	0.436	0.002	0.192	-0.277	-0.281	-0.103	0.192	1.172	0.027	9.9
Reading	6	3192	A	3	6721	0.591	0.203	0.165	0.591	0.039	0.001	0.367	-0.271	-0.320	0.367	-0.390	0.393	0.028	2.9
Reading	6	3193	B	2	6721	0.510	0.245	0.111	0.131	0.510	0.003	0.314	-0.204	-0.359	-0.310	0.314	0.800	0.027	8.1
Reading	6	3194	A		6728	0.786	0.142	0.037	0.034	0.786	0.000	0.311	-0.276	-0.173	-0.152	0.311	-0.743	0.032	3.4
Reading	6	3195	A		6728	0.822	0.822	0.060	0.103	0.015	0.000	0.414	0.414	-0.311	-0.313	-0.220	-1.012	0.035	-6.3
Reading	6	3196	A		6728	0.718	0.123	0.718	0.105	0.053	0.001	0.447	-0.355	0.447	-0.302	-0.370	-0.302	0.030	-4.8
Reading	6	3197	B		6728	0.581	0.104	0.581	0.167	0.148	0.000	0.313	-0.322	0.313	-0.305	-0.151	0.447	0.028	6.8
Reading	6	3198	A		6728	0.627	0.091	0.027	0.627	0.254	0.000	0.330	-0.444	-0.314	0.330	-0.181	0.212	0.028	7.9
Reading	6	3199	A		6728	0.920	0.019	0.920	0.031	0.029	0.001	0.424	-0.245	0.424	-0.302	-0.271	-2.047	0.047	-8.9
Reading	6	3200	A	2	6728	0.786	0.120	0.786	0.076	0.016	0.002	0.346	-0.319	0.346	-0.214	-0.132	-0.741	0.032	-0.3
Reading	6	3201	A	2	6728	0.468	0.089	0.051	0.468	0.390	0.001	0.275	-0.335	-0.269	0.275	-0.225	1.013	0.027	9.9
Reading	6	3202	B	2	6728	0.591	0.164	0.100	0.143	0.591	0.002	0.492	-0.433	-0.375	-0.437	0.492	0.400	0.028	-8.4
Reading	6	3203	A	2	6728	0.832	0.030	0.832	0.103	0.033	0.002	0.400	-0.247	0.400	-0.330	-0.221	-1.091	0.035	-4.4
Reading	6	3204	A	2	6728	0.887	0.030	0.046	0.887	0.035	0.002	0.431	-0.306	-0.288	0.431	-0.261	-1.625	0.041	-8.2
Reading	6	3205	B	2	6728	0.562	0.119	0.132	0.562	0.184	0.003	0.254	-0.371	-0.210	0.254	-0.100	0.546	0.027	9.9
Reading	6	3206	A	2	6728	0.513	0.221	0.513	0.114	0.149	0.002	0.398	-0.362	0.398	-0.327	-0.362	0.790	0.027	0.5
Reading	6	3207	B	2	6728	0.709	0.120	0.042	0.125	0.709	0.003	0.443	-0.339	-0.314	-0.351	0.443	-0.249	0.030	-5.8
Reading	6	3208	B	2	6728	0.712	0.712	0.164	0.040	0.081	0.002	0.300	0.300	-0.175	-0.327	-0.250	-0.262	0.030	9.0
Reading	6	3209	B	2	6728	0.507	0.507	0.151	0.195	0.143	0.004	0.317	0.317	-0.274	-0.291	-0.274	0.821	0.027	7.2
Reading	6	3210	A		6725	0.916	0.015	0.026	0.043	0.916	0.000	0.371	-0.239	-0.215	-0.263	0.371	-2.006	0.046	-5.5
Reading	6	3211	A		6725	0.828	0.053	0.087	0.032	0.828	0.000	0.477	-0.309	-0.399	-0.267	0.477	-1.067	0.035	-7.7
Reading	6	3212	B		6725	0.854	0.854	0.046	0.041	0.058	0.000	0.491	0.491	-0.303	-0.347	-0.361	-1.304	0.037	-9.9
Reading	6	3213	A		6725	0.751	0.751	0.068	0.112	0.068	0.001	0.444	0.444	-0.253	-0.373	-0.342	-0.507	0.031	-4.7
Reading	6	3214	B		6725	0.829	0.031	0.829	0.091	0.048	0.000	0.395	-0.269	0.395	-0.254	-0.319	-1.082	0.035	-1.2
Reading	6	3215	A		6725	0.773	0.033	0.042	0.773	0.152	0.001	0.378	-0.291	-0.236	0.378	-0.301	-0.656	0.032	-0.5
Reading	6	3216	B	2	6725	0.411	0.210	0.137	0.240	0.411	0.002	0.293	-0.245	-0.348	-0.300	0.293	1.304	0.028	9.7
Reading	6	3217	A	2	6725	0.800	0.042	0.800	0.072	0.084	0.001	0.400	-0.318	0.400	-0.322	-0.224	-0.854	0.033	-1.5
Reading	6	3218	A	1	6725	0.809	0.095	0.809	0.069	0.025	0.002	0.391	-0.286	0.391	-0.246	-0.310	-0.916	0.034	-2.8
Reading	6	3219	A	2	6725	0.353	0.095	0.042	0.353	0.509	0.001	0.290	-0.490	-0.432	0.290	-0.219	1.605	0.028	9.9
Reading	6	3220	A	2	6725	0.693	0.114	0.073	0.693	0.117	0.002	0.339	-0.225	-0.340	0.339	-0.224	-0.154	0.029	4.2
Reading	6	3221	A	2	6725	0.470	0.237	0.147	0.144	0.470	0.002	0.333	-0.323	-0.420	-0.159	0.333	1.008	0.027	8.7
Reading	6	3222	A	2	6725	0.822	0.822	0.056	0.086	0.034	0.002	0.394	0.394	-0.293	-0.280	-0.240	-1.022	0.035	-2.9
Reading	6	3223	A	2	6725	0.435	0.324	0.435	0.046	0.192	0.001	0.353	-0.280	0.353	-0.464	-0.370	1.182	0.027	7.2
Reading	6	3224	B	2	6725	0.720	0.720	0.127	0.084	0.066	0.002	0.354	0.354	-0.241	-0.231	-0.345	-0.317	0.030	3.2
Reading	6	3225	A	2	6725	0.799	0.063	0.799	0.082	0.054	0.003	0.466	-0.367	0.466	-0.324	-0.318	-0.841	0.033	-6.7

Appendix J: 2007 Grades 3–8 and 11 Multiple-Choice Statistics

Information					Proportions							Correlations					Rasch		
Cont.	Grade	Pub. ID	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Reading	6	3226	A		6711	0.791	0.090	0.027	0.791	0.092	0.000	0.443	-0.317	-0.267	0.443	-0.352	-0.792	0.033	-5.9
Reading	6	3227	A		6711	0.735	0.060	0.124	0.081	0.735	0.000	0.455	-0.355	-0.388	-0.260	0.455	-0.415	0.031	-6.3
Reading	6	3228	A		6711	0.454	0.365	0.454	0.039	0.140	0.001	0.467	-0.391	0.467	-0.429	-0.533	1.091	0.028	-0.8
Reading	6	3229	A		6711	0.705	0.044	0.705	0.096	0.155	0.000	0.408	-0.353	0.408	-0.331	-0.279	-0.233	0.030	-2.5
Reading	6	3230	A		6711	0.627	0.277	0.039	0.627	0.055	0.001	0.339	-0.233	-0.371	0.339	-0.356	0.206	0.028	6.5
Reading	6	3231	B		6711	0.839	0.053	0.839	0.055	0.053	0.001	0.487	-0.338	0.487	-0.320	-0.358	-1.172	0.036	-7.9
Reading	6	3232	A	1	6711	0.808	0.055	0.069	0.808	0.067	0.001	0.429	-0.362	-0.352	0.429	-0.194	-0.922	0.034	-5.4
Reading	6	3233	A	2	6711	0.823	0.056	0.823	0.030	0.091	0.001	0.449	-0.362	0.449	-0.292	-0.296	-1.041	0.035	-7.4
Reading	6	3234	A	2	6711	0.716	0.190	0.040	0.053	0.716	0.001	0.482	-0.387	-0.371	-0.371	0.482	-0.300	0.030	-5.4
Reading	6	3235	A	2	6711	0.694	0.089	0.694	0.152	0.064	0.001	0.397	-0.383	0.397	-0.243	-0.311	-0.171	0.030	-0.1
Reading	6	3236	B	2	6711	0.575	0.575	0.242	0.111	0.070	0.002	0.285	0.285	-0.212	-0.276	-0.258	0.480	0.028	9.9
Reading	6	3237	A	1	6711	0.849	0.042	0.055	0.053	0.849	0.001	0.506	-0.319	-0.347	-0.374	0.506	-1.265	0.037	-9.9
Reading	6	3238	B	2	6711	0.845	0.049	0.845	0.040	0.063	0.002	0.411	-0.300	0.411	-0.269	-0.273	-1.233	0.037	-4.5
Reading	6	3239	B	2	6711	0.740	0.089	0.078	0.740	0.090	0.002	0.404	-0.322	-0.277	0.404	-0.289	-0.450	0.031	-2.6
Reading	6	3240	B	2	6711	0.901	0.901	0.031	0.030	0.036	0.002	0.406	0.406	-0.268	-0.272	-0.259	-1.815	0.043	-7.1
Reading	6	3241	A	2	6711	0.509	0.034	0.106	0.349	0.509	0.002	0.232	-0.279	-0.138	-0.220	0.232	0.816	0.027	9.9
Reading	6	3242	A		6707	0.794	0.058	0.083	0.065	0.794	0.000	0.444	-0.294	-0.321	-0.337	0.444	-0.797	0.033	-5.7
Reading	6	3243	A		6707	0.754	0.754	0.033	0.066	0.146	0.000	0.383	0.383	-0.288	-0.314	-0.265	-0.523	0.031	-1.6
Reading	6	3244	A		6707	0.688	0.086	0.688	0.072	0.154	0.000	0.349	-0.299	0.349	-0.301	-0.219	-0.124	0.029	0.8
Reading	6	3245	A		6707	0.797	0.797	0.022	0.072	0.109	0.000	0.328	0.328	-0.234	-0.147	-0.303	-0.817	0.033	3.2
Reading	6	3246	A		6707	0.466	0.304	0.149	0.079	0.466	0.001	0.297	-0.152	-0.352	-0.462	0.297	1.013	0.027	9.9
Reading	6	3247	B		6707	0.470	0.355	0.470	0.110	0.062	0.002	0.119	-0.025	0.119	-0.156	-0.324	0.994	0.027	9.9
Reading	6	3248	A	2	6707	0.773	0.103	0.773	0.046	0.076	0.001	0.441	-0.382	0.441	-0.288	-0.276	-0.649	0.032	-4.7
Reading	6	3249	A	2	6707	0.666	0.048	0.054	0.666	0.230	0.002	0.435	-0.331	-0.381	0.435	-0.344	-0.002	0.029	-5.1
Reading	6	3250	A	2	6707	0.550	0.036	0.327	0.550	0.084	0.002	0.312	-0.359	-0.270	0.312	-0.215	0.597	0.027	6.8
Reading	6	3251	A	1	6707	0.735	0.735	0.030	0.049	0.183	0.001	0.435	0.435	-0.328	-0.380	-0.326	-0.407	0.030	-4.3
Reading	6	3252	B	2	6707	0.544	0.183	0.226	0.044	0.544	0.002	0.440	-0.521	-0.259	-0.435	0.440	0.628	0.027	-4.5
Reading	6	3253	A	2	6707	0.355	0.169	0.355	0.089	0.385	0.002	0.251	-0.234	0.251	-0.346	-0.227	1.580	0.028	9.9
Reading	6	3254	B	2	6707	0.221	0.367	0.326	0.083	0.221	0.002	-0.006	-0.033	0.120	-0.221	-0.006	2.368	0.032	9.9
Reading	6	3255	B	2	6707	0.780	0.037	0.141	0.040	0.780	0.002	0.341	-0.279	-0.214	-0.290	0.341	-0.700	0.032	1.2
Reading	6	3256	A	2	6707	0.853	0.077	0.853	0.040	0.028	0.002	0.487	-0.380	0.487	-0.323	-0.288	-1.276	0.037	-9.9
Reading	6	3257	B	2	6707	0.580	0.580	0.099	0.059	0.259	0.003	0.386	0.386	-0.396	-0.408	-0.265	0.446	0.028	2.0
Reading	6	3258	A	2	6744	0.724	0.087	0.106	0.083	0.724	0.000	0.423	-0.353	-0.292	-0.312	0.423	-0.326	0.030	-1.2
Reading	6	3259	B	2	6744	0.833	0.053	0.054	0.833	0.059	0.001	0.389	-0.260	-0.254	0.389	-0.280	-1.108	0.036	-3.5
Reading	6	3260	B	2	6744	0.846	0.059	0.046	0.049	0.846	0.001	0.538	-0.389	-0.381	-0.359	0.538	-1.214	0.037	-9.9
Reading	6	3261	A	1	6744	0.923	0.013	0.029	0.923	0.035	0.000	0.413	-0.214	-0.271	0.413	-0.298	-2.109	0.048	-9.8
Reading	6	3262	A	2	6744	0.750	0.030	0.118	0.750	0.102	0.001	0.394	-0.260	-0.303	0.394	-0.300	-0.493	0.031	-0.5
Reading	6	3263	A	2	6744	0.809	0.124	0.809	0.039	0.027	0.001	0.408	-0.319	0.408	-0.276	-0.271	-0.912	0.034	-3.5
Reading	6	3264	A	1	6744	0.912	0.024	0.912	0.046	0.016	0.001	0.354	-0.206	0.354	-0.262	-0.198	-1.947	0.046	-3.5
Reading	6	3265	A	2	6744	0.547	0.120	0.148	0.182	0.547	0.001	0.396	-0.379	-0.326	-0.328	0.396	0.634	0.027	0.5
Reading	6	3266	A	2	6744	0.709	0.109	0.036	0.143	0.709	0.002	0.432	-0.294	-0.383	-0.349	0.432	-0.239	0.030	-2.2
Reading	6	3267	B	1	6744	0.754	0.091	0.754	0.087	0.066	0.002	0.450	-0.321	0.450	-0.341	-0.329	-0.521	0.031	-5.1
Reading	6	3268	B	2	6744	0.862	0.862	0.038	0.044	0.055	0.002	0.478	0.478	-0.325	-0.354	-0.298	-1.365	0.038	-9.7

Appendix J: 2007 Grades 3–8 and 11 Multiple-Choice Statistics

Information						Proportions						Correlations					Rasch		
Cont.	Grade	Pub. ID	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Reading	6	3269	A	2	6744	0.428	0.108	0.148	0.428	0.313	0.002	0.271	-0.351	-0.361	0.271	-0.144	1.229	0.027	9.9
Reading	6	3270	A	2	6744	0.377	0.067	0.517	0.036	0.377	0.003	0.163	-0.442	-0.075	-0.355	0.163	1.494	0.028	9.9
Reading	6	3271	A	2	6744	0.693	0.059	0.141	0.105	0.693	0.002	0.450	-0.354	-0.337	-0.365	0.450	-0.144	0.029	-3.5
Reading	6	3272	A	2	6744	0.866	0.032	0.866	0.034	0.066	0.002	0.390	-0.299	0.390	-0.279	-0.230	-1.401	0.038	-3.0
Reading	6	3273	B	2	6744	0.565	0.232	0.565	0.138	0.063	0.002	0.420	-0.315	0.420	-0.386	-0.456	0.545	0.027	0.0
Reading	6	3274	A	2	6759	0.884	0.047	0.884	0.041	0.027	0.000	0.360	-0.264	0.360	-0.236	-0.198	-1.628	0.041	-1.8
Reading	6	3275	B	2	6759	0.912	0.029	0.912	0.020	0.038	0.000	0.402	-0.228	0.402	-0.231	-0.310	-1.976	0.046	-6.8
Reading	6	3276	A	2	6759	0.879	0.032	0.044	0.879	0.044	0.001	0.410	-0.252	-0.288	0.410	-0.268	-1.567	0.040	-5.8
Reading	6	3277	B	2	6759	0.603	0.095	0.194	0.108	0.603	0.000	0.350	-0.359	-0.250	-0.273	0.350	0.337	0.028	2.9
Reading	6	3278	A	2	6759	0.878	0.878	0.045	0.045	0.031	0.000	0.428	0.428	-0.251	-0.315	-0.288	-1.561	0.040	-6.4
Reading	6	3279	B	2	6759	0.449	0.019	0.449	0.237	0.294	0.002	0.189	-0.235	0.189	-0.268	-0.088	1.121	0.027	9.9
Reading	6	3280	A	1	6759	0.926	0.037	0.926	0.018	0.018	0.001	0.309	-0.190	0.309	-0.177	-0.223	-2.191	0.049	-1.7
Reading	6	3281	B	2	6759	0.915	0.040	0.029	0.915	0.015	0.001	0.400	-0.292	-0.260	0.400	-0.202	-2.010	0.046	-6.5
Reading	6	3282	B	2	6759	0.732	0.107	0.123	0.036	0.732	0.001	0.484	-0.406	-0.376	-0.307	0.484	-0.397	0.031	-5.8
Reading	6	3283	A	2	6759	0.792	0.074	0.089	0.043	0.792	0.001	0.375	-0.164	-0.329	-0.309	0.375	-0.805	0.033	2.7
Reading	6	3284	A	2	6759	0.676	0.217	0.037	0.676	0.069	0.001	0.430	-0.378	-0.344	0.430	-0.273	-0.062	0.029	-1.8
Reading	6	3285	B	2	6759	0.531	0.092	0.244	0.531	0.131	0.002	0.290	-0.292	-0.219	0.290	-0.270	0.707	0.027	9.9
Reading	6	3286	A	2	6759	0.656	0.039	0.656	0.079	0.224	0.002	0.464	-0.359	0.464	-0.369	-0.387	0.052	0.029	-4.5
Reading	6	3287	B	2	6759	0.822	0.822	0.062	0.055	0.060	0.001	0.486	0.486	-0.350	-0.358	-0.320	-1.032	0.035	-8.6
Reading	6	3288	B	2	6759	0.845	0.845	0.045	0.049	0.058	0.002	0.460	0.460	-0.316	-0.350	-0.287	-1.234	0.037	-6.4
Reading	6	3289	A	2	6759	0.789	0.031	0.035	0.144	0.789	0.002	0.436	-0.330	-0.328	-0.319	0.436	-0.777	0.033	-5.0
Reading	6	3290	A	1	6758	0.670	0.019	0.040	0.271	0.670	0.000	0.232	-0.251	-0.325	-0.137	0.232	-0.024	0.028	9.9
Reading	6	3291	A	1	6758	0.780	0.078	0.077	0.780	0.066	0.000	0.484	-0.387	-0.359	0.484	-0.301	-0.686	0.032	-9.5
Reading	6	3292	B	1	6758	0.667	0.116	0.160	0.667	0.057	0.000	0.275	-0.287	-0.151	0.275	-0.208	-0.007	0.028	7.1
Reading	6	3293	A	2	6758	0.747	0.747	0.083	0.092	0.078	0.000	0.499	0.499	-0.334	-0.400	-0.382	-0.472	0.031	-9.9
Reading	6	3294	B	2	6758	0.682	0.209	0.062	0.046	0.682	0.001	0.243	-0.156	0.243	-0.222	0.243	-0.090	0.029	8.9
Reading	6	3295	A	2	6758	0.694	0.102	0.694	0.116	0.086	0.002	0.413	-0.294	0.413	-0.376	-0.272	-0.156	0.029	-3.8
Reading	6	3296	A	2	6758	0.522	0.182	0.107	0.187	0.522	0.001	0.353	-0.274	-0.482	-0.235	0.353	0.735	0.027	2.5
Reading	6	3297	B	2	6758	0.793	0.069	0.066	0.793	0.071	0.001	0.464	-0.336	-0.358	0.464	-0.303	-0.778	0.033	-7.7
Reading	6	3298	B	2	6758	0.388	0.388	0.175	0.352	0.082	0.001	0.247	0.247	-0.362	-0.122	-0.403	1.394	0.027	9.9
Reading	6	3299	B	2	6758	0.635	0.208	0.053	0.103	0.635	0.001	0.295	-0.254	-0.285	-0.174	0.295	0.163	0.028	6.0
Reading	6	3300	B	2	6758	0.516	0.069	0.516	0.076	0.338	0.001	0.302	-0.407	0.302	-0.415	-0.173	0.763	0.027	7.4
Reading	6	3301	B	3	6758	0.252	0.618	0.082	0.252	0.046	0.001	0.018	0.056	-0.261	0.018	-0.334	2.149	0.030	9.9
Reading	6	3302	A	2	6758	0.415	0.415	0.077	0.165	0.342	0.001	0.326	0.326	-0.380	-0.373	-0.263	1.260	0.027	6.2
Reading	6	3303	B	1	6758	0.628	0.075	0.196	0.628	0.099	0.001	0.343	-0.299	-0.238	0.343	-0.315	0.201	0.028	2.7
Reading	6	3304	B	2	6758	0.482	0.482	0.096	0.266	0.153	0.003	0.272	0.272	-0.334	-0.160	-0.323	0.930	0.027	9.9
Reading	6	3305	B	3	6758	0.558	0.099	0.558	0.216	0.123	0.004	0.396	-0.392	0.396	-0.280	-0.377	0.557	0.027	-1.1
Reading	6	3306	A	2	6752	0.759	0.049	0.054	0.759	0.137	0.000	0.522	-0.347	-0.400	0.522	-0.417	-0.559	0.031	-9.9
Reading	6	3307	A	2	6752	0.649	0.116	0.096	0.649	0.138	0.000	0.411	-0.305	-0.469	0.411	-0.232	0.096	0.028	-0.4
Reading	6	3308	B	2	6752	0.788	0.134	0.035	0.042	0.788	0.000	0.413	-0.313	-0.280	-0.306	0.413	-0.757	0.033	-3.8
Reading	6	3309	B	2	6752	0.873	0.052	0.873	0.041	0.033	0.000	0.436	-0.300	0.436	-0.308	-0.262	-1.476	0.039	-7.8
Reading	6	3310	B	2	6752	0.678	0.146	0.678	0.083	0.092	0.001	0.377	-0.266	0.377	-0.318	-0.301	-0.066	0.029	1.1
Reading	6	3311	B	2	6752	0.778	0.778	0.110	0.060	0.051	0.002	0.294	0.294	-0.172	-0.225	-0.256	-0.683	0.032	5.4

Appendix J: 2007 Grades 3–8 and 11 Multiple-Choice Statistics

Information						Proportions						Correlations					Rasch		
Cont.	Grade	Pub. ID	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Reading	6	3312	B	2	6752	0.617	0.115	0.617	0.139	0.126	0.002	0.319	-0.248	0.319	-0.291	-0.217	0.272	0.028	5.8
Reading	6	3313	A	2	6752	0.556	0.556	0.076	0.221	0.145	0.002	0.400	0.400	-0.394	-0.239	-0.469	0.585	0.027	3.0
Reading	6	3314	A	2	6752	0.821	0.051	0.031	0.821	0.096	0.001	0.496	-0.359	-0.342	0.496	-0.359	-1.003	0.034	-9.4
Reading	6	3315	A	1	6752	0.718	0.718	0.081	0.146	0.054	0.002	0.506	0.506	-0.336	-0.404	-0.436	-0.296	0.030	-9.9
Reading	6	3316	A	2	6752	0.779	0.084	0.779	0.068	0.067	0.002	0.473	-0.343	0.473	-0.336	-0.348	-0.696	0.032	-7.9
Reading	6	3317	B	2	6752	0.480	0.125	0.166	0.227	0.480	0.002	0.354	-0.403	-0.307	-0.294	0.354	0.965	0.027	4.7
Reading	6	3318	B	2	6752	0.507	0.096	0.211	0.507	0.182	0.003	0.390	-0.401	-0.381	0.390	-0.269	0.829	0.027	1.8
Reading	6	3319	A	2	6752	0.616	0.227	0.082	0.072	0.616	0.002	0.392	-0.399	-0.237	-0.260	0.392	0.276	0.028	4.1
Reading	6	3320	B	2	6752	0.719	0.055	0.144	0.079	0.719	0.002	0.432	-0.328	-0.306	-0.364	0.432	-0.303	0.030	-3.5
Reading	6	3321	A	2	6752	0.765	0.049	0.765	0.084	0.097	0.004	0.500	-0.392	0.500	-0.340	-0.385	-0.597	0.032	-9.2
Reading	6	3322	B	2	6718	0.556	0.556	0.086	0.161	0.196	0.001	0.337	0.337	-0.342	-0.227	-0.306	0.574	0.027	4.1
Reading	6	3323	B	1	6718	0.765	0.094	0.043	0.765	0.098	0.000	0.443	-0.307	-0.331	0.443	-0.337	-0.577	0.031	-6.6
Reading	6	3324	A	2	6718	0.723	0.107	0.050	0.723	0.119	0.000	0.474	-0.445	-0.325	0.474	-0.305	-0.317	0.030	-8.1
Reading	6	3325	A	2	6718	0.809	0.048	0.809	0.052	0.092	0.000	0.336	-0.208	0.336	-0.291	-0.211	-0.883	0.033	0.2
Reading	6	3326	B	2	6718	0.354	0.162	0.093	0.389	0.354	0.001	0.273	-0.511	-0.381	-0.138	0.273	1.581	0.028	9.2
Reading	6	3327	B	2	6718	0.632	0.632	0.220	0.041	0.105	0.001	0.277	0.277	-0.237	-0.217	-0.208	0.190	0.028	7.4
Reading	6	3328	A	3	6718	0.536	0.536	0.189	0.174	0.099	0.002	0.194	0.194	-0.208	-0.093	-0.198	0.675	0.027	9.9
Reading	6	3329	A	2	6718	0.555	0.177	0.079	0.188	0.555	0.001	0.492	-0.429	-0.418	-0.435	0.492	0.581	0.027	-8.8
Reading	6	3330	A	2	6718	0.553	0.141	0.137	0.553	0.167	0.002	0.353	-0.332	-0.331	0.353	-0.240	0.590	0.027	2.5
Reading	6	3331	A	3	6718	0.473	0.242	0.148	0.473	0.135	0.002	0.374	-0.323	-0.383	0.374	-0.344	0.984	0.027	2.4
Reading	6	3332	B	2	6718	0.463	0.463	0.069	0.259	0.207	0.002	0.251	0.251	-0.402	-0.261	-0.116	1.032	0.027	9.9
Reading	6	3333	A	3	6718	0.676	0.123	0.676	0.107	0.093	0.001	0.342	-0.160	0.342	-0.276	-0.373	-0.045	0.029	3.0
Reading	6	3334	B	2	6718	0.576	0.080	0.231	0.110	0.576	0.003	0.297	-0.325	-0.187	-0.297	0.297	0.478	0.027	9.4
Reading	6	3335	B	2	6718	0.638	0.124	0.638	0.086	0.148	0.003	0.405	-0.356	0.405	-0.351	-0.281	0.158	0.028	-0.8
Reading	6	3336	A	1	6718	0.658	0.658	0.144	0.124	0.069	0.004	0.423	0.423	-0.375	-0.286	-0.337	0.054	0.028	-4.4
Reading	6	3337	B	2	6718	0.418	0.311	0.078	0.189	0.418	0.004	0.269	-0.151	-0.425	-0.324	0.269	1.254	0.027	9.9
Reading	6	3338	A		6712	0.874	0.042	0.058	0.874	0.027	0.000	0.268	-0.185	-0.151	0.268	-0.200	-1.438	0.039	2.6
Reading	6	3339	B		6712	0.785	0.050	0.785	0.060	0.106	0.000	0.245	-0.147	0.245	-0.108	-0.232	-0.699	0.032	8.3
Reading	6	3340	A		6712	0.583	0.044	0.583	0.015	0.358	0.000	0.135	-0.263	0.135	-0.221	-0.068	0.462	0.028	9.9
Reading	6	3341	B		6712	0.647	0.145	0.097	0.110	0.647	0.001	0.301	-0.267	-0.266	-0.184	0.301	0.128	0.028	7.9
Reading	6	3342	B		6712	0.861	0.052	0.049	0.861	0.037	0.001	0.482	-0.344	-0.342	0.482	-0.293	-1.308	0.038	-9.9
Reading	6	3343	A		6712	0.811	0.811	0.065	0.067	0.056	0.001	0.514	0.514	-0.370	-0.426	-0.306	-0.889	0.034	-9.9
Reading	6	3344	A	1	6712	0.678	0.114	0.678	0.118	0.088	0.001	0.351	-0.334	0.351	-0.195	-0.279	-0.044	0.029	1.5
Reading	6	3345	A	2	6712	0.749	0.749	0.049	0.146	0.055	0.001	0.407	0.407	-0.282	-0.320	-0.282	-0.464	0.031	-2.2
Reading	6	3346	B	2	6712	0.705	0.705	0.102	0.104	0.086	0.002	0.363	0.363	-0.257	-0.358	-0.200	-0.195	0.030	3.1
Reading	6	3347	B	2	6712	0.829	0.024	0.111	0.829	0.035	0.002	0.430	-0.290	-0.328	0.430	-0.281	-1.036	0.035	-5.3
Reading	6	3348	A	2	6712	0.775	0.083	0.057	0.083	0.775	0.002	0.392	-0.317	-0.267	-0.257	0.392	-0.634	0.032	-1.3
Reading	6	3349	A	2	6712	0.576	0.138	0.576	0.064	0.221	0.002	0.299	-0.329	0.299	-0.328	-0.155	0.499	0.027	8.2
Reading	6	3350	B	2	6712	0.407	0.129	0.276	0.407	0.184	0.003	0.177	-0.249	-0.145	0.177	-0.138	1.336	0.027	9.9
Reading	6	3351	A	2	6712	0.674	0.084	0.111	0.128	0.674	0.002	0.433	-0.349	-0.320	-0.345	0.433	-0.020	0.029	-4.2
Reading	6	3352	A	2	6712	0.787	0.108	0.048	0.787	0.056	0.002	0.352	-0.138	-0.359	0.352	-0.322	-0.717	0.032	2.3
Reading	6	3353	B	2	6712	0.640	0.640	0.036	0.091	0.230	0.003	0.514	0.514	-0.358	-0.418	-0.452	0.165	0.028	-9.9
Reading	6	3354	A		6746	0.874	0.059	0.033	0.874	0.034	0.000	0.360	-0.293	-0.223	0.360	-0.173	-1.440	0.039	-4.0

Appendix J: 2007 Grades 3–8 and 11 Multiple-Choice Statistics

Information					Proportions							Correlations					Rasch		
Cont.	Grade	Pub. ID	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Reading	6	3355	B		6746	0.657	0.045	0.180	0.657	0.118	0.000	0.347	-0.273	-0.290	0.347	-0.258	0.062	0.028	5.3
Reading	6	3356	A		6746	0.750	0.038	0.200	0.750	0.011	0.000	0.359	-0.341	-0.274	0.359	-0.234	-0.475	0.031	2.0
Reading	6	3357	B		6746	0.864	0.864	0.019	0.013	0.104	0.000	0.294	0.294	-0.191	-0.181	-0.225	-1.341	0.038	0.3
Reading	6	3358	B		6746	0.482	0.199	0.039	0.482	0.278	0.001	0.116	0.041	-0.225	0.116	-0.182	0.951	0.027	9.9
Reading	6	3359	A		6746	0.716	0.052	0.065	0.166	0.716	0.001	0.412	-0.353	-0.346	-0.281	0.412	-0.266	0.030	-3.8
Reading	6	3360	A	2	6746	0.695	0.093	0.135	0.075	0.695	0.001	0.468	-0.404	-0.331	-0.375	0.468	-0.150	0.029	-5.5
Reading	6	3361	A	2	6746	0.677	0.074	0.677	0.085	0.163	0.001	0.248	-0.146	0.248	-0.277	-0.158	-0.051	0.029	9.9
Reading	6	3362	A	2	6746	0.472	0.472	0.101	0.241	0.184	0.001	0.415	0.415	-0.403	-0.328	-0.426	1.001	0.027	-0.5
Reading	6	3363	B	2	6746	0.699	0.130	0.092	0.079	0.699	0.000	0.498	-0.384	-0.380	-0.393	0.498	-0.173	0.029	-9.6
Reading	6	3364	A	2	6746	0.484	0.301	0.131	0.484	0.082	0.001	0.250	-0.149	-0.310	0.250	-0.293	0.941	0.027	9.9
Reading	6	3365	B	2	6746	0.835	0.063	0.062	0.038	0.835	0.001	0.460	-0.329	-0.307	-0.325	0.460	-1.106	0.035	-7.7
Reading	6	3366	B	2	6746	0.696	0.070	0.139	0.093	0.696	0.001	0.455	-0.376	-0.330	-0.357	0.455	-0.159	0.029	-5.7
Reading	6	3367	B	2	6746	0.639	0.639	0.090	0.069	0.199	0.003	0.478	0.478	-0.389	-0.403	-0.383	0.156	0.028	-8.6
Reading	6	3368	B	2	6746	0.716	0.093	0.716	0.082	0.107	0.002	0.411	-0.307	0.411	-0.329	-0.290	-0.272	0.030	-3.8
Reading	6	3369	B	2	6746	0.678	0.083	0.106	0.678	0.130	0.003	0.361	-0.343	-0.300	0.361	-0.215	-0.056	0.029	1.9
Reading	6	3370	A		6721	0.868	0.019	0.868	0.044	0.068	0.000	0.350	-0.228	0.350	-0.208	-0.263	-1.370	0.038	-2.2
Reading	6	3371	B		6721	0.752	0.162	0.049	0.752	0.037	0.000	0.372	-0.295	-0.228	0.372	-0.291	-0.470	0.031	-1.3
Reading	6	3372	A		6721	0.813	0.813	0.069	0.064	0.053	0.000	0.442	0.442	-0.333	-0.295	-0.306	-0.898	0.034	-6.3
Reading	6	3373	A		6721	0.781	0.054	0.050	0.114	0.781	0.000	0.312	-0.293	-0.284	-0.139	0.312	-0.664	0.032	4.1
Reading	6	3374	B		6721	0.665	0.156	0.068	0.665	0.110	0.001	0.305	-0.246	-0.289	0.305	-0.190	0.042	0.029	7.3
Reading	6	3375	B		6721	0.776	0.776	0.042	0.057	0.124	0.002	0.454	0.454	-0.334	-0.268	-0.379	-0.629	0.032	-7.0
Reading	6	3376	A	3	6721	0.328	0.328	0.284	0.075	0.311	0.002	0.220	0.220	-0.171	-0.353	-0.237	1.760	0.029	9.9
Reading	6	3377	A	2	6721	0.778	0.015	0.151	0.056	0.778	0.001	0.471	-0.283	-0.375	-0.372	0.471	-0.641	0.032	-7.4
Reading	6	3378	A	2	6721	0.335	0.481	0.096	0.086	0.335	0.002	0.184	-0.108	-0.337	-0.338	0.184	1.724	0.028	9.9
Reading	6	3379	B	2	6721	0.702	0.079	0.702	0.156	0.061	0.001	0.493	-0.399	0.493	-0.378	-0.379	-0.165	0.029	-8.2
Reading	6	3380	B	1	6721	0.811	0.811	0.075	0.034	0.078	0.002	0.384	0.384	-0.290	-0.298	-0.227	-0.885	0.034	-3.5
Reading	6	3381	A	2	6721	0.855	0.055	0.051	0.855	0.037	0.002	0.387	-0.222	-0.297	0.387	-0.262	-1.250	0.037	-3.4
Reading	6	3382	B	2	6721	0.669	0.103	0.172	0.053	0.669	0.002	0.502	-0.413	-0.397	-0.404	0.502	0.017	0.029	-9.9
Reading	6	3383	B	2	6721	0.744	0.744	0.097	0.082	0.074	0.002	0.422	0.422	-0.261	-0.367	-0.305	-0.423	0.031	-5.4
Reading	6	3384	B	2	6721	0.456	0.181	0.311	0.456	0.048	0.003	0.165	-0.134	-0.114	0.165	-0.307	1.099	0.027	9.9
Reading	6	3385	B	2	6721	0.677	0.110	0.083	0.677	0.124	0.004	0.307	-0.230	-0.290	0.307	-0.207	-0.027	0.029	9.4
Reading	6	3386	A		6752	0.806	0.806	0.041	0.062	0.090	0.000	0.309	0.309	-0.241	-0.195	-0.213	-0.862	0.033	0.8
Reading	6	3387	A		6752	0.712	0.712	0.092	0.110	0.084	0.001	0.473	0.473	-0.436	-0.367	-0.268	-0.241	0.030	-8.4
Reading	6	3388	A		6752	0.714	0.076	0.090	0.119	0.714	0.001	0.498	-0.350	-0.384	-0.399	0.498	-0.254	0.030	-9.6
Reading	6	3389	B		6752	0.607	0.117	0.607	0.222	0.053	0.000	0.449	-0.390	0.449	-0.377	-0.350	0.341	0.028	-5.5
Reading	6	3390	A		6752	0.698	0.109	0.119	0.073	0.698	0.001	0.458	-0.301	-0.361	-0.413	0.458	-0.158	0.029	-6.3
Reading	6	3391	A		6752	0.805	0.032	0.036	0.805	0.125	0.001	0.483	-0.371	-0.347	0.483	-0.354	-0.856	0.033	-8.6
Reading	6	3392	B	2	6752	0.646	0.070	0.249	0.033	0.646	0.001	0.425	-0.427	-0.315	-0.373	0.425	0.129	0.028	-1.9
Reading	6	3393	B	2	6752	0.787	0.787	0.084	0.094	0.034	0.001	0.376	0.376	-0.333	-0.206	-0.270	-0.720	0.032	-1.1
Reading	6	3394	A	2	6752	0.562	0.159	0.157	0.120	0.562	0.002	0.444	-0.299	-0.425	-0.427	0.444	0.565	0.027	-4.9
Reading	6	3395	A	2	6752	0.649	0.105	0.063	0.649	0.181	0.002	0.377	-0.410	-0.304	0.377	-0.218	0.117	0.028	0.2
Reading	6	3396	B	2	6752	0.542	0.163	0.542	0.048	0.244	0.002	0.400	-0.365	0.400	-0.412	-0.319	0.664	0.027	0.2
Reading	6	3397	A	1	6752	0.834	0.084	0.041	0.834	0.039	0.002	0.426	-0.266	-0.321	0.426	-0.312	-1.078	0.035	-5.6

Appendix J: 2007 Grades 3–8 and 11 Multiple-Choice Statistics

Information					Proportions							Correlations					Rasch		
Cont.	Grade	Pub. ID	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Reading	6	3398	A	2	6752	0.442	0.092	0.442	0.049	0.414	0.003	0.197	-0.380	0.197	-0.303	-0.093	1.160	0.027	9.9
Reading	6	3399	B	2	6752	0.493	0.493	0.142	0.184	0.177	0.003	0.303	0.303	-0.324	-0.289	-0.208	0.908	0.027	9.4
Reading	6	3400	B	2	6752	0.514	0.163	0.514	0.171	0.149	0.003	0.267	-0.132	0.267	-0.313	-0.250	0.806	0.027	9.9
Reading	6	3401	A	3	6752	0.244	0.040	0.511	0.244	0.203	0.003	0.071	-0.384	-0.048	0.071	-0.060	2.249	0.031	9.9
Reading	6	3402	B		6702	0.900	0.031	0.900	0.058	0.010	0.000	0.362	-0.225	0.362	-0.284	-0.179	-1.753	0.043	-1.9
Reading	6	3403	A		6702	0.895	0.895	0.034	0.045	0.026	0.000	0.409	0.409	-0.251	-0.293	-0.250	-1.692	0.042	-7.8
Reading	6	3404	A		6702	0.849	0.078	0.037	0.849	0.035	0.000	0.402	-0.243	-0.294	0.402	-0.302	-1.215	0.037	-4.3
Reading	6	3405	A		6702	0.786	0.045	0.057	0.111	0.786	0.000	0.461	-0.314	-0.301	-0.367	0.461	-0.722	0.033	-5.9
Reading	6	3406	A		6702	0.707	0.110	0.132	0.707	0.050	0.000	0.495	-0.430	-0.343	0.495	-0.386	-0.215	0.030	-8.3
Reading	6	3407	B		6702	0.765	0.064	0.061	0.765	0.110	0.001	0.427	-0.304	-0.312	0.427	-0.322	-0.574	0.032	-2.8
Reading	6	3408	B	2	6702	0.718	0.149	0.089	0.042	0.718	0.002	0.448	-0.302	-0.428	-0.307	0.448	-0.283	0.030	-3.7
Reading	6	3409	A	2	6702	0.643	0.095	0.643	0.088	0.174	0.001	0.311	-0.331	0.311	-0.235	-0.197	0.148	0.029	8.3
Reading	6	3410	A	2	6702	0.691	0.031	0.112	0.691	0.164	0.001	0.362	-0.340	-0.308	0.362	-0.242	-0.125	0.029	2.8
Reading	6	3411	A	2	6702	0.692	0.692	0.104	0.134	0.067	0.002	0.471	0.471	-0.304	-0.424	-0.353	-0.127	0.029	-4.8
Reading	6	3412	A	1	6702	0.682	0.256	0.035	0.682	0.024	0.002	0.397	-0.344	-0.276	0.397	-0.275	-0.072	0.029	-0.5
Reading	6	3413	B	2	6702	0.659	0.659	0.176	0.083	0.080	0.002	0.460	0.460	-0.355	-0.386	-0.373	0.061	0.029	-5.1
Reading	6	3414	B	2	6702	0.757	0.065	0.069	0.106	0.757	0.002	0.465	-0.366	-0.322	-0.343	0.465	-0.533	0.031	-5.9
Reading	6	3415	B	1	6702	0.846	0.050	0.846	0.061	0.040	0.002	0.445	-0.292	0.445	-0.327	-0.278	-1.212	0.037	-7.6
Reading	6	3416	A	2	6702	0.498	0.220	0.498	0.028	0.253	0.002	0.273	-0.261	0.273	-0.363	-0.206	0.898	0.027	9.9
Reading	6	3417	A	2	6702	0.708	0.708	0.236	0.022	0.031	0.003	0.350	0.350	-0.262	-0.320	-0.323	-0.223	0.030	3.2
Reading	7	3418	B	2	140306	0.654	0.105	0.066	0.174	0.654	0.000	0.379	-0.348	-0.323	-0.260	0.379	0.072	0.006	9.9
Reading	7	3419	B	2	140306	0.691	0.101	0.691	0.105	0.102	0.000	0.501	-0.363	0.501	-0.476	-0.339	-0.136	0.006	-9.9
Reading	7	3420	A	2	140306	0.533	0.285	0.112	0.533	0.070	0.001	0.484	-0.457	-0.434	0.484	-0.346	0.708	0.006	-9.9
Reading	7	3421	A	2	140306	0.737	0.103	0.054	0.105	0.737	0.001	0.528	-0.421	-0.397	-0.389	0.528	-0.412	0.007	-9.9
Reading	7	3422	A	2	140306	0.772	0.772	0.098	0.064	0.064	0.001	0.415	0.415	-0.355	-0.292	-0.232	-0.642	0.007	-9.9
Reading	7	3423	A	2	140306	0.600	0.253	0.600	0.114	0.031	0.003	0.383	-0.284	0.383	-0.379	-0.381	0.365	0.006	9.9
Reading	7	3424	A		140306	0.572	0.354	0.029	0.045	0.572	0.001	0.421	-0.370	-0.390	-0.354	0.421	0.510	0.006	-6.7
Reading	7	3425	A		140306	0.795	0.056	0.795	0.052	0.096	0.001	0.450	-0.306	0.450	-0.375	-0.292	-0.800	0.007	-9.9
Reading	7	3426	A		140306	0.703	0.099	0.094	0.703	0.103	0.001	0.323	-0.316	-0.272	0.323	-0.141	-0.204	0.007	9.9
Reading	7	3427	A		140306	0.659	0.078	0.659	0.137	0.125	0.001	0.450	-0.318	0.450	-0.377	-0.363	0.048	0.006	-9.9
Reading	7	3428	A		140306	0.781	0.068	0.065	0.083	0.781	0.002	0.532	-0.389	-0.423	-0.367	0.532	-0.706	0.007	-9.9
Reading	7	3429	A		140306	0.681	0.138	0.045	0.133	0.681	0.003	0.461	-0.344	-0.417	-0.362	0.461	-0.077	0.006	-9.9
Reading	7	3430	A	2	140306	0.747	0.135	0.747	0.062	0.054	0.002	0.261	-0.145	0.261	-0.247	-0.200	-0.475	0.007	9.9
Reading	7	3431	B	2	140306	0.421	0.284	0.048	0.421	0.244	0.003	0.270	-0.201	-0.362	0.270	-0.277	1.279	0.006	9.9
Reading	7	3432	B	3	140306	0.647	0.077	0.647	0.177	0.095	0.003	0.388	-0.420	0.388	-0.273	-0.256	0.110	0.006	2.1
Reading	7	3433	A	2	140306	0.659	0.659	0.039	0.035	0.264	0.003	0.356	0.356	-0.371	-0.366	-0.247	0.046	0.006	9.9
Reading	7	3434	B	2	140306	0.573	0.087	0.573	0.153	0.182	0.004	0.466	-0.423	0.466	-0.365	-0.404	0.503	0.006	-9.9
Reading	7	3435	B	3	140306	0.603	0.603	0.072	0.106	0.215	0.004	0.461	0.461	-0.429	-0.481	-0.306	0.348	0.006	-9.9
Reading	7	3436	B	2	140306	0.470	0.245	0.120	0.159	0.470	0.004	0.327	-0.189	-0.428	-0.367	0.327	1.027	0.006	9.9
Reading	7	3437	B	2	140306	0.653	0.154	0.121	0.068	0.653	0.005	0.433	-0.339	-0.347	-0.349	0.433	0.082	0.006	-9.9
Reading	7	3438	A		140306	0.833	0.833	0.044	0.061	0.062	0.000	0.467	0.467	-0.348	-0.307	-0.319	-1.099	0.008	-9.9
Reading	7	3439	A		140306	0.660	0.108	0.110	0.660	0.121	0.000	0.510	-0.439	-0.438	0.510	-0.358	0.038	0.006	-9.9
Reading	7	3440	A		140306	0.643	0.035	0.643	0.066	0.255	0.001	0.329	-0.332	0.329	-0.326	-0.228	0.134	0.006	9.9

Appendix J: 2007 Grades 3–8 and 11 Multiple-Choice Statistics

Information					Proportions							Correlations					Rasch		
Cont.	Grade	Pub. ID	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Reading	7	3441	A		140306	0.699	0.699	0.167	0.044	0.089	0.000	0.290	0.290	-0.130	-0.373	-0.263	-0.182	0.007	9.9
Reading	7	3442	A		140306	0.620	0.620	0.085	0.174	0.121	0.001	0.430	0.430	-0.299	-0.326	-0.432	0.260	0.006	-8.0
Reading	7	3443	A		140306	0.691	0.104	0.112	0.691	0.091	0.001	0.497	-0.386	-0.384	0.497	-0.392	-0.136	0.006	-9.9
Reading	7	3444	B	2	140306	0.735	0.735	0.132	0.079	0.052	0.001	0.335	0.335	-0.153	-0.293	-0.355	-0.398	0.007	9.9
Reading	7	3445	B	2	140306	0.736	0.736	0.080	0.095	0.088	0.001	0.403	0.403	-0.317	-0.356	-0.219	-0.406	0.007	-6.9
Reading	7	3446	A	2	140306	0.629	0.184	0.629	0.089	0.096	0.001	0.399	-0.262	0.399	-0.431	-0.309	0.212	0.006	1.6
Reading	7	3447	A	2	140306	0.698	0.059	0.163	0.078	0.698	0.001	0.537	-0.338	-0.499	-0.365	0.537	-0.177	0.007	-9.9
Reading	7	3448	B	2	140306	0.600	0.066	0.600	0.166	0.166	0.001	0.326	-0.360	0.326	-0.380	-0.106	0.361	0.006	9.9
Reading	7	3449	A	2	140306	0.481	0.060	0.192	0.481	0.264	0.002	0.310	-0.309	-0.276	0.310	-0.277	0.969	0.006	9.9
Reading	7	3450	B	2	140306	0.442	0.219	0.442	0.248	0.088	0.003	0.285	-0.320	0.285	-0.201	-0.310	1.173	0.006	9.9
Reading	7	3451	B	2	140306	0.579	0.059	0.065	0.294	0.579	0.003	0.412	-0.485	-0.360	-0.313	0.412	0.471	0.006	1.0
Reading	7	3452	B		140306	0.512	0.357	0.054	0.512	0.073	0.004	0.242	-0.144	-0.344	0.242	-0.311	0.816	0.006	9.9
Reading	7	3453	A		140306	0.443	0.161	0.278	0.114	0.443	0.004	0.294	-0.354	-0.195	-0.348	0.294	1.167	0.006	9.9
Reading	7	3454	A		140306	0.749	0.106	0.749	0.045	0.096	0.004	0.394	-0.315	0.394	-0.344	-0.231	-0.488	0.007	3.5
Reading	7	3455	B		140306	0.876	0.052	0.029	0.876	0.039	0.004	0.465	-0.326	-0.312	0.465	-0.293	-1.503	0.009	-9.9
Reading	7	3456	A		140306	0.647	0.093	0.074	0.181	0.647	0.005	0.450	-0.421	-0.410	-0.298	0.450	0.112	0.006	-9.9
Reading	7	3457	A		140306	0.800	0.800	0.077	0.089	0.029	0.004	0.416	0.416	-0.281	-0.302	-0.317	-0.841	0.007	-9.9
Reading	7	3458	A		7501	0.767	0.767	0.037	0.089	0.106	0.001	0.449	0.449	-0.304	-0.304	-0.367	-0.750	0.030	-4.6
Reading	7	3459	B		7501	0.683	0.173	0.099	0.683	0.044	0.000	0.396	-0.209	-0.443	0.396	-0.309	-0.217	0.028	0.9
Reading	7	3460	A		7501	0.811	0.065	0.058	0.811	0.065	0.001	0.395	-0.255	-0.324	0.395	-0.243	-1.068	0.032	-2.7
Reading	7	3461	B		7501	0.732	0.080	0.732	0.031	0.155	0.000	0.449	-0.485	0.449	-0.325	-0.267	-0.517	0.029	-0.4
Reading	7	3462	B		7501	0.599	0.058	0.099	0.244	0.599	0.001	0.402	-0.364	-0.413	-0.289	0.402	0.254	0.027	2.1
Reading	7	3463	A		7501	0.792	0.112	0.048	0.792	0.046	0.002	0.537	-0.439	-0.338	0.537	-0.375	-0.924	0.031	-9.9
Reading	7	3464	A	1	7501	0.886	0.042	0.886	0.035	0.035	0.002	0.425	-0.291	0.425	-0.268	-0.278	-1.772	0.039	-5.6
Reading	7	3465	A	2	7501	0.648	0.238	0.087	0.026	0.648	0.002	0.259	-0.095	-0.368	-0.344	0.259	-0.013	0.027	9.9
Reading	7	3466	A	2	7501	0.765	0.049	0.765	0.103	0.081	0.002	0.545	-0.407	0.545	-0.446	-0.350	-0.736	0.030	-9.9
Reading	7	3467	A	2	7501	0.605	0.605	0.065	0.128	0.199	0.002	0.506	0.506	-0.392	-0.394	-0.461	0.221	0.027	-6.5
Reading	7	3468	A	2	7501	0.659	0.108	0.042	0.188	0.659	0.002	0.440	-0.439	-0.409	-0.275	0.440	-0.077	0.028	-0.9
Reading	7	3469	A	2	7501	0.755	0.111	0.092	0.755	0.037	0.003	0.514	-0.374	-0.423	0.514	-0.334	-0.666	0.030	-9.8
Reading	7	3470	A	2	7501	0.630	0.630	0.103	0.123	0.139	0.003	0.485	0.485	-0.440	-0.482	-0.272	0.083	0.027	-6.2
Reading	7	3471	A	2	7501	0.692	0.049	0.206	0.050	0.692	0.003	0.442	-0.418	-0.313	-0.382	0.442	-0.266	0.028	-2.0
Reading	7	3472	B	2	7501	0.467	0.075	0.467	0.114	0.341	0.002	0.191	-0.331	0.191	-0.331	-0.051	0.937	0.026	9.9
Reading	7	3473	A	2	7501	0.424	0.299	0.057	0.424	0.215	0.004	0.195	-0.163	-0.439	0.195	-0.116	1.159	0.026	9.9
Reading	7	3474	B		7052	0.847	0.125	0.847	0.019	0.010	0.000	0.097	-0.058	0.097	-0.083	-0.105	-1.264	0.036	9.9
Reading	7	3475	A		7052	0.844	0.031	0.023	0.101	0.844	0.000	0.480	-0.318	-0.221	-0.400	0.480	-1.241	0.035	-9.9
Reading	7	3476	B		7052	0.793	0.063	0.076	0.793	0.068	0.000	0.414	-0.264	-0.262	0.414	-0.352	-0.837	0.032	-3.7
Reading	7	3477	B		7052	0.759	0.759	0.071	0.081	0.088	0.001	0.445	0.445	-0.340	-0.335	-0.300	-0.597	0.031	-5.5
Reading	7	3478	B		7052	0.701	0.029	0.701	0.130	0.139	0.001	0.519	-0.312	0.519	-0.368	-0.489	-0.239	0.029	-9.0
Reading	7	3479	A		7052	0.748	0.029	0.071	0.152	0.748	0.001	0.314	-0.327	-0.308	-0.157	0.314	-0.524	0.030	6.1
Reading	7	3480	A	2	7052	0.826	0.826	0.080	0.073	0.021	0.001	0.397	0.397	-0.259	-0.327	-0.216	-1.091	0.034	-1.7
Reading	7	3481	A	2	7052	0.430	0.430	0.170	0.185	0.213	0.002	0.128	0.128	-0.174	-0.234	0.035	1.182	0.027	9.9
Reading	7	3482	A	2	7052	0.862	0.026	0.862	0.090	0.021	0.001	0.317	-0.228	0.317	-0.200	-0.243	-1.404	0.037	3.5
Reading	7	3483	B	2	7052	0.709	0.056	0.073	0.709	0.159	0.002	0.332	-0.325	-0.266	0.332	-0.201	-0.287	0.029	5.3

Appendix J: 2007 Grades 3–8 and 11 Multiple-Choice Statistics

Information					Proportions							Correlations					Rasch		
Cont.	Grade	Pub. ID	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Reading	7	3484	A	2	7052	0.783	0.083	0.059	0.074	0.783	0.001	0.509	-0.401	-0.361	-0.339	0.509	-0.762	0.032	-9.9
Reading	7	3485	A	2	7052	0.827	0.827	0.047	0.066	0.059	0.002	0.362	0.362	-0.263	-0.239	-0.233	-1.096	0.034	-1.4
Reading	7	3486	A	2	7052	0.568	0.082	0.156	0.568	0.192	0.002	0.414	-0.373	-0.362	0.414	-0.322	0.485	0.027	-1.1
Reading	7	3487	A	1	7052	0.502	0.284	0.502	0.069	0.141	0.003	0.228	-0.110	0.228	-0.408	-0.219	0.816	0.027	9.9
Reading	7	3488	B	2	7052	0.538	0.538	0.046	0.165	0.248	0.002	0.386	0.386	-0.409	-0.300	-0.348	0.637	0.027	4.5
Reading	7	3489	A	2	7052	0.637	0.250	0.063	0.047	0.637	0.003	0.313	-0.186	-0.336	-0.360	0.313	0.122	0.028	9.1
Reading	7	3490	A		7025	0.876	0.876	0.059	0.053	0.013	0.001	0.393	0.393	-0.303	-0.285	-0.145	-1.471	0.038	-6.2
Reading	7	3491	A		7025	0.895	0.041	0.036	0.895	0.027	0.000	0.355	-0.196	-0.286	0.355	-0.205	-1.685	0.041	-5.1
Reading	7	3492	A		7025	0.412	0.412	0.145	0.083	0.359	0.001	0.301	0.301	-0.469	-0.340	-0.189	1.280	0.027	8.4
Reading	7	3493	A		7025	0.637	0.036	0.299	0.027	0.637	0.000	0.342	-0.350	-0.268	-0.297	0.342	0.165	0.027	3.0
Reading	7	3494	A		7025	0.436	0.436	0.093	0.335	0.135	0.001	0.249	0.249	-0.343	-0.233	-0.136	1.164	0.027	9.9
Reading	7	3495	B		7025	0.860	0.080	0.028	0.031	0.860	0.001	0.364	-0.227	-0.251	-0.285	0.364	-1.316	0.037	-3.0
Reading	7	3496	A	1	7025	0.925	0.925	0.019	0.015	0.041	0.001	0.286	0.286	-0.161	-0.182	-0.196	-2.085	0.047	-3.0
Reading	7	3497	A	2	7025	0.616	0.230	0.616	0.030	0.123	0.001	0.204	-0.085	0.204	-0.263	-0.250	0.272	0.027	9.9
Reading	7	3498	B	3	7025	0.764	0.067	0.764	0.131	0.037	0.001	0.313	-0.180	0.313	-0.234	-0.286	-0.569	0.031	5.2
Reading	7	3499	B	2	7025	0.583	0.079	0.146	0.583	0.190	0.002	0.334	-0.291	-0.264	0.334	-0.288	0.442	0.027	3.4
Reading	7	3500	B	2	7025	0.403	0.110	0.100	0.403	0.385	0.001	0.057	-0.253	-0.264	0.057	0.087	1.325	0.027	9.9
Reading	7	3501	A	2	7025	0.639	0.639	0.116	0.182	0.062	0.001	0.330	0.330	-0.327	-0.227	-0.239	0.153	0.027	3.3
Reading	7	3502	A	1	7025	0.317	0.317	0.026	0.050	0.605	0.001	0.135	0.135	-0.360	-0.321	-0.090	1.774	0.028	9.9
Reading	7	3503	B	3	7025	0.580	0.022	0.044	0.353	0.580	0.001	0.023	-0.253	-0.326	0.092	0.023	0.458	0.027	9.9
Reading	7	3504	B	3	7025	0.486	0.148	0.152	0.210	0.486	0.003	0.303	-0.319	-0.343	-0.186	0.303	0.919	0.026	8.1
Reading	7	3505	B	3	7025	0.835	0.053	0.835	0.053	0.055	0.003	0.352	-0.274	0.352	-0.257	-0.192	-1.095	0.035	-1.4
Reading	7	3506	A		7023	0.790	0.790	0.015	0.174	0.020	0.001	0.354	0.354	-0.241	-0.279	-0.274	-0.760	0.032	-2.1
Reading	7	3507	A		7023	0.655	0.135	0.086	0.123	0.655	0.001	0.353	-0.183	-0.371	-0.300	0.353	0.067	0.028	1.7
Reading	7	3508	A		7023	0.672	0.092	0.118	0.672	0.117	0.001	0.270	-0.310	-0.143	0.270	-0.176	-0.029	0.028	7.2
Reading	7	3509	A		7023	0.449	0.089	0.239	0.221	0.449	0.001	0.258	-0.291	-0.252	-0.187	0.258	1.110	0.027	9.9
Reading	7	3510	A		7023	0.733	0.058	0.733	0.058	0.150	0.001	0.359	-0.333	0.359	-0.290	-0.218	-0.385	0.030	-0.8
Reading	7	3511	A		7023	0.722	0.150	0.075	0.051	0.722	0.002	0.405	-0.248	-0.372	-0.341	0.405	-0.316	0.029	-1.1
Reading	7	3512	A	1	7023	0.516	0.268	0.034	0.180	0.516	0.001	0.343	-0.297	-0.411	-0.278	0.343	0.774	0.027	3.1
Reading	7	3513	A	3	7023	0.742	0.742	0.096	0.088	0.072	0.001	0.525	0.525	-0.426	-0.434	-0.314	-0.439	0.030	-9.9
Reading	7	3514	A	3	7023	0.630	0.072	0.122	0.630	0.174	0.001	0.432	-0.395	-0.339	0.432	-0.339	0.201	0.027	-3.4
Reading	7	3515	B	2	7023	0.299	0.273	0.195	0.231	0.299	0.002	0.092	-0.042	-0.212	-0.069	0.092	1.898	0.029	9.9
Reading	7	3516	B	3	7023	0.683	0.068	0.683	0.088	0.159	0.002	0.460	-0.424	0.460	-0.377	-0.312	-0.087	0.028	-5.5
Reading	7	3517	B	2	7023	0.329	0.385	0.329	0.179	0.104	0.003	0.074	0.038	0.074	-0.258	-0.132	1.729	0.028	9.9
Reading	7	3518	B	2	7023	0.623	0.186	0.065	0.123	0.623	0.003	0.305	-0.162	-0.370	-0.276	0.305	0.237	0.027	8.9
Reading	7	3519	A	1	7023	0.590	0.101	0.189	0.590	0.118	0.002	0.435	-0.421	-0.358	0.435	-0.317	0.406	0.027	-4.4
Reading	7	3520	B	2	7023	0.467	0.101	0.114	0.467	0.316	0.002	0.393	-0.473	-0.491	0.393	-0.245	1.019	0.027	1.6
Reading	7	3521	B	3	7023	0.279	0.279	0.106	0.220	0.392	0.002	0.095	0.095	-0.251	-0.108	-0.051	2.009	0.029	9.9
Reading	7	3522	A	2	7002	0.815	0.081	0.058	0.815	0.045	0.000	0.450	-0.387	-0.325	0.450	-0.204	-0.964	0.034	-6.0
Reading	7	3523	A	2	7002	0.728	0.070	0.149	0.728	0.053	0.000	0.409	-0.305	-0.327	0.409	-0.282	-0.352	0.030	-0.1
Reading	7	3524	A	2	7002	0.511	0.346	0.089	0.052	0.511	0.001	0.319	-0.215	-0.475	-0.309	0.319	0.828	0.027	9.9
Reading	7	3525	A	1	7002	0.536	0.417	0.536	0.022	0.024	0.000	0.345	-0.300	0.345	-0.320	-0.385	0.701	0.027	6.7
Reading	7	3526	B	2	7002	0.776	0.041	0.776	0.121	0.061	0.001	0.519	-0.325	0.519	-0.399	-0.418	-0.671	0.032	-9.5

Appendix J: 2007 Grades 3–8 and 11 Multiple-Choice Statistics

Information						Proportions						Correlations					Rasch		
Cont.	Grade	Pub. ID	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Reading	7	3527	B	2	7002	0.711	0.711	0.110	0.050	0.128	0.001	0.505	0.505	-0.383	-0.406	-0.396	-0.251	0.029	-7.9
Reading	7	3528	A	2	7002	0.795	0.155	0.795	0.023	0.026	0.001	0.474	-0.419	0.474	-0.255	-0.284	-0.806	0.033	-7.1
Reading	7	3529	A	2	7002	0.759	0.037	0.135	0.759	0.067	0.001	0.419	-0.322	-0.313	0.419	-0.301	-0.556	0.031	-2.5
Reading	7	3530	B	2	7002	0.348	0.337	0.040	0.274	0.348	0.001	0.132	-0.155	-0.382	-0.047	0.132	1.668	0.028	9.9
Reading	7	3531	A	2	7002	0.934	0.020	0.020	0.025	0.934	0.001	0.370	-0.240	-0.248	-0.210	0.370	-2.291	0.050	-5.8
Reading	7	3532	A	2	7002	0.809	0.809	0.067	0.070	0.052	0.001	0.438	0.438	-0.353	-0.291	-0.277	-0.915	0.033	-4.2
Reading	7	3533	A	2	7002	0.219	0.196	0.122	0.219	0.461	0.001	0.149	-0.194	-0.198	0.149	-0.148	2.444	0.031	9.9
Reading	7	3534	A	2	7002	0.875	0.875	0.061	0.025	0.037	0.002	0.436	0.436	-0.292	-0.275	-0.313	-1.510	0.039	-7.5
Reading	7	3535	B	2	7002	0.850	0.038	0.850	0.068	0.041	0.002	0.416	-0.274	0.416	-0.325	-0.236	-1.261	0.036	-5.4
Reading	7	3536	B	2	7002	0.825	0.040	0.056	0.077	0.825	0.002	0.505	-0.348	-0.321	-0.396	0.505	-1.042	0.034	-9.9
Reading	7	3537	A	2	7002	0.747	0.747	0.147	0.049	0.054	0.002	0.424	0.424	-0.304	-0.354	-0.315	-0.475	0.031	-2.0
Reading	7	3538	A	2	7004	0.748	0.039	0.181	0.031	0.748	0.001	0.468	-0.355	-0.390	-0.290	0.468	-0.469	0.030	-6.3
Reading	7	3539	A	1	7004	0.782	0.024	0.782	0.130	0.063	0.000	0.387	-0.258	0.387	-0.301	-0.265	-0.699	0.032	-2.5
Reading	7	3540	A	2	7004	0.828	0.056	0.046	0.070	0.828	0.000	0.512	-0.354	-0.341	-0.381	0.512	-1.044	0.034	-9.9
Reading	7	3541	A	2	7004	0.708	0.178	0.063	0.050	0.708	0.000	0.466	-0.369	-0.354	-0.357	0.466	-0.225	0.029	-6.6
Reading	7	3542	A	2	7004	0.715	0.715	0.062	0.112	0.110	0.001	0.489	0.489	-0.410	-0.407	-0.314	-0.266	0.029	-8.1
Reading	7	3543	A	2	7004	0.544	0.104	0.544	0.244	0.108	0.001	0.295	-0.210	0.295	-0.274	-0.248	0.661	0.027	9.6
Reading	7	3544	B	2	7004	0.553	0.041	0.075	0.331	0.553	0.001	0.413	-0.406	-0.364	-0.359	0.413	0.616	0.027	-1.5
Reading	7	3545	B	1	7004	0.696	0.139	0.696	0.083	0.081	0.001	0.279	-0.218	0.279	-0.216	-0.195	-0.150	0.029	7.3
Reading	7	3546	A	1	7004	0.779	0.040	0.110	0.779	0.071	0.001	0.331	-0.263	-0.213	0.331	-0.247	-0.675	0.032	3.1
Reading	7	3547	B	3	7004	0.747	0.081	0.089	0.747	0.081	0.001	0.488	-0.393	-0.408	0.488	-0.285	-0.464	0.030	-8.3
Reading	7	3548	A	2	7004	0.825	0.114	0.825	0.031	0.030	0.001	0.438	-0.348	0.438	-0.291	-0.260	-1.025	0.034	-7.2
Reading	7	3549	B	2	7004	0.648	0.648	0.070	0.081	0.199	0.001	0.388	0.388	-0.346	-0.317	-0.290	0.115	0.028	-0.1
Reading	7	3550	A	2	7004	0.642	0.642	0.052	0.119	0.186	0.000	0.333	0.333	-0.361	-0.254	-0.240	0.149	0.028	8.2
Reading	7	3551	B	3	7004	0.638	0.127	0.071	0.638	0.162	0.001	0.401	-0.373	-0.299	0.401	-0.291	0.173	0.028	0.0
Reading	7	3552	B	3	7004	0.623	0.035	0.088	0.252	0.623	0.002	0.315	-0.337	-0.188	-0.269	0.315	0.251	0.028	6.6
Reading	7	3553	B	2	7004	0.768	0.073	0.768	0.100	0.057	0.002	0.378	-0.311	0.378	-0.205	-0.323	-0.604	0.031	0.3
Reading	7	3554	A	1	6997	0.775	0.049	0.775	0.088	0.087	0.001	0.409	-0.240	0.409	-0.310	-0.315	-0.642	0.032	-3.2
Reading	7	3555	A	2	6997	0.746	0.106	0.068	0.079	0.746	0.001	0.435	-0.382	-0.335	-0.244	0.435	-0.445	0.030	-1.6
Reading	7	3556	A	1	6997	0.654	0.174	0.117	0.654	0.054	0.000	0.371	-0.278	-0.271	0.371	-0.361	0.098	0.028	0.6
Reading	7	3557	A	2	6997	0.612	0.612	0.177	0.161	0.049	0.000	0.301	0.301	-0.201	-0.257	-0.326	0.327	0.028	8.9
Reading	7	3558	B	2	6997	0.716	0.716	0.063	0.073	0.147	0.001	0.397	0.397	-0.312	-0.332	-0.273	-0.258	0.029	-0.6
Reading	7	3559	A	2	6997	0.803	0.069	0.045	0.803	0.082	0.001	0.453	-0.352	-0.286	0.453	-0.319	-0.845	0.033	-5.8
Reading	7	3560	A	2	6997	0.772	0.095	0.088	0.772	0.043	0.001	0.366	-0.225	-0.305	0.366	-0.260	-0.625	0.031	-0.3
Reading	7	3561	B	2	6997	0.839	0.028	0.047	0.084	0.839	0.001	0.467	-0.239	-0.339	-0.369	0.467	-1.138	0.035	-6.4
Reading	7	3562	A	2	6997	0.685	0.164	0.685	0.071	0.078	0.002	0.488	-0.394	0.488	-0.421	-0.344	-0.078	0.029	-6.2
Reading	7	3563	B	2	6997	0.479	0.094	0.210	0.216	0.479	0.001	0.311	-0.374	-0.216	-0.301	0.311	1.005	0.027	9.9
Reading	7	3564	B	2	6997	0.782	0.782	0.115	0.045	0.057	0.002	0.504	0.504	-0.375	-0.381	-0.353	-0.688	0.032	-9.0
Reading	7	3565	A	2	6997	0.676	0.143	0.676	0.110	0.069	0.001	0.499	-0.431	0.499	-0.393	-0.331	-0.027	0.029	-8.9
Reading	7	3566	A	2	6997	0.846	0.057	0.052	0.846	0.043	0.001	0.493	-0.358	-0.348	0.493	-0.309	-1.201	0.036	-9.6
Reading	7	3567	B	2	6997	0.415	0.174	0.101	0.415	0.307	0.002	0.172	-0.267	-0.361	0.172	-0.008	1.331	0.027	9.9
Reading	7	3568	B	2	6997	0.694	0.092	0.164	0.048	0.694	0.002	0.443	-0.400	-0.305	-0.362	0.443	-0.129	0.029	-4.3
Reading	7	3569	A	3	6997	0.691	0.691	0.159	0.061	0.087	0.002	0.377	0.377	-0.228	-0.384	-0.320	-0.111	0.029	3.0

Appendix J: 2007 Grades 3–8 and 11 Multiple-Choice Statistics

Information						Proportions						Correlations					Rasch		
Cont.	Grade	Pub. ID	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Reading	7	3570	A	2	6999	0.685	0.189	0.066	0.060	0.685	0.000	0.426	-0.277	-0.414	-0.406	0.426	-0.082	0.029	1.2
Reading	7	3571	A	2	6999	0.847	0.074	0.058	0.847	0.020	0.000	0.376	-0.261	-0.285	0.376	-0.207	-1.210	0.036	-3.6
Reading	7	3572	A	2	6999	0.500	0.092	0.142	0.265	0.500	0.000	0.312	-0.292	-0.384	-0.202	0.312	0.898	0.027	9.9
Reading	7	3573	A	2	6999	0.698	0.091	0.698	0.073	0.137	0.001	0.434	-0.358	0.434	-0.352	-0.308	-0.156	0.029	-2.1
Reading	7	3574	B	2	6999	0.825	0.072	0.062	0.825	0.040	0.000	0.454	-0.316	-0.352	0.454	-0.271	-1.025	0.034	-7.5
Reading	7	3575	A	1	6999	0.793	0.793	0.053	0.051	0.101	0.001	0.493	0.493	-0.339	-0.349	-0.376	-0.774	0.032	-9.7
Reading	7	3576	A	2	6999	0.831	0.831	0.065	0.017	0.086	0.001	0.276	0.276	-0.263	-0.216	-0.122	-1.071	0.035	9.0
Reading	7	3577	B	3	6999	0.739	0.739	0.064	0.082	0.114	0.001	0.436	0.436	-0.340	-0.382	-0.276	-0.405	0.030	-2.2
Reading	7	3578	A	2	6999	0.355	0.091	0.447	0.104	0.355	0.002	0.211	-0.427	-0.119	-0.318	0.211	1.643	0.028	9.9
Reading	7	3579	A	2	6999	0.774	0.052	0.135	0.774	0.037	0.002	0.482	-0.306	-0.393	0.482	-0.341	-0.637	0.031	-8.6
Reading	7	3580	A	2	6999	0.499	0.284	0.140	0.076	0.499	0.002	0.400	-0.311	-0.411	-0.411	0.400	0.904	0.027	2.1
Reading	7	3581	B	2	6999	0.593	0.593	0.119	0.133	0.152	0.002	0.342	0.342	-0.264	-0.296	-0.290	0.423	0.027	6.6
Reading	7	3582	B	3	6999	0.404	0.277	0.055	0.404	0.261	0.003	0.339	-0.382	-0.502	0.339	-0.222	1.386	0.027	7.6
Reading	7	3583	A	2	6999	0.794	0.073	0.082	0.049	0.794	0.002	0.532	-0.342	-0.421	-0.400	0.532	-0.779	0.032	-9.9
Reading	7	3584	B	2	6999	0.800	0.081	0.800	0.072	0.045	0.002	0.478	-0.309	0.478	-0.389	-0.323	-0.824	0.033	-8.1
Reading	7	3585	A	2	6999	0.683	0.072	0.683	0.183	0.061	0.002	0.502	-0.387	0.502	-0.406	-0.408	-0.066	0.029	-8.7
Reading	7	3586	B	2	6991	0.658	0.068	0.229	0.658	0.044	0.000	0.394	-0.322	-0.333	0.394	-0.255	0.057	0.028	-0.5
Reading	7	3587	B	2	6991	0.821	0.069	0.821	0.076	0.034	0.000	0.400	-0.277	0.400	-0.266	-0.305	-1.008	0.034	-2.2
Reading	7	3588	B	2	6991	0.516	0.060	0.296	0.127	0.516	0.001	0.354	-0.459	-0.218	-0.423	0.354	0.799	0.027	7.1
Reading	7	3589	B	2	6991	0.568	0.129	0.096	0.206	0.568	0.001	0.345	-0.384	-0.245	-0.250	0.345	0.533	0.027	6.5
Reading	7	3590	A	2	6991	0.804	0.101	0.060	0.034	0.804	0.001	0.445	-0.311	-0.338	-0.318	0.445	-0.872	0.033	-4.6
Reading	7	3591	B	2	6991	0.742	0.742	0.072	0.091	0.093	0.001	0.444	0.444	-0.312	-0.348	-0.331	-0.445	0.030	-5.4
Reading	7	3592	A	3	6991	0.514	0.182	0.126	0.176	0.514	0.001	0.427	-0.463	-0.327	-0.350	0.427	0.807	0.027	-2.0
Reading	7	3593	A	2	6991	0.718	0.155	0.077	0.718	0.047	0.001	0.533	-0.422	-0.408	0.533	-0.404	-0.297	0.030	-9.9
Reading	7	3594	A	2	6991	0.547	0.547	0.168	0.045	0.239	0.001	0.383	0.383	-0.317	-0.378	-0.338	0.642	0.027	3.4
Reading	7	3595	A	1	6991	0.741	0.083	0.741	0.053	0.122	0.001	0.387	-0.242	0.387	-0.354	-0.280	-0.439	0.030	-0.3
Reading	7	3596	A	1	6991	0.316	0.297	0.125	0.316	0.260	0.002	0.236	-0.258	-0.343	0.236	-0.178	1.840	0.028	9.9
Reading	7	3597	B	2	6991	0.691	0.062	0.214	0.691	0.033	0.001	0.333	-0.356	-0.198	0.333	-0.352	-0.131	0.029	9.9
Reading	7	3598	B	2	6991	0.710	0.072	0.067	0.149	0.710	0.002	0.473	-0.421	-0.374	-0.321	0.473	-0.243	0.029	-6.2
Reading	7	3599	A	2	6991	0.815	0.815	0.043	0.091	0.048	0.001	0.499	0.499	-0.360	-0.329	-0.390	-0.958	0.034	-9.5
Reading	7	3600	A	2	6991	0.451	0.451	0.277	0.145	0.123	0.003	0.170	0.170	-0.085	-0.263	-0.156	1.122	0.027	9.9
Reading	7	3601	A	2	6991	0.600	0.124	0.600	0.234	0.039	0.003	0.334	-0.390	0.334	-0.176	-0.398	0.369	0.027	7.6
Reading	7	3602	A	2	7006	0.758	0.118	0.056	0.068	0.758	0.000	0.445	-0.384	-0.325	-0.249	0.445	-0.540	0.031	-5.0
Reading	7	3603	B	2	7006	0.714	0.166	0.714	0.096	0.024	0.000	0.349	-0.271	0.349	-0.289	-0.226	-0.257	0.029	2.3
Reading	7	3604	B	2	7006	0.797	0.017	0.797	0.105	0.081	0.000	0.411	-0.236	0.411	-0.311	-0.313	-0.809	0.032	-4.4
Reading	7	3605	A	2	7006	0.638	0.306	0.638	0.035	0.021	0.000	0.412	-0.355	0.412	-0.352	-0.341	0.175	0.028	-0.6
Reading	7	3606	A	2	7006	0.613	0.155	0.123	0.613	0.108	0.001	0.396	-0.331	-0.310	0.396	-0.332	0.305	0.027	0.5
Reading	7	3607	B	2	7006	0.626	0.626	0.097	0.230	0.046	0.001	0.424	0.424	-0.359	-0.351	-0.377	0.238	0.028	0.4
Reading	7	3608	A	2	7006	0.671	0.056	0.169	0.671	0.104	0.001	0.377	-0.416	-0.220	0.377	-0.337	-0.007	0.028	3.9
Reading	7	3609	A	2	7006	0.816	0.816	0.066	0.093	0.024	0.001	0.443	0.443	-0.281	-0.360	-0.288	-0.952	0.034	-6.0
Reading	7	3610	B	2	7006	0.772	0.036	0.772	0.073	0.118	0.001	0.436	-0.311	0.436	-0.293	-0.347	-0.629	0.031	-4.4
Reading	7	3611	A	2	7006	0.711	0.216	0.711	0.026	0.046	0.001	0.439	-0.351	0.439	-0.349	-0.351	-0.241	0.029	-4.7
Reading	7	3612	A	2	7006	0.363	0.379	0.116	0.141	0.363	0.001	0.347	-0.255	-0.491	-0.462	0.347	1.579	0.028	5.5

Appendix J: 2007 Grades 3–8 and 11 Multiple-Choice Statistics

Information						Proportions						Correlations					Rasch		
Cont.	Grade	Pub. ID	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Reading	7	3613	B	2	7006	0.571	0.073	0.171	0.185	0.571	0.001	0.378	-0.362	-0.332	-0.299	0.378	0.526	0.027	4.1
Reading	7	3614	B	1	7006	0.362	0.362	0.465	0.086	0.084	0.002	0.069	0.069	0.048	-0.287	-0.319	1.584	0.028	9.9
Reading	7	3615	B	2	7006	0.720	0.094	0.117	0.720	0.066	0.001	0.463	-0.334	-0.362	0.463	-0.359	-0.296	0.030	-6.0
Reading	7	3616	B	2	7006	0.364	0.056	0.255	0.323	0.364	0.002	0.199	-0.466	-0.293	-0.056	0.199	1.574	0.028	9.9
Reading	7	3617	A	2	7006	0.640	0.060	0.640	0.143	0.155	0.001	0.406	-0.399	0.406	-0.270	-0.347	0.164	0.028	0.6
Reading	7	3618	B	2	6983	0.780	0.055	0.116	0.049	0.780	0.000	0.386	-0.295	-0.306	-0.211	0.386	-0.691	0.032	-0.6
Reading	7	3619	B	2	6983	0.764	0.157	0.764	0.047	0.033	0.000	0.440	-0.344	0.440	-0.349	-0.272	-0.574	0.031	-4.4
Reading	7	3620	A	2	6983	0.617	0.617	0.085	0.174	0.123	0.001	0.315	0.315	-0.369	-0.139	-0.320	0.290	0.028	8.9
Reading	7	3621	B	2	6983	0.686	0.686	0.165	0.059	0.089	0.001	0.457	0.457	-0.348	-0.349	-0.384	-0.090	0.029	-5.0
Reading	7	3622	B	2	6983	0.866	0.055	0.046	0.032	0.866	0.001	0.408	-0.276	-0.266	-0.280	0.408	-1.395	0.038	-4.7
Reading	7	3623	B	2	6983	0.753	0.073	0.133	0.753	0.039	0.001	0.412	-0.292	-0.316	0.412	-0.303	-0.506	0.031	-2.4
Reading	7	3624	A	2	6983	0.805	0.060	0.063	0.805	0.071	0.001	0.442	-0.389	-0.373	0.442	-0.184	-0.874	0.033	-4.0
Reading	7	3625	A	2	6983	0.674	0.100	0.048	0.177	0.674	0.000	0.485	-0.414	-0.456	-0.345	0.485	-0.024	0.029	-7.0
Reading	7	3626	A	2	6983	0.573	0.573	0.234	0.104	0.087	0.001	0.361	0.361	-0.263	-0.259	-0.421	0.523	0.027	4.2
Reading	7	3627	B	2	6983	0.817	0.098	0.817	0.058	0.025	0.001	0.254	-0.119	0.254	-0.188	-0.286	-0.968	0.034	9.9
Reading	7	3628	A	2	6983	0.794	0.048	0.041	0.794	0.117	0.000	0.464	-0.328	-0.346	0.464	-0.338	-0.787	0.032	-6.8
Reading	7	3629	A	2	6983	0.668	0.668	0.088	0.132	0.112	0.001	0.449	0.449	-0.353	-0.415	-0.294	0.014	0.028	-0.5
Reading	7	3630	A	2	6983	0.741	0.079	0.101	0.078	0.741	0.001	0.467	-0.368	-0.337	-0.340	0.467	-0.424	0.030	-6.0
Reading	7	3631	B	2	6983	0.495	0.495	0.198	0.146	0.159	0.002	0.254	0.254	-0.229	-0.217	-0.231	0.920	0.027	9.9
Reading	7	3632	A	2	6983	0.641	0.127	0.641	0.151	0.079	0.002	0.405	-0.254	0.405	-0.351	-0.382	0.163	0.028	0.6
Reading	7	3633	A	2	6983	0.644	0.153	0.133	0.644	0.069	0.002	0.496	-0.430	-0.362	0.496	-0.431	0.149	0.028	-7.6
Reading	7	3634	A	2	6993	0.882	0.081	0.010	0.028	0.882	0.000	0.349	-0.268	-0.193	-0.227	0.349	-1.571	0.040	-1.6
Reading	7	3635	A	2	6993	0.782	0.782	0.043	0.135	0.039	0.000	0.354	0.354	-0.348	-0.223	-0.233	-0.715	0.032	0.1
Reading	7	3636	A	2	6993	0.589	0.160	0.589	0.116	0.134	0.000	0.364	-0.282	0.364	-0.291	-0.335	0.422	0.027	5.9
Reading	7	3637	A	2	6993	0.587	0.174	0.077	0.161	0.587	0.000	0.500	-0.364	-0.493	-0.462	0.500	0.433	0.027	-8.3
Reading	7	3638	B	2	6993	0.716	0.039	0.716	0.222	0.022	0.000	0.284	-0.336	0.284	-0.175	-0.286	-0.284	0.029	9.9
Reading	7	3639	A	1	6993	0.836	0.022	0.026	0.836	0.115	0.001	0.397	-0.237	-0.230	0.397	-0.327	-1.134	0.035	-3.8
Reading	7	3640	A	1	6993	0.740	0.055	0.133	0.740	0.070	0.001	0.428	-0.339	-0.341	0.428	-0.267	-0.433	0.030	-3.5
Reading	7	3641	A	2	6993	0.566	0.167	0.566	0.094	0.172	0.001	0.355	-0.335	0.355	-0.280	-0.270	0.541	0.027	4.6
Reading	7	3642	A	2	6993	0.784	0.125	0.044	0.046	0.784	0.001	0.431	-0.288	-0.321	-0.350	0.431	-0.724	0.032	-4.4
Reading	7	3643	A	2	6993	0.504	0.504	0.137	0.091	0.267	0.001	0.452	0.452	-0.516	-0.434	-0.337	0.852	0.027	-3.7
Reading	7	3644	A	2	6993	0.564	0.064	0.319	0.564	0.051	0.001	0.151	-0.326	-0.022	0.151	-0.266	0.548	0.027	9.9
Reading	7	3645	A	2	6993	0.758	0.116	0.758	0.082	0.042	0.001	0.403	-0.330	0.403	-0.275	-0.274	-0.551	0.031	0.2
Reading	7	3646	A	2	6993	0.784	0.061	0.784	0.087	0.065	0.001	0.521	-0.333	0.521	-0.384	-0.425	-0.731	0.032	-9.8
Reading	7	3647	A	2	6993	0.686	0.686	0.057	0.132	0.123	0.001	0.418	0.418	-0.385	-0.315	-0.303	-0.104	0.029	-1.0
Reading	7	3648	A	3	6993	0.539	0.155	0.111	0.539	0.192	0.002	0.271	-0.249	-0.262	0.271	-0.205	0.677	0.027	9.9
Reading	7	3649	B	2	6993	0.683	0.145	0.071	0.099	0.683	0.001	0.398	-0.274	-0.342	-0.339	0.398	-0.091	0.029	2.6
Reading	7	3650	B	2	6978	0.770	0.058	0.121	0.051	0.770	0.000	0.391	-0.312	-0.320	-0.196	0.391	-0.617	0.031	-1.2
Reading	7	3651	B	2	6978	0.756	0.165	0.756	0.047	0.032	0.000	0.482	-0.391	0.482	-0.375	-0.300	-0.527	0.031	-7.2
Reading	7	3652	A	2	6978	0.635	0.635	0.075	0.165	0.125	0.000	0.299	0.299	-0.344	-0.118	-0.304	0.184	0.028	9.1
Reading	7	3653	B	2	6978	0.682	0.682	0.161	0.060	0.097	0.000	0.479	0.479	-0.378	-0.358	-0.399	-0.072	0.029	-7.2
Reading	7	3654	B	2	6978	0.876	0.051	0.041	0.032	0.876	0.000	0.419	-0.280	-0.283	-0.279	0.419	-1.495	0.039	-5.5
Reading	7	3655	B	2	6978	0.760	0.071	0.128	0.760	0.039	0.001	0.413	-0.293	-0.313	0.413	-0.307	-0.553	0.031	-3.3

Appendix J: 2007 Grades 3–8 and 11 Multiple-Choice Statistics

Information						Proportions						Correlations					Rasch		
Cont.	Grade	Pub. ID	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Reading	7	3656	A	2	6978	0.826	0.046	0.051	0.826	0.076	0.002	0.385	-0.283	-0.381	0.385	-0.155	-1.033	0.034	-1.3
Reading	7	3657	A	1	6978	0.814	0.100	0.053	0.814	0.031	0.001	0.465	-0.328	-0.369	0.465	-0.280	-0.939	0.033	-8.0
Reading	7	3658	A	2	6978	0.583	0.583	0.282	0.062	0.070	0.002	0.349	0.349	-0.255	-0.324	-0.366	0.460	0.027	5.1
Reading	7	3659	A	2	6978	0.407	0.373	0.125	0.091	0.407	0.002	0.198	-0.119	-0.240	-0.332	0.198	1.345	0.027	9.9
Reading	7	3660	B	2	6978	0.470	0.087	0.470	0.328	0.113	0.002	0.387	-0.311	0.387	-0.362	-0.378	1.029	0.027	2.8
Reading	7	3661	A	2	6978	0.445	0.073	0.382	0.098	0.445	0.002	0.335	-0.401	-0.281	-0.333	0.335	1.155	0.027	7.2
Reading	7	3662	B	1	6978	0.437	0.096	0.437	0.351	0.114	0.001	0.214	-0.378	0.214	-0.117	-0.233	1.192	0.027	9.9
Reading	7	3663	B	2	6978	0.710	0.056	0.080	0.710	0.149	0.003	0.369	-0.406	-0.342	0.369	-0.171	-0.238	0.029	3.3
Reading	7	3664	B	3	6978	0.530	0.042	0.530	0.123	0.301	0.003	0.369	-0.388	0.369	-0.267	-0.337	0.726	0.027	2.8
Reading	7	3665	B	3	6978	0.802	0.802	0.055	0.072	0.068	0.003	0.450	0.450	-0.312	-0.304	-0.343	-0.843	0.033	-5.7
Reading	7	3666	A	2	6957	0.878	0.080	0.011	0.030	0.878	0.000	0.352	-0.259	-0.227	-0.228	0.352	-1.523	0.039	-0.9
Reading	7	3667	A	2	6957	0.792	0.792	0.040	0.128	0.040	0.000	0.325	0.325	-0.345	-0.183	-0.220	-0.775	0.032	1.2
Reading	7	3668	A	2	6957	0.577	0.163	0.577	0.126	0.132	0.001	0.342	-0.284	0.342	-0.269	-0.316	0.491	0.027	7.0
Reading	7	3669	A	2	6957	0.589	0.174	0.075	0.161	0.589	0.000	0.481	-0.362	-0.467	-0.431	0.481	0.429	0.027	-6.6
Reading	7	3670	B	2	6957	0.722	0.042	0.722	0.217	0.018	0.000	0.257	-0.276	0.257	-0.170	-0.239	-0.309	0.030	9.9
Reading	7	3671	A	1	6957	0.835	0.024	0.024	0.835	0.116	0.001	0.384	-0.244	-0.230	0.384	-0.305	-1.108	0.035	-3.5
Reading	7	3672	A	3	6957	0.800	0.101	0.025	0.073	0.800	0.001	0.421	-0.297	-0.280	-0.329	0.421	-0.830	0.033	-4.9
Reading	7	3673	A	1	6957	0.607	0.118	0.607	0.135	0.138	0.002	0.341	-0.279	0.341	-0.268	-0.286	0.338	0.027	5.2
Reading	7	3674	B	1	6957	0.700	0.052	0.104	0.700	0.142	0.001	0.475	-0.332	-0.334	0.475	-0.421	-0.177	0.029	-7.6
Reading	7	3675	A	1	6957	0.824	0.071	0.824	0.053	0.051	0.001	0.421	-0.325	0.421	-0.290	-0.253	-1.016	0.034	-4.8
Reading	7	3676	A	2	6957	0.667	0.667	0.100	0.139	0.093	0.002	0.365	0.365	-0.343	-0.302	-0.212	0.015	0.028	2.9
Reading	7	3677	B	3	6957	0.394	0.071	0.192	0.394	0.341	0.002	0.060	-0.230	-0.033	0.060	-0.020	1.416	0.027	9.9
Reading	7	3678	B	2	6957	0.649	0.134	0.183	0.649	0.032	0.002	0.440	-0.335	-0.380	0.440	-0.352	0.111	0.028	-5.1
Reading	7	3679	B	2	6957	0.568	0.126	0.568	0.224	0.079	0.002	0.404	-0.314	0.404	-0.327	-0.415	0.536	0.027	-0.7
Reading	7	3680	B	2	6957	0.841	0.841	0.057	0.061	0.040	0.001	0.539	0.539	-0.371	-0.408	-0.354	-1.161	0.035	-9.9
Reading	7	3681	B	2	6957	0.855	0.046	0.059	0.040	0.855	0.001	0.468	-0.319	-0.323	-0.325	0.468	-1.285	0.037	-7.6
Reading	7	3682	A	1	6971	0.784	0.040	0.784	0.088	0.087	0.001	0.426	-0.231	0.426	-0.323	-0.333	-0.696	0.032	-5.7
Reading	7	3683	A	2	6971	0.747	0.102	0.070	0.080	0.747	0.001	0.447	-0.383	-0.351	-0.252	0.447	-0.444	0.030	-3.7
Reading	7	3684	A	1	6971	0.650	0.177	0.119	0.650	0.053	0.001	0.339	-0.251	-0.250	0.339	-0.339	0.122	0.028	3.1
Reading	7	3685	A	2	6971	0.610	0.610	0.173	0.161	0.055	0.001	0.282	0.282	-0.185	-0.231	-0.325	0.336	0.027	9.4
Reading	7	3686	B	2	6971	0.731	0.731	0.057	0.073	0.138	0.001	0.398	0.398	-0.318	-0.324	-0.268	-0.342	0.030	-2.4
Reading	7	3687	A	2	6971	0.804	0.068	0.047	0.804	0.079	0.001	0.449	-0.352	-0.276	0.449	-0.321	-0.840	0.033	-6.0
Reading	7	3688	A	2	6971	0.349	0.077	0.522	0.051	0.349	0.001	0.249	-0.377	-0.199	-0.401	0.249	1.662	0.028	9.9
Reading	7	3689	A	2	6971	0.488	0.488	0.023	0.331	0.156	0.002	0.123	0.123	-0.253	-0.104	-0.079	0.950	0.027	9.9
Reading	7	3690	B	2	6971	0.602	0.228	0.067	0.101	0.602	0.001	0.282	-0.152	-0.362	-0.275	0.282	0.377	0.027	9.9
Reading	7	3691	B	2	6971	0.639	0.639	0.238	0.051	0.072	0.001	0.360	0.360	-0.285	-0.278	-0.321	0.183	0.028	2.9
Reading	7	3692	A	2	6971	0.707	0.090	0.066	0.707	0.136	0.001	0.365	-0.343	-0.276	0.365	-0.223	-0.198	0.029	3.3
Reading	7	3693	B	2	6971	0.454	0.108	0.454	0.127	0.310	0.001	0.341	-0.465	0.341	-0.294	-0.264	1.123	0.027	6.4
Reading	7	3694	B	2	6971	0.568	0.250	0.568	0.103	0.076	0.001	0.484	-0.455	0.484	-0.432	-0.329	0.549	0.027	-8.5
Reading	7	3695	A	2	6971	0.770	0.093	0.092	0.770	0.043	0.002	0.469	-0.324	-0.403	0.469	-0.282	-0.596	0.031	-7.6
Reading	7	3696	B	2	6971	0.606	0.126	0.117	0.149	0.606	0.002	0.358	-0.336	-0.326	-0.234	0.358	0.357	0.027	5.5
Reading	7	3697	A	2	6971	0.723	0.038	0.723	0.083	0.154	0.002	0.369	-0.348	0.369	-0.270	-0.258	-0.298	0.030	0.5
Reading	7	3698	A		6968	0.769	0.129	0.769	0.074	0.028	0.000	0.405	-0.333	0.405	-0.265	-0.270	-0.608	0.031	-3.1

Appendix J: 2007 Grades 3–8 and 11 Multiple-Choice Statistics

Information					Proportions							Correlations					Rasch		
Cont.	Grade	Pub. ID	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Reading	7	3699	A		6968	0.596	0.596	0.233	0.082	0.088	0.000	0.318	0.318	-0.268	-0.274	-0.242	0.392	0.027	9.1
Reading	7	3700	A		6968	0.582	0.268	0.582	0.087	0.062	0.000	0.396	-0.304	0.396	-0.407	-0.347	0.466	0.027	3.2
Reading	7	3701	A		6968	0.782	0.091	0.782	0.074	0.052	0.001	0.444	-0.265	0.444	-0.344	-0.369	-0.697	0.032	-4.3
Reading	7	3702	A		6968	0.705	0.087	0.705	0.097	0.111	0.000	0.400	-0.381	0.400	-0.349	-0.187	-0.206	0.029	0.7
Reading	7	3703	A		6968	0.846	0.031	0.032	0.846	0.089	0.001	0.489	-0.321	-0.298	0.489	-0.382	-1.196	0.036	-9.3
Reading	7	3704	A	2	6968	0.787	0.063	0.787	0.052	0.097	0.001	0.490	-0.352	0.490	-0.335	-0.377	-0.753	0.032	-6.9
Reading	7	3705	B	2	6968	0.715	0.169	0.072	0.715	0.043	0.001	0.315	-0.150	-0.375	0.315	-0.265	-0.273	0.030	9.0
Reading	7	3706	A	2	6968	0.920	0.024	0.021	0.033	0.920	0.001	0.421	-0.260	-0.256	-0.287	0.421	-2.066	0.046	-8.6
Reading	7	3707	A	2	6968	0.705	0.705	0.084	0.168	0.042	0.001	0.466	0.466	-0.376	-0.350	-0.372	-0.215	0.029	-6.1
Reading	7	3708	B	2	6968	0.842	0.058	0.049	0.048	0.842	0.001	0.514	-0.330	-0.373	-0.370	0.514	-1.192	0.036	-9.9
Reading	7	3709	A	2	6968	0.757	0.108	0.757	0.056	0.077	0.001	0.468	-0.347	0.468	-0.356	-0.333	-0.544	0.031	-6.5
Reading	7	3710	B	2	6968	0.740	0.114	0.056	0.740	0.086	0.002	0.484	-0.397	-0.378	0.484	-0.304	-0.433	0.030	-7.6
Reading	7	3711	A	2	6968	0.815	0.815	0.069	0.043	0.071	0.001	0.463	0.463	-0.358	-0.345	-0.277	-0.960	0.034	-6.4
Reading	7	3712	B	2	6968	0.541	0.259	0.112	0.541	0.086	0.002	0.305	-0.175	-0.389	0.305	-0.297	0.678	0.027	9.9
Reading	7	3713	B	2	6968	0.596	0.128	0.088	0.185	0.596	0.002	0.420	-0.404	-0.423	-0.270	0.420	0.391	0.027	-0.4
Reading	7	3714	A		6946	0.897	0.031	0.051	0.897	0.021	0.000	0.419	-0.280	-0.323	0.419	-0.197	-1.716	0.042	-7.8
Reading	7	3715	A		6946	0.735	0.735	0.147	0.033	0.085	0.000	0.413	0.413	-0.351	-0.341	-0.237	-0.385	0.030	-4.5
Reading	7	3716	B		6946	0.565	0.097	0.062	0.274	0.565	0.001	0.362	-0.300	-0.419	-0.283	0.362	0.550	0.027	5.4
Reading	7	3717	A		6946	0.625	0.247	0.107	0.625	0.021	0.000	0.423	-0.355	-0.363	0.423	-0.344	0.243	0.028	-3.7
Reading	7	3718	B		6946	0.696	0.696	0.116	0.108	0.080	0.001	0.370	0.370	-0.329	-0.330	-0.162	-0.151	0.029	0.4
Reading	7	3719	B		6946	0.610	0.075	0.273	0.040	0.610	0.001	0.185	-0.182	-0.083	-0.359	0.185	0.320	0.027	9.9
Reading	7	3720	A	1	6946	0.567	0.196	0.567	0.180	0.055	0.002	0.228	-0.225	0.228	-0.113	-0.284	0.540	0.027	9.9
Reading	7	3721	A	2	6946	0.717	0.717	0.064	0.105	0.112	0.001	0.445	0.445	-0.374	-0.346	-0.309	-0.276	0.029	-4.9
Reading	7	3722	B	2	6946	0.563	0.118	0.264	0.563	0.052	0.003	0.222	-0.096	-0.245	0.222	-0.177	0.562	0.027	9.9
Reading	7	3723	A	2	6946	0.682	0.106	0.682	0.111	0.099	0.002	0.470	-0.382	0.470	-0.405	-0.309	-0.071	0.029	-7.9
Reading	7	3724	B	2	6946	0.522	0.079	0.083	0.313	0.522	0.003	0.406	-0.411	-0.440	-0.314	0.406	0.768	0.027	-0.6
Reading	7	3725	A	2	6946	0.693	0.693	0.099	0.065	0.140	0.003	0.501	0.501	-0.430	-0.395	-0.360	-0.135	0.029	-9.9
Reading	7	3726	A	2	6946	0.455	0.143	0.166	0.455	0.234	0.002	0.348	-0.280	-0.319	0.348	-0.354	1.101	0.027	6.4
Reading	7	3727	B	2	6946	0.304	0.304	0.394	0.161	0.138	0.002	0.131	0.131	-0.078	-0.246	-0.173	1.894	0.029	9.9
Reading	7	3728	B	2	6946	0.691	0.081	0.134	0.091	0.691	0.003	0.492	-0.342	-0.397	-0.411	0.492	-0.122	0.029	-8.5
Reading	7	3729	B	2	6946	0.539	0.238	0.116	0.539	0.104	0.003	0.426	-0.290	-0.461	0.426	-0.440	0.680	0.027	-1.6
Reading	7	3730	A		6983	0.927	0.927	0.040	0.021	0.012	0.000	0.313	0.313	-0.230	-0.177	-0.175	-2.163	0.049	-4.5
Reading	7	3731	A		6983	0.629	0.629	0.207	0.098	0.066	0.000	0.474	0.474	-0.395	-0.419	-0.365	0.220	0.027	-6.4
Reading	7	3732	A		6983	0.801	0.044	0.043	0.801	0.111	0.001	0.438	-0.291	-0.307	0.438	-0.331	-0.847	0.033	-6.7
Reading	7	3733	A		6983	0.815	0.015	0.144	0.815	0.025	0.000	0.431	-0.248	-0.370	0.431	-0.253	-0.958	0.034	-5.6
Reading	7	3734	A		6983	0.862	0.045	0.067	0.026	0.862	0.000	0.450	-0.339	-0.295	-0.293	0.450	-1.366	0.037	-8.8
Reading	7	3735	A		6983	0.819	0.040	0.065	0.819	0.074	0.002	0.469	-0.304	-0.243	0.469	-0.341	-0.986	0.034	-8.7
Reading	7	3736	A	3	6983	0.461	0.376	0.125	0.461	0.036	0.001	0.025	0.073	-0.121	0.025	-0.321	1.061	0.027	9.9
Reading	7	3737	A	1	6983	0.630	0.220	0.089	0.059	0.630	0.001	0.531	-0.442	-0.448	-0.455	0.531	0.213	0.028	-9.9
Reading	7	3738	A	1	6983	0.724	0.724	0.158	0.064	0.052	0.001	0.422	0.422	-0.328	-0.342	-0.289	-0.317	0.029	-3.8
Reading	7	3739	B	2	6983	0.344	0.547	0.344	0.052	0.055	0.001	0.049	0.027	0.049	-0.395	-0.180	1.655	0.028	9.9
Reading	7	3740	B	2	6983	0.315	0.315	0.223	0.156	0.305	0.001	0.112	0.112	-0.116	-0.168	-0.092	1.814	0.028	9.9
Reading	7	3741	B	3	6983	0.459	0.169	0.166	0.459	0.204	0.002	0.183	-0.200	-0.249	0.183	-0.068	1.073	0.027	9.9

Appendix J: 2007 Grades 3–8 and 11 Multiple-Choice Statistics

Information					Proportions							Correlations					Rasch		
Cont.	Grade	Pub. ID	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Reading	7	3742	A	3	6983	0.561	0.242	0.561	0.121	0.075	0.001	0.334	-0.218	0.334	-0.357	-0.331	0.566	0.027	3.6
Reading	7	3743	A	2	6983	0.462	0.104	0.337	0.462	0.095	0.001	0.305	-0.350	-0.196	0.305	-0.420	1.057	0.027	9.9
Reading	7	3744	B	3	6983	0.476	0.250	0.149	0.123	0.476	0.002	0.275	-0.177	-0.243	-0.389	0.275	0.988	0.027	9.9
Reading	7	3745	B	3	6983	0.635	0.635	0.147	0.094	0.123	0.002	0.313	0.313	-0.230	-0.337	-0.199	0.186	0.028	5.8
Reading	7	3746	A		6958	0.721	0.108	0.064	0.107	0.721	0.000	0.479	-0.330	-0.434	-0.362	0.479	-0.287	0.030	-6.5
Reading	7	3747	B		6958	0.676	0.213	0.066	0.045	0.676	0.000	0.467	-0.376	-0.376	-0.384	0.467	-0.027	0.028	-6.4
Reading	7	3748	A		6958	0.522	0.522	0.030	0.408	0.040	0.000	0.518	0.518	-0.417	-0.507	-0.322	0.780	0.027	-9.9
Reading	7	3749	A		6958	0.695	0.128	0.044	0.695	0.133	0.000	0.296	-0.288	-0.256	0.296	-0.150	-0.133	0.029	7.0
Reading	7	3750	A		6958	0.601	0.162	0.601	0.170	0.066	0.001	0.336	-0.323	0.336	-0.201	-0.318	0.376	0.027	4.0
Reading	7	3751	A		6958	0.707	0.099	0.098	0.095	0.707	0.001	0.429	-0.243	-0.434	-0.304	0.429	-0.205	0.029	-3.3
Reading	7	3752	A	1	6958	0.557	0.115	0.228	0.098	0.557	0.001	0.368	-0.346	-0.333	-0.254	0.368	0.596	0.027	2.7
Reading	7	3753	A	3	6958	0.619	0.173	0.100	0.107	0.619	0.001	0.268	-0.132	-0.302	-0.247	0.268	0.282	0.028	9.9
Reading	7	3754	B	2	6958	0.432	0.181	0.432	0.195	0.190	0.001	0.165	-0.173	0.165	-0.197	-0.093	1.225	0.027	9.9
Reading	7	3755	A	3	6958	0.812	0.812	0.043	0.068	0.075	0.001	0.464	0.464	-0.326	-0.321	-0.338	-0.909	0.033	-7.5
Reading	7	3756	A	2	6958	0.577	0.577	0.106	0.220	0.095	0.001	0.286	0.286	-0.338	0.225	-0.152	0.495	0.027	9.9
Reading	7	3757	B	2	6958	0.711	0.094	0.088	0.711	0.105	0.002	0.432	-0.370	-0.382	0.432	-0.241	-0.231	0.029	-3.9
Reading	7	3758	A	2	6958	0.603	0.603	0.139	0.100	0.156	0.001	0.436	0.436	-0.333	-0.353	-0.397	0.363	0.027	-3.0
Reading	7	3759	A	3	6958	0.755	0.131	0.755	0.061	0.051	0.002	0.450	-0.300	0.450	-0.358	-0.370	-0.504	0.031	-5.9
Reading	7	3760	B	2	6958	0.526	0.192	0.099	0.526	0.179	0.003	0.342	-0.255	-0.367	0.342	-0.307	0.755	0.027	5.1
Reading	7	3761	A	2	6958	0.761	0.138	0.055	0.042	0.761	0.004	0.461	-0.345	-0.336	-0.373	0.461	-0.547	0.031	-6.6
Reading	7	3762	A		6969	0.875	0.875	0.021	0.052	0.052	0.000	0.243	0.243	-0.197	-0.194	-0.102	-1.474	0.039	4.2
Reading	7	3763	A		6969	0.852	0.852	0.020	0.044	0.083	0.000	0.506	0.506	-0.277	-0.342	-0.402	-1.259	0.036	-9.9
Reading	7	3764	A		6969	0.865	0.033	0.060	0.865	0.042	0.000	0.503	-0.299	-0.376	0.503	-0.341	-1.372	0.037	-9.9
Reading	7	3765	B		6969	0.447	0.447	0.061	0.245	0.247	0.001	0.217	0.217	-0.323	-0.253	-0.108	1.145	0.027	9.9
Reading	7	3766	A		6969	0.736	0.045	0.191	0.027	0.736	0.000	0.382	-0.339	-0.275	-0.311	0.382	-0.399	0.030	0.4
Reading	7	3767	A		6969	0.703	0.041	0.045	0.209	0.703	0.001	0.431	-0.333	-0.351	-0.339	0.431	-0.199	0.029	-4.1
Reading	7	3768	A	2	6969	0.636	0.153	0.095	0.114	0.636	0.002	0.348	-0.327	-0.221	-0.268	0.348	0.175	0.028	3.4
Reading	7	3769	A	2	6969	0.795	0.146	0.036	0.795	0.023	0.001	0.433	-0.358	-0.278	0.433	-0.264	-0.798	0.032	-5.8
Reading	7	3770	A	2	6969	0.815	0.092	0.058	0.815	0.033	0.001	0.439	-0.283	-0.350	0.439	-0.314	-0.952	0.034	-4.2
Reading	7	3771	B	2	6969	0.649	0.112	0.649	0.091	0.144	0.002	0.264	-0.192	0.264	-0.262	-0.172	0.104	0.028	9.9
Reading	7	3772	B	3	6969	0.751	0.751	0.091	0.083	0.073	0.002	0.456	0.456	-0.359	-0.293	-0.355	-0.499	0.031	-5.6
Reading	7	3773	A	2	6969	0.785	0.063	0.785	0.082	0.068	0.001	0.475	-0.308	0.475	-0.384	-0.329	-0.731	0.032	-6.5
Reading	7	3774	B	2	6969	0.552	0.205	0.127	0.112	0.552	0.003	0.359	-0.320	-0.255	-0.356	0.359	0.615	0.027	4.2
Reading	7	3775	B	3	6969	0.783	0.783	0.088	0.090	0.036	0.002	0.452	0.452	-0.355	-0.361	-0.225	-0.716	0.032	-5.1
Reading	7	3776	B	1	6969	0.599	0.064	0.599	0.192	0.142	0.002	0.375	-0.391	0.375	-0.311	-0.259	0.372	0.027	2.6
Reading	7	3777	A	2	6969	0.719	0.124	0.074	0.081	0.719	0.002	0.428	-0.323	-0.309	-0.333	0.428	-0.296	0.030	-3.0
Reading	8	3778	A		143013	0.879	0.034	0.043	0.044	0.879	0.001	0.508	-0.331	-0.360	-0.348	0.508	-0.979	0.009	-9.9
Reading	8	3779	B		143013	0.796	0.117	0.038	0.796	0.048	0.001	0.491	-0.404	-0.319	0.491	-0.324	-0.271	0.007	-9.9
Reading	8	3780	B		143013	0.755	0.061	0.042	0.141	0.755	0.001	0.348	-0.333	-0.245	-0.226	0.348	0.008	0.007	9.9
Reading	8	3781	A		143013	0.855	0.030	0.095	0.855	0.019	0.001	0.378	-0.267	-0.275	0.378	-0.242	-0.745	0.008	-9.9
Reading	8	3782	B		143013	0.865	0.030	0.865	0.088	0.017	0.001	0.241	-0.153	0.241	-0.167	-0.172	-0.838	0.008	9.9
Reading	8	3783	B		143013	0.773	0.773	0.121	0.067	0.038	0.002	0.192	0.192	-0.007	-0.239	-0.244	-0.105	0.007	9.9
Reading	8	3784	A		143013	0.640	0.054	0.294	0.640	0.012	0.001	0.409	-0.415	-0.348	0.409	-0.223	0.673	0.006	-9.9

Appendix J: 2007 Grades 3–8 and 11 Multiple-Choice Statistics

Information					Proportions							Correlations					Rasch		
Cont.	Grade	Pub. ID	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Reading	8	3785	A		143013	0.752	0.057	0.130	0.060	0.752	0.001	0.553	-0.447	-0.416	-0.426	0.553	0.032	0.007	-9.9
Reading	8	3786	A		143013	0.717	0.145	0.067	0.717	0.070	0.001	0.466	-0.381	-0.367	0.466	-0.317	0.246	0.006	-9.9
Reading	8	3787	B		143013	0.784	0.084	0.091	0.784	0.040	0.001	0.439	-0.344	-0.281	0.439	-0.342	-0.183	0.007	-9.9
Reading	8	3788	A		143013	0.782	0.782	0.064	0.065	0.087	0.001	0.465	0.465	-0.359	-0.341	-0.319	-0.169	0.007	-9.9
Reading	8	3789	A		143013	0.728	0.077	0.097	0.096	0.728	0.001	0.444	-0.296	-0.324	-0.382	0.444	0.178	0.007	-9.9
Reading	8	3790	A		143013	0.725	0.090	0.135	0.725	0.048	0.002	0.377	-0.219	-0.302	0.377	-0.349	0.198	0.007	-3.1
Reading	8	3791	A	2	143013	0.746	0.083	0.111	0.746	0.057	0.003	0.490	-0.384	-0.480	0.490	-0.163	0.069	0.007	-9.9
Reading	8	3792	A	1	143013	0.672	0.161	0.058	0.672	0.106	0.003	0.379	-0.403	-0.335	0.379	-0.123	0.500	0.006	-3.9
Reading	8	3793	A	2	143013	0.760	0.118	0.760	0.043	0.076	0.003	0.299	-0.236	0.299	-0.273	-0.140	-0.023	0.007	9.9
Reading	8	3794	A	2	143013	0.709	0.105	0.050	0.132	0.709	0.003	0.527	-0.382	-0.416	-0.435	0.527	0.291	0.006	-9.9
Reading	8	3795	A	2	143013	0.467	0.217	0.107	0.204	0.467	0.005	0.346	-0.264	-0.435	-0.308	0.346	1.535	0.006	9.9
Reading	8	3796	A	1	143013	0.667	0.667	0.062	0.091	0.174	0.005	0.466	0.466	-0.406	-0.372	-0.351	0.525	0.006	-9.9
Reading	8	3797	A	1	143013	0.633	0.075	0.633	0.116	0.171	0.005	0.433	-0.367	0.433	-0.335	-0.361	0.711	0.006	-9.9
Reading	8	3798	A		143013	0.795	0.135	0.795	0.022	0.048	0.000	0.369	-0.268	0.369	-0.235	-0.307	-0.258	0.007	-3.1
Reading	8	3799	B		143013	0.482	0.150	0.176	0.482	0.192	0.000	0.331	-0.445	-0.301	0.331	-0.182	1.461	0.006	9.9
Reading	8	3800	A		143013	0.859	0.036	0.038	0.859	0.067	0.000	0.372	-0.288	-0.265	0.372	-0.214	-0.786	0.008	-9.9
Reading	8	3801	A		143013	0.771	0.011	0.197	0.771	0.020	0.001	0.317	-0.249	-0.251	0.317	-0.270	-0.095	0.007	9.9
Reading	8	3802	A		143013	0.852	0.852	0.096	0.017	0.034	0.001	0.398	0.398	-0.315	-0.258	-0.238	-0.720	0.008	-9.9
Reading	8	3803	B	1	143013	0.660	0.257	0.057	0.660	0.024	0.001	0.418	-0.349	-0.374	0.418	-0.306	0.565	0.006	-9.9
Reading	8	3804	B	2	143013	0.428	0.208	0.428	0.221	0.141	0.002	0.260	-0.223	0.260	-0.328	-0.172	1.727	0.006	9.9
Reading	8	3805	B	2	143013	0.443	0.093	0.333	0.128	0.443	0.002	0.313	-0.404	-0.225	-0.375	0.313	1.654	0.006	9.9
Reading	8	3806	A	1	143013	0.324	0.324	0.029	0.037	0.609	0.001	0.302	0.302	-0.479	-0.455	-0.271	2.264	0.006	9.9
Reading	8	3807	B	3	143013	0.467	0.107	0.162	0.467	0.262	0.002	0.165	-0.184	-0.229	0.165	-0.076	1.537	0.006	9.9
Reading	8	3808	B	2	143013	0.582	0.050	0.090	0.582	0.276	0.002	0.339	-0.337	-0.412	0.339	-0.220	0.970	0.006	9.9
Reading	8	3809	B	2	143013	0.710	0.177	0.710	0.072	0.038	0.002	0.214	-0.138	0.214	-0.179	-0.201	0.282	0.006	9.9
Reading	8	3810	A	2	143013	0.449	0.144	0.038	0.366	0.449	0.002	0.281	-0.250	-0.367	-0.254	0.281	1.622	0.006	9.9
Reading	8	3811	A	2	143013	0.743	0.146	0.093	0.743	0.015	0.004	0.323	-0.272	-0.221	0.323	-0.213	0.089	0.007	9.9
Reading	8	3812	A	2	143013	0.306	0.301	0.306	0.253	0.136	0.004	0.187	-0.191	0.187	-0.211	-0.178	2.362	0.006	9.9
Reading	8	3813	B	2	143013	0.468	0.035	0.468	0.329	0.164	0.004	0.164	-0.295	0.164	-0.088	-0.192	1.531	0.006	9.9
Reading	8	3814	B	2	143013	0.763	0.763	0.168	0.022	0.044	0.004	0.313	0.313	-0.188	-0.309	-0.303	-0.038	0.007	9.9
Reading	8	3815	A	2	143013	0.676	0.122	0.676	0.065	0.133	0.004	0.410	-0.331	0.410	-0.368	-0.281	0.477	0.006	-7.4
Reading	8	3816	B	2	143013	0.343	0.269	0.085	0.343	0.298	0.005	0.203	-0.285	-0.392	0.203	-0.054	2.161	0.006	9.9
Reading	8	3817	B	2	143013	0.612	0.242	0.067	0.612	0.074	0.005	0.450	-0.372	-0.326	0.450	-0.446	0.819	0.006	-9.9
Reading	8	3818	B	2	7649	0.796	0.138	0.030	0.796	0.036	0.000	0.450	-0.375	-0.316	0.450	-0.255	-0.432	0.031	-6.8
Reading	8	3819	A	2	7649	0.740	0.044	0.740	0.191	0.026	0.000	0.388	-0.384	0.388	-0.276	-0.271	-0.048	0.029	0.0
Reading	8	3820	A	1	7649	0.666	0.666	0.133	0.113	0.086	0.001	0.425	0.425	-0.293	-0.320	-0.407	0.387	0.027	-5.4
Reading	8	3821	A	2	7649	0.734	0.034	0.132	0.734	0.098	0.001	0.464	-0.366	-0.311	0.464	-0.412	-0.015	0.029	-5.2
Reading	8	3822	B	2	7649	0.471	0.300	0.145	0.083	0.471	0.001	0.289	-0.123	-0.428	-0.399	0.289	1.390	0.026	9.9
Reading	8	3823	A	2	7649	0.681	0.181	0.079	0.681	0.056	0.002	0.489	-0.367	-0.432	0.489	-0.382	0.302	0.027	-9.4
Reading	8	3824	A	2	7649	0.716	0.108	0.716	0.113	0.062	0.001	0.436	-0.398	0.436	-0.258	-0.332	0.102	0.028	-3.1
Reading	8	3825	A	2	7649	0.332	0.182	0.332	0.116	0.368	0.002	0.154	-0.245	0.154	-0.421	-0.008	2.102	0.027	9.9
Reading	8	3826	A	2	7649	0.629	0.076	0.241	0.052	0.629	0.001	0.377	-0.377	-0.248	-0.412	0.377	0.587	0.026	2.1
Reading	8	3827	A	2	7649	0.286	0.279	0.078	0.286	0.355	0.001	0.242	-0.205	-0.373	0.242	-0.265	2.363	0.028	9.9

Appendix J: 2007 Grades 3–8 and 11 Multiple-Choice Statistics

Information					Proportions							Correlations					Rasch		
Cont.	Grade	Pub. ID	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Reading	8	3828	A	2	7649	0.802	0.802	0.103	0.067	0.026	0.001	0.449	0.449	-0.330	-0.338	-0.295	-0.478	0.031	-6.9
Reading	8	3829	B	3	7649	0.434	0.178	0.254	0.132	0.434	0.002	0.366	-0.316	-0.391	-0.329	0.366	1.575	0.026	3.0
Reading	8	3830	B	2	7649	0.747	0.058	0.078	0.115	0.747	0.002	0.471	-0.377	-0.315	-0.371	0.471	-0.091	0.029	-6.0
Reading	8	3831	A	2	7649	0.725	0.725	0.168	0.055	0.049	0.002	0.364	0.364	-0.207	-0.367	-0.333	0.041	0.028	3.0
Reading	8	3832	B	2	7649	0.614	0.096	0.240	0.614	0.047	0.002	0.384	-0.326	-0.318	0.384	-0.307	0.667	0.026	0.9
Reading	8	3833	B	2	7649	0.452	0.080	0.452	0.421	0.045	0.002	0.125	-0.253	0.125	-0.033	-0.327	1.483	0.026	9.9
Reading	8	3834	A	1	7159	0.881	0.036	0.033	0.049	0.881	0.000	0.303	-0.175	-0.169	-0.240	0.303	-1.034	0.039	-0.8
Reading	8	3835	B	2	7159	0.505	0.340	0.042	0.113	0.505	0.001	0.262	-0.151	-0.390	-0.365	0.262	1.310	0.026	9.3
Reading	8	3836	A	2	7159	0.850	0.055	0.850	0.031	0.063	0.001	0.314	-0.122	0.314	-0.276	-0.253	-0.734	0.036	1.4
Reading	8	3837	A	2	7159	0.647	0.647	0.129	0.106	0.116	0.001	0.514	0.514	-0.414	-0.475	-0.390	0.601	0.027	-9.9
Reading	8	3838	A	2	7159	0.510	0.285	0.510	0.139	0.065	0.001	0.327	-0.194	0.327	-0.413	-0.396	1.286	0.026	5.3
Reading	8	3839	A	2	7159	0.572	0.572	0.063	0.060	0.303	0.001	0.392	0.392	-0.324	-0.311	-0.354	0.982	0.026	-2.4
Reading	8	3840	A	1	7159	0.809	0.809	0.075	0.048	0.066	0.001	0.298	0.298	-0.256	-0.199	-0.153	-0.395	0.033	2.0
Reading	8	3841	B	2	7159	0.414	0.080	0.140	0.414	0.364	0.002	0.226	-0.168	-0.332	0.226	-0.180	1.750	0.026	9.9
Reading	8	3842	A	2	7159	0.874	0.035	0.069	0.874	0.021	0.002	0.370	-0.283	-0.249	0.370	-0.211	-0.966	0.038	-4.0
Reading	8	3843	B	2	7159	0.686	0.205	0.076	0.032	0.686	0.002	0.405	-0.305	-0.341	-0.371	0.405	0.390	0.028	-3.7
Reading	8	3844	A	2	7159	0.143	0.207	0.143	0.312	0.335	0.003	0.137	-0.216	0.137	-0.215	-0.121	3.409	0.035	9.9
Reading	8	3845	B	2	7159	0.848	0.034	0.035	0.080	0.848	0.002	0.456	-0.277	-0.273	-0.374	0.456	-0.716	0.035	-8.9
Reading	8	3846	A	1	7159	0.634	0.121	0.082	0.634	0.161	0.002	0.282	-0.224	-0.359	0.282	-0.133	0.672	0.027	6.1
Reading	8	3847	A	2	7159	0.411	0.411	0.209	0.236	0.141	0.002	0.201	0.201	-0.148	-0.207	-0.227	1.766	0.026	9.9
Reading	8	3848	A	2	7159	0.459	0.126	0.459	0.243	0.169	0.003	0.267	-0.274	0.267	-0.200	-0.287	1.528	0.026	9.9
Reading	8	3849	B	2	7159	0.547	0.200	0.075	0.174	0.547	0.003	0.088	0.071	-0.314	-0.093	0.088	1.106	0.026	9.9
Reading	8	3850	B	2	7127	0.586	0.069	0.199	0.145	0.586	0.000	0.427	-0.405	-0.375	-0.334	0.427	0.949	0.027	-5.3
Reading	8	3851	B	2	7127	0.551	0.551	0.181	0.101	0.166	0.001	0.396	0.396	-0.380	-0.379	-0.290	1.125	0.026	-1.1
Reading	8	3852	B	2	7127	0.744	0.112	0.744	0.034	0.109	0.001	0.210	0.004	0.210	-0.263	-0.264	0.067	0.030	9.9
Reading	8	3853	B	2	7127	0.768	0.036	0.130	0.065	0.768	0.001	0.391	-0.304	-0.237	-0.362	0.391	-0.090	0.031	-2.1
Reading	8	3854	B	3	7127	0.585	0.210	0.585	0.073	0.131	0.001	0.384	-0.350	0.384	-0.344	-0.277	0.954	0.027	-0.5
Reading	8	3855	B	3	7127	0.631	0.278	0.067	0.631	0.023	0.001	0.247	-0.156	-0.297	0.247	-0.280	0.714	0.027	9.9
Reading	8	3856	A	1	7127	0.778	0.050	0.778	0.055	0.115	0.003	0.276	-0.295	0.276	-0.188	-0.138	-0.154	0.031	4.2
Reading	8	3857	A	2	7127	0.814	0.039	0.067	0.078	0.814	0.003	0.529	-0.356	-0.372	-0.416	0.529	-0.419	0.033	-9.9
Reading	8	3858	A	2	7127	0.903	0.903	0.034	0.020	0.040	0.003	0.456	0.456	-0.292	-0.276	-0.331	-1.296	0.043	-9.9
Reading	8	3859	A	3	7127	0.792	0.100	0.792	0.039	0.066	0.003	0.465	-0.294	0.465	-0.363	-0.376	-0.255	0.032	-8.2
Reading	8	3860	A	3	7127	0.769	0.769	0.034	0.103	0.090	0.004	0.410	0.410	-0.330	-0.282	-0.315	-0.095	0.031	-2.3
Reading	8	3861	B	2	7127	0.765	0.132	0.031	0.069	0.765	0.003	0.416	-0.361	-0.295	-0.246	0.416	-0.067	0.031	-3.1
Reading	8	3862	A	2	7127	0.471	0.275	0.168	0.082	0.471	0.004	0.348	-0.297	-0.335	-0.380	0.348	1.514	0.026	4.1
Reading	8	3863	A	1	7127	0.897	0.043	0.022	0.897	0.035	0.003	0.477	-0.347	-0.299	0.477	-0.304	-1.215	0.041	-9.9
Reading	8	3864	A	2	7127	0.825	0.057	0.070	0.044	0.825	0.003	0.530	-0.350	-0.396	-0.391	0.530	-0.513	0.034	-9.9
Reading	8	3865	B	1	7127	0.670	0.095	0.670	0.180	0.053	0.003	0.363	-0.318	0.363	-0.236	-0.370	0.507	0.028	3.2
Reading	8	3866	B	2	7164	0.445	0.445	0.063	0.208	0.282	0.001	0.331	0.331	-0.330	-0.333	-0.294	1.653	0.026	6.1
Reading	8	3867	A	2	7164	0.351	0.049	0.534	0.351	0.065	0.001	0.256	-0.435	-0.237	0.256	-0.184	2.134	0.027	9.9
Reading	8	3868	B	3	7164	0.331	0.191	0.313	0.162	0.331	0.002	0.277	-0.360	-0.148	-0.464	0.277	2.242	0.028	8.2
Reading	8	3869	B	2	7164	0.819	0.071	0.819	0.054	0.055	0.001	0.393	-0.356	0.393	-0.226	-0.226	-0.456	0.033	-3.4
Reading	8	3870	A	2	7164	0.829	0.059	0.055	0.829	0.056	0.000	0.350	-0.235	-0.271	0.350	-0.218	-0.543	0.034	-0.4

Appendix J: 2007 Grades 3–8 and 11 Multiple-Choice Statistics

Information						Proportions						Correlations					Rasch		
Cont.	Grade	Pub. ID	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Reading	8	3871	B	3	7164	0.580	0.211	0.580	0.045	0.163	0.001	0.295	-0.175	0.295	-0.259	-0.328	0.984	0.027	6.8
Reading	8	3872	B	2	7164	0.424	0.163	0.271	0.424	0.139	0.002	0.324	-0.274	-0.315	0.324	-0.336	1.759	0.027	9.0
Reading	8	3873	A	2	7164	0.702	0.086	0.133	0.076	0.702	0.003	0.469	-0.333	-0.360	-0.401	0.469	0.324	0.029	-9.0
Reading	8	3874	A	2	7164	0.472	0.109	0.173	0.472	0.243	0.003	0.221	-0.330	-0.196	0.221	-0.127	1.522	0.026	9.9
Reading	8	3875	A	2	7164	0.750	0.061	0.094	0.091	0.750	0.003	0.520	-0.365	-0.378	-0.426	0.520	0.029	0.030	-9.9
Reading	8	3876	A	2	7164	0.558	0.268	0.081	0.090	0.558	0.003	0.464	-0.359	-0.475	-0.456	0.464	1.094	0.026	-7.6
Reading	8	3877	A	2	7164	0.714	0.714	0.128	0.092	0.064	0.002	0.338	0.338	-0.255	-0.265	-0.239	0.255	0.029	3.0
Reading	8	3878	B	2	7164	0.553	0.145	0.553	0.127	0.172	0.003	0.299	-0.275	0.299	-0.267	-0.227	1.119	0.026	8.0
Reading	8	3879	B	2	7164	0.709	0.095	0.709	0.050	0.143	0.003	0.466	-0.385	0.466	-0.394	-0.326	0.282	0.029	-7.8
Reading	8	3880	A	1	7164	0.716	0.091	0.131	0.716	0.058	0.003	0.479	-0.376	-0.356	0.479	-0.382	0.245	0.029	-9.4
Reading	8	3881	A	2	7164	0.870	0.035	0.046	0.870	0.046	0.003	0.482	-0.328	-0.316	0.482	-0.343	-0.912	0.038	-9.9
Reading	8	3882	B	2	7136	0.832	0.070	0.832	0.072	0.026	0.000	0.414	-0.357	0.414	-0.271	-0.215	-0.579	0.034	-4.0
Reading	8	3883	A	2	7136	0.760	0.063	0.760	0.164	0.013	0.000	0.427	-0.366	0.427	-0.335	-0.245	-0.050	0.030	-4.4
Reading	8	3884	A	2	7136	0.835	0.054	0.835	0.059	0.052	0.001	0.439	-0.296	0.439	-0.309	-0.308	-0.601	0.034	-8.1
Reading	8	3885	A	2	7136	0.737	0.737	0.107	0.063	0.091	0.001	0.425	0.425	-0.278	-0.352	-0.341	0.098	0.030	-4.6
Reading	8	3886	B	2	7136	0.759	0.063	0.091	0.759	0.086	0.001	0.393	-0.304	-0.320	0.393	-0.241	-0.041	0.030	-2.5
Reading	8	3887	B	2	7136	0.669	0.180	0.100	0.050	0.669	0.001	0.413	-0.276	-0.361	-0.409	0.413	0.497	0.028	-1.9
Reading	8	3888	A	2	7136	0.702	0.067	0.702	0.139	0.091	0.002	0.310	-0.277	0.310	-0.308	-0.098	0.311	0.029	4.4
Reading	8	3889	A	2	7136	0.714	0.084	0.050	0.714	0.149	0.002	0.317	-0.320	-0.407	0.317	-0.099	0.237	0.029	3.5
Reading	8	3890	A	2	7136	0.621	0.621	0.168	0.129	0.080	0.002	0.300	0.300	-0.243	-0.237	-0.240	0.754	0.027	4.2
Reading	8	3891	A	2	7136	0.527	0.055	0.355	0.061	0.527	0.002	0.226	-0.302	-0.146	-0.282	0.226	1.229	0.026	9.9
Reading	8	3892	A	2	7136	0.795	0.037	0.795	0.072	0.093	0.002	0.471	-0.344	0.471	-0.384	-0.302	-0.292	0.032	-9.8
Reading	8	3893	A	2	7136	0.755	0.072	0.077	0.755	0.093	0.002	0.522	-0.397	-0.401	0.522	-0.378	-0.013	0.030	-9.9
Reading	8	3894	B	2	7136	0.694	0.071	0.109	0.123	0.694	0.003	0.495	-0.424	-0.364	-0.391	0.495	0.358	0.028	-9.9
Reading	8	3895	B	2	7136	0.777	0.057	0.777	0.071	0.093	0.002	0.365	-0.265	0.365	-0.290	-0.232	-0.161	0.031	-0.9
Reading	8	3896	A	2	7136	0.639	0.639	0.150	0.156	0.052	0.002	0.360	0.360	-0.275	-0.308	-0.293	0.658	0.027	1.8
Reading	8	3897	A	2	7136	0.396	0.146	0.396	0.359	0.096	0.003	0.434	-0.408	0.434	-0.452	-0.387	1.877	0.027	1.5
Reading	8	3898	A	2	7131	0.877	0.034	0.041	0.877	0.048	0.001	0.353	-0.271	-0.183	0.353	-0.253	-0.987	0.038	-2.2
Reading	8	3899	A	2	7131	0.509	0.103	0.191	0.509	0.197	0.001	0.342	-0.494	-0.174	0.342	-0.315	1.316	0.026	6.5
Reading	8	3900	B	2	7131	0.403	0.465	0.066	0.403	0.064	0.001	0.226	-0.223	-0.286	0.226	-0.120	1.839	0.027	9.9
Reading	8	3901	A	2	7131	0.540	0.162	0.135	0.163	0.540	0.001	0.405	-0.412	-0.387	-0.283	0.405	1.165	0.026	-0.5
Reading	8	3902	B	2	7131	0.758	0.074	0.121	0.758	0.047	0.000	0.506	-0.352	-0.414	0.506	-0.376	-0.030	0.030	-9.9
Reading	8	3903	B	2	7131	0.601	0.099	0.203	0.096	0.601	0.001	0.269	-0.313	-0.128	-0.307	0.269	0.857	0.027	9.9
Reading	8	3904	A	1	7131	0.680	0.076	0.134	0.680	0.109	0.001	0.364	-0.391	-0.332	0.364	-0.131	0.437	0.028	-1.6
Reading	8	3905	A	1	7131	0.751	0.075	0.751	0.123	0.049	0.002	0.449	-0.335	0.449	-0.352	-0.302	0.012	0.030	-8.8
Reading	8	3906	A	1	7131	0.671	0.180	0.671	0.047	0.100	0.001	0.395	-0.308	0.395	-0.347	-0.296	0.485	0.028	-2.3
Reading	8	3907	A	2	7131	0.482	0.053	0.482	0.164	0.297	0.003	0.266	-0.329	0.266	-0.244	-0.209	1.447	0.026	9.9
Reading	8	3908	A	2	7131	0.657	0.093	0.063	0.657	0.184	0.002	0.337	-0.287	-0.352	0.337	-0.204	0.561	0.028	0.8
Reading	8	3909	A	2	7131	0.583	0.108	0.583	0.091	0.215	0.002	0.448	-0.379	0.448	-0.367	-0.394	0.946	0.027	-6.0
Reading	8	3910	B	2	7131	0.629	0.088	0.168	0.113	0.629	0.002	0.462	-0.390	-0.393	-0.374	0.462	0.713	0.027	-6.7
Reading	8	3911	A	2	7131	0.562	0.182	0.157	0.562	0.097	0.002	0.399	-0.293	-0.396	0.399	-0.334	1.055	0.026	-1.8
Reading	8	3912	A	2	7131	0.698	0.698	0.111	0.071	0.119	0.002	0.443	0.443	-0.335	-0.383	-0.318	0.336	0.028	-7.3
Reading	8	3913	A	2	7131	0.771	0.042	0.065	0.119	0.771	0.002	0.474	-0.367	-0.364	-0.343	0.474	-0.122	0.031	-7.7

Appendix J: 2007 Grades 3–8 and 11 Multiple-Choice Statistics

Information					Proportions							Correlations					Rasch		
Cont.	Grade	Pub. ID	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Reading	8	3914	B	2	7164	0.838	0.010	0.101	0.838	0.051	0.001	0.309	-0.147	-0.249	0.309	-0.211	-0.579	0.034	0.6
Reading	8	3915	A	2	7164	0.669	0.669	0.016	0.300	0.014	0.000	0.344	0.344	-0.264	-0.310	-0.210	0.530	0.028	3.6
Reading	8	3916	A	1	7164	0.672	0.017	0.672	0.025	0.285	0.000	0.301	-0.284	0.301	-0.281	-0.238	0.514	0.028	2.4
Reading	8	3917	A	2	7164	0.507	0.421	0.020	0.052	0.507	0.001	0.293	-0.234	-0.314	-0.385	0.293	1.358	0.026	9.5
Reading	8	3918	B	2	7164	0.546	0.546	0.254	0.170	0.030	0.001	0.431	0.431	-0.413	-0.341	-0.413	1.167	0.026	-3.8
Reading	8	3919	A	2	7164	0.609	0.132	0.193	0.064	0.609	0.001	0.433	-0.343	-0.356	-0.408	0.433	0.847	0.027	-5.3
Reading	8	3920	A	2	7164	0.751	0.082	0.751	0.061	0.105	0.002	0.446	-0.444	0.446	-0.346	-0.220	0.054	0.030	-7.1
Reading	8	3921	B	2	7164	0.283	0.043	0.161	0.509	0.283	0.003	0.198	-0.431	-0.180	-0.193	0.198	2.513	0.029	9.9
Reading	8	3922	A	2	7164	0.776	0.776	0.129	0.047	0.046	0.002	0.448	0.448	-0.342	-0.318	-0.322	-0.114	0.031	-8.1
Reading	8	3923	A	1	7164	0.754	0.075	0.754	0.128	0.041	0.002	0.352	-0.312	0.352	-0.200	-0.293	0.032	0.030	-2.5
Reading	8	3924	A	1	7164	0.450	0.235	0.212	0.450	0.100	0.002	0.147	-0.071	-0.156	0.147	-0.218	1.637	0.026	9.9
Reading	8	3925	A	2	7164	0.742	0.075	0.054	0.742	0.127	0.002	0.444	-0.347	-0.306	0.444	-0.338	0.110	0.030	-7.9
Reading	8	3926	A	2	7164	0.559	0.059	0.559	0.131	0.248	0.003	0.386	-0.435	0.386	-0.441	-0.224	1.098	0.026	-0.5
Reading	8	3927	A	2	7164	0.479	0.479	0.121	0.176	0.220	0.004	0.345	0.345	-0.345	-0.364	-0.250	1.494	0.026	2.9
Reading	8	3928	B	2	7164	0.819	0.046	0.061	0.070	0.819	0.003	0.513	-0.345	-0.390	-0.363	0.513	-0.426	0.033	-9.9
Reading	8	3929	B	2	7164	0.580	0.274	0.058	0.580	0.084	0.004	0.400	-0.301	-0.376	0.400	-0.407	0.996	0.026	-1.7
Reading	8	3930	A	1	7113	0.748	0.132	0.042	0.077	0.748	0.000	0.408	-0.334	-0.348	-0.242	0.408	0.063	0.030	-4.3
Reading	8	3931	A	2	7113	0.787	0.065	0.051	0.787	0.096	0.001	0.420	-0.263	-0.241	0.420	-0.375	-0.196	0.032	-4.4
Reading	8	3932	A	1	7113	0.894	0.022	0.894	0.060	0.024	0.000	0.403	-0.228	0.403	-0.302	-0.258	-1.152	0.041	-7.6
Reading	8	3933	A	2	7113	0.578	0.042	0.578	0.274	0.105	0.000	0.274	-0.265	0.274	-0.206	-0.246	1.003	0.027	7.8
Reading	8	3934	B	2	7113	0.429	0.150	0.278	0.142	0.429	0.001	0.360	-0.503	-0.309	-0.251	0.360	1.737	0.026	3.6
Reading	8	3935	A	2	7113	0.606	0.293	0.606	0.063	0.038	0.000	0.277	-0.192	0.277	-0.317	-0.278	0.861	0.027	8.9
Reading	8	3936	A	2	7113	0.929	0.019	0.929	0.027	0.023	0.001	0.338	-0.205	0.338	-0.224	-0.205	-1.644	0.048	-3.5
Reading	8	3937	A	2	7113	0.717	0.128	0.140	0.717	0.013	0.002	0.467	-0.468	-0.315	0.467	-0.267	0.256	0.029	-6.8
Reading	8	3938	A	2	7113	0.810	0.113	0.033	0.042	0.810	0.001	0.418	-0.251	-0.354	-0.352	0.418	-0.366	0.033	-4.3
Reading	8	3939	B	2	7113	0.328	0.399	0.328	0.141	0.129	0.002	0.083	0.022	0.083	-0.231	-0.183	2.252	0.028	9.9
Reading	8	3940	B	2	7113	0.230	0.504	0.230	0.151	0.113	0.002	0.101	-0.100	0.101	-0.138	-0.138	2.829	0.030	9.9
Reading	8	3941	B	3	7113	0.376	0.065	0.082	0.473	0.376	0.003	0.281	-0.435	-0.498	-0.188	0.281	1.999	0.027	8.9
Reading	8	3942	A	2	7113	0.603	0.093	0.094	0.603	0.208	0.003	0.361	-0.339	-0.385	0.361	-0.228	0.878	0.027	2.8
Reading	8	3943	A	2	7113	0.604	0.604	0.283	0.095	0.016	0.002	0.343	0.343	-0.215	-0.459	-0.326	0.873	0.027	2.1
Reading	8	3944	A	2	7113	0.840	0.038	0.840	0.091	0.029	0.002	0.482	-0.349	0.482	-0.363	-0.301	-0.611	0.035	-9.9
Reading	8	3945	A	2	7113	0.731	0.177	0.051	0.731	0.039	0.001	0.432	-0.328	-0.366	0.432	-0.319	0.171	0.029	-5.2
Reading	8	3946	A	2	7134	0.890	0.890	0.038	0.052	0.020	0.000	0.283	0.283	-0.199	-0.174	-0.188	-1.100	0.040	0.6
Reading	8	3947	A	1	7134	0.777	0.777	0.163	0.027	0.032	0.000	0.350	0.350	-0.234	-0.323	-0.319	-0.122	0.031	6.1
Reading	8	3948	A	2	7134	0.858	0.080	0.033	0.858	0.028	0.001	0.338	-0.278	-0.255	0.338	-0.114	-0.763	0.036	-3.2
Reading	8	3949	A	2	7134	0.663	0.056	0.233	0.048	0.663	0.000	0.337	-0.253	-0.251	-0.350	0.337	0.566	0.028	0.3
Reading	8	3950	B	2	7134	0.571	0.090	0.153	0.571	0.185	0.001	0.315	-0.276	-0.295	0.315	-0.232	1.040	0.026	5.0
Reading	8	3951	A		7134	0.525	0.119	0.205	0.525	0.150	0.001	0.170	-0.126	-0.090	0.170	-0.248	1.264	0.026	9.9
Reading	8	3952	A	2	7134	0.854	0.048	0.056	0.040	0.854	0.002	0.439	-0.334	-0.311	-0.253	0.439	-0.727	0.036	-7.7
Reading	8	3953	B	2	7134	0.698	0.103	0.066	0.130	0.698	0.003	0.391	-0.338	-0.311	-0.266	0.391	0.369	0.028	-3.1
Reading	8	3954	A	2	7134	0.702	0.151	0.702	0.108	0.036	0.003	0.298	-0.125	0.298	-0.339	-0.270	0.348	0.028	8.2
Reading	8	3955	B	2	7134	0.686	0.116	0.686	0.124	0.071	0.002	0.431	-0.386	0.431	-0.321	-0.313	0.436	0.028	-3.8
Reading	8	3956	A	3	7134	0.485	0.485	0.086	0.048	0.378	0.004	0.313	0.313	-0.219	-0.356	-0.286	1.457	0.026	6.7

Appendix J: 2007 Grades 3–8 and 11 Multiple-Choice Statistics

Information						Proportions						Correlations					Rasch		
Cont.	Grade	Pub. ID	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Reading	8	3957	B	2	7134	0.729	0.067	0.131	0.070	0.729	0.003	0.363	-0.358	-0.142	-0.398	0.363	0.190	0.029	2.9
Reading	8	3958	B	2	7134	0.558	0.148	0.098	0.191	0.558	0.004	0.401	-0.307	-0.428	-0.340	0.401	1.102	0.026	-2.8
Reading	8	3959	A	2	7134	0.537	0.204	0.221	0.537	0.035	0.003	0.310	-0.307	-0.225	0.310	-0.316	1.204	0.026	9.8
Reading	8	3960	B	2	7134	0.569	0.102	0.249	0.569	0.076	0.004	0.166	-0.023	-0.115	0.166	-0.347	1.046	0.026	9.9
Reading	8	3961	B	2	7134	0.731	0.731	0.093	0.106	0.067	0.003	0.473	0.473	-0.368	-0.357	-0.348	0.175	0.029	-9.9
Reading	8	3962	B	2	7156	0.631	0.631	0.060	0.215	0.094	0.001	0.319	0.319	-0.322	-0.242	-0.242	0.714	0.027	5.1
Reading	8	3963	A	2	7156	0.884	0.039	0.029	0.048	0.884	0.000	0.491	-0.371	-0.286	-0.339	0.491	-1.047	0.039	-9.9
Reading	8	3964	A	2	7156	0.554	0.056	0.153	0.235	0.554	0.001	0.380	-0.341	-0.414	-0.262	0.380	1.101	0.026	-0.4
Reading	8	3965	A	2	7156	0.723	0.723	0.128	0.071	0.076	0.000	0.271	0.271	-0.048	-0.294	-0.311	0.201	0.029	5.3
Reading	8	3966	B		7156	0.602	0.038	0.074	0.285	0.602	0.001	0.191	-0.272	-0.193	-0.116	0.191	0.862	0.027	9.9
Reading	8	3967	B		7156	0.397	0.397	0.168	0.381	0.052	0.002	0.131	0.131	-0.263	-0.011	-0.351	1.865	0.026	9.9
Reading	8	3968	B	2	7156	0.788	0.788	0.162	0.024	0.024	0.002	0.402	0.402	-0.334	-0.258	-0.247	-0.217	0.031	-6.0
Reading	8	3969	A	1	7156	0.426	0.067	0.114	0.426	0.389	0.003	0.362	-0.421	-0.339	0.362	-0.320	1.725	0.026	5.3
Reading	8	3970	A	3	7156	0.681	0.123	0.681	0.089	0.104	0.003	0.359	-0.274	0.359	-0.254	-0.291	0.448	0.028	0.5
Reading	8	3971	A	3	7156	0.789	0.076	0.094	0.038	0.789	0.003	0.426	-0.243	-0.350	-0.330	0.426	-0.224	0.032	-4.9
Reading	8	3972	B	2	7156	0.861	0.038	0.861	0.050	0.048	0.002	0.515	-0.318	0.515	-0.384	-0.353	-0.815	0.037	-9.9
Reading	8	3973	A	3	7156	0.851	0.851	0.033	0.086	0.028	0.002	0.445	0.445	-0.280	-0.339	-0.291	-0.721	0.036	-7.6
Reading	8	3974	B	2	7156	0.615	0.237	0.099	0.047	0.615	0.002	0.297	-0.207	-0.256	-0.344	0.297	0.798	0.027	7.2
Reading	8	3975	A	2	7156	0.701	0.105	0.135	0.701	0.057	0.002	0.358	-0.138	-0.378	0.358	-0.292	0.335	0.028	1.8
Reading	8	3976	B	2	7156	0.576	0.148	0.142	0.131	0.576	0.004	0.330	-0.224	-0.288	-0.337	0.330	0.994	0.026	5.1
Reading	8	3977	B	2	7156	0.413	0.122	0.413	0.057	0.404	0.003	0.258	-0.339	0.258	-0.372	-0.180	1.789	0.026	9.9
Reading	8	3978	B		7153	0.583	0.583	0.137	0.102	0.177	0.001	0.393	0.393	-0.359	-0.463	-0.220	0.994	0.027	0.6
Reading	8	3979	A		7153	0.842	0.063	0.030	0.064	0.842	0.000	0.462	-0.293	-0.310	-0.370	0.462	-0.623	0.035	-7.1
Reading	8	3980	A		7153	0.902	0.016	0.049	0.032	0.902	0.000	0.445	-0.271	-0.355	-0.242	0.445	-1.254	0.042	-9.0
Reading	8	3981	A		7153	0.809	0.052	0.062	0.075	0.809	0.000	0.463	-0.385	-0.385	-0.243	0.463	-0.351	0.033	-5.4
Reading	8	3982	B		7153	0.664	0.664	0.148	0.090	0.099	0.000	0.343	0.343	-0.294	-0.363	-0.147	0.569	0.028	4.3
Reading	8	3983	B		7153	0.731	0.731	0.080	0.168	0.019	0.001	0.326	0.326	-0.281	-0.221	-0.300	0.178	0.029	2.5
Reading	8	3984	A	2	7153	0.401	0.246	0.401	0.156	0.194	0.003	0.280	-0.212	0.280	-0.367	-0.264	1.889	0.027	9.9
Reading	8	3985	A		7153	0.879	0.070	0.879	0.029	0.020	0.002	0.467	-0.355	0.467	-0.318	-0.265	-0.984	0.039	-8.8
Reading	8	3986	B	3	7153	0.567	0.055	0.567	0.153	0.223	0.002	0.212	-0.206	0.212	-0.288	-0.084	1.074	0.026	9.9
Reading	8	3987	A	1	7153	0.676	0.676	0.098	0.080	0.143	0.002	0.413	0.413	-0.323	-0.343	-0.311	0.498	0.028	-3.1
Reading	8	3988	A	1	7153	0.829	0.040	0.061	0.068	0.829	0.002	0.453	-0.384	-0.296	-0.286	0.453	-0.508	0.034	-8.3
Reading	8	3989	A	2	7153	0.722	0.104	0.029	0.722	0.141	0.002	0.337	-0.199	-0.319	0.337	-0.279	0.233	0.029	4.7
Reading	8	3990	A	2	7153	0.732	0.029	0.732	0.217	0.021	0.002	0.365	-0.342	0.365	-0.271	-0.309	0.175	0.029	-0.5
Reading	8	3991	B	2	7153	0.337	0.084	0.126	0.448	0.337	0.004	0.285	-0.475	-0.388	-0.221	0.285	2.220	0.027	8.3
Reading	8	3992	B	2	7153	0.702	0.702	0.111	0.110	0.074	0.003	0.394	0.394	-0.349	-0.300	-0.235	0.352	0.029	-3.4
Reading	8	3993	B	2	7153	0.703	0.136	0.063	0.703	0.094	0.004	0.452	-0.322	-0.379	0.452	-0.359	0.345	0.029	-7.4
Reading	8	3994	B		7134	0.944	0.035	0.944	0.014	0.006	0.000	0.301	-0.276	0.301	-0.110	-0.127	-1.887	0.053	-1.5
Reading	8	3995	A		7134	0.862	0.862	0.082	0.031	0.025	0.000	0.379	0.379	-0.268	-0.287	-0.220	-0.786	0.037	-5.8
Reading	8	3996	A		7134	0.872	0.030	0.027	0.071	0.872	0.000	0.362	-0.230	-0.243	-0.254	0.362	-0.887	0.038	-3.5
Reading	8	3997	A		7134	0.931	0.009	0.931	0.028	0.031	0.001	0.346	-0.161	0.346	-0.228	-0.253	-1.655	0.049	-6.6
Reading	8	3998	B		7134	0.776	0.059	0.050	0.776	0.115	0.001	0.242	-0.198	-0.238	0.242	-0.117	-0.106	0.031	7.8
Reading	8	3999	B		7134	0.704	0.082	0.075	0.138	0.704	0.002	0.408	-0.325	-0.386	-0.264	0.408	0.340	0.028	-3.9

Appendix J: 2007 Grades 3–8 and 11 Multiple-Choice Statistics

Information						Proportions						Correlations					Rasch		
Cont.	Grade	Pub. ID	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Reading	8	4000	A	1	7134	0.688	0.688	0.070	0.109	0.131	0.002	0.331	0.331	-0.177	-0.330	-0.240	0.430	0.028	3.3
Reading	8	4001	A	1	7134	0.732	0.116	0.077	0.072	0.732	0.002	0.424	-0.312	-0.372	-0.278	0.424	0.173	0.029	-6.0
Reading	8	4002	A	3	7134	0.359	0.359	0.453	0.069	0.116	0.004	0.284	0.284	-0.274	-0.380	-0.235	2.074	0.027	9.9
Reading	8	4003	A	2	7134	0.661	0.056	0.661	0.042	0.237	0.002	0.170	-0.275	0.170	-0.314	-0.018	0.575	0.027	9.9
Reading	8	4004	A	3	7134	0.442	0.443	0.065	0.442	0.049	0.002	0.368	-0.353	-0.346	0.368	-0.313	1.664	0.026	0.8
Reading	8	4005	A	2	7134	0.132	0.132	0.367	0.301	0.197	0.003	0.001	0.001	0.129	-0.102	-0.090	3.576	0.037	9.9
Reading	8	4006	B	2	7134	0.662	0.163	0.662	0.058	0.113	0.003	0.390	-0.296	0.390	-0.332	-0.311	0.569	0.027	-3.3
Reading	8	4007	A	2	7134	0.552	0.240	0.082	0.552	0.122	0.003	0.324	-0.227	-0.328	0.324	-0.303	1.129	0.026	3.5
Reading	8	4008	A	2	7134	0.544	0.098	0.544	0.195	0.160	0.003	0.354	-0.449	0.354	-0.261	-0.261	1.170	0.026	0.6
Reading	8	4009	A	2	7134	0.263	0.096	0.195	0.441	0.263	0.004	0.145	-0.395	-0.281	-0.040	0.145	2.604	0.029	9.9
Reading	8	4010	A	1	7107	0.936	0.018	0.033	0.936	0.013	0.000	0.288	-0.201	-0.231	0.288	-0.081	-1.809	0.051	-1.3
Reading	8	4011	B	2	7107	0.597	0.082	0.280	0.042	0.597	0.000	0.325	-0.430	-0.202	-0.340	0.325	0.906	0.027	8.1
Reading	8	4012	A	2	7107	0.840	0.840	0.092	0.051	0.016	0.001	0.366	0.366	-0.264	-0.257	-0.241	-0.642	0.035	-1.9
Reading	8	4013	A	1	7107	0.914	0.035	0.033	0.017	0.914	0.000	0.394	-0.262	-0.255	-0.252	0.394	-1.451	0.045	-8.2
Reading	8	4014	A	1	7107	0.718	0.718	0.056	0.133	0.092	0.001	0.473	0.473	-0.345	-0.378	-0.365	0.237	0.029	-7.9
Reading	8	4015	A	2	7107	0.888	0.888	0.034	0.042	0.035	0.001	0.366	0.366	-0.243	-0.262	-0.216	-1.115	0.040	-1.9
Reading	8	4016	A	2	7107	0.609	0.609	0.048	0.284	0.057	0.002	0.241	0.241	-0.305	-0.187	-0.150	0.841	0.027	9.9
Reading	8	4017	B	2	7107	0.587	0.082	0.269	0.060	0.587	0.001	0.491	-0.388	-0.445	-0.446	0.491	0.956	0.027	-9.9
Reading	8	4018	A	1	7107	0.660	0.113	0.133	0.092	0.660	0.002	0.317	-0.219	-0.265	-0.262	0.317	0.571	0.028	5.1
Reading	8	4019	B	2	7107	0.807	0.083	0.065	0.807	0.043	0.002	0.481	-0.346	-0.366	0.481	-0.322	-0.369	0.033	-8.0
Reading	8	4020	A	1	7107	0.814	0.055	0.086	0.814	0.043	0.001	0.517	-0.380	-0.380	0.517	-0.354	-0.424	0.033	-9.9
Reading	8	4021	A	2	7107	0.654	0.109	0.120	0.115	0.654	0.001	0.527	-0.430	-0.487	-0.379	0.527	0.601	0.028	-9.9
Reading	8	4022	A	2	7107	0.651	0.651	0.203	0.059	0.086	0.001	0.418	0.418	-0.382	-0.355	-0.254	0.619	0.028	-1.3
Reading	8	4023	B	2	7107	0.572	0.056	0.572	0.246	0.123	0.002	0.470	-0.451	0.470	-0.384	-0.432	1.033	0.027	-6.9
Reading	8	4024	B	1	7107	0.635	0.066	0.635	0.124	0.173	0.002	0.344	-0.279	0.344	-0.400	-0.168	0.704	0.027	2.8
Reading	8	4025	B	3	7107	0.818	0.092	0.048	0.818	0.041	0.002	0.472	-0.407	-0.238	0.472	-0.343	-0.455	0.034	-6.7
Reading	8	4026	A	2	7129	0.847	0.076	0.024	0.847	0.051	0.001	0.384	-0.291	-0.261	0.384	-0.240	-0.644	0.035	-4.8
Reading	8	4027	B	2	7129	0.722	0.153	0.030	0.094	0.722	0.000	0.301	-0.240	-0.346	-0.162	0.301	0.242	0.029	5.1
Reading	8	4028	A	1	7129	0.759	0.101	0.079	0.059	0.759	0.001	0.500	-0.371	-0.422	-0.328	0.500	0.013	0.030	-9.9
Reading	8	4029	B	2	7129	0.655	0.120	0.156	0.655	0.068	0.001	0.327	-0.239	-0.274	0.327	-0.265	0.622	0.027	1.9
Reading	8	4030	A	2	7129	0.771	0.115	0.771	0.068	0.045	0.000	0.502	-0.393	0.502	-0.381	-0.336	-0.064	0.031	-9.9
Reading	8	4031	B	2	7129	0.679	0.679	0.103	0.076	0.141	0.001	0.422	0.422	-0.338	-0.331	-0.330	0.487	0.028	-6.0
Reading	8	4032	A	1	7129	0.782	0.052	0.782	0.067	0.098	0.001	0.342	-0.324	0.342	-0.263	-0.171	-0.135	0.031	-0.1
Reading	8	4033	A	1	7129	0.527	0.201	0.527	0.172	0.098	0.002	0.390	-0.383	0.390	-0.270	-0.394	1.260	0.026	-0.3
Reading	8	4034	A	2	7129	0.470	0.470	0.187	0.199	0.142	0.002	0.175	0.175	-0.035	-0.180	-0.283	1.537	0.026	9.9
Reading	8	4035	A	3	7129	0.512	0.280	0.080	0.512	0.126	0.002	0.198	-0.039	-0.306	0.198	-0.323	1.333	0.026	9.9
Reading	8	4036	B	2	7129	0.382	0.137	0.149	0.330	0.382	0.002	0.022	-0.166	0.009	0.037	0.022	1.968	0.027	9.9
Reading	8	4037	A	3	7129	0.439	0.088	0.217	0.439	0.254	0.002	0.232	-0.345	-0.205	0.232	-0.169	1.685	0.026	9.9
Reading	8	4038	B	2	7129	0.799	0.077	0.799	0.075	0.046	0.003	0.408	-0.273	0.408	-0.324	-0.262	-0.260	0.032	-6.0
Reading	8	4039	B	2	7129	0.662	0.089	0.100	0.147	0.662	0.002	0.467	-0.365	-0.386	-0.378	0.467	0.581	0.027	-9.8
Reading	8	4040	A	1	7129	0.495	0.495	0.110	0.137	0.254	0.003	0.272	0.272	-0.297	-0.287	-0.188	1.415	0.026	8.0
Reading	8	4041	A	2	7129	0.381	0.042	0.031	0.544	0.381	0.002	0.048	-0.291	-0.339	0.024	0.048	1.974	0.027	9.9
Reading	8	4042	B		7078	0.838	0.040	0.024	0.838	0.098	0.000	0.319	-0.252	-0.257	0.319	-0.190	-0.613	0.035	0.3

Appendix J: 2007 Grades 3–8 and 11 Multiple-Choice Statistics

Information					Proportions							Correlations					Rasch		
Cont.	Grade	Pub. ID	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Reading	8	4043	A		7078	0.868	0.044	0.028	0.058	0.868	0.001	0.450	-0.336	-0.308	-0.282	0.450	-0.888	0.038	-8.4
Reading	8	4044	A		7078	0.528	0.528	0.066	0.210	0.195	0.001	0.291	0.291	-0.369	-0.214	-0.241	1.234	0.026	8.9
Reading	8	4045	A		7078	0.739	0.739	0.053	0.069	0.138	0.000	0.218	0.218	-0.249	-0.236	-0.058	0.103	0.030	8.4
Reading	8	4046	B		7078	0.682	0.031	0.060	0.682	0.226	0.001	0.377	-0.363	-0.306	0.377	-0.289	0.436	0.028	-0.1
Reading	8	4047	A		7078	0.893	0.032	0.893	0.040	0.034	0.001	0.431	-0.286	0.431	-0.271	-0.301	-1.160	0.041	-8.6
Reading	8	4048	A	2	7078	0.538	0.211	0.146	0.102	0.538	0.003	0.327	-0.274	-0.291	-0.296	0.327	1.180	0.026	3.3
Reading	8	4049	A	1	7078	0.874	0.874	0.073	0.032	0.019	0.002	0.399	0.399	-0.295	-0.295	-0.206	-0.948	0.038	-4.9
Reading	8	4050	A	1	7078	0.513	0.097	0.513	0.259	0.127	0.003	0.380	-0.455	0.380	-0.301	-0.319	1.303	0.026	1.0
Reading	8	4051	A	1	7078	0.573	0.315	0.068	0.573	0.042	0.002	0.294	-0.201	-0.348	0.294	-0.314	1.011	0.027	8.0
Reading	8	4052	A	2	7078	0.763	0.070	0.763	0.071	0.093	0.002	0.478	-0.323	0.478	-0.356	-0.379	-0.050	0.031	-9.9
Reading	8	4053	B	2	7078	0.626	0.149	0.104	0.626	0.119	0.002	0.284	-0.142	-0.284	0.284	-0.274	0.741	0.027	6.8
Reading	8	4054	A	2	7078	0.506	0.043	0.357	0.506	0.093	0.002	0.182	-0.346	-0.092	0.182	-0.242	1.341	0.026	9.9
Reading	8	4055	A	2	7078	0.623	0.125	0.623	0.115	0.134	0.003	0.434	-0.342	0.434	-0.313	-0.406	0.756	0.027	-5.2
Reading	8	4056	B	3	7078	0.423	0.423	0.089	0.108	0.376	0.003	0.287	0.287	-0.416	-0.435	-0.172	1.743	0.026	8.7
Reading	8	4057	B	2	7078	0.708	0.165	0.072	0.051	0.708	0.003	0.378	-0.220	-0.357	-0.375	0.378	0.287	0.029	1.7
Reading	8	4058	A		7099	0.723	0.189	0.017	0.723	0.070	0.000	0.316	-0.296	-0.251	0.316	-0.147	0.234	0.029	2.4
Reading	8	4059	A		7099	0.767	0.018	0.188	0.026	0.767	0.000	0.396	-0.281	-0.325	-0.290	0.396	-0.041	0.031	-2.8
Reading	8	4060	B		7099	0.795	0.795	0.050	0.127	0.027	0.000	0.250	0.250	-0.222	-0.130	-0.249	-0.228	0.032	6.5
Reading	8	4061	A		7099	0.911	0.016	0.035	0.037	0.911	0.000	0.469	-0.263	-0.314	-0.339	0.469	-1.328	0.044	-9.9
Reading	8	4062	B		7099	0.710	0.054	0.710	0.215	0.021	0.000	0.249	-0.323	0.249	-0.131	-0.236	0.310	0.029	7.3
Reading	8	4063	A		7099	0.760	0.093	0.126	0.020	0.760	0.001	0.393	-0.307	-0.302	-0.246	0.393	0.007	0.030	-3.0
Reading	8	4064	A	2	7099	0.810	0.144	0.027	0.810	0.017	0.002	0.373	-0.295	-0.272	0.373	-0.217	-0.345	0.033	-2.8
Reading	8	4065	B	2	7099	0.661	0.076	0.661	0.146	0.113	0.003	0.179	-0.103	0.179	-0.178	-0.106	0.588	0.028	9.9
Reading	8	4066	B	1	7099	0.421	0.361	0.127	0.088	0.421	0.003	0.146	-0.033	-0.293	-0.260	0.146	1.782	0.026	9.9
Reading	8	4067	A	1	7099	0.872	0.872	0.044	0.047	0.035	0.002	0.450	0.450	-0.300	-0.296	-0.309	-0.889	0.038	-9.1
Reading	8	4068	A	3	7099	0.815	0.035	0.075	0.815	0.071	0.003	0.486	-0.271	-0.387	0.486	-0.352	-0.385	0.033	-9.9
Reading	8	4069	A	2	7099	0.580	0.205	0.088	0.123	0.580	0.002	0.456	-0.400	-0.358	-0.395	0.456	1.004	0.027	-8.0
Reading	8	4070	B	3	7099	0.707	0.707	0.129	0.075	0.086	0.002	0.533	0.533	-0.438	-0.452	-0.360	0.328	0.029	-9.9
Reading	8	4071	B	3	7099	0.547	0.266	0.128	0.547	0.058	0.002	0.383	-0.313	-0.340	0.383	-0.402	1.170	0.026	-0.8
Reading	8	4072	B	2	7099	0.550	0.221	0.065	0.162	0.550	0.002	0.458	-0.382	-0.488	-0.394	0.458	1.154	0.026	-8.2
Reading	8	4073	B	1	7099	0.467	0.467	0.068	0.140	0.321	0.003	0.261	0.261	-0.347	-0.312	-0.172	1.558	0.026	9.9
Reading	8	4074	B		7127	0.791	0.791	0.103	0.083	0.023	0.000	0.361	0.361	-0.288	-0.280	-0.167	-0.228	0.032	-2.0
Reading	8	4075	B		7127	0.712	0.069	0.120	0.098	0.712	0.001	0.327	-0.164	-0.276	-0.279	0.327	0.277	0.029	4.0
Reading	8	4076	A		7127	0.859	0.020	0.083	0.859	0.038	0.000	0.415	-0.258	-0.324	0.415	-0.257	-0.773	0.036	-4.9
Reading	8	4077	A		7127	0.855	0.855	0.026	0.035	0.083	0.000	0.325	0.325	-0.231	-0.258	-0.195	-0.740	0.036	0.2
Reading	8	4078	A		7127	0.745	0.206	0.029	0.745	0.019	0.000	0.415	-0.350	-0.317	0.415	-0.276	0.076	0.030	-2.4
Reading	8	4079	B		7127	0.649	0.649	0.123	0.202	0.025	0.000	0.393	0.393	-0.408	-0.263	-0.342	0.622	0.027	-1.4
Reading	8	4080	B	2	7127	0.444	0.106	0.238	0.444	0.208	0.004	0.332	-0.363	-0.274	0.332	-0.342	1.646	0.026	5.8
Reading	8	4081	A	1	7127	0.755	0.067	0.123	0.755	0.054	0.001	0.414	-0.228	-0.400	0.414	-0.232	0.004	0.030	-3.1
Reading	8	4082	A	2	7127	0.678	0.678	0.087	0.036	0.196	0.001	0.374	0.374	-0.322	-0.333	-0.270	0.462	0.028	0.2
Reading	8	4083	A	2	7127	0.664	0.115	0.061	0.158	0.664	0.002	0.450	-0.360	-0.376	-0.352	0.450	0.539	0.028	-6.2
Reading	8	4084	B	2	7127	0.633	0.633	0.144	0.150	0.071	0.002	0.404	0.404	-0.343	-0.338	-0.291	0.707	0.027	-1.9
Reading	8	4085	B	2	7127	0.639	0.062	0.167	0.130	0.639	0.002	0.423	-0.414	-0.315	-0.332	0.423	0.671	0.027	-5.1

Appendix J: 2007 Grades 3–8 and 11 Multiple-Choice Statistics

Information						Proportions						Correlations					Rasch		
Cont.	Grade	Pub. ID	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Reading	8	4086	A	2	7127	0.587	0.587	0.193	0.086	0.132	0.001	0.427	0.427	-0.331	-0.376	-0.383	0.942	0.027	-4.1
Reading	8	4087	B	2	7127	0.591	0.168	0.591	0.171	0.067	0.002	0.368	-0.260	0.368	-0.342	-0.327	0.920	0.027	0.7
Reading	8	4088	B	3	7127	0.687	0.127	0.107	0.687	0.076	0.001	0.461	-0.328	-0.389	0.461	-0.367	0.410	0.028	-8.1
Reading	8	4089	A	2	7127	0.622	0.055	0.622	0.101	0.220	0.002	0.343	-0.365	0.343	-0.182	-0.313	0.761	0.027	4.6
Reading	8	4090	A	2	7099	0.699	0.699	0.030	0.144	0.127	0.000	0.301	0.301	-0.256	-0.127	-0.332	0.379	0.029	1.8
Reading	8	4091	A	2	7099	0.559	0.559	0.028	0.072	0.341	0.000	0.333	0.333	-0.342	-0.376	-0.260	1.112	0.027	5.9
Reading	8	4092	A	2	7099	0.779	0.054	0.092	0.074	0.779	0.001	0.402	-0.286	-0.368	-0.199	0.402	-0.116	0.031	-6.0
Reading	8	4093	A	2	7099	0.893	0.043	0.029	0.034	0.893	0.001	0.362	-0.214	-0.221	-0.276	0.362	-1.102	0.041	-5.1
Reading	8	4094	A	2	7099	0.847	0.847	0.031	0.098	0.023	0.000	0.450	0.450	-0.224	-0.408	-0.236	-0.641	0.035	-5.1
Reading	8	4095	B	2	7099	0.803	0.060	0.803	0.084	0.052	0.001	0.305	-0.231	0.305	-0.184	-0.236	-0.290	0.032	5.6
Reading	8	4096	A	2	7099	0.735	0.067	0.137	0.735	0.058	0.002	0.418	-0.330	-0.326	0.418	-0.288	0.166	0.030	-3.1
Reading	8	4097	A	2	7099	0.795	0.795	0.065	0.086	0.052	0.002	0.505	0.505	-0.394	-0.371	-0.335	-0.235	0.032	-9.9
Reading	8	4098	A	2	7099	0.810	0.046	0.063	0.810	0.079	0.002	0.500	-0.357	-0.348	0.500	-0.375	-0.344	0.033	-9.9
Reading	8	4099	A	2	7099	0.746	0.095	0.746	0.093	0.063	0.002	0.404	-0.238	0.404	-0.345	-0.326	0.098	0.030	-3.5
Reading	8	4100	A	2	7099	0.672	0.095	0.138	0.091	0.672	0.004	0.420	-0.339	-0.287	-0.397	0.420	0.531	0.028	-4.1
Reading	8	4101	A	1	7099	0.655	0.146	0.655	0.118	0.078	0.003	0.366	-0.298	0.366	-0.305	-0.254	0.626	0.028	-2.3
Reading	8	4102	A	1	7099	0.611	0.137	0.166	0.611	0.082	0.003	0.269	-0.167	-0.243	0.269	-0.240	0.857	0.027	5.3
Reading	8	4103	A	2	7099	0.740	0.056	0.740	0.106	0.094	0.003	0.485	-0.335	0.485	-0.348	-0.416	0.134	0.030	-9.8
Reading	8	4104	A	2	7099	0.611	0.277	0.611	0.068	0.041	0.003	0.337	-0.259	0.337	-0.267	-0.376	0.858	0.027	3.6
Reading	8	4105	A	2	7099	0.562	0.562	0.065	0.128	0.241	0.004	0.266	0.266	-0.290	-0.266	-0.176	1.105	0.027	8.7
Reading	8	4106	A		7074	0.649	0.168	0.138	0.649	0.045	0.001	0.274	-0.195	-0.281	0.274	-0.129	0.670	0.027	7.7
Reading	8	4107	A		7074	0.761	0.761	0.110	0.116	0.012	0.000	0.446	0.446	-0.401	-0.324	-0.235	0.014	0.030	-5.6
Reading	8	4108	A		7074	0.830	0.045	0.050	0.075	0.830	0.001	0.431	-0.303	-0.275	-0.321	0.431	-0.488	0.034	-6.8
Reading	8	4109	A		7074	0.689	0.154	0.689	0.085	0.071	0.001	0.506	-0.400	0.506	-0.423	-0.398	0.450	0.028	-9.8
Reading	8	4110	A		7074	0.651	0.183	0.651	0.145	0.020	0.001	0.421	-0.381	0.421	-0.313	-0.363	0.655	0.028	-3.5
Reading	8	4111	A		7074	0.636	0.219	0.636	0.062	0.080	0.002	0.400	-0.327	0.400	-0.330	-0.330	0.728	0.027	-1.5
Reading	8	4112	A	2	7074	0.529	0.410	0.529	0.013	0.047	0.002	0.320	-0.265	0.320	-0.244	-0.439	1.270	0.026	6.9
Reading	8	4113	B	2	7074	0.816	0.059	0.061	0.816	0.062	0.001	0.461	-0.323	-0.319	0.461	-0.329	-0.390	0.033	-8.7
Reading	8	4114	A	2	7074	0.525	0.083	0.248	0.141	0.525	0.002	0.354	-0.251	-0.310	-0.356	0.354	1.290	0.026	2.3
Reading	8	4115	B	2	7074	0.621	0.621	0.112	0.068	0.197	0.002	0.347	0.347	-0.345	-0.375	-0.199	0.807	0.027	3.9
Reading	8	4116	A	3	7074	0.720	0.088	0.086	0.720	0.103	0.002	0.210	-0.253	-0.161	0.210	-0.057	0.258	0.029	9.9
Reading	8	4117	B	2	7074	0.808	0.084	0.043	0.063	0.808	0.001	0.478	-0.349	-0.374	-0.317	0.478	-0.325	0.033	-9.0
Reading	8	4118	A	1	7074	0.480	0.480	0.307	0.135	0.076	0.001	0.239	0.239	-0.165	-0.220	-0.356	1.510	0.026	9.9
Reading	8	4119	B	2	7074	0.790	0.110	0.790	0.072	0.027	0.002	0.467	-0.301	0.467	-0.415	-0.332	-0.191	0.032	-6.2
Reading	8	4120	B	2	7074	0.721	0.096	0.050	0.131	0.721	0.002	0.386	-0.201	-0.401	-0.318	0.386	0.253	0.029	-1.3
Reading	8	4121	A	1	7074	0.562	0.257	0.562	0.065	0.114	0.002	0.373	-0.280	0.373	-0.378	-0.358	1.107	0.027	1.4
Reading	8	4122	B	2	7080	0.915	0.027	0.023	0.034	0.915	0.001	0.297	-0.239	-0.161	-0.164	0.297	-1.396	0.044	-1.6
Reading	8	4123	A	1	7080	0.703	0.703	0.172	0.101	0.023	0.000	0.373	0.373	-0.255	-0.397	-0.164	0.346	0.029	0.7
Reading	8	4124	A	1	7080	0.770	0.770	0.030	0.053	0.146	0.001	0.437	0.437	-0.303	-0.311	-0.348	-0.069	0.031	-6.3
Reading	8	4125	B	2	7080	0.807	0.807	0.048	0.132	0.011	0.001	0.452	0.452	-0.272	-0.416	-0.179	-0.329	0.033	-5.8
Reading	8	4126	B	2	7080	0.709	0.060	0.165	0.065	0.709	0.001	0.213	-0.183	-0.170	-0.110	0.213	0.314	0.029	9.8
Reading	8	4127	B	2	7080	0.674	0.015	0.088	0.222	0.674	0.001	0.419	-0.310	-0.387	-0.331	0.419	0.510	0.028	-4.1
Reading	8	4128	A	1	7080	0.570	0.066	0.570	0.135	0.228	0.002	0.290	-0.398	0.290	-0.396	-0.075	1.050	0.027	7.5

Appendix J: 2007 Grades 3–8 and 11 Multiple-Choice Statistics

Information					Proportions							Correlations					Rasch		
Cont.	Grade	Pub. ID	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Reading	8	4129	B	2	7080	0.845	0.075	0.045	0.845	0.034	0.001	0.427	-0.291	-0.301	0.427	-0.302	-0.645	0.035	-6.0
Reading	8	4130	A	3	7080	0.712	0.047	0.712	0.086	0.152	0.003	0.365	-0.241	0.365	-0.234	-0.321	0.290	0.029	-0.4
Reading	8	4131	A	1	7080	0.760	0.115	0.068	0.056	0.760	0.001	0.542	-0.437	-0.365	-0.424	0.542	-0.007	0.030	-9.9
Reading	8	4132	A	1	7080	0.608	0.608	0.286	0.052	0.051	0.001	0.402	0.402	-0.295	-0.386	-0.456	0.855	0.027	-2.2
Reading	8	4133	A	2	7080	0.681	0.128	0.158	0.681	0.030	0.002	0.328	-0.341	-0.167	0.328	-0.314	0.469	0.028	4.1
Reading	8	4134	B	2	7080	0.856	0.048	0.041	0.053	0.856	0.002	0.455	-0.309	-0.315	-0.307	0.455	-0.750	0.036	-9.6
Reading	8	4135	B	1	7080	0.625	0.625	0.284	0.038	0.052	0.001	0.238	0.238	-0.125	-0.317	-0.317	0.769	0.027	9.9
Reading	8	4136	B	3	7080	0.631	0.124	0.631	0.094	0.149	0.002	0.354	-0.229	0.354	-0.386	-0.254	0.739	0.027	0.4
Reading	8	4137	B	2	7080	0.687	0.074	0.074	0.687	0.163	0.002	0.323	-0.299	-0.332	0.323	-0.174	0.434	0.028	4.1
Reading	11	4138	B	2	136739	0.876	0.876	0.024	0.093	0.007	0.000	0.356	0.356	-0.251	-0.287	-0.138	-1.402	0.009	-9.9
Reading	11	4139	A	2	136739	0.575	0.259	0.063	0.103	0.575	0.001	0.442	-0.363	-0.442	-0.391	0.442	0.557	0.006	-9.9
Reading	11	4140	A	2	136739	0.677	0.116	0.677	0.133	0.073	0.002	0.310	-0.209	0.310	-0.230	-0.306	0.022	0.006	9.9
Reading	11	4141	A	2	136739	0.699	0.109	0.079	0.111	0.699	0.001	0.449	-0.250	-0.413	-0.400	0.449	-0.106	0.007	-9.9
Reading	11	4142	A	2	136739	0.703	0.064	0.703	0.152	0.079	0.002	0.469	-0.331	0.469	-0.352	-0.422	-0.131	0.007	-9.9
Reading	11	4143	A	2	136739	0.610	0.059	0.180	0.610	0.150	0.001	0.417	-0.459	-0.249	0.417	-0.407	0.379	0.006	-4.2
Reading	11	4144	A	2	136739	0.611	0.103	0.219	0.611	0.065	0.003	0.388	-0.294	-0.297	0.388	-0.401	0.372	0.006	-2.6
Reading	11	4145	A	2	136739	0.833	0.833	0.129	0.015	0.022	0.001	0.305	0.305	-0.201	-0.245	-0.266	-1.008	0.008	8.7
Reading	11	4146	A	1	136739	0.573	0.101	0.210	0.112	0.573	0.004	0.292	-0.321	-0.216	-0.227	0.292	0.564	0.006	9.9
Reading	11	4147	A	1	136739	0.871	0.037	0.025	0.066	0.871	0.001	0.353	-0.201	-0.260	-0.252	0.353	-1.355	0.009	-1.3
Reading	11	4148	B	2	136739	0.843	0.082	0.049	0.024	0.843	0.001	0.382	-0.240	-0.276	-0.302	0.382	-1.098	0.008	-8.1
Reading	11	4149	B	2	136739	0.669	0.112	0.126	0.669	0.091	0.002	0.302	-0.311	-0.231	0.302	-0.148	0.061	0.006	9.9
Reading	11	4150	A	2	136739	0.696	0.234	0.033	0.696	0.036	0.001	0.282	-0.190	-0.259	0.282	-0.320	-0.087	0.007	9.9
Reading	11	4151	A	2	136739	0.640	0.062	0.640	0.076	0.220	0.002	0.243	-0.231	0.243	-0.263	-0.147	0.220	0.006	9.9
Reading	11	4152	B	2	136739	0.763	0.157	0.052	0.763	0.026	0.001	0.257	-0.104	-0.321	0.257	-0.242	-0.498	0.007	9.9
Reading	11	4153	B	2	136739	0.721	0.019	0.721	0.114	0.145	0.002	0.315	-0.301	0.315	-0.242	-0.225	-0.233	0.007	9.9
Reading	11	4154	B	2	136739	0.545	0.545	0.154	0.135	0.164	0.003	0.287	0.287	-0.221	-0.264	-0.257	0.705	0.006	9.9
Reading	11	4155	A		136739	0.820	0.116	0.035	0.820	0.023	0.005	0.440	-0.351	-0.324	0.440	-0.207	-0.906	0.008	-9.9
Reading	11	4156	A		136739	0.793	0.135	0.021	0.793	0.046	0.005	0.474	-0.363	-0.302	0.474	-0.358	-0.701	0.007	-9.9
Reading	11	4157	A		136739	0.467	0.407	0.068	0.052	0.467	0.006	0.291	-0.224	-0.340	-0.368	0.291	1.091	0.006	9.9
Reading	11	4158	B		136739	0.746	0.135	0.056	0.058	0.746	0.006	0.401	-0.252	-0.293	-0.369	0.401	-0.384	0.007	-8.8
Reading	11	4159	B		136739	0.776	0.080	0.107	0.776	0.031	0.006	0.331	-0.210	-0.223	0.331	-0.310	-0.585	0.007	9.9
Reading	11	4160	B		136739	0.750	0.091	0.078	0.074	0.750	0.006	0.500	-0.330	-0.401	-0.389	0.500	-0.412	0.007	-9.9
Reading	11	4161	A	2	136739	0.617	0.025	0.617	0.271	0.085	0.002	0.316	-0.282	0.316	-0.283	-0.217	0.341	0.006	9.9
Reading	11	4162	A	2	136739	0.527	0.177	0.140	0.155	0.527	0.001	0.458	-0.428	-0.461	-0.350	0.458	0.796	0.006	-9.9
Reading	11	4163	A	1	136739	0.831	0.831	0.092	0.019	0.057	0.001	0.360	0.360	-0.203	-0.291	-0.306	-0.995	0.008	2.9
Reading	11	4164	A	2	136739	0.772	0.072	0.070	0.083	0.772	0.002	0.379	-0.290	-0.260	-0.271	0.379	-0.561	0.007	-2.9
Reading	11	4165	B	3	136739	0.307	0.055	0.126	0.510	0.307	0.002	0.344	-0.609	-0.459	-0.299	0.344	1.923	0.006	9.9
Reading	11	4166	A	2	136739	0.575	0.218	0.047	0.575	0.159	0.001	0.405	-0.401	-0.466	0.405	-0.238	0.554	0.006	-0.4
Reading	11	4167	A	2	136739	0.746	0.166	0.746	0.053	0.034	0.001	0.318	-0.168	0.318	-0.345	-0.293	-0.389	0.007	9.9
Reading	11	4168	A	2	136739	0.760	0.021	0.760	0.090	0.128	0.001	0.462	-0.316	0.462	-0.422	-0.311	-0.475	0.007	-9.9
Reading	11	4169	B	3	136739	0.718	0.086	0.045	0.718	0.149	0.001	0.441	-0.412	-0.389	0.441	-0.270	-0.213	0.007	-9.9
Reading	11	4170	B	2	136739	0.557	0.557	0.158	0.108	0.175	0.002	0.337	0.337	-0.276	-0.291	-0.304	0.644	0.006	9.9
Reading	11	4171	A	2	136739	0.756	0.104	0.756	0.116	0.021	0.003	0.526	-0.423	0.526	-0.433	-0.259	-0.452	0.007	-9.9

Appendix J: 2007 Grades 3–8 and 11 Multiple-Choice Statistics

Information					Proportions							Correlations					Rasch			
Cont.	Grade	Pub. ID	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit	
Reading	11	4172	A	1	136739	0.493	0.100	0.295	0.108	0.493	0.004	0.378	-0.372	-0.287	-0.437	0.378	0.961	0.006	8.6	
Reading	11	4173	B	2	136739	0.707	0.198	0.042	0.048	0.707	0.004	0.460	-0.328	-0.412	-0.404	0.460	-0.150	0.007	-9.9	
Reading	11	4174	A	1	136739	0.511	0.190	0.104	0.511	0.191	0.004	0.327	-0.301	-0.293	0.327	-0.269	0.872	0.006	9.9	
Reading	11	4175	A	2	136739	0.541	0.134	0.541	0.167	0.154	0.004	0.315	-0.302	0.315	-0.294	-0.206	0.724	0.006	9.9	
Reading	11	4176	A	2	136739	0.514	0.191	0.146	0.144	0.514	0.004	0.447	-0.415	-0.392	-0.397	0.447	0.857	0.006	-9.9	
Reading	11	4177	B	2	136739	0.438	0.438	0.325	0.054	0.179	0.004	0.298	0.298	-0.241	-0.449	-0.264	1.236	0.006	9.9	
Reading	11	4178	B		7292	0.789	0.060	0.022	0.128	0.789	0.000	0.185	-0.239	-0.225	-0.031	0.185	-0.795	0.032	9.9	
Reading	11	4179	A		7292	0.687	0.149	0.090	0.687	0.072	0.001	0.395	-0.257	-0.351	0.395	-0.323	-0.142	0.028	-1.3	
Reading	11	4180	A		7292	0.754	0.126	0.063	0.056	0.754	0.001	0.455	-0.354	-0.337	-0.325	0.455	-0.552	0.030	-5.8	
Reading	11	4181	B		7292	0.789	0.063	0.789	0.108	0.039	0.001	0.470	-0.393	0.470	-0.336	-0.291	-0.795	0.032	-7.7	
Reading	11	4182	B		7292	0.802	0.052	0.067	0.077	0.802	0.001	0.551	-0.356	-0.412	-0.428	0.551	-0.893	0.032	-9.9	
Reading	11	4183	A		7292	0.791	0.030	0.791	0.040	0.138	0.001	0.432	-0.291	0.432	-0.293	-0.344	-0.807	0.032	-4.3	
Reading	11	4184	B	2	7292	0.631	0.148	0.187	0.631	0.033	0.002	0.490	-0.348	-0.479	0.490	-0.354	0.174	0.027	-7.6	
Reading	11	4185	A	2	7292	0.721	0.108	0.721	0.046	0.123	0.002	0.491	-0.366	0.491	-0.398	-0.374	-0.342	0.029	-9.4	
Reading	11	4186	B	2	7292	0.542	0.098	0.227	0.130	0.542	0.003	0.494	-0.399	-0.456	-0.450	0.494	0.634	0.026	-8.3	
Reading	11	4187	A	2	7292	0.800	0.032	0.086	0.800	0.080	0.002	0.481	-0.351	-0.371	0.481	-0.322	-0.877	0.032	-9.1	
Reading	11	4188	A	2	7292	0.810	0.045	0.048	0.095	0.810	0.002	0.442	-0.345	-0.353	-0.269	0.442	-0.955	0.033	-5.3	
Reading	11	4189	A	3	7292	0.474	0.037	0.120	0.474	0.366	0.002	0.244	-0.360	-0.305	0.244	-0.161	0.972	0.026	9.9	
Reading	11	4190	B	2	7292	0.412	0.412	0.406	0.105	0.075	0.002	0.054	0.054	0.063	-0.139	-0.349	1.283	0.026	9.9	
Reading	11	4191	A	1	7292	0.877	0.046	0.877	0.046	0.028	0.002	0.453	-0.372	0.453	-0.280	-0.246	-1.557	0.038	-7.5	
Reading	11	4192	B	3	7292	0.392	0.392	0.180	0.311	0.113	0.003	0.329	0.329	-0.322	-0.344	-0.286	1.382	0.027	8.4	
Reading	11	4193	B	3	7292	0.322	0.038	0.243	0.393	0.322	0.004	0.055	-0.370	-0.113	0.031	0.055	1.754	0.028	9.9	
Reading	11	4194	A		6874	0.715	0.171	0.085	0.028	0.715	0.001	0.361	-0.296	-0.278	-0.220	0.361	-0.215	0.029	-0.6	
Reading	11	4195	B		6874	0.792	0.036	0.113	0.792	0.058	0.001	0.417	-0.315	-0.318	0.417	-0.266	-0.714	0.032	-4.9	
Reading	11	4196	B		6874	0.728	0.046	0.728	0.028	0.196	0.001	0.378	-0.275	0.378	-0.351	-0.285	-0.289	0.030	-0.6	
Reading	11	4197	B		6874	0.880	0.031	0.880	0.070	0.019	0.001	0.429	-0.278	0.429	-0.319	-0.260	-1.474	0.040	-7.1	
Reading	11	4198	B		6874	0.633	0.058	0.633	0.041	0.266	0.002	0.287	-0.364	0.287	-0.311	-0.172	0.248	0.028	9.9	
Reading	11	4199	A		6874	0.861	0.861	0.039	0.070	0.028	0.001	0.423	0.423	-0.291	-0.297	-0.279	-1.289	0.037	-7.0	
Reading	11	4200	A	1	6874	0.756	0.057	0.756	0.127	0.057	0.002	0.349	-0.325	0.349	-0.170	-0.326	-0.470	0.031	1.0	
Reading	11	4201	A	2	6874	0.618	0.064	0.152	0.164	0.618	0.002	0.360	-0.272	-0.244	-0.355	0.360	0.326	0.028	3.4	
Reading	11	4202	B	2	6874	0.849	0.849	0.027	0.050	0.072	0.002	0.424	0.424	-0.313	-0.313	-0.265	-1.175	0.036	-5.7	
Reading	11	4203	A	3	6874	0.522	0.522	0.149	0.233	0.093	0.002	0.313	0.313	-0.257	-0.282	-0.281	0.806	0.027	7.9	
Reading	11	4204	A	2	6874	0.810	0.092	0.025	0.810	0.070	0.002	0.498	-0.367	-0.311	0.498	-0.385	-0.852	0.033	-9.9	
Reading	11	4205	B	2	6874	0.675	0.170	0.102	0.050	0.675	0.002	0.370	-0.297	-0.298	-0.281	0.370	0.020	0.028	1.6	
Reading	11	4206	B	2	6874	0.729	0.112	0.729	0.115	0.042	0.002	0.412	-0.365	0.412	-0.268	-0.294	-0.299	0.030	-3.3	
Reading	11	4207	B	2	6874	0.640	0.094	0.035	0.640	0.228	0.002	0.360	-0.275	-0.337	0.360	-0.298	0.207	0.028	3.4	
Reading	11	4208	A	2	6874	0.709	0.138	0.061	0.090	0.709	0.002	0.394	-0.261	-0.340	0.394	-0.329	0.394	-0.175	0.029	-1.3
Reading	11	4209	B	2	6874	0.493	0.156	0.493	0.262	0.087	0.002	-0.048	0.140	-0.048	0.054	-0.119	0.951	0.027	9.9	
Reading	11	4210	A	2	6833	0.605	0.066	0.605	0.016	0.313	0.001	0.364	-0.258	0.364	-0.263	-0.334	0.425	0.027	0.9	
Reading	11	4211	A	2	6833	0.435	0.207	0.435	0.264	0.093	0.001	-0.016	0.283	-0.016	-0.172	-0.036	1.252	0.027	9.9	
Reading	11	4212	A	2	6833	0.677	0.069	0.201	0.677	0.052	0.001	0.443	-0.347	-0.369	0.443	-0.316	0.048	0.028	-7.6	
Reading	11	4213	A	2	6833	0.626	0.090	0.185	0.626	0.097	0.002	0.320	-0.326	-0.274	0.320	-0.171	0.316	0.027	4.0	
Reading	11	4214	B	2	6833	0.481	0.481	0.057	0.148	0.312	0.002	0.350	0.350	-0.434	-0.375	-0.263	1.028	0.027	3.6	

Appendix J: 2007 Grades 3–8 and 11 Multiple-Choice Statistics

Information						Proportions						Correlations					Rasch		
Cont.	Grade	Pub. ID	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Reading	11	4215	B	2	6833	0.680	0.680	0.081	0.090	0.147	0.002	0.445	0.445	-0.379	-0.437	-0.271	0.028	0.028	-6.2
Reading	11	4216	A	2	6833	0.576	0.262	0.086	0.073	0.576	0.003	0.296	-0.219	-0.306	-0.283	0.296	0.568	0.027	7.1
Reading	11	4217	A	2	6833	0.691	0.112	0.691	0.130	0.064	0.002	0.430	-0.340	0.430	-0.413	-0.204	-0.033	0.029	-4.4
Reading	11	4218	B	1	6833	0.754	0.059	0.137	0.754	0.048	0.002	0.304	-0.292	-0.167	0.304	-0.252	-0.406	0.031	3.6
Reading	11	4219	B	2	6833	0.437	0.079	0.437	0.274	0.207	0.003	0.146	-0.252	0.146	-0.128	-0.083	1.240	0.027	9.9
Reading	11	4220	B	2	6833	0.473	0.154	0.279	0.473	0.090	0.004	0.079	-0.197	0.019	0.079	-0.087	1.067	0.027	9.9
Reading	11	4221	A	2	6833	0.869	0.072	0.024	0.033	0.869	0.002	0.350	-0.211	-0.272	-0.246	0.350	-1.304	0.038	-2.8
Reading	11	4222	A	2	6833	0.444	0.444	0.120	0.041	0.393	0.002	0.319	0.319	-0.333	-0.303	-0.290	1.210	0.027	5.7
Reading	11	4223	A	2	6833	0.860	0.031	0.860	0.053	0.053	0.002	0.379	-0.304	0.379	-0.292	-0.176	-1.220	0.037	-5.3
Reading	11	4224	B	2	6833	0.492	0.037	0.232	0.492	0.236	0.003	0.158	-0.234	-0.080	0.158	-0.174	0.978	0.027	9.9
Reading	11	4225	A	3	6833	0.750	0.750	0.046	0.091	0.110	0.002	0.409	0.409	-0.310	-0.260	-0.338	-0.385	0.030	-5.8
Reading	11	4226	A	2	6839	0.561	0.116	0.290	0.561	0.033	0.001	0.262	-0.279	-0.195	0.262	-0.231	0.633	0.027	9.6
Reading	11	4227	A	2	6839	0.859	0.859	0.055	0.051	0.034	0.000	0.348	0.348	-0.220	-0.247	-0.233	-1.222	0.037	-3.4
Reading	11	4228	A	2	6839	0.483	0.236	0.026	0.253	0.483	0.000	0.313	-0.225	-0.391	-0.332	0.313	1.008	0.027	5.5
Reading	11	4229	A	1	6839	0.508	0.094	0.284	0.113	0.508	0.001	0.181	-0.149	-0.042	-0.398	0.181	0.889	0.027	9.9
Reading	11	4230	B	2	6839	0.530	0.027	0.292	0.148	0.530	0.001	0.234	-0.310	-0.245	-0.112	0.234	0.781	0.027	9.9
Reading	11	4231	B	2	6839	0.512	0.123	0.139	0.225	0.512	0.001	0.172	-0.316	-0.141	-0.050	0.172	0.872	0.027	9.9
Reading	11	4232	B	2	6839	0.272	0.322	0.185	0.217	0.272	0.004	0.277	-0.245	-0.433	-0.321	0.277	2.094	0.029	4.3
Reading	11	4233	A	2	6839	0.895	0.014	0.038	0.895	0.051	0.002	0.400	-0.222	-0.295	0.400	-0.268	-1.592	0.042	-6.9
Reading	11	4234	A	2	6839	0.585	0.585	0.180	0.199	0.032	0.003	0.296	0.296	-0.305	-0.185	-0.291	0.512	0.027	6.0
Reading	11	4235	B	2	6839	0.735	0.148	0.077	0.735	0.037	0.002	0.227	-0.068	-0.257	0.227	-0.260	-0.302	0.030	9.9
Reading	11	4236	B	2	6839	0.825	0.078	0.825	0.027	0.067	0.003	0.357	-0.156	0.357	-0.212	-0.371	-0.921	0.034	-1.2
Reading	11	4237	A	2	6839	0.663	0.204	0.092	0.663	0.038	0.003	0.278	-0.177	-0.316	0.278	-0.194	0.114	0.028	7.7
Reading	11	4238	A	2	6839	0.515	0.222	0.515	0.114	0.145	0.004	0.345	-0.314	0.345	-0.262	-0.336	0.856	0.027	4.3
Reading	11	4239	B	2	6839	0.699	0.014	0.187	0.699	0.097	0.003	0.220	-0.241	-0.190	0.220	-0.116	-0.084	0.029	8.8
Reading	11	4240	A	2	6839	0.919	0.041	0.919	0.024	0.013	0.003	0.389	-0.266	0.389	-0.259	-0.220	-1.919	0.047	-7.5
Reading	11	4241	B	2	6839	0.457	0.110	0.457	0.362	0.067	0.004	0.395	-0.477	0.395	-0.330	-0.374	1.135	0.027	-0.6
Reading	11	4242	B	2	6842	0.730	0.127	0.032	0.730	0.111	0.000	0.379	-0.306	-0.303	0.379	-0.261	-0.261	0.030	-2.1
Reading	11	4243	A	1	6842	0.785	0.785	0.093	0.055	0.067	0.000	0.258	0.258	-0.149	-0.285	-0.129	-0.622	0.032	8.8
Reading	11	4244	B	2	6842	0.662	0.040	0.194	0.662	0.102	0.000	0.324	-0.309	-0.297	0.324	-0.159	0.131	0.028	3.7
Reading	11	4245	B	2	6842	0.811	0.026	0.035	0.128	0.811	0.000	0.468	-0.305	-0.378	-0.351	0.468	-0.813	0.034	-8.2
Reading	11	4246	A	2	6842	0.572	0.058	0.197	0.172	0.572	0.001	0.288	-0.273	-0.249	-0.220	0.288	0.603	0.027	8.4
Reading	11	4247	A	2	6842	0.649	0.012	0.649	0.088	0.250	0.001	0.349	-0.236	0.349	-0.244	-0.326	0.205	0.028	5.0
Reading	11	4248	B	2	6842	0.757	0.757	0.099	0.102	0.040	0.001	0.244	0.244	-0.158	-0.186	-0.185	-0.431	0.031	8.1
Reading	11	4249	A	2	6842	0.722	0.083	0.722	0.182	0.013	0.001	0.295	-0.307	0.295	-0.186	-0.216	-0.210	0.030	4.1
Reading	11	4250	A	2	6842	0.602	0.037	0.602	0.323	0.036	0.002	0.462	-0.398	0.462	-0.398	-0.445	0.452	0.027	-5.2
Reading	11	4251	A	2	6842	0.660	0.660	0.195	0.080	0.063	0.002	0.382	0.382	-0.318	-0.275	-0.305	0.144	0.028	0.5
Reading	11	4252	A	2	6842	0.730	0.081	0.130	0.058	0.730	0.001	0.450	-0.305	-0.364	-0.359	0.450	-0.258	0.030	-5.4
Reading	11	4253	A	2	6842	0.817	0.052	0.817	0.070	0.060	0.001	0.437	-0.275	0.437	-0.337	-0.304	-0.857	0.034	-5.2
Reading	11	4254	A	2	6842	0.750	0.068	0.129	0.750	0.052	0.001	0.336	-0.185	-0.276	0.336	-0.268	-0.384	0.031	3.2
Reading	11	4255	A	2	6842	0.869	0.060	0.037	0.032	0.869	0.002	0.492	-0.344	-0.352	-0.305	0.492	-1.321	0.038	-9.9
Reading	11	4256	B	2	6842	0.734	0.734	0.045	0.116	0.103	0.002	0.459	0.459	-0.367	-0.368	-0.331	-0.285	0.030	-4.7
Reading	11	4257	A	1	6842	0.755	0.109	0.755	0.065	0.068	0.002	0.470	-0.356	0.470	-0.333	-0.364	-0.421	0.031	-8.6

Appendix J: 2007 Grades 3–8 and 11 Multiple-Choice Statistics

Information					Proportions							Correlations					Rasch		
Cont.	Grade	Pub. ID	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Reading	11	4258	B	2	6839	0.772	0.074	0.130	0.022	0.772	0.001	0.406	-0.362	-0.285	-0.260	0.406	-0.543	0.032	-1.7
Reading	11	4259	A	2	6839	0.813	0.073	0.813	0.069	0.045	0.000	0.354	-0.216	0.354	-0.300	-0.220	-0.836	0.034	-0.6
Reading	11	4260	A	2	6839	0.878	0.878	0.052	0.017	0.051	0.000	0.345	0.345	-0.175	-0.249	-0.278	-1.431	0.040	-2.4
Reading	11	4261	A	2	6839	0.822	0.023	0.074	0.080	0.822	0.001	0.402	-0.219	-0.303	-0.300	0.402	-0.910	0.034	-4.9
Reading	11	4262	B	2	6839	0.916	0.054	0.916	0.018	0.012	0.000	0.386	-0.310	0.386	-0.215	-0.196	-1.901	0.046	-5.0
Reading	11	4263	B	2	6839	0.843	0.018	0.122	0.843	0.017	0.000	0.359	-0.193	-0.297	0.359	-0.222	-1.091	0.036	-2.0
Reading	11	4264	A	2	6839	0.794	0.794	0.067	0.047	0.091	0.002	0.421	0.421	-0.352	-0.256	-0.291	-0.697	0.033	-4.8
Reading	11	4265	A	3	6839	0.538	0.538	0.137	0.119	0.204	0.002	0.331	0.331	-0.318	-0.419	-0.188	0.770	0.027	6.7
Reading	11	4266	A	3	6839	0.308	0.110	0.209	0.308	0.369	0.003	0.153	-0.129	-0.204	0.153	-0.145	1.939	0.029	9.9
Reading	11	4267	A	1	6839	0.936	0.936	0.031	0.021	0.011	0.001	0.366	0.366	-0.254	-0.256	-0.166	-2.218	0.052	-6.4
Reading	11	4268	B	2	6839	0.858	0.052	0.858	0.054	0.034	0.001	0.454	-0.284	0.454	-0.366	-0.269	-1.228	0.037	-8.7
Reading	11	4269	B	2	6839	0.722	0.152	0.028	0.096	0.722	0.001	0.373	-0.206	-0.336	-0.388	0.373	-0.218	0.030	1.4
Reading	11	4270	B	2	6839	0.165	0.319	0.262	0.252	0.165	0.002	0.056	0.022	-0.090	-0.172	0.056	2.888	0.035	9.9
Reading	11	4271	B	2	6839	0.660	0.226	0.660	0.080	0.031	0.001	0.346	-0.295	0.346	-0.271	-0.217	0.136	0.028	2.2
Reading	11	4272	B	2	6839	0.887	0.035	0.049	0.887	0.026	0.002	0.429	-0.297	-0.312	0.429	-0.235	-1.531	0.041	-8.9
Reading	11	4273	A	1	6839	0.852	0.027	0.050	0.069	0.852	0.002	0.434	-0.282	-0.295	-0.317	0.434	-1.168	0.037	-7.5
Reading	11	4274	A	2	6837	0.561	0.561	0.123	0.196	0.119	0.000	0.283	0.283	-0.446	-0.169	-0.129	0.632	0.027	9.9
Reading	11	4275	A	2	6837	0.707	0.067	0.039	0.186	0.707	0.000	0.431	-0.292	-0.249	-0.392	0.431	-0.137	0.029	-5.8
Reading	11	4276	A		6837	0.654	0.093	0.190	0.654	0.060	0.002	0.399	-0.332	-0.323	0.399	-0.301	0.155	0.028	-2.1
Reading	11	4277	B	2	6837	0.544	0.116	0.242	0.544	0.097	0.000	0.351	-0.363	-0.232	0.351	-0.389	0.718	0.027	3.2
Reading	11	4278	B	2	6837	0.563	0.069	0.095	0.272	0.563	0.001	0.438	-0.397	-0.391	-0.374	0.438	0.623	0.027	-5.4
Reading	11	4279	A	2	6837	0.638	0.638	0.100	0.205	0.055	0.001	0.349	0.349	-0.292	-0.253	-0.343	0.242	0.028	2.7
Reading	11	4280	B	2	6837	0.742	0.162	0.045	0.048	0.742	0.002	0.360	-0.237	-0.380	-0.262	0.360	-0.351	0.030	2.5
Reading	11	4281	A	1	6837	0.851	0.851	0.087	0.040	0.019	0.003	0.417	0.417	-0.292	-0.351	-0.200	-1.159	0.036	-6.7
Reading	11	4282	A	2	6837	0.741	0.106	0.741	0.076	0.074	0.003	0.383	-0.183	0.383	-0.367	-0.321	-0.340	0.030	0.0
Reading	11	4283	B	2	6837	0.362	0.334	0.362	0.033	0.269	0.002	0.180	-0.174	0.180	-0.383	-0.144	1.620	0.028	9.9
Reading	11	4284	A	2	6837	0.430	0.282	0.070	0.214	0.430	0.003	0.192	-0.012	-0.382	-0.305	0.192	1.273	0.027	9.9
Reading	11	4285	A	2	6837	0.734	0.030	0.188	0.734	0.045	0.002	0.444	-0.360	-0.352	0.444	-0.316	-0.298	0.030	-6.9
Reading	11	4286	A	2	6837	0.723	0.723	0.082	0.107	0.085	0.003	0.351	0.351	-0.295	-0.337	-0.125	-0.233	0.030	0.1
Reading	11	4287	A	1	6837	0.632	0.260	0.049	0.056	0.632	0.002	0.474	-0.399	-0.394	-0.403	0.474	0.272	0.028	-9.9
Reading	11	4288	A	2	6837	0.262	0.062	0.262	0.173	0.500	0.003	0.189	-0.415	0.189	-0.393	-0.095	2.174	0.030	9.9
Reading	11	4289	A	2	6837	0.305	0.036	0.600	0.305	0.056	0.003	0.028	-0.330	0.051	0.028	-0.363	1.922	0.029	9.9
Reading	11	4290	A	1	6795	0.929	0.039	0.013	0.020	0.929	0.000	0.411	-0.303	-0.228	-0.247	0.411	-2.124	0.049	-8.3
Reading	11	4291	B	2	6795	0.407	0.052	0.244	0.407	0.296	0.001	0.174	-0.295	-0.259	0.174	-0.054	1.377	0.027	9.9
Reading	11	4292	B	2	6795	0.625	0.625	0.054	0.112	0.208	0.001	0.210	0.210	-0.219	-0.241	-0.096	0.287	0.028	9.9
Reading	11	4293	A	2	6795	0.924	0.924	0.034	0.023	0.018	0.000	0.366	0.366	-0.264	-0.252	-0.172	-2.048	0.048	-6.4
Reading	11	4294	A	2	6795	0.702	0.015	0.245	0.038	0.702	0.001	0.401	-0.289	-0.320	-0.402	0.401	-0.137	0.029	-0.8
Reading	11	4295	B		6795	0.680	0.079	0.680	0.091	0.148	0.002	0.333	-0.252	0.333	-0.330	-0.214	-0.011	0.029	5.6
Reading	11	4296	A	2	6795	0.941	0.941	0.008	0.008	0.041	0.002	0.170	0.170	-0.165	-0.154	-0.071	-2.349	0.054	4.3
Reading	11	4297	A	2	6795	0.715	0.179	0.035	0.069	0.715	0.001	0.406	-0.260	-0.297	-0.440	0.406	-0.215	0.030	-2.3
Reading	11	4298	A	2	6795	0.813	0.031	0.064	0.813	0.090	0.002	0.414	-0.261	-0.271	0.414	-0.332	-0.871	0.034	-4.4
Reading	11	4299	A	2	6795	0.715	0.042	0.109	0.133	0.715	0.001	0.528	-0.422	-0.440	-0.389	0.528	-0.215	0.030	-9.9
Reading	11	4300	A	1	6795	0.575	0.575	0.152	0.103	0.169	0.001	0.389	0.389	-0.321	-0.301	-0.353	0.545	0.027	-1.0

Appendix J: 2007 Grades 3–8 and 11 Multiple-Choice Statistics

Information					Proportions							Correlations					Rasch		
Cont.	Grade	Pub. ID	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Reading	11	4301	A	2	6795	0.838	0.020	0.033	0.838	0.107	0.001	0.317	-0.225	-0.196	0.317	-0.237	-1.076	0.036	0.8
Reading	11	4302	A	2	6795	0.857	0.068	0.060	0.857	0.013	0.002	0.285	-0.228	-0.154	0.285	-0.217	-1.247	0.037	2.9
Reading	11	4303	A	2	6795	0.736	0.036	0.736	0.019	0.207	0.002	0.322	-0.200	0.322	-0.281	-0.263	-0.338	0.030	1.8
Reading	11	4304	B	2	6795	0.737	0.737	0.116	0.024	0.121	0.001	0.335	0.335	-0.307	-0.316	-0.177	-0.345	0.030	3.4
Reading	11	4305	A	2	6795	0.748	0.084	0.748	0.075	0.091	0.001	0.267	-0.223	0.267	-0.249	-0.113	-0.417	0.031	7.1
Reading	11	4306	A	2	6771	0.778	0.162	0.033	0.778	0.027	0.000	0.441	-0.388	-0.338	0.441	-0.172	-0.616	0.032	-5.8
Reading	11	4307	A	1	6771	0.831	0.071	0.072	0.025	0.831	0.000	0.408	-0.328	-0.260	-0.257	0.408	-1.019	0.035	-5.2
Reading	11	4308	A	2	6771	0.802	0.034	0.802	0.031	0.132	0.000	0.376	-0.303	0.376	-0.275	-0.259	-0.791	0.033	-3.0
Reading	11	4309	A	2	6771	0.733	0.054	0.105	0.108	0.733	0.001	0.391	-0.317	-0.248	-0.321	0.391	-0.321	0.030	-2.0
Reading	11	4310	A	1	6771	0.860	0.072	0.860	0.044	0.024	0.001	0.432	-0.332	0.432	-0.298	-0.235	-1.273	0.038	-8.4
Reading	11	4311	A	2	6771	0.849	0.037	0.849	0.036	0.076	0.001	0.404	-0.264	0.404	-0.220	-0.324	-1.176	0.037	-6.5
Reading	11	4312	A	2	6771	0.895	0.055	0.030	0.895	0.018	0.002	0.349	-0.245	-0.245	0.349	-0.176	-1.655	0.042	-3.4
Reading	11	4313	A	3	6771	0.336	0.483	0.336	0.052	0.126	0.003	0.197	-0.103	0.197	-0.434	-0.382	1.736	0.028	9.9
Reading	11	4314	A	1	6771	0.875	0.024	0.058	0.875	0.041	0.002	0.419	-0.222	-0.284	0.419	-0.320	-1.426	0.039	-7.4
Reading	11	4315	B	2	6771	0.783	0.783	0.083	0.064	0.066	0.004	0.345	0.345	-0.271	-0.278	-0.184	-0.655	0.032	1.2
Reading	11	4316	B	2	6771	0.286	0.139	0.157	0.415	0.286	0.003	0.151	-0.362	-0.382	0.006	0.151	2.016	0.029	9.9
Reading	11	4317	A	1	6771	0.863	0.031	0.035	0.068	0.863	0.002	0.445	-0.294	-0.292	-0.315	0.445	-1.307	0.038	-9.1
Reading	11	4318	A	2	6771	0.523	0.371	0.048	0.523	0.055	0.003	0.116	0.001	-0.358	0.116	-0.250	0.799	0.027	9.9
Reading	11	4319	A	2	6771	0.703	0.703	0.080	0.143	0.071	0.003	0.335	0.335	-0.263	-0.227	-0.275	-0.142	0.029	2.4
Reading	11	4320	A	2	6771	0.296	0.022	0.533	0.146	0.296	0.003	0.094	-0.376	0.000	-0.344	0.094	1.955	0.029	9.9
Reading	11	4321	B	2	6771	0.787	0.049	0.787	0.132	0.029	0.003	0.422	-0.339	0.422	-0.302	-0.294	-0.682	0.032	-6.3
Reading	11	4322	A	2	6775	0.486	0.039	0.090	0.486	0.384	0.000	0.279	-0.285	-0.286	0.279	-0.238	1.005	0.027	9.9
Reading	11	4323	B	3	6775	0.865	0.055	0.043	0.865	0.037	0.000	0.471	-0.323	-0.348	0.471	-0.293	-1.304	0.038	-9.2
Reading	11	4324	A	2	6775	0.830	0.061	0.058	0.050	0.830	0.001	0.473	-0.372	-0.273	-0.352	0.473	-0.983	0.035	-8.1
Reading	11	4325	A	2	6775	0.790	0.039	0.790	0.139	0.032	0.000	0.443	-0.331	0.443	-0.331	-0.322	-0.675	0.033	-6.6
Reading	11	4326	B	3	6775	0.923	0.015	0.047	0.923	0.016	0.000	0.345	-0.215	-0.237	0.345	-0.223	-2.011	0.048	-3.1
Reading	11	4327	B		6775	0.619	0.154	0.619	0.073	0.153	0.001	0.390	-0.327	0.390	-0.299	-0.325	0.344	0.028	-1.0
Reading	11	4328	B	2	6775	0.855	0.029	0.855	0.102	0.010	0.003	0.364	-0.281	0.364	-0.270	-0.192	-1.212	0.037	-2.6
Reading	11	4329	A	2	6775	0.587	0.022	0.070	0.317	0.587	0.004	0.165	-0.325	-0.151	-0.106	0.165	0.510	0.027	9.9
Reading	11	4330	A	2	6775	0.830	0.037	0.094	0.830	0.036	0.002	0.478	-0.309	-0.385	0.478	-0.289	-0.987	0.035	-9.7
Reading	11	4331	B	2	6775	0.796	0.091	0.796	0.052	0.058	0.003	0.411	-0.340	0.411	-0.229	-0.288	-0.724	0.033	-5.1
Reading	11	4332	A	2	6775	0.489	0.045	0.154	0.308	0.489	0.003	0.373	-0.439	-0.293	-0.358	0.373	0.993	0.027	1.4
Reading	11	4333	B	2	6775	0.606	0.606	0.294	0.037	0.061	0.003	0.110	0.110	-0.011	-0.266	-0.183	0.413	0.028	9.9
Reading	11	4334	B	2	6775	0.625	0.303	0.625	0.034	0.036	0.003	0.248	-0.150	0.248	-0.379	-0.280	0.312	0.028	9.9
Reading	11	4335	A	2	6775	0.896	0.023	0.034	0.896	0.044	0.003	0.443	-0.283	-0.301	0.443	-0.292	-1.642	0.042	-9.3
Reading	11	4336	A	2	6775	0.401	0.401	0.369	0.104	0.123	0.004	0.137	0.137	-0.091	-0.236	-0.130	1.428	0.027	9.9
Reading	11	4337	A	2	6775	0.895	0.022	0.048	0.895	0.031	0.004	0.338	-0.257	-0.136	0.338	-0.302	-1.630	0.042	1.7
Reading	11	4338	A		6816	0.851	0.851	0.036	0.028	0.084	0.001	0.411	0.411	-0.332	-0.294	-0.258	-1.193	0.037	-3.2
Reading	11	4339	A		6816	0.644	0.644	0.039	0.302	0.015	0.000	0.337	0.337	-0.305	-0.279	-0.292	0.207	0.028	3.3
Reading	11	4340	B		6816	0.862	0.059	0.022	0.862	0.057	0.000	0.358	-0.279	-0.271	0.358	-0.190	-1.296	0.038	-3.9
Reading	11	4341	A		6816	0.574	0.076	0.136	0.214	0.574	0.001	0.541	-0.470	-0.549	-0.431	0.541	0.575	0.027	-9.9
Reading	11	4342	A		6816	0.645	0.155	0.645	0.049	0.150	0.001	0.396	-0.318	0.396	-0.364	-0.300	0.202	0.028	-2.0
Reading	11	4343	A		6816	0.789	0.093	0.789	0.049	0.069	0.000	0.503	-0.361	0.503	-0.366	-0.390	-0.687	0.033	-8.1

Appendix J: 2007 Grades 3–8 and 11 Multiple-Choice Statistics

Information					Proportions							Correlations					Rasch		
Cont.	Grade	Pub. ID	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Reading	11	4344	A	2	6816	0.785	0.027	0.170	0.785	0.017	0.002	0.400	-0.325	-0.336	0.400	-0.185	-0.658	0.032	-0.9
Reading	11	4345	A	2	6816	0.634	0.634	0.105	0.114	0.144	0.003	0.309	0.309	-0.183	-0.341	-0.213	0.258	0.028	6.5
Reading	11	4346	A	2	6816	0.368	0.349	0.124	0.368	0.157	0.002	0.369	-0.328	-0.489	0.369	-0.358	1.620	0.028	6.9
Reading	11	4347	A	2	6816	0.794	0.033	0.089	0.081	0.794	0.003	0.418	-0.289	-0.309	-0.293	0.418	-0.723	0.033	-5.5
Reading	11	4348	B	2	6816	0.868	0.029	0.033	0.067	0.868	0.002	0.492	-0.312	-0.340	-0.357	0.492	-1.360	0.039	-9.9
Reading	11	4349	A	1	6816	0.753	0.146	0.048	0.050	0.753	0.002	0.466	-0.334	-0.401	-0.350	0.466	-0.439	0.031	-7.1
Reading	11	4350	A	1	6816	0.828	0.828	0.087	0.047	0.036	0.002	0.403	0.403	-0.263	-0.294	-0.295	-0.987	0.035	-3.8
Reading	11	4351	A	3	6816	0.525	0.100	0.525	0.279	0.094	0.003	0.358	-0.295	0.358	-0.253	-0.483	0.823	0.027	6.1
Reading	11	4352	A	2	6816	0.852	0.051	0.852	0.036	0.057	0.004	0.412	-0.300	0.412	-0.336	-0.216	-1.198	0.037	-4.7
Reading	11	4353	B	2	6816	0.656	0.125	0.137	0.656	0.079	0.003	0.359	-0.432	-0.178	0.359	-0.222	0.142	0.028	2.5
Reading	11	4354	A	1	6775	0.873	0.873	0.047	0.049	0.030	0.000	0.441	0.441	-0.265	-0.319	-0.305	-1.391	0.039	-8.5
Reading	11	4355	B	2	6775	0.725	0.725	0.043	0.187	0.044	0.001	0.252	0.252	-0.276	-0.130	-0.260	-0.263	0.030	9.0
Reading	11	4356	A	2	6775	0.784	0.071	0.784	0.102	0.043	0.001	0.491	-0.307	0.491	-0.424	-0.321	-0.644	0.032	-9.2
Reading	11	4357	A	2	6775	0.644	0.069	0.644	0.053	0.232	0.001	0.283	-0.311	0.283	-0.220	-0.191	0.201	0.028	7.9
Reading	11	4358	A	2	6775	0.935	0.039	0.015	0.935	0.011	0.000	0.352	-0.264	-0.200	0.352	-0.193	-2.215	0.051	-6.4
Reading	11	4359	A	2	6775	0.897	0.897	0.047	0.034	0.022	0.001	0.403	0.403	-0.300	-0.279	-0.197	-1.657	0.042	-7.2
Reading	11	4360	B	2	6775	0.667	0.091	0.667	0.084	0.155	0.003	0.400	-0.393	0.400	-0.198	-0.337	0.075	0.029	-1.0
Reading	11	4361	A	1	6775	0.805	0.069	0.037	0.805	0.087	0.002	0.441	-0.330	-0.310	0.441	-0.307	-0.795	0.033	-5.3
Reading	11	4362	B	2	6775	0.794	0.045	0.093	0.794	0.066	0.002	0.299	-0.264	-0.230	0.299	-0.135	-0.714	0.033	4.4
Reading	11	4363	A	2	6775	0.777	0.119	0.777	0.079	0.024	0.001	0.345	-0.193	0.345	-0.345	-0.217	-0.593	0.032	1.3
Reading	11	4364	A	2	6775	0.658	0.658	0.035	0.246	0.059	0.001	0.161	0.161	-0.240	-0.067	-0.202	0.122	0.028	9.9
Reading	11	4365	A	1	6775	0.932	0.932	0.022	0.017	0.027	0.001	0.376	0.376	-0.244	-0.219	-0.247	-2.173	0.051	-6.8
Reading	11	4366	A	2	6775	0.667	0.096	0.160	0.075	0.667	0.001	0.290	-0.183	-0.207	-0.296	0.290	0.073	0.029	5.9
Reading	11	4367	B	2	6775	0.600	0.109	0.258	0.600	0.031	0.001	0.117	0.048	-0.152	0.117	-0.169	0.431	0.028	9.9
Reading	11	4368	B	3	6775	0.821	0.062	0.062	0.054	0.821	0.002	0.422	-0.295	-0.317	-0.272	0.422	-0.924	0.034	-5.1
Reading	11	4369	B	3	6775	0.672	0.097	0.672	0.207	0.022	0.001	0.352	-0.354	0.352	-0.246	-0.260	0.045	0.029	1.5
Reading	11	4370	A		6787	0.716	0.716	0.037	0.073	0.173	0.001	0.276	0.276	-0.301	-0.279	-0.131	-0.184	0.030	5.6
Reading	11	4371	B		6787	0.691	0.124	0.055	0.129	0.691	0.001	0.328	-0.172	-0.339	-0.285	0.328	-0.042	0.029	3.4
Reading	11	4372	A		6787	0.749	0.070	0.749	0.139	0.041	0.000	0.434	-0.366	0.434	-0.316	-0.301	-0.388	0.031	-5.8
Reading	11	4373	A		6787	0.607	0.165	0.127	0.607	0.100	0.001	0.257	-0.136	-0.269	0.257	-0.233	0.408	0.027	9.9
Reading	11	4374	A		6787	0.498	0.084	0.269	0.498	0.147	0.002	0.401	-0.422	-0.261	0.401	-0.478	0.953	0.027	-0.5
Reading	11	4375	B		6787	0.653	0.028	0.653	0.028	0.292	0.000	0.232	-0.338	0.232	-0.289	-0.141	0.171	0.028	9.9
Reading	11	4376	A	1	6787	0.723	0.202	0.041	0.029	0.723	0.004	0.364	-0.258	-0.313	-0.354	0.364	-0.227	0.030	0.3
Reading	11	4377	A	2	6787	0.315	0.075	0.241	0.368	0.315	0.001	0.187	-0.382	-0.265	-0.102	0.187	1.884	0.029	9.9
Reading	11	4378	A	2	6787	0.775	0.775	0.031	0.156	0.035	0.002	0.380	0.380	-0.287	-0.295	-0.249	-0.560	0.032	-2.7
Reading	11	4379	B	2	6787	0.783	0.174	0.783	0.022	0.019	0.002	0.329	-0.250	0.329	-0.257	-0.240	-0.611	0.032	-1.3
Reading	11	4380	B	2	6787	0.473	0.473	0.183	0.143	0.197	0.003	0.456	0.456	-0.431	-0.418	-0.435	1.072	0.027	-6.0
Reading	11	4381	A	2	6787	0.305	0.504	0.158	0.305	0.032	0.002	0.277	-0.223	-0.416	0.277	-0.425	1.942	0.029	9.9
Reading	11	4382	B	2	6787	0.426	0.038	0.426	0.063	0.470	0.002	0.392	-0.408	0.392	-0.480	-0.350	1.304	0.027	-0.4
Reading	11	4383	B	2	6787	0.652	0.184	0.105	0.056	0.652	0.003	0.492	-0.408	-0.431	-0.342	0.492	0.177	0.028	-9.9
Reading	11	4384	A	2	6787	0.813	0.045	0.091	0.813	0.048	0.003	0.299	-0.261	-0.182	0.299	-0.186	-0.834	0.034	4.8
Reading	11	4385	A	2	6787	0.651	0.051	0.093	0.651	0.203	0.003	0.306	-0.308	-0.333	0.306	-0.166	0.182	0.028	7.2
Reading	11	4386	B	2	6845	0.721	0.130	0.034	0.721	0.114	0.001	0.394	-0.316	-0.304	0.394	-0.281	-0.223	0.030	-2.0

Appendix J: 2007 Grades 3–8 and 11 Multiple-Choice Statistics

Information					Proportions							Correlations					Rasch		
Cont.	Grade	Pub. ID	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Reading	11	4387	A	1	6845	0.781	0.781	0.087	0.059	0.072	0.001	0.271	0.271	-0.155	-0.310	-0.123	-0.617	0.032	8.4
Reading	11	4388	B	2	6845	0.657	0.046	0.194	0.657	0.103	0.000	0.325	-0.326	-0.289	0.325	-0.166	0.149	0.028	4.3
Reading	11	4389	B	2	6845	0.808	0.025	0.036	0.131	0.808	0.001	0.449	-0.291	-0.365	-0.331	0.449	-0.810	0.034	-6.8
Reading	11	4390	A	2	6845	0.558	0.061	0.190	0.189	0.558	0.001	0.285	-0.262	-0.234	-0.238	0.285	0.663	0.027	9.9
Reading	11	4391	A	2	6845	0.633	0.009	0.633	0.093	0.262	0.002	0.343	-0.249	0.343	-0.255	-0.317	0.273	0.028	3.9
Reading	11	4392	A	2	6845	0.870	0.079	0.870	0.027	0.023	0.001	0.399	-0.335	0.399	-0.255	-0.162	-1.357	0.039	-4.3
Reading	11	4393	B	2	6845	0.769	0.130	0.026	0.769	0.074	0.001	0.234	-0.112	-0.244	0.234	-0.208	-0.533	0.032	7.7
Reading	11	4394	A	2	6845	0.879	0.879	0.029	0.046	0.044	0.001	0.508	0.508	-0.341	-0.360	-0.334	-1.456	0.040	-9.9
Reading	11	4395	A	2	6845	0.617	0.201	0.089	0.090	0.617	0.002	0.436	-0.358	-0.401	-0.342	0.436	0.360	0.028	-3.2
Reading	11	4396	A	1	6845	0.858	0.058	0.858	0.046	0.038	0.001	0.486	-0.356	0.486	-0.362	-0.271	-1.238	0.037	-9.5
Reading	11	4397	A	2	6845	0.783	0.114	0.039	0.063	0.783	0.001	0.333	-0.095	-0.354	-0.361	0.333	-0.630	0.032	4.3
Reading	11	4398	A	2	6845	0.917	0.036	0.025	0.917	0.021	0.001	0.429	-0.313	-0.285	0.429	-0.216	-1.930	0.046	-8.9
Reading	11	4399	B	2	6845	0.680	0.084	0.680	0.085	0.148	0.002	0.397	-0.337	0.397	-0.366	-0.254	0.020	0.029	-0.6
Reading	11	4400	B	3	6845	0.795	0.795	0.058	0.090	0.056	0.001	0.493	0.493	-0.381	-0.338	-0.356	-0.712	0.033	-9.9
Reading	11	4401	B	3	6845	0.783	0.093	0.076	0.047	0.783	0.002	0.341	-0.369	-0.098	-0.245	0.341	-0.625	0.032	3.6
Reading	11	4402	B	2	6825	0.757	0.079	0.136	0.026	0.757	0.001	0.435	-0.380	-0.331	-0.230	0.435	-0.468	0.031	-3.3
Reading	11	4403	A	2	6825	0.802	0.076	0.802	0.069	0.052	0.000	0.379	-0.207	0.379	-0.337	-0.262	-0.787	0.033	-0.3
Reading	11	4404	A	2	6825	0.871	0.871	0.054	0.019	0.055	0.000	0.372	0.372	-0.185	-0.272	-0.305	-1.383	0.039	-3.5
Reading	11	4405	A	2	6825	0.812	0.025	0.081	0.080	0.812	0.001	0.407	-0.228	-0.296	-0.314	0.407	-0.861	0.034	-4.1
Reading	11	4406	B	2	6825	0.905	0.062	0.905	0.022	0.010	0.001	0.404	-0.321	0.404	-0.269	-0.164	-1.772	0.044	-7.3
Reading	11	4407	B	2	6825	0.837	0.021	0.119	0.837	0.021	0.001	0.354	-0.216	-0.283	0.354	-0.226	-1.067	0.035	-2.2
Reading	11	4408	A	2	6825	0.762	0.147	0.762	0.036	0.054	0.001	0.367	-0.296	0.367	-0.252	-0.242	-0.502	0.031	-0.5
Reading	11	4409	B	2	6825	0.915	0.020	0.049	0.915	0.015	0.001	0.241	-0.261	-0.094	0.241	-0.161	-1.915	0.046	7.3
Reading	11	4410	A	2	6825	0.564	0.564	0.267	0.118	0.047	0.003	0.429	0.429	-0.313	-0.477	-0.408	0.608	0.027	-2.2
Reading	11	4411	A	2	6825	0.932	0.020	0.932	0.023	0.023	0.001	0.364	-0.245	0.364	-0.233	-0.211	-2.177	0.050	-6.4
Reading	11	4412	A	2	6825	0.445	0.445	0.310	0.055	0.188	0.002	0.128	0.128	-0.049	-0.338	-0.133	1.200	0.027	9.9
Reading	11	4413	A	2	6825	0.640	0.265	0.064	0.640	0.028	0.002	0.389	-0.303	-0.398	0.389	-0.295	0.219	0.028	-0.6
Reading	11	4414	A	2	6825	0.651	0.126	0.081	0.141	0.651	0.001	0.293	-0.224	-0.359	-0.144	0.293	0.157	0.028	7.2
Reading	11	4415	A	2	6825	0.505	0.237	0.120	0.505	0.136	0.001	0.403	-0.341	-0.367	0.403	-0.379	0.905	0.027	0.7
Reading	11	4416	A	2	6825	0.352	0.352	0.281	0.303	0.060	0.004	0.186	0.186	-0.135	-0.188	-0.362	1.674	0.028	9.9
Reading	11	4417	B	2	6825	0.495	0.161	0.155	0.186	0.495	0.002	0.356	-0.286	-0.301	-0.371	0.356	0.952	0.027	5.7
Reading	11	4418	B		6821	0.317	0.282	0.130	0.270	0.317	0.001	0.367	-0.415	-0.502	-0.321	0.367	1.882	0.029	1.4
Reading	11	4419	A		6821	0.767	0.023	0.767	0.147	0.062	0.001	0.370	-0.235	0.370	-0.288	-0.275	-0.513	0.031	-1.7
Reading	11	4420	B		6821	0.547	0.547	0.113	0.023	0.316	0.001	0.300	0.300	-0.227	-0.303	-0.275	0.708	0.027	9.0
Reading	11	4421	A		6821	0.791	0.034	0.121	0.052	0.791	0.001	0.440	-0.271	-0.367	-0.294	0.440	-0.678	0.032	-4.7
Reading	11	4422	B		6821	0.620	0.196	0.620	0.164	0.018	0.001	0.458	-0.442	0.458	-0.353	-0.317	0.337	0.028	-6.6
Reading	11	4423	A		6821	0.859	0.038	0.063	0.859	0.039	0.001	0.441	-0.262	-0.374	0.441	-0.243	-1.224	0.037	-7.6
Reading	11	4424	A	1	6821	0.793	0.793	0.090	0.038	0.078	0.001	0.365	0.365	-0.289	-0.289	-0.209	-0.697	0.033	-1.3
Reading	11	4425	B	2	6821	0.579	0.175	0.159	0.579	0.085	0.003	0.299	-0.178	-0.317	0.299	-0.260	0.552	0.027	7.2
Reading	11	4426	A	2	6821	0.851	0.035	0.054	0.851	0.058	0.001	0.453	-0.316	-0.310	0.453	-0.310	-1.171	0.037	-7.6
Reading	11	4427	A	2	6821	0.756	0.756	0.103	0.098	0.042	0.001	0.449	0.449	-0.304	-0.360	-0.353	-0.442	0.031	-4.7
Reading	11	4428	A	2	6821	0.386	0.336	0.160	0.114	0.386	0.004	0.326	-0.285	-0.384	-0.348	0.326	1.517	0.028	5.5
Reading	11	4429	A	2	6821	0.833	0.035	0.090	0.039	0.833	0.001	0.405	-0.279	-0.276	-0.304	0.405	-1.012	0.035	-4.3

Appendix J: 2007 Grades 3–8 and 11 Multiple-Choice Statistics

Information					Proportions							Correlations					Rasch		
Cont.	Grade	Pub. ID	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Reading	11	4430	B	2	6821	0.682	0.035	0.058	0.682	0.223	0.001	0.448	-0.376	-0.406	0.448	-0.342	0.002	0.029	-7.5
Reading	11	4431	B	2	6821	0.515	0.173	0.515	0.281	0.028	0.002	0.303	-0.324	0.303	-0.212	-0.352	0.871	0.027	7.4
Reading	11	4432	A	2	6821	0.731	0.173	0.731	0.060	0.033	0.002	0.393	-0.273	0.393	-0.372	-0.289	-0.287	0.030	-2.2
Reading	11	4433	B	2	6821	0.676	0.676	0.117	0.090	0.113	0.002	0.370	0.370	-0.351	-0.316	-0.195	0.036	0.029	0.2
Reading	11	4434	A	1	6799	0.794	0.030	0.794	0.080	0.094	0.001	0.359	-0.263	0.359	-0.275	-0.235	-0.714	0.033	-1.8
Reading	11	4435	A	2	6799	0.827	0.042	0.090	0.040	0.827	0.001	0.446	-0.309	-0.323	-0.309	0.446	-0.965	0.035	-8.0
Reading	11	4436	A	2	6799	0.790	0.042	0.094	0.790	0.073	0.001	0.409	-0.253	-0.341	0.409	-0.260	-0.680	0.033	-5.3
Reading	11	4437	A	2	6799	0.688	0.184	0.688	0.064	0.063	0.001	0.519	-0.512	0.519	-0.353	-0.273	-0.043	0.029	-9.3
Reading	11	4438	A	2	6799	0.658	0.070	0.106	0.658	0.164	0.001	0.429	-0.179	-0.380	0.429	-0.398	0.122	0.028	-1.9
Reading	11	4439	A	2	6799	0.765	0.051	0.165	0.765	0.017	0.002	0.373	-0.263	-0.307	0.373	-0.223	-0.513	0.031	-1.5
Reading	11	4440	A	1	6799	0.838	0.838	0.072	0.019	0.068	0.003	0.421	0.421	-0.348	-0.214	-0.268	-1.085	0.036	-5.7
Reading	11	4441	A	2	6799	0.857	0.038	0.018	0.082	0.857	0.005	0.450	-0.356	-0.243	-0.317	0.450	-1.255	0.037	-7.3
Reading	11	4442	A	2	6799	0.732	0.732	0.204	0.049	0.013	0.003	0.210	0.210	-0.084	-0.316	-0.223	-0.313	0.030	9.9
Reading	11	4443	A	2	6799	0.922	0.025	0.034	0.922	0.017	0.002	0.403	-0.250	-0.274	0.403	-0.228	-2.040	0.048	-8.5
Reading	11	4444	A	2	6799	0.705	0.705	0.043	0.179	0.069	0.003	0.243	0.243	-0.206	0.137	-0.252	-0.147	0.030	9.9
Reading	11	4445	A	2	6799	0.852	0.052	0.052	0.852	0.041	0.003	0.378	-0.187	-0.317	0.378	-0.248	-1.208	0.037	-1.3
Reading	11	4446	A	2	6799	0.871	0.027	0.871	0.073	0.026	0.002	0.409	-0.272	0.409	-0.291	-0.246	-1.397	0.039	-6.9
Reading	11	4447	B	2	6799	0.790	0.145	0.033	0.030	0.790	0.003	0.375	-0.259	-0.349	-0.240	0.375	-0.703	0.033	0.1
Reading	11	4448	B	2	6799	0.891	0.037	0.018	0.052	0.891	0.002	0.391	-0.189	-0.252	-0.312	0.391	-1.616	0.042	-5.2
Reading	11	4449	A	3	6799	0.668	0.134	0.668	0.095	0.100	0.003	0.504	-0.420	0.504	-0.385	-0.385	0.063	0.029	-9.9
Reading	11	4450	B		6820	0.689	0.032	0.689	0.038	0.241	0.000	0.295	-0.301	0.295	-0.305	-0.202	-0.039	0.029	6.6
Reading	11	4451	A		6820	0.875	0.026	0.086	0.875	0.013	0.000	0.354	-0.209	-0.297	0.354	-0.152	-1.388	0.039	-3.2
Reading	11	4452	B		6820	0.839	0.014	0.058	0.839	0.088	0.001	0.374	-0.254	-0.298	0.374	-0.244	-1.050	0.035	-2.9
Reading	11	4453	A		6820	0.666	0.061	0.175	0.097	0.666	0.001	0.372	-0.330	-0.233	-0.360	0.372	0.087	0.028	0.5
Reading	11	4454	A		6820	0.525	0.525	0.039	0.030	0.404	0.001	0.186	0.186	-0.289	-0.307	-0.118	0.803	0.027	9.9
Reading	11	4455	A		6820	0.601	0.029	0.173	0.601	0.195	0.001	0.399	-0.379	-0.258	0.399	-0.404	0.427	0.027	-1.1
Reading	11	4456	B	3	6820	0.808	0.054	0.808	0.072	0.065	0.001	0.427	-0.317	0.427	-0.327	-0.258	-0.804	0.033	-6.1
Reading	11	4457	A	2	6820	0.640	0.640	0.254	0.059	0.047	0.001	0.385	0.385	-0.259	-0.407	-0.396	0.232	0.028	-2.0
Reading	11	4458	B	3	6820	0.322	0.147	0.322	0.254	0.272	0.004	0.135	-0.225	0.135	-0.061	-0.170	1.835	0.028	9.9
Reading	11	4459	A	2	6820	0.547	0.071	0.278	0.102	0.547	0.001	0.513	-0.506	-0.445	-0.472	0.513	0.703	0.027	-9.9
Reading	11	4460	A	2	6820	0.793	0.113	0.033	0.060	0.793	0.002	0.387	-0.291	-0.256	-0.284	0.387	-0.693	0.033	-1.9
Reading	11	4461	B	2	6820	0.660	0.145	0.128	0.660	0.065	0.002	0.237	-0.171	-0.173	0.237	-0.218	0.125	0.028	9.9
Reading	11	4462	A	3	6820	0.803	0.071	0.086	0.803	0.038	0.002	0.350	-0.310	-0.207	0.350	-0.207	-0.767	0.033	-1.7
Reading	11	4463	B	2	6820	0.634	0.283	0.634	0.066	0.015	0.002	0.056	0.071	0.056	-0.259	-0.241	0.262	0.028	9.9
Reading	11	4464	B	3	6820	0.756	0.756	0.061	0.138	0.042	0.003	0.469	0.469	-0.328	-0.383	-0.321	-0.443	0.031	-8.9
Reading	11	4465	B	2	6820	0.654	0.087	0.162	0.654	0.093	0.003	0.358	-0.359	-0.201	0.358	-0.355	0.153	0.028	3.6
Reading	11	4466	A		6780	0.795	0.133	0.795	0.042	0.029	0.001	0.420	-0.318	0.420	-0.323	-0.266	-0.700	0.033	-5.8
Reading	11	4467	A		6780	0.709	0.068	0.197	0.026	0.709	0.000	0.484	-0.350	-0.428	-0.322	0.484	-0.147	0.030	-7.9
Reading	11	4468	A		6780	0.779	0.120	0.779	0.076	0.024	0.000	0.460	-0.327	0.460	-0.373	-0.333	-0.593	0.032	-7.5
Reading	11	4469	A		6780	0.673	0.049	0.100	0.673	0.177	0.001	0.460	-0.356	-0.388	0.460	-0.362	0.055	0.029	-7.4
Reading	11	4470	A		6780	0.662	0.662	0.253	0.058	0.025	0.002	0.238	0.238	-0.176	-0.200	-0.267	0.115	0.028	9.9
Reading	11	4471	B		6780	0.675	0.675	0.227	0.028	0.068	0.001	0.308	0.308	-0.170	-0.347	-0.359	0.044	0.029	6.8
Reading	11	4472	A	2	6780	0.784	0.098	0.784	0.089	0.026	0.003	0.504	-0.409	0.504	-0.398	-0.252	-0.635	0.032	-9.9

Appendix J: 2007 Grades 3–8 and 11 Multiple-Choice Statistics

Information					Proportions							Correlations					Rasch		
Cont.	Grade	Pub. ID	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Reading	11	4473	A	2	6780	0.789	0.109	0.031	0.070	0.789	0.001	0.537	-0.410	-0.334	-0.433	0.537	-0.671	0.033	-9.9
Reading	11	4474	A	2	6780	0.390	0.370	0.390	0.112	0.123	0.005	0.149	-0.044	0.149	-0.328	-0.197	1.489	0.027	9.9
Reading	11	4475	B	3	6780	0.785	0.064	0.118	0.785	0.031	0.002	0.360	-0.360	-0.183	0.360	-0.280	-0.644	0.032	1.0
Reading	11	4476	B	3	6780	0.804	0.030	0.139	0.025	0.804	0.002	0.437	-0.301	-0.341	-0.315	0.437	-0.783	0.033	-6.3
Reading	11	4477	B	2	6780	0.636	0.106	0.104	0.636	0.152	0.002	0.335	-0.201	-0.371	0.335	-0.230	0.253	0.028	3.0
Reading	11	4478	A	3	6780	0.565	0.101	0.565	0.158	0.172	0.003	0.435	-0.411	0.435	-0.402	-0.326	0.618	0.027	-4.0
Reading	11	4479	B	2	6780	0.361	0.024	0.459	0.153	0.361	0.003	0.249	-0.407	-0.259	-0.182	0.249	1.642	0.028	9.9
Reading	11	4480	B	3	6780	0.605	0.131	0.605	0.046	0.215	0.003	0.311	-0.401	0.311	-0.303	-0.138	0.415	0.028	7.4
Reading	11	4481	A	2	6780	0.765	0.765	0.049	0.159	0.024	0.003	0.426	0.426	-0.326	-0.322	-0.332	-0.509	0.031	-4.4
Reading	11	4482	A	2	6774	0.872	0.872	0.085	0.031	0.011	0.000	0.179	0.179	-0.085	-0.147	-0.197	-1.344	0.039	8.2
Reading	11	4483	B	2	6774	0.461	0.160	0.461	0.144	0.233	0.002	0.302	-0.398	0.302	-0.298	-0.169	1.119	0.027	9.0
Reading	11	4484	A	2	6774	0.691	0.106	0.070	0.132	0.691	0.001	0.388	-0.248	-0.288	-0.358	0.388	-0.051	0.029	0.4
Reading	11	4485	A	2	6774	0.789	0.071	0.058	0.789	0.080	0.001	0.393	-0.309	-0.268	0.393	-0.263	-0.658	0.032	-3.6
Reading	11	4486	A	2	6774	0.711	0.711	0.206	0.027	0.053	0.003	0.213	0.213	-0.154	-0.236	-0.158	-0.164	0.029	9.9
Reading	11	4487	A	2	6774	0.742	0.145	0.742	0.054	0.059	0.001	0.448	-0.340	0.448	-0.310	-0.371	-0.345	0.030	-6.8
Reading	11	4488	B	2	6774	0.698	0.698	0.044	0.026	0.228	0.004	0.377	0.377	-0.354	-0.361	-0.274	-0.093	0.029	1.6
Reading	11	4489	A	2	6774	0.714	0.067	0.081	0.714	0.135	0.002	0.426	-0.308	-0.404	0.426	-0.276	-0.184	0.030	-4.3
Reading	11	4490	B	2	6774	0.808	0.077	0.808	0.044	0.069	0.001	0.408	-0.267	0.408	-0.320	-0.286	-0.805	0.033	-2.8
Reading	11	4491	A	1	6774	0.450	0.477	0.029	0.042	0.450	0.002	0.356	-0.311	-0.420	-0.432	0.356	1.176	0.027	2.8
Reading	11	4492	A	2	6774	0.826	0.026	0.036	0.826	0.109	0.001	0.338	-0.312	-0.334	0.338	-0.160	-0.952	0.035	0.9
Reading	11	4493	A	2	6774	0.833	0.072	0.037	0.056	0.833	0.001	0.459	-0.291	-0.368	-0.318	0.459	-1.004	0.035	-9.0
Reading	11	4494	B	2	6774	0.588	0.105	0.588	0.123	0.181	0.002	0.379	-0.304	0.379	-0.413	-0.252	0.495	0.027	-0.4
Reading	11	4495	B	2	6774	0.754	0.049	0.107	0.087	0.754	0.002	0.480	-0.335	-0.410	-0.316	0.480	-0.434	0.031	-8.8
Reading	11	4496	B	2	6774	0.594	0.594	0.245	0.133	0.025	0.002	0.284	0.284	-0.192	-0.291	-0.293	0.463	0.027	8.0
Reading	11	4497	A	2	6774	0.567	0.099	0.054	0.567	0.278	0.003	0.194	-0.252	-0.181	0.194	-0.111	0.600	0.027	9.9

Appendix K:

2007 Grades 3–8 and 11 Constructed-Response Statistics

Table Legend

Column	Description
Cont.	Tested Content
Grade	Tested Grade
Pub. ID	Public item identification number
Pts.	Maximum points possible
R.C.	Reporting category
D.O.K.	Depth of knowledge
N	Number of students
Mean	Mean score
Proportion [0-4, Omit]	Proportion achieving score point
Pt. Bis.	Item total correlation
Correlation [0-4]	Point biserial of the score point
Logit	Rasch logit difficulty
Logit SE	Rasch logit difficulty standard error
Fit	Rasch outfit statistic

Appendix K: 2007 Grades 3–8 and 11 Open-Ended Statistics

Information						Proportions							Correlations					Rasch				
Cont.	Grade	Pub. ID	Pts.	R.C.	D.O.K.	N	Mean	0	1	2	3	4	Omit	Pt. Bis.	0	1	2	3	4	Logit	Logit SE	Fit
Math	7	4682	4	E		7015	0.871	0.438	0.358	0.113	0.036	0.044	0.010	0.582	-0.528	0.154	0.286	0.211	0.284	2.390	0.016	-2.6
Math	7	4683	4	D	3	3402	1.692	0.090	0.277	0.429	0.148	0.028	0.027	0.657	-0.393	-0.386	0.268	0.368	0.216	1.611	0.024	-3.9
Math	7	4684	4	A	3	6996	1.909	0.110	0.300	0.248	0.214	0.118	0.010	0.698	-0.510	-0.315	0.132	0.339	0.354	1.038	0.014	-1.1
Math	7	4685	4	B	2	3402	0.924	0.555	0.050	0.256	0.067	0.041	0.032	0.614	-0.601	0.073	0.372	0.267	0.257	2.439	0.021	1.1
Math	7	4686	4	D	3	7011	1.351	0.287	0.323	0.159	0.152	0.063	0.015	0.665	-0.548	-0.075	0.214	0.377	0.299	1.807	0.014	-2.4
Math	7	4687	4	E	3	3414	0.827	0.462	0.303	0.129	0.065	0.017	0.023	0.598	-0.579	0.208	0.300	0.288	0.169	2.743	0.024	-1.2
Math	7	4688	4	A	3	6992	1.553	0.231	0.315	0.222	0.101	0.123	0.008	0.660	-0.552	-0.116	0.218	0.234	0.390	1.453	0.014	3.0
Math	7	4689	4	C	2	3399	1.831	0.106	0.292	0.288	0.214	0.080	0.019	0.633	-0.457	-0.246	0.075	0.371	0.284	1.226	0.021	3.9
Math	7	4690	4	E	3	6968	1.885	0.154	0.248	0.228	0.275	0.089	0.006	0.666	-0.494	-0.269	0.099	0.385	0.294	1.152	0.014	1.6
Math	7	4691	4	E	2	3401	1.419	0.249	0.330	0.206	0.118	0.080	0.016	0.636	-0.553	-0.071	0.252	0.298	0.292	1.687	0.020	1.3
Math	7	4692	4	C		6978	2.633	0.029	0.135	0.199	0.425	0.206	0.006	0.621	-0.323	-0.366	-0.213	0.249	0.361	0.052	0.016	4.6
Math	7	4693	4	D	2	3386	1.489	0.195	0.338	0.255	0.116	0.074	0.023	0.635	-0.516	-0.133	0.239	0.290	0.302	1.646	0.021	0.6
Math	7	4694	4	B		6974	1.471	0.222	0.310	0.297	0.077	0.084	0.009	0.636	-0.521	-0.127	0.272	0.237	0.329	1.565	0.014	-0.1
Math	7	4695	4	B	2	3386	1.029	0.529	0.122	0.135	0.080	0.099	0.034	0.623	-0.628	0.147	0.258	0.235	0.373	2.049	0.019	0.3
Math	7	4696	4	A		6965	2.381	0.156	0.133	0.101	0.353	0.247	0.010	0.644	-0.508	-0.196	-0.068	0.185	0.435	0.594	0.013	9.9
Math	7	4697	4	D	2	3391	2.022	0.347	0.047	0.107	0.170	0.313	0.016	0.639	-0.591	-0.069	0.048	0.159	0.484	1.021	0.017	9.9
Math	7	4698	4	C		6999	1.265	0.180	0.467	0.240	0.088	0.014	0.011	0.567	-0.469	-0.069	0.281	0.296	0.134	2.193	0.017	3.4
Math	7	4699	4	A	2	3402	2.105	0.237	0.076	0.286	0.074	0.309	0.018	0.645	-0.549	-0.111	0.010	0.149	0.487	0.855	0.018	8.8
Math	7	4700	4	B		6972	1.305	0.361	0.174	0.314	0.047	0.091	0.013	0.625	-0.538	-0.054	0.293	0.192	0.362	1.806	0.014	5.9
Math	7	4701	4	A	2	3373	1.543	0.308	0.215	0.175	0.171	0.116	0.015	0.725	-0.634	-0.081	0.182	0.370	0.378	1.577	0.019	-4.8
Math	7	4702	4	A		6987	2.755	0.052	0.140	0.117	0.367	0.321	0.004	0.653	-0.395	-0.354	-0.169	0.117	0.453	-0.001	0.014	3.3
Math	7	4703	4	E	2	3372	2.168	0.135	0.238	0.159	0.215	0.242	0.012	0.664	-0.497	-0.268	0.022	0.237	0.432	0.757	0.019	8.3
Math	8	4704	4	D	3	143430	2.446	0.046	0.193	0.281	0.203	0.271	0.007	0.704	-0.376	-0.454	-0.077	0.207	0.483	0.426	0.003	-4.9
Math	8	4705	4	E	2	143430	1.890	0.113	0.260	0.259	0.215	0.117	0.036	0.693	-0.513	-0.286	0.122	0.351	0.344	1.287	0.003	-8.9
Math	8	4706	4	A	3	143430	1.884	0.268	0.180	0.104	0.239	0.195	0.015	0.680	-0.607	-0.074	0.053	0.258	0.442	1.314	0.003	9.9
Math	8	4707	4	B		7764	2.026	0.158	0.178	0.322	0.104	0.223	0.015	0.726	-0.572	-0.223	0.074	0.194	0.499	0.942	0.013	-2.6
Math	8	4708	4	D	2	3970	1.573	0.276	0.253	0.140	0.188	0.118	0.023	0.624	-0.565	-0.034	0.145	0.288	0.343	1.509	0.018	9.9
Math	8	4709	4	E		7168	0.857	0.448	0.323	0.080	0.097	0.021	0.031	0.553	-0.524	0.180	0.218	0.313	0.181	2.768	0.016	3.4
Math	8	4710	4	A	2	3467	1.577	0.202	0.371	0.112	0.151	0.132	0.031	0.592	-0.488	-0.090	0.105	0.265	0.360	1.599	0.019	9.7
Math	8	4711	4	B		7150	1.928	0.138	0.266	0.254	0.168	0.163	0.011	0.692	-0.518	-0.263	0.095	0.290	0.410	1.175	0.014	-0.8
Math	8	4712	4	E		3470	2.165	0.016	0.387	0.174	0.195	0.211	0.016	0.691	-0.258	-0.555	0.045	0.267	0.474	0.631	0.020	-2.7
Math	8	4713	4	C		7181	1.138	0.328	0.308	0.229	0.091	0.025	0.019	0.657	-0.602	0.057	0.325	0.318	0.207	2.484	0.015	-6.3
Math	8	4714	4	B	2	3475	1.247	0.412	0.167	0.214	0.093	0.093	0.020	0.668	-0.590	-0.038	0.287	0.281	0.369	2.093	0.019	-1.2
Math	8	4715	4	D		7145	1.896	0.098	0.346	0.155	0.321	0.069	0.011	0.660	-0.420	-0.363	0.091	0.433	0.268	1.338	0.015	2.3
Math	8	4716	4	E	2	3463	1.959	0.114	0.247	0.251	0.272	0.098	0.018	0.693	-0.504	-0.302	0.084	0.376	0.324	1.308	0.020	-1.6
Math	8	4717	4	B		7149	1.536	0.248	0.238	0.174	0.237	0.060	0.044	0.689	-0.587	-0.097	0.157	0.429	0.279	1.866	0.014	-2.8
Math	8	4718	4	D	2	3380	2.094	0.141	0.208	0.211	0.223	0.199	0.019	0.688	-0.551	-0.245	0.065	0.277	0.399	1.077	0.019	2.8
Math	8	4719	4	C		7182	2.283	0.065	0.151	0.412	0.146	0.217	0.007	0.639	-0.367	-0.304	-0.112	0.195	0.462	0.686	0.014	3.4
Math	8	4720	4	A	3	3572	1.752	0.167	0.223	0.339	0.130	0.115	0.026	0.684	-0.572	-0.203	0.240	0.252	0.351	1.498	0.020	0.2
Math	8	4721	4	D		7133	2.438	0.095	0.197	0.187	0.174	0.336	0.011	0.688	-0.441	-0.387	-0.009	0.135	0.512	0.606	0.013	8.0
Math	8	4722	4	B	2	3469	1.605	0.405	0.118	0.092	0.062	0.280	0.044	0.636	-0.595	0.027	0.050	0.162	0.521	1.597	0.017	9.1
Math	8	4723	4	E		7152	1.672	0.260	0.248	0.177	0.114	0.182	0.018	0.682	-0.532	-0.146	0.109	0.229	0.485	1.500	0.013	-0.4
Math	8	4724	4	A	2	3488	1.587	0.277	0.234	0.144	0.239	0.087	0.019	0.708	-0.627	-0.093	0.197	0.390	0.320	1.812	0.019	-2.5
Math	8	4725	4	D		7170	2.270	0.050	0.162	0.313	0.382	0.084	0.009	0.618	-0.407	-0.326	-0.025	0.280	0.331	0.854	0.016	3.5
Math	8	4726	4	C	3	3492	1.149	0.543	0.071	0.106	0.138	0.113	0.029	0.606	-0.555	-0.005	0.145	0.317	0.385	2.143	0.018	5.1
Math	8	4727	4	C		7183	1.255	0.109	0.713	0.054	0.036	0.082	0.007	0.504	-0.459	0.018	0.074	0.164	0.335	1.825	0.017	6.1

Appendix K: 2007 Grades 3–8 and 11 Open-Ended Statistics

Information						Proportions							Correlations					Rasch				
Cont.	Grade	Pub. ID	Pts.	R.C.	D.O.K.	N	Mean	0	1	2	3	4	Omit	Pt. Bis.	0	1	2	3	4	Logit	Logit SE	Fit
Math	8	4728	4	B	2	3452	1.231	0.406	0.214	0.161	0.110	0.092	0.018	0.602	-0.546	0.021	0.226	0.258	0.338	2.106	0.019	3.7
Math	8	4729	4	A		7143	1.457	0.141	0.455	0.251	0.082	0.064	0.008	0.626	-0.542	-0.140	0.304	0.231	0.276	1.784	0.016	1.1
Math	8	4730	4	D	2	3363	1.760	0.146	0.243	0.293	0.224	0.065	0.029	0.551	-0.439	-0.123	0.068	0.283	0.287	1.617	0.021	9.9
Math	8	4731	4	D		7122	2.506	0.070	0.165	0.165	0.327	0.258	0.016	0.647	-0.459	-0.246	-0.165	0.189	0.439	0.537	0.014	9.7
Math	8	4732	4	C	2	3430	1.529	0.259	0.277	0.205	0.124	0.118	0.018	0.651	-0.582	-0.061	0.212	0.273	0.348	1.725	0.019	1.4
Math	8	4733	4	D		7145	0.695	0.558	0.265	0.053	0.061	0.035	0.027	0.562	-0.585	0.304	0.210	0.279	0.220	2.786	0.016	-2.2
Math	8	4734	4	E	2	3467	1.541	0.155	0.366	0.251	0.171	0.040	0.018	0.589	-0.474	-0.113	0.121	0.361	0.230	1.906	0.022	3.7
Math	8	4735	4	D		7095	2.437	0.181	0.138	0.096	0.178	0.394	0.015	0.721	-0.556	-0.270	-0.019	0.095	0.579	0.725	0.012	4.5
Math	8	4736	4	D	2	3348	2.043	0.109	0.240	0.232	0.220	0.170	0.030	0.728	-0.492	-0.357	0.082	0.288	0.448	1.136	0.020	-5.0
Math	8	4737	4	E		7116	2.592	0.106	0.063	0.195	0.362	0.263	0.011	0.615	-0.475	-0.172	-0.162	0.179	0.391	0.542	0.014	9.9
Math	8	4738	4	C	2	3476	1.757	0.213	0.146	0.311	0.230	0.075	0.025	0.692	-0.589	-0.161	0.160	0.375	0.286	1.685	0.020	-1.4
Math	8	4739	4	A		7140	1.113	0.393	0.309	0.124	0.063	0.092	0.019	0.586	-0.493	0.005	0.257	0.221	0.354	2.146	0.014	5.2
Math	8	4740	4	C	2	3458	2.345	0.056	0.178	0.263	0.304	0.182	0.016	0.648	-0.362	-0.378	-0.044	0.187	0.445	0.715	0.021	3.7
Math	8	4741	4	A		7112	1.211	0.444	0.211	0.100	0.137	0.097	0.011	0.488	-0.398	-0.022	0.104	0.227	0.330	2.057	0.013	9.9
Math	8	4742	4	D	2	3397	2.117	0.148	0.218	0.230	0.092	0.291	0.021	0.732	-0.573	-0.259	0.076	0.161	0.536	0.984	0.018	-3.0
Math	8	4743	4	E		7093	2.935	0.040	0.092	0.147	0.288	0.421	0.011	0.616	-0.380	-0.322	-0.179	0.032	0.458	0.010	0.015	9.8
Math	8	4744	4	D	2	3462	2.344	0.085	0.200	0.213	0.235	0.254	0.014	0.718	-0.529	-0.309	-0.036	0.209	0.477	0.769	0.019	-2.3
Math	8	4745	4	A		7087	1.803	0.153	0.271	0.270	0.195	0.101	0.009	0.639	-0.508	-0.183	0.104	0.309	0.330	1.441	0.014	4.9
Math	8	4746	4	A	2	3416	1.315	0.303	0.294	0.164	0.193	0.028	0.017	0.676	-0.635	0.037	0.226	0.412	0.197	2.359	0.021	-3.2
Math	11	4747	4	C	3	137107	1.880	0.386	0.048	0.101	0.100	0.333	0.033	0.736	-0.702	-0.040	0.088	0.184	0.580	0.705	0.003	1.9
Math	11	4748	4	A	2	137107	1.854	0.170	0.194	0.170	0.259	0.135	0.071	0.685	-0.573	-0.159	0.086	0.345	0.364	0.828	0.003	9.9
Math	11	4749	4	D	3	137107	1.940	0.151	0.252	0.201	0.189	0.180	0.027	0.722	-0.521	-0.259	0.024	0.329	0.452	0.630	0.003	-9.9
Math	11	4750	4	A		7348	1.000	0.299	0.350	0.179	0.052	0.035	0.086	0.621	-0.555	0.077	0.349	0.254	0.236	1.871	0.016	-2.7
Math	11	4751	4	D	3	3718	0.787	0.485	0.156	0.130	0.079	0.034	0.117	0.609	-0.612	0.207	0.289	0.313	0.239	2.080	0.021	-1.1
Math	11	4752	4	D	3	6891	2.312	0.094	0.209	0.243	0.146	0.295	0.013	0.728	-0.460	-0.355	-0.053	0.153	0.560	0.136	0.013	-2.8
Math	11	4753	4	A	3	3381	1.322	0.069	0.592	0.244	0.021	0.045	0.029	0.607	-0.370	-0.341	0.474	0.131	0.267	1.401	0.026	-4.1
Math	11	4754	4	E		6853	0.874	0.375	0.372	0.086	0.064	0.034	0.068	0.506	-0.478	0.171	0.217	0.227	0.212	2.060	0.016	9.9
Math	11	4755	4	B	3	3358	1.961	0.150	0.225	0.156	0.264	0.158	0.047	0.673	-0.596	-0.144	0.129	0.238	0.398	0.695	0.019	4.9
Math	11	4756	4	D		6853	2.891	0.034	0.113	0.152	0.264	0.421	0.017	0.693	-0.372	-0.361	-0.242	0.007	0.567	-0.509	0.014	-1.6
Math	11	4757	4	B		6848	1.745	0.261	0.167	0.160	0.200	0.164	0.047	0.751	-0.667	-0.085	0.126	0.306	0.461	0.915	0.013	-6.4
Math	11	4758	4	A	2	3360	2.163	0.057	0.192	0.302	0.265	0.143	0.041	0.654	-0.424	-0.313	-0.042	0.316	0.368	0.426	0.021	2.0
Math	11	4759	4	B		6847	1.641	0.206	0.367	0.080	0.158	0.160	0.029	0.706	-0.596	-0.104	0.104	0.307	0.444	0.951	0.013	-0.5
Math	11	4760	4	D	3	3352	1.281	0.450	0.122	0.096	0.138	0.138	0.055	0.634	-0.527	-0.094	0.115	0.326	0.428	1.412	0.018	4.4
Math	11	4761	4	E		6853	1.234	0.217	0.376	0.093	0.111	0.085	0.118	0.649	-0.514	-0.061	0.246	0.316	0.364	1.457	0.014	-2.9
Math	11	4762	4	A	3	3344	2.170	0.110	0.136	0.329	0.228	0.173	0.024	0.670	-0.470	-0.212	-0.123	0.326	0.407	0.463	0.020	0.9
Math	11	4763	4	D		6806	1.062	0.283	0.455	0.055	0.086	0.060	0.061	0.608	-0.553	0.143	0.149	0.295	0.316	1.717	0.016	0.5
Math	11	4764	4	D	3	3347	2.480	0.184	0.064	0.084	0.240	0.382	0.046	0.723	-0.608	-0.107	-0.140	0.070	0.599	0.174	0.018	2.6
Math	11	4765	4	C		6796	1.248	0.432	0.105	0.173	0.090	0.132	0.068	0.712	-0.671	0.053	0.221	0.283	0.458	1.411	0.013	-6.6
Math	11	4766	4	E	3	3339	2.129	0.020	0.270	0.281	0.300	0.099	0.029	0.587	-0.282	-0.361	-0.065	0.336	0.323	0.359	0.022	6.3
Math	11	4767	4	D		6789	1.998	0.012	0.483	0.170	0.113	0.209	0.013	0.692	-0.248	-0.543	0.052	0.233	0.533	0.097	0.015	-2.9
Math	11	4768	4	C	3	3330	1.916	0.185	0.182	0.231	0.191	0.174	0.036	0.726	-0.618	-0.181	0.108	0.333	0.395	0.743	0.019	0.2
Math	11	4769	4	B		6841	1.833	0.221	0.170	0.195	0.247	0.133	0.034	0.742	-0.662	-0.082	0.068	0.367	0.395	0.871	0.013	-5.3
Math	11	4770	4	E	3	3351	0.573	0.544	0.275	0.105	0.005	0.018	0.052	0.546	-0.533	0.265	0.370	0.065	0.184	2.678	0.027	-4.1
Math	11	4771	4	D		6796	0.889	0.404	0.315	0.167	0.067	0.010	0.038	0.616	-0.581	0.164	0.336	0.296	0.134	2.408	0.017	-3.8
Math	11	4772	4	B	3	3348	1.092	0.391	0.290	0.094	0.059	0.109	0.055	0.655	-0.616	0.116	0.251	0.225	0.407	1.615	0.020	-3.0
Math	11	4773	4	E		6804	1.240	0.197	0.407	0.157	0.123	0.037	0.079	0.522	-0.452	0.012	0.169	0.284	0.216	1.677	0.016	9.9

Appendix K: 2007 Grades 3–8 and 11 Open-Ended Statistics

Information							Proportions							Correlations					Rasch			
Cont.	Grade	Pub. ID	Pts.	R.C.	D.O.K.	N	Mean	0	1	2	3	4	Omit	Pt. Bis.	0	1	2	3	4	Logit	Logit SE	Fit
Math	11	4774	4	D	2	3333	1.292	0.278	0.278	0.135	0.126	0.091	0.091	0.716	-0.632	0.005	0.220	0.353	0.383	1.458	0.020	-7.6
Math	11	4775	4	A		6857	2.067	0.203	0.139	0.261	0.102	0.275	0.020	0.662	-0.568	-0.149	0.076	0.149	0.469	0.517	0.013	9.9
Math	11	4776	4	D	3	3337	0.671	0.518	0.194	0.079	0.062	0.033	0.114	0.609	-0.611	0.256	0.274	0.311	0.250	2.380	0.024	-7.3
Math	11	4777	4	D		6835	1.935	0.197	0.082	0.295	0.268	0.115	0.043	0.723	-0.590	-0.159	0.014	0.374	0.388	0.802	0.014	-4.0
Math	11	4778	4	C	3	3326	1.541	0.162	0.405	0.059	0.293	0.035	0.046	0.727	-0.583	-0.160	0.124	0.537	0.225	1.386	0.021	-5.4
Math	11	4779	4	D		6844	1.363	0.367	0.222	0.133	0.108	0.138	0.032	0.698	-0.623	0.009	0.177	0.271	0.455	1.299	0.013	-3.4
Math	11	4780	4	C	3	3332	1.742	0.203	0.233	0.157	0.240	0.119	0.048	0.763	-0.629	-0.164	0.126	0.376	0.420	0.996	0.019	-6.8
Math	11	4781	4	A		6828	2.180	0.157	0.199	0.189	0.116	0.314	0.025	0.737	-0.538	-0.294	0.027	0.162	0.566	0.359	0.013	1.1
Math	11	4782	4	C	3	3309	1.753	0.209	0.217	0.167	0.182	0.164	0.061	0.735	-0.579	-0.176	0.086	0.319	0.471	0.922	0.019	-4.3
Math	11	4783	4	D		6833	0.968	0.452	0.172	0.116	0.139	0.037	0.084	0.660	-0.627	0.120	0.236	0.422	0.244	1.997	0.015	-6.1
Math	11	4784	4	D	3	3335	1.151	0.370	0.226	0.141	0.129	0.064	0.069	0.666	-0.640	0.084	0.275	0.351	0.282	1.694	0.020	-1.7
Math	11	4785	4	D		6798	1.803	0.167	0.301	0.110	0.307	0.090	0.024	0.722	-0.539	-0.242	0.027	0.483	0.320	0.926	0.014	-5.6
Math	11	4786	4	E	3	3326	1.615	0.200	0.238	0.246	0.184	0.083	0.048	0.651	-0.569	-0.068	0.136	0.336	0.313	1.171	0.020	3.1
Math	11	4787	4	E		6787	2.545	0.071	0.143	0.154	0.310	0.291	0.031	0.667	-0.451	-0.319	-0.103	0.171	0.455	-0.008	0.014	5.3
Math	11	4788	4	D	3	3333	2.305	0.099	0.125	0.189	0.341	0.194	0.051	0.709	-0.515	-0.311	-0.034	0.279	0.424	0.374	0.019	-2.1
Reading	3	4789	3	B		127194	1.847	0.115	0.186	0.350	0.321		0.009	0.557	-0.475	-0.175	0.133	0.367		0.391	0.004	9.9
Reading	3	4790	3	A		127194	1.506	0.151	0.324	0.367	0.149		0.006	0.558	-0.501	-0.114	0.286	0.278		0.986	0.004	9.9
Reading	3	4791	3	B		8160	1.953	0.057	0.212	0.403	0.312		0.008	0.507	-0.373	-0.263	0.099	0.337		0.048	0.016	9.9
Reading	3	4792	3	A	3	3319	1.900	0.082	0.175	0.394	0.312		0.011	0.561	-0.451	-0.216	0.110	0.375		0.306	0.024	3.9
Reading	3	4793	3	B		7993	1.984	0.051	0.218	0.399	0.322		0.006	0.492	-0.346	-0.272	0.075	0.337		-0.042	0.017	9.9
Reading	3	4794	3	B	2	3818	1.577	0.141	0.299	0.372	0.178		0.006	0.555	-0.466	-0.163	0.254	0.310		0.837	0.023	5.8
Reading	3	4795	3	A		7935	1.527	0.112	0.340	0.426	0.112		0.008	0.502	-0.430	-0.150	0.282	0.230		0.937	0.017	6.4
Reading	3	4796	3	B	3	3835	1.407	0.137	0.385	0.360	0.101		0.012	0.531	-0.483	-0.075	0.284	0.248		1.147	0.024	1.9
Reading	3	4797	3	A		7957	1.538	0.108	0.339	0.428	0.114		0.008	0.518	-0.437	-0.159	0.275	0.252		0.920	0.017	5.9
Reading	3	4798	3	A	3	538	1.011	0.260	0.481	0.223	0.028		0.004	0.476	-0.509	0.182	0.301	0.057		2.119	0.068	1.3
Reading	3	4799	3	A		7986	1.742	0.088	0.290	0.395	0.221		0.006	0.530	-0.399	-0.247	0.192	0.325		0.474	0.016	6.7
Reading	3	4800	3	B		827	1.353	0.152	0.411	0.331	0.093		0.010	0.497	-0.466	-0.049	0.294	0.202		1.290	0.051	3.0
Reading	3	4801	3	A		7984	1.741	0.086	0.291	0.397	0.219		0.005	0.536	-0.400	-0.254	0.196	0.329		0.472	0.016	5.9
Reading	3	4802	3	B	3	1327	1.580	0.051	0.417	0.407	0.116		0.007	0.481	-0.350	-0.247	0.246	0.261		0.639	0.044	2.3
Reading	3	4803	3	B		7989	1.050	0.253	0.463	0.228	0.044		0.009	0.346	-0.337	-0.090	0.178	0.145		1.967	0.017	9.9
Reading	3	4804	3	A	3	3395	1.346	0.166	0.393	0.337	0.093		0.007	0.576	-0.472	-0.125	0.335	0.286		1.354	0.025	-1.4
Reading	3	4805	3	B		7905	1.062	0.251	0.461	0.228	0.048		0.009	0.360	-0.350	0.084	0.192	0.146		1.844	0.017	9.9
Reading	3	4806	3	A	3	3805	1.220	0.105	0.664	0.103	0.117		0.008	0.469	-0.482	0.048	0.139	0.278		1.160	0.025	4.1
Reading	3	4807	3	B		8016	1.046	0.255	0.460	0.226	0.045		0.009	0.345	-0.339	0.089	0.192	0.127		1.923	0.017	9.9
Reading	3	4808	3	B	3	3138	1.636	0.064	0.353	0.434	0.139		0.006	0.453	-0.385	-0.153	0.168	0.265		0.656	0.027	7.0
Reading	3	4809	3	A		7941	1.782	0.102	0.207	0.466	0.214		0.009	0.540	-0.411	-0.247	0.200	0.318		0.553	0.016	5.7
Reading	3	4810	3	A	2	3776	1.871	0.101	0.214	0.362	0.311		0.009	0.656	-0.480	-0.309	0.137	0.460		0.409	0.022	-4.8
Reading	3	4811	3	A		7944	1.756	0.106	0.222	0.459	0.205		0.006	0.544	-0.416	-0.238	0.202	0.322		0.553	0.016	1.3
Reading	3	4812	3	B	3	3798	1.418	0.101	0.434	0.384	0.072		0.007	0.511	-0.443	-0.132	0.305	0.216		1.150	0.025	-0.5
Reading	3	4813	3	B		7939	1.416	0.111	0.434	0.342	0.099		0.007	0.420	-0.411	-0.051	0.230	0.174		1.120	0.017	9.9
Reading	3	4814	3	A		3797	1.151	0.237	0.439	0.229	0.085		0.008	0.520	-0.503	0.073	0.274	0.235		1.633	0.023	2.9
Reading	3	4815	3	B		7950	1.438	0.103	0.433	0.350	0.101		0.008	0.436	-0.424	-0.074	0.251	0.172		1.059	0.017	9.9
Reading	3	4816	3	A		3798	1.324	0.149	0.458	0.286	0.098		0.007	0.586	-0.494	-0.103	0.317	0.298		1.269	0.024	-3.4
Reading	3	4817	3	B		7979	1.417	0.106	0.444	0.341	0.097		0.007	0.429	-0.394	-0.087	0.243	0.186		1.106	0.017	9.9
Reading	3	4818	3	B		3750	1.346	0.148	0.419	0.346	0.078		0.007	0.530	-0.464	-0.087	0.316	0.228		1.379	0.025	1.3
Reading	3	4819	3	B		7919	1.532	0.124	0.341	0.379	0.144		0.008	0.540	-0.435	-0.164	0.241	0.312		0.915	0.016	4.1

Appendix K: 2007 Grades 3–8 and 11 Open-Ended Statistics

Cont.	Grade	Pub. ID	Information				Proportions							Correlations					Rasch			
			Pts.	R.C.	D.O.K.	N	Mean	0	1	2	3	4	Omit	Pt. Bis.	0	1	2	3	4	Logit	Logit SE	Fit
Reading	3	4820	3	B	3	3774	1.604	0.103	0.302	0.455	0.131		0.007	0.579	-0.448	-0.254	0.329	0.278		0.818	0.024	-1.6
Reading	3	4821	3	B		7597	1.532	0.132	0.334	0.373	0.151		0.008	0.532	-0.431	-0.159	0.240	0.307		0.916	0.016	6.1
Reading	3	4822	3	A	3	3525	1.457	0.126	0.374	0.389	0.102		0.007	0.524	-0.448	-0.135	0.296	0.244		1.109	0.025	3.1
Reading	4	4823	3	B		127768	1.767	0.065	0.292	0.437	0.200		0.005	0.594	-0.429	-0.308	0.213	0.360		0.387	0.004	-9.9
Reading	4	4824	3	B	3	127768	1.063	0.258	0.441	0.244	0.045		0.008	0.510	-0.423	-0.008	0.345	0.211		1.835	0.004	0.8
Reading	4	4825	3	A	2	127768	1.452	0.150	0.378	0.325	0.142		0.005	0.507	-0.433	-0.112	0.242	0.279		0.998	0.004	9.9
Reading	4	4826	3	A		127768	1.205	0.168	0.495	0.278	0.051		0.006	0.524	-0.488	0.003	0.319	0.188		1.552	0.004	-2.7
Reading	4	4827	3	B		6730	1.436	0.144	0.372	0.364	0.112		0.006	0.546	-0.441	-0.150	0.291	0.288		0.969	0.017	-0.2
Reading	4	4828	3	B	3	3009	1.050	0.252	0.475	0.223	0.043		0.007	0.405	-0.467	0.068	0.211	0.193		1.829	0.027	6.8
Reading	4	4829	3	B		6364	1.460	0.112	0.402	0.386	0.095		0.003	0.556	-0.447	-0.188	0.327	0.260		1.018	0.019	-1.0
Reading	4	4830	3	B	3	3023	0.798	0.418	0.380	0.153	0.037		0.008	0.453	-0.421	0.158	0.267	0.190		2.294	0.027	5.2
Reading	4	4831	3	A		6372	1.273	0.165	0.423	0.360	0.043		0.005	0.565	-0.494	-0.066	0.369	0.209		1.569	0.019	-3.7
Reading	4	4832	3	A	3	3014	1.746	0.119	0.290	0.303	0.283		0.004	0.508	-0.381	-0.196	0.097	0.376		0.533	0.024	6.8
Reading	4	4833	3	A		6368	1.536	0.047	0.471	0.367	0.110		0.003	0.515	-0.345	-0.286	0.259	0.301		0.643	0.020	-2.0
Reading	4	4834	3	B	3	3018	1.599	0.066	0.369	0.445	0.113		0.007	0.476	-0.350	-0.236	0.258	0.242		0.739	0.028	2.4
Reading	4	4835	3	B		6362	1.267	0.264	0.322	0.282	0.127		0.003	0.525	-0.444	-0.058	0.273	0.303		1.383	0.016	4.7
Reading	4	4836	3	B	3	3023	1.953	0.062	0.239	0.365	0.328		0.006	0.546	-0.410	-0.279	0.101	0.370		0.094	0.026	3.2
Reading	4	4837	3	A	2	6386	1.758	0.081	0.280	0.407	0.221		0.006	0.586	-0.430	-0.300	0.233	0.347		0.444	0.018	-2.9
Reading	4	4838	3	A	3	3058	1.504	0.142	0.341	0.359	0.148		0.010	0.583	-0.461	-0.192	0.293	0.326		0.932	0.025	-2.0
Reading	4	4839	3	B	3	6376	1.964	0.071	0.222	0.368	0.335		0.003	0.594	-0.456	-0.284	0.097	0.405		0.106	0.017	-2.6
Reading	4	4840	3	A	3	3043	1.532	0.113	0.357	0.400	0.125		0.005	0.618	-0.479	-0.242	0.336	0.319		0.905	0.026	-6.2
Reading	4	4841	3	B	3	6383	1.420	0.141	0.386	0.372	0.097		0.003	0.425	-0.358	-0.096	0.226	0.215		1.144	0.018	9.9
Reading	4	4842	3	A	3	3047	1.206	0.200	0.421	0.340	0.035		0.005	0.574	-0.543	0.021	0.370	0.179		1.781	0.028	-4.2
Reading	4	4843	3	A	3	6403	1.774	0.029	0.294	0.502	0.159		0.006	0.473	-0.287	-0.318	0.216	0.265		0.284	0.020	3.0
Reading	4	4844	3	B	3	3071	1.280	0.228	0.359	0.291	0.113		0.009	0.553	-0.510	-0.008	0.292	0.277		1.369	0.024	0.1
Reading	4	4845	3	B	3	6393	1.222	0.185	0.443	0.321	0.046		0.005	0.453	-0.468	0.063	0.267	0.133		1.606	0.019	6.6
Reading	4	4846	3	A	3	2949	0.372	0.696	0.224	0.071	0.002		0.007	0.354	-0.348	0.240	0.222	0.043		3.785	0.034	4.4
Reading	4	4847	3	B	3	6394	1.172	0.213	0.452	0.274	0.058		0.003	0.529	-0.473	-0.004	0.333	0.207		1.643	0.019	-0.1
Reading	4	4848	3	B	3	3069	1.259	0.264	0.315	0.303	0.113		0.005	0.523	-0.440	-0.066	0.295	0.286		1.420	0.024	5.1
Reading	4	4849	3	A	3	6370	1.567	0.284	0.205	0.140	0.361		0.006	0.540	-0.504	-0.033	0.122	0.418		0.888	0.014	9.9
Reading	4	4850	3	B	3	3045	1.500	0.164	0.253	0.489	0.090		0.005	0.612	-0.529	-0.156	0.387	0.253		1.178	0.026	-4.2
Reading	4	4851	3	A	3	6403	1.490	0.313	0.187	0.183	0.312		0.004	0.549	-0.510	-0.035	0.169	0.401		0.973	0.014	9.9
Reading	4	4852	3	A	3	2964	1.588	0.103	0.341	0.394	0.153		0.007	0.486	-0.392	-0.175	0.224	0.269		0.788	0.026	5.5
Reading	4	4853	3	A		6353	1.523	0.205	0.264	0.313	0.211		0.006	0.598	-0.529	-0.111	0.258	0.355		0.963	0.016	-0.8
Reading	4	4854	3	A	3	3009	1.949	0.064	0.216	0.405	0.308		0.007	0.589	-0.439	-0.304	0.123	0.385		0.134	0.026	-0.7
Reading	4	4855	3	A		6395	1.515	0.052	0.489	0.338	0.117		0.004	0.304	-0.260	-0.129	0.155	0.158		0.660	0.019	9.9
Reading	4	4856	3	B	3	3061	1.646	0.076	0.343	0.430	0.148		0.003	0.443	-0.334	-0.212	0.216	0.238		0.650	0.027	5.2
Reading	4	4857	3	A		6373	1.851	0.044	0.237	0.500	0.204		0.004	0.517	-0.364	-0.294	0.178	0.302		0.277	0.019	2.3
Reading	4	4858	3	B	2	3033	1.828	0.074	0.253	0.423	0.243		0.005	0.582	-0.411	-0.313	0.185	0.365		0.399	0.026	-1.8
Reading	4	4859	3	B		6344	1.539	0.125	0.352	0.365	0.152		0.004	0.600	-0.463	-0.227	0.297	0.336		0.882	0.018	-6.3
Reading	4	4860	3	A	3	2906	1.490	0.126	0.389	0.333	0.145		0.006	0.537	-0.442	-0.161	0.267	0.293		0.975	0.026	1.1
Reading	4	4861	3	A		6366	1.405	0.213	0.293	0.357	0.133		0.003	0.603	-0.527	-0.100	0.329	0.310		1.192	0.017	-3.8
Reading	4	4862	3	A	2	3027	1.648	0.113	0.318	0.352	0.208		0.005	0.523	-0.412	-0.188	0.180	0.335		0.702	0.025	4.0
Reading	4	4863	3	B		6354	1.760	0.092	0.296	0.349	0.255		0.005	0.636	-0.436	-0.336	0.205	0.427		0.445	0.017	-7.7
Reading	4	4864	3	A	3	3014	1.073	0.284	0.413	0.228	0.068		0.005	0.527	-0.489	0.079	0.287	0.248		1.769	0.026	0.7
Reading	4	4865	3	A		6279	1.704	0.086	0.316	0.385	0.206		0.004	0.626	-0.474	-0.299	0.264	0.366		0.526	0.018	-7.6

Appendix K: 2007 Grades 3–8 and 11 Open-Ended Statistics

Cont.	Information						Proportions						Correlations					Rasch				
	Grade	Pub. ID	Pts.	R.C.	D.O.K.	N	Mean	0	1	2	3	4	Omit	Pt. Bis.	0	1	2	3	4	Logit	Logit SE	Fit
Reading	4	4866	3	A	3	2990	1.059	0.315	0.364	0.249	0.066		0.006	0.514	-0.494	0.106	0.282	0.233		1.803	0.025	2.0
Reading	5	4867	3	A		131301	1.652	0.087	0.339	0.383	0.182		0.005	0.509	-0.391	-0.222	0.215	0.299		0.764	0.004	9.9
Reading	5	4868	3	A	2	131301	1.646	0.089	0.313	0.434	0.155		0.007	0.583	-0.396	-0.304	0.273	0.341		0.827	0.004	-9.9
Reading	5	4869	3	A		131301	1.830	0.051	0.294	0.414	0.236		0.003	0.475	-0.343	-0.256	0.133	0.306		0.367	0.004	9.9
Reading	5	4870	3	B	3	131301	2.205	0.033	0.155	0.372	0.435		0.004	0.493	-0.300	-0.299	-0.050	0.382		-0.239	0.004	9.9
Reading	5	4871	3	B	3	6933	1.926	0.063	0.195	0.468	0.265		0.005	0.571	-0.428	-0.296	0.149	0.348		0.197	0.018	-0.8
Reading	5	4872	3	A	3	3095	1.880	0.066	0.270	0.363	0.295		0.003	0.503	-0.362	-0.230	0.050	0.376		0.294	0.025	5.1
Reading	5	4873	3	B		6526	2.256	0.034	0.108	0.418	0.437		0.001	0.592	-0.349	-0.382	-0.070	0.441		-0.345	0.019	-4.8
Reading	5	4874	3	B	3	3101	1.818	0.133	0.246	0.279	0.338		0.002	0.538	-0.389	-0.247	0.109	0.404		0.580	0.023	6.9
Reading	5	4875	3	A		6586	1.917	0.074	0.274	0.296	0.351		0.004	0.623	-0.401	-0.343	0.065	0.487		0.294	0.017	-4.6
Reading	5	4876	3	B	2	3131	2.000	0.051	0.205	0.415	0.322		0.003	0.523	-0.313	-0.320	0.046	0.385		0.143	0.026	2.6
Reading	5	4877	3	B	3	6615	1.935	0.055	0.191	0.502	0.247		0.003	0.532	-0.377	-0.302	0.140	0.322		0.256	0.019	2.0
Reading	5	4878	3	B	3	3148	1.593	0.075	0.418	0.330	0.172		0.003	0.538	-0.425	-0.228	0.227	0.321		0.765	0.026	1.1
Reading	5	4879	3	B	3	6533	1.773	0.090	0.328	0.286	0.291		0.003	0.553	-0.361	-0.302	0.137	0.408		0.501	0.016	2.7
Reading	5	4880	3	B	3	3095	1.820	0.090	0.261	0.377	0.268		0.002	0.544	-0.386	-0.279	0.154	0.363		0.494	0.024	1.4
Reading	5	4881	3	B		6540	2.035	0.059	0.159	0.458	0.320		0.002	0.596	-0.414	-0.343	0.088	0.391		0.159	0.018	-3.7
Reading	5	4882	3	A	3	3109	1.909	0.047	0.250	0.431	0.265		0.003	0.532	-0.320	-0.338	0.114	0.366		0.280	0.027	1.7
Reading	5	4883	3	A	2	6548	1.970	0.110	0.255	0.181	0.451		0.002	0.577	-0.441	-0.236	0.011	0.479		0.346	0.015	5.2
Reading	5	4884	3	B	3	3114	1.344	0.167	0.396	0.347	0.085		0.004	0.484	-0.424	-0.075	0.290	0.212		1.473	0.026	3.2
Reading	5	4885	3	B		6559	1.482	0.138	0.370	0.348	0.138		0.003	0.522	-0.390	-0.203	0.283	0.289		1.130	0.017	0.5
Reading	5	4886	3	B	3	3128	1.888	0.090	0.229	0.346	0.322		0.005	0.480	-0.333	-0.237	0.074	0.354		0.472	0.023	8.3
Reading	5	4887	3	A	3	6559	2.293	0.027	0.136	0.341	0.492		0.002	0.539	-0.285	-0.363	-0.089	0.433		-0.409	0.019	0.6
Reading	5	4888	3	A	3	3129	1.783	0.120	0.239	0.370	0.267		0.002	0.602	-0.453	-0.278	0.200	0.386		0.671	0.024	-2.6
Reading	5	4889	3	A	3	6559	1.623	0.062	0.427	0.319	0.186		0.004	0.515	-0.374	-0.261	0.207	0.325		0.663	0.018	3.2
Reading	5	4890	3	B	3	3122	1.792	0.078	0.275	0.411	0.232		0.003	0.554	-0.417	-0.272	0.191	0.338		0.543	0.025	0.7
Reading	5	4891	3	B	3	6578	1.726	0.071	0.320	0.405	0.199		0.002	0.539	-0.408	-0.258	0.203	0.324		0.622	0.018	1.3
Reading	5	4892	3	B	3	3144	1.229	0.226	0.387	0.287	0.090		0.003	0.473	-0.373	-0.080	0.270	0.263		1.627	0.025	4.9
Reading	5	4893	3	B	3	6548	1.997	0.072	0.192	0.384	0.345		0.003	0.594	-0.423	-0.304	0.066	0.423		0.260	0.017	-1.4
Reading	5	4894	3	A	3	3149	1.794	0.061	0.314	0.376	0.243		0.004	0.462	-0.347	-0.217	0.109	0.314		0.474	0.025	7.3
Reading	5	4895	3	B	3	6508	1.655	0.074	0.358	0.393	0.170		0.003	0.505	-0.422	-0.192	0.195	0.294		0.754	0.018	3.1
Reading	5	4896	3	B	3	3119	1.582	0.100	0.370	0.360	0.164		0.003	0.493	-0.386	-0.198	0.231	0.279		0.942	0.025	3.1
Reading	5	4897	3	A	3	6553	2.193	0.068	0.145	0.297	0.485		0.003	0.532	-0.391	-0.263	-0.023	0.410		0.009	0.017	5.0
Reading	5	4898	3	B	3	3146	1.541	0.066	0.468	0.299	0.159		0.005	0.436	-0.329	-0.193	0.184	0.271		0.819	0.026	5.7
Reading	5	4899	3	A	3	6523	2.224	0.052	0.163	0.277	0.502		0.003	0.420	-0.263	-0.245	-0.047	0.346		-0.123	0.017	9.9
Reading	5	4900	3	B	3	3129	1.579	0.062	0.423	0.375	0.136		0.003	0.504	-0.363	-0.267	0.268	0.271		0.797	0.027	0.9
Reading	5	4901	3	A	2	6519	2.102	0.036	0.193	0.387	0.378		0.003	0.523	-0.341	-0.298	-0.014	0.397		-0.065	0.018	4.1
Reading	5	4902	3	A	3	3099	1.659	0.149	0.287	0.296	0.260		0.005	0.634	-0.485	-0.237	0.198	0.440		0.838	0.023	-4.2
Reading	5	4903	3	A		6550	1.933	0.049	0.197	0.509	0.240		0.003	0.533	-0.334	-0.316	0.099	0.357		0.269	0.019	-0.8
Reading	5	4904	3	B	3	3112	2.097	0.035	0.178	0.427	0.355		0.003	0.550	-0.354	-0.322	-0.001	0.403		-0.067	0.027	-1.7
Reading	5	4905	3	B		6515	1.694	0.149	0.250	0.337	0.256		0.002	0.598	-0.424	-0.264	0.171	0.429		0.800	0.016	0.1
Reading	5	4906	3	B	3	3105	2.045	0.081	0.169	0.348	0.393		0.005	0.566	-0.379	-0.312	0.034	0.427		0.230	0.025	3.1
Reading	5	4907	3	B		6532	2.008	0.030	0.229	0.430	0.307		0.003	0.551	-0.295	-0.373	0.046	0.407		-0.033	0.019	-1.4
Reading	5	4908	3	B	3	3097	2.053	0.065	0.186	0.363	0.380		0.004	0.589	-0.408	-0.328	0.057	0.421		0.128	0.025	-1.2
Reading	5	4909	3	A		6517	1.808	0.067	0.293	0.391	0.245		0.002	0.553	-0.390	-0.296	0.165	0.361		0.440	0.017	-0.6
Reading	5	4910	3	B	3	3087	1.879	0.100	0.235	0.332	0.327		0.003	0.625	-0.489	-0.273	0.142	0.425		0.447	0.024	-2.9
Reading	6	4911	3	B	3	135079	1.831	0.034	0.258	0.522	0.177		0.006	0.560	-0.327	-0.364	0.184	0.351		0.116	0.004	-9.9

Appendix K: 2007 Grades 3–8 and 11 Open-Ended Statistics

Cont.	Grade	Pub. ID	Information				Proportions							Correlations					Rasch			
			Pts.	R.C.	D.O.K.	N	Mean	0	1	2	3	4	Omit	Pt. Bis.	0	1	2	3	4	Logit	Logit SE	Fit
Reading	6	4912	3	B	2	135079	1.951	0.017	0.277	0.401	0.291		0.010	0.520	-0.303	-0.369	0.115	0.356		-0.234	0.004	9.9
Reading	6	4913	3	B	3	135079	1.568	0.060	0.436	0.344	0.148		0.008	0.575	-0.395	-0.308	0.286	0.335		0.551	0.004	-9.9
Reading	6	4914	3	A		135079	1.787	0.071	0.287	0.393	0.238		0.010	0.551	-0.389	-0.274	0.149	0.371		0.279	0.004	8.8
Reading	6	4915	3	A	3	7180	1.789	0.041	0.301	0.465	0.186		0.003	0.603	-0.352	-0.400	0.226	0.375		0.011	0.018	-6.2
Reading	6	4916	3	B	3	3309	1.927	0.044	0.254	0.419	0.278		0.003	0.565	-0.353	-0.340	0.088	0.403		-0.095	0.026	-0.6
Reading	6	4917	3	A	3	6747	1.968	0.059	0.184	0.469	0.282		0.004	0.614	-0.410	-0.327	0.069	0.430		-0.038	0.018	-5.7
Reading	6	4918	3	B	3	3242	1.991	0.046	0.229	0.386	0.330		0.008	0.618	-0.361	-0.365	0.017	0.483		-0.137	0.026	-3.0
Reading	6	4919	3	B	3	6743	1.934	0.045	0.225	0.462	0.262		0.005	0.520	-0.369	-0.298	0.124	0.328		-0.042	0.018	2.6
Reading	6	4920	3	B	3	3273	1.528	0.134	0.360	0.327	0.171		0.008	0.547	-0.414	-0.192	0.224	0.348		0.776	0.024	1.8
Reading	6	4921	3	B	3	6734	1.639	0.100	0.324	0.400	0.172		0.004	0.555	-0.419	-0.235	0.233	0.330		0.569	0.017	-0.8
Reading	6	4922	3	B	3	3276	1.671	0.108	0.335	0.309	0.240		0.009	0.531	-0.345	-0.274	0.169	0.380		0.525	0.023	2.8
Reading	6	4923	3	B		6719	1.757	0.083	0.255	0.463	0.192		0.006	0.580	-0.412	-0.282	0.197	0.362		0.391	0.018	-2.0
Reading	6	4924	3	A	3	3234	1.848	0.102	0.223	0.377	0.290		0.006	0.584	-0.400	-0.279	0.092	0.433		0.296	0.024	0.0
Reading	6	4925	3	B	3	6721	1.479	0.070	0.481	0.331	0.112		0.004	0.487	-0.338	-0.215	0.208	0.314		0.727	0.019	2.1
Reading	6	4926	3	A	3	3212	1.886	0.061	0.252	0.405	0.275		0.007	0.591	-0.384	-0.333	0.113	0.417		0.133	0.025	-2.3
Reading	6	4927	3	A		6728	1.999	0.024	0.207	0.495	0.268		0.006	0.525	-0.293	-0.339	0.043	0.377		-0.266	0.019	0.4
Reading	6	4928	3	B	3	3254	1.971	0.066	0.221	0.368	0.338		0.006	0.575	-0.353	-0.351	0.074	0.426		0.014	0.025	-0.1
Reading	6	4929	3	A		6725	1.957	0.040	0.266	0.376	0.313		0.004	0.580	-0.354	-0.356	0.063	0.432		-0.149	0.018	-2.0
Reading	6	4930	3	B	3	3268	1.964	0.048	0.250	0.379	0.319		0.003	0.563	-0.367	-0.349	0.106	0.390		-0.099	0.025	0.2
Reading	6	4931	3	A		6711	1.801	0.100	0.246	0.388	0.260		0.006	0.605	-0.426	-0.272	0.116	0.438		0.326	0.017	-2.2
Reading	6	4932	3	B	3	3266	1.606	0.071	0.345	0.443	0.125		0.013	0.558	-0.364	-0.287	0.253	0.342		0.696	0.027	-1.4
Reading	6	4933	3	A		6707	1.984	0.060	0.176	0.467	0.291		0.005	0.585	-0.392	-0.308	0.052	0.415		-0.014	0.018	-2.8
Reading	6	4934	3	B	3	3218	1.808	0.042	0.304	0.442	0.207		0.005	0.590	-0.335	-0.416	0.232	0.363		0.146	0.026	-4.6
Reading	6	4935	3	A	3	6744	1.911	0.034	0.206	0.560	0.195		0.004	0.555	-0.312	-0.364	0.130	0.361		-0.029	0.020	-3.6
Reading	6	4936	3	A	3	3251	1.559	0.093	0.365	0.400	0.131		0.009	0.551	-0.455	-0.185	0.259	0.298		0.751	0.026	0.3
Reading	6	4937	3	B	3	6759	2.016	0.035	0.207	0.447	0.305		0.005	0.616	-0.335	-0.420	0.066	0.442		-0.246	0.019	-8.0
Reading	6	4938	3	B	3	3238	1.701	0.070	0.338	0.389	0.195		0.006	0.486	-0.287	-0.288	0.167	0.333		0.409	0.026	5.8
Reading	6	4939	3	A	3	6758	1.864	0.027	0.271	0.507	0.193		0.002	0.557	-0.293	-0.403	0.177	0.354		-0.066	0.019	-4.9
Reading	6	4940	3	B	3	3222	1.604	0.093	0.355	0.378	0.164		0.009	0.589	-0.412	-0.270	0.240	0.373		0.643	0.025	-3.7
Reading	6	4941	3	A	3	6752	1.991	0.052	0.176	0.485	0.282		0.005	0.596	-0.401	-0.321	0.062	0.411		-0.063	0.018	-5.0
Reading	6	4942	3	B	3	3251	1.849	0.082	0.246	0.394	0.272		0.006	0.528	-0.284	-0.345	0.108	0.397		0.260	0.024	4.3
Reading	6	4943	3	B	3	6718	1.932	0.043	0.236	0.458	0.260		0.003	0.501	-0.347	-0.290	0.106	0.326		-0.037	0.018	2.4
Reading	6	4944	3	B	3	3215	1.776	0.060	0.293	0.441	0.200		0.004	0.550	-0.375	-0.305	0.189	0.344		0.327	0.026	-1.1
Reading	6	4945	3	A		6712	1.782	0.041	0.261	0.552	0.139		0.006	0.508	-0.329	-0.314	0.223	0.280		0.282	0.020	-0.7
Reading	6	4946	3	B	3	3227	1.651	0.062	0.353	0.423	0.151		0.010	0.545	-0.392	-0.292	0.279	0.290		0.555	0.026	-1.3
Reading	6	4947	3	A		6746	2.150	0.035	0.131	0.459	0.367		0.006	0.566	-0.357	-0.326	-0.037	0.417		-0.348	0.019	-4.0
Reading	6	4948	3	B	3	3231	1.548	0.081	0.396	0.387	0.126		0.009	0.570	-0.384	-0.294	0.303	0.321		0.721	0.026	-3.3
Reading	6	4949	3	B		6721	1.708	0.135	0.225	0.416	0.217		0.006	0.496	-0.308	-0.282	0.165	0.349		0.591	0.016	9.9
Reading	6	4950	3	B	3	3239	1.545	0.126	0.333	0.390	0.144		0.006	0.589	-0.412	-0.268	0.297	0.346		0.847	0.025	-3.6
Reading	6	4951	3	A		6752	1.648	0.152	0.288	0.298	0.255		0.006	0.577	-0.408	-0.239	0.157	0.426		0.615	0.016	1.5
Reading	6	4952	3	B	3	3244	1.748	0.062	0.326	0.400	0.207		0.005	0.580	-0.389	-0.339	0.227	0.357		0.339	0.025	-2.7
Reading	6	4953	3	A		6702	1.825	0.097	0.266	0.335	0.296		0.004	0.631	-0.440	-0.323	0.157	0.443		0.283	0.017	-4.4
Reading	6	4954	3	B	3	3254	1.999	0.022	0.278	0.364	0.331		0.004	0.530	-0.263	-0.395	0.068	0.397		-0.331	0.026	2.3
Reading	7	4955	3	A	3	140306	1.759	0.053	0.313	0.426	0.198		0.006	0.590	-0.389	-0.359	0.245	0.351		0.275	0.004	-9.9
Reading	7	4956	3	B	3	140306	1.873	0.043	0.276	0.386	0.275		0.013	0.571	-0.339	-0.334	0.081	0.431		0.087	0.004	0.4
Reading	7	4957	3	B	3	140306	1.521	0.110	0.321	0.467	0.089		0.010	0.539	-0.413	-0.209	0.322	0.258		0.949	0.004	6.6

Appendix K: 2007 Grades 3–8 and 11 Open-Ended Statistics

Cont.	Grade	Pub. ID	Information			N	Mean	Proportions					Omit	Pt. Bis.	Correlations				Rasch			
			Pts.	R.C.	D.O.K.			0	1	2	3	4			0	1	2	3	4	Logit	Logit SE	Fit
Reading	7	4958	3	B		140306	1.937	0.036	0.189	0.534	0.227		0.013	0.586	-0.341	-0.389	0.139	0.377		0.006	0.004	-9.9
Reading	7	4959	3	B		7501	1.533	0.144	0.282	0.412	0.143		0.013	0.622	-0.478	-0.230	0.325	0.344		0.771	0.016	-3.1
Reading	7	4960	3	B	2	3414	1.740	0.095	0.318	0.295	0.277		0.012	0.574	-0.414	-0.242	0.107	0.431		0.391	0.023	1.9
Reading	7	4961	3	B		7052	1.895	0.089	0.214	0.390	0.301		0.006	0.647	-0.443	-0.348	0.139	0.448		0.142	0.016	-7.8
Reading	7	4962	3	A	3	3290	1.812	0.067	0.272	0.412	0.239		0.009	0.585	-0.390	-0.307	0.138	0.406		0.243	0.025	-2.1
Reading	7	4963	3	B		7025	1.660	0.084	0.323	0.407	0.174		0.009	0.608	-0.439	-0.277	0.235	0.377		0.526	0.017	-7.9
Reading	7	4964	3	B	3	3397	1.453	0.113	0.401	0.365	0.107		0.013	0.522	-0.375	-0.216	0.302	0.277		0.943	0.025	-0.7
Reading	7	4965	3	B		7023	1.803	0.087	0.271	0.372	0.263		0.006	0.609	-0.424	-0.317	0.175	0.409		0.296	0.016	-5.3
Reading	7	4966	3	B	3	3387	1.833	0.068	0.267	0.398	0.257		0.009	0.589	-0.396	-0.332	0.170	0.389		0.219	0.024	-2.1
Reading	7	4967	3	A	3	7002	1.809	0.107	0.225	0.391	0.268		0.009	0.576	-0.432	-0.248	0.142	0.390		0.358	0.016	3.1
Reading	7	4968	3	B	3	3379	1.651	0.116	0.286	0.393	0.193		0.010	0.631	-0.490	-0.249	0.263	0.375		0.642	0.024	-4.9
Reading	7	4969	3	B		7004	1.783	0.073	0.278	0.412	0.227		0.010	0.601	-0.409	-0.314	0.175	0.400		0.321	0.017	-3.5
Reading	7	4970	3	B	3	3327	1.485	0.102	0.400	0.388	0.103		0.007	0.555	-0.407	-0.221	0.291	0.307		0.904	0.026	-1.4
Reading	7	4971	3	A	3	6997	1.721	0.170	0.213	0.328	0.284		0.003	0.639	-0.491	-0.235	0.162	0.458		0.573	0.015	-4.2
Reading	7	4972	3	B	3	3305	1.303	0.185	0.379	0.333	0.086		0.015	0.558	-0.482	-0.078	0.342	0.251		1.355	0.025	0.2
Reading	7	4973	3	A	3	6999	2.159	0.035	0.144	0.431	0.384		0.005	0.600	-0.343	-0.367	-0.058	0.463		-0.394	0.018	-5.3
Reading	7	4974	3	B	2	3391	1.763	0.076	0.271	0.430	0.211		0.011	0.623	-0.404	-0.345	0.204	0.409		0.402	0.025	-3.6
Reading	7	4975	3	B	3	6991	1.804	0.103	0.222	0.417	0.249		0.008	0.631	-0.516	-0.241	0.196	0.384		0.367	0.017	-5.3
Reading	7	4976	3	A	3	3388	1.689	0.092	0.320	0.359	0.217		0.012	0.621	-0.447	-0.299	0.238	0.393		0.504	0.024	-4.2
Reading	7	4977	3	B	3	7006	1.444	0.150	0.366	0.344	0.130		0.009	0.616	-0.469	-0.197	0.307	0.360		0.981	0.017	-7.2
Reading	7	4978	3	B	3	3399	1.813	0.107	0.196	0.422	0.258		0.016	0.650	-0.473	-0.321	0.204	0.418		0.414	0.024	-5.3
Reading	7	4979	3	B	3	6983	1.919	0.037	0.265	0.419	0.272		0.006	0.565	-0.290	-0.397	0.110	0.406		-0.060	0.018	-0.3
Reading	7	4980	3	A	3	3394	1.415	0.166	0.339	0.382	0.104		0.009	0.613	-0.487	-0.175	0.354	0.314		1.161	0.025	-4.0
Reading	7	4981	3	B	3	6993	2.234	0.018	0.150	0.394	0.432		0.005	0.559	-0.280	-0.385	-0.079	0.441		-0.697	0.019	-1.7
Reading	7	4982	3	B	3	3383	1.725	0.129	0.276	0.309	0.277		0.009	0.576	-0.471	-0.171	0.120	0.410		0.502	0.022	2.6
Reading	7	4983	3	B	3	6978	1.901	0.038	0.275	0.418	0.264		0.004	0.564	-0.294	-0.392	0.117	0.404		-0.043	0.018	-0.7
Reading	7	4984	3	B	3	3396	1.446	0.134	0.408	0.304	0.143		0.010	0.583	-0.438	-0.192	0.267	0.359		0.931	0.024	-2.3
Reading	7	4985	3	B	3	6957	2.193	0.016	0.163	0.420	0.397		0.004	0.556	-0.250	-0.410	-0.048	0.430		-0.682	0.019	-2.9
Reading	7	4986	3	A	2	3393	1.732	0.069	0.336	0.368	0.220		0.006	0.493	-0.303	-0.285	0.149	0.345		0.379	0.024	4.5
Reading	7	4987	3	A	3	6971	1.737	0.163	0.204	0.346	0.280		0.006	0.641	-0.481	-0.237	0.129	0.478		0.556	0.015	-5.4
Reading	7	4988	3	B	3	3333	1.692	0.093	0.311	0.367	0.216		0.011	0.610	-0.422	-0.295	0.204	0.409		0.521	0.024	-3.7
Reading	7	4989	3	A		6968	1.810	0.106	0.268	0.318	0.302		0.006	0.607	-0.432	-0.286	0.131	0.440		0.315	0.016	0.2
Reading	7	4990	3	B	3	3387	1.633	0.091	0.319	0.423	0.156		0.009	0.655	-0.442	-0.352	0.331	0.371		0.627	0.025	-7.8
Reading	7	4991	3	A		6946	1.482	0.112	0.377	0.411	0.094		0.005	0.585	-0.482	-0.184	0.334	0.274		0.949	0.018	-4.7
Reading	7	4992	3	B	3	3389	1.742	0.077	0.306	0.391	0.218		0.006	0.569	-0.421	-0.277	0.202	0.353		0.396	0.024	-0.1
Reading	7	4993	3	B		6983	2.125	0.036	0.119	0.516	0.325		0.004	0.534	-0.306	-0.327	-0.035	0.392		-0.320	0.019	-1.9
Reading	7	4994	3	B	3	3394	1.810	0.059	0.314	0.342	0.270		0.009	0.567	-0.391	-0.308	0.152	0.389		0.209	0.024	-0.9
Reading	7	4995	3	A		6958	1.963	0.043	0.236	0.420	0.296		0.005	0.540	-0.316	-0.337	0.061	0.397		-0.076	0.018	2.1
Reading	7	4996	3	B	3	3383	1.494	0.108	0.369	0.391	0.114		0.014	0.569	-0.453	-0.184	0.289	0.307		0.924	0.025	-1.5
Reading	7	4997	3	B		6969	1.418	0.208	0.290	0.343	0.148		0.010	0.541	-0.390	-0.190	0.256	0.356		1.061	0.016	5.5
Reading	7	4998	3	A	3	3335	1.345	0.213	0.335	0.313	0.128		0.010	0.596	-0.500	-0.092	0.295	0.343		1.178	0.023	-2.5
Reading	8	4999	3	B		143013	1.885	0.032	0.218	0.565	0.179		0.006	0.537	-0.368	-0.332	0.186	0.301		0.539	0.004	-9.9
Reading	8	5000	3	B	3	143013	1.568	0.069	0.409	0.355	0.149		0.014	0.597	-0.411	-0.300	0.283	0.357		1.120	0.004	-9.9
Reading	8	5001	3	B	3	143013	1.528	0.057	0.433	0.372	0.117		0.015	0.517	-0.351	-0.263	0.269	0.294		1.191	0.004	-8.5
Reading	8	5002	3	B	3	143013	1.577	0.061	0.356	0.477	0.089		0.016	0.537	-0.441	-0.214	0.305	0.241		1.242	0.004	-9.9
Reading	8	5003	3	A	3	7649	1.654	0.101	0.321	0.358	0.206		0.014	0.590	-0.441	-0.248	0.219	0.376		0.929	0.016	-1.8

Appendix K: 2007 Grades 3–8 and 11 Open-Ended Statistics

Information							Proportions						Correlations					Rasch				
Cont.	Grade	Pub. ID	Pts.	R.C.	D.O.K.	N	Mean	0	1	2	3	4	Omit	Pt. Bis.	0	1	2	3	4	Logit	Logit SE	Fit
Reading	8	5004	3	B	3	3867	1.629	0.120	0.286	0.394	0.185		0.014	0.642	-0.507	-0.236	0.272	0.378		0.972	0.022	-6.2
Reading	8	5005	3	B	3	7159	1.661	0.113	0.296	0.388	0.196		0.007	0.641	-0.527	-0.243	0.292	0.352		1.051	0.016	-9.9
Reading	8	5006	3	B	3	3462	1.541	0.115	0.382	0.326	0.169		0.008	0.542	-0.381	-0.218	0.198	0.370		1.213	0.023	-1.7
Reading	8	5007	3	B	3	7127	1.409	0.094	0.539	0.200	0.157		0.010	0.487	-0.394	-0.145	0.199	0.311		1.274	0.017	3.1
Reading	8	5008	3	A	3	3462	1.854	0.040	0.291	0.420	0.241		0.008	0.495	-0.345	-0.296	0.153	0.311		0.601	0.025	2.3
Reading	8	5009	3	B	2	7164	1.803	0.044	0.321	0.393	0.232		0.009	0.564	-0.329	-0.357	0.152	0.395		0.658	0.017	-2.4
Reading	8	5010	3	A	3	3468	1.564	0.107	0.345	0.390	0.146		0.011	0.619	-0.419	-0.291	0.282	0.385		1.275	0.024	-6.7
Reading	8	5011	3	B	3	7136	2.009	0.062	0.156	0.472	0.303		0.007	0.551	-0.409	-0.272	0.073	0.361		0.479	0.017	-0.3
Reading	8	5012	3	A	3	3445	2.093	0.041	0.167	0.413	0.367		0.011	0.524	-0.352	-0.290	0.007	0.382		0.329	0.025	0.8
Reading	8	5013	3	B	3	7131	1.383	0.187	0.328	0.325	0.135		0.025	0.612	-0.518	-0.098	0.292	0.353		1.582	0.016	-6.9
Reading	8	5014	3	A	3	3351	1.620	0.104	0.336	0.358	0.189		0.012	0.532	-0.418	-0.198	0.206	0.328		1.149	0.024	1.6
Reading	8	5015	3	B	3	7164	1.673	0.122	0.260	0.415	0.194		0.008	0.614	-0.491	-0.232	0.258	0.354		1.132	0.016	-7.2
Reading	8	5016	3	A	3	3393	1.615	0.119	0.322	0.348	0.199		0.012	0.548	-0.422	-0.207	0.212	0.345		1.199	0.023	0.1
Reading	8	5017	3	A	2	7113	1.543	0.105	0.348	0.428	0.113		0.005	0.565	-0.468	-0.189	0.301	0.278		1.331	0.017	-4.8
Reading	8	5018	3	A	3	3458	1.779	0.076	0.276	0.416	0.224		0.008	0.564	-0.413	-0.273	0.179	0.357		0.882	0.024	-2.0
Reading	8	5019	3	A	3	7134	1.834	0.083	0.215	0.453	0.238		0.011	0.609	-0.503	-0.246	0.196	0.353		0.834	0.017	-7.0
Reading	8	5020	3	B	3	3475	1.287	0.206	0.361	0.323	0.093		0.016	0.637	-0.522	-0.114	0.382	0.321		1.837	0.023	-9.9
Reading	8	5021	3	A	3	7156	1.604	0.141	0.292	0.373	0.189		0.006	0.548	-0.429	-0.188	0.214	0.341		1.201	0.016	0.4
Reading	8	5022	3	B	3	3479	1.635	0.082	0.326	0.429	0.151		0.013	0.540	-0.398	-0.250	0.254	0.303		1.141	0.024	-2.4
Reading	8	5023	3	B		7153	1.802	0.081	0.228	0.454	0.222		0.013	0.627	-0.472	-0.298	0.217	0.376		0.891	0.017	-8.1
Reading	8	5024	3	B	3	3500	1.482	0.116	0.374	0.383	0.114		0.013	0.620	-0.555	-0.131	0.315	0.303		1.471	0.024	-7.5
Reading	8	5025	3	A		7134	1.973	0.055	0.182	0.483	0.275		0.005	0.577	-0.406	-0.289	0.062	0.397		0.538	0.017	-7.0
Reading	8	5026	3	A	3	3462	1.826	0.044	0.300	0.421	0.228		0.007	0.561	-0.353	-0.322	0.119	0.398		0.678	0.025	-4.3
Reading	8	5027	3	A	3	7107	1.800	0.041	0.289	0.476	0.186		0.006	0.575	-0.375	-0.354	0.214	0.345		0.676	0.018	-5.7
Reading	8	5028	3	B	3	3438	1.673	0.117	0.286	0.377	0.211		0.009	0.657	-0.529	-0.234	0.242	0.402		1.103	0.023	-8.9
Reading	8	5029	3	B	3	7129	1.954	0.064	0.230	0.360	0.335		0.010	0.612	-0.389	-0.346	0.063	0.462		0.592	0.016	-8.6
Reading	8	5030	3	B	2	3389	1.691	0.075	0.328	0.405	0.184		0.008	0.525	-0.385	-0.261	0.222	0.308		1.019	0.024	-0.9
Reading	8	5031	3	A		7078	1.576	0.110	0.334	0.398	0.148		0.007	0.603	-0.454	-0.236	0.269	0.357		1.228	0.017	-8.0
Reading	8	5032	3	B	3	3409	1.651	0.125	0.261	0.422	0.182		0.010	0.687	-0.503	-0.305	0.296	0.414		1.189	0.023	-9.9
Reading	8	5033	3	B		7099	1.852	0.029	0.260	0.522	0.183		0.006	0.531	-0.327	-0.335	0.155	0.337		0.567	0.019	-3.5
Reading	8	5034	3	B	3	3450	1.999	0.050	0.168	0.492	0.282		0.008	0.575	-0.394	-0.326	0.090	0.375		0.558	0.025	-4.1
Reading	8	5035	3	A		7127	1.717	0.080	0.289	0.441	0.182		0.008	0.543	-0.396	-0.268	0.223	0.318		0.963	0.017	-0.6
Reading	8	5036	3	B	3	3428	1.614	0.136	0.284	0.388	0.184		0.007	0.574	-0.446	-0.192	0.204	0.369		1.221	0.023	-1.2
Reading	8	5037	3	B	3	7099	1.959	0.025	0.211	0.525	0.233		0.005	0.536	-0.288	-0.366	0.092	0.364		0.370	0.019	-3.4
Reading	8	5038	3	A	3	3446	1.706	0.082	0.307	0.390	0.207		0.015	0.583	-0.429	-0.274	0.220	0.361		1.008	0.024	-4.2
Reading	8	5039	3	A		7074	1.570	0.171	0.283	0.318	0.217		0.011	0.607	-0.509	-0.145	0.216	0.392		1.303	0.015	-4.9
Reading	8	5040	3	B	3	3390	1.613	0.085	0.355	0.393	0.158		0.010	0.592	-0.422	-0.273	0.249	0.363		1.176	0.025	-4.2
Reading	8	5041	3	B	3	7080	1.879	0.012	0.284	0.499	0.199		0.005	0.524	-0.226	-0.382	0.099	0.383		0.277	0.019	-4.6
Reading	8	5042	3	A	3	3354	1.713	0.107	0.270	0.387	0.223		0.013	0.530	-0.437	-0.178	0.172	0.330		1.090	0.023	2.1
Reading	11	5043	3	B	3	136739	1.833	0.024	0.198	0.548	0.180		0.030	0.580	-0.355	-0.355	0.194	0.360		0.363	0.004	-9.9
Reading	11	5044	3	B		136739	1.886	0.031	0.212	0.517	0.214		0.027	0.620	-0.399	-0.384	0.193	0.375		0.184	0.004	-9.9
Reading	11	5045	3	B	3	136739	1.858	0.042	0.229	0.489	0.217		0.023	0.543	-0.414	-0.266	0.162	0.324		0.244	0.004	-0.7
Reading	11	5046	3	B	3	136739	1.760	0.046	0.269	0.430	0.211		0.043	0.607	-0.457	-0.285	0.220	0.365		0.445	0.004	-9.9
Reading	11	5047	3	B		7292	1.750	0.055	0.246	0.474	0.185		0.027	0.634	-0.457	-0.321	0.261	0.365		0.399	0.017	-8.6
Reading	11	5048	3	B	3	3379	1.535	0.064	0.416	0.375	0.123		0.021	0.587	-0.439	-0.261	0.305	0.317		0.725	0.026	-6.1
Reading	11	5049	3	B		6874	1.844	0.051	0.208	0.515	0.202		0.024	0.614	-0.437	-0.320	0.193	0.370		0.309	0.018	-7.5

Appendix K: 2007 Grades 3–8 and 11 Open-Ended Statistics

Information							Proportions						Correlations					Rasch				
Cont.	Grade	Pub. ID	Pts.	R.C.	D.O.K.	N	Mean	0	1	2	3	4	Omit	Pt. Bis.	0	1	2	3	4	Logit	Logit SE	Fit
Reading	11	5050	3	A	3	3371	1.923	0.050	0.196	0.457	0.271		0.025	0.633	-0.417	-0.347	0.108	0.438		0.174	0.025	-7.3
Reading	11	5051	3	B	3	6833	2.009	0.033	0.170	0.482	0.292		0.022	0.603	-0.417	-0.338	0.087	0.396		0.022	0.018	-8.2
Reading	11	5052	3	B	3	3346	1.942	0.033	0.186	0.488	0.260		0.031	0.610	-0.375	-0.361	0.095	0.425		0.172	0.025	-6.6
Reading	11	5053	3	A	3	6839	1.850	0.075	0.220	0.425	0.260		0.019	0.639	-0.485	-0.294	0.174	0.406		0.353	0.017	-9.9
Reading	11	5054	3	B	3	3327	1.978	0.028	0.165	0.537	0.246		0.023	0.578	-0.383	-0.333	0.095	0.374		0.076	0.027	-4.7
Reading	11	5055	3	B	3	6842	1.921	0.015	0.215	0.519	0.223		0.023	0.583	-0.340	-0.376	0.127	0.385		0.075	0.019	-5.2
Reading	11	5056	3	A	3	3358	1.905	0.055	0.226	0.436	0.269		0.014	0.583	-0.376	-0.330	0.106	0.407		0.200	0.025	-2.0
Reading	11	5057	3	B	3	6839	2.018	0.012	0.192	0.530	0.255		0.009	0.552	-0.292	-0.387	0.060	0.380		-0.300	0.020	-4.5
Reading	11	5058	3	B	3	3351	2.121	0.016	0.135	0.520	0.315		0.012	0.552	-0.316	-0.357	-0.013	0.391		-0.349	0.028	-3.1
Reading	11	5059	3	B	3	6837	1.965	0.029	0.172	0.547	0.233		0.017	0.616	-0.422	-0.371	0.151	0.367		0.043	0.019	-9.9
Reading	11	5060	3	A	3	3340	2.215	0.024	0.128	0.381	0.442		0.024	0.568	-0.370	-0.327	-0.047	0.428		-0.286	0.025	-2.8
Reading	11	5061	3	B	3	6795	1.841	0.065	0.215	0.468	0.230		0.021	0.609	-0.427	-0.297	0.144	0.405		0.329	0.017	-6.0
Reading	11	5062	3	A	2	3346	2.022	0.021	0.173	0.530	0.263		0.012	0.598	-0.356	-0.391	0.075	0.398		-0.170	0.028	-6.4
Reading	11	5063	3	B		6771	2.041	0.034	0.178	0.452	0.320		0.015	0.652	-0.389	-0.419	0.063	0.459		-0.125	0.018	-9.9
Reading	11	5064	3	B	3	3323	1.803	0.043	0.227	0.528	0.173		0.029	0.611	-0.391	-0.350	0.208	0.380		0.369	0.026	-6.3
Reading	11	5065	3	B	3	6775	1.844	0.051	0.231	0.476	0.220		0.020	0.638	-0.449	-0.341	0.192	0.396		0.291	0.018	-9.9
Reading	11	5066	3	B	3	3324	2.150	0.026	0.130	0.468	0.361		0.014	0.617	-0.388	-0.370	-0.023	0.442		-0.302	0.027	-7.1
Reading	11	5067	3	B		6816	1.776	0.040	0.239	0.578	0.127		0.016	0.607	-0.444	-0.339	0.302	0.292		0.419	0.020	-8.2
Reading	11	5068	3	A	3	3343	1.808	0.051	0.258	0.452	0.215		0.023	0.597	-0.419	-0.314	0.185	0.377		0.350	0.025	-4.0
Reading	11	5069	3	B	3	6775	1.828	0.041	0.260	0.496	0.192		0.010	0.585	-0.378	-0.374	0.232	0.336		0.223	0.019	-6.6
Reading	11	5070	3	B	3	3339	1.812	0.047	0.236	0.529	0.173		0.015	0.587	-0.395	-0.327	0.202	0.354		0.362	0.027	-4.9
Reading	11	5071	3	A		6787	1.936	0.035	0.203	0.516	0.234		0.010	0.619	-0.386	-0.390	0.144	0.395		0.075	0.019	-9.1
Reading	11	5072	3	B	3	3325	1.965	0.044	0.189	0.434	0.302		0.029	0.665	-0.414	-0.389	0.081	0.481		0.147	0.025	-8.6
Reading	11	5073	3	B	3	6845	1.890	0.019	0.221	0.523	0.208		0.023	0.580	-0.364	-0.369	0.175	0.354		0.132	0.019	-5.2
Reading	11	5074	3	B	3	3333	2.192	0.013	0.109	0.496	0.364		0.018	0.576	-0.336	-0.348	-0.077	0.427		-0.401	0.028	-4.4
Reading	11	5075	3	B	3	6825	1.999	0.015	0.196	0.521	0.253		0.013	0.560	-0.316	-0.382	0.081	0.377		-0.210	0.019	-4.1
Reading	11	5076	3	B	3	3287	2.161	0.018	0.150	0.430	0.383		0.018	0.629	-0.337	-0.423	-0.035	0.476		-0.372	0.027	-7.0
Reading	11	5077	3	B		6821	1.862	0.036	0.241	0.474	0.224		0.019	0.531	-0.415	-0.249	0.140	0.326		0.223	0.018	2.6
Reading	11	5078	3	B	3	3321	1.827	0.083	0.198	0.440	0.250		0.029	0.687	-0.494	-0.332	0.189	0.450		0.449	0.024	-9.9
Reading	11	5079	3	B	3	6799	1.786	0.033	0.246	0.553	0.145		0.018	0.580	-0.398	-0.334	0.251	0.316		0.362	0.020	-6.5
Reading	11	5080	3	B	3	3292	1.911	0.042	0.210	0.484	0.245		0.020	0.649	-0.444	-0.357	0.142	0.422		0.156	0.026	-8.8
Reading	11	5081	3	B		6820	1.910	0.048	0.216	0.460	0.258		0.014	0.632	-0.448	-0.348	0.160	0.399		0.168	0.018	-9.9
Reading	11	5082	3	B	3	3331	2.008	0.028	0.189	0.473	0.291		0.018	0.620	-0.395	-0.381	0.085	0.420		-0.035	0.026	-7.1
Reading	11	5083	3	A		6780	1.394	0.181	0.358	0.311	0.138		0.011	0.516	-0.401	-0.127	0.231	0.326		1.119	0.016	4.6
Reading	11	5084	3	B	3	3319	1.695	0.064	0.285	0.467	0.159		0.024	0.622	-0.440	-0.293	0.236	0.383		0.601	0.026	-5.8
Reading	11	5085	3	A	3	6774	1.865	0.063	0.236	0.400	0.276		0.017	0.597	-0.462	-0.262	0.133	0.395		0.283	0.017	-4.1
Reading	11	5086	3	B	3	3325	1.964	0.038	0.189	0.491	0.265		0.017	0.574	-0.402	-0.323	0.115	0.365		0.068	0.026	-3.7

Appendix L:

2008 Grades 3–8 and 11 Multiple-Choice Statistics

Table Legend

Column	Description
Cont.	Tested Content
Grade	Tested Grade
Pub. ID	Public item identification number
R.C.	Reporting category
D.O.K.	Depth of knowledge
N	Number of students
P-Val.	P-Value
Proportion [A-D, Omit]	Proportion selecting the response
Pt. Bis.	Item total correlation
Correlation [A-D]	Point biserial of the response
Logit	Rasch logit difficulty
Logit SE	Rasch logit difficulty standard error
Fit	Rasch outfit statistic

Appendix L: 2008 Grades 3–8 and 11 Multiple-Choice Statistics

Information						Proportions						Correlations					Rasch			
Cont.	Grade	Pub. ID	Key	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Math	3	0001	B	A	1	126563	0.937	0.013	0.937	0.032	0.018	0.000	0.373	-0.299	0.373	-0.258	-0.177	-0.627	0.013	1.1
Math	3	0002	C	A	1	126563	0.916	0.020	0.042	0.916	0.021	0.001	0.465	-0.279	-0.325	0.465	-0.346	-0.268	0.011	-9.9
Math	3	0003	A	A	1	126563	0.843	0.843	0.030	0.023	0.095	0.009	0.591	0.591	-0.327	-0.286	-0.596	0.617	0.009	-9.9
Math	3	0004	A	A	1	126563	0.902	0.902	0.026	0.028	0.043	0.001	0.527	0.527	-0.310	-0.340	-0.429	-0.064	0.010	-9.9
Math	3	0005	C	D	2	126563	0.933	0.011	0.022	0.933	0.033	0.001	0.447	-0.316	-0.295	0.447	-0.304	-0.559	0.012	-9.5
Math	3	0006	D	A	1	126563	0.935	0.018	0.023	0.021	0.935	0.002	0.414	-0.251	-0.288	-0.279	0.414	-0.598	0.012	-9.4
Math	3	0007	D	E	2	126563	0.841	0.051	0.086	0.021	0.841	0.001	0.446	-0.422	-0.285	-0.274	0.446	0.635	0.009	-6.2
Math	3	0008	C	B	2	126563	0.867	0.085	0.020	0.867	0.026	0.002	0.413	-0.337	-0.275	0.413	-0.246	0.361	0.009	2.3
Math	3	0009	C	A	1	126563	0.823	0.079	0.052	0.823	0.044	0.002	0.494	-0.332	-0.409	0.494	-0.386	0.799	0.008	-9.9
Math	3	0010	D	E	2	126563	0.863	0.057	0.058	0.020	0.863	0.001	0.435	-0.383	-0.219	-0.345	0.435	0.407	0.009	9.9
Math	3	0011	B	D	2	126563	0.810	0.119	0.810	0.022	0.048	0.001	0.488	-0.430	0.488	-0.221	-0.377	0.913	0.008	-6.9
Math	3	0012	A	A	2	126563	0.687	0.687	0.092	0.030	0.189	0.003	0.487	0.487	-0.402	-0.311	-0.442	1.816	0.007	-9.1
Math	3	0013	B	B	2	126563	0.889	0.058	0.889	0.036	0.011	0.006	0.362	-0.280	0.362	-0.214	-0.258	0.103	0.010	9.9
Math	3	0014	C	A	1	126563	0.769	0.143	0.017	0.769	0.064	0.007	0.536	-0.506	-0.311	0.536	-0.377	1.243	0.008	-9.9
Math	3	0015	A	C	1	126563	0.917	0.917	0.021	0.034	0.027	0.001	0.407	0.407	-0.254	-0.279	-0.269	-0.280	0.011	-9.9
Math	3	0016	A	E	2	126563	0.927	0.927	0.010	0.014	0.049	0.001	0.456	0.456	-0.171	-0.251	-0.406	-0.455	0.012	-9.9
Math	3	0017	B	C	1	126563	0.764	0.117	0.764	0.022	0.097	0.001	0.334	-0.238	0.334	-0.296	-0.263	1.280	0.008	9.9
Math	3	0018	A	A	1	126563	0.867	0.867	0.031	0.038	0.064	0.001	0.473	0.473	-0.159	-0.367	-0.428	0.364	0.009	-9.9
Math	3	0019	B	D	1	126563	0.968	0.016	0.968	0.005	0.010	0.002	0.348	-0.301	0.348	-0.188	-0.143	-1.424	0.017	0.0
Math	3	0020	C	D	2	126563	0.872	0.052	0.057	0.872	0.016	0.003	0.539	-0.448	-0.419	0.539	-0.250	0.312	0.009	-9.9
Math	3	0021	D	E	2	126563	0.902	0.051	0.015	0.022	0.902	0.011	0.310	-0.177	-0.214	-0.285	0.310	-0.068	0.010	9.9
Math	3	0022	A	D	2	126563	0.955	0.955	0.003	0.008	0.033	0.001	0.400	0.400	-0.132	-0.247	-0.335	-1.033	0.014	-9.9
Math	3	0023	D	D	2	126563	0.911	0.010	0.073	0.005	0.911	0.000	0.441	-0.251	-0.388	-0.205	0.441	-0.200	0.011	-2.6
Math	3	0024	D	B	2	126563	0.874	0.037	0.028	0.059	0.874	0.001	0.453	-0.390	-0.303	-0.280	0.453	0.286	0.009	-7.2
Math	3	0025	D	A	1	126563	0.917	0.014	0.017	0.051	0.917	0.001	0.378	-0.182	-0.291	-0.280	0.378	-0.291	0.011	5.1
Math	3	0026	B	A	2	126563	0.795	0.034	0.795	0.110	0.060	0.001	0.526	-0.334	0.526	-0.444	-0.414	1.038	0.008	-9.9
Math	3	0027	B	A	1	126563	0.844	0.032	0.844	0.093	0.030	0.000	0.529	-0.314	0.529	-0.493	-0.288	0.602	0.009	-9.9
Math	3	0028	B	A	1	126563	0.845	0.066	0.845	0.040	0.049	0.001	0.567	-0.489	0.567	-0.383	-0.395	0.607	0.009	-9.9
Math	3	0029	D	D	2	126563	0.858	0.029	0.068	0.043	0.858	0.002	0.566	-0.410	-0.481	-0.359	0.566	0.470	0.009	-9.9
Math	3	0030	B	E	2	126563	0.956	0.013	0.956	0.016	0.014	0.001	0.426	-0.341	0.426	-0.263	-0.213	-1.052	0.015	-8.1
Math	3	0031	C	A	1	126563	0.855	0.018	0.062	0.855	0.065	0.001	0.511	-0.365	-0.391	0.511	-0.382	0.494	0.009	-9.9
Math	3	0032	B	C	1	126563	0.823	0.018	0.823	0.074	0.083	0.001	0.370	-0.296	0.370	-0.281	-0.257	0.796	0.008	9.9
Math	3	0033	B	E	1	126563	0.937	0.017	0.937	0.026	0.020	0.000	0.360	-0.318	0.360	-0.252	-0.136	-0.639	0.013	9.9
Math	3	0034	C	D	1	126563	0.859	0.036	0.034	0.859	0.069	0.002	0.422	-0.276	-0.264	0.422	-0.339	0.456	0.009	4.3
Math	3	0035	A	A	1	126563	0.854	0.854	0.062	0.053	0.027	0.004	0.364	0.364	-0.129	-0.402	-0.248	0.492	0.009	9.9
Math	3	0036	D	E	2	126563	0.958	0.019	0.007	0.015	0.958	0.000	0.385	-0.317	-0.248	-0.166	0.385	-1.108	0.015	0.2
Math	3	0037	C	A	1	126563	0.958	0.005	0.024	0.958	0.013	0.001	0.394	-0.222	-0.249	0.394	-0.309	-1.114	0.015	-0.9
Math	3	0038	B	A	1	126563	0.892	0.039	0.892	0.021	0.046	0.002	0.457	-0.292	0.457	-0.244	-0.387	0.063	0.010	-9.9
Math	3	0039	C	A	1	126563	0.601	0.033	0.041	0.601	0.311	0.013	0.406	-0.269	-0.288	0.406	-0.398	2.341	0.007	9.9
Math	3	0040	B	B	1	126563	0.875	0.026	0.875	0.034	0.064	0.001	0.403	-0.213	0.403	-0.304	-0.314	0.263	0.010	9.9
Math	3	0041	A	B	1	126563	0.689	0.689	0.087	0.145	0.077	0.002	0.437	0.437	-0.385	-0.370	-0.311	1.799	0.007	2.7
Math	3	0042	A	A	2	126563	0.855	0.855	0.030	0.038	0.074	0.003	0.412	0.412	-0.285	-0.304	-0.291	0.487	0.009	-0.3
Math	3	0043	B	A	2	126563	0.893	0.014	0.893	0.068	0.024	0.001	0.552	-0.316	0.552	-0.486	-0.322	0.062	0.010	-9.9

Appendix L: 2008 Grades 3–8 and 11 Multiple-Choice Statistics

Information						Proportions						Correlations					Rasch			
Cont.	Grade	Pub. ID	Key	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Math	3	0044	C	A	2	126563	0.752	0.212	0.015	0.752	0.020	0.001	0.568	-0.555	-0.322	0.568	-0.315	1.372	0.007	-9.9
Math	3	0045	A	A	1	126563	0.893	0.893	0.048	0.025	0.028	0.006	0.490	0.490	-0.343	-0.345	-0.364	0.060	0.010	-9.9
Math	3	0046	D	C	1	126563	0.965	0.013	0.010	0.010	0.965	0.002	0.333	-0.221	-0.200	-0.202	0.333	-1.322	0.016	-8.1
Math	3	0047	C	E	2	126563	0.798	0.103	0.014	0.798	0.083	0.001	0.404	-0.308	-0.237	0.404	-0.347	1.013	0.008	9.9
Math	3	0048	A	D	2	126563	0.946	0.946	0.033	0.008	0.012	0.002	0.430	0.430	-0.336	-0.267	-0.230	-0.837	0.013	-9.9
Math	3	0049	C	A	1	126563	0.851	0.029	0.054	0.851	0.051	0.015	0.447	-0.275	-0.338	0.447	-0.374	0.527	0.009	9.9
Math	3	0050	D	E	2	126563	0.930	0.025	0.032	0.012	0.930	0.001	0.379	-0.244	-0.215	-0.325	0.379	-0.509	0.012	9.9
Math	3	0051	C	A	2	126563	0.709	0.019	0.043	0.709	0.228	0.001	0.628	-0.386	-0.472	0.628	-0.616	1.674	0.007	-9.9
Math	3	0052	C	A	2	126563	0.887	0.032	0.049	0.887	0.026	0.005	0.343	-0.236	-0.222	0.343	-0.245	0.116	0.010	9.9
Math	3	0053	B	A	1	126563	0.900	0.018	0.900	0.013	0.049	0.020	0.345	-0.313	0.345	-0.299	-0.196	-0.045	0.010	9.9
Math	3	0054	D	C	1	126563	0.877	0.015	0.075	0.032	0.877	0.001	0.512	-0.290	-0.447	-0.311	0.512	0.260	0.010	-9.9
Math	3	0055	C	E	2	8153	0.929	0.036	0.012	0.929	0.022	0.001	0.320	-0.174	-0.215	0.320	-0.251	-0.591	0.047	5.7
Math	3	0056	B	A	1	8153	0.825	0.074	0.825	0.047	0.036	0.018	0.524	-0.584	0.524	-0.311	-0.251	0.671	0.033	-2.3
Math	3	0057	D	A	1	8153	0.776	0.055	0.058	0.110	0.776	0.001	0.465	-0.326	-0.203	-0.481	0.465	1.071	0.030	1.7
Math	3	0058	B	C	1	8153	0.774	0.130	0.774	0.092	0.002	0.002	0.337	-0.242	0.307	-0.325	-0.131	1.086	0.030	3.8
Math	3	0059	A	B	1	8153	0.894	0.894	0.019	0.042	0.039	0.006	0.246	0.246	-0.230	-0.147	-0.139	-0.053	0.040	5.2
Math	3	0060	C	A	1	8153	0.885	0.030	0.043	0.885	0.032	0.011	0.460	-0.357	-0.356	0.460	-0.274	0.057	0.039	-3.1
Math	3	0061	B	E	2	8153	0.948	0.024	0.948	0.007	0.017	0.003	0.474	-0.363	0.474	-0.247	-0.320	-0.966	0.053	-4.5
Math	3	0062	C	C	1	8153	0.753	0.034	0.130	0.753	0.081	0.001	0.380	-0.271	-0.269	0.380	-0.359	1.240	0.030	5.5
Math	3	0063	A	A	1	8153	0.950	0.950	0.013	0.020	0.007	0.011	0.321	0.321	-0.132	-0.290	-0.230	-1.006	0.054	3.0
Math	3	0064	B	A	2	8153	0.817	0.124	0.817	0.021	0.037	0.001	0.575	-0.571	0.575	-0.268	-0.313	0.740	0.033	-7.8
Math	3	0065	C	B	1	8153	0.971	0.010	0.012	0.971	0.004	0.003	0.337	-0.194	-0.276	0.337	-0.168	-1.631	0.068	-2.9
Math	3	0066	D	D	2	8153	0.680	0.135	0.084	0.099	0.680	0.002	0.373	-0.297	-0.356	-0.258	0.373	1.721	0.028	3.3
Math	3	0067	D	E	2	7940	0.965	0.007	0.012	0.015	0.965	0.001	0.394	-0.216	-0.207	-0.314	0.394	-1.366	0.064	-2.8
Math	3	0068	A	B	1	7940	0.688	0.688	0.136	0.098	0.077	0.001	0.281	0.281	-0.230	-0.177	-0.248	1.738	0.028	9.4
Math	3	0069	B	C	1	7940	0.927	0.039	0.927	0.029	0.004	0.001	0.365	-0.309	0.365	-0.218	-0.164	-0.491	0.047	-0.3
Math	3	0070	B	A	1	7940	0.913	0.012	0.913	0.047	0.025	0.003	0.503	-0.321	0.503	-0.371	-0.363	-0.259	0.044	-6.5
Math	3	0071	D	A	2	7940	0.777	0.156	0.031	0.030	0.777	0.007	0.530	-0.539	-0.282	-0.251	0.530	1.131	0.031	-6.3
Math	3	0072	B	D	2	7940	0.819	0.038	0.819	0.083	0.052	0.009	0.503	-0.380	0.503	-0.365	-0.435	0.792	0.033	-4.4
Math	3	0073	C	E	2	7940	0.958	0.006	0.014	0.958	0.019	0.003	0.382	-0.159	-0.231	0.382	-0.324	-1.157	0.059	-3.6
Math	3	0074	D	A	1	7940	0.826	0.028	0.118	0.026	0.826	0.001	0.440	-0.259	-0.371	-0.336	0.440	0.723	0.034	1.8
Math	3	0075	C	A	2	7940	0.926	0.022	0.036	0.926	0.014	0.003	0.283	-0.226	-0.128	0.283	-0.227	-0.471	0.047	7.0
Math	3	0076	C	A	1	7940	0.525	0.312	0.054	0.525	0.105	0.005	0.386	-0.380	-0.375	0.386	-0.298	2.668	0.026	6.2
Math	3	0077	B	A	1	7940	0.917	0.020	0.917	0.010	0.040	0.013	0.396	-0.345	0.396	-0.279	-0.268	-0.323	0.044	0.9
Math	3	0078	A	D	2	7940	0.917	0.917	0.048	0.022	0.012	0.001	0.428	0.428	-0.309	-0.291	-0.264	-0.327	0.045	-4.2
Math	3	0079	D	A	2	7960	0.768	0.028	0.106	0.097	0.768	0.001	0.541	-0.373	-0.375	-0.551	0.541	1.225	0.031	-4.6
Math	3	0080	B	D	1	7960	0.835	0.022	0.835	0.131	0.011	0.001	0.336	-0.276	0.336	-0.255	-0.231	0.669	0.034	3.1
Math	3	0081	D	A	1	7960	0.925	0.030	0.025	0.019	0.925	0.001	0.472	-0.379	-0.263	-0.295	0.472	-0.426	0.046	-7.1
Math	3	0082	C	A	2	7960	0.733	0.226	0.017	0.733	0.020	0.004	0.536	-0.531	-0.286	0.536	-0.288	1.477	0.029	-4.3
Math	3	0083	B	B	2	7960	0.810	0.063	0.810	0.090	0.031	0.006	0.450	-0.370	0.450	-0.333	-0.310	0.895	0.033	0.5
Math	3	0084	A	A	2	7960	0.739	0.739	0.078	0.064	0.101	0.018	0.519	0.519	-0.407	-0.246	-0.567	1.433	0.030	-5.8
Math	3	0085	D	E	2	7960	0.915	0.031	0.021	0.029	0.915	0.004	0.510	-0.486	-0.296	-0.259	0.510	-0.267	0.044	-2.3
Math	3	0086	B	B	1	7960	0.846	0.072	0.846	0.053	0.028	0.001	0.497	-0.446	0.497	-0.345	-0.252	0.572	0.035	-5.6

Appendix L: 2008 Grades 3–8 and 11 Multiple-Choice Statistics

Information						Proportions						Correlations					Rasch			
Cont.	Grade	Pub. ID	Key	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Math	3	0087	C	C	1	7960	0.935	0.012	0.013	0.935	0.038	0.002	0.371	-0.233	-0.231	0.371	-0.268	-0.604	0.049	-1.4
Math	3	0088	A	D	2	7960	0.929	0.929	0.048	0.009	0.008	0.006	0.465	0.465	-0.406	-0.241	-0.274	-0.503	0.047	-4.3
Math	3	0089	B	A	1	7960	0.846	0.047	0.846	0.022	0.069	0.016	0.400	-0.362	0.400	-0.156	-0.316	0.567	0.035	0.6
Math	3	0090	C	A	1	7960	0.847	0.028	0.031	0.847	0.093	0.001	0.479	-0.319	-0.239	0.479	-0.431	0.560	0.035	-3.4
Math	3	0091	B	E	2	7963	0.945	0.042	0.945	0.009	0.003	0.001	0.370	-0.285	0.370	-0.256	-0.159	-0.786	0.052	-0.6
Math	3	0092	A	A	1	7963	0.860	0.860	0.060	0.045	0.034	0.001	0.408	0.408	-0.213	-0.286	-0.396	0.434	0.036	1.4
Math	3	0093	D	A	2	7963	0.846	0.080	0.037	0.034	0.846	0.002	0.351	-0.169	-0.371	-0.248	0.351	0.578	0.035	4.0
Math	3	0094	B	B	1	7963	0.857	0.027	0.857	0.035	0.078	0.002	0.408	-0.221	0.408	-0.303	-0.330	0.465	0.036	0.3
Math	3	0095	C	D	2	7963	0.752	0.040	0.020	0.752	0.184	0.004	0.352	-0.434	-0.381	0.352	-0.204	1.341	0.030	7.0
Math	3	0096	C	C	1	7963	0.919	0.010	0.014	0.919	0.050	0.006	0.305	-0.244	-0.255	0.305	-0.166	-0.315	0.045	4.5
Math	3	0097	B	B	1	7963	0.909	0.012	0.909	0.040	0.028	0.011	0.376	-0.126	0.376	-0.325	-0.264	-0.162	0.043	-0.5
Math	3	0098	D	A	1	7963	0.911	0.013	0.058	0.015	0.911	0.003	0.487	-0.123	-0.446	-0.334	0.487	-0.188	0.043	-5.3
Math	3	0099	C	E	2	7963	0.972	0.002	0.019	0.972	0.005	0.002	0.160	-0.106	-0.107	0.160	-0.090	-1.587	0.071	3.4
Math	3	0100	C	A	1	7963	0.828	0.043	0.044	0.828	0.082	0.002	0.452	-0.375	-0.350	0.452	-0.304	0.742	0.033	-0.5
Math	3	0101	B	A	1	7963	0.842	0.067	0.842	0.037	0.018	0.035	0.444	-0.392	0.444	-0.346	-0.303	0.616	0.034	-1.2
Math	3	0102	C	D	2	7963	0.979	0.008	0.009	0.979	0.003	0.002	0.197	-0.173	-0.053	0.197	-0.149	-1.896	0.081	3.8
Math	3	0103	C	E	2	7959	0.963	0.009	0.007	0.963	0.018	0.001	0.379	-0.295	-0.197	0.379	-0.223	-1.273	0.063	-2.1
Math	3	0104	B	C	1	7959	0.962	0.028	0.962	0.006	0.005	0.001	0.344	-0.274	0.344	-0.147	-0.219	-1.218	0.062	-1.6
Math	3	0105	D	A	1	7959	0.737	0.147	0.014	0.100	0.737	0.002	0.509	-0.419	-0.422	-0.457	0.509	1.471	0.029	-4.2
Math	3	0106	B	B	1	7959	0.659	0.117	0.659	0.043	0.176	0.005	0.401	-0.231	0.401	-0.470	-0.387	1.967	0.027	6.6
Math	3	0107	B	A	1	7959	0.930	0.036	0.930	0.018	0.012	0.003	0.297	-0.088	0.297	-0.260	-0.325	-0.494	0.048	5.7
Math	3	0108	D	D	1	7959	0.947	0.011	0.009	0.027	0.947	0.007	0.420	-0.196	-0.263	-0.363	0.420	-0.827	0.054	-3.3
Math	3	0109	C	C	1	7959	0.911	0.011	0.010	0.911	0.064	0.004	0.431	-0.264	-0.231	0.431	-0.366	-0.171	0.043	-3.1
Math	3	0110	D	A	1	7959	0.930	0.014	0.022	0.032	0.930	0.002	0.448	-0.233	-0.364	-0.306	0.448	-0.483	0.048	-3.6
Math	3	0111	C	E	2	7959	0.934	0.004	0.056	0.934	0.006	0.001	0.389	-0.161	-0.355	0.389	-0.164	-0.555	0.049	-0.4
Math	3	0112	C	A	2	7959	0.882	0.054	0.031	0.882	0.032	0.001	0.510	-0.471	-0.328	0.510	-0.255	0.209	0.039	-4.0
Math	3	0113	B	B	1	7959	0.753	0.073	0.753	0.090	0.067	0.017	0.387	-0.359	0.387	-0.288	-0.274	1.358	0.030	4.5
Math	3	0114	B	A	2	7959	0.553	0.095	0.553	0.058	0.292	0.001	0.489	-0.330	0.489	-0.428	-0.519	2.561	0.026	-5.5
Math	3	0115	B	D	2	7895	0.742	0.171	0.742	0.043	0.043	0.001	0.418	-0.374	0.418	-0.333	-0.226	1.441	0.029	-0.9
Math	3	0116	D	A	2	7895	0.753	0.093	0.101	0.050	0.753	0.002	0.514	-0.482	-0.396	-0.354	0.514	1.362	0.030	-5.9
Math	3	0117	A	A	1	7895	0.883	0.883	0.030	0.033	0.042	0.011	0.389	0.389	-0.253	-0.239	-0.326	0.218	0.039	0.5
Math	3	0118	C	B	1	7895	0.924	0.003	0.007	0.924	0.066	0.000	0.293	-0.129	-0.148	0.293	-0.260	-0.350	0.046	0.9
Math	3	0119	C	A	1	7895	0.878	0.038	0.051	0.878	0.030	0.003	0.457	-0.311	-0.335	0.457	-0.327	0.273	0.038	-0.2
Math	3	0120	D	A	1	7895	0.936	0.011	0.035	0.015	0.936	0.003	0.453	-0.272	-0.345	-0.292	0.453	-0.571	0.049	-4.7
Math	3	0121	D	A	2	7895	0.945	0.011	0.013	0.014	0.945	0.017	0.319	-0.197	-0.224	-0.253	0.319	-0.761	0.053	0.1
Math	3	0122	C	E	2	7895	0.971	0.013	0.004	0.971	0.009	0.002	0.414	-0.307	-0.193	0.414	-0.290	-1.491	0.070	-5.8
Math	3	0123	A	C	1	7895	0.903	0.903	0.023	0.039	0.034	0.001	0.398	0.398	-0.187	-0.323	-0.273	-0.034	0.042	-1.4
Math	3	0124	B	B	1	7895	0.912	0.039	0.912	0.012	0.032	0.005	0.362	-0.278	0.362	-0.243	-0.225	-0.165	0.043	0.2
Math	3	0125	D	A	1	7895	0.749	0.198	0.020	0.022	0.749	0.011	0.556	-0.512	-0.432	-0.413	0.556	1.391	0.030	-9.9
Math	3	0126	C	A	1	7895	0.857	0.060	0.029	0.857	0.053	0.000	0.459	-0.254	-0.301	0.459	-0.427	0.497	0.036	-4.0
Math	3	0127	D	A	1	7897	0.893	0.029	0.039	0.038	0.893	0.001	0.528	-0.395	-0.400	-0.339	0.528	0.137	0.040	-7.0
Math	3	0128	D	D	1	7897	0.605	0.216	0.070	0.103	0.605	0.007	0.365	-0.304	-0.375	-0.319	0.365	2.321	0.027	7.8
Math	3	0129	A	A	1	7897	0.952	0.952	0.015	0.013	0.018	0.001	0.432	0.432	-0.253	-0.248	-0.331	-0.888	0.056	-4.4

Appendix L: 2008 Grades 3–8 and 11 Multiple-Choice Statistics

Information						Proportions						Correlations					Rasch			
Cont.	Grade	Pub. ID	Key	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Math	3	0130	B	E	2	7897	0.958	0.006	0.958	0.028	0.005	0.003	0.295	-0.171	0.295	-0.204	-0.200	-1.028	0.059	1.9
Math	3	0131	B	B	1	7897	0.660	0.088	0.660	0.074	0.166	0.011	0.434	-0.392	0.434	-0.369	-0.350	2.004	0.027	-1.0
Math	3	0132	B	A	1	7897	0.824	0.018	0.824	0.128	0.027	0.003	0.469	-0.175	0.469	-0.446	-0.284	0.853	0.033	-4.7
Math	3	0133	A	B	1	7897	0.728	0.728	0.054	0.197	0.011	0.009	0.231	0.231	-0.339	-0.097	-0.305	1.578	0.029	9.9
Math	3	0134	D	A	1	7897	0.852	0.061	0.032	0.043	0.852	0.011	0.508	-0.546	-0.246	-0.277	0.508	0.593	0.035	-3.0
Math	3	0135	B	B	1	7897	0.847	0.019	0.847	0.045	0.089	0.001	0.388	-0.228	0.388	-0.295	-0.301	0.648	0.035	0.8
Math	3	0136	B	C	1	7897	0.959	0.017	0.959	0.012	0.012	0.001	0.357	-0.268	0.357	-0.162	-0.228	-1.059	0.060	-3.2
Math	3	0137	A	A	1	7897	0.841	0.841	0.084	0.030	0.044	0.002	0.508	0.508	-0.389	-0.319	-0.411	0.704	0.035	-8.3
Math	3	0138	B	A	2	7897	0.920	0.034	0.920	0.020	0.019	0.007	0.371	-0.235	0.371	-0.250	-0.288	-0.250	0.045	0.5
Math	3	0139	D	A	1	7828	0.942	0.039	0.004	0.014	0.942	0.001	0.285	-0.165	-0.178	-0.252	0.285	-0.684	0.052	4.8
Math	3	0140	A	C	1	7828	0.933	0.933	0.022	0.019	0.025	0.001	0.422	0.422	-0.261	-0.247	-0.317	-0.496	0.048	-5.7
Math	3	0141	A	A	2	7828	0.784	0.784	0.115	0.030	0.064	0.007	0.413	0.413	-0.322	-0.333	-0.314	1.146	0.031	0.5
Math	3	0142	B	A	1	7828	0.565	0.065	0.565	0.287	0.075	0.008	0.407	-0.446	0.407	-0.352	-0.368	2.501	0.026	2.3
Math	3	0143	C	E	2	7828	0.949	0.003	0.015	0.949	0.029	0.004	0.408	-0.193	-0.246	0.408	-0.347	-0.834	0.055	-2.4
Math	3	0144	C	B	2	7828	0.556	0.028	0.049	0.556	0.361	0.006	0.385	-0.375	-0.432	0.385	-0.335	2.551	0.026	5.3
Math	3	0145	A	C	1	7828	0.912	0.912	0.014	0.046	0.015	0.013	0.359	0.359	-0.199	-0.263	-0.322	-0.150	0.043	1.5
Math	3	0146	D	E	2	7828	0.672	0.110	0.045	0.169	0.672	0.004	0.396	-0.372	-0.231	-0.335	0.396	1.889	0.028	1.9
Math	3	0147	C	A	2	7828	0.644	0.155	0.032	0.644	0.167	0.002	0.381	-0.451	-0.270	0.381	-0.232	2.059	0.027	7.8
Math	3	0148	D	A	1	7828	0.886	0.013	0.089	0.010	0.886	0.002	0.467	-0.344	-0.384	-0.300	0.467	0.186	0.039	-1.4
Math	3	0149	D	A	2	7828	0.920	0.030	0.014	0.015	0.920	0.020	0.287	-0.170	-0.241	-0.236	0.287	-0.281	0.045	8.2
Math	3	0150	B	D	2	7828	0.593	0.281	0.593	0.092	0.033	0.001	0.369	-0.295	0.369	-0.365	-0.418	2.349	0.027	4.7
Math	3	0151	D	B	1	7948	0.839	0.052	0.015	0.093	0.839	0.001	0.299	-0.359	-0.252	-0.102	0.299	0.680	0.034	9.1
Math	3	0152	B	C	1	7948	0.932	0.012	0.932	0.016	0.034	0.005	0.355	-0.236	0.355	-0.193	-0.268	-0.507	0.048	-2.1
Math	3	0153	B	A	1	7948	0.827	0.064	0.827	0.013	0.095	0.001	0.498	-0.553	0.498	-0.264	-0.293	0.788	0.033	-2.0
Math	3	0154	D	D	1	7948	0.661	0.041	0.264	0.031	0.661	0.003	0.463	-0.327	-0.459	-0.265	0.463	1.962	0.027	-1.2
Math	3	0155	A	A	1	7948	0.903	0.903	0.049	0.025	0.021	0.001	0.470	0.470	-0.378	-0.275	-0.309	-0.044	0.042	-4.0
Math	3	0156	C	B	1	7948	0.829	0.014	0.125	0.829	0.018	0.014	0.326	-0.285	-0.261	0.326	-0.215	0.770	0.034	5.2
Math	3	0157	D	E	2	7948	0.945	0.023	0.015	0.013	0.945	0.003	0.437	-0.287	-0.371	-0.200	0.437	-0.773	0.053	-1.3
Math	3	0158	C	A	2	7948	0.887	0.042	0.038	0.887	0.031	0.003	0.545	-0.448	-0.351	0.545	-0.381	0.171	0.039	-8.0
Math	3	0159	B	D	2	7948	0.908	0.058	0.908	0.018	0.012	0.004	0.533	-0.438	0.533	-0.319	-0.384	-0.119	0.043	-7.1
Math	3	0160	B	A	1	7948	0.954	0.014	0.954	0.012	0.019	0.001	0.469	-0.253	0.469	-0.320	-0.349	-0.994	0.057	-4.6
Math	3	0161	C	C	1	7948	0.972	0.010	0.004	0.972	0.013	0.000	0.280	-0.173	-0.141	0.280	-0.190	-1.539	0.071	-0.4
Math	3	0162	A	A	2	7948	0.716	0.716	0.069	0.146	0.066	0.003	0.575	0.575	-0.491	-0.527	-0.426	1.620	0.029	-9.9
Math	3	0163	B	C	1	7887	0.930	0.009	0.930	0.010	0.051	0.001	0.309	-0.203	0.309	-0.191	-0.226	-0.470	0.048	0.9
Math	3	0164	D	A	1	7887	0.899	0.039	0.043	0.016	0.899	0.003	0.444	-0.296	-0.297	-0.366	0.444	0.006	0.041	-3.3
Math	3	0165	A	A	1	7887	0.713	0.713	0.058	0.030	0.194	0.005	0.492	0.492	-0.439	-0.297	-0.432	1.634	0.029	-5.4
Math	3	0166	B	A	1	7887	0.904	0.041	0.904	0.034	0.020	0.001	0.462	-0.319	0.462	-0.280	-0.386	-0.063	0.042	-2.9
Math	3	0167	A	D	2	7887	0.931	0.931	0.026	0.015	0.025	0.002	0.515	0.515	-0.296	-0.314	-0.446	-0.496	0.048	-5.2
Math	3	0168	A	E	2	7887	0.928	0.928	0.036	0.009	0.022	0.004	0.364	0.364	-0.177	-0.269	-0.312	-0.450	0.047	3.2
Math	3	0169	B	A	2	7887	0.764	0.034	0.764	0.061	0.137	0.004	0.436	-0.316	0.436	-0.275	-0.393	1.289	0.030	-0.5
Math	3	0170	D	A	2	7887	0.788	0.018	0.172	0.013	0.788	0.009	0.521	-0.290	-0.501	-0.284	0.521	1.106	0.031	-4.9
Math	3	0171	B	A	1	7887	0.795	0.051	0.795	0.033	0.110	0.011	0.484	-0.399	0.484	-0.386	-0.367	1.051	0.032	-5.2
Math	3	0172	D	B	1	7887	0.925	0.008	0.047	0.020	0.925	0.000	0.287	-0.223	-0.219	-0.141	0.287	-0.384	0.046	2.9

Appendix L: 2008 Grades 3–8 and 11 Multiple-Choice Statistics

Information						Proportions						Correlations					Rasch			
Cont.	Grade	Pub. ID	Key	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Math	3	0173	C	C	1	7887	0.980	0.004	0.012	0.980	0.003	0.000	0.263	-0.166	-0.192	0.263	-0.122	-1.948	0.083	-1.8
Math	3	0174	B	D	2	7887	0.922	0.028	0.922	0.036	0.011	0.002	0.392	-0.216	0.392	-0.307	-0.284	-0.344	0.046	-1.1
Math	3	0175	A	A	2	7887	0.590	0.590	0.134	0.163	0.110	0.002	0.441	0.441	-0.366	-0.467	-0.331	2.358	0.027	-0.6
Math	3	0176	D	C	1	7887	0.918	0.026	0.022	0.032	0.918	0.002	0.483	-0.310	-0.290	-0.385	0.483	-0.277	0.045	-6.6
Math	3	0177	B	A	1	7887	0.923	0.026	0.923	0.009	0.037	0.005	0.446	-0.338	0.446	-0.227	-0.326	-0.356	0.046	-3.5
Math	3	0178	B	D	2	7887	0.911	0.044	0.911	0.013	0.030	0.002	0.392	-0.355	0.392	-0.203	-0.199	-0.165	0.043	0.0
Math	3	0179	C	A	1	7887	0.916	0.011	0.055	0.916	0.011	0.007	0.369	-0.212	-0.296	0.369	-0.250	-0.239	0.044	2.5
Math	3	0180	C	A	1	7887	0.866	0.055	0.019	0.866	0.049	0.011	0.461	-0.333	-0.369	0.461	-0.325	0.396	0.037	-4.0
Math	3	0181	C	C	1	7887	0.804	0.097	0.089	0.804	0.008	0.002	0.240	-0.198	-0.159	0.240	-0.174	0.975	0.032	9.3
Math	3	0182	D	B	1	7887	0.957	0.018	0.009	0.011	0.957	0.004	0.359	-0.270	-0.181	-0.237	0.359	-1.075	0.059	-3.7
Math	3	0183	C	E	2	7887	0.964	0.021	0.007	0.964	0.008	0.000	0.295	-0.217	-0.148	0.295	-0.176	-1.274	0.064	2.9
Math	3	0184	A	A	1	7887	0.955	0.955	0.023	0.013	0.009	0.001	0.411	0.411	-0.255	-0.269	-0.289	-1.023	0.058	-2.3
Math	3	0185	A	A	1	7887	0.881	0.881	0.036	0.019	0.063	0.002	0.580	0.580	-0.316	-0.358	-0.543	0.230	0.039	-8.8
Math	3	0186	D	D	1	7887	0.713	0.089	0.082	0.111	0.713	0.006	0.439	-0.369	-0.403	-0.321	0.439	1.626	0.029	-0.9
Math	3	0187	D	E	2	7891	0.951	0.011	0.013	0.023	0.951	0.001	0.379	-0.263	-0.150	-0.288	0.379	-0.912	0.055	-1.3
Math	3	0188	A	C	1	7891	0.941	0.941	0.010	0.007	0.040	0.001	0.315	0.315	-0.217	-0.152	-0.236	-0.671	0.051	4.2
Math	3	0189	B	B	1	7891	0.755	0.068	0.755	0.100	0.074	0.002	0.389	-0.357	0.389	-0.313	-0.219	1.338	0.030	2.9
Math	3	0190	B	A	1	7891	0.768	0.093	0.768	0.047	0.084	0.007	0.394	-0.313	0.394	-0.289	-0.319	1.244	0.030	6.8
Math	3	0191	C	A	1	7891	0.954	0.025	0.010	0.954	0.008	0.003	0.268	-0.138	-0.209	0.268	-0.221	-0.984	0.057	4.2
Math	3	0192	D	A	1	7891	0.917	0.013	0.030	0.034	0.917	0.006	0.368	-0.239	-0.244	-0.269	0.368	-0.253	0.044	-1.0
Math	3	0193	C	A	1	7891	0.889	0.044	0.025	0.889	0.033	0.009	0.422	-0.247	-0.297	0.422	-0.368	0.132	0.039	-2.2
Math	3	0194	D	A	1	7891	0.889	0.026	0.061	0.020	0.889	0.003	0.532	-0.418	-0.412	-0.299	0.532	0.132	0.039	-8.8
Math	3	0195	C	E	2	7891	0.920	0.052	0.007	0.920	0.021	0.001	0.435	-0.409	-0.161	0.435	-0.205	-0.298	0.045	0.1
Math	3	0196	A	C	1	7891	0.878	0.878	0.104	0.012	0.004	0.001	0.351	0.351	-0.298	-0.240	-0.194	0.261	0.038	-0.9
Math	3	0197	A	A	2	7891	0.765	0.765	0.041	0.085	0.099	0.010	0.409	0.409	-0.295	-0.183	-0.442	1.264	0.030	2.2
Math	3	0198	B	D	2	7891	0.982	0.007	0.982	0.003	0.009	0.000	0.202	-0.172	0.202	-0.084	-0.103	-2.015	0.086	0.4
Math	3	0199	C	A	2	7878	0.920	0.034	0.029	0.920	0.017	0.001	0.480	-0.322	-0.369	0.480	-0.296	-0.308	0.045	-3.4
Math	3	0200	C	B	2	7878	0.878	0.043	0.035	0.878	0.031	0.013	0.352	-0.301	-0.223	0.352	-0.205	0.247	0.038	2.3
Math	3	0201	A	C	1	7878	0.948	0.948	0.039	0.003	0.009	0.001	0.264	0.264	-0.184	-0.144	-0.207	-0.840	0.054	2.8
Math	3	0202	D	A	1	7878	0.806	0.019	0.156	0.015	0.806	0.003	0.556	-0.281	-0.539	-0.267	0.556	0.966	0.032	-9.6
Math	3	0203	C	D	2	7878	0.860	0.005	0.092	0.860	0.038	0.004	0.484	-0.240	-0.397	0.484	-0.391	0.467	0.036	-2.8
Math	3	0204	C	C	1	7878	0.813	0.089	0.077	0.813	0.017	0.004	0.354	-0.253	-0.278	0.354	-0.262	0.904	0.033	1.6
Math	3	0205	D	A	1	7878	0.810	0.041	0.050	0.087	0.810	0.011	0.481	-0.468	-0.424	-0.276	0.481	0.930	0.033	0.2
Math	3	0206	B	E	2	7878	0.867	0.014	0.867	0.017	0.100	0.002	0.406	-0.204	0.406	-0.152	-0.389	0.391	0.037	1.2
Math	3	0207	A	D	1	7878	0.964	0.964	0.015	0.011	0.010	0.001	0.238	0.238	-0.128	-0.159	-0.156	-1.266	0.064	3.3
Math	3	0208	C	A	2	7878	0.749	0.033	0.141	0.749	0.073	0.004	0.391	-0.295	-0.293	0.391	-0.348	1.399	0.030	4.8
Math	3	0209	B	A	1	7878	0.888	0.036	0.888	0.028	0.042	0.005	0.451	-0.251	0.451	-0.360	-0.352	0.145	0.040	-1.9
Math	3	0210	D	A	2	7878	0.833	0.009	0.045	0.112	0.833	0.001	0.418	-0.266	-0.317	-0.333	0.418	0.734	0.034	0.7
Math	3	0211	C	A	1	7830	0.975	0.005	0.010	0.975	0.008	0.001	0.312	-0.154	-0.167	0.312	-0.259	-1.692	0.076	1.1
Math	3	0212	B	B	2	7830	0.751	0.099	0.751	0.092	0.046	0.012	0.281	-0.200	0.281	-0.252	-0.187	1.398	0.030	9.9
Math	3	0213	C	E	2	7830	0.913	0.026	0.020	0.913	0.040	0.001	0.450	-0.370	-0.244	0.450	-0.312	-0.175	0.044	0.5
Math	3	0214	B	A	1	7830	0.832	0.096	0.832	0.042	0.027	0.003	0.382	-0.269	0.382	-0.275	-0.315	0.749	0.034	2.9
Math	3	0215	D	C	1	7830	0.906	0.006	0.012	0.072	0.906	0.005	0.371	-0.224	-0.197	-0.310	0.371	-0.070	0.043	0.3

Appendix L: 2008 Grades 3–8 and 11 Multiple-Choice Statistics

Information						Proportions						Correlations					Rasch			
Cont.	Grade	Pub. ID	Key	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Math	3	0216	A	B	1	7830	0.927	0.927	0.039	0.014	0.018	0.002	0.419	0.419	-0.327	-0.303	-0.192	-0.393	0.047	-2.3
Math	3	0217	D	A	1	7830	0.878	0.022	0.042	0.053	0.878	0.005	0.443	-0.178	-0.365	-0.340	0.443	0.288	0.038	-2.5
Math	3	0218	D	C	1	7830	0.747	0.111	0.051	0.090	0.747	0.001	0.426	-0.329	-0.408	-0.305	0.426	1.419	0.030	1.0
Math	3	0219	A	A	1	7830	0.946	0.946	0.024	0.010	0.007	0.013	0.384	0.384	-0.315	-0.255	-0.243	-0.781	0.054	2.7
Math	3	0220	C	A	1	7830	0.773	0.008	0.193	0.773	0.025	0.001	0.410	-0.325	-0.361	0.410	-0.301	1.236	0.031	1.6
Math	3	0221	B	A	2	7830	0.791	0.074	0.791	0.083	0.049	0.003	0.494	-0.301	0.494	-0.390	-0.496	1.101	0.032	-3.9
Math	3	0222	B	D	1	7830	0.939	0.032	0.939	0.006	0.019	0.005	0.343	-0.281	0.343	-0.188	-0.195	-0.618	0.051	0.8
Math	3	0223	D	B	1	7867	0.846	0.058	0.018	0.079	0.846	0.001	0.539	-0.428	-0.228	-0.474	0.539	0.584	0.035	-7.1
Math	3	0224	D	E	2	7867	0.933	0.023	0.015	0.027	0.933	0.000	0.450	-0.387	-0.191	-0.297	0.450	-0.559	0.049	-2.7
Math	3	0225	B	A	1	7867	0.958	0.011	0.958	0.013	0.013	0.003	0.383	-0.277	0.383	-0.221	-0.251	-1.133	0.060	-3.3
Math	3	0226	B	A	1	7867	0.865	0.063	0.865	0.033	0.032	0.006	0.533	-0.449	0.533	-0.324	-0.379	0.394	0.037	-8.1
Math	3	0227	A	D	2	7867	0.825	0.825	0.039	0.076	0.047	0.013	0.570	0.570	-0.367	-0.460	-0.526	0.795	0.033	-9.5
Math	3	0228	D	A	1	7867	0.871	0.025	0.020	0.080	0.871	0.003	0.342	-0.288	-0.171	-0.253	0.342	0.345	0.037	1.9
Math	3	0229	C	C	1	7867	0.961	0.006	0.011	0.961	0.017	0.006	0.314	-0.123	-0.208	0.314	-0.255	-1.168	0.061	-0.4
Math	3	0230	B	A	1	7867	0.911	0.014	0.911	0.060	0.011	0.005	0.478	-0.339	0.478	-0.392	-0.258	-0.159	0.043	-4.8
Math	3	0231	B	E	2	7867	0.932	0.018	0.932	0.032	0.017	0.000	0.400	-0.218	0.400	-0.272	-0.307	-0.504	0.048	-1.5
Math	3	0232	C	D	2	7867	0.715	0.208	0.061	0.715	0.016	0.000	0.505	-0.541	-0.167	0.505	-0.380	1.613	0.029	-2.9
Math	3	0233	A	A	2	7867	0.721	0.721	0.041	0.131	0.105	0.001	0.471	0.471	-0.358	-0.307	-0.496	1.574	0.029	-1.9
Math	3	0234	B	B	2	7867	0.450	0.038	0.450	0.341	0.166	0.005	0.268	-0.318	0.268	-0.212	-0.299	3.119	0.026	9.9
Math	3	0235	C	A	2	7780	0.793	0.169	0.028	0.793	0.009	0.001	0.574	-0.525	-0.453	0.574	-0.319	1.055	0.032	-9.9
Math	3	0236	B	E	2	7780	0.961	0.012	0.961	0.015	0.010	0.001	0.394	-0.286	0.394	-0.245	-0.206	-1.207	0.062	-2.3
Math	3	0237	A	A	1	7780	0.916	0.916	0.053	0.019	0.011	0.002	0.354	0.354	-0.212	-0.289	-0.271	-0.272	0.045	2.7
Math	3	0238	C	D	2	7780	0.861	0.021	0.046	0.861	0.071	0.002	0.530	-0.371	-0.373	0.530	-0.432	0.429	0.037	-4.0
Math	3	0239	C	B	1	7780	0.835	0.088	0.047	0.835	0.014	0.016	0.372	-0.312	-0.252	0.372	-0.284	0.689	0.034	2.0
Math	3	0240	B	A	1	7780	0.969	0.009	0.969	0.005	0.016	0.001	0.271	-0.200	0.271	-0.224	-0.125	-1.460	0.068	0.2
Math	3	0241	A	B	1	7780	0.788	0.788	0.037	0.065	0.107	0.003	0.308	0.308	-0.271	-0.130	-0.272	1.088	0.032	8.4
Math	3	0242	B	A	2	7780	0.608	0.140	0.608	0.057	0.189	0.005	0.421	-0.330	0.421	-0.502	-0.362	2.246	0.027	3.5
Math	3	0243	D	C	1	7780	0.876	0.096	0.022	0.005	0.876	0.001	0.365	-0.294	-0.268	-0.212	0.365	0.270	0.038	1.6
Math	3	0244	B	D	2	7780	0.909	0.041	0.909	0.036	0.008	0.006	0.393	-0.295	0.393	-0.248	-0.275	-0.153	0.043	-1.3
Math	3	0245	A	A	1	7780	0.959	0.959	0.013	0.010	0.010	0.008	0.266	0.266	-0.198	-0.151	-0.197	-1.145	0.061	2.7
Math	3	0246	C	E	2	7780	0.892	0.034	0.017	0.892	0.056	0.001	0.468	-0.428	-0.239	0.468	-0.309	0.084	0.040	-3.9
Math	4	0247	C	A	1	126403	0.753	0.036	0.201	0.753	0.009	0.000	0.398	-0.285	-0.357	0.398	-0.135	-0.112	0.007	9.9
Math	4	0248	A	A	1	126403	0.714	0.714	0.027	0.116	0.143	0.000	0.460	0.460	-0.240	-0.412	-0.361	0.131	0.007	-4.5
Math	4	0249	C	A	1	126403	0.855	0.041	0.025	0.855	0.078	0.000	0.434	-0.177	-0.230	0.434	-0.417	-0.901	0.009	-9.9
Math	4	0250	B	A	2	126403	0.599	0.079	0.599	0.225	0.097	0.000	0.442	-0.372	0.442	-0.322	-0.466	0.784	0.007	8.1
Math	4	0251	A	A	1	126403	0.603	0.603	0.050	0.131	0.214	0.001	0.481	0.481	-0.301	-0.405	-0.448	0.760	0.007	-9.8
Math	4	0252	B	C	1	126403	0.842	0.049	0.842	0.031	0.077	0.000	0.439	-0.313	0.439	-0.211	-0.351	-0.774	0.008	-9.9
Math	4	0253	C	C	1	126403	0.697	0.228	0.026	0.697	0.048	0.000	0.387	-0.347	-0.241	0.387	-0.245	0.238	0.007	9.9
Math	4	0254	D	D	1	126403	0.579	0.337	0.043	0.039	0.579	0.001	0.380	-0.343	-0.332	-0.229	0.380	0.887	0.006	9.9
Math	4	0255	C	A	1	126403	0.673	0.092	0.060	0.673	0.175	0.000	0.437	-0.348	-0.280	0.437	-0.373	0.373	0.007	1.2
Math	4	0256	B	D	2	126403	0.801	0.088	0.801	0.083	0.027	0.001	0.449	-0.408	0.449	-0.289	-0.223	-0.450	0.008	-9.9
Math	4	0257	B	C	1	126403	0.428	0.252	0.428	0.226	0.092	0.001	0.336	-0.311	0.336	-0.334	-0.301	1.678	0.006	9.9
Math	4	0258	A	C	1	126403	0.819	0.819	0.018	0.066	0.096	0.000	0.359	0.359	-0.221	-0.313	-0.222	-0.592	0.008	9.9

Appendix L: 2008 Grades 3–8 and 11 Multiple-Choice Statistics

Information						Proportions							Correlations					Rasch		
Cont.	Grade	Pub. ID	Key	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Math	4	0259	C	A	1	126403	0.566	0.041	0.270	0.566	0.121	0.001	0.382	-0.322	-0.293	0.382	-0.396	0.955	0.006	9.9
Math	4	0260	A	B	1	126403	0.674	0.674	0.238	0.032	0.055	0.001	0.454	0.454	-0.385	-0.350	-0.334	0.368	0.007	-8.3
Math	4	0261	D	A	1	126403	0.564	0.137	0.061	0.236	0.564	0.001	0.450	-0.488	-0.286	-0.359	0.450	0.966	0.006	-1.3
Math	4	0262	A	E	1	126403	0.812	0.812	0.164	0.014	0.009	0.001	0.522	0.522	-0.499	-0.226	-0.195	-0.530	0.008	-9.9
Math	4	0263	C	D	1	126403	0.830	0.023	0.077	0.830	0.068	0.001	0.400	-0.243	-0.250	0.400	-0.334	-0.680	0.008	0.1
Math	4	0264	D	D	1	126403	0.734	0.071	0.106	0.087	0.734	0.002	0.507	-0.343	-0.450	-0.347	0.507	0.004	0.007	-9.9
Math	4	0265	C	A	1	126403	0.848	0.038	0.049	0.848	0.064	0.001	0.335	-0.202	-0.231	0.335	-0.235	-0.844	0.009	9.5
Math	4	0266	B	A	1	126403	0.763	0.090	0.763	0.079	0.067	0.001	0.475	-0.312	0.475	-0.373	-0.376	-0.178	0.007	-9.9
Math	4	0267	B	A	1	126403	0.660	0.068	0.660	0.159	0.111	0.002	0.515	-0.433	0.515	-0.289	-0.577	0.452	0.007	-9.9
Math	4	0268	C	A	1	126403	0.857	0.015	0.046	0.857	0.077	0.004	0.507	-0.269	-0.280	0.507	-0.458	-0.919	0.009	-9.9
Math	4	0269	D	C	1	126403	0.816	0.086	0.068	0.029	0.816	0.000	0.415	-0.302	-0.331	-0.208	0.415	-0.565	0.008	-9.9
Math	4	0270	D	B	1	126403	0.665	0.025	0.175	0.136	0.665	0.000	0.531	-0.407	-0.477	-0.414	0.531	0.423	0.007	-9.9
Math	4	0271	B	B	1	126403	0.911	0.017	0.911	0.065	0.007	0.000	0.348	-0.187	0.348	-0.302	-0.118	-1.522	0.010	-8.5
Math	4	0272	D	E	2	126403	0.610	0.054	0.155	0.180	0.610	0.000	0.445	-0.403	-0.283	-0.435	0.445	0.725	0.007	1.8
Math	4	0273	C	A	1	126403	0.694	0.060	0.084	0.694	0.162	0.000	0.414	-0.279	-0.318	0.414	-0.339	0.253	0.007	1.8
Math	4	0274	A	A	2	126403	0.693	0.693	0.069	0.079	0.158	0.001	0.598	0.598	-0.444	-0.384	-0.567	0.264	0.007	-9.9
Math	4	0275	C	A	1	126403	0.621	0.128	0.126	0.621	0.124	0.000	0.429	-0.360	-0.443	0.429	-0.251	0.669	0.007	8.4
Math	4	0276	D	D	2	126403	0.637	0.100	0.191	0.070	0.637	0.001	0.409	-0.382	-0.312	-0.321	0.409	0.578	0.007	9.9
Math	4	0277	B	A	1	126403	0.695	0.202	0.695	0.087	0.014	0.001	0.429	-0.306	0.429	-0.460	-0.241	0.247	0.007	0.9
Math	4	0278	B	C	1	126403	0.790	0.160	0.790	0.021	0.028	0.001	0.326	-0.268	0.326	-0.226	-0.191	-0.366	0.008	9.9
Math	4	0279	A	E	1	126403	0.871	0.871	0.012	0.105	0.012	0.000	0.503	0.503	-0.186	-0.495	-0.124	-1.057	0.009	-9.9
Math	4	0280	D	A	1	126403	0.714	0.178	0.037	0.071	0.714	0.000	0.398	-0.324	-0.285	-0.293	0.398	0.129	0.007	8.9
Math	4	0281	B	A	1	126403	0.770	0.042	0.770	0.140	0.048	0.001	0.405	-0.219	0.405	-0.360	-0.246	-0.232	0.007	-0.9
Math	4	0282	D	D	2	126403	0.475	0.169	0.219	0.136	0.475	0.001	0.586	-0.615	-0.611	-0.428	0.586	1.436	0.006	-9.9
Math	4	0283	B	B	1	126403	0.804	0.093	0.804	0.079	0.024	0.000	0.386	-0.363	0.386	-0.223	-0.191	-0.476	0.008	8.7
Math	4	0284	D	A	2	126403	0.645	0.125	0.123	0.106	0.645	0.000	0.368	-0.323	-0.250	-0.310	0.368	0.529	0.007	9.9
Math	4	0285	A	E	2	126403	0.753	0.753	0.087	0.062	0.097	0.001	0.567	0.567	-0.431	-0.407	-0.458	-0.111	0.007	-9.9
Math	4	0286	A	A	1	126403	0.739	0.739	0.142	0.043	0.075	0.000	0.488	0.488	-0.438	-0.324	-0.298	-0.025	0.007	-9.9
Math	4	0287	D	A	1	126403	0.539	0.028	0.395	0.037	0.539	0.000	0.404	-0.388	-0.365	-0.361	0.404	1.098	0.006	9.9
Math	4	0288	C	B	1	126403	0.569	0.304	0.034	0.569	0.092	0.001	0.320	-0.250	-0.379	0.320	-0.291	0.938	0.006	9.9
Math	4	0289	C	C	1	126403	0.673	0.150	0.123	0.673	0.053	0.001	0.390	-0.370	-0.262	0.390	-0.250	0.374	0.007	9.9
Math	4	0290	D	D	1	126403	0.824	0.073	0.045	0.056	0.824	0.001	0.504	-0.370	-0.356	-0.345	0.504	-0.624	0.008	-9.9
Math	4	0291	A	E	1	126403	0.918	0.918	0.016	0.031	0.033	0.001	0.361	0.361	-0.232	-0.227	-0.240	-1.631	0.011	-8.2
Math	4	0292	D	A	1	126403	0.458	0.036	0.296	0.209	0.458	0.001	0.507	-0.407	-0.558	-0.413	0.507	1.524	0.006	-9.9
Math	4	0293	A	D	2	126403	0.728	0.728	0.074	0.151	0.045	0.001	0.570	0.570	-0.431	-0.486	-0.397	0.052	0.007	-9.9
Math	4	0294	C	C	2	126403	0.817	0.134	0.023	0.817	0.025	0.001	0.447	-0.408	-0.231	0.447	-0.209	-0.564	0.008	-9.9
Math	4	0295	D	D	2	126403	0.724	0.136	0.037	0.102	0.724	0.001	0.547	-0.520	-0.356	-0.351	0.547	0.075	0.007	-9.9
Math	4	0296	C	A	2	126403	0.539	0.163	0.144	0.539	0.152	0.001	0.500	-0.567	-0.437	0.500	-0.328	1.098	0.006	-9.2
Math	4	0297	B	A	1	126403	0.716	0.196	0.716	0.057	0.031	0.001	0.430	-0.382	0.430	-0.238	-0.330	0.121	0.007	-1.8
Math	4	0298	D	A	1	126403	0.616	0.141	0.174	0.067	0.616	0.001	0.340	-0.269	-0.215	-0.413	0.340	0.689	0.007	9.9
Math	4	0299	A	A	1	126403	0.643	0.643	0.135	0.085	0.135	0.001	0.434	0.434	-0.436	-0.410	-0.227	0.544	0.007	9.9
Math	4	0300	B	B	1	126403	0.724	0.102	0.724	0.124	0.047	0.003	0.542	-0.425	0.542	-0.457	-0.355	0.074	0.007	-9.9
Math	4	0301	C	A	2	6593	0.792	0.047	0.040	0.792	0.119	0.001	0.541	-0.324	-0.322	0.541	-0.483	-0.488	0.034	-8.5

Appendix L: 2008 Grades 3–8 and 11 Multiple-Choice Statistics

Information						Proportions						Correlations					Rasch			
Cont.	Grade	Pub. ID	Key	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Math	4	0302	D	B	1	6593	0.725	0.068	0.083	0.122	0.725	0.001	0.481	-0.332	-0.415	-0.348	0.481	-0.037	0.031	-5.2
Math	4	0303	C	A	1	6593	0.717	0.173	0.079	0.717	0.030	0.001	0.454	-0.355	-0.378	0.454	-0.302	0.019	0.031	-3.6
Math	4	0304	C	A	1	6593	0.687	0.070	0.205	0.687	0.037	0.000	0.433	-0.292	-0.374	0.433	-0.318	0.198	0.030	-1.3
Math	4	0305	D	C	1	6593	0.731	0.067	0.051	0.149	0.731	0.001	0.415	-0.320	-0.287	-0.321	0.415	-0.072	0.031	0.1
Math	4	0306	A	B	1	6593	0.863	0.863	0.081	0.039	0.015	0.002	0.360	0.360	-0.260	-0.238	-0.227	-1.088	0.039	-1.1
Math	4	0307	C	E	2	6593	0.858	0.044	0.051	0.858	0.046	0.001	0.413	-0.258	-0.292	0.413	-0.282	-1.039	0.038	-3.8
Math	4	0308	D	D	1	6593	0.938	0.011	0.035	0.015	0.938	0.001	0.224	-0.110	-0.160	-0.134	0.224	-2.086	0.053	1.6
Math	4	0309	D	D	2	6593	0.623	0.220	0.047	0.109	0.623	0.001	0.476	-0.341	-0.376	-0.505	0.476	0.563	0.029	-3.2
Math	4	0310	B	A	2	6593	0.908	0.032	0.908	0.033	0.027	0.000	0.393	-0.273	0.393	-0.245	-0.245	-1.611	0.045	-3.5
Math	4	0311	C	A	1	6593	0.761	0.058	0.133	0.761	0.047	0.000	0.473	-0.397	-0.347	0.473	-0.317	-0.271	0.032	-3.3
Math	4	0312	B	A	2	6593	0.752	0.065	0.752	0.148	0.032	0.003	0.570	-0.394	0.570	-0.500	-0.366	-0.208	0.032	-9.9
Math	4	0313	D	D	2	6351	0.778	0.080	0.043	0.098	0.778	0.000	0.432	-0.314	-0.301	-0.321	0.432	-0.326	0.033	-3.9
Math	4	0314	C	A	1	6351	0.687	0.165	0.088	0.687	0.059	0.001	0.463	-0.364	-0.375	0.463	-0.342	0.245	0.030	-4.3
Math	4	0315	C	C	1	6351	0.763	0.083	0.117	0.763	0.036	0.001	0.407	-0.319	-0.292	0.407	-0.276	-0.227	0.033	-2.2
Math	4	0316	B	A	1	6351	0.764	0.059	0.764	0.089	0.087	0.001	0.394	-0.293	0.394	-0.209	-0.355	-0.230	0.033	-0.1
Math	4	0317	C	A	2	6351	0.718	0.091	0.139	0.718	0.051	0.001	0.479	-0.441	-0.348	0.479	-0.314	0.065	0.031	-4.1
Math	4	0318	C	A	1	6351	0.506	0.146	0.269	0.506	0.078	0.001	0.382	-0.392	-0.275	0.382	-0.418	1.214	0.028	4.8
Math	4	0319	D	A	1	6351	0.556	0.073	0.266	0.104	0.556	0.001	0.346	-0.333	-0.260	-0.336	0.346	0.958	0.028	6.7
Math	4	0320	C	A	1	6351	0.832	0.108	0.020	0.832	0.038	0.001	0.295	-0.229	-0.116	0.295	-0.221	-0.740	0.036	1.7
Math	4	0321	B	B	1	6351	0.685	0.111	0.685	0.118	0.084	0.001	0.453	-0.320	0.453	-0.349	-0.401	0.257	0.030	-2.6
Math	4	0322	C	C	1	6351	0.791	0.180	0.019	0.791	0.010	0.000	0.348	-0.299	-0.203	0.348	-0.234	-0.419	0.034	1.6
Math	4	0323	B	B	1	6351	0.569	0.041	0.569	0.146	0.241	0.002	0.355	-0.345	0.355	-0.246	-0.325	0.889	0.029	3.8
Math	4	0324	D	A	2	6351	0.577	0.187	0.133	0.100	0.577	0.004	0.501	-0.521	-0.393	-0.325	0.501	0.845	0.029	-6.7
Math	4	0325	C	E	1	6334	0.699	0.129	0.086	0.699	0.086	0.001	0.471	-0.317	-0.361	0.471	-0.456	0.205	0.030	-2.2
Math	4	0326	B	C	1	6334	0.729	0.072	0.729	0.137	0.062	0.001	0.413	-0.338	0.413	-0.308	-0.296	0.025	0.031	-0.3
Math	4	0327	C	A	2	6334	0.805	0.059	0.086	0.805	0.048	0.001	0.495	-0.346	-0.422	0.495	-0.278	-0.498	0.035	-7.0
Math	4	0328	D	A	1	6334	0.640	0.264	0.070	0.026	0.640	0.000	0.525	-0.508	-0.373	-0.271	0.525	0.538	0.029	-8.8
Math	4	0329	B	B	1	6334	0.595	0.034	0.595	0.283	0.087	0.001	0.269	-0.372	0.269	-0.164	-0.291	0.775	0.029	9.9
Math	4	0330	C	A	1	6334	0.894	0.052	0.038	0.894	0.015	0.001	0.326	-0.204	-0.239	0.326	-0.207	-1.327	0.043	0.4
Math	4	0331	A	C	2	6334	0.719	0.719	0.069	0.193	0.018	0.000	0.365	0.365	-0.226	-0.323	-0.252	0.083	0.031	2.6
Math	4	0332	C	B	2	6334	0.589	0.074	0.172	0.589	0.164	0.000	0.430	-0.317	-0.410	0.430	-0.351	0.808	0.029	-0.3
Math	4	0333	B	A	1	6334	0.551	0.316	0.551	0.094	0.039	0.000	0.373	-0.285	0.373	-0.383	-0.418	1.002	0.028	5.7
Math	4	0334	D	E	2	6334	0.854	0.076	0.030	0.039	0.854	0.001	0.280	-0.185	-0.230	-0.158	0.280	-0.903	0.038	6.2
Math	4	0335	C	D	2	6334	0.675	0.095	0.148	0.675	0.081	0.001	0.425	-0.427	-0.253	0.425	-0.342	0.341	0.030	-1.5
Math	4	0336	A	A	2	6334	0.491	0.491	0.146	0.084	0.275	0.004	0.493	0.493	-0.494	-0.388	-0.462	1.304	0.028	-5.5
Math	4	0337	B	A	1	6350	0.642	0.064	0.642	0.085	0.208	0.000	0.514	-0.372	0.514	-0.379	-0.473	0.543	0.029	-6.9
Math	4	0338	D	C	1	6350	0.807	0.013	0.021	0.157	0.807	0.000	0.360	-0.254	-0.294	-0.276	0.360	-0.512	0.035	0.8
Math	4	0339	D	B	1	6350	0.875	0.013	0.087	0.024	0.875	0.000	0.332	-0.225	-0.252	-0.196	0.332	-1.115	0.041	2.1
Math	4	0340	C	D	2	6350	0.833	0.054	0.058	0.833	0.054	0.001	0.484	-0.388	-0.373	0.484	-0.253	-0.721	0.037	-6.3
Math	4	0341	D	A	2	6350	0.656	0.148	0.065	0.130	0.656	0.001	0.505	-0.472	-0.318	-0.408	0.505	0.463	0.030	-6.4
Math	4	0342	C	C	1	6350	0.927	0.027	0.014	0.927	0.030	0.001	0.282	-0.199	-0.171	0.282	-0.161	-1.797	0.051	-0.5
Math	4	0343	D	E	1	6350	0.937	0.008	0.032	0.022	0.937	0.001	0.243	-0.146	-0.194	-0.108	0.243	-1.964	0.054	2.3
Math	4	0344	C	A	1	6350	0.817	0.131	0.025	0.817	0.026	0.001	0.381	-0.344	-0.244	0.381	-0.132	-0.588	0.036	-0.7

Appendix L: 2008 Grades 3–8 and 11 Multiple-Choice Statistics

Information						Proportions						Correlations					Rasch			
Cont.	Grade	Pub. ID	Key	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Math	4	0345	B	A	2	6350	0.463	0.286	0.463	0.116	0.134	0.002	0.449	-0.470	0.449	-0.348	-0.385	1.477	0.028	-0.4
Math	4	0346	C	A	1	6350	0.693	0.219	0.040	0.693	0.046	0.001	0.311	-0.215	-0.322	0.311	-0.246	0.251	0.030	7.6
Math	4	0347	C	A	1	6350	0.703	0.037	0.198	0.703	0.060	0.002	0.394	-0.266	-0.311	0.394	-0.331	0.189	0.031	0.0
Math	4	0348	A	D	2	6350	0.802	0.802	0.091	0.066	0.038	0.003	0.428	0.428	-0.372	-0.215	-0.324	-0.469	0.035	-1.4
Math	4	0349	D	A	1	6293	0.762	0.110	0.032	0.095	0.762	0.000	0.422	-0.311	-0.306	-0.320	0.422	-0.155	0.033	-1.7
Math	4	0350	C	A	1	6293	0.834	0.120	0.026	0.834	0.020	0.001	0.385	-0.353	-0.167	0.385	-0.183	-0.695	0.037	-1.9
Math	4	0351	B	D	1	6293	0.800	0.074	0.800	0.088	0.038	0.001	0.450	-0.297	0.450	-0.326	-0.352	-0.428	0.035	-4.6
Math	4	0352	B	A	1	6293	0.627	0.309	0.627	0.035	0.027	0.001	0.285	-0.201	0.285	-0.300	-0.363	0.645	0.029	9.9
Math	4	0353	A	D	1	6293	0.862	0.862	0.040	0.056	0.041	0.000	0.387	0.387	-0.235	-0.294	-0.239	-0.954	0.039	-4.1
Math	4	0354	A	A	1	6293	0.931	0.931	0.022	0.038	0.008	0.000	0.319	0.319	-0.143	-0.269	-0.177	-1.829	0.052	-1.2
Math	4	0355	B	A	1	6293	0.828	0.096	0.828	0.037	0.039	0.000	0.428	-0.354	0.428	-0.239	-0.267	-0.646	0.036	-4.8
Math	4	0356	C	A	2	6293	0.798	0.065	0.102	0.798	0.032	0.002	0.493	-0.304	-0.463	0.493	-0.230	-0.414	0.034	-5.9
Math	4	0357	A	C	1	6293	0.968	0.968	0.011	0.014	0.007	0.000	0.219	0.219	-0.152	-0.127	-0.123	-2.679	0.073	-2.4
Math	4	0358	C	E	2	6293	0.898	0.029	0.042	0.898	0.030	0.000	0.404	-0.174	-0.298	0.404	-0.312	-1.349	0.044	-4.5
Math	4	0359	B	A	2	6293	0.743	0.064	0.743	0.064	0.128	0.001	0.434	-0.360	0.434	-0.336	-0.298	-0.034	0.032	0.0
Math	4	0360	C	A	1	6293	0.798	0.075	0.106	0.798	0.018	0.003	0.399	-0.226	-0.358	0.399	-0.245	-0.412	0.034	-2.3
Math	4	0361	B	A	1	6296	0.580	0.068	0.580	0.276	0.076	0.000	0.439	-0.361	0.439	-0.397	-0.355	0.897	0.029	-1.0
Math	4	0362	D	A	1	6296	0.727	0.025	0.203	0.043	0.727	0.001	0.285	-0.221	-0.238	-0.160	0.285	0.071	0.031	5.8
Math	4	0363	B	D	2	6296	0.729	0.105	0.729	0.055	0.110	0.001	0.399	-0.319	0.399	-0.310	-0.272	0.059	0.032	0.3
Math	4	0364	C	A	1	6296	0.894	0.023	0.027	0.894	0.055	0.000	0.351	-0.208	-0.221	0.351	-0.250	-1.297	0.044	-3.0
Math	4	0365	A	B	1	6296	0.868	0.868	0.038	0.044	0.049	0.000	0.297	0.297	-0.199	-0.240	-0.148	-1.012	0.040	1.2
Math	4	0366	D	E	2	6296	0.864	0.015	0.102	0.019	0.864	0.001	0.287	-0.165	-0.231	-0.161	0.287	-0.966	0.040	3.4
Math	4	0367	C	B	1	6296	0.875	0.031	0.054	0.875	0.039	0.001	0.360	-0.186	-0.261	0.360	-0.253	-1.081	0.041	-1.5
Math	4	0368	B	A	2	6296	0.610	0.116	0.610	0.172	0.100	0.002	0.517	-0.416	0.517	-0.418	-0.478	0.738	0.029	-6.6
Math	4	0369	B	C	1	6296	0.691	0.232	0.691	0.012	0.064	0.001	0.342	-0.314	0.342	-0.144	-0.229	0.289	0.030	2.8
Math	4	0370	C	D	2	6296	0.739	0.053	0.093	0.739	0.113	0.002	0.461	-0.392	-0.336	0.461	-0.332	-0.004	0.032	-4.1
Math	4	0371	B	D	1	6296	0.829	0.035	0.829	0.081	0.054	0.001	0.402	-0.265	0.402	-0.251	-0.333	-0.655	0.036	-0.3
Math	4	0372	D	A	1	6296	0.914	0.010	0.051	0.023	0.914	0.001	0.339	-0.102	-0.271	-0.239	0.339	-1.556	0.048	-2.5
Math	4	0373	C	B	1	6328	0.914	0.014	0.007	0.914	0.064	0.000	0.310	-0.137	-0.096	0.310	-0.284	-1.542	0.047	-0.7
Math	4	0374	D	D	2	6328	0.837	0.060	0.067	0.036	0.837	0.000	0.438	-0.281	-0.368	-0.246	0.438	-0.715	0.037	-4.9
Math	4	0375	A	A	1	6328	0.836	0.836	0.074	0.047	0.042	0.000	0.371	0.371	-0.157	-0.274	-0.364	-0.704	0.037	-1.0
Math	4	0376	B	A	1	6328	0.610	0.058	0.610	0.150	0.180	0.000	0.461	-0.257	0.461	-0.493	-0.347	0.741	0.029	-3.9
Math	4	0377	C	A	1	6328	0.810	0.047	0.089	0.810	0.052	0.001	0.383	-0.270	-0.215	0.383	-0.339	-0.495	0.035	-2.1
Math	4	0378	A	E	2	6328	0.931	0.931	0.020	0.032	0.016	0.000	0.301	0.301	-0.187	-0.205	-0.166	-1.809	0.052	-2.3
Math	4	0379	C	A	2	6328	0.868	0.014	0.099	0.868	0.018	0.001	0.334	-0.161	-0.278	0.334	-0.196	-0.999	0.040	-0.1
Math	4	0380	B	A	1	6328	0.509	0.410	0.509	0.021	0.059	0.000	0.378	-0.347	0.378	-0.228	-0.368	1.257	0.028	4.9
Math	4	0381	B	B		6328	0.558	0.018	0.558	0.371	0.052	0.001	0.370	-0.236	0.370	-0.334	-0.358	1.007	0.028	5.2
Math	4	0382	C	C	1	6328	0.955	0.018	0.014	0.955	0.011	0.001	0.285	-0.187	-0.166	0.285	-0.169	-2.312	0.063	-2.6
Math	4	0383	D	A	2	6328	0.603	0.097	0.028	0.271	0.603	0.001	0.260	-0.321	-0.307	-0.148	0.260	0.774	0.029	9.9
Math	4	0384	A	D	2	6328	0.758	0.758	0.126	0.039	0.073	0.004	0.404	0.404	-0.276	-0.339	-0.309	-0.118	0.032	-0.9
Math	4	0385	A	A	1	6295	0.677	0.677	0.104	0.085	0.132	0.000	0.426	0.426	-0.330	-0.412	-0.274	0.359	0.030	-1.4
Math	4	0386	B	D	2	6295	0.825	0.044	0.825	0.094	0.036	0.001	0.439	-0.370	0.439	-0.296	-0.275	-0.637	0.036	-3.6
Math	4	0387	C	B	1	6295	0.905	0.008	0.022	0.905	0.064	0.000	0.342	-0.160	-0.120	0.342	-0.317	-1.463	0.046	-3.0

Appendix L: 2008 Grades 3–8 and 11 Multiple-Choice Statistics

Information						Proportions							Correlations					Rasch		
Cont.	Grade	Pub. ID	Key	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Math	4	0388	B	A	1	6295	0.764	0.111	0.764	0.075	0.049	0.001	0.462	-0.332	0.462	-0.329	-0.382	-0.183	0.033	-4.1
Math	4	0389	B	A	1	6295	0.689	0.222	0.689	0.080	0.008	0.001	0.400	-0.310	0.400	-0.398	-0.229	0.292	0.031	0.8
Math	4	0390	C	C	1	6295	0.897	0.023	0.043	0.897	0.035	0.001	0.310	-0.186	-0.203	0.310	-0.207	-1.359	0.044	-0.7
Math	4	0391	C	A	1	6295	0.945	0.016	0.012	0.945	0.027	0.000	0.291	-0.179	-0.134	0.291	-0.210	-2.107	0.057	-2.1
Math	4	0392	D	E	2	6295	0.843	0.033	0.021	0.101	0.843	0.001	0.455	-0.299	-0.168	-0.404	0.455	-0.791	0.038	-2.6
Math	4	0393	C	B	1	6295	0.777	0.164	0.014	0.777	0.044	0.001	0.427	-0.354	-0.228	0.427	-0.332	-0.269	0.034	-1.6
Math	4	0394	D	A	2	6295	0.791	0.149	0.029	0.028	0.791	0.001	0.348	-0.261	-0.260	-0.247	0.348	-0.372	0.034	3.7
Math	4	0395	A	A	2	6295	0.844	0.844	0.062	0.056	0.035	0.002	0.477	0.477	-0.290	-0.355	-0.365	-0.806	0.038	-7.1
Math	4	0396	B	D	2	6295	0.935	0.025	0.935	0.023	0.011	0.006	0.164	-0.130	0.164	-0.045	-0.135	-1.913	0.054	6.5
Math	4	0397	A	D	1	6315	0.790	0.790	0.052	0.051	0.105	0.000	0.403	0.403	-0.309	-0.328	-0.259	-0.382	0.034	1.2
Math	4	0398	D	A	1	6315	0.563	0.103	0.224	0.107	0.563	0.001	0.453	-0.424	-0.391	-0.354	0.453	0.962	0.029	-2.8
Math	4	0399	B	A	1	6315	0.839	0.055	0.839	0.034	0.072	0.000	0.466	-0.281	0.466	-0.269	-0.395	-0.769	0.037	-5.9
Math	4	0400	B	B	1	6315	0.755	0.218	0.755	0.013	0.013	0.001	0.344	-0.318	0.344	-0.169	-0.169	-0.137	0.032	3.8
Math	4	0401	D	A	1	6315	0.693	0.069	0.134	0.103	0.693	0.000	0.421	-0.314	-0.296	-0.361	0.421	0.247	0.031	-1.1
Math	4	0402	C	A	2	6315	0.862	0.060	0.038	0.862	0.038	0.000	0.319	-0.191	-0.235	0.319	-0.218	-0.986	0.039	3.1
Math	4	0403	D	E	1	6315	0.885	0.039	0.018	0.056	0.885	0.001	0.315	-0.187	-0.167	-0.251	0.315	-1.231	0.042	1.5
Math	4	0404	B	C	1	6315	0.911	0.027	0.911	0.017	0.044	0.000	0.326	-0.188	0.326	-0.169	-0.256	-1.555	0.047	-0.3
Math	4	0405	A	B	1	6315	0.618	0.618	0.080	0.192	0.109	0.001	0.464	0.464	-0.376	-0.420	-0.333	0.673	0.029	-3.2
Math	4	0406	D	D	2	6315	0.770	0.061	0.115	0.053	0.770	0.001	0.558	-0.363	-0.523	-0.313	0.558	-0.239	0.033	-9.9
Math	4	0407	C	A	2	6315	0.888	0.022	0.057	0.888	0.031	0.002	0.371	-0.254	-0.228	0.371	-0.271	-1.265	0.043	-2.0
Math	4	0408	B	A	1	6315	0.925	0.054	0.925	0.010	0.007	0.003	0.314	-0.302	0.314	-0.076	-0.126	-1.764	0.050	-0.6
Math	4	0409	B	A	1	6264	0.683	0.141	0.683	0.108	0.067	0.000	0.358	-0.223	0.358	-0.316	-0.302	0.316	0.030	2.6
Math	4	0410	A	B	2	6264	0.600	0.600	0.123	0.094	0.181	0.001	0.386	0.386	-0.267	-0.325	-0.352	0.769	0.029	2.3
Math	4	0411	A	D	2	6264	0.898	0.898	0.022	0.029	0.050	0.000	0.362	0.362	-0.189	-0.184	-0.303	-1.367	0.044	-2.5
Math	4	0412	D	C	1	6264	0.912	0.023	0.028	0.036	0.912	0.001	0.306	-0.197	-0.179	-0.200	0.306	-1.547	0.047	-2.1
Math	4	0413	B	A	1	6264	0.867	0.028	0.867	0.030	0.074	0.001	0.446	-0.209	0.446	-0.260	-0.388	-1.020	0.040	-5.3
Math	4	0414	A	B	1	6264	0.662	0.662	0.139	0.114	0.085	0.001	0.400	0.400	-0.313	-0.388	-0.220	0.435	0.030	0.5
Math	4	0415	C	A	1	6264	0.785	0.075	0.097	0.785	0.042	0.001	0.432	-0.398	-0.262	0.432	-0.278	-0.339	0.034	-2.8
Math	4	0416	B	C	2	6264	0.635	0.132	0.635	0.163	0.069	0.001	0.414	-0.391	0.414	-0.296	-0.318	0.583	0.029	1.2
Math	4	0417	A	D	2	6264	0.969	0.969	0.010	0.007	0.013	0.000	0.254	0.254	-0.138	-0.123	-0.188	-2.732	0.074	-3.1
Math	4	0418	A	A	1	6264	0.723	0.723	0.145	0.055	0.076	0.001	0.433	0.433	-0.367	-0.336	-0.265	0.073	0.031	-2.2
Math	4	0419	C	A	1	6264	0.446	0.040	0.100	0.446	0.412	0.002	0.318	-0.243	-0.237	0.318	-0.316	1.561	0.029	9.9
Math	4	0420	C	A	2	6264	0.630	0.138	0.101	0.630	0.127	0.004	0.464	-0.416	-0.308	0.464	-0.399	0.611	0.029	-3.6
Math	4	0421	B	D	2	6338	0.872	0.022	0.872	0.020	0.086	0.001	0.347	-0.207	0.347	-0.173	-0.280	-1.075	0.040	0.0
Math	4	0422	D	A	1	6338	0.922	0.017	0.023	0.035	0.922	0.001	0.354	-0.235	-0.149	-0.285	0.354	-1.710	0.049	-2.4
Math	4	0423	B	A	2	6338	0.577	0.140	0.577	0.250	0.032	0.001	0.534	-0.355	0.534	-0.554	-0.428	0.902	0.029	-8.6
Math	4	0424	C	E	2	6338	0.832	0.122	0.023	0.832	0.022	0.001	0.280	-0.216	-0.177	0.280	-0.178	-0.702	0.037	5.3
Math	4	0425	D	B	1	6338	0.756	0.109	0.073	0.060	0.756	0.001	0.487	-0.392	-0.379	-0.302	0.487	-0.139	0.032	-5.6
Math	4	0426	A	A	1	6338	0.513	0.513	0.128	0.167	0.190	0.002	0.374	0.374	-0.249	-0.397	-0.337	1.234	0.029	5.9
Math	4	0427	D	C	2	6338	0.816	0.089	0.044	0.050	0.816	0.001	0.375	-0.228	-0.307	-0.269	0.375	-0.573	0.036	0.0
Math	4	0428	D	E	2	6338	0.831	0.018	0.012	0.138	0.831	0.001	0.533	-0.235	-0.245	-0.501	0.533	-0.698	0.037	-7.9
Math	4	0429	C	D	2	6338	0.582	0.104	0.044	0.582	0.268	0.001	0.471	-0.370	-0.366	0.471	-0.435	0.873	0.029	-4.0
Math	4	0430	B	A	1	6338	0.786	0.144	0.786	0.041	0.028	0.001	0.352	-0.245	0.352	-0.266	-0.287	-0.346	0.034	2.0

Appendix L: 2008 Grades 3–8 and 11 Multiple-Choice Statistics

Information						Proportions							Correlations					Rasch		
Cont.	Grade	Pub. ID	Key	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Math	4	0431	C	B	1	6338	0.643	0.117	0.114	0.643	0.125	0.001	0.424	-0.311	-0.382	0.424	-0.318	0.542	0.030	-1.1
Math	4	0432	A	A	1	6338	0.787	0.787	0.041	0.097	0.071	0.004	0.374	0.374	-0.224	-0.258	-0.310	-0.353	0.034	0.3
Math	4	0433	C	C	2	6324	0.876	0.036	0.036	0.876	0.052	0.000	0.360	-0.232	-0.175	0.360	-0.290	-1.094	0.041	-2.1
Math	4	0434	B	A	1	6324	0.789	0.098	0.789	0.065	0.046	0.001	0.436	-0.400	0.436	-0.274	-0.227	-0.347	0.034	-2.9
Math	4	0435	A	B	1	6324	0.872	0.872	0.057	0.027	0.043	0.000	0.332	0.332	-0.246	-0.193	-0.215	-1.053	0.041	1.0
Math	4	0436	C	A	2	6324	0.765	0.107	0.086	0.765	0.042	0.001	0.469	-0.401	-0.308	0.469	-0.314	-0.172	0.033	-4.8
Math	4	0437	C	B	1	6324	0.737	0.054	0.163	0.737	0.045	0.001	0.447	-0.281	-0.398	0.447	-0.266	0.011	0.032	-3.6
Math	4	0438	C	D	2	6324	0.609	0.211	0.047	0.609	0.132	0.001	0.473	-0.412	-0.374	0.473	-0.400	0.748	0.029	-3.3
Math	4	0439	D	C	1	6324	0.938	0.015	0.022	0.025	0.938	0.000	0.286	-0.161	-0.182	-0.188	0.286	-1.947	0.054	-1.5
Math	4	0440	B	A	1	6324	0.614	0.024	0.614	0.262	0.100	0.000	0.361	-0.121	0.361	-0.389	-0.188	0.724	0.029	3.9
Math	4	0441	C	D	2	6324	0.971	0.006	0.007	0.971	0.015	0.000	0.160	-0.121	-0.093	0.160	-0.085	-2.821	0.077	2.8
Math	4	0442	D	A	1	6324	0.618	0.098	0.087	0.195	0.618	0.001	0.361	-0.349	-0.426	-0.189	0.361	0.700	0.029	5.8
Math	4	0443	B	A	1	6324	0.880	0.030	0.880	0.042	0.046	0.001	0.411	-0.252	0.411	-0.258	-0.307	-1.140	0.042	-4.6
Math	4	0444	C	E	2	6324	0.896	0.027	0.034	0.896	0.040	0.003	0.368	-0.242	-0.228	0.368	-0.251	-1.323	0.044	-2.2
Math	4	0445	B	B	1	6275	0.738	0.177	0.738	0.021	0.064	0.000	0.392	-0.355	0.392	-0.180	-0.269	0.005	0.032	1.8
Math	4	0446	D	D	2	6275	0.372	0.297	0.206	0.125	0.372	0.001	0.332	-0.356	-0.268	-0.360	0.332	1.978	0.029	9.9
Math	4	0447	C	A	1	6275	0.840	0.065	0.031	0.840	0.064	0.001	0.404	-0.197	-0.198	0.404	-0.408	-0.747	0.037	-1.8
Math	4	0448	C	E	1	6275	0.817	0.063	0.029	0.817	0.091	0.001	0.496	-0.483	-0.272	0.496	-0.308	-0.552	0.036	-4.8
Math	4	0449	D	A	1	6275	0.846	0.038	0.079	0.037	0.846	0.000	0.347	-0.262	-0.191	-0.293	0.347	-0.802	0.038	4.2
Math	4	0450	C	B	1	6275	0.764	0.077	0.113	0.764	0.044	0.001	0.487	-0.361	-0.407	0.487	-0.289	-0.168	0.033	-4.2
Math	4	0451	C	E	1	6275	0.944	0.018	0.010	0.944	0.027	0.001	0.240	-0.109	-0.145	0.240	-0.183	-2.060	0.057	-0.3
Math	4	0452	A	A	1	6275	0.863	0.863	0.089	0.025	0.023	0.000	0.398	0.398	-0.299	-0.258	-0.249	-0.958	0.040	-4.4
Math	4	0453	A	A	1	6275	0.652	0.652	0.169	0.116	0.062	0.000	0.451	0.451	-0.429	-0.357	-0.246	0.513	0.030	-1.9
Math	4	0454	C	A	2	6275	0.485	0.205	0.113	0.485	0.196	0.001	0.402	-0.263	-0.365	0.402	-0.474	1.389	0.029	2.6
Math	4	0455	D	C	1	6275	0.553	0.137	0.226	0.083	0.553	0.002	0.422	-0.308	-0.423	-0.336	0.422	1.043	0.029	0.2
Math	4	0456	D	D	2	6275	0.562	0.084	0.044	0.307	0.562	0.004	0.286	-0.365	-0.324	-0.176	0.286	0.997	0.029	9.9
Math	4	0457	C	A	1	6320	0.783	0.108	0.046	0.783	0.063	0.000	0.303	-0.137	-0.279	0.303	-0.277	-0.292	0.034	7.9
Math	4	0458	D	B	2	6320	0.659	0.156	0.098	0.085	0.659	0.001	0.421	-0.330	-0.344	-0.321	0.421	0.480	0.030	-0.6
Math	4	0459	D	A	2	6320	0.496	0.186	0.118	0.200	0.496	0.000	0.502	-0.507	-0.605	-0.349	0.502	1.338	0.028	-5.1
Math	4	0460	C	E	2	6320	0.859	0.038	0.046	0.859	0.057	0.000	0.483	-0.340	-0.391	0.483	-0.279	-0.911	0.039	-5.7
Math	4	0461	A	D	2	6320	0.881	0.881	0.037	0.053	0.029	0.000	0.461	0.461	-0.296	-0.316	-0.325	-1.136	0.042	-6.1
Math	4	0462	B	A	1	6320	0.661	0.119	0.661	0.140	0.079	0.001	0.423	-0.261	0.423	-0.335	-0.429	0.467	0.030	-1.3
Math	4	0463	D	A	2	6320	0.734	0.037	0.042	0.186	0.734	0.000	0.349	-0.243	-0.299	-0.262	0.349	0.039	0.032	1.8
Math	4	0464	B	E	2	6320	0.798	0.035	0.798	0.063	0.102	0.001	0.423	-0.231	0.423	-0.420	-0.261	-0.399	0.034	1.0
Math	4	0465	A	A	1	6320	0.654	0.654	0.155	0.030	0.160	0.000	0.399	0.399	-0.264	-0.245	-0.401	0.507	0.030	-0.3
Math	4	0466	B	D	2	6320	0.633	0.072	0.633	0.262	0.033	0.000	0.344	-0.367	0.344	-0.239	-0.327	0.621	0.029	5.6
Math	4	0467	D	B	1	6320	0.831	0.109	0.029	0.030	0.831	0.001	0.353	-0.243	-0.246	-0.287	0.353	-0.660	0.037	3.5
Math	4	0468	A	C	2	6320	0.800	0.800	0.058	0.058	0.081	0.002	0.385	0.385	-0.217	-0.217	-0.364	-0.421	0.035	-0.1
Math	4	0469	B	A	1	6278	0.563	0.138	0.563	0.220	0.078	0.001	0.453	-0.339	0.453	-0.467	-0.293	0.949	0.029	-2.1
Math	4	0470	D	C	1	6278	0.804	0.027	0.145	0.023	0.804	0.000	0.331	-0.227	-0.260	-0.214	0.331	-0.501	0.035	2.4
Math	4	0471	A	A	1	6278	0.863	0.863	0.045	0.052	0.039	0.000	0.437	0.437	-0.233	-0.312	-0.343	-1.012	0.040	-5.0
Math	4	0472	B	D	2	6278	0.735	0.137	0.735	0.086	0.040	0.000	0.375	-0.242	0.375	-0.326	-0.289	-0.019	0.032	1.9
Math	4	0473	D	A	1	6278	0.674	0.027	0.230	0.068	0.674	0.001	0.265	-0.201	-0.213	-0.201	0.265	0.349	0.030	9.3

Appendix L: 2008 Grades 3–8 and 11 Multiple-Choice Statistics

Information						Proportions							Correlations					Rasch		
Cont.	Grade	Pub. ID	Key	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Math	4	0474	B	D	1	6278	0.864	0.039	0.864	0.084	0.012	0.001	0.332	-0.292	0.332	-0.205	-0.183	-1.020	0.040	0.1
Math	4	0475	C	A	2	6278	0.950	0.018	0.021	0.950	0.011	0.001	0.313	-0.170	-0.227	0.313	-0.180	-2.247	0.060	-3.0
Math	4	0476	C	A	1	6278	0.886	0.041	0.033	0.886	0.039	0.001	0.358	-0.278	-0.236	0.358	-0.185	-1.258	0.043	-1.0
Math	4	0477	A	E	1	6278	0.941	0.941	0.016	0.025	0.017	0.001	0.340	0.340	-0.223	-0.229	-0.188	-2.059	0.056	-4.0
Math	4	0478	C	B	1	6278	0.897	0.061	0.021	0.897	0.019	0.001	0.329	-0.197	-0.249	0.329	-0.224	-1.386	0.044	0.4
Math	4	0479	A	A	2	6278	0.708	0.708	0.045	0.095	0.151	0.001	0.518	0.518	-0.349	-0.551	-0.328	0.149	0.031	-6.2
Math	4	0480	C	C	1	6278	0.856	0.011	0.035	0.856	0.094	0.004	0.363	-0.213	-0.255	0.363	-0.273	-0.943	0.039	-1.3
Math	4	0481	D	B	1	6293	0.776	0.109	0.037	0.076	0.776	0.001	0.314	-0.225	-0.277	-0.195	0.314	-0.259	0.033	6.4
Math	4	0482	A	A	2	6293	0.666	0.666	0.132	0.085	0.115	0.002	0.358	0.358	-0.268	-0.193	-0.347	0.426	0.030	2.5
Math	4	0483	A	D	1	6293	0.860	0.860	0.046	0.021	0.072	0.001	0.305	0.305	-0.268	-0.155	-0.180	-0.932	0.039	1.5
Math	4	0484	C	A	1	6293	0.785	0.085	0.100	0.785	0.029	0.000	0.402	-0.279	-0.304	0.402	-0.286	-0.308	0.034	-2.1
Math	4	0485	A	C	1	6293	0.572	0.572	0.239	0.109	0.078	0.002	0.297	0.297	-0.251	-0.249	-0.249	0.929	0.029	9.9
Math	4	0486	C	A	1	6293	0.911	0.042	0.021	0.911	0.025	0.000	0.285	-0.174	-0.195	0.285	-0.181	-1.520	0.047	0.0
Math	4	0487	A	A	2	6293	0.741	0.741	0.136	0.066	0.055	0.002	0.401	0.401	-0.338	-0.261	-0.263	-0.021	0.032	-2.1
Math	4	0488	D	A	1	6293	0.663	0.133	0.057	0.145	0.663	0.000	0.364	-0.321	-0.345	-0.222	0.364	0.442	0.030	3.4
Math	4	0489	D	E	1	6293	0.961	0.016	0.012	0.010	0.961	0.000	0.231	-0.109	-0.143	-0.173	0.231	-2.460	0.067	0.1
Math	4	0490	D	B	1	6293	0.680	0.166	0.075	0.078	0.680	0.000	0.469	-0.354	-0.342	-0.441	0.469	0.346	0.030	-3.3
Math	4	0491	B	D	2	6293	0.765	0.111	0.765	0.060	0.061	0.003	0.387	-0.321	0.387	-0.280	-0.233	-0.178	0.033	-0.4
Math	4	0492	C	A	1	6293	0.805	0.036	0.120	0.805	0.034	0.004	0.433	-0.278	-0.363	0.433	-0.268	-0.463	0.035	-3.6
Math	4	0493	D	A	1	6292	0.565	0.134	0.034	0.267	0.565	0.000	0.341	-0.342	-0.331	-0.258	0.341	0.952	0.029	7.4
Math	4	0494	D	A	2	6292	0.566	0.334	0.048	0.051	0.566	0.000	0.292	-0.195	-0.355	-0.346	0.292	0.951	0.029	9.9
Math	4	0495	B	D	2	6292	0.575	0.230	0.575	0.129	0.065	0.000	0.435	-0.356	0.435	-0.385	-0.372	0.906	0.029	-0.4
Math	4	0496	C	B	1	6292	0.624	0.184	0.029	0.624	0.162	0.001	0.407	-0.318	-0.302	0.407	-0.360	0.649	0.029	-1.1
Math	4	0497	A	C	1	6292	0.869	0.869	0.045	0.070	0.015	0.000	0.278	0.278	-0.162	-0.227	-0.136	-1.035	0.040	2.8
Math	4	0498	B	A	1	6292	0.635	0.183	0.635	0.094	0.087	0.002	0.447	-0.414	0.447	-0.385	-0.236	0.583	0.029	-3.2
Math	4	0499	B	B	1	6292	0.785	0.023	0.785	0.156	0.035	0.000	0.406	-0.260	0.406	-0.346	-0.241	-0.334	0.034	-0.8
Math	4	0500	C	E	1	6292	0.946	0.008	0.013	0.946	0.032	0.001	0.273	-0.161	-0.155	0.273	-0.193	-2.120	0.058	-0.7
Math	4	0501	D	A	1	6292	0.874	0.024	0.066	0.035	0.874	0.001	0.376	-0.225	-0.299	-0.207	0.376	-1.084	0.041	-2.2
Math	4	0502	D	B	1	6292	0.841	0.034	0.096	0.027	0.841	0.001	0.340	-0.225	-0.246	-0.229	0.340	-0.773	0.037	0.8
Math	4	0503	C	D	2	6292	0.849	0.045	0.035	0.849	0.071	0.001	0.366	-0.198	-0.280	0.366	-0.272	-0.839	0.038	1.1
Math	4	0504	D	C	1	6292	0.810	0.157	0.016	0.014	0.810	0.003	0.329	-0.273	-0.217	-0.213	0.329	-0.513	0.035	2.7
Math	4	0505	C	E	2	6274	0.864	0.028	0.015	0.864	0.091	0.001	0.400	-0.310	-0.193	0.400	-0.300	-0.960	0.039	-4.6
Math	4	0506	D	D	1	6274	0.843	0.033	0.041	0.081	0.843	0.001	0.464	-0.267	-0.341	-0.346	0.464	-0.786	0.038	-6.6
Math	4	0507	C	A	1	6274	0.835	0.056	0.053	0.835	0.056	0.001	0.412	-0.275	-0.340	0.412	-0.234	-0.709	0.037	-4.1
Math	4	0508	A	C	1	6274	0.782	0.782	0.034	0.035	0.148	0.001	0.260	0.260	-0.243	-0.214	-0.156	-0.309	0.034	8.1
Math	4	0509	C	B	1	6274	0.592	0.151	0.116	0.592	0.139	0.001	0.554	-0.428	-0.514	0.554	-0.511	0.827	0.029	-9.9
Math	4	0510	A	D	2	6274	0.896	0.896	0.028	0.052	0.022	0.001	0.361	0.361	-0.248	-0.215	-0.261	-1.335	0.044	-2.9
Math	4	0511	C	E	1	6274	0.931	0.019	0.015	0.931	0.034	0.001	0.304	-0.187	-0.229	0.304	-0.174	-1.830	0.052	-1.0
Math	4	0512	D	A	1	6274	0.810	0.011	0.032	0.146	0.810	0.001	0.368	-0.221	-0.243	-0.303	0.368	-0.512	0.035	-1.0
Math	4	0513	D	A	2	6274	0.758	0.084	0.033	0.123	0.758	0.001	0.479	-0.139	-0.290	-0.551	0.479	-0.140	0.033	-3.1
Math	4	0514	B	C	1	6274	0.834	0.012	0.834	0.019	0.135	0.000	0.286	-0.224	0.286	-0.115	-0.241	-0.707	0.037	4.3
Math	4	0515	C	A	1	6274	0.702	0.035	0.232	0.702	0.029	0.001	0.372	-0.304	-0.304	0.372	-0.270	0.213	0.031	0.9
Math	4	0516	B	A	1	6274	0.744	0.128	0.744	0.050	0.076	0.003	0.378	-0.268	0.378	-0.245	-0.334	-0.043	0.032	2.3

Appendix L: 2008 Grades 3–8 and 11 Multiple-Choice Statistics

Information						Proportions						Correlations					Rasch			
Cont.	Grade	Pub. ID	Key	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Math	4	0517	C	A	1	6305	0.874	0.042	0.038	0.874	0.046	0.000	0.344	-0.299	-0.195	0.344	-0.188	-1.065	0.041	0.9
Math	4	0518	B	A	1	6305	0.874	0.097	0.874	0.014	0.014	0.000	0.358	-0.353	0.358	-0.108	-0.103	-1.070	0.041	-1.1
Math	4	0519	D	C	1	6305	0.851	0.108	0.017	0.023	0.851	0.000	0.334	-0.248	-0.219	-0.231	0.334	-0.845	0.038	0.8
Math	4	0520	D	E	2	6305	0.848	0.116	0.020	0.015	0.848	0.000	0.299	-0.235	-0.171	-0.210	0.299	-0.813	0.038	4.7
Math	4	0521	B	B	1	6305	0.485	0.056	0.485	0.096	0.362	0.001	0.292	-0.342	0.292	-0.350	-0.209	1.399	0.028	9.9
Math	4	0522	C	A	1	6305	0.757	0.075	0.141	0.757	0.026	0.001	0.468	-0.316	-0.417	0.468	-0.262	-0.110	0.033	-4.8
Math	4	0523	B	C	1	6305	0.827	0.127	0.827	0.029	0.016	0.001	0.383	-0.343	0.383	-0.214	-0.162	-0.629	0.036	-1.0
Math	4	0524	D	A	1	6305	0.755	0.071	0.091	0.082	0.755	0.001	0.364	-0.381	-0.246	-0.178	0.364	-0.099	0.032	2.4
Math	4	0525	C	B	1	6305	0.901	0.023	0.017	0.901	0.058	0.001	0.324	-0.144	-0.109	0.324	-0.307	-1.375	0.045	1.0
Math	4	0526	B	A	1	6305	0.617	0.116	0.617	0.133	0.134	0.000	0.401	-0.368	0.401	-0.335	-0.273	0.714	0.029	0.7
Math	4	0527	B	A	1	6305	0.820	0.082	0.820	0.053	0.044	0.001	0.483	-0.404	0.483	-0.255	-0.354	-0.574	0.036	-6.5
Math	4	0528	C	E	2	6305	0.845	0.034	0.077	0.845	0.039	0.005	0.381	-0.301	-0.238	0.381	-0.261	-0.781	0.038	-0.2
Math	4	0529	B	A	1	6285	0.715	0.056	0.715	0.199	0.030	0.000	0.487	-0.255	0.487	-0.476	-0.272	0.163	0.031	-3.3
Math	4	0530	B	A	2	6285	0.691	0.148	0.691	0.089	0.071	0.001	0.454	-0.284	0.454	-0.349	-0.489	0.304	0.031	-1.3
Math	4	0531	C	A	1	6285	0.733	0.026	0.214	0.733	0.026	0.000	0.379	-0.291	-0.302	0.379	-0.313	0.055	0.032	0.4
Math	4	0532	C	C	1	6285	0.698	0.077	0.149	0.698	0.075	0.000	0.395	-0.309	-0.301	0.395	-0.300	0.263	0.031	0.5
Math	4	0533	A	D	2	6285	0.784	0.784	0.056	0.037	0.120	0.001	0.332	0.332	-0.280	-0.317	-0.180	-0.291	0.034	4.7
Math	4	0534	D	A	1	6285	0.851	0.113	0.013	0.022	0.851	0.001	0.413	-0.356	-0.197	-0.242	0.413	-0.828	0.038	-4.1
Math	4	0535	D	A	1	6285	0.771	0.050	0.113	0.064	0.771	0.002	0.453	-0.250	-0.425	-0.265	0.453	-0.198	0.033	-4.9
Math	4	0536	D	C	1	6285	0.547	0.056	0.131	0.266	0.547	0.000	0.309	-0.342	-0.345	-0.199	0.309	1.082	0.029	9.9
Math	4	0537	B	A	2	6285	0.733	0.079	0.733	0.153	0.035	0.000	0.397	-0.346	0.397	-0.280	-0.294	0.051	0.032	2.6
Math	4	0538	B	B	1	6285	0.776	0.140	0.776	0.059	0.024	0.000	0.457	-0.394	0.457	-0.312	-0.234	-0.236	0.033	-5.5
Math	4	0539	A	A	1	6285	0.633	0.633	0.293	0.041	0.032	0.001	0.384	0.384	-0.313	-0.345	-0.347	0.630	0.029	2.1
Math	4	0540	B	E	1	6285	0.965	0.012	0.965	0.010	0.009	0.004	0.220	-0.145	0.220	-0.134	-0.123	-2.570	0.070	-0.3
Math	5	0541	D	A	1	127302	0.585	0.029	0.248	0.137	0.585	0.000	0.572	-0.335	-0.598	-0.404	0.572	1.222	0.006	-9.9
Math	5	0542	A	A	1	127302	0.696	0.696	0.080	0.134	0.089	0.000	0.404	0.404	-0.234	-0.425	-0.203	0.597	0.007	1.3
Math	5	0543	C	A	2	127302	0.671	0.050	0.219	0.671	0.059	0.000	0.363	-0.281	-0.266	0.363	-0.333	0.745	0.007	9.9
Math	5	0544	A	A	2	127302	0.411	0.411	0.150	0.195	0.244	0.000	0.358	0.358	-0.427	-0.492	-0.162	2.138	0.006	9.9
Math	5	0545	D	D	2	127302	0.778	0.033	0.122	0.067	0.778	0.001	0.461	-0.335	-0.355	-0.323	0.461	0.077	0.007	-9.9
Math	5	0546	A	A	1	127302	0.730	0.730	0.079	0.151	0.039	0.001	0.602	0.602	-0.452	-0.533	-0.364	0.399	0.007	-9.9
Math	5	0547	B	A	1	127302	0.816	0.075	0.816	0.079	0.029	0.001	0.362	-0.272	0.362	-0.219	-0.276	-0.204	0.008	5.7
Math	5	0548	A	A	1	127302	0.517	0.517	0.368	0.021	0.092	0.001	0.648	0.648	-0.645	-0.221	-0.628	1.584	0.006	-9.9
Math	5	0549	B	B	2	127302	0.728	0.100	0.728	0.151	0.021	0.001	0.405	-0.328	0.405	-0.326	-0.236	0.411	0.007	9.9
Math	5	0550	B	C	1	127302	0.653	0.054	0.653	0.171	0.122	0.001	0.435	-0.204	0.435	-0.290	-0.512	0.860	0.007	9.9
Math	5	0551	D	D	1	127302	0.601	0.361	0.020	0.017	0.601	0.001	0.358	-0.317	-0.309	-0.287	0.358	1.133	0.007	9.9
Math	5	0552	D	A	2	127302	0.755	0.063	0.133	0.049	0.755	0.001	0.527	-0.419	-0.438	-0.302	0.527	0.239	0.007	-9.9
Math	5	0553	B	C	1	127302	0.629	0.101	0.629	0.161	0.109	0.001	0.525	-0.516	0.525	-0.445	-0.338	0.990	0.007	-9.9
Math	5	0554	D	E	1	127302	0.820	0.012	0.074	0.093	0.820	0.001	0.415	-0.210	-0.280	-0.348	0.415	-0.239	0.008	2.1
Math	5	0555	B	B	1	127302	0.542	0.127	0.542	0.236	0.094	0.001	0.369	-0.466	0.369	-0.239	-0.287	1.453	0.006	9.9
Math	5	0556	B	D	2	127302	0.657	0.191	0.657	0.106	0.046	0.001	0.450	-0.422	0.450	-0.309	-0.299	0.828	0.007	0.5
Math	5	0557	D	A	1	127302	0.703	0.053	0.100	0.143	0.703	0.001	0.518	-0.421	-0.447	-0.373	0.518	0.572	0.007	-9.9
Math	5	0558	B	E	1	127302	0.751	0.094	0.751	0.091	0.062	0.001	0.364	-0.298	0.364	-0.244	-0.243	0.257	0.007	9.9
Math	5	0559	A	B	1	127302	0.687	0.687	0.027	0.087	0.198	0.001	0.521	0.521	-0.340	-0.565	-0.374	0.658	0.007	-9.9

Appendix L: 2008 Grades 3–8 and 11 Multiple-Choice Statistics

Information						Proportions							Correlations					Rasch		
Cont.	Grade	Pub. ID	Key	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Math	5	0560	C	D	2	127302	0.551	0.151	0.076	0.551	0.220	0.001	0.308	-0.214	-0.336	0.308	-0.277	1.399	0.006	9.9
Math	5	0561	B	A	2	127302	0.614	0.079	0.614	0.230	0.075	0.001	0.458	-0.410	0.458	-0.359	-0.419	1.064	0.007	8.5
Math	5	0562	D	B	2	127302	0.691	0.071	0.083	0.153	0.691	0.003	0.518	-0.414	-0.457	-0.377	0.518	0.635	0.007	-9.9
Math	5	0563	A	B	1	127302	0.671	0.671	0.040	0.112	0.178	0.000	0.397	0.397	-0.361	-0.160	-0.408	0.752	0.007	9.9
Math	5	0564	D	C	2	127302	0.701	0.146	0.084	0.070	0.701	0.000	0.392	-0.390	-0.210	-0.254	0.392	0.578	0.007	9.9
Math	5	0565	C	E	2	127302	0.613	0.235	0.052	0.613	0.100	0.000	0.464	-0.379	-0.412	0.464	-0.407	1.072	0.007	2.6
Math	5	0566	C	D	1	127302	0.565	0.100	0.155	0.565	0.179	0.000	0.373	-0.338	-0.276	0.373	-0.345	1.326	0.006	9.9
Math	5	0567	C	A	1	127302	0.626	0.206	0.108	0.626	0.059	0.001	0.478	-0.422	-0.422	0.478	-0.288	1.000	0.007	-9.9
Math	5	0568	B	D	2	127302	0.675	0.172	0.675	0.084	0.069	0.001	0.442	-0.321	0.442	-0.392	-0.351	0.729	0.007	-1.4
Math	5	0569	D	C	1	127302	0.692	0.082	0.078	0.147	0.692	0.001	0.503	-0.419	-0.410	-0.374	0.503	0.625	0.007	-9.9
Math	5	0570	B	B	1	127302	0.670	0.138	0.670	0.156	0.035	0.000	0.484	-0.416	0.484	-0.439	-0.211	0.756	0.007	-8.3
Math	5	0571	C	E	2	127302	0.738	0.158	0.046	0.738	0.058	0.001	0.542	-0.479	-0.322	0.542	-0.394	0.352	0.007	-9.9
Math	5	0572	D	A	2	127302	0.842	0.043	0.076	0.038	0.842	0.001	0.478	-0.363	-0.343	-0.294	0.478	-0.422	0.008	-9.9
Math	5	0573	B	A	2	127302	0.465	0.067	0.465	0.409	0.059	0.000	0.526	-0.388	0.526	-0.533	-0.423	1.856	0.006	-9.9
Math	5	0574	D	D	2	127302	0.734	0.089	0.090	0.087	0.734	0.000	0.590	-0.456	-0.455	-0.465	0.590	0.370	0.007	-9.9
Math	5	0575	B	A	2	127302	0.607	0.167	0.607	0.136	0.089	0.001	0.435	-0.458	0.435	-0.272	-0.312	1.106	0.007	6.5
Math	5	0576	D	A	2	127302	0.855	0.023	0.038	0.084	0.855	0.000	0.488	-0.269	-0.301	-0.403	0.488	-0.542	0.009	-9.9
Math	5	0577	C	D	2	127302	0.804	0.022	0.117	0.804	0.056	0.001	0.447	-0.275	-0.326	0.447	-0.363	-0.120	0.008	-4.3
Math	5	0578	D	C	1	127302	0.764	0.068	0.047	0.121	0.764	0.001	0.412	-0.332	-0.318	-0.269	0.412	0.174	0.007	0.7
Math	5	0579	C	B	1	127302	0.846	0.046	0.051	0.846	0.057	0.001	0.436	-0.258	-0.328	0.436	-0.310	-0.457	0.008	-7.5
Math	5	0580	B	E	1	127302	0.544	0.169	0.544	0.047	0.240	0.000	0.309	-0.336	0.309	-0.206	-0.241	1.439	0.006	9.9
Math	5	0581	C	A	1	127302	0.748	0.044	0.093	0.748	0.115	0.000	0.422	-0.333	-0.346	0.422	-0.275	0.283	0.007	3.3
Math	5	0582	A	A	1	127302	0.758	0.758	0.047	0.175	0.019	0.000	0.460	0.460	-0.355	-0.378	-0.285	0.219	0.007	-5.9
Math	5	0583	A	A	1	127302	0.796	0.796	0.069	0.021	0.114	0.000	0.438	0.438	-0.337	-0.235	-0.344	-0.049	0.008	-3.6
Math	5	0584	B	C	1	127302	0.688	0.023	0.688	0.187	0.101	0.000	0.444	-0.176	0.444	-0.301	-0.520	0.657	0.007	9.9
Math	5	0585	C	A	2	127302	0.512	0.128	0.231	0.512	0.129	0.001	0.524	-0.460	-0.627	0.524	-0.226	1.611	0.006	-9.9
Math	5	0586	B	A	2	127302	0.711	0.034	0.711	0.106	0.148	0.001	0.544	-0.349	0.544	-0.531	-0.386	0.517	0.007	-9.9
Math	5	0587	B	B	2	127302	0.650	0.060	0.650	0.247	0.042	0.001	0.493	-0.410	0.493	-0.457	-0.234	0.866	0.007	-9.9
Math	5	0588	C	A	1	127302	0.766	0.144	0.036	0.766	0.053	0.001	0.501	-0.420	-0.310	0.501	-0.355	0.169	0.007	-9.9
Math	5	0589	B	A	2	127302	0.587	0.242	0.587	0.031	0.138	0.001	0.620	-0.592	0.620	-0.316	-0.579	1.216	0.006	-9.9
Math	5	0590	A	E	1	127302	0.840	0.840	0.074	0.047	0.038	0.001	0.370	0.370	-0.200	-0.312	-0.262	-0.409	0.008	7.1
Math	5	0591	A	D	2	127302	0.684	0.684	0.078	0.173	0.064	0.001	0.360	0.360	-0.309	-0.292	-0.203	0.670	0.007	9.9
Math	5	0592	A	D	2	127302	0.611	0.611	0.101	0.125	0.162	0.001	0.391	0.391	-0.337	-0.313	-0.310	1.082	0.007	9.9
Math	5	0593	B	A	1	127302	0.651	0.110	0.651	0.136	0.101	0.001	0.458	-0.379	0.458	-0.379	-0.331	0.861	0.007	-5.9
Math	5	0594	D	B	1	127302	0.604	0.071	0.238	0.084	0.604	0.002	0.494	-0.464	-0.424	-0.372	0.494	1.123	0.007	-9.9
Math	5	0595	B	A	1	6708	0.448	0.173	0.448	0.100	0.277	0.002	0.331	-0.357	0.331	-0.437	-0.214	1.814	0.028	9.9
Math	5	0596	A	A	1	6708	0.915	0.915	0.051	0.018	0.015	0.000	0.299	0.299	-0.263	-0.104	-0.159	-1.336	0.046	0.2
Math	5	0597	D	C	1	6708	0.634	0.022	0.308	0.035	0.634	0.000	0.194	-0.217	-0.133	-0.230	0.194	0.840	0.029	9.9
Math	5	0598	C	D	1	6708	0.763	0.040	0.178	0.763	0.018	0.000	0.215	-0.120	-0.184	0.215	-0.123	0.065	0.032	9.9
Math	5	0599	D	B	1	6708	0.873	0.048	0.033	0.044	0.873	0.001	0.347	-0.214	-0.211	-0.253	0.347	-0.829	0.039	-2.8
Math	5	0600	B	A	2	6708	0.571	0.041	0.571	0.170	0.217	0.000	0.420	-0.295	0.420	-0.541	-0.212	1.178	0.028	0.2
Math	5	0601	D	A	2	6708	0.543	0.209	0.115	0.132	0.543	0.001	0.489	-0.419	-0.441	-0.424	0.489	1.326	0.028	-4.9
Math	5	0602	A	A	1	6708	0.863	0.863	0.048	0.048	0.040	0.001	0.400	0.400	-0.298	-0.256	-0.246	-0.732	0.038	-2.9

Appendix L: 2008 Grades 3–8 and 11 Multiple-Choice Statistics

Information						Proportions							Correlations					Rasch		
Cont.	Grade	Pub. ID	Key	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Math	5	0603	D	D	2	6708	0.569	0.074	0.054	0.301	0.569	0.001	0.390	-0.496	-0.389	-0.265	0.390	1.188	0.028	6.3
Math	5	0604	C	A	1	6708	0.736	0.054	0.109	0.736	0.101	0.001	0.453	-0.338	-0.378	0.453	-0.302	0.245	0.031	-3.0
Math	5	0605	C	E	2	6708	0.718	0.101	0.116	0.718	0.064	0.000	0.482	-0.328	-0.453	0.482	-0.290	0.358	0.030	-4.6
Math	5	0606	A	C	2	6708	0.412	0.412	0.189	0.133	0.263	0.003	0.245	0.245	-0.214	-0.296	-0.204	2.006	0.028	9.9
Math	5	0607	B	A	2	6387	0.601	0.155	0.601	0.119	0.124	0.001	0.431	-0.386	0.431	-0.344	-0.340	1.114	0.029	0.1
Math	5	0608	A	C	1	6387	0.840	0.840	0.034	0.050	0.076	0.000	0.296	0.296	-0.233	-0.195	-0.183	-0.432	0.037	2.7
Math	5	0609	D	A	2	6387	0.791	0.038	0.069	0.101	0.791	0.001	0.447	-0.256	-0.310	-0.367	0.447	-0.039	0.034	-4.3
Math	5	0610	C	A	1	6387	0.757	0.186	0.028	0.757	0.028	0.001	0.481	-0.460	-0.264	0.481	-0.191	0.198	0.032	-4.8
Math	5	0611	B	B	1	6387	0.486	0.316	0.486	0.137	0.059	0.001	0.325	-0.220	0.325	-0.367	-0.431	1.714	0.028	9.9
Math	5	0612	B	A	1	6387	0.858	0.086	0.858	0.023	0.032	0.001	0.400	-0.319	0.400	-0.224	-0.245	-0.596	0.039	-1.5
Math	5	0613	A	A	1	6387	0.653	0.653	0.122	0.163	0.061	0.001	0.487	0.487	-0.429	-0.365	-0.394	0.830	0.030	-5.1
Math	5	0614	D	A	1	6387	0.496	0.143	0.038	0.322	0.496	0.001	0.512	-0.454	-0.372	-0.506	0.512	1.660	0.028	-6.8
Math	5	0615	A	E	2	6387	0.894	0.894	0.038	0.036	0.030	0.001	0.407	0.407	-0.274	-0.283	-0.236	-0.983	0.043	-5.1
Math	5	0616	D	C	1	6387	0.604	0.041	0.287	0.067	0.604	0.000	0.390	-0.279	-0.365	-0.250	0.390	1.097	0.029	4.4
Math	5	0617	B	B	2	6387	0.759	0.053	0.759	0.126	0.061	0.000	0.496	-0.326	0.496	-0.420	-0.338	0.182	0.032	-3.5
Math	5	0618	D	D	2	6387	0.394	0.456	0.090	0.058	0.394	0.003	0.382	-0.324	-0.489	-0.447	0.382	2.199	0.029	7.7
Math	5	0619	D	D	2	6354	0.628	0.089	0.187	0.095	0.628	0.000	0.379	-0.374	-0.244	-0.343	0.379	0.964	0.029	6.5
Math	5	0620	A	A	1	6354	0.647	0.647	0.082	0.226	0.043	0.001	0.502	0.502	-0.363	-0.439	-0.430	0.855	0.030	-5.5
Math	5	0621	B	E	1	6354	0.903	0.015	0.903	0.053	0.028	0.000	0.301	-0.164	0.301	-0.244	-0.146	-1.112	0.045	0.9
Math	5	0622	B	B	1	6354	0.673	0.225	0.673	0.077	0.024	0.001	0.348	-0.299	0.348	-0.261	-0.232	0.711	0.030	5.7
Math	5	0623	A	A	1	6354	0.796	0.796	0.114	0.038	0.051	0.001	0.505	0.505	-0.415	-0.297	-0.344	-0.089	0.034	-8.5
Math	5	0624	A	E	1	6354	0.795	0.795	0.050	0.057	0.097	0.001	0.348	0.348	-0.222	-0.219	-0.276	-0.082	0.034	2.0
Math	5	0625	C	D	2	6354	0.850	0.041	0.083	0.850	0.025	0.000	0.394	-0.275	-0.297	0.394	-0.218	-0.532	0.038	-2.1
Math	5	0626	D	C	1	6354	0.761	0.040	0.099	0.098	0.761	0.001	0.351	-0.225	-0.227	-0.298	0.351	0.164	0.033	3.2
Math	5	0627	B	A	2	6354	0.625	0.085	0.625	0.195	0.093	0.001	0.321	-0.334	0.321	-0.223	-0.222	0.980	0.029	5.0
Math	5	0628	D	B	2	6354	0.706	0.051	0.031	0.211	0.706	0.000	0.509	-0.437	-0.321	-0.420	0.509	0.512	0.031	-8.0
Math	5	0629	C	A	1	6354	0.697	0.016	0.021	0.697	0.266	0.001	0.340	-0.261	-0.238	0.340	-0.292	0.571	0.031	6.7
Math	5	0630	B	A	2	6354	0.638	0.166	0.638	0.142	0.051	0.003	0.579	-0.600	0.579	-0.449	-0.293	0.906	0.030	-9.9
Math	5	0631	D	A	1	6334	0.686	0.196	0.062	0.056	0.686	0.000	0.518	-0.509	-0.237	-0.376	0.518	0.647	0.030	-5.2
Math	5	0632	D	C	1	6334	0.840	0.074	0.017	0.069	0.840	0.000	0.462	-0.343	-0.246	-0.347	0.462	-0.423	0.037	-6.6
Math	5	0633	A	D	2	6334	0.575	0.575	0.145	0.139	0.139	0.001	0.461	0.461	-0.423	-0.399	-0.358	1.256	0.029	-2.6
Math	5	0634	B	A	2	6334	0.802	0.111	0.802	0.055	0.031	0.001	0.533	-0.454	0.533	-0.335	-0.337	-0.118	0.035	-9.3
Math	5	0635	C	E	1	6334	0.816	0.098	0.057	0.816	0.028	0.001	0.453	-0.335	-0.339	0.453	-0.275	-0.226	0.036	-4.3
Math	5	0636	D	E	1	6334	0.818	0.039	0.044	0.099	0.818	0.000	0.333	-0.212	-0.188	-0.265	0.333	-0.240	0.036	0.7
Math	5	0637	A	A	1	6334	0.838	0.838	0.101	0.028	0.032	0.001	0.425	0.425	-0.322	-0.288	-0.270	-0.408	0.037	-4.0
Math	5	0638	D	A	2	6334	0.586	0.085	0.174	0.154	0.586	0.001	0.529	-0.472	-0.515	-0.377	0.529	1.200	0.029	-8.4
Math	5	0639	D	C	1	6334	0.750	0.014	0.135	0.100	0.750	0.001	0.361	-0.208	-0.277	-0.289	0.361	0.249	0.032	1.6
Math	5	0640	B	D	2	6334	0.647	0.062	0.647	0.179	0.111	0.001	0.370	-0.376	0.370	-0.207	-0.363	0.868	0.030	5.5
Math	5	0641	A	A	2	6334	0.744	0.744	0.145	0.032	0.078	0.001	0.519	0.519	-0.442	-0.316	-0.383	0.292	0.032	-7.1
Math	5	0642	A	B	2	6334	0.762	0.762	0.027	0.055	0.155	0.002	0.305	0.305	-0.191	-0.281	-0.209	0.173	0.033	6.1
Math	5	0643	A	A	1	6376	0.479	0.479	0.214	0.171	0.136	0.001	0.392	0.392	-0.371	-0.334	-0.369	1.743	0.028	4.2
Math	5	0644	C	A	1	6376	0.838	0.027	0.120	0.838	0.016	0.001	0.406	-0.261	-0.346	0.406	-0.162	-0.400	0.037	-4.3
Math	5	0645	D	B	2	6376	0.585	0.181	0.139	0.093	0.585	0.001	0.552	-0.463	-0.554	-0.400	0.552	1.200	0.029	-8.6

Appendix L: 2008 Grades 3–8 and 11 Multiple-Choice Statistics

Information						Proportions							Correlations					Rasch		
Cont.	Grade	Pub. ID	Key	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Math	5	0646	B	D	1	6376	0.879	0.059	0.879	0.045	0.016	0.001	0.440	-0.346	0.440	-0.288	-0.215	-0.801	0.041	-5.0
Math	5	0647	B	C	1	6376	0.849	0.033	0.849	0.076	0.041	0.001	0.429	-0.198	0.429	-0.307	-0.367	-0.500	0.038	-2.0
Math	5	0648	C	E	1	6376	0.652	0.096	0.105	0.652	0.146	0.001	0.374	-0.369	-0.217	0.374	-0.300	0.837	0.030	2.8
Math	5	0649	D	D	2	6376	0.848	0.031	0.029	0.091	0.848	0.001	0.387	-0.214	-0.218	-0.319	0.387	-0.496	0.038	-3.0
Math	5	0650	B	C	1	6376	0.381	0.300	0.381	0.236	0.081	0.001	0.251	-0.278	0.251	-0.161	-0.343	2.250	0.029	9.9
Math	5	0651	D	A	1	6376	0.681	0.043	0.170	0.105	0.681	0.001	0.360	-0.328	-0.176	-0.392	0.360	0.677	0.030	4.1
Math	5	0652	B	B	2	6376	0.535	0.358	0.535	0.069	0.036	0.001	0.226	-0.176	0.226	-0.214	-0.261	1.456	0.028	9.9
Math	5	0653	B	A	1	6376	0.910	0.051	0.910	0.026	0.012	0.001	0.409	-0.323	0.409	-0.246	-0.198	-1.179	0.046	-6.6
Math	5	0654	A	A	2	6376	0.607	0.607	0.126	0.104	0.158	0.005	0.224	0.224	-0.190	-0.202	-0.143	1.080	0.029	9.9
Math	5	0655	C	B	1	6334	0.907	0.024	0.010	0.907	0.059	0.000	0.296	-0.150	-0.100	0.296	-0.262	-1.131	0.046	1.4
Math	5	0656	A	A	1	6334	0.619	0.619	0.297	0.051	0.032	0.000	0.444	0.444	-0.398	-0.392	-0.260	1.021	0.029	0.5
Math	5	0657	A	D	2	6334	0.702	0.702	0.077	0.032	0.188	0.000	0.475	0.475	-0.413	-0.287	-0.379	0.553	0.031	-4.1
Math	5	0658	C	A	1	6334	0.684	0.166	0.114	0.684	0.036	0.000	0.439	-0.345	-0.368	0.439	-0.318	0.657	0.030	-1.4
Math	5	0659	A	A	1	6334	0.764	0.764	0.138	0.058	0.039	0.001	0.444	0.444	-0.335	-0.347	-0.282	0.156	0.033	-4.8
Math	5	0660	D	B	2	6334	0.500	0.259	0.192	0.048	0.500	0.001	0.385	-0.117	-0.586	-0.428	0.385	1.644	0.029	5.3
Math	5	0661	D	A	1	6334	0.633	0.128	0.114	0.124	0.633	0.001	0.485	-0.401	-0.386	-0.393	0.485	0.946	0.029	-5.3
Math	5	0662	C	A	2	6334	0.692	0.230	0.048	0.692	0.029	0.001	0.585	-0.544	-0.397	0.585	-0.343	0.607	0.031	-9.9
Math	5	0663	A	A	1	6334	0.447	0.447	0.092	0.417	0.044	0.000	0.478	0.478	-0.323	-0.496	-0.375	1.920	0.029	-2.3
Math	5	0664	D	E	2	6334	0.787	0.063	0.035	0.114	0.787	0.000	0.451	-0.317	-0.347	-0.334	0.451	-0.001	0.034	-1.8
Math	5	0665	A	D	2	6334	0.944	0.944	0.021	0.014	0.019	0.001	0.341	0.341	-0.205	-0.205	-0.232	-1.741	0.057	-4.7
Math	5	0666	B	C	1	6334	0.716	0.113	0.716	0.139	0.030	0.003	0.350	-0.364	0.350	-0.197	-0.216	0.469	0.031	2.6
Math	5	0667	B	A	1	6373	0.870	0.051	0.870	0.054	0.025	0.000	0.326	-0.212	0.326	-0.241	-0.183	-0.675	0.040	1.9
Math	5	0668	D	E	1	6373	0.824	0.058	0.071	0.046	0.824	0.002	0.355	-0.269	-0.223	-0.239	0.355	-0.252	0.036	0.3
Math	5	0669	A	A	1	6373	0.420	0.420	0.150	0.288	0.140	0.001	0.417	0.417	-0.185	-0.491	-0.473	2.105	0.029	3.7
Math	5	0670	B	A	1	6373	0.798	0.019	0.798	0.072	0.109	0.001	0.472	-0.249	0.472	-0.323	-0.401	-0.049	0.034	-5.6
Math	5	0671	D	B	1	6373	0.732	0.055	0.183	0.029	0.732	0.001	0.492	-0.424	-0.403	-0.271	0.492	0.407	0.032	-6.8
Math	5	0672	A	A	2	6373	0.704	0.704	0.104	0.158	0.032	0.001	0.506	0.506	-0.491	-0.367	-0.318	0.580	0.031	-4.7
Math	5	0673	D	C	1	6373	0.669	0.054	0.056	0.219	0.669	0.001	0.321	-0.272	-0.286	-0.232	0.321	0.788	0.030	8.2
Math	5	0674	B	D	2	6373	0.937	0.025	0.937	0.017	0.020	0.001	0.337	-0.235	0.337	-0.173	-0.210	-1.574	0.054	-4.2
Math	5	0675	B	A	2	6373	0.397	0.272	0.397	0.143	0.186	0.002	0.421	-0.338	0.421	-0.427	-0.515	2.228	0.029	1.9
Math	5	0676	C	E	2	6373	0.765	0.103	0.084	0.765	0.046	0.001	0.434	-0.334	-0.284	0.434	-0.361	0.187	0.033	2.2
Math	5	0677	B	A	1	6373	0.908	0.032	0.908	0.044	0.014	0.002	0.390	-0.294	0.390	-0.234	-0.238	-1.123	0.046	-3.8
Math	5	0678	D	A	1	6373	0.692	0.037	0.208	0.061	0.692	0.002	0.496	-0.381	-0.461	-0.261	0.496	0.654	0.030	-5.6
Math	5	0679	A	B	1	6339	0.661	0.661	0.222	0.068	0.047	0.000	0.413	0.413	-0.384	-0.345	-0.164	0.821	0.030	0.5
Math	5	0680	B	D	2	6339	0.678	0.226	0.678	0.027	0.069	0.000	0.264	-0.118	0.264	-0.175	-0.433	0.724	0.030	9.9
Math	5	0681	D	A	2	6339	0.711	0.044	0.141	0.103	0.711	0.001	0.538	-0.384	-0.486	-0.368	0.538	0.527	0.031	-8.9
Math	5	0682	C	E	1	6339	0.916	0.055	0.016	0.916	0.013	0.000	0.261	-0.168	-0.170	0.261	-0.187	-1.235	0.048	2.9
Math	5	0683	B	A	1	6339	0.707	0.222	0.707	0.021	0.050	0.000	0.372	-0.285	0.372	-0.295	-0.333	0.555	0.031	2.3
Math	5	0684	D	A	2	6339	0.749	0.112	0.068	0.071	0.749	0.000	0.444	-0.310	-0.338	-0.351	0.444	0.291	0.032	-1.6
Math	5	0685	A	C	2	6339	0.722	0.722	0.073	0.108	0.096	0.001	0.426	0.426	-0.288	-0.362	-0.304	0.463	0.031	-0.7
Math	5	0686	C	D	2	6339	0.717	0.045	0.208	0.717	0.029	0.001	0.478	-0.404	-0.389	0.478	-0.339	0.490	0.031	-2.9
Math	5	0687	C	A	1	6339	0.898	0.017	0.065	0.898	0.020	0.001	0.384	-0.250	-0.306	0.384	-0.175	-0.990	0.044	-2.2
Math	5	0688	D	E	1	6339	0.664	0.119	0.091	0.124	0.664	0.001	0.419	-0.355	-0.220	-0.383	0.419	0.802	0.030	-0.1

Appendix L: 2008 Grades 3–8 and 11 Multiple-Choice Statistics

Information						Proportions						Correlations					Rasch			
Cont.	Grade	Pub. ID	Key	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Math	5	0689	B	A	2	6339	0.635	0.058	0.635	0.210	0.096	0.001	0.523	-0.326	0.523	-0.489	-0.415	0.968	0.029	-7.4
Math	5	0690	B	A	1	6339	0.842	0.111	0.842	0.027	0.017	0.003	0.303	-0.233	0.303	-0.192	-0.194	-0.411	0.037	-0.3
Math	5	0691	C	C	1	6339	0.809	0.050	0.050	0.809	0.090	0.000	0.252	-0.180	-0.189	0.252	-0.156	-0.118	0.035	7.5
Math	5	0692	D	E	2	6339	0.576	0.104	0.170	0.149	0.576	0.001	0.443	-0.290	-0.488	-0.321	0.443	1.296	0.029	-0.6
Math	5	0693	B	B	1	6339	0.799	0.070	0.799	0.064	0.067	0.001	0.388	-0.286	0.388	-0.333	-0.199	-0.040	0.034	-0.1
Math	5	0694	C	A	1	6339	0.683	0.088	0.115	0.683	0.112	0.001	0.445	-0.434	-0.256	0.445	-0.363	0.712	0.030	-2.1
Math	5	0695	B	D	1	6339	0.893	0.060	0.893	0.034	0.013	0.001	0.285	-0.161	0.285	-0.236	-0.179	-0.901	0.043	4.4
Math	5	0696	D	C	1	6339	0.464	0.433	0.037	0.065	0.464	0.001	0.285	-0.239	-0.308	-0.310	0.285	1.868	0.028	9.9
Math	5	0697	B	D	2	6339	0.351	0.181	0.351	0.249	0.217	0.001	0.107	-0.147	0.107	-0.101	-0.081	2.467	0.030	9.9
Math	5	0698	C	A	1	6339	0.788	0.021	0.080	0.788	0.110	0.001	0.389	-0.260	-0.329	0.389	-0.260	0.042	0.034	-0.2
Math	5	0699	D	A	1	6339	0.751	0.082	0.094	0.071	0.751	0.001	0.468	-0.322	-0.372	-0.344	0.468	0.294	0.032	-4.0
Math	5	0700	A	A	1	6339	0.869	0.869	0.052	0.051	0.027	0.001	0.399	0.399	-0.282	-0.265	-0.251	-0.645	0.040	-4.6
Math	5	0701	B	E	2	6339	0.744	0.128	0.744	0.096	0.032	0.000	0.478	-0.456	0.478	-0.310	-0.249	0.341	0.032	-1.9
Math	5	0702	C	A	2	6339	0.590	0.133	0.132	0.590	0.142	0.003	0.582	-0.461	-0.593	0.582	-0.474	1.221	0.029	-9.9
Math	5	0703	D	B	1	6317	0.817	0.125	0.020	0.038	0.817	0.000	0.306	-0.169	-0.244	-0.316	0.306	-0.208	0.036	5.7
Math	5	0704	A	E	2	6317	0.740	0.740	0.031	0.120	0.108	0.000	0.344	0.344	-0.167	-0.269	-0.294	0.344	0.032	7.9
Math	5	0705	C	C	1	6317	0.604	0.244	0.083	0.604	0.068	0.000	0.345	-0.270	-0.281	0.345	-0.317	1.133	0.029	6.5
Math	5	0706	A	A	1	6317	0.820	0.820	0.027	0.108	0.045	0.000	0.493	0.493	-0.245	-0.433	-0.311	-0.227	0.036	-6.8
Math	5	0707	D	A	2	6317	0.573	0.355	0.038	0.033	0.573	0.001	0.415	-0.387	-0.292	-0.310	0.415	1.297	0.029	3.1
Math	5	0708	B	E	2	6317	0.782	0.110	0.782	0.071	0.037	0.001	0.443	-0.302	0.443	-0.370	-0.304	0.062	0.034	-2.4
Math	5	0709	A	A	1	6317	0.705	0.705	0.142	0.113	0.039	0.001	0.434	0.434	-0.318	-0.397	-0.237	0.561	0.031	-3.4
Math	5	0710	A	A	1	6317	0.601	0.601	0.126	0.145	0.127	0.001	0.495	0.495	-0.343	-0.469	-0.428	1.153	0.029	-5.3
Math	5	0711	B	A	1	6317	0.814	0.100	0.814	0.050	0.035	0.001	0.438	-0.347	0.438	-0.258	-0.313	-0.180	0.035	-2.2
Math	5	0712	C	C	1	6317	0.888	0.029	0.043	0.888	0.039	0.001	0.319	-0.204	-0.212	0.319	-0.200	-0.886	0.043	0.6
Math	5	0713	D	A	2	6317	0.568	0.185	0.143	0.103	0.568	0.000	0.503	-0.470	-0.408	-0.428	0.503	1.327	0.029	-5.4
Math	5	0714	B	D	2	6317	0.740	0.073	0.740	0.099	0.085	0.002	0.469	-0.336	0.469	-0.329	-0.398	0.345	0.032	-2.5
Math	5	0715	D	C	1	6345	0.577	0.184	0.132	0.107	0.577	0.000	0.481	-0.397	-0.367	-0.482	0.481	1.276	0.029	-3.0
Math	5	0716	A	A	1	6345	0.842	0.842	0.026	0.031	0.100	0.001	0.400	0.400	-0.272	-0.262	-0.295	-0.420	0.037	-1.3
Math	5	0717	C	A	1	6345	0.853	0.026	0.095	0.853	0.026	0.001	0.398	-0.274	-0.316	0.398	-0.198	-0.519	0.038	-2.3
Math	5	0718	C	A	2	6345	0.871	0.078	0.029	0.871	0.020	0.001	0.474	-0.429	-0.262	0.474	-0.190	-0.698	0.040	-6.5
Math	5	0719	B	E	1	6345	0.779	0.052	0.779	0.052	0.116	0.001	0.522	-0.324	0.522	-0.308	-0.469	0.075	0.033	-7.1
Math	5	0720	D	E	2	6345	0.800	0.043	0.058	0.097	0.800	0.001	0.352	-0.294	-0.261	-0.211	0.352	-0.074	0.035	3.7
Math	5	0721	A	D	2	6345	0.940	0.940	0.023	0.016	0.021	0.000	0.321	0.321	-0.190	-0.191	-0.216	-1.643	0.055	-3.2
Math	5	0722	D	B	2	6345	0.469	0.123	0.134	0.273	0.469	0.001	0.441	-0.460	-0.491	-0.337	0.441	1.839	0.029	0.7
Math	5	0723	B	C	2	6345	0.826	0.035	0.826	0.049	0.090	0.000	0.441	-0.179	0.441	-0.271	-0.405	-0.283	0.036	-3.0
Math	5	0724	A	A	1	6345	0.725	0.725	0.051	0.183	0.040	0.001	0.430	0.430	-0.335	-0.327	-0.329	0.433	0.031	-2.1
Math	5	0725	D	A	2	6345	0.449	0.094	0.297	0.159	0.449	0.000	0.452	-0.455	-0.322	-0.601	0.452	1.944	0.029	-0.6
Math	5	0726	B	A	1	6345	0.776	0.039	0.776	0.123	0.059	0.003	0.435	-0.240	0.435	-0.314	-0.387	0.099	0.033	-1.5
Math	5	0727	B	A	1	6350	0.681	0.046	0.681	0.096	0.177	0.000	0.424	-0.286	0.424	-0.297	-0.372	0.699	0.030	-1.3
Math	5	0728	C	A	1	6350	0.765	0.060	0.140	0.765	0.034	0.001	0.523	-0.295	-0.523	0.523	-0.201	0.175	0.033	-7.2
Math	5	0729	D	D	2	6350	0.730	0.063	0.162	0.044	0.730	0.000	0.396	-0.261	-0.321	-0.293	0.396	0.406	0.031	0.5
Math	5	0730	D	A	2	6350	0.496	0.191	0.212	0.100	0.496	0.001	0.414	-0.575	-0.183	-0.351	0.414	1.687	0.028	5.4
Math	5	0731	C	E	2	6350	0.840	0.012	0.016	0.840	0.131	0.001	0.305	-0.177	-0.192	0.305	-0.246	-0.400	0.037	2.6

Appendix L: 2008 Grades 3–8 and 11 Multiple-Choice Statistics

Information						Proportions						Correlations					Rasch			
Cont.	Grade	Pub. ID	Key	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Math	5	0732	A	B	2	6350	0.634	0.634	0.233	0.064	0.068	0.001	0.461	0.461	-0.348	-0.423	-0.439	0.964	0.029	0.2
Math	5	0733	B	D	2	6350	0.813	0.043	0.813	0.088	0.055	0.001	0.406	-0.222	0.406	-0.292	-0.330	-0.171	0.035	-1.6
Math	5	0734	B	E	1	6350	0.675	0.110	0.675	0.174	0.041	0.000	0.476	-0.385	0.476	-0.414	-0.316	0.732	0.030	-1.4
Math	5	0735	D	A	2	6350	0.536	0.271	0.100	0.091	0.536	0.001	0.511	-0.483	-0.432	-0.408	0.511	1.480	0.029	-6.8
Math	5	0736	B	A	2	6350	0.601	0.171	0.601	0.149	0.076	0.003	0.366	-0.317	0.366	-0.298	-0.261	1.141	0.029	3.3
Math	5	0737	C	A	1	6350	0.731	0.236	0.020	0.731	0.012	0.001	0.421	-0.392	-0.270	0.421	-0.166	0.398	0.031	0.7
Math	5	0738	A	C	1	6350	0.839	0.839	0.045	0.079	0.035	0.003	0.408	0.408	-0.260	-0.298	-0.277	-0.383	0.037	-3.4
Math	5	0739	C	A	1	6342	0.877	0.025	0.050	0.877	0.048	0.001	0.407	-0.271	-0.273	0.407	-0.268	-0.743	0.041	-4.1
Math	5	0740	B	A	1	6342	0.753	0.084	0.753	0.018	0.144	0.001	0.385	-0.345	0.385	-0.243	-0.269	0.265	0.032	1.4
Math	5	0741	D	B	1	6342	0.876	0.015	0.067	0.040	0.876	0.001	0.312	-0.196	-0.201	-0.227	0.312	-0.738	0.041	0.9
Math	5	0742	D	C	1	6342	0.838	0.036	0.041	0.085	0.838	0.001	0.424	-0.295	-0.304	-0.288	0.424	-0.371	0.037	-4.7
Math	5	0743	C	D	1	6342	0.884	0.028	0.050	0.884	0.036	0.001	0.419	-0.275	-0.313	0.419	-0.235	-0.829	0.042	-5.8
Math	5	0744	B	E	2	6342	0.741	0.039	0.741	0.054	0.164	0.001	0.533	-0.332	0.533	-0.321	-0.488	0.343	0.032	-8.2
Math	5	0745	C	C	2	6342	0.587	0.182	0.020	0.587	0.210	0.002	0.210	-0.095	-0.186	0.210	-0.245	1.225	0.029	9.9
Math	5	0746	A	B	1	6342	0.924	0.924	0.032	0.025	0.018	0.001	0.210	0.210	-0.151	-0.117	-0.117	-1.358	0.050	3.6
Math	5	0747	D	A	2	6342	0.660	0.161	0.120	0.057	0.660	0.001	0.496	-0.588	-0.196	-0.326	0.496	0.830	0.030	-3.0
Math	5	0748	C	D	2	6342	0.866	0.048	0.043	0.866	0.043	0.001	0.346	-0.248	-0.276	0.346	-0.156	-0.632	0.040	0.1
Math	5	0749	A	A	1	6342	0.853	0.853	0.088	0.020	0.038	0.001	0.372	0.372	-0.246	-0.239	-0.294	-0.508	0.038	-0.6
Math	5	0750	C	A	2	6342	0.677	0.141	0.092	0.677	0.087	0.003	0.476	-0.381	-0.423	0.476	-0.327	0.728	0.030	-3.2
Math	5	0751	B	A	1	6324	0.685	0.048	0.685	0.119	0.148	0.000	0.355	-0.298	0.355	-0.239	-0.295	0.695	0.030	3.5
Math	5	0752	A	E	1	6324	0.851	0.851	0.050	0.047	0.050	0.001	0.291	0.291	-0.134	-0.226	-0.217	-0.467	0.038	2.5
Math	5	0753	A	D	2	6324	0.431	0.431	0.095	0.122	0.351	0.001	0.266	0.266	-0.340	-0.403	-0.150	2.018	0.029	9.9
Math	5	0754	C	A	1	6324	0.732	0.044	0.035	0.732	0.188	0.000	0.303	-0.329	-0.074	0.303	-0.243	0.412	0.031	6.7
Math	5	0755	C	C	2	6324	0.619	0.133	0.142	0.619	0.106	0.001	0.414	-0.371	-0.384	0.414	-0.243	1.055	0.029	0.4
Math	5	0756	B	C	1	6324	0.670	0.230	0.670	0.028	0.072	0.001	0.202	-0.126	0.202	-0.185	-0.212	0.781	0.030	9.9
Math	5	0757	A	E	2	6324	0.891	0.891	0.030	0.053	0.025	0.000	0.343	0.343	-0.193	-0.235	-0.241	-0.875	0.043	-1.6
Math	5	0758	C	D	2	6324	0.296	0.464	0.147	0.296	0.091	0.002	0.230	-0.186	-0.312	0.230	-0.331	2.762	0.031	9.9
Math	5	0759	C	A	1	6324	0.719	0.109	0.099	0.719	0.071	0.001	0.533	-0.491	-0.361	0.533	-0.378	0.491	0.031	-8.1
Math	5	0760	B	B	1	6324	0.917	0.009	0.917	0.062	0.011	0.001	0.287	-0.107	0.287	-0.245	-0.152	-1.214	0.048	-1.3
Math	5	0761	C	A	1	6324	0.773	0.054	0.109	0.773	0.063	0.001	0.469	-0.300	-0.341	0.469	-0.391	0.147	0.033	-5.6
Math	5	0762	A	A	1	6324	0.686	0.686	0.049	0.109	0.154	0.003	0.404	0.404	-0.296	-0.212	-0.403	0.689	0.030	0.0
Math	5	0763	A	A	1	6338	0.782	0.782	0.084	0.079	0.055	0.000	0.434	0.434	-0.362	-0.299	-0.268	0.069	0.034	-2.2
Math	5	0764	B	A	1	6338	0.875	0.077	0.875	0.030	0.018	0.000	0.378	-0.322	0.378	-0.196	-0.201	-0.722	0.041	-1.9
Math	5	0765	D	A	1	6338	0.744	0.086	0.140	0.029	0.744	0.000	0.421	-0.244	-0.413	-0.212	0.421	0.322	0.032	0.1
Math	5	0766	B	D	2	6338	0.759	0.158	0.759	0.046	0.037	0.000	0.403	-0.360	0.403	-0.218	-0.251	0.225	0.033	1.3
Math	5	0767	C	B	1	6338	0.652	0.116	0.220	0.652	0.012	0.001	0.464	-0.391	-0.416	0.464	-0.214	0.875	0.030	-3.8
Math	5	0768	B	A	2	6338	0.817	0.037	0.817	0.045	0.101	0.000	0.540	-0.245	0.540	-0.328	-0.507	-0.195	0.036	-7.7
Math	5	0769	A	A	1	6338	0.356	0.356	0.029	0.545	0.069	0.001	0.303	0.303	-0.349	-0.261	-0.490	2.430	0.029	9.9
Math	5	0770	C	B	2	6338	0.561	0.095	0.165	0.561	0.178	0.001	0.370	-0.359	-0.308	0.370	-0.297	1.359	0.029	4.9
Math	5	0771	C	A	2	6338	0.503	0.225	0.213	0.503	0.058	0.001	0.489	-0.536	-0.381	0.489	-0.372	1.658	0.028	-3.5
Math	5	0772	D	A	1	6338	0.499	0.299	0.111	0.090	0.499	0.001	0.377	-0.269	-0.483	-0.366	0.377	1.679	0.028	6.1
Math	5	0773	C	E	2	6338	0.869	0.085	0.021	0.869	0.025	0.001	0.312	-0.240	-0.203	0.312	-0.168	-0.660	0.040	2.1
Math	5	0774	C	C	1	6338	0.506	0.062	0.237	0.506	0.193	0.002	0.331	-0.373	-0.308	0.331	-0.248	1.646	0.028	9.8

Appendix L: 2008 Grades 3–8 and 11 Multiple-Choice Statistics

Information						Proportions							Correlations					Rasch		
Cont.	Grade	Pub. ID	Key	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Math	5	0775	A	A	1	6352	0.851	0.851	0.102	0.025	0.021	0.000	0.385	0.385	-0.304	-0.242	-0.223	-0.469	0.038	-3.7
Math	5	0776	C	C	1	6352	0.600	0.068	0.093	0.600	0.238	0.000	0.318	-0.301	-0.304	0.318	-0.222	1.172	0.029	8.5
Math	5	0777	D	A	2	6352	0.716	0.095	0.113	0.075	0.716	0.001	0.532	-0.419	-0.414	-0.395	0.532	0.512	0.031	-8.8
Math	5	0778	D	D	2	6352	0.694	0.255	0.028	0.023	0.694	0.000	0.246	-0.168	-0.264	-0.246	0.246	0.643	0.030	9.9
Math	5	0779	A	D	2	6352	0.656	0.656	0.087	0.239	0.017	0.001	0.431	0.431	-0.379	-0.356	-0.273	0.867	0.030	-3.6
Math	5	0780	B	A	1	6352	0.828	0.066	0.828	0.078	0.028	0.000	0.412	-0.319	0.412	-0.265	-0.270	-0.270	0.036	-4.1
Math	5	0781	B	B	1	6352	0.940	0.011	0.940	0.028	0.021	0.000	0.223	-0.145	0.223	-0.117	-0.158	-1.605	0.055	2.1
Math	5	0782	D	D	2	6352	0.740	0.016	0.156	0.086	0.740	0.001	0.404	-0.157	-0.314	-0.357	0.404	0.365	0.032	-2.5
Math	5	0783	A	A	1	6352	0.592	0.592	0.122	0.179	0.105	0.001	0.469	0.469	-0.479	-0.392	-0.308	1.212	0.029	-3.5
Math	5	0784	B	E	2	6352	0.563	0.125	0.563	0.185	0.126	0.001	0.466	-0.279	0.466	-0.421	-0.514	1.365	0.029	-2.0
Math	5	0785	C	A	2	6352	0.596	0.241	0.065	0.596	0.097	0.000	0.484	-0.529	-0.190	0.484	-0.350	1.191	0.029	-2.4
Math	5	0786	D	A	1	6352	0.284	0.496	0.122	0.096	0.284	0.002	0.260	-0.174	-0.519	-0.408	0.260	2.866	0.031	9.9
Math	5	0787	B	A	1	6331	0.630	0.197	0.630	0.133	0.039	0.000	0.358	-0.279	0.358	-0.301	-0.302	0.976	0.029	5.0
Math	5	0788	A	A	1	6331	0.852	0.852	0.084	0.028	0.035	0.000	0.404	0.404	-0.249	-0.255	-0.352	-0.501	0.038	-2.2
Math	5	0789	B	A	1	6331	0.576	0.407	0.576	0.008	0.009	0.000	0.384	-0.376	0.384	-0.163	-0.168	1.267	0.029	3.6
Math	5	0790	D	D	1	6331	0.676	0.046	0.087	0.190	0.676	0.000	0.486	-0.446	-0.353	-0.393	0.486	0.725	0.030	-6.0
Math	5	0791	B	E	2	6331	0.811	0.093	0.811	0.046	0.049	0.001	0.377	-0.288	0.377	-0.239	-0.261	-0.146	0.035	1.0
Math	5	0792	D	A	2	6331	0.616	0.085	0.059	0.240	0.616	0.001	0.497	-0.503	-0.208	-0.461	0.497	1.059	0.029	-5.6
Math	5	0793	D	C	2	6331	0.619	0.234	0.075	0.070	0.619	0.001	0.388	-0.265	-0.366	-0.399	0.388	1.038	0.029	1.4
Math	5	0794	B	E	1	6331	0.797	0.020	0.797	0.122	0.059	0.001	0.379	-0.213	0.379	-0.308	-0.255	-0.046	0.034	-0.9
Math	5	0795	B	A	2	6331	0.556	0.076	0.556	0.122	0.246	0.001	0.386	-0.361	0.386	-0.300	-0.348	1.369	0.028	4.8
Math	5	0796	A	D	2	6331	0.858	0.858	0.046	0.069	0.025	0.002	0.345	0.345	-0.284	-0.195	-0.234	-0.546	0.039	2.2
Math	5	0797	D	B	2	6331	0.289	0.587	0.059	0.064	0.289	0.000	0.220	-0.210	-0.307	-0.219	0.220	2.779	0.031	9.9
Math	5	0798	C	A	1	6331	0.872	0.021	0.067	0.872	0.039	0.002	0.394	-0.248	-0.278	0.394	-0.267	-0.684	0.040	-3.0
Math	5	0799	B	D	2	6343	0.733	0.166	0.733	0.059	0.041	0.000	0.397	-0.324	0.397	-0.283	-0.272	0.391	0.032	0.7
Math	5	0800	C	B	1	6343	0.838	0.041	0.060	0.838	0.059	0.000	0.449	-0.288	-0.304	0.449	-0.336	-0.378	0.037	-5.2
Math	5	0801	B	A	2	6343	0.673	0.046	0.673	0.256	0.025	0.001	0.583	-0.340	0.583	-0.564	-0.332	0.766	0.030	-9.9
Math	5	0802	C	B	1	6343	0.672	0.012	0.062	0.672	0.253	0.001	0.505	-0.301	-0.469	0.505	-0.432	0.763	0.030	-5.7
Math	5	0803	D	C	1	6343	0.785	0.107	0.017	0.090	0.785	0.000	0.387	-0.315	-0.189	-0.287	0.387	0.050	0.034	0.4
Math	5	0804	C	E	1	6343	0.737	0.029	0.188	0.737	0.045	0.000	0.474	-0.328	-0.429	0.474	-0.264	0.373	0.032	-2.9
Math	5	0805	D	A	1	6343	0.667	0.051	0.219	0.061	0.667	0.002	0.489	-0.439	-0.443	-0.246	0.489	0.800	0.030	-4.1
Math	5	0806	B	A	1	6343	0.609	0.054	0.609	0.254	0.082	0.000	0.464	-0.428	0.464	-0.380	-0.407	1.117	0.029	-1.5
Math	5	0807	C	A	1	6343	0.755	0.120	0.068	0.755	0.056	0.001	0.477	-0.345	-0.351	0.477	-0.381	0.255	0.032	-5.1
Math	5	0808	C	D	2	6343	0.724	0.111	0.084	0.724	0.080	0.000	0.404	-0.397	-0.289	0.404	-0.211	0.455	0.031	2.7
Math	5	0809	B	A	2	6343	0.636	0.069	0.636	0.229	0.064	0.001	0.417	-0.259	0.417	-0.395	-0.268	0.970	0.030	-0.7
Math	5	0810	A	B	1	6343	0.533	0.533	0.399	0.034	0.031	0.002	0.352	0.352	-0.321	-0.263	-0.346	1.523	0.029	9.0
Math	5	0811	D	A	2	6381	0.472	0.224	0.081	0.221	0.472	0.001	0.404	-0.206	-0.373	-0.529	0.404	1.830	0.028	4.8
Math	5	0812	D	B	1	6381	0.862	0.030	0.067	0.039	0.862	0.000	0.512	-0.315	-0.410	-0.314	0.512	-0.608	0.039	-8.2
Math	5	0813	B	A	1	6381	0.842	0.133	0.842	0.016	0.008	0.000	0.321	-0.281	0.321	-0.175	-0.155	-0.410	0.037	2.2
Math	5	0814	C	E	1	6381	0.748	0.135	0.044	0.748	0.072	0.001	0.497	-0.439	-0.267	0.497	-0.368	0.296	0.032	-4.4
Math	5	0815	C	E	2	6381	0.783	0.141	0.038	0.783	0.037	0.001	0.352	-0.250	-0.297	0.352	-0.239	0.062	0.034	4.0
Math	5	0816	C	A	1	6381	0.734	0.029	0.187	0.734	0.049	0.000	0.398	-0.270	-0.395	0.398	-0.120	0.387	0.032	2.9
Math	5	0817	B	A	1	6381	0.853	0.036	0.853	0.071	0.040	0.000	0.415	-0.260	0.415	-0.299	-0.289	-0.514	0.038	-3.2

Appendix L: 2008 Grades 3–8 and 11 Multiple-Choice Statistics

Information						Proportions							Correlations					Rasch		
Cont.	Grade	Pub. ID	Key	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Math	5	0818	B	D	2	6381	0.885	0.053	0.885	0.043	0.018	0.000	0.240	-0.196	0.240	-0.095	-0.184	-0.836	0.042	6.0
Math	5	0819	C	C	2	6381	0.324	0.546	0.063	0.324	0.066	0.000	0.166	-0.091	-0.294	0.166	-0.440	2.618	0.030	9.9
Math	5	0820	B	B	2	6381	0.617	0.144	0.617	0.105	0.134	0.000	0.543	-0.470	0.543	-0.418	-0.471	1.069	0.029	-9.6
Math	5	0821	A	A	2	6381	0.520	0.520	0.146	0.090	0.244	0.001	0.518	0.518	-0.432	-0.537	-0.465	1.578	0.028	-7.4
Math	5	0822	C	E	2	6381	0.572	0.087	0.102	0.572	0.236	0.002	0.406	-0.482	-0.237	0.406	-0.354	1.310	0.029	5.3
Math	5	0823	D	C	1	6335	0.751	0.114	0.116	0.017	0.751	0.000	0.370	-0.269	-0.299	-0.243	0.370	0.271	0.032	0.5
Math	5	0824	B	A	1	6335	0.841	0.019	0.841	0.130	0.010	0.000	0.387	-0.240	0.387	-0.343	-0.129	-0.413	0.037	-1.3
Math	5	0825	D	A	2	6335	0.717	0.175	0.079	0.029	0.717	0.000	0.470	-0.466	-0.248	-0.235	0.470	0.485	0.031	-5.9
Math	5	0826	B	A	2	6335	0.701	0.197	0.701	0.050	0.052	0.001	0.473	-0.423	0.473	-0.347	-0.272	0.580	0.031	-3.5
Math	5	0827	B	C	1	6335	0.757	0.191	0.757	0.020	0.030	0.001	0.334	-0.298	0.334	-0.130	-0.230	0.225	0.032	6.2
Math	5	0828	D	D	2	6335	0.884	0.076	0.016	0.023	0.884	0.000	0.317	-0.197	-0.224	-0.249	0.317	-0.832	0.042	3.1
Math	5	0829	C	B	2	6335	0.436	0.445	0.082	0.436	0.036	0.001	0.328	-0.260	-0.412	0.328	-0.443	1.991	0.029	9.9
Math	5	0830	A	A	2	6335	0.645	0.645	0.151	0.116	0.086	0.001	0.437	0.437	-0.401	-0.262	-0.384	0.897	0.030	-0.8
Math	5	0831	D	A	1	6335	0.725	0.029	0.197	0.048	0.725	0.001	0.483	-0.361	-0.429	-0.278	0.483	0.434	0.031	-4.4
Math	5	0832	C	A	2	6335	0.712	0.046	0.101	0.712	0.138	0.002	0.569	-0.349	-0.490	0.569	-0.465	0.510	0.031	-9.9
Math	5	0833	B	A	2	6335	0.527	0.224	0.527	0.133	0.115	0.001	0.435	-0.341	0.435	-0.398	-0.462	1.522	0.028	1.0
Math	5	0834	B	E	2	6335	0.813	0.028	0.813	0.060	0.096	0.003	0.463	-0.229	0.463	-0.294	-0.409	-0.181	0.035	-5.3
Math	6	0835	C	A	1	130839	0.678	0.132	0.154	0.678	0.036	0.000	0.573	-0.433	-0.543	0.573	-0.349	0.297	0.007	-9.9
Math	6	0836	C	A	1	130839	0.796	0.102	0.072	0.796	0.030	0.000	0.450	-0.365	-0.354	0.450	-0.187	-0.477	0.008	-9.9
Math	6	0837	D	A	1	130839	0.731	0.088	0.100	0.081	0.731	0.000	0.534	-0.493	-0.378	-0.356	0.534	-0.028	0.007	-9.9
Math	6	0838	C	A	1	130839	0.600	0.131	0.184	0.600	0.085	0.000	0.493	-0.464	-0.388	0.493	-0.390	0.732	0.006	-9.6
Math	6	0839	B	E	2	130839	0.801	0.100	0.801	0.023	0.075	0.001	0.272	-0.177	0.272	-0.183	-0.208	-0.521	0.008	9.9
Math	6	0840	D	C	1	130839	0.684	0.151	0.120	0.044	0.684	0.001	0.537	-0.426	-0.436	-0.446	0.537	0.262	0.007	-9.9
Math	6	0841	A	D	1	130839	0.707	0.707	0.031	0.236	0.026	0.000	0.499	0.499	-0.294	-0.465	-0.266	0.117	0.007	-9.9
Math	6	0842	A	E	2	130839	0.663	0.663	0.111	0.122	0.102	0.002	0.405	0.405	-0.301	-0.291	-0.358	0.378	0.007	9.9
Math	6	0843	D	B	2	130839	0.879	0.018	0.045	0.057	0.879	0.000	0.336	-0.238	-0.229	-0.210	0.336	-1.220	0.009	6.0
Math	6	0844	C	C	1	130839	0.427	0.087	0.215	0.427	0.270	0.001	0.371	-0.455	-0.376	0.371	-0.311	1.657	0.006	9.9
Math	6	0845	D	A	1	130839	0.682	0.027	0.226	0.065	0.682	0.000	0.496	-0.278	-0.534	-0.145	0.496	0.271	0.007	-3.3
Math	6	0846	B	A	1	130839	0.791	0.028	0.791	0.120	0.060	0.001	0.517	-0.377	0.517	-0.439	-0.308	-0.437	0.008	-9.9
Math	6	0847	B	E	2	130839	0.703	0.169	0.703	0.098	0.029	0.001	0.444	-0.455	0.444	-0.224	-0.273	0.145	0.007	8.7
Math	6	0848	A	C	1	130839	0.765	0.765	0.070	0.121	0.044	0.001	0.478	0.478	-0.260	-0.436	-0.321	-0.251	0.007	-9.9
Math	6	0849	B	B	1	130839	0.654	0.087	0.654	0.228	0.030	0.001	0.390	-0.402	0.390	-0.280	-0.280	0.432	0.007	9.9
Math	6	0850	C	A	2	130839	0.725	0.210	0.036	0.725	0.027	0.001	0.516	-0.487	-0.324	0.516	-0.223	0.010	0.007	-9.9
Math	6	0851	B	E	2	130839	0.607	0.273	0.607	0.042	0.077	0.001	0.611	-0.583	0.611	-0.357	-0.521	0.699	0.006	-9.9
Math	6	0852	A	E	2	130839	0.686	0.686	0.250	0.039	0.024	0.001	0.481	0.481	-0.434	-0.329	-0.297	0.241	0.007	-7.9
Math	6	0853	D	D	1	130839	0.617	0.093	0.113	0.175	0.617	0.001	0.473	-0.354	-0.335	-0.461	0.473	0.636	0.007	-1.9
Math	6	0854	B	A	1	130839	0.692	0.174	0.692	0.072	0.060	0.001	0.608	-0.580	0.608	-0.463	-0.328	0.209	0.007	-9.9
Math	6	0855	B	D	2	130839	0.661	0.074	0.661	0.094	0.170	0.001	0.491	-0.378	0.491	-0.409	-0.392	0.390	0.007	-9.3
Math	6	0856	D	E	2	130839	0.659	0.035	0.247	0.058	0.659	0.002	0.547	-0.366	-0.507	-0.378	0.547	0.410	0.007	-9.9
Math	6	0857	B	B	1	130839	0.789	0.064	0.789	0.106	0.041	0.001	0.406	-0.374	0.406	-0.265	-0.223	-0.432	0.008	3.7
Math	6	0858	B	C	1	130839	0.780	0.020	0.780	0.166	0.033	0.000	0.383	-0.228	0.383	-0.310	-0.285	-0.361	0.007	9.9
Math	6	0859	A	E	2	130839	0.866	0.866	0.039	0.082	0.012	0.000	0.249	0.249	-0.198	-0.152	-0.172	-1.086	0.009	9.9
Math	6	0860	C	A	1	130839	0.835	0.028	0.109	0.835	0.028	0.000	0.519	-0.323	-0.434	0.519	-0.303	-0.785	0.008	-9.9

Appendix L: 2008 Grades 3–8 and 11 Multiple-Choice Statistics

Information						Proportions						Correlations					Rasch			
Cont.	Grade	Pub. ID	Key	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Math	6	0861	D	D	1	130839	0.684	0.063	0.049	0.203	0.684	0.000	0.564	-0.361	-0.373	-0.529	0.564	0.256	0.007	-9.9
Math	6	0862	D	E	2	130839	0.475	0.411	0.085	0.028	0.475	0.000	0.469	-0.424	-0.494	-0.380	0.469	1.398	0.006	9.9
Math	6	0863	A	B	1	130839	0.606	0.606	0.064	0.225	0.105	0.000	0.410	0.410	-0.279	-0.324	-0.412	0.696	0.006	9.9
Math	6	0864	C	A	1	130839	0.618	0.219	0.067	0.618	0.096	0.001	0.389	-0.301	-0.365	0.389	-0.310	0.633	0.007	9.9
Math	6	0865	C	C	1	130839	0.835	0.061	0.085	0.835	0.018	0.000	0.416	-0.337	-0.320	0.416	-0.148	-0.789	0.008	0.8
Math	6	0866	A	D	2	130839	0.787	0.787	0.135	0.051	0.026	0.001	0.483	0.483	-0.403	-0.326	-0.288	-0.414	0.008	-9.9
Math	6	0867	C	C	2	130839	0.689	0.051	0.074	0.689	0.185	0.000	0.512	-0.300	-0.267	0.512	-0.521	0.226	0.007	-9.9
Math	6	0868	C	E	2	130839	0.619	0.245	0.055	0.619	0.081	0.000	0.566	-0.503	-0.465	0.566	-0.477	0.635	0.007	-9.9
Math	6	0869	D	D	2	130839	0.861	0.020	0.050	0.069	0.861	0.000	0.512	-0.286	-0.360	-0.394	0.512	-1.021	0.009	-9.9
Math	6	0870	C	A	2	130839	0.744	0.098	0.106	0.744	0.051	0.001	0.313	-0.295	-0.208	0.313	-0.160	-0.123	0.007	9.9
Math	6	0871	B	B	1	130839	0.842	0.080	0.842	0.026	0.052	0.000	0.362	-0.273	0.362	-0.261	-0.210	-0.844	0.008	9.9
Math	6	0872	D	A	2	130839	0.695	0.059	0.129	0.116	0.695	0.000	0.449	-0.225	-0.384	-0.382	0.449	0.186	0.007	0.0
Math	6	0873	B	D	1	130839	0.710	0.156	0.710	0.061	0.072	0.001	0.393	-0.289	0.393	-0.335	-0.279	0.097	0.007	9.9
Math	6	0874	D	C	2	130839	0.473	0.111	0.237	0.179	0.473	0.001	0.300	-0.280	-0.234	-0.313	0.300	1.408	0.006	9.9
Math	6	0875	C	E	2	130839	0.480	0.163	0.117	0.480	0.239	0.001	0.476	-0.534	-0.306	0.476	-0.453	1.378	0.006	4.6
Math	6	0876	C	C	2	130839	0.626	0.109	0.166	0.626	0.099	0.001	0.447	-0.439	-0.355	0.447	-0.295	0.592	0.007	5.5
Math	6	0877	D	A	1	130839	0.612	0.191	0.099	0.096	0.612	0.001	0.452	-0.368	-0.398	-0.356	0.452	0.668	0.006	0.4
Math	6	0878	A	C	1	130839	0.731	0.731	0.079	0.100	0.089	0.001	0.486	0.486	-0.359	-0.361	-0.384	-0.032	0.007	-9.9
Math	6	0879	B	B	2	130839	0.572	0.362	0.572	0.043	0.023	0.000	0.486	-0.498	0.486	-0.212	-0.224	0.885	0.006	-4.9
Math	6	0880	D	A	1	130839	0.608	0.041	0.071	0.279	0.608	0.000	0.510	-0.385	-0.248	-0.516	0.510	0.691	0.006	-9.9
Math	6	0881	D	D	2	130839	0.783	0.165	0.024	0.028	0.783	0.001	0.481	-0.409	-0.297	-0.314	0.481	-0.379	0.007	-9.9
Math	6	0882	A	E	2	130839	0.734	0.734	0.140	0.043	0.082	0.000	0.422	0.422	-0.335	-0.357	-0.272	-0.052	0.007	9.9
Math	6	0883	C	E	2	130839	0.716	0.032	0.211	0.716	0.040	0.001	0.369	-0.301	-0.249	0.369	-0.402	0.059	0.007	9.9
Math	6	0884	B	B	2	130839	0.526	0.091	0.526	0.251	0.132	0.001	0.517	-0.468	0.517	-0.511	-0.392	1.129	0.006	-9.9
Math	6	0885	D	A	1	130839	0.590	0.253	0.060	0.096	0.590	0.001	0.537	-0.554	-0.415	-0.300	0.537	0.789	0.006	-9.9
Math	6	0886	A	B	1	130839	0.828	0.828	0.073	0.065	0.033	0.001	0.503	0.503	-0.388	-0.360	-0.297	-0.720	0.008	-9.9
Math	6	0887	A	A	2	130839	0.452	0.452	0.262	0.240	0.045	0.001	0.454	0.454	-0.565	-0.294	-0.371	1.522	0.006	9.9
Math	6	0888	D	D	2	130839	0.517	0.108	0.229	0.144	0.517	0.002	0.504	-0.471	-0.470	-0.419	0.504	1.177	0.006	-8.0
Math	6	0889	B	D	1	6895	0.628	0.123	0.628	0.153	0.095	0.001	0.452	-0.362	0.452	-0.403	-0.322	0.446	0.028	-1.4
Math	6	0890	C	B	2	6895	0.540	0.090	0.280	0.540	0.089	0.001	0.354	-0.375	-0.269	0.354	-0.310	0.915	0.028	8.3
Math	6	0891	B	E	2	6895	0.795	0.078	0.795	0.066	0.061	0.000	0.508	-0.377	0.508	-0.336	-0.377	-0.597	0.033	-7.8
Math	6	0892	C	C	1	6895	0.501	0.094	0.111	0.501	0.291	0.001	0.397	-0.387	-0.327	0.397	-0.350	1.120	0.028	5.1
Math	6	0893	D	A	1	6895	0.877	0.016	0.066	0.039	0.877	0.001	0.398	-0.184	-0.319	-0.254	0.398	-1.318	0.039	-2.7
Math	6	0894	A	B	1	6895	0.366	0.366	0.134	0.272	0.225	0.002	0.111	0.111	-0.217	-0.072	-0.080	1.842	0.028	9.9
Math	6	0895	D	A	1	6895	0.587	0.134	0.236	0.043	0.587	0.001	0.410	-0.289	-0.377	-0.357	0.410	0.668	0.028	3.9
Math	6	0896	A	A	1	6895	0.520	0.520	0.085	0.278	0.116	0.001	0.532	0.532	-0.306	-0.558	-0.449	1.022	0.028	-7.2
Math	6	0897	B	C	1	6895	0.768	0.078	0.768	0.055	0.098	0.001	0.428	-0.329	0.428	-0.361	-0.252	-0.404	0.032	-2.4
Math	6	0898	B	E	2	6895	0.599	0.115	0.599	0.184	0.101	0.000	0.407	-0.241	0.407	-0.310	-0.471	0.601	0.028	3.5
Math	6	0899	A	D	1	6895	0.682	0.682	0.163	0.088	0.067	0.001	0.372	0.372	-0.237	-0.310	-0.338	0.139	0.029	1.8
Math	6	0900	B	B	1	6895	0.508	0.090	0.508	0.159	0.240	0.001	0.322	-0.438	0.322	-0.225	-0.248	1.081	0.028	9.9
Math	6	0901	D	B	1	6528	0.736	0.027	0.181	0.056	0.736	0.001	0.472	-0.299	-0.414	-0.316	0.472	-0.089	0.031	-1.7
Math	6	0902	C	A	1	6528	0.645	0.042	0.239	0.645	0.074	0.001	0.552	-0.309	-0.569	0.552	-0.290	0.453	0.029	-9.1
Math	6	0903	D	D	1	6528	0.472	0.170	0.169	0.189	0.472	0.001	0.360	-0.345	-0.387	-0.259	0.360	1.373	0.028	8.9

Appendix L: 2008 Grades 3–8 and 11 Multiple-Choice Statistics

Information						Proportions						Correlations					Rasch			
Cont.	Grade	Pub. ID	Key	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Math	6	0904	A	C	1	6528	0.804	0.804	0.059	0.019	0.117	0.000	0.243	0.243	-0.125	-0.214	-0.187	-0.566	0.034	9.8
Math	6	0905	A	E	2	6528	0.844	0.844	0.057	0.084	0.014	0.000	0.332	0.332	-0.211	-0.247	-0.237	-0.896	0.037	2.0
Math	6	0906	B	B	2	6528	0.243	0.037	0.243	0.469	0.250	0.001	0.301	-0.261	0.301	-0.233	-0.530	2.683	0.032	9.9
Math	6	0907	D	E	2	6528	0.868	0.060	0.032	0.040	0.868	0.000	0.402	-0.316	-0.160	-0.307	0.402	-1.126	0.039	-1.6
Math	6	0908	A	D	1	6528	0.703	0.703	0.170	0.094	0.031	0.001	0.433	0.433	-0.375	-0.306	-0.289	0.112	0.030	-1.4
Math	6	0909	C	E	2	6528	0.487	0.220	0.077	0.487	0.214	0.002	0.463	-0.508	-0.331	0.463	-0.396	1.291	0.028	-1.4
Math	6	0910	B	A	2	6528	0.258	0.168	0.258	0.215	0.358	0.001	0.278	-0.246	0.278	-0.269	-0.365	2.588	0.032	9.9
Math	6	0911	C	A	1	6528	0.752	0.166	0.053	0.752	0.028	0.001	0.327	-0.244	-0.264	0.327	-0.222	-0.194	0.032	5.3
Math	6	0912	C	C	2	6528	0.602	0.097	0.152	0.602	0.147	0.001	0.484	-0.452	-0.440	0.484	-0.340	0.686	0.029	-2.7
Math	6	0913	C	A	1	6487	0.669	0.055	0.119	0.669	0.156	0.000	0.497	-0.309	-0.327	0.497	-0.491	0.320	0.030	-5.9
Math	6	0914	A	D	1	6487	0.586	0.586	0.253	0.067	0.092	0.001	0.366	0.366	-0.242	-0.391	-0.378	0.778	0.029	7.1
Math	6	0915	D	C	1	6487	0.678	0.062	0.169	0.090	0.678	0.000	0.503	-0.445	-0.408	-0.359	0.503	0.270	0.030	-4.5
Math	6	0916	D	E	2	6487	0.744	0.030	0.061	0.165	0.744	0.000	0.392	-0.303	-0.259	-0.312	0.392	-0.138	0.032	0.5
Math	6	0917	C	A	1	6487	0.755	0.062	0.119	0.755	0.062	0.002	0.497	-0.353	-0.388	0.497	-0.354	-0.209	0.032	-6.5
Math	6	0918	B	A	1	6487	0.920	0.031	0.920	0.024	0.024	0.001	0.325	-0.279	0.325	-0.121	-0.201	-1.754	0.048	-1.5
Math	6	0919	C	B	1	6487	0.555	0.231	0.138	0.555	0.075	0.001	0.362	-0.273	-0.359	0.362	-0.303	0.942	0.029	7.6
Math	6	0920	C	D	1	6487	0.513	0.094	0.176	0.513	0.216	0.001	0.416	-0.327	-0.426	0.416	-0.335	1.166	0.028	3.3
Math	6	0921	C	C	1	6487	0.689	0.214	0.066	0.689	0.030	0.001	0.489	-0.414	-0.411	0.489	-0.283	0.203	0.030	-4.7
Math	6	0922	B	D	2	6487	0.864	0.031	0.864	0.082	0.023	0.000	0.437	-0.241	0.437	-0.356	-0.256	-1.075	0.039	-4.6
Math	6	0923	D	A	2	6487	0.571	0.168	0.086	0.173	0.571	0.001	0.565	-0.530	-0.465	-0.477	0.565	0.857	0.029	-9.9
Math	6	0924	B	E	2	6487	0.416	0.295	0.416	0.165	0.121	0.003	0.389	-0.402	0.389	-0.362	-0.349	1.675	0.029	6.0
Math	6	0925	A	C	1	6513	0.831	0.831	0.132	0.018	0.018	0.001	0.329	0.329	-0.265	-0.199	-0.210	-0.780	0.036	2.6
Math	6	0926	C	A	1	6513	0.589	0.180	0.143	0.589	0.086	0.001	0.378	-0.315	-0.303	0.378	-0.342	0.764	0.029	5.6
Math	6	0927	B	A	1	6513	0.592	0.149	0.592	0.106	0.151	0.002	0.432	-0.349	0.432	-0.370	-0.359	0.751	0.029	-0.6
Math	6	0928	A	D	1	6513	0.841	0.841	0.045	0.053	0.060	0.001	0.460	0.460	-0.298	-0.359	-0.292	-0.866	0.037	-5.0
Math	6	0929	C	E	2	6513	0.604	0.199	0.069	0.604	0.127	0.000	0.583	-0.517	-0.423	0.583	-0.511	0.683	0.029	-9.9
Math	6	0930	B	A	2	6513	0.438	0.119	0.438	0.216	0.224	0.002	0.422	-0.349	0.422	-0.433	-0.414	1.562	0.029	3.7
Math	6	0931	A	B	1	6513	0.749	0.749	0.095	0.054	0.101	0.000	0.400	0.400	-0.384	-0.320	-0.186	-0.170	0.032	3.3
Math	6	0932	A	D	1	6513	0.601	0.601	0.086	0.046	0.266	0.001	0.314	0.314	-0.467	-0.373	-0.132	0.702	0.029	9.9
Math	6	0933	B	C	1	6513	0.635	0.096	0.635	0.179	0.088	0.001	0.405	-0.369	0.405	-0.290	-0.340	0.512	0.029	3.5
Math	6	0934	A	E	2	6513	0.741	0.741	0.140	0.037	0.081	0.001	0.435	0.435	-0.329	-0.286	-0.345	-0.118	0.032	-2.1
Math	6	0935	C	A	1	6513	0.813	0.036	0.120	0.813	0.029	0.002	0.444	-0.336	-0.357	0.444	-0.221	-0.635	0.035	-4.1
Math	6	0936	B	D	2	6513	0.925	0.022	0.925	0.028	0.023	0.002	0.369	-0.219	0.369	-0.241	-0.243	-1.826	0.049	-4.1
Math	6	0937	B	B	1	6507	0.548	0.016	0.548	0.224	0.211	0.001	0.369	-0.247	0.369	-0.365	-0.298	1.016	0.028	6.9
Math	6	0938	C	D	1	6507	0.847	0.015	0.127	0.847	0.010	0.000	0.438	-0.234	-0.391	0.438	-0.186	-0.873	0.037	-6.0
Math	6	0939	D	C	1	6507	0.874	0.041	0.029	0.056	0.874	0.001	0.301	-0.189	-0.193	-0.203	0.301	-1.131	0.040	-0.2
Math	6	0940	A	E	2	6507	0.891	0.891	0.037	0.044	0.027	0.001	0.374	0.374	-0.243	-0.247	-0.234	-1.324	0.042	-3.3
Math	6	0941	B	A	1	6507	0.633	0.158	0.633	0.061	0.147	0.001	0.532	-0.435	0.532	-0.255	-0.540	0.560	0.029	-8.0
Math	6	0942	B	B	2	6507	0.475	0.205	0.475	0.129	0.190	0.001	0.448	-0.458	0.448	-0.392	-0.387	1.394	0.028	1.2
Math	6	0943	B	E	2	6507	0.638	0.208	0.638	0.123	0.030	0.000	0.467	-0.381	0.467	-0.398	-0.363	0.530	0.029	-3.2
Math	6	0944	D	D	2	6507	0.716	0.130	0.056	0.097	0.716	0.001	0.492	-0.327	-0.368	-0.449	0.492	0.080	0.031	-4.4
Math	6	0945	A	C	1	6507	0.559	0.559	0.141	0.242	0.057	0.001	0.344	0.344	-0.275	-0.332	-0.215	0.957	0.028	8.4
Math	6	0946	A	A	1	6507	0.792	0.792	0.057	0.077	0.072	0.001	0.457	0.457	-0.312	-0.325	-0.336	-0.431	0.034	-5.6

Appendix L: 2008 Grades 3–8 and 11 Multiple-Choice Statistics

Information						Proportions							Correlations					Rasch		
Cont.	Grade	Pub. ID	Key	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Math	6	0947	B	E	2	6507	0.430	0.132	0.430	0.209	0.228	0.001	0.279	-0.202	0.279	-0.294	-0.273	1.627	0.029	9.9
Math	6	0948	A	A	1	6507	0.683	0.683	0.140	0.116	0.059	0.002	0.368	0.368	-0.456	-0.115	-0.234	0.278	0.030	6.3
Math	6	0949	D	E	2	6517	0.656	0.053	0.141	0.149	0.656	0.001	0.402	-0.396	-0.300	-0.303	0.402	0.441	0.029	1.5
Math	6	0950	A	D	1	6517	0.815	0.815	0.052	0.044	0.088	0.001	0.320	0.320	-0.226	-0.280	-0.175	-0.599	0.035	3.3
Math	6	0951	C	C	1	6517	0.656	0.042	0.279	0.656	0.021	0.001	0.452	-0.345	-0.411	0.452	-0.228	0.436	0.029	-2.5
Math	6	0952	C	A	1	6517	0.523	0.369	0.051	0.523	0.055	0.001	0.351	-0.323	-0.308	0.351	-0.255	1.153	0.028	7.8
Math	6	0953	D	A	1	6517	0.881	0.012	0.042	0.064	0.881	0.000	0.389	-0.191	-0.294	-0.270	0.389	-1.213	0.041	-5.0
Math	6	0954	D	D	2	6517	0.548	0.330	0.038	0.083	0.548	0.001	0.438	-0.394	-0.380	-0.374	0.438	1.021	0.028	0.9
Math	6	0955	A	B	1	6517	0.747	0.747	0.086	0.133	0.033	0.001	0.411	0.411	-0.295	-0.326	-0.287	-0.111	0.032	-1.5
Math	6	0956	C	D	1	6517	0.939	0.022	0.018	0.939	0.021	0.001	0.287	-0.169	-0.203	0.287	-0.161	-2.025	0.054	-1.4
Math	6	0957	C	A	1	6517	0.721	0.163	0.070	0.721	0.046	0.000	0.585	-0.521	-0.439	0.585	-0.363	0.056	0.031	-9.9
Math	6	0958	D	E	2	6517	0.780	0.119	0.060	0.041	0.780	0.000	0.343	-0.173	-0.328	-0.290	0.343	-0.338	0.033	5.5
Math	6	0959	D	A	2	6517	0.652	0.086	0.175	0.085	0.652	0.002	0.546	-0.491	-0.450	-0.395	0.546	0.463	0.029	-8.7
Math	6	0960	C	C	1	6517	0.547	0.261	0.070	0.547	0.121	0.001	0.322	-0.304	-0.120	0.322	-0.325	1.028	0.028	9.3
Math	6	0961	B	A	2	6524	0.736	0.142	0.736	0.069	0.052	0.000	0.563	-0.528	-0.424	-0.424	-0.261	-0.057	0.031	-9.3
Math	6	0962	D	C	1	6524	0.750	0.088	0.141	0.021	0.750	0.000	0.445	-0.386	-0.345	-0.204	0.445	-0.142	0.032	-3.2
Math	6	0963	D	D	1	6524	0.775	0.039	0.042	0.144	0.775	0.000	0.444	-0.261	-0.347	-0.358	0.444	-0.313	0.033	-1.8
Math	6	0964	B	A	1	6524	0.800	0.025	0.800	0.024	0.150	0.001	0.325	-0.227	0.325	-0.221	-0.248	-0.496	0.034	2.4
Math	6	0965	A	E	2	6524	0.675	0.675	0.058	0.092	0.173	0.001	0.439	0.439	-0.338	-0.343	-0.355	0.313	0.030	-2.1
Math	6	0966	B	A	1	6524	0.502	0.137	0.502	0.036	0.325	0.000	0.378	-0.374	0.378	-0.366	-0.316	1.242	0.028	6.1
Math	6	0967	D	B	1	6524	0.889	0.018	0.038	0.054	0.889	0.000	0.243	-0.199	-0.126	-0.162	0.243	-1.317	0.042	5.7
Math	6	0968	C	A	1	6524	0.745	0.080	0.036	0.745	0.138	0.000	0.388	-0.278	-0.310	0.388	-0.287	-0.115	0.032	-0.2
Math	6	0969	A	E	2	6524	0.937	0.937	0.023	0.027	0.013	0.001	0.332	0.332	-0.214	-0.225	-0.179	-2.006	0.053	-3.6
Math	6	0970	D	D	1	6524	0.454	0.426	0.074	0.045	0.454	0.000	0.470	-0.433	-0.489	-0.423	0.470	1.492	0.028	-1.9
Math	6	0971	B	C	1	6524	0.739	0.088	0.739	0.114	0.058	0.001	0.392	-0.333	0.392	-0.273	-0.261	-0.074	0.031	1.4
Math	6	0972	D	C	1	6524	0.676	0.027	0.040	0.255	0.676	0.002	0.314	-0.234	-0.169	-0.283	0.314	0.313	0.030	9.9
Math	6	0973	A	A	1	6521	0.797	0.797	0.078	0.060	0.064	0.001	0.367	0.367	-0.289	-0.336	-0.147	-0.493	0.034	4.0
Math	6	0974	D	A	1	6521	0.858	0.053	0.023	0.065	0.858	0.001	0.376	-0.320	-0.205	-0.222	0.376	-1.011	0.038	-1.3
Math	6	0975	D	D	1	6521	0.574	0.086	0.143	0.196	0.574	0.001	0.428	-0.397	-0.328	-0.373	0.428	0.864	0.029	1.9
Math	6	0976	A	C	1	6521	0.858	0.858	0.077	0.055	0.010	0.001	0.433	0.433	-0.322	-0.327	-0.188	-1.007	0.038	-5.5
Math	6	0977	C	E	2	6521	0.559	0.262	0.152	0.559	0.026	0.001	0.562	-0.583	-0.437	0.562	-0.355	0.944	0.029	-7.5
Math	6	0978	A	B	1	6521	0.894	0.894	0.057	0.037	0.011	0.001	0.421	0.421	-0.319	-0.291	-0.194	-1.393	0.043	-5.1
Math	6	0979	C	D	2	6521	0.835	0.033	0.116	0.835	0.015	0.001	0.340	-0.235	-0.258	0.340	-0.207	-0.801	0.036	2.9
Math	6	0980	B	A	1	6521	0.848	0.055	0.848	0.031	0.065	0.001	0.505	-0.320	0.505	-0.273	-0.431	-0.916	0.037	-8.0
Math	6	0981	D	E	2	6521	0.736	0.079	0.092	0.093	0.736	0.001	0.444	-0.360	-0.320	-0.316	0.444	-0.068	0.031	-0.1
Math	6	0982	C	A	1	6521	0.812	0.074	0.080	0.812	0.033	0.001	0.427	-0.352	-0.320	0.427	-0.193	-0.605	0.035	-2.2
Math	6	0983	D	C	1	6521	0.625	0.061	0.246	0.067	0.625	0.001	0.523	-0.425	-0.434	-0.469	0.523	0.588	0.029	-6.7
Math	6	0984	D	E	2	6521	0.699	0.175	0.087	0.037	0.699	0.002	0.454	-0.349	-0.390	-0.310	0.454	0.161	0.030	-1.0
Math	6	0985	A	C	1	6501	0.845	0.845	0.033	0.109	0.012	0.001	0.255	0.255	-0.254	-0.141	-0.192	-0.871	0.037	7.6
Math	6	0986	B	B	1	6501	0.696	0.072	0.696	0.178	0.053	0.001	0.476	-0.346	0.476	-0.408	-0.330	0.200	0.030	-2.7
Math	6	0987	A	D	1	6501	0.800	0.800	0.025	0.144	0.031	0.001	0.430	0.430	-0.219	-0.374	-0.257	-0.497	0.034	-3.3
Math	6	0988	D	A	1	6501	0.838	0.077	0.047	0.037	0.838	0.001	0.476	-0.394	-0.339	-0.221	0.476	-0.810	0.037	-6.4
Math	6	0989	C	E	2	6501	0.640	0.139	0.135	0.640	0.085	0.000	0.519	-0.403	-0.530	0.519	-0.307	0.523	0.029	-5.7

Appendix L: 2008 Grades 3–8 and 11 Multiple-Choice Statistics

Information						Proportions						Correlations					Rasch			
Cont.	Grade	Pub. ID	Key	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Math	6	0990	A	D	1	6501	0.745	0.745	0.111	0.060	0.084	0.001	0.459	0.459	-0.385	-0.400	-0.248	-0.110	0.032	-2.6
Math	6	0991	C	C	2	6501	0.638	0.185	0.134	0.638	0.043	0.000	0.528	-0.543	-0.376	0.528	-0.303	0.535	0.029	-4.4
Math	6	0992	D	D	2	6501	0.540	0.032	0.055	0.373	0.540	0.000	0.370	-0.347	-0.450	-0.298	0.370	1.063	0.028	8.4
Math	6	0993	A	A	2	6501	0.949	0.949	0.025	0.017	0.008	0.001	0.311	0.311	-0.182	-0.233	-0.164	-2.259	0.059	-3.3
Math	6	0994	B	A	1	6501	0.787	0.073	0.787	0.032	0.107	0.000	0.572	-0.384	0.572	-0.335	-0.507	-0.402	0.034	-9.9
Math	6	0995	D	C	1	6501	0.579	0.225	0.081	0.115	0.579	0.001	0.374	-0.250	-0.443	-0.325	0.374	0.858	0.029	7.3
Math	6	0996	D	E	2	6501	0.752	0.052	0.096	0.098	0.752	0.002	0.436	-0.282	-0.320	-0.346	0.436	-0.157	0.032	-1.3
Math	6	0997	B	E	2	6567	0.829	0.010	0.829	0.037	0.123	0.001	0.376	-0.196	0.376	-0.146	-0.356	-0.719	0.036	0.2
Math	6	0998	A	D	1	6567	0.564	0.564	0.128	0.096	0.212	0.000	0.274	0.274	-0.257	-0.289	-0.176	0.938	0.028	9.9
Math	6	0999	B	A	1	6567	0.867	0.045	0.867	0.044	0.044	0.000	0.276	-0.221	0.276	-0.163	-0.158	-1.063	0.039	5.7
Math	6	1000	D	C	2	6567	0.432	0.079	0.191	0.297	0.432	0.001	0.332	-0.379	-0.297	-0.298	0.332	1.628	0.028	9.9
Math	6	1001	D	A	1	6567	0.823	0.103	0.037	0.037	0.823	0.000	0.518	-0.462	-0.334	-0.248	0.518	-0.665	0.035	-7.2
Math	6	1002	C	E	2	6567	0.854	0.049	0.069	0.854	0.027	0.000	0.469	-0.326	-0.371	0.469	-0.238	-0.945	0.038	-6.1
Math	6	1003	C	A	2	6567	0.544	0.367	0.067	0.544	0.021	0.000	0.627	-0.651	-0.385	0.627	-0.268	1.042	0.028	-9.9
Math	6	1004	B	D	1	6567	0.598	0.240	0.598	0.071	0.090	0.001	0.267	-0.164	0.267	-0.266	-0.277	0.756	0.029	9.9
Math	6	1005	A	A	1	6567	0.858	0.858	0.072	0.027	0.042	0.000	0.329	0.329	-0.173	-0.216	-0.290	-0.982	0.038	1.9
Math	6	1006	B	C	1	6567	0.695	0.040	0.695	0.045	0.219	0.000	0.448	-0.290	0.448	-0.354	-0.386	0.211	0.030	-1.2
Math	6	1007	B	E	2	6567	0.862	0.089	0.862	0.029	0.020	0.001	0.439	-0.377	0.439	-0.235	-0.228	-1.015	0.039	-4.2
Math	6	1008	A	C	1	6567	0.794	0.794	0.054	0.133	0.018	0.002	0.411	0.411	-0.358	-0.290	-0.267	-0.442	0.034	0.2
Math	6	1009	B	E	2	6562	0.658	0.036	0.658	0.035	0.271	0.000	0.287	-0.311	0.287	-0.326	-0.192	0.458	0.029	9.9
Math	6	1010	A	D	1	6562	0.787	0.787	0.065	0.077	0.069	0.001	0.451	0.451	-0.329	-0.365	-0.267	-0.362	0.033	-4.8
Math	6	1011	C	C	2	6562	0.698	0.056	0.170	0.698	0.075	0.000	0.529	-0.296	-0.531	0.529	-0.318	0.223	0.030	-6.4
Math	6	1012	B	B	1	6562	0.542	0.058	0.542	0.225	0.174	0.001	0.474	-0.291	0.474	-0.425	-0.480	1.085	0.028	-1.7
Math	6	1013	B	A	1	6562	0.843	0.018	0.843	0.118	0.020	0.000	0.517	-0.285	0.517	-0.450	-0.287	-0.819	0.037	-8.4
Math	6	1014	C	C	1	6562	0.794	0.058	0.063	0.794	0.085	0.000	0.500	-0.351	-0.341	0.500	-0.386	-0.414	0.034	-7.4
Math	6	1015	B	D	2	6562	0.751	0.118	0.751	0.069	0.060	0.001	0.484	-0.352	0.484	-0.372	-0.379	-0.114	0.032	-3.2
Math	6	1016	D	A	1	6562	0.789	0.086	0.048	0.076	0.789	0.001	0.512	-0.393	-0.343	-0.379	0.512	-0.380	0.033	-7.0
Math	6	1017	A	E	2	6562	0.942	0.942	0.013	0.014	0.030	0.001	0.308	0.308	-0.199	-0.189	-0.194	-2.077	0.055	-2.2
Math	6	1018	C	B	1	6562	0.760	0.092	0.030	0.760	0.117	0.001	0.381	-0.262	-0.257	0.381	-0.306	-0.173	0.032	2.1
Math	6	1019	A	D	1	6562	0.551	0.551	0.248	0.090	0.111	0.001	0.486	0.486	-0.407	-0.410	-0.499	1.038	0.028	-2.2
Math	6	1020	D	A	2	6562	0.546	0.103	0.294	0.053	0.546	0.004	0.521	-0.544	-0.459	-0.396	0.521	1.062	0.028	-5.5
Math	6	1021	A	B	1	6557	0.782	0.782	0.160	0.030	0.029	0.000	0.436	0.436	-0.366	-0.284	-0.261	-0.370	0.033	-3.3
Math	6	1022	C	A	2	6557	0.529	0.362	0.083	0.529	0.025	0.000	0.607	-0.646	-0.390	0.607	-0.213	1.115	0.028	-9.9
Math	6	1023	C	C	1	6557	0.731	0.103	0.108	0.731	0.056	0.001	0.522	-0.320	-0.494	0.522	-0.362	-0.028	0.031	-6.3
Math	6	1024	A	E	2	6557	0.734	0.734	0.196	0.032	0.037	0.000	0.363	0.363	-0.310	-0.181	-0.274	-0.049	0.031	1.6
Math	6	1025	D	D	1	6557	0.754	0.040	0.092	0.112	0.754	0.001	0.491	-0.354	-0.350	-0.392	0.491	-0.178	0.032	-4.8
Math	6	1026	B	C	1	6557	0.709	0.133	0.709	0.122	0.036	0.001	0.415	-0.333	0.415	-0.299	-0.336	0.113	0.031	1.7
Math	6	1027	B	E	2	6557	0.814	0.057	0.814	0.039	0.089	0.001	0.474	-0.303	0.474	-0.302	-0.383	-0.618	0.035	-6.2
Math	6	1028	C	C	1	6557	0.666	0.152	0.075	0.666	0.106	0.001	0.443	-0.386	-0.380	0.443	-0.281	0.370	0.030	1.2
Math	6	1029	B	A	1	6557	0.806	0.043	0.806	0.059	0.091	0.000	0.548	-0.213	0.548	-0.401	-0.514	-0.556	0.035	-7.9
Math	6	1030	C	D	2	6557	0.694	0.134	0.096	0.694	0.075	0.001	0.505	-0.463	-0.337	0.505	-0.362	0.205	0.030	-5.9
Math	6	1031	D	A	1	6557	0.911	0.010	0.041	0.036	0.911	0.002	0.324	-0.187	-0.293	-0.139	0.324	-1.614	0.046	1.4
Math	6	1032	D	E	2	6557	0.715	0.053	0.129	0.101	0.715	0.003	0.419	-0.322	-0.368	-0.261	0.419	0.077	0.031	1.7

Appendix L: 2008 Grades 3–8 and 11 Multiple-Choice Statistics

Information						Proportions						Correlations					Rasch			
Cont.	Grade	Pub. ID	Key	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Math	6	1033	A	E	2	6539	0.472	0.472	0.059	0.143	0.325	0.001	0.303	0.303	-0.321	-0.282	-0.261	1.398	0.028	9.9
Math	6	1034	B	C	1	6539	0.842	0.010	0.842	0.017	0.130	0.001	0.348	-0.152	0.348	-0.173	-0.312	-0.852	0.037	0.8
Math	6	1035	C	A	1	6539	0.736	0.079	0.090	0.736	0.094	0.001	0.433	-0.382	-0.322	0.433	-0.268	-0.063	0.031	-1.7
Math	6	1036	B	A	1	6539	0.641	0.066	0.641	0.134	0.158	0.001	0.475	-0.332	0.475	-0.464	-0.333	0.502	0.029	-4.7
Math	6	1037	D	D	1	6539	0.576	0.129	0.059	0.236	0.576	0.000	0.438	-0.527	-0.396	-0.274	0.438	0.856	0.028	0.9
Math	6	1038	D	C	1	6539	0.644	0.099	0.239	0.018	0.644	0.000	0.408	-0.296	-0.387	-0.188	0.408	0.488	0.029	1.2
Math	6	1039	C	B	1	6539	0.903	0.024	0.047	0.903	0.025	0.001	0.369	-0.269	-0.253	0.369	-0.195	-1.493	0.044	-4.1
Math	6	1040	A	A	2	6539	0.510	0.510	0.158	0.201	0.130	0.001	0.358	0.358	-0.313	-0.281	-0.400	1.200	0.028	9.4
Math	6	1041	A	E	2	6539	0.930	0.930	0.035	0.018	0.017	0.000	0.327	0.327	-0.230	-0.210	-0.168	-1.883	0.051	-3.0
Math	6	1042	D	D	1	6539	0.343	0.121	0.217	0.317	0.343	0.002	0.352	-0.365	-0.385	-0.348	0.352	2.097	0.030	8.5
Math	6	1043	C	A	1	6539	0.809	0.095	0.044	0.809	0.051	0.001	0.516	-0.400	-0.309	0.516	-0.394	-0.570	0.035	-8.1
Math	6	1044	A	D	2	6539	0.710	0.710	0.173	0.061	0.054	0.002	0.465	0.465	-0.352	-0.384	-0.360	0.104	0.031	-3.6
Math	6	1045	B	E	2	6540	0.714	0.130	0.714	0.142	0.013	0.000	0.291	-0.335	0.291	-0.122	-0.206	0.069	0.031	9.9
Math	6	1046	B	C	1	6540	0.797	0.088	0.797	0.038	0.076	0.000	0.476	-0.385	0.476	-0.358	-0.282	-0.492	0.034	-6.0
Math	6	1047	C	A	1	6540	0.703	0.021	0.066	0.703	0.209	0.000	0.415	-0.338	-0.325	0.415	-0.333	0.135	0.030	2.8
Math	6	1048	B	D	1	6540	0.457	0.243	0.457	0.157	0.142	0.002	0.324	-0.250	0.324	-0.346	-0.311	1.480	0.028	9.9
Math	6	1049	A	A	1	6540	0.802	0.802	0.048	0.078	0.070	0.001	0.359	0.359	-0.233	-0.250	-0.266	-0.532	0.034	1.5
Math	6	1050	C	E	2	6540	0.701	0.062	0.165	0.701	0.071	0.001	0.556	-0.463	-0.493	0.556	-0.328	0.151	0.030	-9.6
Math	6	1051	B	D	1	6540	0.643	0.096	0.643	0.143	0.117	0.001	0.471	-0.335	0.471	-0.440	-0.350	0.489	0.029	-3.2
Math	6	1052	D	A	1	6540	0.732	0.046	0.069	0.152	0.732	0.001	0.480	-0.248	-0.267	-0.475	0.480	-0.045	0.031	-1.6
Math	6	1053	B	A	2	6540	0.518	0.281	0.518	0.114	0.084	0.002	0.393	-0.322	0.393	-0.347	-0.398	1.157	0.028	4.6
Math	6	1054	B	B	2	6540	0.448	0.112	0.448	0.325	0.114	0.001	0.415	-0.358	0.415	-0.350	-0.509	1.528	0.028	4.1
Math	6	1055	C	E	2	6540	0.800	0.081	0.064	0.800	0.054	0.001	0.505	-0.357	-0.365	0.505	-0.368	-0.515	0.034	-6.0
Math	6	1056	A	C	1	6540	0.385	0.385	0.195	0.138	0.280	0.001	0.300	0.300	-0.433	-0.263	-0.203	1.867	0.029	9.9
Math	6	1057	D	D	1	6521	0.689	0.246	0.042	0.022	0.689	0.000	0.531	-0.485	-0.385	-0.291	0.531	0.246	0.030	-7.6
Math	6	1058	A	C	1	6521	0.863	0.863	0.013	0.118	0.005	0.001	0.290	0.290	-0.138	-0.258	-0.121	-1.032	0.039	2.8
Math	6	1059	A	A	1	6521	0.557	0.557	0.321	0.052	0.069	0.001	0.537	0.537	-0.486	-0.463	-0.461	0.980	0.029	-6.7
Math	6	1060	C	A	1	6521	0.728	0.186	0.044	0.728	0.042	0.001	0.369	-0.288	-0.270	0.369	-0.271	0.006	0.031	2.7
Math	6	1061	B	E	2	6521	0.722	0.154	0.722	0.088	0.035	0.001	0.462	-0.459	0.462	-0.260	-0.238	0.040	0.031	-2.9
Math	6	1062	B	A	2	6521	0.583	0.159	0.583	0.164	0.093	0.001	0.457	-0.252	0.457	-0.460	-0.470	0.842	0.029	0.1
Math	6	1063	D	B	2	6521	0.492	0.322	0.120	0.065	0.492	0.001	0.441	-0.461	-0.256	-0.448	0.441	1.322	0.028	4.6
Math	6	1064	A	D	2	6521	0.764	0.764	0.072	0.084	0.077	0.002	0.416	0.416	-0.363	-0.315	-0.229	-0.234	0.033	1.9
Math	6	1065	C	A	2	6521	0.683	0.228	0.031	0.683	0.056	0.001	0.614	-0.615	-0.333	0.614	-0.320	0.279	0.030	-9.9
Math	6	1066	D	A	1	6521	0.903	0.013	0.045	0.037	0.903	0.001	0.316	-0.133	-0.314	-0.122	0.316	-1.488	0.045	2.9
Math	6	1067	A	E	2	6521	0.834	0.834	0.066	0.054	0.045	0.001	0.389	0.389	-0.235	-0.290	-0.271	-0.765	0.036	-2.0
Math	6	1068	A	E	2	6521	0.621	0.621	0.132	0.217	0.027	0.003	0.611	0.611	-0.488	-0.583	-0.408	0.633	0.029	-9.9
Math	6	1069	C	D	2	6540	0.898	0.050	0.041	0.898	0.010	0.000	0.420	-0.312	-0.310	0.420	-0.150	-1.404	0.043	-6.2
Math	6	1070	D	A	2	6540	0.477	0.322	0.053	0.147	0.477	0.001	0.487	-0.549	-0.411	-0.278	0.487	1.416	0.028	-3.2
Math	6	1071	A	B	2	6540	0.477	0.477	0.250	0.153	0.119	0.001	0.414	0.414	-0.314	-0.403	-0.470	1.420	0.028	5.8
Math	6	1072	D	E	1	6540	0.818	0.039	0.082	0.060	0.818	0.001	0.322	-0.239	-0.231	-0.192	0.322	-0.619	0.035	3.4
Math	6	1073	C	A	1	6540	0.837	0.110	0.035	0.837	0.018	0.000	0.520	-0.491	-0.246	0.520	-0.229	-0.782	0.036	-7.9
Math	6	1074	A	D	1	6540	0.704	0.704	0.145	0.126	0.024	0.001	0.491	0.491	-0.329	-0.486	-0.301	0.162	0.030	-4.3
Math	6	1075	B	C	1	6540	0.813	0.127	0.813	0.047	0.012	0.001	0.361	-0.258	0.361	-0.296	-0.224	-0.583	0.035	0.3

Appendix L: 2008 Grades 3–8 and 11 Multiple-Choice Statistics

Information						Proportions						Correlations					Rasch			
Cont.	Grade	Pub. ID	Key	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Math	6	1076	C	B	1	6540	0.770	0.086	0.066	0.770	0.077	0.001	0.437	-0.331	-0.282	0.437	-0.332	-0.268	0.033	-1.7
Math	6	1077	D	A	2	6540	0.711	0.058	0.172	0.058	0.711	0.001	0.366	-0.299	-0.303	-0.202	0.366	0.118	0.031	2.7
Math	6	1078	C	D	2	6540	0.389	0.258	0.274	0.389	0.078	0.001	0.312	-0.389	-0.263	0.312	-0.206	1.870	0.029	9.9
Math	6	1079	B	A	1	6540	0.702	0.038	0.702	0.090	0.169	0.001	0.504	-0.158	0.504	-0.379	-0.490	0.176	0.030	-6.1
Math	6	1080	B	E	2	6540	0.827	0.088	0.827	0.040	0.042	0.002	0.444	-0.338	0.444	-0.303	-0.275	-0.700	0.036	-4.7
Math	6	1081	C	B	2	6517	0.697	0.112	0.103	0.697	0.087	0.001	0.386	-0.260	-0.349	0.386	-0.263	0.189	0.030	0.9
Math	6	1082	D	E	2	6517	0.847	0.022	0.095	0.035	0.847	0.000	0.393	-0.194	-0.351	-0.197	0.393	-0.883	0.037	-1.5
Math	6	1083	D	A	1	6517	0.855	0.047	0.052	0.045	0.855	0.001	0.325	-0.214	-0.200	-0.235	0.325	-0.958	0.038	2.1
Math	6	1084	C	B	1	6517	0.807	0.114	0.030	0.807	0.048	0.001	0.354	-0.248	-0.269	0.354	-0.239	-0.546	0.034	0.3
Math	6	1085	D	C	1	6517	0.577	0.223	0.101	0.097	0.577	0.001	0.357	-0.232	-0.452	-0.264	0.357	0.860	0.028	7.4
Math	6	1086	C	A	1	6517	0.556	0.136	0.219	0.556	0.088	0.001	0.435	-0.353	-0.417	0.435	-0.315	0.972	0.028	-1.6
Math	6	1087	B	A	2	6517	0.536	0.141	0.536	0.155	0.167	0.001	0.377	-0.360	0.377	-0.363	-0.284	1.079	0.028	7.5
Math	6	1088	C	D	1	6517	0.742	0.019	0.228	0.742	0.011	0.001	0.300	-0.241	-0.248	0.300	-0.202	-0.080	0.031	6.9
Math	6	1089	C	E	2	6517	0.746	0.144	0.059	0.746	0.050	0.000	0.394	-0.287	-0.292	0.394	-0.307	-0.105	0.032	2.5
Math	6	1090	D	C	1	6517	0.800	0.171	0.011	0.017	0.800	0.000	0.365	-0.324	-0.212	-0.186	0.365	-0.486	0.034	1.0
Math	6	1091	D	B	1	6517	0.322	0.530	0.084	0.063	0.322	0.001	0.325	-0.295	-0.447	-0.375	0.325	2.223	0.030	9.9
Math	6	1092	B	C	2	6517	0.713	0.152	0.713	0.110	0.022	0.003	0.442	-0.313	0.442	-0.416	-0.279	0.104	0.031	-1.5
Math	6	1093	D	A	2	6502	0.422	0.380	0.105	0.091	0.422	0.001	0.565	-0.631	-0.430	-0.398	0.565	1.731	0.029	-9.9
Math	6	1094	D	D	1	6502	0.653	0.221	0.074	0.051	0.653	0.001	0.506	-0.466	-0.308	-0.395	0.506	0.476	0.029	-6.9
Math	6	1095	A	C	2	6502	0.818	0.818	0.103	0.041	0.038	0.000	0.349	0.349	-0.249	-0.278	-0.195	-0.606	0.035	1.1
Math	6	1096	D	A	1	6502	0.773	0.092	0.075	0.060	0.773	0.000	0.483	-0.427	-0.318	-0.304	0.483	-0.277	0.033	-4.7
Math	6	1097	A	B	1	6502	0.517	0.517	0.129	0.170	0.182	0.001	0.485	0.485	-0.358	-0.417	-0.520	1.204	0.028	-3.1
Math	6	1098	A	C	1	6502	0.711	0.711	0.145	0.093	0.050	0.001	0.203	0.203	-0.122	-0.213	-0.105	0.139	0.031	9.9
Math	6	1099	D	A	1	6502	0.152	0.611	0.177	0.058	0.152	0.002	0.189	-0.147	-0.409	-0.503	0.189	3.448	0.038	9.9
Math	6	1100	C	B	1	6502	0.780	0.076	0.091	0.780	0.052	0.000	0.402	-0.357	-0.245	0.402	-0.263	-0.316	0.033	-0.1
Math	6	1101	B	E	2	6502	0.839	0.040	0.839	0.083	0.038	0.000	0.410	-0.216	0.410	-0.281	-0.361	-0.781	0.037	-0.7
Math	6	1102	C	A	1	6502	0.847	0.022	0.098	0.847	0.032	0.001	0.518	-0.259	-0.467	0.518	-0.269	-0.850	0.037	-9.0
Math	6	1103	B	D	1	6502	0.930	0.029	0.930	0.032	0.009	0.000	0.286	-0.171	0.286	-0.210	-0.153	-1.841	0.051	-0.6
Math	6	1104	B	D	2	6502	0.469	0.112	0.469	0.084	0.332	0.003	0.383	-0.396	0.383	-0.437	-0.306	1.451	0.028	6.7
Math	6	1105	D	D	2	6498	0.811	0.032	0.065	0.091	0.811	0.001	0.504	-0.280	-0.395	-0.382	0.504	-0.560	0.035	-7.2
Math	6	1106	A	A	1	6498	0.898	0.898	0.045	0.028	0.028	0.000	0.299	0.299	-0.221	-0.171	-0.179	-1.401	0.044	2.0
Math	6	1107	D	E	2	6498	0.435	0.515	0.032	0.018	0.435	0.000	0.285	-0.266	-0.275	-0.250	0.285	1.629	0.029	9.9
Math	6	1108	B	C	1	6498	0.833	0.090	0.833	0.025	0.052	0.000	0.369	-0.286	0.369	-0.252	-0.221	-0.738	0.036	0.1
Math	6	1109	B	A	2	6498	0.625	0.108	0.625	0.146	0.120	0.001	0.331	-0.295	0.331	-0.249	-0.251	0.618	0.029	7.6
Math	6	1110	A	A	1	6498	0.551	0.551	0.229	0.123	0.095	0.001	0.537	0.537	-0.455	-0.459	-0.558	1.013	0.028	-6.2
Math	6	1111	C	E	2	6498	0.421	0.063	0.417	0.421	0.098	0.001	0.445	-0.437	-0.396	0.445	-0.551	1.696	0.029	1.6
Math	6	1112	D	C	2	6498	0.776	0.149	0.043	0.031	0.776	0.001	0.493	-0.402	-0.383	-0.310	0.493	-0.308	0.033	-2.0
Math	6	1113	B	B	1	6498	0.953	0.018	0.953	0.016	0.013	0.001	0.245	-0.163	0.245	-0.132	-0.143	-2.335	0.061	-1.4
Math	6	1114	A	D	1	6498	0.761	0.761	0.143	0.062	0.034	0.001	0.469	0.469	-0.386	-0.329	-0.318	-0.203	0.032	-2.5
Math	6	1115	B	E	2	6498	0.365	0.543	0.365	0.052	0.039	0.001	0.350	-0.325	0.350	-0.419	-0.342	2.004	0.029	9.9
Math	6	1116	D	C	1	6498	0.779	0.035	0.071	0.113	0.779	0.002	0.433	-0.316	-0.225	-0.387	0.433	-0.328	0.033	-0.3
Math	6	1117	D	A	3	6503	0.605	0.043	0.137	0.213	0.605	0.002	0.399	-0.363	-0.391	-0.287	0.399	0.698	0.029	3.0
Math	6	1118	C	C	1	6503	0.770	0.139	0.049	0.770	0.041	0.001	0.462	-0.368	-0.370	0.462	-0.256	-0.289	0.033	-5.1

Appendix L: 2008 Grades 3–8 and 11 Multiple-Choice Statistics

Information						Proportions						Correlations					Rasch			
Cont.	Grade	Pub. ID	Key	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Math	6	1119	D	A	1	6503	0.808	0.081	0.048	0.061	0.808	0.001	0.511	-0.444	-0.336	-0.306	0.511	-0.559	0.034	-7.4
Math	6	1120	B	E	2	6503	0.566	0.289	0.566	0.060	0.085	0.000	0.281	-0.230	0.281	-0.294	-0.213	0.904	0.028	9.9
Math	6	1121	C	B	1	6503	0.634	0.123	0.049	0.634	0.194	0.000	0.329	-0.250	-0.310	0.329	-0.253	0.540	0.029	7.0
Math	6	1122	D	D	1	6503	0.555	0.284	0.108	0.052	0.555	0.001	0.542	-0.525	-0.492	-0.323	0.542	0.960	0.028	-9.2
Math	6	1123	B	A	1	6503	0.371	0.300	0.371	0.160	0.168	0.001	0.181	-0.124	0.181	-0.248	-0.206	1.920	0.029	9.9
Math	6	1124	C	E	2	6503	0.529	0.069	0.220	0.529	0.181	0.000	0.493	-0.521	-0.543	0.493	-0.284	1.094	0.028	-5.4
Math	6	1125	C	A	2	6503	0.431	0.076	0.430	0.431	0.062	0.002	0.493	-0.419	-0.510	0.493	-0.322	1.597	0.028	-4.8
Math	6	1126	D	B	1	6503	0.738	0.034	0.163	0.064	0.738	0.000	0.462	-0.352	-0.382	-0.310	0.462	-0.073	0.031	-2.8
Math	6	1127	C	C	1	6503	0.356	0.130	0.370	0.356	0.142	0.001	0.190	-0.284	-0.141	0.190	-0.216	2.001	0.029	9.9
Math	6	1128	B	D	2	6503	0.880	0.048	0.880	0.045	0.025	0.002	0.412	-0.304	0.412	-0.266	-0.246	-1.209	0.041	-5.7
Math	7	1129	D	A	1	135784	0.594	0.249	0.097	0.059	0.594	0.000	0.500	-0.458	-0.400	-0.334	0.500	0.580	0.006	-9.9
Math	7	1130	C	A	2	135784	0.676	0.205	0.098	0.676	0.022	0.000	0.597	-0.574	-0.447	0.597	-0.218	0.143	0.007	-9.9
Math	7	1131	D	A	1	135784	0.684	0.035	0.073	0.207	0.684	0.000	0.441	-0.249	-0.330	-0.382	0.441	0.092	0.007	-5.8
Math	7	1132	A	A	1	135784	0.622	0.622	0.208	0.107	0.062	0.000	0.449	0.449	-0.372	-0.353	-0.385	0.432	0.006	2.9
Math	7	1133	C	D	2	135784	0.761	0.131	0.014	0.761	0.094	0.000	0.227	-0.157	-0.168	0.227	-0.180	-0.387	0.007	9.9
Math	7	1134	A	A	1	135784	0.665	0.665	0.031	0.287	0.017	0.001	0.148	0.148	-0.299	-0.058	-0.219	0.194	0.006	9.9
Math	7	1135	D	E	2	135784	0.951	0.008	0.024	0.016	0.951	0.000	0.320	-0.146	-0.240	-0.187	0.320	-2.390	0.013	-9.9
Math	7	1136	C	B	1	135784	0.746	0.041	0.168	0.746	0.043	0.002	0.522	-0.307	-0.493	0.522	-0.241	-0.279	0.007	-9.9
Math	7	1137	D	C	1	135784	0.717	0.029	0.076	0.176	0.717	0.001	0.221	-0.171	-0.122	-0.190	0.221	-0.106	0.007	9.9
Math	7	1138	B	E	1	135784	0.635	0.087	0.635	0.148	0.129	0.001	0.467	-0.285	0.467	-0.346	-0.474	0.373	0.006	-7.2
Math	7	1139	D	D	1	135784	0.355	0.207	0.151	0.285	0.355	0.001	0.446	-0.571	-0.526	-0.333	0.446	1.836	0.006	5.0
Math	7	1140	C	E	1	135784	0.872	0.071	0.033	0.872	0.024	0.000	0.456	-0.346	-0.297	0.456	-0.258	-1.263	0.009	-9.9
Math	7	1141	B	D	1	135784	0.662	0.076	0.662	0.165	0.096	0.001	0.452	-0.414	0.452	-0.409	-0.224	0.219	0.006	-5.0
Math	7	1142	A	B	2	135784	0.380	0.380	0.155	0.235	0.228	0.001	0.313	0.313	-0.429	-0.203	-0.315	1.693	0.006	9.9
Math	7	1143	C	A	2	135784	0.594	0.212	0.108	0.594	0.086	0.001	0.440	-0.380	-0.395	0.440	-0.296	0.586	0.006	5.8
Math	7	1144	D	C	1	135784	0.882	0.016	0.078	0.023	0.882	0.001	0.224	-0.147	-0.147	-0.154	0.224	-1.372	0.009	9.9
Math	7	1145	B	D	2	135784	0.741	0.147	0.741	0.039	0.072	0.001	0.406	-0.241	0.406	-0.327	-0.387	-0.251	0.007	9.9
Math	7	1146	D	B	2	135784	0.502	0.113	0.146	0.237	0.502	0.001	0.402	-0.368	-0.236	-0.433	0.402	1.058	0.006	9.9
Math	7	1147	B	E	2	135784	0.624	0.229	0.624	0.048	0.098	0.001	0.248	-0.114	0.248	-0.325	-0.268	0.425	0.006	9.9
Math	7	1148	D	C	1	135784	0.602	0.161	0.063	0.173	0.602	0.001	0.360	-0.220	-0.330	-0.347	0.360	0.540	0.006	9.9
Math	7	1149	B	D	2	135784	0.525	0.187	0.525	0.173	0.113	0.001	0.443	-0.366	0.443	-0.436	-0.342	0.940	0.006	6.1
Math	7	1150	C	B	2	135784	0.543	0.050	0.332	0.543	0.072	0.002	0.543	-0.496	-0.551	0.543	-0.238	0.852	0.006	-9.9
Math	7	1151	A	E	2	135784	0.921	0.921	0.020	0.051	0.008	0.000	0.230	0.230	-0.114	-0.192	-0.098	-1.855	0.010	9.9
Math	7	1152	C	B	1	135784	0.547	0.121	0.309	0.547	0.023	0.001	0.443	-0.511	-0.360	0.443	-0.206	0.833	0.006	7.9
Math	7	1153	A	C	1	135784	0.719	0.719	0.084	0.110	0.086	0.001	0.479	0.479	-0.385	-0.343	-0.363	-0.111	0.007	-9.9
Math	7	1154	A	D	1	135784	0.872	0.872	0.056	0.049	0.023	0.000	0.383	0.383	-0.300	-0.215	-0.236	-1.264	0.009	-9.9
Math	7	1155	B	C	1	135784	0.809	0.065	0.809	0.036	0.089	0.000	0.493	-0.386	0.493	-0.301	-0.350	-0.719	0.008	-9.9
Math	7	1156	A	D	2	135784	0.784	0.784	0.066	0.090	0.059	0.000	0.517	0.517	-0.381	-0.378	-0.361	-0.533	0.007	-9.9
Math	7	1157	C	B	2	135784	0.655	0.129	0.114	0.655	0.101	0.001	0.575	-0.521	-0.381	0.575	-0.488	0.258	0.006	-9.9
Math	7	1158	A	A	1	135784	0.823	0.823	0.072	0.089	0.016	0.000	0.358	0.358	-0.294	-0.222	-0.241	-0.827	0.008	4.1
Math	7	1159	B	E	2	135784	0.693	0.161	0.693	0.068	0.078	0.001	0.409	-0.275	0.409	-0.341	-0.347	0.045	0.007	6.7
Math	7	1160	C	C	1	135784	0.580	0.061	0.257	0.580	0.102	0.000	0.535	-0.367	-0.526	0.535	-0.375	0.663	0.006	-9.9
Math	7	1161	B	C	1	135784	0.560	0.141	0.560	0.220	0.080	0.000	0.413	-0.324	0.413	-0.358	-0.363	0.763	0.006	9.9

Appendix L: 2008 Grades 3–8 and 11 Multiple-Choice Statistics

Information						Proportions						Correlations					Rasch			
Cont.	Grade	Pub. ID	Key	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Math	7	1162	A	E	2	135784	0.605	0.605	0.127	0.186	0.081	0.000	0.542	0.542	-0.383	-0.466	-0.533	0.529	0.006	-9.9
Math	7	1163	C	B	1	135784	0.736	0.064	0.111	0.736	0.088	0.001	0.562	-0.348	-0.466	0.562	-0.441	-0.217	0.007	-9.9
Math	7	1164	C	D	2	135784	0.676	0.085	0.195	0.676	0.044	0.001	0.498	-0.413	-0.420	0.498	-0.298	0.138	0.007	-9.9
Math	7	1165	B	D	1	135784	0.690	0.114	0.690	0.144	0.052	0.001	0.390	-0.413	0.390	-0.224	-0.251	0.060	0.007	9.9
Math	7	1166	C	B	2	135784	0.644	0.107	0.080	0.644	0.167	0.001	0.553	-0.569	-0.435	0.553	-0.371	0.318	0.006	-9.9
Math	7	1167	C	C	1	135784	0.846	0.031	0.019	0.846	0.103	0.000	0.399	-0.221	-0.249	0.399	-0.323	-1.016	0.008	-9.9
Math	7	1168	D	D	2	135784	0.628	0.096	0.097	0.178	0.628	0.000	0.475	-0.376	-0.422	-0.369	0.475	0.401	0.006	-6.2
Math	7	1169	D	A	2	135784	0.622	0.118	0.171	0.088	0.622	0.001	0.556	-0.443	-0.506	-0.387	0.556	0.432	0.006	-9.9
Math	7	1170	B	C	1	135784	0.475	0.060	0.475	0.186	0.279	0.000	0.290	-0.450	0.290	-0.307	-0.170	1.195	0.006	9.9
Math	7	1171	D	A	1	135784	0.719	0.062	0.111	0.106	0.719	0.001	0.349	-0.321	-0.163	-0.312	0.349	-0.113	0.007	9.9
Math	7	1172	D	E	2	135784	0.608	0.046	0.291	0.054	0.608	0.000	0.518	-0.462	-0.451	-0.412	0.518	0.514	0.006	-9.9
Math	7	1173	A	A	1	135784	0.915	0.915	0.039	0.019	0.026	0.000	0.380	0.380	-0.264	-0.244	-0.217	-1.766	0.010	-9.9
Math	7	1174	A	A	2	135784	0.567	0.567	0.138	0.249	0.045	0.001	0.415	0.415	-0.395	-0.334	-0.352	0.730	0.006	9.9
Math	7	1175	B	B	2	135784	0.547	0.189	0.547	0.164	0.100	0.001	0.454	-0.285	0.454	-0.483	-0.419	0.829	0.006	5.0
Math	7	1176	C	B	2	135784	0.619	0.065	0.159	0.619	0.156	0.001	0.442	-0.475	-0.441	0.442	-0.209	0.451	0.006	4.7
Math	7	1177	B	A	2	135784	0.661	0.128	0.661	0.129	0.081	0.001	0.519	-0.398	0.519	-0.433	-0.388	0.223	0.006	-9.9
Math	7	1178	D	C	1	135784	0.736	0.053	0.102	0.108	0.736	0.001	0.507	-0.366	-0.371	-0.399	0.507	-0.214	0.007	-9.9
Math	7	1179	B	E	2	135784	0.521	0.196	0.521	0.062	0.220	0.001	0.557	-0.555	0.557	-0.357	-0.504	0.965	0.006	-9.9
Math	7	1180	B	D	2	135784	0.575	0.072	0.575	0.294	0.058	0.001	0.527	-0.439	0.527	-0.458	-0.456	0.685	0.006	-9.9
Math	7	1181	C	C	1	135784	0.819	0.065	0.059	0.819	0.055	0.001	0.469	-0.334	-0.358	0.469	-0.278	-0.796	0.008	-9.9
Math	7	1182	D	C	1	135784	0.854	0.047	0.067	0.030	0.854	0.001	0.364	-0.228	-0.237	-0.277	0.364	-1.089	0.008	3.8
Math	7	1183	A	E	2	7121	0.621	0.621	0.060	0.277	0.041	0.000	0.607	0.607	-0.308	-0.601	-0.441	0.355	0.028	-9.9
Math	7	1184	B	B	2	7121	0.649	0.047	0.649	0.151	0.153	0.001	0.479	-0.334	0.479	-0.454	-0.338	0.203	0.028	-2.8
Math	7	1185	A	D	2	7121	0.537	0.537	0.165	0.202	0.096	0.001	0.282	0.282	-0.195	-0.271	-0.237	0.802	0.027	9.9
Math	7	1186	C	E	2	7121	0.735	0.099	0.049	0.735	0.117	0.001	0.459	-0.328	-0.330	0.459	-0.359	-0.305	0.030	-4.0
Math	7	1187	D	C	2	7121	0.536	0.063	0.340	0.061	0.536	0.001	0.390	-0.372	-0.311	-0.414	0.390	0.808	0.027	4.9
Math	7	1188	A	A	1	7121	0.913	0.913	0.048	0.021	0.017	0.001	0.327	0.327	-0.248	-0.201	-0.148	-1.860	0.044	-4.1
Math	7	1189	D	D	2	7121	0.504	0.089	0.359	0.047	0.504	0.001	0.394	-0.564	-0.280	-0.393	0.394	0.970	0.027	6.8
Math	7	1190	D	A	1	7121	0.798	0.045	0.074	0.082	0.798	0.001	0.501	-0.306	-0.366	-0.380	0.501	-0.738	0.032	-9.2
Math	7	1191	B	B	1	7121	0.672	0.103	0.672	0.075	0.149	0.001	0.459	-0.463	0.459	-0.316	-0.293	0.076	0.028	-2.8
Math	7	1192	A	C	1	7121	0.490	0.490	0.092	0.256	0.161	0.001	0.354	0.354	-0.412	-0.298	-0.281	1.047	0.027	7.2
Math	7	1193	A	E	2	7121	0.391	0.391	0.075	0.298	0.236	0.001	0.256	0.256	-0.377	-0.192	-0.255	1.567	0.028	9.9
Math	7	1194	C	A	2	7121	0.500	0.202	0.193	0.500	0.104	0.002	0.398	-0.366	-0.266	0.398	-0.461	0.994	0.027	5.6
Math	7	1195	B	D	1	6796	0.575	0.062	0.575	0.127	0.233	0.002	0.354	-0.289	0.354	-0.427	-0.212	0.668	0.028	6.2
Math	7	1196	C	E	1	6796	0.846	0.074	0.051	0.846	0.029	0.000	0.334	-0.279	-0.173	0.334	-0.200	-1.042	0.036	0.4
Math	7	1197	B	C	1	6796	0.825	0.054	0.825	0.094	0.026	0.001	0.440	-0.275	0.440	-0.366	-0.233	-0.858	0.035	-6.2
Math	7	1198	C	A	2	6796	0.619	0.105	0.143	0.619	0.132	0.001	0.580	-0.511	-0.517	0.580	-0.413	0.439	0.028	-9.9
Math	7	1199	C	B	2	6796	0.365	0.285	0.259	0.365	0.089	0.001	0.395	-0.616	-0.214	0.395	-0.251	1.755	0.028	4.2
Math	7	1200	D	D	2	6796	0.533	0.103	0.253	0.109	0.533	0.001	0.341	-0.344	-0.200	-0.410	0.341	0.886	0.027	7.5
Math	7	1201	B	A	1	6796	0.696	0.074	0.696	0.165	0.064	0.002	0.432	-0.372	0.432	-0.334	-0.274	0.011	0.029	-3.3
Math	7	1202	A	E	2	6796	0.548	0.548	0.092	0.165	0.193	0.001	0.531	0.531	-0.322	-0.452	-0.548	0.810	0.027	-9.2
Math	7	1203	C	D	2	6796	0.461	0.315	0.057	0.461	0.165	0.001	0.418	-0.328	-0.382	0.418	-0.478	1.252	0.027	3.2
Math	7	1204	A	A	1	6796	0.690	0.690	0.123	0.133	0.053	0.001	0.380	0.380	-0.361	-0.258	-0.214	0.046	0.029	0.3

Appendix L: 2008 Grades 3–8 and 11 Multiple-Choice Statistics

Information						Proportions						Correlations					Rasch			
Cont.	Grade	Pub. ID	Key	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Math	7	1205	A	C	1	6796	0.364	0.364	0.113	0.398	0.123	0.001	0.227	0.227	-0.399	-0.122	-0.342	1.763	0.028	9.9
Math	7	1206	D	C	1	6796	0.811	0.091	0.054	0.042	0.811	0.001	0.310	-0.136	-0.276	-0.265	0.310	-0.753	0.034	6.4
Math	7	1207	D	A	1	6791	0.856	0.043	0.050	0.051	0.856	0.000	0.446	-0.375	-0.234	-0.298	0.446	-1.127	0.037	-5.4
Math	7	1208	D	D	1	6791	0.588	0.196	0.122	0.092	0.588	0.002	0.405	-0.282	-0.384	-0.357	0.405	0.611	0.028	1.0
Math	7	1209	C	B	2	6791	0.753	0.049	0.178	0.753	0.019	0.001	0.535	-0.267	-0.521	0.535	-0.234	-0.333	0.031	-7.6
Math	7	1210	C	D	2	6791	0.594	0.123	0.074	0.594	0.209	0.001	0.340	-0.398	-0.338	0.340	-0.159	0.581	0.028	9.1
Math	7	1211	D	C	1	6791	0.659	0.158	0.070	0.111	0.659	0.001	0.463	-0.368	-0.353	-0.374	0.463	0.230	0.029	-3.1
Math	7	1212	B	E	1	6791	0.700	0.143	0.700	0.119	0.037	0.001	0.521	-0.491	0.521	-0.341	-0.347	-0.007	0.030	-8.1
Math	7	1213	A	C	1	6791	0.752	0.752	0.144	0.032	0.071	0.001	0.305	0.305	-0.175	-0.243	-0.283	-0.330	0.031	6.5
Math	7	1214	B	D	2	6791	0.733	0.081	0.733	0.070	0.115	0.001	0.464	-0.342	0.464	-0.319	-0.357	-0.207	0.030	-5.1
Math	7	1215	B	A	1	6791	0.644	0.092	0.644	0.162	0.100	0.001	0.458	-0.365	0.458	-0.361	-0.360	0.312	0.028	-4.3
Math	7	1216	C	E	2	6791	0.628	0.171	0.140	0.628	0.060	0.001	0.547	-0.523	-0.443	0.547	-0.296	0.398	0.028	-9.9
Math	7	1217	A	D	2	6791	0.340	0.340	0.483	0.086	0.090	0.001	0.267	0.267	-0.212	-0.375	-0.398	1.909	0.029	9.9
Math	7	1218	B	A	1	6791	0.822	0.064	0.822	0.062	0.051	0.001	0.404	-0.325	0.404	-0.197	-0.305	-0.833	0.034	-2.0
Math	7	1219	D	A	2	6761	0.363	0.028	0.234	0.374	0.363	0.001	0.434	-0.314	-0.517	-0.406	0.434	1.773	0.028	0.1
Math	7	1220	A	D	1	6761	0.864	0.864	0.053	0.035	0.047	0.000	0.416	0.416	-0.267	-0.278	-0.285	-1.207	0.038	-5.3
Math	7	1221	B	E	1	6761	0.766	0.044	0.766	0.048	0.141	0.001	0.502	-0.297	0.502	-0.261	-0.463	-0.428	0.032	-7.7
Math	7	1222	D	C	1	6761	0.816	0.137	0.025	0.022	0.816	0.001	0.397	-0.339	-0.204	-0.240	0.397	-0.788	0.034	-3.0
Math	7	1223	D	E	2	6761	0.561	0.114	0.253	0.071	0.561	0.001	0.525	-0.552	-0.389	-0.497	0.525	0.744	0.028	-8.3
Math	7	1224	C	C	1	6761	0.732	0.178	0.057	0.732	0.033	0.001	0.522	-0.473	-0.375	0.522	-0.233	-0.206	0.030	-8.5
Math	7	1225	D	A	2	6761	0.786	0.049	0.087	0.077	0.786	0.001	0.391	-0.244	-0.282	-0.284	0.391	-0.563	0.032	-2.5
Math	7	1226	B	E	2	6761	0.638	0.135	0.638	0.146	0.080	0.001	0.388	-0.309	0.388	-0.300	-0.319	0.341	0.028	3.1
Math	7	1227	D	D	2	6761	0.409	0.295	0.088	0.206	0.409	0.001	0.395	-0.229	-0.503	-0.515	0.395	1.526	0.028	5.2
Math	7	1228	B	B	2	6761	0.334	0.328	0.334	0.156	0.181	0.001	0.252	-0.156	0.252	-0.300	-0.379	1.933	0.029	9.9
Math	7	1229	A	A	2	6761	0.595	0.595	0.091	0.182	0.131	0.001	0.510	0.510	-0.468	-0.364	-0.474	0.568	0.028	-6.1
Math	7	1230	B	D	2	6761	0.671	0.180	0.671	0.088	0.058	0.003	0.518	-0.494	0.518	-0.321	-0.346	0.155	0.029	-8.5
Math	7	1231	A	C	2	6770	0.571	0.571	0.039	0.300	0.089	0.000	0.240	0.240	-0.272	-0.098	-0.403	0.685	0.028	9.9
Math	7	1232	C	B	2	6770	0.561	0.107	0.155	0.561	0.176	0.001	0.283	-0.217	-0.258	0.283	-0.220	0.736	0.028	9.9
Math	7	1233	D	D	2	6770	0.587	0.312	0.040	0.061	0.587	0.000	0.387	-0.315	-0.360	-0.343	0.387	0.605	0.028	3.4
Math	7	1234	D	E	2	6770	0.946	0.015	0.018	0.021	0.946	0.000	0.294	-0.176	-0.207	-0.158	0.294	-2.326	0.055	-2.3
Math	7	1235	C	B	1	6770	0.480	0.247	0.252	0.480	0.020	0.001	0.482	-0.539	-0.382	0.482	-0.308	1.151	0.027	-2.1
Math	7	1236	D	C	1	6770	0.571	0.098	0.130	0.199	0.571	0.001	0.312	-0.361	-0.207	-0.239	0.312	0.687	0.028	9.8
Math	7	1237	A	D	2	6770	0.727	0.727	0.111	0.115	0.046	0.001	0.475	0.475	-0.366	-0.383	-0.290	-0.182	0.030	-5.9
Math	7	1238	D	E	2	6770	0.697	0.098	0.112	0.092	0.697	0.001	0.499	-0.351	-0.390	-0.411	0.499	0.001	0.029	-6.9
Math	7	1239	B	D	1	6770	0.689	0.180	0.689	0.051	0.078	0.001	0.487	-0.359	0.487	-0.381	-0.418	0.046	0.029	-6.4
Math	7	1240	A	A	2	6770	0.847	0.847	0.032	0.027	0.093	0.001	0.387	0.387	-0.289	-0.278	-0.249	-1.047	0.036	-3.2
Math	7	1241	D	B	2	6770	0.560	0.124	0.166	0.149	0.560	0.001	0.543	-0.595	-0.389	-0.468	0.543	0.741	0.028	-7.4
Math	7	1242	B	E	2	6770	0.308	0.288	0.308	0.361	0.042	0.002	0.301	-0.449	0.301	-0.181	-0.493	2.075	0.029	9.9
Math	7	1243	C	A	2	6750	0.812	0.064	0.085	0.812	0.036	0.001	0.444	-0.316	-0.336	0.444	-0.254	-0.735	0.034	-6.0
Math	7	1244	B	E	2	6750	0.879	0.062	0.879	0.033	0.025	0.000	0.429	-0.284	0.429	-0.302	-0.269	-1.335	0.040	-7.2
Math	7	1245	C	E	1	6750	0.836	0.085	0.047	0.836	0.032	0.000	0.318	-0.152	-0.317	0.318	-0.204	-0.923	0.035	4.1
Math	7	1246	C	D	1	6750	0.773	0.105	0.062	0.773	0.058	0.001	0.462	-0.356	-0.302	0.462	-0.329	-0.450	0.032	-6.5
Math	7	1247	A	C	1	6750	0.538	0.538	0.056	0.321	0.083	0.001	0.342	0.342	-0.260	-0.351	-0.170	0.883	0.028	8.5

Appendix L: 2008 Grades 3–8 and 11 Multiple-Choice Statistics

Information						Proportions							Correlations					Rasch		
Cont.	Grade	Pub. ID	Key	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Math	7	1248	B	B	2	6750	0.364	0.124	0.364	0.284	0.225	0.002	0.084	-0.189	0.084	-0.006	-0.100	1.784	0.028	9.9
Math	7	1249	B	E	2	6750	0.257	0.177	0.257	0.347	0.216	0.002	0.259	-0.303	0.259	-0.231	-0.344	2.411	0.031	9.9
Math	7	1250	D	A	2	6750	0.736	0.048	0.074	0.140	0.736	0.001	0.366	-0.339	-0.303	-0.214	0.366	-0.206	0.031	1.5
Math	7	1251	B	C	1	6750	0.791	0.068	0.791	0.071	0.067	0.002	0.501	-0.303	0.501	-0.416	-0.346	-0.575	0.033	-8.7
Math	7	1252	A	A	1	6750	0.772	0.772	0.065	0.093	0.068	0.001	0.524	0.524	-0.345	-0.423	-0.365	-0.444	0.032	-9.9
Math	7	1253	C	D	2	6750	0.707	0.106	0.118	0.707	0.068	0.002	0.471	-0.340	-0.369	0.471	-0.354	-0.028	0.030	-6.2
Math	7	1254	A	E	2	6750	0.591	0.591	0.203	0.072	0.131	0.003	0.538	0.538	-0.503	-0.359	-0.454	0.611	0.028	-9.0
Math	7	1255	C	D	2	6751	0.786	0.131	0.034	0.786	0.048	0.001	0.399	-0.324	-0.283	0.399	-0.219	-0.545	0.032	-1.9
Math	7	1256	B	A	2	6751	0.805	0.133	0.805	0.022	0.039	0.000	0.328	-0.175	0.328	-0.242	-0.364	-0.682	0.033	4.2
Math	7	1257	B	B	1	6751	0.644	0.107	0.644	0.120	0.127	0.001	0.483	-0.316	0.483	-0.388	-0.441	0.320	0.028	-5.6
Math	7	1258	C	D	1	6751	0.778	0.037	0.172	0.778	0.012	0.001	0.289	-0.279	-0.205	0.289	-0.174	-0.487	0.032	5.5
Math	7	1259	C	E	2	6751	0.593	0.200	0.067	0.593	0.140	0.001	0.512	-0.530	-0.426	0.512	-0.308	0.596	0.028	-5.8
Math	7	1260	C	B	2	6751	0.399	0.209	0.245	0.399	0.145	0.001	0.248	-0.229	-0.237	0.248	-0.246	1.590	0.028	9.9
Math	7	1261	D	C	1	6751	0.854	0.018	0.088	0.040	0.854	0.000	0.264	-0.166	-0.153	-0.229	0.264	-1.082	0.037	3.7
Math	7	1262	B	A	2	6751	0.595	0.099	0.595	0.203	0.103	0.001	0.533	-0.454	0.533	-0.519	-0.308	0.584	0.028	-9.3
Math	7	1263	B	A	2	6751	0.741	0.074	0.741	0.095	0.088	0.001	0.405	-0.321	0.405	-0.289	-0.277	-0.240	0.031	-1.4
Math	7	1264	C	E	2	6751	0.165	0.081	0.306	0.165	0.447	0.002	0.033	-0.137	-0.146	0.033	0.051	3.088	0.036	9.9
Math	7	1265	A	D	2	6751	0.847	0.847	0.057	0.043	0.053	0.001	0.434	0.434	-0.286	-0.322	-0.277	-1.019	0.036	-6.3
Math	7	1266	D	D	2	6751	0.592	0.059	0.155	0.193	0.592	0.002	0.495	-0.403	-0.447	-0.394	0.495	0.601	0.028	-6.8
Math	7	1267	B	D	1	6761	0.736	0.088	0.736	0.051	0.124	0.001	0.450	-0.447	0.450	-0.245	-0.302	-0.222	0.030	-2.7
Math	7	1268	B	B	2	6761	0.501	0.184	0.501	0.092	0.221	0.002	0.367	-0.422	0.367	-0.375	-0.191	1.048	0.027	5.9
Math	7	1269	C	D	2	6761	0.737	0.095	0.061	0.737	0.106	0.001	0.459	-0.297	-0.339	0.459	-0.380	-0.228	0.030	-4.8
Math	7	1270	C	C	1	6761	0.753	0.117	0.059	0.753	0.069	0.001	0.502	-0.389	-0.398	0.502	-0.312	-0.333	0.031	-9.3
Math	7	1271	C	E	2	6761	0.628	0.194	0.098	0.628	0.080	0.001	0.318	-0.151	-0.329	0.318	-0.351	0.397	0.028	7.4
Math	7	1272	A	D	1	6761	0.813	0.813	0.104	0.048	0.034	0.001	0.429	0.429	-0.324	-0.316	-0.245	-0.756	0.034	-5.1
Math	7	1273	C	E	2	6761	0.639	0.059	0.237	0.639	0.063	0.000	0.420	-0.401	-0.310	0.420	-0.355	0.334	0.028	-1.1
Math	7	1274	A	C	1	6761	0.593	0.593	0.070	0.045	0.291	0.001	0.319	0.319	-0.360	-0.343	-0.211	0.581	0.028	9.7
Math	7	1275	B	A	2	6761	0.673	0.088	0.673	0.204	0.034	0.001	0.518	-0.413	0.518	-0.448	-0.311	0.148	0.029	-9.1
Math	7	1276	C	A	2	6761	0.574	0.153	0.115	0.574	0.156	0.001	0.404	-0.264	-0.381	0.404	-0.362	0.678	0.028	0.9
Math	7	1277	B	E	2	6761	0.752	0.111	0.752	0.108	0.027	0.001	0.253	-0.056	0.253	-0.300	-0.240	-0.322	0.031	9.9
Math	7	1278	C	E	2	6761	0.526	0.098	0.130	0.526	0.244	0.002	0.290	-0.292	-0.408	0.290	-0.130	0.922	0.027	9.9
Math	7	1279	D	D	2	6779	0.464	0.232	0.153	0.151	0.464	0.000	0.427	-0.329	-0.474	-0.401	0.427	1.255	0.028	1.8
Math	7	1280	B	A	2	6779	0.524	0.300	0.524	0.073	0.102	0.001	0.378	-0.274	0.378	-0.355	-0.419	0.948	0.028	5.3
Math	7	1281	D	D	2	6779	0.809	0.101	0.043	0.047	0.809	0.000	0.402	-0.289	-0.280	-0.269	0.402	-0.727	0.034	-2.2
Math	7	1282	B	C	1	6779	0.806	0.044	0.806	0.108	0.041	0.000	0.401	-0.234	0.401	-0.303	-0.296	-0.702	0.033	-3.1
Math	7	1283	B	E	2	6779	0.585	0.206	0.585	0.098	0.110	0.001	0.505	-0.443	0.505	-0.520	-0.318	0.628	0.028	-5.3
Math	7	1284	D	A	1	6779	0.706	0.080	0.185	0.028	0.706	0.002	0.527	-0.259	-0.533	-0.293	0.527	-0.037	0.030	-8.3
Math	7	1285	C	A	2	6779	0.825	0.034	0.051	0.825	0.088	0.001	0.423	-0.303	-0.363	0.423	-0.236	-0.855	0.035	-4.8
Math	7	1286	A	B	1	6779	0.486	0.486	0.162	0.232	0.118	0.002	0.429	0.429	-0.380	-0.363	-0.424	1.141	0.028	0.7
Math	7	1287	C	D	1	6779	0.787	0.093	0.084	0.787	0.035	0.001	0.467	-0.354	-0.374	0.467	-0.235	-0.565	0.032	-6.5
Math	7	1288	C	E	2	6779	0.492	0.277	0.130	0.492	0.100	0.001	0.128	0.011	-0.179	0.128	-0.300	1.108	0.027	9.9
Math	7	1289	A	C	1	6779	0.767	0.767	0.052	0.086	0.094	0.001	0.474	0.474	-0.335	-0.382	-0.316	-0.426	0.032	-5.7
Math	7	1290	D	C	1	6779	0.683	0.043	0.202	0.070	0.683	0.003	0.453	-0.375	-0.387	-0.285	0.453	0.096	0.029	-2.2

Appendix L: 2008 Grades 3–8 and 11 Multiple-Choice Statistics

Information						Proportions						Correlations					Rasch			
Cont.	Grade	Pub. ID	Key	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Math	7	1291	B	B	2	6772	0.600	0.171	0.600	0.155	0.072	0.001	0.424	-0.218	0.424	-0.436	-0.444	0.554	0.028	1.5
Math	7	1292	A	D	2	6772	0.502	0.502	0.153	0.176	0.167	0.001	0.405	0.405	-0.364	-0.344	-0.366	1.058	0.027	2.3
Math	7	1293	C	A	2	6772	0.853	0.076	0.029	0.853	0.042	0.000	0.358	-0.178	-0.247	0.358	-0.329	-1.087	0.037	-0.6
Math	7	1294	B	E	2	6772	0.738	0.079	0.738	0.026	0.155	0.001	0.331	-0.324	0.331	-0.250	-0.201	-0.230	0.031	6.6
Math	7	1295	B	E	2	6772	0.865	0.049	0.865	0.057	0.028	0.000	0.448	-0.252	0.448	-0.383	-0.253	-1.196	0.038	-6.4
Math	7	1296	C	A	1	6772	0.734	0.059	0.047	0.734	0.158	0.002	0.301	-0.324	-0.331	0.301	-0.114	-0.200	0.030	8.2
Math	7	1297	D	C	1	6772	0.785	0.082	0.067	0.065	0.785	0.001	0.447	-0.305	-0.326	-0.324	0.447	-0.542	0.032	-4.8
Math	7	1298	C	A	2	6772	0.312	0.298	0.243	0.312	0.144	0.002	0.158	-0.145	-0.106	0.158	-0.293	2.065	0.029	9.9
Math	7	1299	B	D	2	6772	0.434	0.216	0.434	0.167	0.182	0.001	0.329	-0.349	0.329	-0.445	-0.123	1.409	0.028	9.6
Math	7	1300	D	E	2	6772	0.766	0.055	0.057	0.121	0.766	0.000	0.451	-0.272	-0.302	-0.382	0.451	-0.412	0.032	-4.5
Math	7	1301	A	C	1	6772	0.775	0.775	0.145	0.049	0.030	0.000	0.461	0.461	-0.357	-0.332	-0.330	-0.474	0.032	-4.7
Math	7	1302	D	E	2	6772	0.446	0.322	0.116	0.115	0.446	0.002	0.367	-0.214	-0.493	-0.430	0.367	1.348	0.028	7.7
Math	7	1303	C	D	1	6819	0.651	0.186	0.073	0.651	0.089	0.001	0.451	-0.387	-0.355	0.451	-0.306	0.268	0.028	-4.3
Math	7	1304	A	B	2	6819	0.721	0.721	0.126	0.092	0.061	0.001	0.594	0.594	-0.465	-0.480	-0.428	-0.133	0.030	-9.9
Math	7	1305	C	D	2	6819	0.802	0.093	0.045	0.802	0.060	0.000	0.457	-0.401	-0.216	0.457	-0.306	-0.679	0.033	-5.9
Math	7	1306	C	A	2	6819	0.554	0.213	0.183	0.554	0.049	0.001	0.468	-0.352	-0.490	0.468	-0.296	0.786	0.028	-3.6
Math	7	1307	B	E	1	6819	0.603	0.130	0.603	0.210	0.057	0.001	0.507	-0.369	0.507	-0.493	-0.364	0.531	0.028	-6.0
Math	7	1308	D	E	2	6819	0.466	0.120	0.319	0.094	0.466	0.001	0.380	-0.536	-0.241	-0.387	0.380	1.235	0.027	6.2
Math	7	1309	B	A	2	6819	0.562	0.051	0.562	0.200	0.185	0.001	0.317	-0.377	0.317	-0.358	-0.125	0.745	0.028	9.9
Math	7	1310	B	C	2	6819	0.492	0.091	0.492	0.188	0.228	0.000	0.370	-0.154	0.370	-0.434	-0.331	1.101	0.027	6.9
Math	7	1311	C	A	1	6819	0.902	0.041	0.034	0.902	0.022	0.000	0.402	-0.295	-0.268	0.402	-0.203	-1.625	0.043	-6.9
Math	7	1312	A	D	2	6819	0.660	0.660	0.097	0.034	0.208	0.001	0.289	0.289	-0.363	-0.295	-0.128	0.223	0.029	9.9
Math	7	1313	C	B	1	6819	0.776	0.080	0.081	0.776	0.060	0.002	0.416	-0.335	-0.311	0.416	-0.226	-0.495	0.032	-0.7
Math	7	1314	A	D	2	6819	0.818	0.818	0.112	0.033	0.035	0.002	0.469	0.469	-0.359	-0.337	-0.296	-0.802	0.034	-6.1
Math	7	1315	A	D	2	6785	0.616	0.616	0.046	0.252	0.085	0.001	0.523	0.523	-0.370	-0.466	-0.412	0.466	0.028	-9.3
Math	7	1316	C	B	2	6785	0.661	0.150	0.141	0.661	0.047	0.001	0.438	-0.402	-0.356	0.438	-0.196	0.223	0.029	-1.1
Math	7	1317	C	E	2	6785	0.872	0.032	0.036	0.872	0.059	0.001	0.446	-0.275	-0.273	0.446	-0.331	-1.263	0.039	-8.2
Math	7	1318	A	C	1	6785	0.754	0.754	0.134	0.076	0.034	0.001	0.415	0.415	-0.290	-0.338	-0.284	-0.332	0.031	-2.2
Math	7	1319	A	A	2	6785	0.686	0.686	0.228	0.045	0.040	0.000	0.456	0.456	-0.367	-0.357	-0.366	0.083	0.029	-3.4
Math	7	1320	C	B	2	6785	0.457	0.211	0.122	0.457	0.209	0.001	0.304	-0.112	-0.458	0.304	-0.318	1.281	0.027	9.9
Math	7	1321	B	D	2	6785	0.415	0.382	0.415	0.117	0.084	0.001	0.175	-0.046	0.175	-0.363	-0.309	1.496	0.028	9.9
Math	7	1322	C	D	2	6785	0.625	0.103	0.212	0.625	0.059	0.001	0.461	-0.325	-0.431	0.461	-0.307	0.418	0.028	-3.1
Math	7	1323	D	A	2	6785	0.581	0.265	0.075	0.078	0.581	0.001	0.483	-0.373	-0.442	-0.451	0.483	0.648	0.028	-5.9
Math	7	1324	B	E	1	6785	0.597	0.130	0.597	0.156	0.116	0.001	0.384	-0.179	0.384	-0.333	-0.429	0.567	0.028	3.4
Math	7	1325	B	E	2	6785	0.261	0.498	0.261	0.071	0.168	0.001	0.154	-0.064	0.154	-0.345	-0.350	2.367	0.031	9.9
Math	7	1326	D	C	1	6785	0.882	0.028	0.059	0.029	0.882	0.001	0.390	-0.246	-0.297	-0.214	0.390	-1.367	0.040	-3.4
Math	7	1327	A	A	1	6809	0.869	0.869	0.039	0.057	0.034	0.000	0.423	0.423	-0.277	-0.267	-0.308	-1.244	0.038	-5.4
Math	7	1328	B	D	1	6809	0.734	0.046	0.734	0.086	0.132	0.002	0.506	-0.295	0.506	-0.429	-0.388	-0.205	0.030	-8.7
Math	7	1329	A	C	1	6809	0.756	0.756	0.171	0.030	0.041	0.001	0.299	0.299	-0.216	-0.242	-0.213	-0.348	0.031	5.9
Math	7	1330	C	D	2	6809	0.698	0.036	0.077	0.698	0.189	0.001	0.379	-0.208	-0.303	0.379	-0.311	0.015	0.029	0.7
Math	7	1331	B	B	1	6809	0.665	0.130	0.665	0.139	0.065	0.001	0.386	-0.410	0.386	-0.245	-0.200	0.199	0.029	1.1
Math	7	1332	B	E	2	6809	0.644	0.152	0.644	0.125	0.077	0.001	0.470	-0.451	0.470	-0.309	-0.353	0.317	0.028	-1.6
Math	7	1333	C	E	1	6809	0.808	0.047	0.046	0.808	0.098	0.001	0.456	-0.273	-0.300	0.456	-0.365	-0.712	0.033	-7.0

Appendix L: 2008 Grades 3–8 and 11 Multiple-Choice Statistics

Information						Proportions						Correlations					Rasch			
Cont.	Grade	Pub. ID	Key	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Math	7	1334	D	C	1	6809	0.840	0.055	0.040	0.063	0.840	0.001	0.392	-0.318	-0.258	-0.223	0.392	-0.971	0.036	-3.2
Math	7	1335	A	A	2	6809	0.766	0.766	0.139	0.058	0.035	0.002	0.479	0.479	-0.385	-0.345	-0.294	-0.411	0.031	-7.8
Math	7	1336	B	D	2	6809	0.743	0.095	0.743	0.096	0.064	0.001	0.416	-0.354	0.416	-0.365	-0.162	-0.259	0.031	0.8
Math	7	1337	A	B	2	6809	0.520	0.520	0.063	0.343	0.071	0.001	0.486	0.486	-0.430	-0.431	-0.431	0.962	0.027	-5.4
Math	7	1338	C	D	1	6809	0.546	0.061	0.337	0.546	0.054	0.002	0.286	-0.370	-0.198	0.286	-0.275	0.833	0.027	9.9
Math	7	1339	B	A	1	6794	0.680	0.096	0.680	0.048	0.174	0.001	0.292	-0.292	0.292	-0.277	-0.147	0.097	0.029	7.0
Math	7	1340	B	B	1	6794	0.500	0.118	0.500	0.364	0.017	0.001	0.549	-0.635	0.549	-0.483	-0.241	1.047	0.027	-9.9
Math	7	1341	D	D	2	6794	0.875	0.028	0.036	0.060	0.875	0.001	0.448	-0.258	-0.273	-0.346	0.448	-1.315	0.039	-7.6
Math	7	1342	A	D	1	6794	0.838	0.838	0.094	0.038	0.029	0.002	0.446	0.446	-0.341	-0.299	-0.261	-0.968	0.035	-6.8
Math	7	1343	B	C	1	6794	0.790	0.055	0.790	0.037	0.117	0.001	0.407	-0.300	0.407	-0.284	-0.287	-0.591	0.032	-3.8
Math	7	1344	D	C	1	6794	0.840	0.049	0.056	0.053	0.840	0.001	0.347	-0.241	-0.201	-0.255	0.347	-0.988	0.036	-1.2
Math	7	1345	D	E	1	6794	0.812	0.058	0.078	0.051	0.812	0.000	0.334	-0.183	-0.274	-0.214	0.334	-0.759	0.034	0.9
Math	7	1346	C	A	2	6794	0.800	0.053	0.093	0.800	0.053	0.001	0.456	-0.295	-0.354	0.456	-0.309	-0.665	0.033	-5.5
Math	7	1347	C	A	2	6794	0.606	0.047	0.334	0.606	0.012	0.001	0.439	-0.372	-0.396	0.439	-0.248	0.501	0.028	-1.2
Math	7	1348	D	D	2	6794	0.402	0.167	0.328	0.102	0.402	0.001	0.430	-0.502	-0.336	-0.489	0.430	1.554	0.028	2.6
Math	7	1349	A	B	2	6794	0.401	0.401	0.278	0.223	0.097	0.002	0.284	0.284	-0.249	-0.260	-0.317	1.562	0.028	9.9
Math	7	1350	D	E	2	6794	0.522	0.183	0.121	0.172	0.522	0.001	0.411	-0.346	-0.370	-0.359	0.411	0.938	0.027	1.5
Math	7	1351	A	D	2	6797	0.508	0.508	0.096	0.196	0.198	0.002	0.513	0.513	-0.448	-0.429	-0.487	1.070	0.027	-7.6
Math	7	1352	A	A	1	6797	0.853	0.853	0.044	0.049	0.054	0.001	0.460	0.460	-0.291	-0.275	-0.365	-1.041	0.037	-6.4
Math	7	1353	D	D	2	6797	0.770	0.088	0.100	0.041	0.770	0.001	0.528	-0.347	-0.450	-0.357	0.528	-0.396	0.032	-8.6
Math	7	1354	A	B	2	6797	0.741	0.741	0.071	0.162	0.025	0.001	0.425	0.425	-0.334	-0.337	-0.248	-0.205	0.031	-2.5
Math	7	1355	D	C	1	6797	0.724	0.021	0.017	0.237	0.724	0.000	0.446	-0.236	-0.226	-0.414	0.446	-0.100	0.030	-3.8
Math	7	1356	A	A	2	6797	0.670	0.670	0.156	0.066	0.107	0.001	0.362	0.362	-0.232	-0.321	-0.296	0.217	0.029	1.1
Math	7	1357	C	D	2	6797	0.916	0.046	0.020	0.916	0.018	0.001	0.267	-0.135	-0.219	0.267	-0.175	-1.745	0.046	1.5
Math	7	1358	D	C	2	6797	0.759	0.095	0.064	0.080	0.759	0.001	0.445	-0.325	-0.315	-0.329	0.445	-0.323	0.031	-3.6
Math	7	1359	C	E	2	6797	0.455	0.178	0.252	0.455	0.114	0.001	0.484	-0.590	-0.356	0.484	-0.426	1.342	0.027	-3.6
Math	7	1360	D	A	1	6797	0.285	0.217	0.305	0.192	0.285	0.001	0.299	-0.370	-0.337	-0.227	0.299	2.274	0.030	9.9
Math	7	1361	C	B	1	6797	0.471	0.150	0.290	0.471	0.088	0.001	0.425	-0.577	-0.334	0.425	-0.235	1.260	0.027	1.8
Math	7	1362	D	D	2	6797	0.614	0.080	0.190	0.114	0.614	0.003	0.486	-0.443	-0.370	-0.407	0.486	0.523	0.028	-5.6
Math	7	1363	C	A	2	6760	0.617	0.125	0.117	0.617	0.141	0.001	0.483	-0.357	-0.354	0.483	-0.445	0.479	0.028	-6.9
Math	7	1364	B	D	1	6760	0.838	0.105	0.838	0.038	0.019	0.000	0.473	-0.413	0.473	-0.276	-0.216	-0.934	0.036	-8.7
Math	7	1365	D	C	1	6760	0.850	0.087	0.027	0.035	0.850	0.000	0.385	-0.263	-0.265	-0.266	0.385	-1.026	0.036	-1.1
Math	7	1366	C	B	1	6760	0.445	0.351	0.132	0.445	0.072	0.001	0.427	-0.388	-0.470	0.427	-0.306	1.376	0.028	2.4
Math	7	1367	A	E	2	6760	0.573	0.573	0.239	0.143	0.044	0.001	0.532	0.532	-0.477	-0.453	-0.408	0.710	0.028	-9.1
Math	7	1368	D	D	2	6760	0.581	0.347	0.035	0.037	0.581	0.001	0.395	-0.342	-0.330	-0.328	0.395	0.672	0.028	1.8
Math	7	1369	C	A	2	6760	0.405	0.157	0.131	0.405	0.307	0.001	0.527	-0.538	-0.411	0.527	-0.549	1.579	0.028	-6.3
Math	7	1370	C	A	2	6760	0.708	0.034	0.072	0.708	0.185	0.001	0.564	-0.339	-0.452	0.564	-0.479	-0.029	0.030	-9.9
Math	7	1371	A	C	1	6760	0.884	0.884	0.042	0.033	0.039	0.001	0.400	0.400	-0.285	-0.277	-0.220	-1.380	0.040	-5.8
Math	7	1372	A	D	2	6760	0.241	0.241	0.394	0.311	0.053	0.001	0.169	0.169	-0.274	-0.027	-0.389	2.538	0.032	9.9
Math	7	1373	B	B	1	6760	0.629	0.138	0.629	0.146	0.084	0.002	0.416	-0.425	0.416	-0.329	-0.197	0.416	0.028	0.5
Math	7	1374	A	E	2	6760	0.429	0.429	0.166	0.158	0.244	0.002	0.319	0.319	-0.302	-0.412	-0.208	1.452	0.028	9.9
Math	7	1375	B	A	2	6753	0.792	0.030	0.792	0.128	0.050	0.000	0.445	-0.267	0.445	-0.334	-0.346	-0.558	0.033	-6.0
Math	7	1376	C	D	1	6753	0.798	0.057	0.099	0.798	0.045	0.001	0.467	-0.374	-0.336	0.467	-0.281	-0.597	0.033	-6.7

Appendix L: 2008 Grades 3–8 and 11 Multiple-Choice Statistics

Information						Proportions							Correlations					Rasch		
Cont.	Grade	Pub. ID	Key	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Math	7	1377	B	E	2	6753	0.696	0.081	0.696	0.143	0.079	0.001	0.531	-0.336	0.531	-0.506	-0.356	0.060	0.029	-6.5
Math	7	1378	D	C	1	6753	0.583	0.118	0.103	0.194	0.583	0.001	0.436	-0.387	-0.406	-0.322	0.436	0.671	0.028	0.0
Math	7	1379	A	A	1	6753	0.812	0.812	0.073	0.096	0.018	0.001	0.483	0.483	-0.394	-0.370	-0.198	-0.719	0.034	-6.9
Math	7	1380	A	D	2	6753	0.517	0.517	0.116	0.056	0.310	0.001	0.495	0.495	-0.461	-0.380	-0.453	1.006	0.027	-4.2
Math	7	1381	C	E	2	6753	0.650	0.051	0.208	0.650	0.089	0.001	0.349	-0.286	-0.236	0.349	-0.339	0.308	0.029	4.4
Math	7	1382	C	D	2	6753	0.652	0.080	0.241	0.652	0.026	0.001	0.511	-0.457	-0.442	0.511	-0.262	0.300	0.029	-8.8
Math	7	1383	B	E	2	6753	0.287	0.363	0.287	0.207	0.142	0.001	0.120	0.002	0.120	-0.218	-0.300	2.244	0.030	9.9
Math	7	1384	D	C	1	6753	0.522	0.137	0.103	0.236	0.522	0.001	0.422	-0.361	-0.329	-0.402	0.422	0.978	0.027	0.6
Math	7	1385	C	A	2	6753	0.769	0.111	0.057	0.769	0.062	0.001	0.480	-0.391	-0.347	0.480	-0.291	-0.406	0.032	-7.5
Math	7	1386	B	B	2	6753	0.387	0.275	0.387	0.196	0.139	0.003	0.393	-0.537	0.393	-0.240	-0.297	1.678	0.028	4.2
Math	7	1387	A	D	1	6749	0.643	0.643	0.140	0.127	0.089	0.001	0.432	0.432	-0.354	-0.346	-0.306	0.325	0.028	-2.7
Math	7	1388	B	B	1	6749	0.541	0.051	0.541	0.371	0.037	0.000	0.539	-0.395	0.539	-0.527	-0.308	0.875	0.028	-9.6
Math	7	1389	D	A	1	6749	0.853	0.039	0.066	0.042	0.853	0.000	0.473	-0.319	-0.339	-0.305	0.473	-1.068	0.037	-9.1
Math	7	1390	B	C	1	6749	0.594	0.070	0.594	0.194	0.140	0.001	0.347	-0.309	0.347	-0.355	-0.184	0.598	0.028	6.1
Math	7	1391	C	D	2	6749	0.427	0.084	0.206	0.427	0.282	0.000	0.373	-0.263	-0.345	0.373	-0.388	1.451	0.028	7.0
Math	7	1392	C	B	2	6749	0.393	0.278	0.161	0.393	0.166	0.002	0.335	-0.409	-0.386	0.335	-0.121	1.629	0.028	9.9
Math	7	1393	C	E	2	6749	0.529	0.042	0.384	0.529	0.044	0.001	0.399	-0.417	-0.341	0.399	-0.348	0.926	0.028	3.5
Math	7	1394	B	C	1	6749	0.749	0.048	0.749	0.134	0.068	0.001	0.499	-0.322	0.499	-0.418	-0.332	-0.296	0.031	-8.4
Math	7	1395	C	E	2	6749	0.853	0.103	0.029	0.853	0.015	0.001	0.447	-0.390	-0.261	0.447	-0.183	-1.085	0.037	-6.1
Math	7	1396	B	A	2	6749	0.437	0.231	0.437	0.165	0.166	0.001	0.249	-0.222	0.249	-0.147	-0.313	1.396	0.028	9.9
Math	7	1397	B	D	2	6749	0.409	0.218	0.409	0.208	0.164	0.001	0.344	-0.350	0.344	-0.370	-0.230	1.547	0.028	9.9
Math	7	1398	A	A	2	6749	0.559	0.559	0.174	0.142	0.123	0.002	0.435	0.435	-0.310	-0.383	-0.410	0.769	0.028	-2.4
Math	7	1399	D	A	1	6739	0.896	0.043	0.021	0.039	0.896	0.000	0.449	-0.299	-0.260	-0.317	0.449	-1.509	0.042	-9.3
Math	7	1400	A	C	1	6739	0.576	0.576	0.169	0.085	0.169	0.001	0.376	0.376	-0.353	-0.329	-0.265	0.692	0.028	4.5
Math	7	1401	C	D	1	6739	0.790	0.112	0.060	0.790	0.038	0.000	0.464	-0.417	-0.294	0.464	-0.225	-0.559	0.033	-6.2
Math	7	1402	B	E	2	6739	0.608	0.235	0.608	0.100	0.056	0.001	0.467	-0.459	0.467	-0.330	-0.284	0.529	0.028	-2.1
Math	7	1403	C	B	2	6739	0.788	0.064	0.103	0.788	0.045	0.000	0.473	-0.337	-0.372	0.473	-0.284	-0.555	0.033	-7.7
Math	7	1404	C	A	2	6739	0.387	0.049	0.334	0.387	0.230	0.000	0.344	-0.385	-0.290	0.344	-0.364	1.663	0.028	9.9
Math	7	1405	B	D	2	6739	0.849	0.073	0.849	0.058	0.019	0.001	0.374	-0.211	0.374	-0.321	-0.233	-1.041	0.037	-2.4
Math	7	1406	C	C	1	6739	0.694	0.064	0.111	0.694	0.132	0.001	0.467	-0.408	-0.345	0.467	-0.342	0.050	0.029	-4.9
Math	7	1407	D	E	2	6739	0.425	0.358	0.151	0.065	0.425	0.001	0.523	-0.477	-0.568	-0.506	0.523	1.462	0.028	-7.1
Math	7	1408	C	A	2	6739	0.724	0.125	0.075	0.724	0.076	0.000	0.533	-0.508	-0.345	0.533	-0.319	-0.129	0.030	-9.7
Math	7	1409	D	C	1	6739	0.676	0.161	0.056	0.107	0.676	0.000	0.389	-0.250	-0.347	-0.339	0.389	0.154	0.029	2.3
Math	7	1410	A	D	2	6739	0.402	0.402	0.220	0.240	0.138	0.001	0.260	0.260	-0.198	-0.235	-0.354	1.582	0.028	9.9
Math	7	1411	D	D	2	6727	0.568	0.114	0.076	0.240	0.568	0.001	0.434	-0.414	-0.360	-0.348	0.434	0.723	0.028	0.0
Math	7	1412	B	A	2	6727	0.638	0.137	0.638	0.136	0.088	0.001	0.336	-0.274	0.336	-0.245	-0.272	0.366	0.028	5.4
Math	7	1413	B	D	2	6727	0.780	0.160	0.780	0.030	0.029	0.000	0.479	-0.433	0.479	-0.257	-0.252	-0.493	0.032	-6.7
Math	7	1414	A	D	1	6727	0.740	0.740	0.084	0.107	0.069	0.001	0.492	0.492	-0.386	-0.326	-0.395	-0.222	0.031	-7.3
Math	7	1415	C	B	1	6727	0.708	0.120	0.140	0.708	0.032	0.001	0.522	-0.452	-0.418	0.522	-0.266	-0.027	0.030	-9.4
Math	7	1416	C	D	2	6727	0.754	0.031	0.057	0.754	0.157	0.001	0.405	-0.238	-0.278	0.405	-0.334	-0.312	0.031	-2.8
Math	7	1417	A	B	2	6727	0.501	0.501	0.339	0.112	0.046	0.002	0.494	0.494	-0.469	-0.491	-0.270	1.081	0.028	-5.5
Math	7	1418	D	E	1	6727	0.545	0.088	0.126	0.238	0.545	0.002	0.408	-0.385	-0.374	-0.316	0.408	0.853	0.028	1.9
Math	7	1419	B	C	2	6727	0.669	0.088	0.669	0.076	0.166	0.001	0.386	-0.266	0.386	-0.331	-0.298	0.199	0.029	2.0

Appendix L: 2008 Grades 3–8 and 11 Multiple-Choice Statistics

Information						Proportions						Correlations					Rasch			
Cont.	Grade	Pub. ID	Key	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Math	7	1420	D	D	2	6727	0.697	0.077	0.089	0.136	0.697	0.001	0.337	-0.165	-0.251	-0.318	0.337	0.039	0.029	6.6
Math	7	1421	A	A	2	6727	0.397	0.397	0.457	0.084	0.060	0.002	0.229	0.229	-0.128	-0.412	-0.425	1.616	0.028	9.9
Math	7	1422	A	E	2	6727	0.444	0.444	0.325	0.136	0.093	0.002	0.444	0.444	-0.456	-0.377	-0.341	1.374	0.028	1.4
Math	8	1423	B	A	1	138545	0.777	0.098	0.777	0.098	0.027	0.000	0.421	-0.430	0.421	-0.247	-0.185	-0.342	0.007	9.2
Math	8	1424	A	A	1	138545	0.692	0.692	0.128	0.162	0.017	0.000	0.507	0.507	-0.432	-0.435	-0.244	0.203	0.007	-9.9
Math	8	1425	D	A	2	138545	0.688	0.090	0.061	0.161	0.688	0.000	0.526	-0.367	-0.404	-0.473	0.526	0.236	0.007	-9.9
Math	8	1426	C	A	2	138545	0.567	0.136	0.207	0.567	0.090	0.000	0.386	-0.318	-0.300	0.386	-0.392	0.898	0.006	9.9
Math	8	1427	C	D	1	138545	0.883	0.015	0.085	0.883	0.018	0.000	0.389	-0.202	-0.356	0.389	-0.125	-1.259	0.009	-9.9
Math	8	1428	B	E	2	138545	0.718	0.170	0.718	0.068	0.042	0.001	0.555	-0.480	0.555	-0.406	-0.383	0.048	0.007	-9.9
Math	8	1429	A	D	2	138545	0.680	0.680	0.061	0.215	0.043	0.001	0.428	0.428	-0.383	-0.316	-0.369	0.275	0.007	7.4
Math	8	1430	A	A	2	138545	0.874	0.874	0.070	0.034	0.021	0.000	0.418	0.418	-0.235	-0.341	-0.320	-1.170	0.009	-3.6
Math	8	1431	C	D	1	138545	0.751	0.055	0.121	0.751	0.071	0.002	0.545	-0.381	-0.432	0.545	-0.416	-0.160	0.007	-9.9
Math	8	1432	A	C	2	138545	0.837	0.837	0.053	0.018	0.092	0.000	0.404	0.404	-0.248	-0.239	-0.332	-0.805	0.008	-2.0
Math	8	4705	B	E	2	138545	0.710	0.071	0.710	0.191	0.027	0.000	0.281	-0.292	0.281	-0.177	-0.206	0.095	0.007	9.9
Math	8	1433	C	B	1	138545	0.840	0.081	0.056	0.840	0.022	0.002	0.519	-0.436	-0.347	0.519	-0.266	-0.830	0.008	-9.9
Math	8	1434	A	C	2	138545	0.668	0.668	0.031	0.272	0.028	0.001	0.401	0.401	-0.345	-0.333	-0.321	0.346	0.006	9.9
Math	8	1435	A	D	2	138545	0.564	0.564	0.158	0.160	0.116	0.001	0.513	0.513	-0.497	-0.358	-0.509	0.916	0.006	-9.9
Math	8	1436	C	A	2	138545	0.819	0.040	0.048	0.819	0.092	0.001	0.458	-0.362	-0.279	0.458	-0.340	-0.654	0.008	-7.0
Math	8	1437	D	A	2	138545	0.762	0.093	0.042	0.102	0.762	0.001	0.521	-0.464	-0.351	-0.353	0.521	-0.237	0.007	-9.9
Math	8	1438	D	B	1	138545	0.427	0.232	0.169	0.170	0.427	0.002	0.378	-0.315	-0.468	-0.330	0.378	1.639	0.006	9.9
Math	8	1439	B	A	2	138545	0.731	0.055	0.731	0.115	0.098	0.001	0.368	-0.271	0.368	-0.270	-0.283	-0.035	0.007	9.9
Math	8	1440	D	D	1	138545	0.420	0.127	0.232	0.218	0.420	0.003	0.314	-0.340	-0.277	-0.300	0.314	1.674	0.006	9.9
Math	8	1441	B	C	1	138545	0.838	0.025	0.838	0.024	0.112	0.001	0.368	-0.281	0.368	-0.158	-0.297	-0.819	0.008	9.9
Math	8	1442	D	D	2	138545	0.773	0.043	0.055	0.127	0.773	0.001	0.505	-0.245	-0.381	-0.435	0.505	-0.321	0.007	-9.9
Math	8	1443	C	E	2	138545	0.682	0.046	0.169	0.682	0.102	0.002	0.461	-0.333	-0.427	0.461	-0.292	0.265	0.007	-5.9
Math	8	1444	D	E	2	138545	0.847	0.029	0.075	0.049	0.847	0.000	0.511	-0.325	-0.425	-0.301	0.511	-0.900	0.008	-9.9
Math	8	1445	D	C	1	138545	0.645	0.093	0.137	0.123	0.645	0.001	0.407	-0.317	-0.375	-0.287	0.407	0.474	0.006	9.9
Math	8	1446	C	A	2	138545	0.838	0.067	0.054	0.838	0.041	0.001	0.333	-0.233	-0.218	0.333	-0.227	-0.818	0.008	9.9
Math	8	1447	D	E	2	138545	0.480	0.224	0.147	0.149	0.480	0.001	0.382	-0.438	-0.265	-0.333	0.382	1.364	0.006	9.9
Math	8	1448	D	D	2	138545	0.510	0.103	0.321	0.064	0.510	0.001	0.505	-0.572	-0.464	-0.347	0.505	1.205	0.006	-9.9
Math	8	1449	C	C	1	138545	0.586	0.070	0.119	0.586	0.223	0.001	0.531	-0.382	-0.389	0.531	-0.538	0.803	0.006	-9.9
Math	8	1450	B	D	1	138545	0.831	0.051	0.831	0.099	0.019	0.000	0.496	-0.308	0.496	-0.440	-0.238	-0.757	0.008	-9.9
Math	8	1451	B	A	2	138545	0.801	0.023	0.801	0.062	0.112	0.000	0.463	-0.298	0.463	-0.415	-0.302	-0.522	0.007	-9.9
Math	8	1452	A	D	1	138545	0.717	0.717	0.071	0.131	0.080	0.001	0.550	0.550	-0.440	-0.421	-0.435	0.054	0.007	-9.9
Math	8	1453	C	E	2	138545	0.694	0.025	0.242	0.694	0.039	0.000	0.387	-0.315	-0.314	0.387	-0.310	0.190	0.007	9.9
Math	8	1454	D	A	1	138545	0.752	0.021	0.050	0.177	0.752	0.000	0.414	-0.282	-0.220	-0.375	0.414	-0.170	0.007	9.9
Math	8	1455	D	C	1	138545	0.658	0.132	0.110	0.099	0.658	0.000	0.449	-0.369	-0.373	-0.344	0.449	0.402	0.006	4.4
Math	8	1456	A	D	2	138545	0.763	0.763	0.076	0.109	0.051	0.001	0.599	0.599	-0.444	-0.512	-0.395	-0.243	0.007	-9.9
Math	8	1457	B	B	2	138545	0.689	0.133	0.689	0.140	0.038	0.001	0.504	-0.454	0.504	-0.384	-0.327	0.226	0.007	-9.9
Math	8	1458	C	A	1	138545	0.571	0.066	0.232	0.571	0.130	0.001	0.527	-0.503	-0.394	0.527	-0.541	0.880	0.006	-9.9
Math	8	1459	B	E	1	138545	0.849	0.078	0.849	0.048	0.023	0.001	0.494	-0.413	0.494	-0.317	-0.262	-0.907	0.008	-9.9
Math	8	1460	B	B	1	138545	0.571	0.066	0.571	0.101	0.262	0.001	0.521	-0.355	0.521	-0.453	-0.485	0.883	0.006	-9.9
Math	8	1461	C	D	1	138545	0.800	0.088	0.067	0.800	0.044	0.001	0.389	-0.214	-0.382	0.389	-0.231	-0.512	0.007	9.9

Appendix L: 2008 Grades 3–8 and 11 Multiple-Choice Statistics

Information						Proportions						Correlations					Rasch			
Cont.	Grade	Pub. ID	Key	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Math	8	1462	D	D	2	138545	0.753	0.116	0.072	0.058	0.753	0.000	0.527	-0.362	-0.422	-0.440	0.527	-0.176	0.007	-9.9
Math	8	1463	D	B	1	138545	0.654	0.054	0.139	0.152	0.654	0.001	0.510	-0.424	-0.400	-0.425	0.510	0.430	0.006	-9.9
Math	8	1464	B	C	2	138545	0.750	0.103	0.750	0.080	0.066	0.001	0.416	-0.297	0.416	-0.329	-0.294	-0.161	0.007	4.1
Math	8	1465	A	D	1	138545	0.737	0.737	0.100	0.096	0.066	0.001	0.552	0.552	-0.417	-0.439	-0.419	-0.071	0.007	-9.9
Math	8	1466	A	E	2	138545	0.669	0.669	0.140	0.095	0.095	0.001	0.425	0.425	-0.385	-0.278	-0.320	0.342	0.006	8.0
Math	8	1467	B	E	1	138545	0.574	0.154	0.574	0.129	0.142	0.001	0.423	-0.280	0.423	-0.386	-0.422	0.865	0.006	9.9
Math	8	1468	C	C	1	138545	0.568	0.256	0.076	0.568	0.099	0.001	0.340	-0.186	-0.477	0.340	-0.344	0.895	0.006	9.9
Math	8	1469	B	D	1	138545	0.750	0.178	0.750	0.050	0.021	0.001	0.442	-0.347	0.442	-0.376	-0.288	-0.153	0.007	6.3
Math	8	1470	B	A	2	138545	0.750	0.055	0.750	0.056	0.138	0.001	0.328	-0.268	0.328	-0.304	-0.192	-0.159	0.007	9.9
Math	8	1471	B	B	1	138545	0.646	0.078	0.646	0.218	0.056	0.001	0.463	-0.267	0.463	-0.439	-0.361	0.470	0.006	2.0
Math	8	1472	C	D	1	138545	0.545	0.140	0.175	0.545	0.138	0.002	0.417	-0.395	-0.353	0.417	-0.339	1.015	0.006	9.9
Math	8	1473	A	A	2	138545	0.681	0.681	0.107	0.059	0.152	0.001	0.463	0.463	-0.420	-0.464	-0.278	0.268	0.007	3.7
Math	8	1474	B	E	2	138545	0.724	0.151	0.724	0.055	0.070	0.001	0.604	-0.545	0.604	-0.371	-0.463	0.021	0.007	-9.9
Math	8	1475	A	D	1	138545	0.710	0.710	0.098	0.103	0.088	0.002	0.499	0.499	-0.388	-0.404	-0.360	0.097	0.007	-9.9
Math	8	1476	B	D	1	7276	0.644	0.152	0.644	0.096	0.107	0.001	0.550	-0.371	0.550	-0.476	-0.529	0.383	0.028	-8.2
Math	8	1477	A	A	1	7276	0.674	0.674	0.138	0.115	0.072	0.002	0.455	0.455	-0.286	-0.412	-0.386	0.208	0.029	-2.6
Math	8	1478	C	D	1	7276	0.774	0.056	0.126	0.774	0.042	0.001	0.531	-0.355	-0.457	0.531	-0.322	-0.435	0.031	-8.0
Math	8	1479	C	C	2	7276	0.660	0.071	0.151	0.660	0.116	0.001	0.379	-0.317	-0.292	0.379	-0.290	0.289	0.028	4.5
Math	8	1480	A	E	1	7276	0.705	0.705	0.114	0.095	0.085	0.001	0.489	0.489	-0.410	-0.346	-0.371	0.021	0.029	-3.4
Math	8	1481	D	D	2	7276	0.639	0.080	0.187	0.092	0.639	0.002	0.603	-0.535	-0.532	-0.449	0.603	0.412	0.028	-9.9
Math	8	1482	B	A	1	7276	0.812	0.024	0.812	0.081	0.082	0.001	0.455	-0.234	0.455	-0.313	-0.390	-0.720	0.033	-1.6
Math	8	1483	C	B	2	7276	0.546	0.252	0.101	0.546	0.099	0.002	0.357	-0.225	-0.427	0.357	-0.344	0.920	0.027	9.2
Math	8	1484	D	D	1	7276	0.794	0.054	0.068	0.082	0.794	0.002	0.585	-0.439	-0.442	-0.417	0.585	-0.584	0.032	-9.9
Math	8	1485	C	C	2	7276	0.457	0.115	0.246	0.457	0.181	0.002	0.377	-0.450	-0.351	0.377	-0.275	1.397	0.027	7.6
Math	8	1486	D	E	2	7276	0.526	0.309	0.087	0.077	0.526	0.001	0.540	-0.499	-0.487	-0.491	0.540	1.027	0.027	-6.2
Math	8	1487	A	A	2	7276	0.715	0.715	0.093	0.146	0.045	0.001	0.491	0.491	-0.345	-0.423	-0.353	-0.038	0.029	-3.7
Math	8	1488	A	D	1	6898	0.831	0.831	0.058	0.046	0.064	0.001	0.527	0.527	-0.385	-0.357	-0.370	-0.782	0.035	-9.9
Math	8	1489	D	A	2	6898	0.744	0.047	0.116	0.092	0.744	0.001	0.432	-0.322	-0.260	-0.402	0.432	-0.137	0.031	0.4
Math	8	1490	D	C	1	6898	0.331	0.082	0.229	0.357	0.331	0.001	0.324	-0.457	-0.315	-0.315	0.324	2.139	0.029	9.9
Math	8	1491	A	E	2	6898	0.768	0.768	0.080	0.104	0.048	0.001	0.401	0.401	-0.283	-0.302	-0.279	-0.296	0.032	-0.6
Math	8	1492	C	D	2	6898	0.714	0.116	0.093	0.714	0.075	0.001	0.350	-0.349	-0.230	0.350	-0.175	0.056	0.030	5.4
Math	8	1493	C	B	2	6898	0.537	0.084	0.211	0.537	0.166	0.002	0.421	-0.382	-0.422	0.421	-0.282	1.039	0.028	2.4
Math	8	1494	B	C	1	6898	0.767	0.105	0.767	0.050	0.078	0.001	0.386	-0.243	0.386	-0.301	-0.310	-0.290	0.032	1.6
Math	8	1495	C	E	2	6898	0.636	0.142	0.080	0.636	0.141	0.001	0.393	-0.252	-0.316	0.393	-0.375	0.512	0.028	2.8
Math	8	1496	B	D	2	6898	0.853	0.052	0.853	0.055	0.040	0.000	0.472	-0.293	0.472	-0.346	-0.337	-0.979	0.037	-5.9
Math	8	1497	D	A	2	6898	0.563	0.113	0.091	0.232	0.563	0.002	0.355	-0.297	-0.322	-0.297	0.355	0.902	0.028	8.1
Math	8	1498	A	D	2	6898	0.903	0.903	0.041	0.031	0.023	0.001	0.463	0.463	-0.329	-0.295	-0.285	-1.529	0.043	-8.5
Math	8	1499	C	C	2	6898	0.698	0.048	0.103	0.698	0.149	0.002	0.385	-0.339	-0.321	0.385	-0.262	0.152	0.030	3.2
Math	8	1500	B	B	1	6890	0.675	0.180	0.675	0.092	0.052	0.001	0.467	-0.437	0.467	-0.389	-0.190	0.274	0.029	0.0
Math	8	1501	C	E	2	6890	0.600	0.181	0.162	0.600	0.056	0.002	0.529	-0.551	-0.403	0.529	-0.322	0.696	0.028	-7.3
Math	8	1502	A	C	1	6890	0.878	0.878	0.100	0.011	0.010	0.000	0.432	0.432	-0.382	-0.220	-0.193	-1.244	0.040	-5.6
Math	8	1503	D	D	2	6890	0.608	0.057	0.243	0.092	0.608	0.000	0.387	-0.299	-0.287	-0.397	0.387	0.651	0.028	3.4
Math	8	1504	D	E	2	6890	0.831	0.026	0.063	0.080	0.831	0.000	0.420	-0.256	-0.353	-0.268	0.420	-0.799	0.035	-0.6

Appendix L: 2008 Grades 3–8 and 11 Multiple-Choice Statistics

Information						Proportions							Correlations					Rasch		
Cont.	Grade	Pub. ID	Key	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Math	8	1505	A	D	2	6890	0.784	0.784	0.113	0.075	0.028	0.000	0.549	0.549	-0.453	-0.403	-0.323	-0.426	0.032	-9.3
Math	8	1506	B	B	2	6890	0.626	0.210	0.626	0.117	0.046	0.001	0.432	-0.353	0.432	-0.365	-0.321	0.551	0.028	-2.4
Math	8	1507	A	D	2	6890	0.753	0.753	0.113	0.094	0.039	0.001	0.469	0.469	-0.355	-0.369	-0.317	-0.212	0.031	-4.9
Math	8	1508	A	C	2	6890	0.444	0.444	0.132	0.057	0.366	0.001	0.245	0.245	-0.391	-0.225	-0.155	1.516	0.028	9.9
Math	8	1509	B	A	2	6890	0.495	0.274	0.495	0.123	0.107	0.001	0.321	-0.129	0.321	-0.431	-0.443	1.251	0.028	9.9
Math	8	1510	C	D	2	6890	0.624	0.075	0.225	0.624	0.075	0.001	0.456	-0.396	-0.378	0.456	-0.356	0.563	0.028	-1.3
Math	8	1511	B	C	2	6890	0.702	0.125	0.702	0.094	0.077	0.003	0.408	-0.354	0.408	-0.333	-0.225	0.115	0.030	0.6
Math	8	1512	D	C	2	6910	0.754	0.061	0.027	0.158	0.754	0.001	0.416	-0.301	-0.231	-0.351	0.416	-0.200	0.031	0.5
Math	8	1513	B	A	1	6910	0.629	0.106	0.629	0.104	0.160	0.001	0.506	-0.441	0.506	-0.239	-0.522	0.546	0.028	-6.8
Math	8	1514	B	B	2	6910	0.585	0.307	0.585	0.079	0.029	0.001	0.425	-0.372	0.425	-0.379	-0.274	0.784	0.028	-1.0
Math	8	1515	C	D	2	6910	0.700	0.098	0.060	0.700	0.140	0.001	0.371	-0.191	-0.255	0.371	-0.372	0.140	0.029	3.5
Math	8	1516	B	E	2	6910	0.701	0.083	0.701	0.184	0.031	0.000	0.509	-0.336	0.509	-0.487	-0.284	0.132	0.030	-5.6
Math	8	1517	D	D	2	6910	0.574	0.164	0.132	0.128	0.574	0.003	0.500	-0.409	-0.497	-0.395	0.500	0.842	0.028	-5.3
Math	8	1518	B	C	2	6910	0.666	0.109	0.666	0.163	0.062	0.001	0.458	-0.409	0.458	-0.336	-0.350	0.337	0.029	-4.0
Math	8	1519	A	A	2	6910	0.430	0.430	0.248	0.180	0.140	0.002	0.370	0.370	-0.247	-0.417	-0.451	1.589	0.028	7.5
Math	8	1520	C	E	2	6910	0.408	0.122	0.435	0.408	0.033	0.001	0.380	-0.516	-0.327	0.380	-0.305	1.705	0.028	6.2
Math	8	1521	C	D	1	6910	0.648	0.219	0.074	0.648	0.057	0.001	0.327	-0.192	-0.354	0.327	-0.311	0.437	0.028	7.4
Math	8	1522	A	C	1	6910	0.614	0.614	0.171	0.106	0.108	0.001	0.409	0.409	-0.251	-0.424	-0.377	0.628	0.028	3.7
Math	8	1523	D	B	1	6910	0.677	0.144	0.070	0.106	0.677	0.002	0.436	-0.300	-0.405	-0.346	0.436	0.273	0.029	-1.1
Math	8	1524	A	D	1	6914	0.809	0.809	0.073	0.073	0.044	0.001	0.536	0.536	-0.451	-0.366	-0.337	-0.598	0.034	-7.4
Math	8	1525	D	B	1	6914	0.499	0.253	0.118	0.129	0.499	0.001	0.532	-0.548	-0.523	-0.409	0.532	1.224	0.027	-8.0
Math	8	1526	B	E	2	6914	0.733	0.078	0.733	0.088	0.098	0.001	0.352	-0.305	0.352	-0.245	-0.231	-0.071	0.030	2.0
Math	8	1527	B	E	2	6914	0.890	0.065	0.890	0.029	0.016	0.000	0.348	-0.215	0.348	-0.269	-0.230	-1.363	0.041	-0.6
Math	8	1528	D	D	2	6914	0.620	0.172	0.063	0.144	0.620	0.000	0.481	-0.313	-0.373	-0.504	0.481	0.587	0.028	-5.1
Math	8	1529	C	A	2	6914	0.628	0.132	0.087	0.628	0.153	0.001	0.451	-0.323	-0.436	0.451	-0.367	0.548	0.028	-2.1
Math	8	1530	C	E	2	6914	0.274	0.154	0.442	0.274	0.129	0.001	0.232	-0.285	-0.218	0.232	-0.318	2.450	0.030	9.9
Math	8	1531	A	D	1	6914	0.633	0.633	0.145	0.139	0.081	0.002	0.448	0.448	-0.338	-0.411	-0.343	0.516	0.028	-2.2
Math	8	1532	D	D	1	6914	0.808	0.078	0.041	0.072	0.808	0.001	0.429	-0.249	-0.306	-0.358	0.429	-0.592	0.034	-3.1
Math	8	1533	B	B	1	6914	0.646	0.204	0.646	0.077	0.070	0.002	0.490	-0.453	0.490	-0.365	-0.300	0.444	0.028	-6.0
Math	8	1534	B	C	2	6914	0.629	0.178	0.629	0.096	0.096	0.001	0.419	-0.342	0.419	-0.203	-0.472	0.540	0.028	0.0
Math	8	1535	B	C	2	6914	0.573	0.141	0.573	0.191	0.091	0.003	0.302	-0.276	0.302	-0.261	-0.211	0.840	0.028	9.9
Math	8	1536	D	D	2	6926	0.693	0.058	0.162	0.085	0.693	0.001	0.419	-0.324	-0.338	-0.310	0.419	0.202	0.029	-1.0
Math	8	1537	A	B	1	6926	0.563	0.563	0.111	0.054	0.271	0.001	0.471	0.471	-0.449	-0.424	-0.391	0.925	0.028	-1.7
Math	8	1538	C	E	2	6926	0.908	0.015	0.063	0.908	0.014	0.000	0.356	-0.209	-0.287	0.356	-0.163	-1.561	0.044	-1.4
Math	8	1539	A	C	1	6926	0.816	0.816	0.015	0.136	0.033	0.000	0.412	0.412	-0.224	-0.320	-0.336	-0.632	0.034	-1.4
Math	8	1540	B	E	2	6926	0.851	0.051	0.851	0.050	0.048	0.000	0.395	-0.306	0.395	-0.286	-0.208	-0.931	0.037	-0.2
Math	8	1541	C	A	2	6926	0.729	0.068	0.102	0.729	0.101	0.001	0.517	-0.344	-0.416	0.517	-0.412	-0.016	0.030	-8.4
Math	8	1542	C	D	2	6926	0.373	0.237	0.211	0.373	0.176	0.002	0.338	-0.235	-0.454	0.338	-0.322	1.920	0.028	9.9
Math	8	1543	B	B	1	6926	0.916	0.042	0.916	0.028	0.012	0.001	0.362	-0.278	0.362	-0.225	-0.161	-1.672	0.046	-4.4
Math	8	1544	C	C	2	6926	0.756	0.039	0.046	0.756	0.157	0.001	0.405	-0.291	-0.283	0.405	-0.318	-0.196	0.031	-0.7
Math	8	1545	A	E	2	6926	0.342	0.342	0.460	0.054	0.143	0.001	0.264	0.264	-0.266	-0.250	-0.253	2.093	0.029	9.9
Math	8	1546	D	D	1	6926	0.710	0.170	0.045	0.075	0.710	0.001	0.402	-0.266	-0.342	-0.373	0.402	0.103	0.030	2.7
Math	8	1547	A	C	2	6926	0.700	0.700	0.237	0.016	0.045	0.001	0.399	0.399	-0.382	-0.216	-0.204	0.160	0.030	2.1

Appendix L: 2008 Grades 3–8 and 11 Multiple-Choice Statistics

Information						Proportions						Correlations					Rasch			
Cont.	Grade	Pub. ID	Key	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Math	8	1548	B	D	2	6903	0.773	0.094	0.773	0.099	0.033	0.001	0.444	-0.350	0.444	-0.348	-0.259	-0.294	0.032	-2.2
Math	8	1549	B	A	1	6903	0.902	0.030	0.902	0.026	0.042	0.001	0.398	-0.149	0.398	-0.318	-0.310	-1.481	0.043	-1.9
Math	8	1550	D	C	2	6903	0.812	0.012	0.081	0.095	0.812	0.000	0.299	-0.167	-0.246	-0.201	0.299	-0.586	0.034	4.8
Math	8	1551	C	D	1	6903	0.740	0.054	0.176	0.740	0.030	0.001	0.352	-0.301	-0.253	0.352	-0.264	-0.075	0.031	4.0
Math	8	1552	C	E	2	6903	0.895	0.020	0.019	0.895	0.066	0.000	0.438	-0.255	-0.199	0.438	-0.370	-1.383	0.042	-6.8
Math	8	1553	D	A	2	6903	0.787	0.128	0.033	0.050	0.787	0.000	0.505	-0.439	-0.290	-0.328	0.505	-0.399	0.033	-7.3
Math	8	1554	D	D	2	6903	0.672	0.145	0.103	0.078	0.672	0.001	0.584	-0.425	-0.547	-0.489	0.584	0.342	0.029	-9.9
Math	8	1555	C	C	1	6903	0.858	0.031	0.029	0.858	0.082	0.000	0.415	-0.278	-0.267	0.415	-0.301	-0.986	0.037	-1.6
Math	8	1556	C	E	2	6903	0.353	0.098	0.471	0.353	0.078	0.001	0.350	-0.512	-0.365	0.350	-0.082	2.041	0.028	9.9
Math	8	1557	A	C	2	6903	0.687	0.687	0.105	0.144	0.063	0.001	0.282	0.282	-0.187	-0.237	-0.224	0.253	0.029	9.9
Math	8	1558	A	D	2	6903	0.798	0.798	0.074	0.085	0.042	0.001	0.545	0.545	-0.397	-0.434	-0.352	-0.479	0.033	-9.6
Math	8	1559	B	B	2	6903	0.382	0.295	0.382	0.177	0.145	0.001	0.305	-0.250	0.305	-0.337	-0.337	1.882	0.028	9.9
Math	8	1560	A	E	2	6917	0.610	0.610	0.066	0.046	0.277	0.000	0.300	0.300	-0.294	-0.222	-0.239	0.680	0.028	9.9
Math	8	1561	B	D	2	6917	0.696	0.134	0.696	0.108	0.061	0.001	0.514	-0.395	0.514	-0.428	-0.377	0.196	0.029	-8.0
Math	8	1562	C	A	1	6917	0.869	0.030	0.033	0.869	0.068	0.000	0.384	-0.291	-0.284	0.384	-0.224	-1.095	0.038	-2.3
Math	8	1563	D	C	1	6917	0.707	0.054	0.087	0.151	0.707	0.000	0.512	-0.488	-0.406	-0.368	0.512	0.131	0.030	-6.3
Math	8	1564	C	D	2	6917	0.713	0.076	0.106	0.713	0.104	0.001	0.606	-0.440	-0.503	0.606	-0.487	0.096	0.030	-9.9
Math	8	1565	A	B	1	6917	0.675	0.675	0.074	0.153	0.096	0.001	0.475	0.475	-0.375	-0.366	-0.381	0.318	0.029	-5.4
Math	8	1566	A	E	2	6917	0.696	0.696	0.114	0.107	0.083	0.001	0.397	0.397	-0.360	-0.286	-0.261	0.195	0.029	2.6
Math	8	1567	C	D	2	6917	0.954	0.027	0.010	0.954	0.009	0.000	0.241	-0.176	-0.136	0.241	-0.115	-2.352	0.059	0.1
Math	8	1568	D	B	2	6917	0.356	0.339	0.154	0.151	0.356	0.001	0.460	-0.533	-0.537	-0.289	0.460	2.015	0.028	-1.5
Math	8	1569	A	A	1	6917	0.458	0.458	0.171	0.310	0.060	0.001	0.231	0.231	-0.389	-0.091	-0.238	1.472	0.027	9.9
Math	8	1570	C	C	2	6917	0.556	0.212	0.161	0.556	0.070	0.001	0.373	-0.384	-0.263	0.373	-0.269	0.966	0.027	3.5
Math	8	1571	A	D	2	6917	0.622	0.622	0.142	0.112	0.123	0.002	0.461	0.461	-0.313	-0.409	-0.415	0.614	0.028	-3.9
Math	8	1572	D	E	2	6931	0.781	0.034	0.104	0.081	0.781	0.001	0.483	-0.399	-0.353	-0.346	0.483	-0.345	0.032	-5.4
Math	8	1573	A	D	2	6931	0.708	0.708	0.108	0.095	0.088	0.001	0.544	0.544	-0.452	-0.391	-0.436	0.135	0.030	-8.4
Math	8	1574	B	C	2	6931	0.529	0.030	0.529	0.158	0.282	0.001	0.415	-0.395	0.415	-0.386	-0.363	1.120	0.027	2.3
Math	8	1575	A	D	1	6931	0.756	0.756	0.073	0.086	0.084	0.000	0.501	0.501	-0.350	-0.403	-0.367	-0.176	0.031	-6.1
Math	8	1576	B	A	1	6931	0.850	0.042	0.850	0.053	0.054	0.001	0.425	-0.228	0.425	-0.260	-0.369	-0.905	0.037	-3.0
Math	8	1577	A	B	2	6931	0.544	0.544	0.163	0.185	0.107	0.002	0.439	0.439	-0.374	-0.403	-0.365	1.046	0.027	-0.3
Math	8	1578	C	A	2	6931	0.298	0.224	0.291	0.298	0.187	0.001	0.192	-0.225	-0.183	0.192	-0.217	2.377	0.030	9.9
Math	8	1579	B	D	2	6931	0.475	0.100	0.475	0.284	0.140	0.001	0.373	-0.407	0.373	-0.304	-0.349	1.402	0.027	6.4
Math	8	1580	C	C	2	6931	0.595	0.028	0.262	0.595	0.115	0.001	0.409	-0.301	-0.410	0.409	-0.250	0.772	0.028	1.4
Math	8	1581	A	C	2	6931	0.689	0.689	0.168	0.081	0.061	0.001	0.365	0.365	-0.250	-0.311	-0.311	0.249	0.029	2.3
Math	8	1582	B	D	2	6931	0.584	0.065	0.584	0.159	0.191	0.001	0.479	-0.417	0.479	-0.448	-0.374	0.834	0.028	-3.5
Math	8	1583	D	E	2	6931	0.794	0.047	0.047	0.111	0.794	0.001	0.447	-0.287	-0.356	-0.328	0.447	-0.439	0.033	-2.2
Math	8	1584	B	E	2	6913	0.892	0.037	0.892	0.045	0.026	0.001	0.384	-0.233	0.384	-0.267	-0.252	-1.352	0.041	-2.5
Math	8	1585	C	D	2	6913	0.826	0.072	0.032	0.826	0.069	0.000	0.330	-0.182	-0.240	0.330	-0.266	-0.704	0.035	4.0
Math	8	1586	B	D	2	6913	0.657	0.060	0.657	0.124	0.158	0.001	0.442	-0.275	0.442	-0.388	-0.378	0.427	0.029	-0.4
Math	8	1587	A	C	1	6913	0.772	0.772	0.087	0.025	0.115	0.000	0.555	0.555	-0.291	-0.306	-0.575	-0.293	0.032	-8.2
Math	8	1588	C	B	1	6913	0.419	0.148	0.249	0.419	0.183	0.001	0.310	-0.403	-0.284	0.310	-0.231	1.694	0.028	9.9
Math	8	1589	A	C	2	6913	0.561	0.561	0.183	0.176	0.079	0.000	0.371	0.371	-0.415	-0.265	-0.221	0.948	0.028	5.8
Math	8	1590	B	A	2	6913	0.406	0.100	0.406	0.293	0.200	0.001	0.297	-0.334	0.297	-0.354	-0.156	1.764	0.028	9.9

Appendix L: 2008 Grades 3–8 and 11 Multiple-Choice Statistics

Information						Proportions						Correlations					Rasch			
Cont.	Grade	Pub. ID	Key	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Math	8	1591	C	D	2	6913	0.581	0.148	0.176	0.581	0.094	0.001	0.445	-0.402	-0.350	0.445	-0.396	0.841	0.028	-0.8
Math	8	1592	B	D	1	6913	0.642	0.073	0.642	0.138	0.145	0.001	0.500	-0.382	0.500	-0.472	-0.369	0.511	0.028	-5.9
Math	8	1593	D	E	2	6913	0.390	0.106	0.168	0.334	0.390	0.001	0.485	-0.609	-0.618	-0.384	0.485	1.851	0.028	-4.1
Math	8	1594	C	A	1	6913	0.840	0.029	0.065	0.840	0.063	0.003	0.391	-0.237	-0.324	0.391	-0.233	-0.826	0.036	-2.6
Math	8	1595	C	B	1	6913	0.623	0.055	0.160	0.623	0.158	0.003	0.449	-0.405	-0.395	0.449	-0.331	0.613	0.028	-1.5
Math	8	1596	A	D	1	6919	0.729	0.729	0.075	0.114	0.080	0.002	0.501	0.501	-0.340	-0.445	-0.337	-0.021	0.030	-5.9
Math	8	1597	B	D	1	6919	0.816	0.099	0.816	0.048	0.036	0.001	0.462	-0.325	0.462	-0.344	-0.323	-0.637	0.034	-5.5
Math	8	1598	A	C	2	6919	0.659	0.659	0.205	0.090	0.045	0.001	0.454	0.454	-0.432	-0.370	-0.152	0.399	0.029	-3.6
Math	8	1599	C	E	2	6919	0.792	0.039	0.142	0.792	0.026	0.001	0.503	-0.327	-0.435	0.503	-0.279	-0.452	0.033	-6.2
Math	8	1600	B	A	1	6919	0.646	0.067	0.646	0.215	0.071	0.001	0.459	-0.346	0.459	-0.385	-0.372	0.473	0.029	-3.4
Math	8	1601	D	B	2	6919	0.486	0.025	0.129	0.358	0.486	0.002	0.409	-0.331	-0.414	-0.363	0.409	1.324	0.027	3.9
Math	8	1602	B	E	2	6919	0.890	0.045	0.890	0.022	0.043	0.001	0.280	-0.209	0.280	-0.214	-0.124	-1.338	0.041	4.0
Math	8	1603	A	D	2	6919	0.556	0.556	0.096	0.252	0.093	0.002	0.356	0.356	-0.314	-0.281	-0.330	0.958	0.028	6.9
Math	8	1604	B	C	2	6919	0.452	0.336	0.452	0.105	0.105	0.001	0.363	-0.385	0.363	-0.281	-0.252	1.503	0.028	9.6
Math	8	1605	C	D	2	6919	0.756	0.110	0.066	0.756	0.065	0.002	0.501	-0.346	-0.379	0.501	-0.401	-0.200	0.031	-6.6
Math	8	1606	B	A	2	6919	0.778	0.109	0.778	0.062	0.050	0.001	0.494	-0.432	0.494	-0.324	-0.289	-0.348	0.032	-6.6
Math	8	1607	A	C	1	6919	0.751	0.751	0.112	0.076	0.059	0.002	0.511	0.511	-0.389	-0.361	-0.402	-0.163	0.031	-7.1
Math	8	1608	D	B	1	6891	0.635	0.065	0.112	0.187	0.635	0.000	0.558	-0.508	-0.484	-0.455	0.558	0.550	0.028	-9.9
Math	8	1609	A	C	2	6891	0.625	0.625	0.140	0.115	0.119	0.000	0.363	0.363	-0.278	-0.128	-0.466	0.604	0.028	5.3
Math	8	1610	C	E	2	6891	0.916	0.019	0.036	0.916	0.028	0.000	0.405	-0.228	-0.278	0.405	-0.272	-1.653	0.046	-6.3
Math	8	1611	B	D	1	6891	0.758	0.090	0.758	0.096	0.056	0.001	0.367	-0.270	0.367	-0.368	-0.123	-0.190	0.031	4.4
Math	8	1612	A	D	1	6891	0.562	0.562	0.117	0.208	0.112	0.001	0.400	0.400	-0.356	-0.357	-0.314	0.937	0.028	3.2
Math	8	1613	C	E	2	6891	0.448	0.215	0.302	0.448	0.033	0.000	0.220	-0.359	-0.071	0.220	-0.288	1.523	0.027	9.9
Math	8	1614	A	B	1	6891	0.698	0.698	0.215	0.044	0.042	0.001	0.495	0.495	-0.486	-0.330	-0.191	0.189	0.029	-5.4
Math	8	1615	A	A	2	6891	0.423	0.423	0.228	0.138	0.210	0.001	0.404	0.404	-0.332	-0.539	-0.341	1.655	0.028	4.5
Math	8	1616	D	C	2	6891	0.504	0.087	0.187	0.221	0.504	0.000	0.326	-0.433	-0.246	-0.259	0.326	1.235	0.027	9.5
Math	8	1617	B	D	2	6891	0.893	0.037	0.893	0.045	0.024	0.001	0.449	-0.304	0.449	-0.325	-0.255	-1.351	0.042	-7.5
Math	8	1618	B	A	2	6891	0.361	0.159	0.361	0.388	0.091	0.002	0.374	-0.435	0.374	-0.363	-0.333	1.986	0.028	7.6
Math	8	1619	D	C	2	6891	0.604	0.294	0.042	0.058	0.604	0.002	0.209	-0.068	-0.318	-0.352	0.209	0.718	0.028	9.9
Math	8	1620	B	B	1	6882	0.753	0.157	0.753	0.064	0.026	0.000	0.427	-0.344	0.427	-0.326	-0.260	-0.157	0.031	-1.6
Math	8	1621	D	D	2	6882	0.749	0.079	0.082	0.090	0.749	0.001	0.486	-0.433	-0.361	-0.314	0.486	-0.129	0.031	-3.1
Math	8	1622	C	C	1	6882	0.700	0.057	0.073	0.700	0.169	0.001	0.487	-0.357	-0.340	0.487	-0.422	0.181	0.030	-4.7
Math	8	1623	A	A	1	6882	0.742	0.742	0.115	0.073	0.069	0.001	0.434	0.434	-0.301	-0.316	-0.364	-0.088	0.031	-1.0
Math	8	1624	B	C	2	6882	0.577	0.034	0.577	0.317	0.072	0.001	0.490	-0.358	0.490	-0.473	-0.329	0.874	0.028	-5.1
Math	8	1625	C	B	1	6882	0.519	0.070	0.049	0.519	0.360	0.001	0.528	-0.387	-0.445	0.528	-0.524	1.181	0.028	-6.8
Math	8	1626	D	E	2	6882	0.420	0.075	0.402	0.101	0.420	0.002	0.460	-0.507	-0.430	-0.463	0.460	1.703	0.028	-0.2
Math	8	1627	D	A	1	6882	0.928	0.014	0.039	0.017	0.928	0.001	0.415	-0.215	-0.332	-0.216	0.415	-1.865	0.049	-6.7
Math	8	1628	C	D	1	6882	0.794	0.117	0.063	0.794	0.025	0.001	0.490	-0.401	-0.349	0.490	-0.271	-0.452	0.033	-7.4
Math	8	1629	C	D	1	6882	0.728	0.084	0.148	0.728	0.039	0.001	0.432	-0.362	-0.316	0.432	-0.321	0.007	0.030	1.1
Math	8	1630	A	E	2	6882	0.831	0.831	0.056	0.077	0.035	0.002	0.508	0.508	-0.348	-0.390	-0.334	-0.747	0.035	-7.1
Math	8	1631	C	C	2	6882	0.458	0.057	0.284	0.458	0.199	0.002	0.352	-0.430	-0.433	0.352	-0.138	1.501	0.028	9.9
Math	8	1632	A	C	2	6932	0.846	0.846	0.029	0.036	0.088	0.001	0.295	0.295	-0.182	-0.189	-0.214	-0.875	0.036	3.4
Math	8	1633	D	E	2	6932	0.632	0.337	0.014	0.017	0.632	0.000	0.491	-0.473	-0.286	-0.284	0.491	0.567	0.028	-2.9

Appendix L: 2008 Grades 3–8 and 11 Multiple-Choice Statistics

Information						Proportions						Correlations					Rasch			
Cont.	Grade	Pub. ID	Key	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Math	8	1634	A	A	1	6932	0.849	0.849	0.083	0.019	0.049	0.000	0.514	0.514	-0.397	-0.270	-0.382	-0.909	0.037	-8.6
Math	8	1635	C	D	1	6932	0.548	0.200	0.126	0.548	0.126	0.001	0.388	-0.439	-0.227	0.388	-0.294	1.017	0.027	4.0
Math	8	1636	B	B	1	6932	0.707	0.141	0.707	0.105	0.046	0.001	0.447	-0.378	0.447	-0.333	-0.280	0.133	0.030	-4.2
Math	8	1637	A	B	2	6932	0.511	0.511	0.232	0.192	0.061	0.003	0.456	0.456	-0.405	-0.447	-0.383	1.207	0.027	-0.6
Math	8	1638	B	D	2	6932	0.631	0.160	0.631	0.146	0.062	0.001	0.509	-0.470	0.509	-0.367	-0.441	0.572	0.028	-5.4
Math	8	1639	A	C	2	6932	0.100	0.100	0.454	0.167	0.278	0.001	0.152	0.152	-0.149	-0.411	-0.193	3.983	0.043	9.9
Math	8	1640	B	A	2	6932	0.545	0.202	0.545	0.083	0.169	0.002	0.492	-0.427	0.492	-0.414	-0.464	1.031	0.027	-4.4
Math	8	1641	D	D	2	6932	0.604	0.040	0.063	0.292	0.604	0.001	0.408	-0.389	-0.475	-0.306	0.408	0.718	0.028	7.3
Math	8	1642	B	C	1	6932	0.738	0.044	0.738	0.190	0.027	0.001	0.367	-0.277	0.367	-0.296	-0.247	-0.061	0.031	4.0
Math	8	1643	C	E	2	6932	0.530	0.233	0.138	0.530	0.098	0.001	0.525	-0.539	-0.420	0.525	-0.388	1.108	0.027	-8.4
Math	8	1644	B	D	1	6922	0.885	0.040	0.885	0.037	0.037	0.001	0.472	-0.292	0.472	-0.310	-0.347	-1.310	0.041	-5.7
Math	8	1645	C	C	2	6922	0.702	0.073	0.175	0.702	0.051	0.000	0.466	-0.405	-0.376	0.466	-0.311	0.131	0.030	-1.9
Math	8	1646	D	B	1	6922	0.619	0.172	0.079	0.130	0.619	0.001	0.531	-0.466	-0.410	-0.452	0.531	0.613	0.028	-8.0
Math	8	1647	D	E	2	6922	0.553	0.100	0.101	0.242	0.553	0.003	0.422	-0.348	-0.451	-0.335	0.422	0.965	0.028	1.8
Math	8	1648	B	A	1	6922	0.858	0.035	0.858	0.054	0.052	0.000	0.379	-0.279	0.379	-0.227	-0.266	-1.024	0.037	-0.1
Math	8	1649	C	A	1	6922	0.704	0.216	0.065	0.704	0.015	0.000	0.327	-0.232	-0.339	0.327	-0.225	0.120	0.030	6.5
Math	8	1650	A	E	2	6922	0.758	0.758	0.163	0.046	0.032	0.001	0.374	0.374	-0.298	-0.295	-0.210	-0.225	0.031	2.2
Math	8	1651	B	E	2	6922	0.676	0.137	0.676	0.130	0.056	0.001	0.496	-0.406	0.496	-0.381	-0.388	0.290	0.029	-7.1
Math	8	1652	C	B	2	6922	0.476	0.218	0.159	0.476	0.145	0.001	0.254	-0.101	-0.280	0.254	-0.336	1.372	0.028	9.9
Math	8	1653	D	D	2	6922	0.762	0.034	0.054	0.150	0.762	0.001	0.493	-0.303	-0.336	-0.423	0.493	-0.253	0.031	-5.8
Math	8	1654	B	C	2	6922	0.481	0.181	0.481	0.159	0.176	0.002	0.369	-0.354	0.369	-0.207	-0.440	1.343	0.028	7.7
Math	8	1655	C	D	2	6922	0.700	0.085	0.107	0.700	0.104	0.004	0.522	-0.425	-0.394	0.522	-0.405	0.149	0.030	-8.2
Math	8	1656	B	A	2	6932	0.808	0.052	0.808	0.031	0.108	0.001	0.400	-0.374	0.400	-0.302	-0.226	-0.578	0.034	2.5
Math	8	1657	C	E	2	6932	0.685	0.177	0.048	0.685	0.090	0.000	0.584	-0.548	-0.397	0.584	-0.423	0.250	0.029	-9.9
Math	8	1658	B	C	2	6932	0.549	0.231	0.549	0.170	0.047	0.001	0.491	-0.408	0.491	-0.534	-0.283	0.990	0.028	-5.2
Math	8	1659	A	B	1	6932	0.642	0.642	0.039	0.174	0.145	0.000	0.535	0.535	-0.420	-0.440	-0.477	0.493	0.028	-7.4
Math	8	1660	C	D	2	6932	0.688	0.080	0.153	0.688	0.077	0.001	0.471	-0.406	-0.418	0.471	-0.254	0.223	0.029	-4.4
Math	8	1661	D	C	2	6932	0.662	0.027	0.236	0.075	0.662	0.000	0.374	-0.186	-0.342	-0.286	0.374	0.376	0.029	5.9
Math	8	1662	B	D	2	6932	0.578	0.125	0.578	0.254	0.041	0.002	0.290	-0.286	0.290	-0.214	-0.253	0.839	0.028	9.9
Math	8	1663	D	A	2	6932	0.704	0.089	0.084	0.122	0.704	0.001	0.352	-0.244	-0.282	-0.276	0.352	0.127	0.030	7.8
Math	8	1664	D	B	1	6932	0.723	0.103	0.086	0.086	0.723	0.002	0.427	-0.392	-0.345	-0.209	0.427	0.013	0.030	-1.4
Math	8	1665	A	D	2	6932	0.675	0.675	0.180	0.093	0.050	0.001	0.441	0.441	-0.358	-0.345	-0.349	0.301	0.029	-0.8
Math	8	1666	D	C	2	6932	0.727	0.159	0.049	0.064	0.727	0.001	0.345	-0.242	-0.260	-0.272	0.345	-0.013	0.030	1.4
Math	8	1667	D	E	2	6932	0.670	0.114	0.111	0.103	0.670	0.002	0.575	-0.493	-0.474	-0.435	0.575	0.331	0.029	-9.9
Math	8	1668	B	E	2	6925	0.713	0.075	0.713	0.158	0.054	0.001	0.404	-0.341	0.404	-0.293	-0.309	0.120	0.030	1.3
Math	8	1669	B	B	1	6925	0.819	0.097	0.819	0.064	0.019	0.000	0.477	-0.424	0.477	-0.303	-0.222	-0.619	0.034	-6.0
Math	8	1670	C	A	2	6925	0.638	0.028	0.309	0.638	0.023	0.001	0.531	-0.364	-0.496	0.531	-0.371	0.560	0.028	-9.1
Math	8	1671	A	D	1	6925	0.605	0.605	0.089	0.188	0.117	0.001	0.424	0.424	-0.373	-0.365	-0.319	0.744	0.028	0.3
Math	8	1672	A	C	1	6925	0.692	0.692	0.103	0.118	0.085	0.001	0.432	0.432	-0.322	-0.328	-0.371	0.242	0.029	1.2
Math	8	1673	B	B	2	6925	0.671	0.150	0.671	0.089	0.088	0.002	0.351	-0.313	0.351	-0.320	-0.158	0.367	0.029	3.2
Math	8	1674	D	A	2	6925	0.233	0.334	0.076	0.356	0.233	0.002	0.237	-0.124	-0.502	-0.361	0.237	2.798	0.032	9.9
Math	8	1675	A	C	2	6925	0.510	0.510	0.284	0.131	0.074	0.001	0.422	0.422	-0.450	-0.282	-0.322	1.233	0.027	0.5
Math	8	1676	B	D	2	6925	0.564	0.214	0.564	0.113	0.105	0.003	0.460	-0.393	0.460	-0.412	-0.394	0.952	0.028	-2.8

Appendix L: 2008 Grades 3–8 and 11 Multiple-Choice Statistics

Information						Proportions							Correlations					Rasch		
Cont.	Grade	Pub. ID	Key	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Math	8	1677	C	A	1	6925	0.929	0.042	0.019	0.929	0.010	0.000	0.447	-0.378	-0.260	0.447	-0.163	-1.829	0.049	-8.3
Math	8	1678	C	D	2	6925	0.533	0.108	0.267	0.533	0.090	0.001	0.383	-0.425	-0.280	0.383	-0.350	1.111	0.027	6.1
Math	8	1679	D	E	2	6925	0.704	0.137	0.098	0.060	0.704	0.001	0.327	-0.246	-0.230	-0.271	0.327	0.172	0.030	6.5
Math	8	1680	A	A	2	6912	0.447	0.447	0.246	0.201	0.105	0.001	0.358	0.358	-0.206	-0.463	-0.375	1.561	0.027	9.2
Math	8	1681	A	D	2	6912	0.704	0.704	0.117	0.108	0.069	0.001	0.459	0.459	-0.361	-0.348	-0.355	0.169	0.029	-4.1
Math	8	1682	C	D	1	6912	0.700	0.013	0.272	0.700	0.014	0.001	0.401	-0.272	-0.363	0.401	-0.263	0.191	0.029	0.4
Math	8	1683	B	C	2	6912	0.711	0.101	0.711	0.066	0.120	0.001	0.390	-0.347	0.390	-0.240	-0.287	0.127	0.030	-0.6
Math	8	1684	A	E	2	6912	0.509	0.509	0.044	0.135	0.311	0.001	0.372	0.372	-0.443	-0.429	-0.264	1.226	0.027	6.1
Math	8	1685	B	D	2	6912	0.759	0.163	0.759	0.055	0.021	0.002	0.143	-0.055	0.143	-0.197	-0.110	-0.182	0.031	9.9
Math	8	1686	C	B	1	6912	0.628	0.150	0.130	0.628	0.091	0.002	0.498	-0.473	-0.418	0.498	-0.301	0.603	0.028	-7.1
Math	8	1687	A	C	2	6912	0.640	0.640	0.103	0.098	0.157	0.002	0.452	0.452	-0.299	-0.404	-0.392	0.533	0.028	-3.1
Math	8	1688	D	E	2	6912	0.458	0.147	0.226	0.166	0.458	0.002	0.324	-0.236	-0.288	-0.387	0.324	1.484	0.027	9.9
Math	8	1689	A	A	1	6912	0.809	0.809	0.026	0.145	0.020	0.001	0.377	0.377	-0.277	-0.290	-0.260	-0.542	0.034	1.4
Math	8	1690	C	A	2	6912	0.327	0.130	0.367	0.327	0.174	0.002	0.139	-0.286	-0.031	0.139	-0.249	2.191	0.029	9.9
Math	8	1691	D	D	1	6912	0.677	0.150	0.094	0.077	0.677	0.002	0.475	-0.307	-0.426	-0.432	0.475	0.330	0.029	-4.6
Math	8	1692	C	B	1	6870	0.536	0.088	0.071	0.536	0.305	0.001	0.542	-0.517	-0.370	0.542	-0.533	1.072	0.027	-9.3
Math	8	1693	B	E	1	6870	0.878	0.010	0.878	0.019	0.092	0.000	0.264	-0.150	0.264	-0.166	-0.203	-1.185	0.039	2.5
Math	8	1694	B	E	1	6870	0.798	0.045	0.798	0.028	0.129	0.000	0.380	-0.252	0.380	-0.288	-0.285	-0.488	0.033	0.2
Math	8	1695	C	A	2	6870	0.604	0.044	0.326	0.604	0.025	0.001	0.328	-0.388	-0.248	0.328	-0.326	0.706	0.028	9.6
Math	8	1696	D	B	2	6870	0.486	0.203	0.173	0.137	0.486	0.001	0.511	-0.502	-0.471	-0.447	0.511	1.318	0.027	-7.4
Math	8	1697	B	B	2	6870	0.473	0.183	0.473	0.191	0.151	0.002	0.255	-0.203	0.255	-0.265	-0.227	1.389	0.027	9.9
Math	8	1698	D	E	2	6870	0.342	0.054	0.227	0.376	0.342	0.001	0.291	-0.456	-0.243	-0.299	0.291	2.086	0.029	9.9
Math	8	1699	A	C	2	6870	0.853	0.853	0.069	0.034	0.043	0.000	0.383	0.383	-0.331	-0.219	-0.204	-0.941	0.037	-0.3
Math	8	1700	D	A	2	6870	0.570	0.143	0.091	0.195	0.570	0.001	0.315	-0.151	-0.289	-0.331	0.315	0.884	0.028	9.6
Math	8	1701	C	D	2	6870	0.695	0.102	0.145	0.695	0.057	0.001	0.530	-0.429	-0.422	0.530	-0.402	0.196	0.029	-8.1
Math	8	1702	C	C	2	6870	0.671	0.072	0.068	0.671	0.187	0.001	0.455	-0.393	-0.299	0.455	-0.377	0.332	0.029	-4.5
Math	8	1703	D	D	2	6870	0.437	0.151	0.109	0.301	0.437	0.001	0.391	-0.439	-0.507	-0.277	0.391	1.572	0.028	5.8
Math	8	1704	D	C	1	6882	0.825	0.025	0.021	0.129	0.825	0.000	0.470	-0.291	-0.282	-0.395	0.470	-0.685	0.035	-5.4
Math	8	1705	A	C	1	6882	0.706	0.706	0.206	0.069	0.018	0.000	0.386	0.386	-0.330	-0.282	-0.241	0.137	0.030	0.1
Math	8	1706	D	E	2	6882	0.638	0.039	0.058	0.264	0.638	0.001	0.361	-0.264	-0.350	-0.287	0.361	0.533	0.028	4.6
Math	8	1707	C	D	1	6882	0.431	0.283	0.135	0.431	0.149	0.002	0.348	-0.390	-0.424	0.348	-0.137	1.640	0.027	7.7
Math	8	1708	B	B	1	6882	0.655	0.065	0.655	0.130	0.149	0.001	0.466	-0.334	0.466	-0.402	-0.371	0.444	0.029	-4.7
Math	8	1709	B	E	2	6882	0.645	0.241	0.645	0.040	0.074	0.001	0.057	0.149	0.057	-0.290	-0.279	0.498	0.028	9.9
Math	8	1710	D	D	2	6882	0.247	0.176	0.446	0.129	0.247	0.001	0.217	-0.480	-0.099	-0.421	0.217	2.655	0.031	9.9
Math	8	1711	C	B	1	6882	0.565	0.097	0.307	0.565	0.031	0.000	0.533	-0.420	-0.530	0.533	-0.326	0.924	0.027	-8.3
Math	8	1712	A	A	2	6882	0.512	0.512	0.091	0.156	0.240	0.001	0.372	0.372	-0.412	-0.304	-0.327	1.199	0.027	7.3
Math	8	1713	B	A	1	6882	0.596	0.269	0.596	0.085	0.049	0.001	0.415	-0.371	0.415	-0.345	-0.292	0.762	0.028	0.9
Math	8	1714	A	D	2	6882	0.240	0.240	0.548	0.116	0.095	0.001	0.106	0.106	0.020	-0.423	-0.402	2.702	0.031	9.9
Math	8	1715	B	C	2	6882	0.652	0.096	0.652	0.161	0.088	0.003	0.403	-0.404	0.403	-0.274	-0.314	0.461	0.028	1.1
Math	11	1716	D	A	1	135120	0.505	0.119	0.231	0.144	0.505	0.001	0.470	-0.475	-0.502	-0.251	0.470	0.636	0.006	3.4
Math	11	1717	B	A	2	135120	0.603	0.201	0.603	0.115	0.079	0.001	0.363	-0.226	0.363	-0.385	-0.312	0.111	0.006	9.9
Math	11	1718	C	A	2	135120	0.892	0.006	0.033	0.892	0.068	0.001	0.331	-0.135	-0.183	0.331	-0.282	-1.959	0.009	9.3
Math	11	1719	A	A	1	135120	0.609	0.609	0.185	0.095	0.110	0.001	0.469	0.469	-0.348	-0.468	-0.386	0.081	0.006	8.7

Appendix L: 2008 Grades 3–8 and 11 Multiple-Choice Statistics

Information						Proportions						Correlations					Rasch			
Cont.	Grade	Pub. ID	Key	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Math	11	1720	B	E	1	135120	0.778	0.070	0.778	0.093	0.058	0.001	0.513	-0.406	0.513	-0.444	-0.241	-0.946	0.007	-9.9
Math	11	1721	B	C	1	135120	0.397	0.215	0.397	0.161	0.224	0.003	0.428	-0.363	0.428	-0.475	-0.429	1.213	0.006	9.9
Math	11	1722	D	D	1	135120	0.688	0.065	0.196	0.049	0.688	0.002	0.581	-0.370	-0.559	-0.351	0.581	-0.371	0.007	-9.9
Math	11	1723	B	C	2	135120	0.698	0.128	0.698	0.105	0.069	0.001	0.500	-0.418	0.500	-0.369	-0.354	-0.427	0.007	-9.9
Math	11	1724	B	B	1	135120	0.601	0.066	0.601	0.240	0.089	0.004	0.375	-0.448	0.375	-0.247	-0.308	0.120	0.006	9.9
Math	11	1725	A	A	1	135120	0.883	0.883	0.037	0.049	0.030	0.001	0.498	0.498	-0.337	-0.370	-0.284	-1.858	0.009	-9.9
Math	11	1726	D	D	1	135120	0.713	0.082	0.084	0.120	0.713	0.002	0.591	-0.379	-0.470	-0.516	0.591	-0.520	0.007	-9.9
Math	11	1727	C	C	2	135120	0.469	0.081	0.242	0.469	0.203	0.005	0.400	-0.322	-0.387	0.400	-0.366	0.823	0.006	9.9
Math	11	1728	D	C	1	135120	0.621	0.117	0.090	0.170	0.621	0.002	0.530	-0.453	-0.397	-0.448	0.530	0.017	0.006	-9.9
Math	11	1729	B	B	1	135120	0.719	0.105	0.719	0.114	0.060	0.001	0.583	-0.409	0.583	-0.464	-0.528	-0.557	0.007	-9.9
Math	11	1730	C	E	2	135120	0.661	0.105	0.123	0.661	0.107	0.004	0.465	-0.414	-0.443	0.465	-0.231	-0.213	0.007	0.2
Math	11	1731	C	E	2	135120	0.716	0.050	0.084	0.716	0.149	0.001	0.529	-0.392	-0.329	0.529	-0.477	-0.538	0.007	-9.9
Math	11	1732	A	D	1	135120	0.624	0.624	0.146	0.124	0.103	0.002	0.450	0.450	-0.345	-0.376	-0.389	-0.003	0.006	9.9
Math	11	1733	A	C	1	135120	0.492	0.492	0.034	0.406	0.067	0.001	0.399	0.399	-0.332	-0.354	-0.417	0.700	0.006	9.9
Math	11	1734	B	E	1	135120	0.708	0.073	0.708	0.077	0.139	0.002	0.480	-0.328	0.480	-0.398	-0.375	-0.482	0.007	-9.1
Math	11	1735	B	D	2	135120	0.668	0.242	0.668	0.050	0.038	0.002	0.319	-0.241	0.319	-0.314	-0.199	-0.252	0.007	9.9
Math	11	1736	A	D	2	135120	0.816	0.816	0.027	0.139	0.016	0.001	0.560	0.560	-0.300	-0.523	-0.223	-1.233	0.008	-9.9
Math	11	1737	C	D	1	135120	0.673	0.152	0.073	0.673	0.098	0.004	0.462	-0.347	-0.386	0.462	-0.352	-0.280	0.007	-8.8
Math	11	1738	C	C	1	135120	0.614	0.111	0.194	0.614	0.079	0.002	0.400	-0.469	-0.344	0.400	-0.103	0.054	0.006	9.9
Math	11	1739	B	D	2	135120	0.743	0.061	0.743	0.129	0.065	0.001	0.573	-0.332	0.573	-0.504	-0.429	-0.712	0.007	-9.9
Math	11	1740	B	D	2	135120	0.695	0.233	0.695	0.040	0.032	0.000	0.525	-0.512	0.525	-0.195	-0.374	-0.408	0.007	-9.9
Math	11	1741	D	D	1	135120	0.653	0.256	0.040	0.050	0.653	0.000	0.394	-0.293	-0.372	-0.381	0.394	-0.170	0.007	9.9
Math	11	1742	D	C	2	135120	0.572	0.201	0.093	0.132	0.572	0.003	0.416	-0.298	-0.448	-0.369	0.416	0.281	0.006	9.9
Math	11	1743	C	D	1	135120	0.677	0.070	0.099	0.677	0.151	0.003	0.408	-0.302	-0.402	0.408	-0.255	-0.310	0.007	9.9
Math	11	1744	B	D	2	135120	0.571	0.157	0.571	0.191	0.080	0.001	0.317	-0.355	0.317	-0.196	-0.235	0.285	0.006	9.9
Math	11	1745	D	C	2	135120	0.751	0.070	0.120	0.059	0.751	0.001	0.473	-0.440	-0.272	-0.389	0.473	-0.763	0.007	1.9
Math	11	1746	B	B	2	135120	0.667	0.128	0.667	0.122	0.082	0.001	0.382	-0.410	0.382	-0.294	-0.151	-0.247	0.007	9.9
Math	11	1747	A	A	2	135120	0.813	0.813	0.032	0.034	0.120	0.001	0.439	0.439	-0.319	-0.355	-0.301	-1.214	0.008	-1.9
Math	11	1748	A	E	2	135120	0.444	0.444	0.120	0.176	0.258	0.001	0.351	0.351	-0.258	-0.288	-0.404	0.957	0.006	9.9
Math	11	1749	B	D	1	135120	0.683	0.045	0.683	0.208	0.062	0.002	0.523	-0.276	0.523	-0.523	-0.261	-0.341	0.007	-9.9
Math	11	1750	D	D	2	135120	0.688	0.082	0.024	0.206	0.688	0.001	0.430	-0.228	-0.333	-0.414	0.430	-0.365	0.007	9.9
Math	11	1751	D	C	1	135120	0.656	0.113	0.123	0.107	0.656	0.001	0.419	-0.148	-0.450	-0.387	0.419	-0.183	0.007	9.9
Math	11	1752	A	A	2	135120	0.713	0.713	0.093	0.076	0.117	0.001	0.531	0.531	-0.308	-0.494	-0.430	-0.519	0.007	-9.9
Math	11	1753	B	B	2	135120	0.696	0.110	0.696	0.125	0.066	0.002	0.309	-0.204	0.309	-0.251	-0.239	-0.422	0.007	9.9
Math	11	1754	A	B	2	135120	0.712	0.712	0.121	0.092	0.075	0.001	0.432	0.432	-0.317	-0.320	-0.349	-0.511	0.007	9.3
Math	11	1755	C	A	2	135120	0.677	0.084	0.190	0.677	0.047	0.002	0.490	-0.277	-0.463	0.490	-0.360	-0.304	0.007	-9.9
Math	11	1756	A	D	2	135120	0.561	0.561	0.174	0.167	0.096	0.002	0.492	0.492	-0.370	-0.462	-0.451	0.336	0.006	-0.7
Math	11	1757	A	D	1	135120	0.675	0.675	0.202	0.082	0.039	0.001	0.571	0.571	-0.519	-0.425	-0.352	-0.290	0.007	-9.9
Math	11	1758	C	C	2	135120	0.685	0.207	0.064	0.685	0.044	0.001	0.496	-0.419	-0.412	0.496	-0.302	-0.351	0.007	-9.9
Math	11	1759	D	D	1	135120	0.677	0.083	0.091	0.146	0.677	0.003	0.461	-0.352	-0.365	-0.359	0.461	-0.303	0.007	-2.4
Math	11	1760	D	D	1	135120	0.421	0.178	0.272	0.125	0.421	0.004	0.388	-0.343	-0.382	-0.388	0.388	1.076	0.006	9.9
Math	11	1761	A	D	1	135120	0.793	0.793	0.062	0.063	0.081	0.001	0.555	0.555	-0.371	-0.430	-0.413	-1.059	0.007	-9.9
Math	11	1762	D	E	2	135120	0.770	0.086	0.083	0.060	0.770	0.001	0.556	-0.468	-0.413	-0.349	0.556	-0.885	0.007	-9.9

Appendix L: 2008 Grades 3–8 and 11 Multiple-Choice Statistics

Information						Proportions							Correlations					Rasch		
Cont.	Grade	Pub. ID	Key	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Math	11	1763	A	A	2	135120	0.653	0.653	0.119	0.132	0.095	0.001	0.528	0.528	-0.476	-0.431	-0.376	-0.165	0.007	-9.9
Math	11	1764	B	D	1	135120	0.527	0.015	0.527	0.181	0.275	0.001	0.514	-0.371	0.514	-0.532	-0.446	0.520	0.006	-9.9
Math	11	1765	C	E	2	135120	0.899	0.034	0.036	0.899	0.030	0.001	0.428	-0.255	-0.324	0.428	-0.251	-2.038	0.010	-9.9
Math	11	1766	D	D	1	135120	0.845	0.026	0.074	0.054	0.845	0.001	0.535	-0.305	-0.431	-0.360	0.535	-1.474	0.008	-9.9
Math	11	1767	C	A	1	135120	0.788	0.057	0.074	0.788	0.080	0.001	0.455	-0.357	-0.304	0.455	-0.315	-1.015	0.007	-9.9
Math	11	1768	C	D	1	135120	0.837	0.064	0.072	0.837	0.026	0.001	0.535	-0.414	-0.392	0.535	-0.291	-1.403	0.008	-9.9
Math	11	1769	B	D	2	135120	0.755	0.164	0.755	0.046	0.033	0.002	0.501	-0.381	0.501	-0.420	-0.354	-0.787	0.007	-9.9
Math	11	1770	A	B	2	7061	0.261	0.261	0.145	0.193	0.399	0.002	0.350	0.350	-0.362	-0.432	-0.375	1.967	0.031	9.9
Math	11	1771	A	E	1	7061	0.700	0.700	0.134	0.107	0.059	0.001	0.416	0.416	-0.384	-0.277	-0.275	-0.511	0.029	6.8
Math	11	1772	C	D	1	7061	0.688	0.076	0.126	0.688	0.109	0.001	0.465	-0.401	-0.388	0.465	-0.293	-0.438	0.029	-1.7
Math	11	1773	A	B	2	7061	0.830	0.830	0.043	0.045	0.081	0.001	0.346	0.346	-0.283	-0.291	-0.158	-1.438	0.035	-0.2
Math	11	1774	C	D	1	7061	0.648	0.094	0.163	0.648	0.091	0.003	0.482	-0.364	-0.454	0.482	-0.303	-0.205	0.028	-2.4
Math	11	1775	B	E	1	7061	0.836	0.049	0.836	0.048	0.066	0.001	0.481	-0.311	0.481	-0.274	-0.394	-1.489	0.035	-6.9
Math	11	1776	C	D	1	7061	0.572	0.149	0.130	0.572	0.144	0.004	0.372	-0.362	-0.246	0.372	-0.303	0.215	0.028	5.8
Math	11	1777	D	D	2	7061	0.633	0.092	0.159	0.112	0.633	0.004	0.411	-0.251	-0.374	-0.340	0.411	-0.121	0.028	2.5
Math	11	1778	A	A	1	7061	0.643	0.643	0.120	0.180	0.056	0.001	0.549	0.549	-0.430	-0.552	-0.239	-0.175	0.028	-8.8
Math	11	1779	D	D	2	7061	0.625	0.114	0.186	0.073	0.625	0.002	0.518	-0.426	-0.444	-0.414	0.518	-0.077	0.028	-4.6
Math	11	1780	C	C	2	7061	0.405	0.232	0.303	0.405	0.058	0.002	0.318	-0.215	-0.402	0.318	-0.235	1.107	0.028	9.9
Math	11	1781	A	E	2	7061	0.278	0.278	0.521	0.125	0.072	0.003	0.283	0.283	-0.327	-0.237	-0.200	1.852	0.030	9.9
Math	11	1782	A	A	2	6732	0.769	0.769	0.091	0.080	0.059	0.001	0.521	0.521	-0.421	-0.405	-0.310	-0.873	0.032	-6.7
Math	11	1783	D	B	1	6732	0.457	0.167	0.242	0.132	0.457	0.002	0.514	-0.509	-0.496	-0.448	0.514	0.900	0.028	-5.2
Math	11	1784	C	E	2	6732	0.596	0.134	0.180	0.596	0.089	0.001	0.461	-0.244	-0.469	0.461	-0.433	0.162	0.028	-0.5
Math	11	1785	D	D	2	6732	0.488	0.220	0.117	0.173	0.488	0.002	0.500	-0.504	-0.404	-0.444	0.500	0.735	0.028	-3.9
Math	11	1786	C	D	2	6732	0.603	0.085	0.174	0.603	0.137	0.001	0.476	-0.365	-0.409	0.476	-0.384	0.124	0.028	-2.9
Math	11	1787	B	D	1	6732	0.629	0.120	0.629	0.117	0.129	0.005	0.412	-0.296	0.412	-0.350	-0.336	-0.017	0.029	-0.2
Math	11	1788	D	D	1	6732	0.682	0.075	0.077	0.165	0.682	0.001	0.421	-0.345	-0.384	-0.282	0.421	-0.323	0.030	0.2
Math	11	1789	D	D	1	6732	0.512	0.148	0.113	0.223	0.512	0.003	0.498	-0.405	-0.431	-0.489	0.498	0.607	0.028	-4.0
Math	11	1790	C	E	1	6732	0.376	0.115	0.438	0.376	0.069	0.002	0.326	-0.390	-0.295	0.326	-0.341	1.335	0.029	9.9
Math	11	1791	D	E	2	6732	0.437	0.236	0.171	0.152	0.437	0.003	0.439	-0.336	-0.450	-0.492	0.439	1.003	0.028	3.5
Math	11	1792	B	B	2	6732	0.554	0.185	0.554	0.104	0.156	0.002	0.498	-0.609	0.498	-0.323	-0.297	0.389	0.028	-3.2
Math	11	1793	C	C	2	6732	0.300	0.176	0.418	0.300	0.102	0.004	-0.041	-0.014	0.119	-0.041	-0.129	1.776	0.030	9.9
Math	11	1794	C	E	2	6753	0.523	0.108	0.223	0.523	0.145	0.001	0.318	-0.306	-0.245	0.318	-0.301	0.532	0.028	9.9
Math	11	1795	D	C	2	6753	0.630	0.098	0.109	0.161	0.630	0.003	0.376	-0.066	-0.318	-0.450	0.376	-0.032	0.028	6.2
Math	11	1796	B	D	1	6753	0.888	0.021	0.888	0.042	0.049	0.001	0.425	-0.258	0.425	-0.315	-0.271	-1.886	0.041	-5.3
Math	11	1797	C	A	2	6753	0.536	0.357	0.043	0.536	0.063	0.001	0.282	-0.172	-0.386	0.282	-0.408	0.462	0.028	9.9
Math	11	1798	D	D	1	6753	0.307	0.108	0.266	0.317	0.307	0.003	0.335	-0.399	-0.413	-0.281	0.335	1.689	0.030	9.2
Math	11	1799	B	B	1	6753	0.624	0.100	0.624	0.191	0.084	0.001	0.411	-0.314	0.411	-0.329	-0.358	0.002	0.028	1.5
Math	11	1800	D	E	2	6753	0.290	0.194	0.299	0.214	0.290	0.004	0.246	-0.304	-0.187	-0.339	0.246	1.789	0.030	9.9
Math	11	1801	C	D	1	6753	0.550	0.148	0.192	0.550	0.107	0.003	0.384	-0.359	-0.330	0.384	-0.286	0.389	0.028	5.3
Math	11	1802	D	C	2	6753	0.236	0.214	0.337	0.208	0.236	0.004	0.198	-0.315	-0.139	-0.300	0.198	2.132	0.032	9.9
Math	11	1803	D	D	1	6753	0.333	0.234	0.183	0.247	0.333	0.003	0.279	-0.229	-0.350	-0.294	0.279	1.534	0.029	9.9
Math	11	1804	C	D	2	6753	0.168	0.075	0.094	0.168	0.662	0.002	-0.018	-0.362	-0.398	-0.018	0.133	2.652	0.036	9.9
Math	11	1805	A	D	2	6753	0.328	0.328	0.212	0.349	0.107	0.004	0.420	0.420	-0.450	-0.403	-0.521	1.566	0.029	2.6

Appendix L: 2008 Grades 3–8 and 11 Multiple-Choice Statistics

Information						Proportions						Correlations					Rasch			
Cont.	Grade	Pub. ID	Key	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Math	11	1806	C	A	1	6739	0.576	0.028	0.300	0.576	0.096	0.000	0.358	-0.321	-0.249	0.358	-0.427	0.275	0.028	8.9
Math	11	1807	B	B	2	6739	0.848	0.065	0.848	0.052	0.035	0.001	0.464	-0.338	0.464	-0.307	-0.297	-1.518	0.037	-7.1
Math	11	1808	D	D	1	6739	0.803	0.046	0.039	0.111	0.803	0.000	0.495	-0.343	-0.329	-0.387	0.495	-1.137	0.034	-5.1
Math	11	1809	A	D	2	6739	0.529	0.529	0.174	0.226	0.068	0.003	0.474	0.474	-0.432	-0.419	-0.385	0.525	0.028	-0.8
Math	11	1810	C	D	1	6739	0.722	0.107	0.089	0.722	0.081	0.002	0.513	-0.380	-0.434	0.513	-0.352	-0.569	0.031	-5.5
Math	11	1811	C	B	2	6739	0.587	0.170	0.171	0.587	0.069	0.003	0.489	-0.478	-0.371	0.489	-0.365	0.211	0.028	-2.2
Math	11	1812	C	A	1	6739	0.743	0.070	0.100	0.743	0.085	0.002	0.457	-0.315	-0.352	0.457	-0.333	-0.708	0.031	-5.0
Math	11	1813	A	E	2	6739	0.714	0.714	0.088	0.131	0.064	0.002	0.455	0.455	-0.328	-0.368	-0.337	-0.521	0.031	-0.1
Math	11	1814	C	C	1	6739	0.751	0.051	0.160	0.751	0.036	0.002	0.505	-0.322	-0.456	0.505	-0.279	-0.759	0.032	-5.8
Math	11	1815	D	D	1	6739	0.405	0.129	0.201	0.259	0.405	0.006	0.362	-0.376	-0.374	-0.315	0.362	1.192	0.029	9.9
Math	11	1816	A	D	1	6739	0.501	0.501	0.183	0.189	0.124	0.002	0.443	0.443	-0.443	-0.335	-0.417	0.675	0.028	4.0
Math	11	1817	B	D	1	6739	0.516	0.241	0.516	0.068	0.173	0.002	0.437	-0.372	0.437	-0.436	-0.388	0.596	0.028	1.9
Math	11	1818	B	B	1	6751	0.677	0.089	0.677	0.108	0.123	0.002	0.454	-0.397	0.454	-0.346	-0.316	-0.297	0.029	-2.4
Math	11	1819	A	C	1	6751	0.821	0.821	0.124	0.036	0.017	0.001	0.197	0.197	-0.079	-0.216	-0.207	-1.268	0.035	9.9
Math	11	1820	B	D	2	6751	0.539	0.304	0.539	0.084	0.072	0.001	0.425	-0.360	0.425	-0.419	-0.328	0.458	0.028	2.5
Math	11	1821	D	D	1	6751	0.571	0.044	0.061	0.322	0.571	0.001	0.443	-0.354	-0.425	-0.376	0.443	0.292	0.028	0.0
Math	11	1822	D	E	1	6751	0.814	0.071	0.064	0.050	0.814	0.001	0.368	-0.180	-0.287	-0.310	0.368	-1.209	0.034	3.8
Math	11	1823	B	D	2	6751	0.624	0.245	0.624	0.080	0.049	0.001	0.363	-0.233	0.363	-0.398	-0.325	0.002	0.029	4.3
Math	11	1824	B	B	2	6751	0.579	0.209	0.579	0.147	0.061	0.003	0.365	-0.321	0.365	-0.385	-0.106	0.246	0.028	8.7
Math	11	1825	C	E	2	6751	0.760	0.049	0.091	0.760	0.099	0.001	0.408	-0.277	-0.350	0.408	-0.262	-0.816	0.032	-0.2
Math	11	1826	D	D	2	6751	0.556	0.140	0.227	0.075	0.556	0.001	0.501	-0.499	-0.415	-0.390	0.501	0.372	0.028	-3.0
Math	11	1827	C	D	2	6751	0.532	0.107	0.226	0.532	0.128	0.006	0.232	-0.203	-0.262	0.232	-0.099	0.495	0.028	9.9
Math	11	1828	D	D	1	6751	0.684	0.130	0.074	0.110	0.684	0.002	0.483	-0.349	-0.351	-0.421	0.483	-0.335	0.030	-5.4
Math	11	1829	A	C	2	6751	0.577	0.577	0.132	0.178	0.111	0.002	0.506	0.506	-0.439	-0.398	-0.493	0.258	0.028	-2.2
Math	11	1830	A	C	1	6770	0.542	0.542	0.332	0.077	0.046	0.003	0.603	0.603	-0.600	-0.416	-0.429	0.416	0.028	-9.9
Math	11	1831	D	D	1	6770	0.612	0.123	0.084	0.177	0.612	0.004	0.466	-0.265	-0.406	-0.454	0.466	0.043	0.028	-3.0
Math	11	1832	B	D	1	6770	0.653	0.090	0.653	0.128	0.127	0.002	0.430	-0.267	0.430	-0.417	-0.315	-0.184	0.029	-0.5
Math	11	1833	B	B	1	6770	0.716	0.135	0.716	0.080	0.069	0.000	0.364	-0.158	0.364	-0.345	-0.363	-0.553	0.030	3.9
Math	11	1834	A	A	1	6770	0.730	0.730	0.079	0.155	0.037	0.001	0.422	0.422	-0.251	-0.366	-0.298	-0.639	0.031	-2.3
Math	11	1835	A	D	2	6770	0.821	0.821	0.053	0.054	0.070	0.001	0.504	0.504	-0.333	-0.333	-0.392	-1.288	0.035	-7.3
Math	11	1836	B	E	2	6770	0.852	0.038	0.852	0.084	0.026	0.001	0.415	-0.293	0.415	-0.342	-0.170	-1.555	0.037	-2.1
Math	11	1837	C	C	2	6770	0.547	0.086	0.253	0.547	0.112	0.002	0.287	-0.394	-0.180	0.287	-0.235	0.391	0.028	9.9
Math	11	1838	B	D	1	6770	0.349	0.209	0.349	0.350	0.090	0.003	0.281	-0.148	0.281	-0.303	-0.457	1.449	0.029	9.9
Math	11	1839	B	D	1	6770	0.403	0.230	0.403	0.175	0.190	0.002	0.378	-0.299	0.378	-0.386	-0.420	1.150	0.028	8.5
Math	11	1840	C	C	1	6770	0.285	0.140	0.254	0.285	0.318	0.003	0.074	-0.239	-0.043	0.074	-0.034	1.826	0.030	9.9
Math	11	1841	A	A	1	6770	0.539	0.539	0.154	0.226	0.077	0.004	0.286	0.286	-0.278	-0.231	-0.215	0.434	0.028	9.9
Math	11	1842	B	E	1	6741	0.827	0.035	0.827	0.116	0.021	0.001	0.435	-0.288	0.435	-0.363	-0.219	-1.335	0.035	-2.1
Math	11	1843	C	D	2	6741	0.678	0.098	0.155	0.678	0.066	0.003	0.390	-0.288	-0.299	0.390	-0.315	-0.314	0.030	3.0
Math	11	1844	C	A	2	6741	0.704	0.046	0.101	0.704	0.148	0.001	0.509	-0.322	-0.444	0.509	-0.403	-0.468	0.030	-4.0
Math	11	1845	D	D	1	6741	0.557	0.178	0.109	0.154	0.557	0.002	0.499	-0.489	-0.483	-0.341	0.499	0.357	0.028	-4.1
Math	11	1846	B	D	1	6741	0.491	0.143	0.491	0.172	0.189	0.004	0.382	-0.350	0.382	-0.370	-0.300	0.703	0.028	7.8
Math	11	1847	A	C	1	6741	0.573	0.573	0.087	0.160	0.179	0.001	0.496	0.496	-0.494	-0.456	-0.342	0.271	0.028	-5.1
Math	11	1848	D	A	2	6741	0.536	0.087	0.197	0.177	0.536	0.003	0.530	-0.454	-0.481	-0.472	0.530	0.468	0.028	-7.4

Appendix L: 2008 Grades 3–8 and 11 Multiple-Choice Statistics

Information						Proportions						Correlations					Rasch			
Cont.	Grade	Pub. ID	Key	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Math	11	1849	B	D	2	6741	0.579	0.103	0.579	0.178	0.139	0.001	0.411	-0.443	0.411	-0.395	-0.203	0.237	0.028	4.6
Math	11	1850	B	B	2	6741	0.604	0.083	0.604	0.093	0.217	0.003	0.370	-0.376	0.370	-0.404	-0.205	0.106	0.028	6.1
Math	11	1851	A	E	2	6741	0.158	0.158	0.107	0.152	0.580	0.002	0.258	0.258	-0.485	-0.340	-0.267	2.801	0.037	9.9
Math	11	1852	B	D	2	6741	0.533	0.154	0.533	0.235	0.073	0.005	0.363	-0.332	0.363	-0.316	-0.250	0.482	0.028	6.9
Math	11	1853	A	D	1	6741	0.686	0.686	0.063	0.166	0.084	0.002	0.469	0.469	-0.379	-0.345	-0.394	-0.358	0.030	-2.1
Math	11	1854	A	C	2	6749	0.592	0.592	0.153	0.168	0.083	0.003	0.543	0.543	-0.376	-0.538	-0.464	0.165	0.028	-7.7
Math	11	1855	C	A	2	6749	0.796	0.087	0.104	0.796	0.012	0.001	0.507	-0.325	-0.470	0.507	-0.237	-1.094	0.033	-6.1
Math	11	1856	A	D	1	6749	0.474	0.474	0.108	0.171	0.244	0.002	0.477	0.477	-0.380	-0.421	-0.478	0.792	0.028	-0.8
Math	11	1857	A	B	1	6749	0.627	0.627	0.092	0.230	0.048	0.002	0.513	0.513	-0.373	-0.495	-0.283	-0.027	0.029	-6.8
Math	11	1858	B	C	1	6749	0.645	0.130	0.645	0.125	0.098	0.001	0.431	-0.225	0.431	-0.442	-0.357	-0.131	0.029	1.2
Math	11	1859	C	D	1	6749	0.672	0.080	0.167	0.672	0.078	0.004	0.473	-0.350	-0.382	0.473	-0.378	-0.282	0.029	-3.3
Math	11	1860	C	E	2	6749	0.525	0.291	0.115	0.525	0.067	0.002	0.444	-0.353	-0.472	0.444	-0.415	0.522	0.028	2.6
Math	11	1861	A	D	2	6749	0.398	0.398	0.254	0.162	0.182	0.004	0.414	0.414	-0.364	-0.429	-0.439	1.196	0.028	5.4
Math	11	1862	D	D	2	6749	0.656	0.059	0.122	0.160	0.656	0.003	0.416	-0.362	-0.381	-0.273	0.416	-0.192	0.029	2.9
Math	11	1863	B	A	2	6749	0.446	0.180	0.446	0.326	0.045	0.001	0.166	-0.313	0.166	0.006	-0.412	0.937	0.028	9.9
Math	11	1864	C	C	1	6749	0.692	0.062	0.078	0.692	0.165	0.003	0.575	-0.418	-0.424	0.575	-0.499	-0.403	0.030	-9.9
Math	11	1865	B	B	2	6749	0.560	0.145	0.560	0.167	0.122	0.005	0.410	-0.278	0.410	-0.451	-0.282	0.335	0.028	2.7
Math	11	1866	D	B	2	6740	0.593	0.051	0.209	0.146	0.593	0.002	0.445	-0.235	-0.398	-0.396	0.445	0.156	0.028	-1.0
Math	11	1867	C	B	2	6740	0.381	0.387	0.149	0.381	0.081	0.003	0.286	-0.271	-0.326	0.286	-0.191	1.275	0.029	9.9
Math	11	1868	B	E	2	6740	0.813	0.039	0.813	0.124	0.022	0.001	0.300	-0.197	0.300	-0.221	-0.214	-1.213	0.034	4.4
Math	11	1869	A	D	2	6740	0.564	0.564	0.071	0.141	0.222	0.002	0.473	0.473	-0.457	-0.517	-0.304	0.309	0.028	-2.1
Math	11	1870	B	B	1	6740	0.667	0.134	0.667	0.111	0.086	0.001	0.442	-0.407	0.442	-0.304	-0.316	-0.256	0.029	2.8
Math	11	1871	A	B	2	6740	0.397	0.397	0.246	0.227	0.125	0.005	0.417	0.417	-0.515	-0.406	-0.204	1.187	0.028	5.0
Math	11	1872	D	D	2	6740	0.337	0.401	0.090	0.170	0.337	0.002	0.330	-0.296	-0.423	-0.363	0.330	1.521	0.029	9.9
Math	11	1873	C	D	1	6740	0.466	0.241	0.110	0.466	0.181	0.003	0.521	-0.587	-0.430	0.521	-0.379	0.819	0.028	-5.9
Math	11	1874	B	A	2	6740	0.649	0.122	0.649	0.133	0.095	0.002	0.375	-0.158	0.375	-0.338	-0.399	-0.150	0.029	4.5
Math	11	1875	D	D	1	6740	0.466	0.091	0.278	0.164	0.466	0.001	0.413	-0.462	-0.298	-0.447	0.413	0.820	0.028	4.2
Math	11	1876	D	C	2	6740	0.348	0.209	0.311	0.128	0.348	0.003	0.508	-0.550	-0.499	-0.543	0.508	1.458	0.029	-3.3
Math	11	1877	C	E	2	6740	0.229	0.088	0.596	0.229	0.084	0.003	0.050	-0.254	0.031	0.050	-0.334	2.201	0.032	9.9
Math	11	1878	A	E	2	6745	0.606	0.606	0.137	0.168	0.088	0.002	0.557	0.557	-0.401	-0.529	-0.484	0.083	0.028	-8.1
Math	11	1879	C	C	2	6745	0.685	0.154	0.078	0.685	0.082	0.001	0.553	-0.488	-0.409	0.553	-0.378	-0.365	0.030	-9.9
Math	11	1880	B	D	2	6745	0.617	0.096	0.617	0.205	0.078	0.003	0.266	-0.244	0.266	-0.238	-0.122	0.022	0.029	9.9
Math	11	1881	D	D	1	6745	0.687	0.080	0.148	0.084	0.687	0.001	0.416	-0.423	-0.242	-0.349	0.416	-0.377	0.030	3.4
Math	11	1882	B	A	2	6745	0.586	0.159	0.586	0.118	0.135	0.002	0.439	-0.277	0.439	-0.428	-0.409	0.191	0.028	0.2
Math	11	1883	C	B	2	6745	0.342	0.231	0.274	0.342	0.149	0.004	0.301	-0.522	-0.262	0.301	-0.062	1.502	0.029	9.9
Math	11	1884	B	D	1	6745	0.733	0.117	0.733	0.106	0.042	0.003	0.518	-0.367	0.518	-0.453	-0.325	-0.662	0.031	-8.0
Math	11	1885	D	A	1	6745	0.601	0.066	0.235	0.097	0.601	0.001	0.464	-0.445	-0.343	-0.437	0.464	0.109	0.028	0.3
Math	11	1886	C	E	1	6745	0.805	0.063	0.095	0.805	0.036	0.001	0.281	-0.236	-0.156	0.281	-0.198	-1.168	0.034	6.8
Math	11	1887	A	D	1	6745	0.599	0.599	0.231	0.087	0.080	0.003	0.488	0.488	-0.388	-0.430	-0.435	0.123	0.028	-4.6
Math	11	1888	D	E	2	6745	0.311	0.193	0.193	0.299	0.311	0.004	0.174	-0.216	-0.178	-0.168	0.174	1.686	0.030	9.9
Math	11	1889	B	C	1	6745	0.526	0.130	0.526	0.174	0.166	0.003	0.427	-0.399	0.427	-0.378	-0.357	0.510	0.028	1.8
Math	11	1890	B	C	1	6744	0.601	0.075	0.601	0.153	0.169	0.001	0.440	-0.222	0.440	-0.326	-0.476	0.116	0.028	0.2
Math	11	1891	A	A	2	6744	0.647	0.647	0.097	0.146	0.109	0.001	0.452	0.452	-0.305	-0.397	-0.358	-0.136	0.029	-3.0

Appendix L: 2008 Grades 3–8 and 11 Multiple-Choice Statistics

Information						Proportions						Correlations					Rasch			
Cont.	Grade	Pub. ID	Key	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Math	11	1892	A	D	1	6744	0.707	0.707	0.104	0.094	0.094	0.001	0.465	0.465	-0.336	-0.343	-0.374	-0.483	0.030	-4.7
Math	11	1893	B	E	1	6744	0.685	0.079	0.685	0.113	0.122	0.001	0.436	-0.465	0.436	-0.267	-0.307	-0.353	0.030	0.7
Math	11	1894	A	D	2	6744	0.759	0.759	0.059	0.147	0.032	0.001	0.493	0.493	-0.349	-0.412	-0.283	-0.817	0.032	-7.2
Math	11	1895	B	D	2	6744	0.714	0.066	0.714	0.146	0.070	0.004	0.473	-0.317	0.473	-0.396	-0.332	-0.529	0.030	-5.6
Math	11	1896	D	D	1	6744	0.483	0.204	0.128	0.182	0.483	0.003	0.171	-0.143	-0.214	-0.114	0.171	0.738	0.028	9.9
Math	11	1897	A	B	2	6744	0.504	0.504	0.171	0.136	0.187	0.002	0.429	0.429	-0.324	-0.409	-0.411	0.630	0.028	2.0
Math	11	1898	D	D	2	6744	0.676	0.111	0.115	0.097	0.676	0.001	0.504	-0.378	-0.437	-0.369	0.504	-0.298	0.029	-5.0
Math	11	1899	C	E	2	6744	0.433	0.327	0.154	0.433	0.083	0.002	0.172	-0.015	-0.337	0.172	-0.301	1.002	0.028	9.9
Math	11	1900	D	A	1	6744	0.488	0.187	0.117	0.206	0.488	0.002	0.422	-0.418	-0.457	-0.294	0.422	0.717	0.028	2.5
Math	11	1901	C	C	2	6744	0.441	0.148	0.274	0.441	0.129	0.008	0.218	-0.301	-0.165	0.218	-0.164	0.958	0.028	9.9
Math	11	1902	A	E	1	6735	0.732	0.732	0.046	0.066	0.155	0.001	0.296	0.296	-0.214	-0.171	-0.245	-0.644	0.031	7.8
Math	11	1903	B	B	2	6735	0.521	0.178	0.521	0.182	0.117	0.002	0.332	-0.456	0.332	-0.291	-0.039	0.545	0.028	9.9
Math	11	1904	D	D	2	6735	0.702	0.080	0.063	0.152	0.702	0.002	0.507	-0.319	-0.382	-0.452	0.507	-0.458	0.030	-5.0
Math	11	1905	C	D	1	6735	0.525	0.147	0.185	0.525	0.140	0.003	0.428	-0.391	-0.299	0.428	-0.436	0.524	0.028	1.1
Math	11	1906	D	C	2	6735	0.792	0.075	0.064	0.067	0.792	0.001	0.561	-0.460	-0.388	-0.371	0.561	-1.058	0.033	-9.9
Math	11	1907	A	A	1	6735	0.625	0.625	0.139	0.118	0.116	0.002	0.497	0.497	-0.436	-0.404	-0.373	-0.009	0.029	-4.3
Math	11	1908	D	E	2	6735	0.384	0.110	0.201	0.302	0.384	0.003	0.338	-0.401	-0.305	-0.318	0.338	1.272	0.029	9.9
Math	11	1909	D	D	2	6735	0.635	0.226	0.076	0.062	0.635	0.001	0.401	-0.251	-0.422	-0.386	0.401	-0.069	0.029	2.8
Math	11	1910	A	C	2	6735	0.554	0.554	0.223	0.163	0.057	0.003	0.325	0.325	-0.246	-0.284	-0.348	0.371	0.028	9.9
Math	11	1911	A	E	2	6735	0.151	0.151	0.525	0.069	0.252	0.002	0.211	0.211	-0.185	-0.436	-0.349	2.852	0.037	9.9
Math	11	1912	A	D	1	6735	0.648	0.648	0.113	0.180	0.056	0.003	0.471	0.471	-0.404	-0.377	-0.335	-0.142	0.029	-2.9
Math	11	1913	C	D	2	6735	0.771	0.071	0.096	0.771	0.060	0.002	0.554	-0.431	-0.406	0.554	-0.385	-0.906	0.032	-9.9
Math	11	1914	A	D	1	6773	0.490	0.490	0.111	0.300	0.096	0.003	0.512	0.512	-0.473	-0.542	-0.276	0.716	0.028	-5.5
Math	11	1915	D	D	2	6773	0.453	0.250	0.151	0.143	0.453	0.003	0.482	-0.428	-0.482	-0.476	0.482	0.914	0.028	-1.5
Math	11	1916	A	B	1	6773	0.794	0.794	0.061	0.094	0.049	0.001	0.527	0.527	-0.379	-0.396	-0.368	-1.076	0.033	-6.2
Math	11	1917	C	B	2	6773	0.646	0.077	0.118	0.646	0.157	0.001	0.512	-0.282	-0.457	0.512	-0.463	-0.128	0.029	-5.1
Math	11	1918	D	D	1	6773	0.712	0.057	0.139	0.091	0.712	0.001	0.542	-0.392	-0.444	-0.410	0.542	-0.522	0.030	-9.3
Math	11	1919	A	A	1	6773	0.664	0.664	0.233	0.033	0.069	0.001	0.397	0.397	-0.278	-0.354	-0.388	-0.233	0.029	3.9
Math	11	1920	C	D	2	6773	0.731	0.087	0.081	0.731	0.098	0.002	0.486	-0.388	-0.380	0.486	-0.328	-0.642	0.031	-4.1
Math	11	1921	C	B	1	6773	0.734	0.059	0.074	0.734	0.132	0.001	0.555	-0.418	-0.378	0.555	-0.469	-0.660	0.031	-7.7
Math	11	1922	A	C	2	6773	0.437	0.437	0.224	0.203	0.133	0.001	0.368	0.368	-0.277	-0.453	-0.260	0.997	0.028	9.9
Math	11	1923	B	D	2	6773	0.513	0.226	0.513	0.165	0.092	0.003	0.263	-0.154	0.263	-0.308	-0.224	0.593	0.028	9.9
Math	11	1924	A	E	2	6773	0.298	0.298	0.224	0.372	0.103	0.002	0.284	0.284	-0.360	-0.239	-0.352	1.792	0.030	9.9
Math	11	1925	A	D	1	6773	0.568	0.568	0.123	0.172	0.133	0.004	0.528	0.528	-0.445	-0.456	-0.466	0.305	0.028	-6.7
Math	11	1926	B	E	2	6732	0.652	0.033	0.652	0.098	0.216	0.001	0.319	-0.229	0.319	-0.328	-0.222	-0.153	0.029	8.4
Math	11	1927	A	D	2	6732	0.450	0.450	0.170	0.176	0.199	0.005	0.325	0.325	-0.327	-0.370	-0.221	0.921	0.028	9.9
Math	11	1928	C	B	1	6732	0.871	0.059	0.048	0.871	0.021	0.000	0.410	-0.269	-0.314	0.410	-0.220	-1.721	0.039	-4.8
Math	11	1929	B	D	1	6732	0.604	0.102	0.604	0.172	0.119	0.003	0.435	-0.393	0.435	-0.295	-0.404	0.111	0.028	-0.7
Math	11	1930	C	D	1	6732	0.600	0.155	0.160	0.600	0.082	0.002	0.375	-0.264	-0.330	0.375	-0.331	0.132	0.028	4.3
Math	11	1931	D	D	1	6732	0.443	0.108	0.178	0.267	0.443	0.003	0.412	-0.412	-0.486	-0.303	0.412	0.955	0.028	3.7
Math	11	1932	B	B	2	6732	0.362	0.165	0.362	0.377	0.092	0.003	0.214	-0.151	0.214	-0.237	-0.208	1.395	0.029	9.9
Math	11	1933	D	D	1	6732	0.303	0.121	0.310	0.263	0.303	0.003	0.286	-0.425	-0.292	-0.248	0.286	1.735	0.030	9.9
Math	11	1934	C	E	2	6732	0.610	0.161	0.102	0.610	0.124	0.001	0.410	-0.341	-0.388	0.410	-0.280	0.078	0.028	3.4

Appendix L: 2008 Grades 3–8 and 11 Multiple-Choice Statistics

Information						Proportions							Correlations					Rasch		
Cont.	Grade	Pub. ID	Key	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Math	11	1935	A	C	2	6732	0.332	0.332	0.399	0.153	0.110	0.006	0.171	0.171	-0.069	-0.266	-0.389	1.564	0.029	9.9
Math	11	1936	C	D	1	6732	0.653	0.130	0.148	0.653	0.067	0.002	0.531	-0.484	-0.472	0.531	-0.268	-0.160	0.029	-7.7
Math	11	1937	C	A	1	6732	0.537	0.150	0.162	0.537	0.147	0.004	0.356	-0.325	-0.289	0.356	-0.292	0.466	0.028	6.7
Math	11	1938	B	A	1	6752	0.677	0.072	0.677	0.180	0.070	0.002	0.550	-0.408	0.550	-0.482	-0.393	-0.298	0.030	-9.5
Math	11	1939	A	D	1	6752	0.591	0.591	0.134	0.156	0.114	0.004	0.528	0.528	-0.459	-0.436	-0.440	0.185	0.028	-7.2
Math	11	1940	D	D	2	6752	0.643	0.094	0.143	0.118	0.643	0.002	0.504	-0.372	-0.434	-0.429	0.504	-0.100	0.029	-0.1
Math	11	1941	B	C	1	6752	0.786	0.088	0.786	0.074	0.050	0.001	0.424	-0.362	0.424	-0.172	-0.378	-1.008	0.033	-2.2
Math	11	1942	A	E	2	6752	0.704	0.704	0.089	0.130	0.075	0.003	0.446	0.446	-0.335	-0.391	-0.273	-0.458	0.030	-1.5
Math	11	1943	C	C	1	6752	0.652	0.088	0.202	0.652	0.056	0.002	0.384	-0.336	-0.299	0.384	-0.296	-0.150	0.029	6.7
Math	11	1944	B	D	1	6752	0.323	0.197	0.323	0.066	0.411	0.003	0.230	-0.337	0.230	-0.459	-0.138	1.638	0.030	9.9
Math	11	1945	A	E	2	6752	0.765	0.765	0.122	0.074	0.036	0.003	0.430	0.430	-0.277	-0.362	-0.330	-0.855	0.032	0.4
Math	11	1946	B	A	1	6752	0.933	0.021	0.933	0.027	0.018	0.002	0.381	-0.222	0.381	-0.271	-0.214	-2.556	0.051	-6.5
Math	11	1947	A	D	1	6752	0.498	0.498	0.107	0.231	0.159	0.005	0.473	0.473	-0.396	-0.481	-0.369	0.681	0.028	-1.3
Math	11	1948	D	D	2	6752	0.368	0.102	0.162	0.361	0.368	0.007	0.396	-0.391	-0.474	-0.357	0.396	1.380	0.029	7.1
Math	11	1949	A	B	2	6752	0.691	0.691	0.099	0.126	0.080	0.004	0.465	0.465	-0.424	-0.390	-0.242	-0.379	0.030	1.3
Math	11	1950	C	D	2	6715	0.810	0.056	0.051	0.810	0.082	0.001	0.408	-0.301	-0.319	0.408	-0.248	-1.163	0.034	0.5
Math	11	1951	A	A	1	6715	0.885	0.885	0.076	0.026	0.013	0.000	0.450	0.450	-0.364	-0.292	-0.204	-1.842	0.041	-5.4
Math	11	1952	B	E	2	6715	0.459	0.075	0.459	0.233	0.232	0.001	0.320	-0.330	0.320	-0.209	-0.364	0.907	0.028	9.9
Math	11	1953	C	C	2	6715	0.619	0.127	0.202	0.619	0.048	0.004	0.344	-0.227	-0.310	0.344	-0.280	0.050	0.029	5.9
Math	11	1954	A	C	1	6715	0.567	0.567	0.181	0.134	0.117	0.001	0.466	0.466	-0.393	-0.430	-0.362	0.334	0.028	-2.5
Math	11	1955	A	E	2	6715	0.507	0.507	0.188	0.148	0.152	0.004	0.056	0.056	-0.150	-0.111	0.133	0.646	0.028	9.9
Math	11	1956	B	C	2	6715	0.501	0.067	0.501	0.146	0.284	0.001	0.277	-0.309	0.277	-0.347	-0.161	0.678	0.028	9.9
Math	11	1957	B	E	2	6715	0.759	0.068	0.759	0.078	0.093	0.002	0.330	-0.224	0.330	-0.265	-0.221	-0.782	0.032	7.5
Math	11	1958	A	A	1	6715	0.595	0.595	0.183	0.114	0.105	0.002	0.338	0.338	-0.211	-0.350	-0.290	0.184	0.028	7.4
Math	11	1959	C	D	2	6715	0.592	0.227	0.127	0.592	0.053	0.001	0.531	-0.472	-0.538	0.531	-0.243	0.203	0.028	-6.4
Math	11	1960	D	D	1	6715	0.609	0.116	0.103	0.170	0.609	0.001	0.538	-0.411	-0.350	-0.549	0.538	0.110	0.028	-7.3
Math	11	1961	D	B	2	6715	0.269	0.180	0.338	0.209	0.269	0.004	0.374	-0.372	-0.396	-0.460	0.374	1.979	0.031	9.1
Math	11	1962	B	E	1	6738	0.758	0.024	0.758	0.085	0.130	0.002	0.449	-0.262	0.449	-0.349	-0.348	-0.784	0.032	-4.5
Math	11	1963	C	A	1	6738	0.706	0.118	0.047	0.706	0.127	0.001	0.400	-0.372	-0.364	0.400	-0.207	-0.461	0.030	2.6
Math	11	1964	B	D	2	6738	0.643	0.101	0.643	0.059	0.196	0.001	0.490	-0.202	0.490	-0.333	-0.549	-0.091	0.029	-2.7
Math	11	1965	A	D	1	6738	0.422	0.422	0.219	0.266	0.091	0.002	0.285	0.285	-0.309	-0.232	-0.267	1.084	0.028	9.9
Math	11	1966	D	C	2	6738	0.533	0.095	0.095	0.276	0.533	0.001	0.369	-0.361	-0.403	-0.273	0.369	0.500	0.028	6.4
Math	11	1967	B	D	2	6738	0.436	0.210	0.436	0.261	0.089	0.004	0.198	-0.226	0.198	-0.132	-0.202	1.005	0.028	9.9
Math	11	1968	D	D	2	6738	0.550	0.154	0.172	0.122	0.550	0.002	0.527	-0.349	-0.539	-0.514	0.527	0.408	0.028	-6.1
Math	11	1969	B	E	2	6738	0.618	0.226	0.618	0.111	0.043	0.002	0.426	-0.373	0.426	-0.349	-0.258	0.045	0.028	-1.5
Math	11	1970	C	C	2	6738	0.525	0.157	0.150	0.525	0.165	0.003	0.366	-0.411	-0.338	0.366	-0.207	0.537	0.028	7.1
Math	11	1971	A	C	1	6738	0.346	0.346	0.340	0.192	0.120	0.001	0.400	0.400	-0.328	-0.480	-0.459	1.493	0.029	6.7
Math	11	1972	A	E	2	6738	0.549	0.549	0.092	0.110	0.248	0.001	0.457	0.457	-0.460	-0.421	-0.356	0.416	0.028	-1.1
Math	11	1973	B	B	1	6738	0.560	0.099	0.560	0.247	0.092	0.001	0.475	-0.459	0.475	-0.394	-0.382	0.355	0.028	-2.8
Math	11	1974	B	C	2	6740	0.702	0.084	0.702	0.167	0.046	0.001	0.367	-0.245	0.367	-0.292	-0.306	-0.447	0.030	5.0
Math	11	1975	C	D	2	6740	0.674	0.117	0.131	0.674	0.075	0.004	0.300	-0.215	-0.242	0.300	-0.223	-0.290	0.029	8.9
Math	11	1976	A	D	2	6740	0.572	0.572	0.122	0.130	0.173	0.003	0.326	0.326	-0.262	-0.267	-0.264	0.279	0.028	7.7
Math	11	1977	D	E	2	6740	0.566	0.266	0.086	0.081	0.566	0.001	0.528	-0.442	-0.522	-0.461	0.528	0.319	0.028	-7.0

Appendix L: 2008 Grades 3–8 and 11 Multiple-Choice Statistics

Information						Proportions						Correlations					Rasch			
Cont.	Grade	Pub. ID	Key	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Math	11	1978	A	A	1	6740	0.817	0.817	0.058	0.034	0.090	0.001	0.426	0.426	-0.302	-0.249	-0.320	-1.245	0.035	-4.0
Math	11	1979	C	C	2	6740	0.769	0.111	0.074	0.769	0.043	0.002	0.561	-0.489	-0.402	0.561	-0.315	-0.887	0.032	-9.6
Math	11	1980	C	D	2	6740	0.500	0.061	0.253	0.500	0.182	0.003	0.370	-0.319	-0.282	0.370	-0.373	0.655	0.028	7.7
Math	11	1981	D	E	2	6740	0.747	0.083	0.097	0.072	0.747	0.001	0.397	-0.273	-0.268	-0.342	0.397	-0.736	0.031	3.2
Math	11	1982	D	E	2	6740	0.738	0.025	0.032	0.203	0.738	0.001	0.314	-0.263	-0.283	-0.223	0.314	-0.679	0.031	7.2
Math	11	1983	B	B	2	6740	0.564	0.205	0.564	0.135	0.093	0.002	0.276	-0.070	0.276	-0.356	-0.341	0.321	0.028	9.9
Math	11	1984	A	D	2	6740	0.813	0.813	0.101	0.060	0.024	0.002	0.552	0.552	-0.446	-0.398	-0.318	-1.209	0.034	-9.9
Math	11	1985	B	B	1	6740	0.726	0.067	0.726	0.086	0.118	0.003	0.499	-0.310	0.499	-0.375	-0.433	-0.600	0.031	-5.3
Math	11	1986	A	D	2	6716	0.778	0.778	0.069	0.064	0.088	0.000	0.473	0.473	-0.317	-0.424	-0.302	-0.927	0.033	-2.7
Math	11	1987	A	D	2	6716	0.502	0.502	0.112	0.247	0.135	0.003	0.465	0.465	-0.418	-0.421	-0.415	0.690	0.028	-1.6
Math	11	1988	D	B	1	6716	0.485	0.105	0.053	0.356	0.485	0.001	0.536	-0.558	-0.491	-0.486	0.536	0.778	0.028	-8.8
Math	11	1989	B	E	1	6716	0.676	0.108	0.676	0.184	0.031	0.001	0.494	-0.394	0.494	-0.425	-0.312	-0.268	0.029	-5.4
Math	11	1990	A	C	1	6716	0.499	0.499	0.336	0.109	0.055	0.002	0.398	0.398	-0.337	-0.381	-0.406	0.692	0.028	6.2
Math	11	1991	B	D	1	6716	0.416	0.224	0.416	0.173	0.185	0.001	0.232	-0.123	0.232	-0.287	-0.260	1.128	0.028	9.9
Math	11	1992	D	C	1	6716	0.416	0.109	0.235	0.237	0.416	0.002	0.411	-0.455	-0.425	-0.331	0.411	1.127	0.028	3.9
Math	11	1993	A	D	1	6716	0.384	0.384	0.266	0.240	0.106	0.004	0.321	0.321	-0.317	-0.288	-0.349	1.304	0.029	9.9
Math	11	1994	B	B	1	6716	0.587	0.207	0.587	0.072	0.133	0.000	0.510	-0.390	0.510	-0.365	-0.551	0.226	0.028	-4.8
Math	11	1995	A	E	2	6716	0.373	0.373	0.254	0.305	0.067	0.002	0.136	0.136	-0.128	-0.112	-0.208	1.364	0.029	9.9
Math	11	1996	B	E	2	6716	0.414	0.187	0.414	0.231	0.165	0.002	0.224	-0.208	0.224	-0.159	-0.301	1.139	0.028	9.9
Math	11	1997	C	A	1	6716	0.515	0.249	0.117	0.515	0.115	0.005	0.354	-0.304	-0.327	0.354	-0.277	0.608	0.028	6.7
Math	11	1998	B	C	2	6694	0.717	0.092	0.717	0.145	0.044	0.001	0.412	-0.174	0.412	-0.401	-0.331	-0.535	0.031	0.6
Math	11	1999	A	A	2	6694	0.626	0.626	0.141	0.117	0.115	0.001	0.488	0.488	-0.452	-0.400	-0.343	0.002	0.029	-2.4
Math	11	2000	D	A	2	6694	0.751	0.023	0.075	0.149	0.751	0.001	0.513	-0.295	-0.410	-0.411	0.513	-0.756	0.032	-7.9
Math	11	2001	D	D	1	6694	0.627	0.188	0.092	0.091	0.627	0.002	0.460	-0.381	-0.365	-0.368	0.460	-0.006	0.029	-2.5
Math	11	2002	C	B	1	6694	0.618	0.156	0.158	0.618	0.064	0.003	0.500	-0.445	-0.472	0.500	-0.240	0.039	0.029	-3.2
Math	11	2003	D	C	2	6694	0.489	0.230	0.051	0.227	0.489	0.002	0.312	-0.123	-0.415	-0.384	0.312	0.726	0.028	9.9
Math	11	2004	C	D	1	6694	0.521	0.183	0.185	0.521	0.109	0.002	0.407	-0.396	-0.311	0.407	-0.332	0.558	0.028	4.6
Math	11	2005	D	E	2	6694	0.204	0.228	0.175	0.387	0.204	0.006	0.251	-0.315	-0.329	-0.268	0.251	2.420	0.034	9.9
Math	11	2006	A	B	2	6694	0.753	0.753	0.075	0.098	0.071	0.003	0.512	0.512	-0.343	-0.391	-0.408	-0.770	0.032	-5.9
Math	11	2007	B	D	1	6694	0.740	0.067	0.740	0.088	0.101	0.003	0.490	-0.302	0.490	-0.394	-0.376	-0.684	0.031	-6.4
Math	11	2008	D	E	2	6694	0.720	0.051	0.065	0.160	0.720	0.003	0.356	-0.319	-0.331	-0.212	0.356	-0.553	0.031	9.7
Math	11	2009	D	A	1	6694	0.550	0.072	0.115	0.260	0.550	0.003	0.448	-0.463	-0.468	-0.324	0.448	0.404	0.028	1.2
Reading	3	2010	A	A		126402	0.859	0.859	0.057	0.044	0.039	0.000	0.431	0.431	-0.315	-0.297	-0.270	-1.183	0.009	-9.9
Reading	3	2011	C	A		126402	0.847	0.014	0.037	0.847	0.101	0.001	0.427	-0.288	-0.306	0.427	-0.321	-1.073	0.009	-9.5
Reading	3	2012	C	A		126402	0.843	0.054	0.030	0.843	0.068	0.005	0.510	-0.312	-0.391	0.510	-0.396	-1.030	0.008	-9.9
Reading	3	2013	B	A		126402	0.744	0.055	0.744	0.110	0.087	0.003	0.478	-0.382	0.478	-0.349	-0.366	-0.297	0.007	-9.9
Reading	3	2014	D	B		126402	0.677	0.105	0.120	0.094	0.677	0.005	0.425	-0.339	-0.332	-0.349	0.425	0.112	0.007	9.9
Reading	3	2015	B	A		126402	0.693	0.072	0.693	0.053	0.181	0.001	0.381	-0.308	0.381	-0.284	-0.311	0.018	0.007	9.9
Reading	3	2016	C	A		126402	0.487	0.275	0.053	0.487	0.183	0.002	0.369	-0.340	-0.290	0.369	-0.368	1.107	0.006	9.9
Reading	3	2017	B	A		126402	0.700	0.063	0.700	0.113	0.121	0.002	0.512	-0.422	0.512	-0.422	-0.394	-0.022	0.007	-9.9
Reading	3	2018	D	A		126402	0.693	0.193	0.075	0.035	0.693	0.004	0.486	-0.487	-0.248	-0.351	0.486	0.018	0.007	-9.9
Reading	3	2019	D	A	2	126402	0.845	0.075	0.061	0.017	0.845	0.001	0.449	-0.263	-0.410	-0.269	0.449	-1.056	0.008	-9.9
Reading	3	2020	A	A	2	126402	0.432	0.432	0.294	0.052	0.221	0.001	0.299	0.299	-0.295	-0.261	-0.280	1.381	0.006	9.9

Appendix L: 2008 Grades 3–8 and 11 Multiple-Choice Statistics

Information						Proportions						Correlations					Rasch			
Cont.	Grade	Pub. ID	Key	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Reading	3	2021	D	A	2	126402	0.740	0.087	0.097	0.072	0.740	0.004	0.499	-0.432	-0.341	-0.386	0.499	-0.266	0.007	-9.9
Reading	3	2022	A	A	2	126402	0.644	0.644	0.053	0.269	0.028	0.006	0.552	0.552	-0.330	-0.547	-0.347	0.299	0.007	-9.9
Reading	3	2023	D	B	3	126402	0.598	0.128	0.048	0.224	0.598	0.002	0.392	-0.368	-0.389	-0.293	0.392	0.537	0.006	9.9
Reading	3	2024	C	B	2	126402	0.593	0.077	0.188	0.593	0.136	0.005	0.380	-0.352	-0.309	0.380	-0.323	0.564	0.006	9.9
Reading	3	2025	C	A	3	126402	0.708	0.155	0.058	0.708	0.076	0.002	0.472	-0.327	-0.428	0.472	-0.389	-0.070	0.007	-9.9
Reading	3	2026	B	B	2	126402	0.644	0.053	0.644	0.053	0.244	0.006	0.351	-0.396	0.351	-0.278	-0.256	0.297	0.007	9.9
Reading	3	2027	D	A		126402	0.797	0.092	0.045	0.065	0.797	0.001	0.537	-0.412	-0.444	-0.356	0.537	-0.652	0.008	-9.9
Reading	3	2028	D	A		126402	0.565	0.197	0.180	0.056	0.565	0.002	0.410	-0.268	-0.410	-0.471	0.410	0.711	0.006	9.9
Reading	3	2029	B	A		126402	0.669	0.092	0.669	0.197	0.041	0.002	0.383	-0.372	0.383	-0.258	-0.381	0.153	0.007	9.9
Reading	3	2030	C	A		126402	0.643	0.097	0.196	0.643	0.060	0.004	0.437	-0.384	-0.322	0.437	-0.420	0.299	0.007	6.2
Reading	3	2031	B	A		126402	0.744	0.069	0.744	0.142	0.044	0.001	0.626	-0.479	0.626	-0.521	-0.499	-0.292	0.007	-9.9
Reading	3	2032	B	A		126402	0.877	0.024	0.877	0.042	0.053	0.004	0.493	-0.327	0.493	-0.355	-0.334	-1.357	0.009	-9.9
Reading	3	2033	D	B		126402	0.682	0.152	0.107	0.057	0.682	0.002	0.448	-0.371	-0.336	-0.371	0.448	0.084	0.007	-4.1
Reading	3	2034	B	A	2	126402	0.703	0.156	0.703	0.052	0.088	0.001	0.360	-0.321	0.360	-0.247	-0.233	-0.045	0.007	9.9
Reading	3	2035	D	A	2	126402	0.873	0.082	0.015	0.029	0.873	0.001	0.485	-0.359	-0.327	-0.348	0.485	-1.318	0.009	-9.9
Reading	3	2036	A	B	2	126402	0.697	0.697	0.034	0.038	0.227	0.004	0.476	0.476	-0.415	-0.404	-0.390	-0.001	0.007	-7.4
Reading	3	2037	B	A	2	126402	0.774	0.040	0.774	0.108	0.077	0.001	0.545	-0.394	0.545	-0.382	-0.483	-0.499	0.007	-9.9
Reading	3	2038	C	B	2	126402	0.707	0.064	0.093	0.707	0.136	0.001	0.497	-0.455	-0.427	0.497	-0.337	-0.062	0.007	-9.9
Reading	3	2039	D	A	2	126402	0.576	0.128	0.088	0.208	0.576	0.001	0.414	-0.388	-0.471	-0.286	0.414	0.655	0.006	9.9
Reading	3	2040	A	B	2	126402	0.821	0.821	0.036	0.057	0.085	0.002	0.566	0.566	-0.381	-0.456	-0.417	-0.844	0.008	-9.9
Reading	3	2041	C	A	2	126402	0.675	0.110	0.183	0.675	0.030	0.002	0.403	-0.469	-0.228	0.403	-0.316	0.117	0.007	9.9
Reading	3	2042	B	A	1	126402	0.434	0.374	0.434	0.054	0.135	0.003	0.295	-0.196	0.295	-0.477	-0.384	1.372	0.006	9.9
Reading	3	2043	D	B	2	126402	0.551	0.107	0.062	0.276	0.551	0.004	0.441	-0.442	-0.399	-0.358	0.441	0.781	0.006	-0.4
Reading	3	2044	B	B	1	126402	0.751	0.045	0.751	0.034	0.163	0.007	0.306	-0.342	0.306	-0.291	-0.154	-0.344	0.007	9.9
Reading	3	2045	D	A	2	126402	0.537	0.246	0.144	0.069	0.537	0.003	0.494	-0.413	-0.501	-0.448	0.494	0.853	0.006	-9.9
Reading	3	2046	D	A	2	126402	0.663	0.091	0.090	0.149	0.663	0.007	0.444	-0.370	-0.430	-0.308	0.444	0.190	0.007	5.4
Reading	3	2047	A	A	2	126402	0.600	0.600	0.028	0.065	0.304	0.003	0.385	0.385	-0.410	-0.449	-0.279	0.525	0.006	9.9
Reading	3	2048	A	A	2	126402	0.643	0.643	0.209	0.101	0.044	0.003	0.390	0.390	-0.336	-0.299	-0.289	0.300	0.007	9.9
Reading	3	2049	D	B	2	126402	0.663	0.086	0.157	0.088	0.663	0.006	0.468	-0.377	-0.393	-0.378	0.468	0.191	0.007	-2.7
Reading	3	2050	A	A	2	8121	0.581	0.581	0.091	0.152	0.176	0.000	0.317	0.317	-0.277	-0.332	-0.201	0.539	0.025	9.4
Reading	3	2051	C	A	2	8121	0.635	0.232	0.083	0.635	0.048	0.001	0.442	-0.326	-0.454	0.442	-0.379	0.251	0.026	-5.0
Reading	3	2052	B	A	2	8121	0.747	0.084	0.747	0.073	0.095	0.001	0.386	-0.191	0.386	-0.360	-0.311	-0.408	0.028	1.2
Reading	3	2053	D	A	2	8121	0.716	0.077	0.133	0.070	0.716	0.003	0.487	-0.422	-0.385	-0.336	0.487	-0.212	0.027	-8.7
Reading	3	2054	A	A	2	8121	0.777	0.777	0.074	0.067	0.081	0.001	0.383	0.383	-0.275	-0.278	-0.276	-0.608	0.029	-0.4
Reading	3	2055	C	A	2	8121	0.523	0.178	0.120	0.523	0.176	0.003	0.316	-0.290	-0.220	0.316	-0.318	0.832	0.025	8.9
Reading	3	2056	D	A	2	8121	0.487	0.273	0.114	0.122	0.487	0.004	0.338	-0.227	-0.412	-0.377	0.338	1.011	0.025	8.1
Reading	3	2057	A	B	2	8121	0.660	0.660	0.109	0.133	0.091	0.007	0.408	0.408	-0.323	-0.341	-0.327	0.115	0.026	0.4
Reading	3	2058	D	A	2	8121	0.700	0.076	0.087	0.137	0.700	0.001	0.388	-0.414	-0.264	-0.249	0.388	-0.115	0.027	-0.3
Reading	3	2059	C	A	1	8121	0.765	0.057	0.108	0.765	0.069	0.002	0.441	-0.408	-0.287	0.441	-0.303	-0.528	0.029	-6.1
Reading	3	2060	B	A	2	8121	0.827	0.052	0.827	0.037	0.083	0.001	0.428	-0.381	0.428	-0.345	-0.218	-0.991	0.032	-4.2
Reading	3	2061	A	A	2	8121	0.700	0.700	0.076	0.099	0.124	0.000	0.540	0.540	-0.436	-0.446	-0.411	-0.113	0.027	-9.9
Reading	3	2062	C	A	2	8121	0.542	0.160	0.046	0.542	0.250	0.002	0.306	-0.274	-0.467	0.306	-0.208	0.736	0.025	9.9
Reading	3	2063	C	B	2	8121	0.816	0.052	0.070	0.816	0.055	0.008	0.538	-0.368	-0.426	0.538	-0.378	-0.899	0.031	-9.9

Appendix L: 2008 Grades 3–8 and 11 Multiple-Choice Statistics

Information						Proportions						Correlations					Rasch			
Cont.	Grade	Pub. ID	Key	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Reading	3	2064	B	A	2	8121	0.605	0.088	0.605	0.220	0.086	0.000	0.344	-0.453	0.344	-0.160	-0.372	0.412	0.025	7.9
Reading	3	2065	C	A	2	8121	0.358	0.515	0.079	0.358	0.047	0.001	0.257	-0.169	-0.493	0.257	-0.490	1.673	0.026	9.9
Reading	3	2066	C	B	2	8121	0.742	0.093	0.088	0.742	0.075	0.001	0.501	-0.433	-0.462	0.501	-0.238	-0.377	0.028	-8.2
Reading	3	2067	D	B	2	8121	0.527	0.301	0.099	0.069	0.527	0.004	0.390	-0.282	-0.429	-0.474	0.390	0.812	0.025	2.9
Reading	3	2068	C	A	2	7934	0.690	0.167	0.061	0.690	0.082	0.000	0.409	-0.381	-0.352	0.409	-0.206	-0.002	0.027	1.5
Reading	3	2069	D	A	2	7934	0.689	0.123	0.095	0.092	0.689	0.001	0.463	-0.401	-0.439	-0.248	0.463	0.007	0.027	-4.7
Reading	3	2070	B	A	1	7934	0.691	0.032	0.691	0.028	0.242	0.006	0.288	-0.291	0.288	-0.254	-0.211	-0.006	0.027	7.0
Reading	3	2071	D	A	2	7934	0.833	0.069	0.031	0.066	0.833	0.001	0.536	-0.410	-0.352	-0.385	0.536	-0.999	0.033	-9.9
Reading	3	2072	B	A	2	7934	0.869	0.030	0.869	0.048	0.050	0.002	0.485	-0.362	0.485	-0.351	-0.296	-1.340	0.036	-9.9
Reading	3	2073	A	A	2	7934	0.786	0.786	0.060	0.081	0.066	0.008	0.325	0.325	-0.234	-0.227	-0.216	-0.627	0.030	-0.4
Reading	3	2074	A	A	2	7934	0.506	0.506	0.069	0.240	0.182	0.003	0.321	0.321	-0.339	-0.241	-0.322	0.984	0.025	9.9
Reading	3	2075	C	A	2	7934	0.575	0.211	0.079	0.575	0.132	0.004	0.537	-0.465	-0.478	0.537	-0.494	0.632	0.026	-9.9
Reading	3	2076	C	B	2	7934	0.729	0.207	0.031	0.729	0.032	0.000	0.529	-0.458	-0.443	0.529	-0.340	-0.240	0.028	-9.9
Reading	3	2077	D	A	2	7934	0.310	0.457	0.094	0.138	0.310	0.001	0.078	-0.023	-0.288	-0.098	0.078	2.009	0.027	9.9
Reading	3	2078	A	B	2	7934	0.682	0.682	0.054	0.235	0.029	0.001	0.471	0.471	-0.410	-0.377	-0.426	0.047	0.027	-4.9
Reading	3	2079	D	A	1	7934	0.887	0.038	0.046	0.028	0.887	0.001	0.485	-0.286	-0.378	-0.311	0.485	-1.535	0.038	-9.9
Reading	3	2080	A	A	2	7934	0.752	0.752	0.116	0.063	0.068	0.002	0.476	0.476	-0.366	-0.341	-0.370	-0.387	0.029	-6.3
Reading	3	2081	B	A	1	7934	0.732	0.129	0.732	0.078	0.050	0.011	0.370	-0.351	0.370	-0.161	-0.297	-0.258	0.028	0.1
Reading	3	2082	B	A	2	7934	0.683	0.129	0.683	0.116	0.070	0.002	0.434	-0.371	0.434	-0.384	-0.246	0.041	0.027	-2.7
Reading	3	2083	D	B	2	7934	0.841	0.045	0.053	0.059	0.841	0.002	0.448	-0.351	-0.243	-0.342	0.448	-1.069	0.034	-6.8
Reading	3	2084	A	A	2	7934	0.850	0.850	0.043	0.037	0.068	0.001	0.481	0.481	-0.387	-0.343	-0.288	-1.145	0.034	-9.9
Reading	3	2085	B	A	2	7934	0.814	0.065	0.814	0.052	0.066	0.002	0.485	-0.368	0.485	-0.348	-0.325	-0.839	0.032	-9.4
Reading	3	2086	B	A		7952	0.662	0.101	0.662	0.211	0.024	0.001	0.308	-0.375	0.308	-0.174	-0.254	0.170	0.026	7.1
Reading	3	2087	C	A		7952	0.627	0.195	0.073	0.627	0.103	0.001	0.335	-0.272	-0.325	0.335	-0.252	0.359	0.026	6.3
Reading	3	2088	B	A		7952	0.500	0.349	0.500	0.119	0.031	0.001	0.278	-0.250	0.278	-0.200	-0.396	0.995	0.025	9.9
Reading	3	2089	A	B		7952	0.836	0.836	0.074	0.050	0.038	0.002	0.424	0.424	-0.320	-0.318	-0.234	-0.980	0.033	-6.7
Reading	3	2090	D	A		7952	0.776	0.164	0.034	0.019	0.776	0.007	0.435	-0.347	-0.330	-0.346	0.435	-0.520	0.029	-5.3
Reading	3	2091	B	B		7952	0.704	0.099	0.704	0.076	0.120	0.002	0.400	-0.298	0.400	-0.372	-0.274	-0.068	0.027	-2.1
Reading	3	2092	C	B		7952	0.815	0.046	0.031	0.815	0.105	0.003	0.387	-0.305	-0.289	0.387	-0.254	-0.803	0.031	-3.9
Reading	3	2093	A	A		7952	0.635	0.635	0.054	0.045	0.260	0.005	0.281	0.281	-0.351	-0.361	-0.149	0.314	0.026	8.2
Reading	3	2094	B	A	3	7952	0.410	0.095	0.410	0.189	0.306	0.001	0.147	-0.340	0.147	-0.245	0.019	1.435	0.025	9.9
Reading	3	2095	C	A	2	7952	0.825	0.074	0.069	0.825	0.030	0.001	0.486	-0.319	-0.372	0.486	-0.372	-0.884	0.032	-7.7
Reading	3	2096	A	B	2	7952	0.638	0.638	0.136	0.073	0.151	0.002	0.376	0.376	-0.302	-0.358	-0.278	0.297	0.026	-0.7
Reading	3	2097	D	A	1	7952	0.676	0.068	0.160	0.094	0.676	0.002	0.407	-0.421	-0.286	-0.297	0.407	0.093	0.026	-3.6
Reading	3	2098	A	B	2	7952	0.441	0.441	0.132	0.224	0.200	0.003	0.180	0.180	-0.219	-0.134	-0.167	1.283	0.025	9.9
Reading	3	2099	D	A	2	7952	0.545	0.120	0.135	0.194	0.545	0.006	0.408	-0.342	-0.370	-0.352	0.408	0.771	0.025	-3.0
Reading	3	2100	D	B	2	7952	0.400	0.295	0.182	0.120	0.400	0.002	0.206	-0.095	-0.275	-0.309	0.206	1.485	0.025	9.9
Reading	3	2101	B	A	2	7952	0.404	0.118	0.404	0.057	0.418	0.003	0.110	-0.270	0.110	-0.328	0.012	1.463	0.025	9.9
Reading	3	2102	C	B	2	7952	0.613	0.187	0.141	0.613	0.058	0.001	0.407	-0.327	-0.363	0.407	-0.361	0.431	0.026	-0.8
Reading	3	2103	C	B	2	7952	0.647	0.169	0.097	0.647	0.084	0.002	0.400	-0.280	-0.358	0.400	-0.365	0.251	0.026	-1.3
Reading	3	2104	D	A	2	7953	0.830	0.095	0.035	0.039	0.830	0.001	0.429	-0.321	-0.290	-0.294	0.429	-0.930	0.033	-4.0
Reading	3	2105	B	A	2	7953	0.661	0.070	0.661	0.142	0.126	0.001	0.437	-0.373	0.437	-0.323	-0.383	0.207	0.027	-2.7
Reading	3	2106	D	A	2	7953	0.913	0.042	0.022	0.022	0.913	0.002	0.451	-0.325	-0.282	-0.284	0.451	-1.827	0.042	-8.1

Appendix L: 2008 Grades 3–8 and 11 Multiple-Choice Statistics

Information						Proportions						Correlations					Rasch			
Cont.	Grade	Pub. ID	Key	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Reading	3	2107	B	A	2	7953	0.901	0.040	0.901	0.042	0.013	0.003	0.412	-0.326	0.412	-0.247	-0.262	-1.672	0.040	-6.2
Reading	3	2108	A	A	2	7953	0.754	0.754	0.075	0.074	0.096	0.001	0.483	0.483	-0.445	-0.334	-0.317	-0.361	0.029	-7.0
Reading	3	2109	C	A	2	7953	0.448	0.132	0.384	0.448	0.034	0.002	0.431	-0.404	-0.419	0.431	-0.449	1.307	0.025	-0.9
Reading	3	2110	A	A	2	7953	0.803	0.803	0.053	0.098	0.044	0.003	0.378	0.378	-0.322	-0.214	-0.296	-0.709	0.031	-1.1
Reading	3	2111	C	A	2	7953	0.788	0.060	0.041	0.788	0.106	0.004	0.412	-0.264	-0.291	0.412	-0.332	-0.599	0.030	-2.8
Reading	3	2112	C	B	2	7953	0.957	0.012	0.012	0.957	0.018	0.001	0.344	-0.220	-0.245	0.344	-0.181	-2.676	0.058	-4.7
Reading	3	2113	B	B	2	7953	0.700	0.170	0.700	0.052	0.076	0.002	0.326	-0.179	0.326	-0.259	-0.375	-0.021	0.027	5.6
Reading	3	2114	C	A	2	7953	0.726	0.153	0.091	0.726	0.028	0.001	0.469	-0.366	-0.363	0.469	-0.390	-0.178	0.028	-7.1
Reading	3	2115	C	B	2	7953	0.876	0.040	0.034	0.876	0.048	0.002	0.550	-0.388	-0.357	0.550	-0.405	-1.371	0.037	-9.9
Reading	3	2116	D	A	2	7953	0.328	0.464	0.060	0.146	0.328	0.002	0.080	0.015	-0.395	-0.184	0.080	1.929	0.026	9.9
Reading	3	2117	C	A	1	7953	0.543	0.097	0.061	0.543	0.292	0.006	0.299	-0.275	-0.444	0.299	-0.194	0.829	0.025	9.9
Reading	3	2118	B	A	1	7953	0.849	0.043	0.849	0.058	0.047	0.002	0.535	-0.384	0.535	-0.377	-0.379	-1.104	0.034	-9.9
Reading	3	2119	A	B	3	7953	0.851	0.851	0.035	0.053	0.059	0.002	0.472	0.472	-0.301	-0.365	-0.317	-1.115	0.034	-8.9
Reading	3	2120	D	A	2	7953	0.715	0.140	0.067	0.077	0.715	0.002	0.389	-0.334	-0.318	-0.221	0.389	-0.108	0.028	-0.3
Reading	3	2121	A	A	2	7953	0.741	0.741	0.032	0.034	0.190	0.003	0.238	0.238	-0.367	-0.359	-0.065	-0.271	0.029	9.9
Reading	3	2122	A	A	2	7953	0.795	0.795	0.108	0.036	0.061	0.000	0.458	0.458	-0.355	-0.320	-0.320	-0.650	0.030	-7.0
Reading	3	2123	D	A	1	7953	0.765	0.084	0.072	0.078	0.765	0.001	0.438	-0.378	-0.272	-0.308	0.438	-0.439	0.029	-7.3
Reading	3	2124	A	A	2	7953	0.792	0.792	0.152	0.041	0.015	0.000	0.432	0.432	-0.368	-0.285	-0.266	-0.631	0.030	-4.1
Reading	3	2125	C	A	2	7953	0.748	0.123	0.046	0.748	0.082	0.001	0.474	-0.328	-0.403	0.474	-0.376	-0.328	0.029	-8.1
Reading	3	2126	B	A	2	7953	0.691	0.111	0.691	0.084	0.113	0.001	0.468	-0.366	0.468	-0.444	-0.309	0.023	0.027	-8.5
Reading	3	2127	C	A	2	7953	0.495	0.176	0.175	0.495	0.152	0.002	0.362	-0.423	-0.274	0.362	-0.279	1.055	0.025	4.8
Reading	3	2128	D	B	2	7953	0.645	0.124	0.122	0.108	0.645	0.001	0.418	-0.376	-0.338	-0.306	0.418	0.277	0.026	-0.3
Reading	3	2129	D	A	2	7953	0.650	0.126	0.054	0.166	0.650	0.004	0.457	-0.410	-0.358	-0.363	0.457	0.254	0.026	-6.2
Reading	3	2130	A	A	2	7953	0.396	0.396	0.042	0.479	0.082	0.001	0.288	0.288	-0.446	-0.220	-0.418	1.556	0.026	9.9
Reading	3	2131	C	B	2	7953	0.423	0.347	0.047	0.423	0.179	0.004	0.297	-0.239	-0.443	0.297	-0.325	1.414	0.025	9.9
Reading	3	2132	B	A	2	7953	0.662	0.074	0.662	0.179	0.077	0.009	0.169	-0.181	0.169	-0.108	-0.102	0.188	0.026	9.9
Reading	3	2133	D	B	2	7953	0.585	0.167	0.054	0.192	0.585	0.003	0.395	-0.449	-0.337	-0.241	0.395	0.598	0.026	-1.8
Reading	3	2134	B	A	3	7953	0.571	0.068	0.571	0.303	0.054	0.004	0.422	-0.458	0.422	-0.345	-0.363	0.670	0.025	-3.8
Reading	3	2135	B	A	2	7953	0.824	0.039	0.824	0.056	0.079	0.001	0.295	-0.234	0.295	-0.176	-0.196	-0.882	0.032	1.2
Reading	3	2136	C	A	2	7953	0.794	0.091	0.062	0.794	0.050	0.003	0.427	-0.304	-0.311	0.427	-0.316	-0.643	0.030	-3.9
Reading	3	2137	C	A	2	7953	0.829	0.089	0.047	0.829	0.033	0.002	0.481	-0.347	-0.351	0.481	-0.326	-0.918	0.032	-9.3
Reading	3	2138	D	B	2	7953	0.760	0.099	0.057	0.082	0.760	0.001	0.396	-0.406	-0.301	-0.145	0.396	-0.411	0.029	-1.9
Reading	3	2139	D	B	2	7953	0.640	0.166	0.076	0.116	0.640	0.003	0.434	-0.321	-0.469	-0.319	0.434	0.308	0.026	-4.1
Reading	3	2140	B	A	2	7889	0.826	0.110	0.826	0.052	0.012	0.001	0.334	-0.279	0.334	-0.194	-0.219	-0.888	0.032	0.7
Reading	3	2141	D	A	2	7889	0.576	0.170	0.187	0.065	0.576	0.003	0.375	-0.346	-0.286	-0.348	0.375	0.645	0.025	1.9
Reading	3	2142	D	A	2	7889	0.576	0.154	0.174	0.094	0.576	0.001	0.384	-0.347	-0.282	-0.380	0.384	0.642	0.025	1.4
Reading	3	2143	B	A	2	7889	0.731	0.088	0.731	0.124	0.057	0.001	0.315	-0.211	0.315	-0.228	-0.281	-0.213	0.028	4.4
Reading	3	2144	A	A	2	7889	0.814	0.814	0.028	0.072	0.084	0.002	0.501	0.501	-0.356	-0.384	-0.358	-0.792	0.032	-9.9
Reading	3	2145	C	A	1	7889	0.681	0.083	0.043	0.681	0.187	0.006	0.505	-0.488	-0.370	0.505	-0.391	0.080	0.027	-9.9
Reading	3	2146	C	A	2	7889	0.580	0.114	0.216	0.580	0.086	0.003	0.416	-0.400	-0.291	0.416	-0.435	0.623	0.025	-3.4
Reading	3	2147	C	B	2	7889	0.679	0.121	0.093	0.679	0.104	0.003	0.377	-0.262	-0.369	0.377	-0.266	0.095	0.027	3.1
Reading	3	2148	D	B	2	7889	0.724	0.106	0.060	0.108	0.724	0.002	0.422	-0.358	-0.320	-0.287	0.422	-0.175	0.028	-4.2
Reading	3	2149	C	A	2	7889	0.621	0.282	0.055	0.621	0.035	0.006	0.318	-0.221	-0.368	0.318	-0.320	0.407	0.026	7.5

Appendix L: 2008 Grades 3–8 and 11 Multiple-Choice Statistics

Information						Proportions						Correlations					Rasch			
Cont.	Grade	Pub. ID	Key	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Reading	3	2150	B	B	2	7889	0.733	0.148	0.733	0.044	0.074	0.001	0.474	-0.407	0.474	-0.374	-0.311	-0.231	0.028	-6.7
Reading	3	2151	B	A	2	7889	0.856	0.066	0.856	0.025	0.052	0.001	0.480	-0.371	0.480	-0.337	-0.297	-1.154	0.035	-8.6
Reading	3	2152	C	A	2	7889	0.594	0.156	0.177	0.594	0.072	0.001	0.418	-0.463	-0.271	0.418	-0.331	0.550	0.026	-2.8
Reading	3	2153	D	B	2	7889	0.510	0.352	0.046	0.085	0.510	0.007	0.347	-0.260	-0.419	-0.426	0.347	0.975	0.025	6.4
Reading	3	2154	A	A	2	7889	0.763	0.763	0.129	0.063	0.044	0.001	0.492	0.492	-0.425	-0.331	-0.341	-0.425	0.029	-8.4
Reading	3	2155	A	A	2	7889	0.416	0.416	0.123	0.366	0.093	0.002	0.193	0.193	-0.333	-0.052	-0.394	1.443	0.025	9.9
Reading	3	2156	C	A	2	7889	0.393	0.235	0.183	0.393	0.187	0.001	0.288	-0.298	-0.291	0.288	-0.254	1.558	0.025	9.9
Reading	3	2157	C	B	2	7889	0.546	0.138	0.070	0.546	0.244	0.003	0.393	-0.443	-0.488	0.393	-0.231	0.794	0.025	1.1
Reading	3	2158	D	B	2	7893	0.684	0.057	0.032	0.227	0.684	0.000	0.467	-0.375	-0.417	-0.389	0.467	0.116	0.027	-7.1
Reading	3	2159	C	A	2	7893	0.602	0.129	0.227	0.602	0.041	0.001	0.351	-0.362	-0.260	0.351	-0.279	0.565	0.026	4.9
Reading	3	2160	D	A	2	7893	0.823	0.058	0.047	0.068	0.823	0.004	0.469	-0.281	-0.338	-0.381	0.469	-0.824	0.032	-7.4
Reading	3	2161	C	A	2	7893	0.478	0.274	0.055	0.478	0.192	0.000	0.351	-0.271	-0.392	0.351	-0.384	1.200	0.025	4.1
Reading	3	2162	B	A	2	7893	0.713	0.165	0.713	0.074	0.044	0.003	0.491	-0.387	0.491	-0.414	-0.362	-0.058	0.028	-9.9
Reading	3	2163	D	A	2	7893	0.675	0.155	0.116	0.053	0.675	0.001	0.547	-0.394	-0.517	-0.483	0.547	0.171	0.027	-9.9
Reading	3	2164	B	A	2	7893	0.790	0.049	0.790	0.047	0.113	0.001	0.429	-0.346	0.429	-0.285	-0.319	-0.564	0.030	-3.0
Reading	3	2165	C	B	2	7893	0.858	0.049	0.040	0.858	0.049	0.004	0.335	-0.114	-0.254	0.335	-0.317	-1.135	0.035	3.7
Reading	3	2166	B	B	2	7893	0.627	0.070	0.627	0.277	0.025	0.001	0.498	-0.434	0.498	-0.451	-0.337	0.434	0.026	-9.3
Reading	3	2167	C	A	2	7893	0.659	0.060	0.171	0.659	0.108	0.001	0.489	-0.453	-0.396	0.489	-0.383	0.257	0.027	-8.5
Reading	3	2168	C	A	2	7893	0.538	0.087	0.164	0.538	0.202	0.009	0.410	-0.440	-0.384	0.410	-0.321	0.898	0.025	-0.7
Reading	3	2169	B	A	2	7893	0.634	0.176	0.634	0.071	0.117	0.002	0.419	-0.331	0.419	-0.458	-0.295	0.399	0.026	-2.5
Reading	3	2170	C	A	2	7893	0.812	0.064	0.065	0.812	0.055	0.004	0.510	-0.352	-0.401	0.510	-0.357	-0.735	0.032	-9.4
Reading	3	2171	A	A	2	7893	0.449	0.449	0.056	0.459	0.021	0.015	0.347	0.347	-0.370	-0.316	-0.409	1.347	0.025	7.0
Reading	3	2172	D	B	2	7893	0.577	0.130	0.149	0.140	0.577	0.002	0.417	-0.441	-0.345	-0.309	0.417	0.697	0.026	-0.4
Reading	3	2173	A	B	2	7893	0.356	0.356	0.229	0.173	0.238	0.004	0.233	0.233	-0.247	-0.344	-0.149	1.826	0.026	9.9
Reading	3	2174	D	A	2	7893	0.795	0.076	0.078	0.049	0.795	0.002	0.516	-0.391	-0.408	-0.351	0.516	-0.603	0.031	-8.9
Reading	3	2175	A	A	2	7893	0.534	0.534	0.101	0.237	0.125	0.003	0.307	0.307	-0.384	-0.214	-0.255	0.917	0.025	9.9
Reading	3	2176	C	A	1	7821	0.768	0.110	0.012	0.768	0.109	0.000	0.461	-0.502	-0.255	0.461	-0.234	-0.430	0.029	-5.8
Reading	3	2177	D	B	2	7821	0.857	0.051	0.049	0.043	0.857	0.000	0.520	-0.351	-0.393	-0.349	0.520	-1.133	0.035	-9.9
Reading	3	2178	B	A	2	7821	0.578	0.035	0.578	0.164	0.221	0.002	0.420	-0.386	0.420	-0.388	-0.349	0.641	0.025	-2.8
Reading	3	2179	A	A	2	7821	0.500	0.500	0.175	0.107	0.215	0.003	0.347	0.347	-0.442	-0.307	-0.217	1.029	0.025	4.1
Reading	3	2180	D	A	1	7821	0.579	0.286	0.107	0.027	0.579	0.001	0.388	-0.347	-0.337	-0.318	0.388	0.636	0.025	-0.6
Reading	3	2181	C	B	2	7821	0.839	0.018	0.023	0.839	0.118	0.002	0.344	-0.261	-0.275	0.344	-0.241	-0.970	0.033	0.4
Reading	3	2182	A	A	2	7821	0.893	0.893	0.055	0.033	0.016	0.002	0.431	0.431	-0.275	-0.328	-0.270	-1.511	0.039	-7.8
Reading	3	2183	B	A	2	7821	0.598	0.073	0.598	0.260	0.066	0.003	0.336	-0.277	0.336	-0.268	-0.345	0.542	0.026	6.4
Reading	3	2184	B	B	2	7821	0.322	0.584	0.322	0.024	0.068	0.001	0.010	0.084	0.010	-0.347	-0.396	1.925	0.026	9.9
Reading	3	2185	D	A	2	7821	0.340	0.310	0.234	0.114	0.340	0.001	0.274	-0.228	-0.388	-0.209	0.274	1.826	0.026	9.9
Reading	3	2186	D	A	3	7821	0.608	0.162	0.153	0.076	0.608	0.002	0.436	-0.359	-0.383	-0.391	0.436	0.493	0.026	-4.1
Reading	3	2187	A	B	2	7821	0.631	0.631	0.106	0.120	0.139	0.004	0.426	0.426	-0.392	-0.282	-0.379	0.372	0.026	-3.7
Reading	3	2188	B	A	2	7821	0.557	0.072	0.557	0.309	0.051	0.011	0.101	-0.231	0.101	0.043	-0.310	0.746	0.025	9.9
Reading	3	2189	D	A	2	7821	0.738	0.078	0.048	0.134	0.738	0.002	0.360	-0.321	-0.268	-0.240	0.360	-0.236	0.028	1.9
Reading	3	2190	C	A	2	7821	0.503	0.264	0.173	0.503	0.054	0.007	0.393	-0.401	-0.305	0.393	-0.362	1.015	0.025	-0.4
Reading	3	2191	B	A	2	7821	0.602	0.194	0.602	0.125	0.074	0.005	0.349	-0.204	0.349	-0.300	-0.464	0.520	0.026	4.8
Reading	3	2192	B	B	2	7821	0.586	0.093	0.586	0.089	0.230	0.002	0.195	-0.177	0.195	-0.241	-0.104	0.602	0.025	9.9

Appendix L: 2008 Grades 3–8 and 11 Multiple-Choice Statistics

Information						Proportions						Correlations					Rasch			
Cont.	Grade	Pub. ID	Key	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Reading	3	2193	A	B	2	7821	0.350	0.350	0.239	0.216	0.192	0.003	0.234	0.234	-0.158	-0.247	-0.346	1.778	0.026	9.9
Reading	3	2194	D	A		7937	0.736	0.182	0.065	0.016	0.736	0.000	0.358	-0.255	-0.337	-0.285	0.358	-0.241	0.028	2.0
Reading	3	2195	C	A		7937	0.792	0.081	0.063	0.792	0.064	0.001	0.521	-0.358	-0.417	0.521	-0.381	-0.622	0.030	-9.9
Reading	3	2196	A	A		7937	0.511	0.511	0.199	0.196	0.092	0.002	0.218	0.218	-0.081	-0.272	-0.254	0.991	0.025	9.9
Reading	3	2197	D	A		7937	0.755	0.094	0.068	0.082	0.755	0.002	0.383	-0.298	-0.285	-0.262	0.383	-0.358	0.029	-2.4
Reading	3	2198	B	A		7937	0.497	0.165	0.497	0.079	0.258	0.001	0.438	-0.458	0.438	-0.466	-0.340	1.064	0.025	-3.4
Reading	3	2199	B	B		7937	0.724	0.096	0.724	0.089	0.090	0.002	0.430	-0.339	0.430	-0.316	-0.330	-0.162	0.028	-2.3
Reading	3	2200	A	A		7937	0.726	0.726	0.125	0.110	0.038	0.001	0.358	0.358	-0.194	-0.326	-0.354	-0.178	0.028	3.8
Reading	3	2201	C	A		7937	0.392	0.180	0.263	0.392	0.147	0.017	0.307	-0.305	-0.240	0.307	-0.423	1.594	0.026	9.9
Reading	3	2202	D	A	2	7937	0.526	0.243	0.143	0.087	0.526	0.001	0.446	-0.344	-0.469	-0.436	0.446	0.917	0.025	-4.8
Reading	3	2203	C	A	2	7937	0.700	0.038	0.097	0.700	0.162	0.003	0.463	-0.359	-0.331	0.463	-0.399	-0.020	0.027	-7.2
Reading	3	2204	A	A	2	7937	0.774	0.774	0.052	0.036	0.136	0.002	0.345	0.345	-0.361	-0.318	-0.162	-0.494	0.030	1.2
Reading	3	2205	C	B	1	7937	0.732	0.123	0.055	0.732	0.086	0.004	0.532	-0.389	-0.424	0.532	-0.451	-0.213	0.028	-9.9
Reading	3	2206	B	A	2	7937	0.718	0.089	0.718	0.100	0.088	0.005	0.409	-0.308	0.409	-0.300	-0.321	-0.125	0.028	-3.0
Reading	3	2207	C	B	2	7937	0.771	0.120	0.062	0.771	0.045	0.002	0.523	-0.446	-0.350	0.523	-0.350	-0.467	0.030	-9.9
Reading	3	2208	A	B	2	7937	0.514	0.514	0.159	0.265	0.059	0.002	0.385	0.385	-0.363	-0.277	-0.534	0.977	0.025	1.8
Reading	3	2209	A	A	2	7937	0.524	0.524	0.129	0.254	0.092	0.001	0.327	0.327	-0.397	-0.204	-0.340	0.927	0.025	8.6
Reading	3	2210	C	B	2	7937	0.900	0.031	0.024	0.900	0.042	0.003	0.386	-0.330	-0.241	0.386	-0.204	-1.627	0.040	-4.7
Reading	3	2211	D	A	2	7937	0.682	0.088	0.126	0.099	0.682	0.006	0.550	-0.444	-0.480	-0.423	0.550	0.087	0.027	-9.9
Reading	3	2212	C	A		7873	0.720	0.123	0.040	0.720	0.117	0.000	0.334	-0.204	-0.332	0.334	-0.274	-0.131	0.028	4.5
Reading	3	2213	B	B		7873	0.950	0.037	0.950	0.005	0.007	0.001	0.382	-0.335	0.382	-0.153	-0.167	-2.422	0.054	-7.4
Reading	3	2214	D	A		7873	0.775	0.081	0.083	0.060	0.775	0.001	0.533	-0.433	-0.415	-0.343	0.533	-0.485	0.030	-9.9
Reading	3	2215	C	B		7873	0.371	0.104	0.288	0.371	0.235	0.001	0.297	-0.449	-0.309	0.297	-0.224	1.667	0.026	8.0
Reading	3	2216	C	A		7873	0.660	0.108	0.129	0.660	0.103	0.000	0.547	-0.491	-0.422	0.547	-0.458	0.214	0.026	-9.9
Reading	3	2217	B	A		7873	0.404	0.537	0.404	0.033	0.025	0.002	0.225	-0.171	0.225	-0.403	-0.449	1.503	0.025	9.9
Reading	3	2218	D	B		7873	0.617	0.217	0.111	0.052	0.617	0.003	0.362	-0.209	-0.405	-0.402	0.362	0.438	0.026	3.3
Reading	3	2219	C	B		7873	0.649	0.059	0.241	0.649	0.043	0.008	0.480	-0.438	-0.407	0.480	-0.367	0.273	0.026	-9.4
Reading	3	2220	C	A	1	7873	0.509	0.087	0.281	0.509	0.120	0.002	0.418	-0.464	-0.399	0.418	-0.295	0.981	0.025	-3.1
Reading	3	2221	D	A	2	7873	0.844	0.061	0.067	0.025	0.844	0.002	0.455	-0.312	-0.380	-0.240	0.455	-1.018	0.034	-5.9
Reading	3	2222	A	B	2	7873	0.430	0.430	0.146	0.305	0.116	0.004	0.221	0.221	-0.315	-0.053	-0.385	1.372	0.025	9.9
Reading	3	2223	C	B	2	7873	0.505	0.188	0.162	0.505	0.141	0.004	0.211	-0.218	-0.180	0.211	-0.137	1.001	0.025	9.9
Reading	3	2224	C	B	2	7873	0.242	0.282	0.352	0.242	0.119	0.006	0.110	-0.195	-0.071	0.110	-0.118	2.399	0.028	9.9
Reading	3	2225	B	A	2	7873	0.741	0.125	0.741	0.076	0.049	0.009	0.371	-0.326	0.371	-0.198	-0.312	-0.258	0.028	1.5
Reading	3	2226	D	A	2	7873	0.365	0.205	0.224	0.203	0.365	0.003	0.202	-0.250	-0.233	-0.124	0.202	1.702	0.026	9.9
Reading	3	2227	B	B	2	7873	0.631	0.101	0.631	0.138	0.126	0.004	0.224	-0.205	0.224	-0.100	-0.233	0.366	0.026	9.9
Reading	3	2228	D	B	2	7873	0.635	0.120	0.145	0.099	0.635	0.002	0.420	-0.403	-0.307	-0.315	0.420	0.346	0.026	-5.2
Reading	3	2229	B	B	2	7873	0.386	0.266	0.386	0.242	0.103	0.003	0.245	-0.176	0.245	-0.330	-0.213	1.592	0.025	9.9
Reading	3	2230	C	A		7881	0.804	0.130	0.037	0.804	0.027	0.002	0.568	-0.523	-0.347	0.568	-0.297	-0.681	0.031	-9.9
Reading	3	2231	D	B		7881	0.674	0.034	0.073	0.215	0.674	0.003	0.290	-0.335	-0.334	-0.150	0.290	0.147	0.027	8.8
Reading	3	2232	A	B		7881	0.787	0.787	0.035	0.090	0.087	0.001	0.234	0.234	-0.315	-0.088	-0.160	-0.556	0.030	9.9
Reading	3	2233	B	A		7881	0.843	0.054	0.843	0.062	0.040	0.001	0.527	-0.354	0.527	-0.388	-0.382	-0.997	0.033	-9.9
Reading	3	2234	C	A		7881	0.660	0.104	0.117	0.660	0.110	0.008	0.467	-0.533	-0.281	0.467	-0.344	0.222	0.026	-5.1
Reading	3	2235	A	B		7881	0.689	0.689	0.236	0.036	0.037	0.001	0.436	0.436	-0.363	-0.319	-0.395	0.060	0.027	-3.7

Appendix L: 2008 Grades 3–8 and 11 Multiple-Choice Statistics

Information						Proportions							Correlations					Rasch		
Cont.	Grade	Pub. ID	Key	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Reading	3	2236	B	A		7881	0.415	0.361	0.415	0.136	0.087	0.002	0.310	-0.296	0.310	-0.217	-0.431	1.470	0.025	8.2
Reading	3	2237	D	A		7881	0.617	0.107	0.023	0.234	0.617	0.019	0.272	-0.433	-0.346	-0.087	0.272	0.454	0.026	9.9
Reading	3	2238	B	A	2	7881	0.535	0.190	0.535	0.119	0.155	0.001	0.355	-0.392	0.355	-0.231	-0.286	0.874	0.025	3.7
Reading	3	2239	D	A	2	7881	0.439	0.357	0.128	0.074	0.439	0.001	0.348	-0.362	-0.226	-0.364	0.348	1.348	0.025	3.9
Reading	3	2240	C	A	3	7881	0.516	0.191	0.151	0.516	0.141	0.001	0.347	-0.292	-0.191	0.347	-0.469	0.966	0.025	5.9
Reading	3	2241	C	B	2	7881	0.601	0.086	0.085	0.601	0.227	0.001	0.466	-0.409	-0.446	0.466	-0.363	0.540	0.026	-8.8
Reading	3	2242	D	A	2	7881	0.489	0.315	0.079	0.116	0.489	0.001	0.395	-0.376	-0.445	-0.286	0.395	1.101	0.025	0.2
Reading	3	2243	A	A	2	7881	0.729	0.729	0.157	0.072	0.036	0.006	0.324	0.324	-0.198	-0.331	-0.229	-0.175	0.028	3.7
Reading	3	2244	C	B	2	7881	0.567	0.095	0.166	0.567	0.170	0.002	0.420	-0.433	-0.349	0.420	-0.334	0.712	0.025	-1.6
Reading	3	2245	C	A	2	7881	0.613	0.188	0.107	0.613	0.089	0.003	0.468	-0.362	-0.433	0.468	-0.399	0.475	0.026	-8.7
Reading	3	2246	B	B	2	7881	0.440	0.200	0.440	0.191	0.169	0.001	0.323	-0.363	0.323	-0.269	-0.278	1.344	0.025	6.9
Reading	3	2247	C	B	3	7881	0.236	0.440	0.190	0.236	0.132	0.002	0.197	-0.185	-0.238	0.197	-0.312	2.471	0.029	9.9
Reading	3	2248	B	B	1	7880	0.842	0.013	0.842	0.033	0.112	0.000	0.246	-0.236	0.246	-0.153	-0.171	-1.016	0.033	7.3
Reading	3	2249	D	B	2	7880	0.523	0.311	0.137	0.028	0.523	0.000	0.357	-0.353	-0.256	-0.358	0.357	0.920	0.025	4.1
Reading	3	2250	A	A	2	7880	0.871	0.871	0.019	0.093	0.017	0.000	0.306	0.306	-0.248	-0.180	-0.273	-1.288	0.036	1.7
Reading	3	2251	C	A	1	7880	0.799	0.159	0.018	0.799	0.022	0.003	0.300	-0.245	-0.227	0.300	-0.164	-0.668	0.031	3.0
Reading	3	2252	B	A	2	7880	0.569	0.100	0.569	0.247	0.083	0.001	0.496	-0.515	0.496	-0.371	-0.516	0.688	0.025	-9.9
Reading	3	2253	C	A	2	7880	0.840	0.077	0.053	0.840	0.028	0.003	0.536	-0.445	-0.361	0.536	-0.322	-0.997	0.033	-9.9
Reading	3	2254	A	B	2	7880	0.765	0.765	0.142	0.045	0.046	0.002	0.545	0.545	-0.422	-0.424	-0.433	-0.425	0.029	-9.9
Reading	3	2255	D	A	2	7880	0.652	0.177	0.102	0.068	0.652	0.002	0.413	-0.353	-0.288	-0.359	0.413	0.255	0.026	-3.3
Reading	3	2256	A	A	2	7880	0.819	0.819	0.116	0.052	0.012	0.001	0.375	0.375	-0.300	-0.270	-0.202	-0.825	0.032	-1.2
Reading	3	2257	C	A	2	7880	0.592	0.195	0.128	0.592	0.084	0.001	0.453	-0.356	-0.391	0.453	-0.455	0.570	0.026	-6.3
Reading	3	2258	D	A	1	7880	0.459	0.114	0.221	0.203	0.459	0.001	0.368	-0.398	-0.409	-0.264	0.368	1.239	0.025	2.3
Reading	3	2259	A	B	2	7880	0.516	0.516	0.092	0.102	0.285	0.004	0.254	0.254	-0.365	-0.323	-0.115	0.956	0.025	9.9
Reading	3	2260	C	A	2	7880	0.627	0.211	0.069	0.627	0.083	0.010	0.421	-0.358	-0.380	0.421	-0.296	0.387	0.026	-4.8
Reading	3	2261	B	A	2	7880	0.433	0.127	0.433	0.250	0.189	0.001	0.363	-0.414	0.363	-0.304	-0.347	1.371	0.025	5.0
Reading	3	2262	C	A	2	7880	0.247	0.238	0.239	0.247	0.274	0.002	0.160	-0.258	-0.288	0.160	-0.016	2.394	0.028	9.9
Reading	3	2263	B	A	1	7880	0.517	0.343	0.517	0.073	0.065	0.001	0.441	-0.410	0.441	-0.410	-0.347	0.951	0.025	-4.8
Reading	3	2264	D	A	2	7880	0.367	0.212	0.099	0.318	0.367	0.004	0.355	-0.408	-0.411	-0.327	0.355	1.710	0.026	2.6
Reading	3	2265	B	A	2	7880	0.710	0.140	0.710	0.069	0.072	0.009	0.501	-0.372	0.501	-0.416	-0.415	-0.079	0.028	-9.9
Reading	3	2266	A	A		7867	0.832	0.832	0.042	0.043	0.082	0.000	0.480	0.480	-0.382	-0.317	-0.339	-0.912	0.033	-8.7
Reading	3	2267	C	A		7867	0.841	0.092	0.026	0.841	0.042	0.000	0.469	-0.349	-0.369	0.469	-0.295	-0.986	0.033	-8.2
Reading	3	2268	B	A		7867	0.625	0.296	0.625	0.042	0.036	0.002	0.380	-0.309	0.380	-0.330	-0.387	0.430	0.026	0.6
Reading	3	2269	C	A		7867	0.841	0.032	0.066	0.841	0.059	0.003	0.492	-0.322	-0.350	0.492	-0.376	-0.986	0.033	-9.2
Reading	3	2270	D	A		7867	0.839	0.058	0.029	0.074	0.839	0.000	0.426	-0.313	-0.283	-0.296	0.426	-0.970	0.033	-6.7
Reading	3	2271	D	A		7867	0.752	0.053	0.021	0.170	0.752	0.003	0.368	-0.320	-0.348	-0.253	0.368	-0.317	0.029	1.1
Reading	3	2272	C	B		7867	0.545	0.150	0.147	0.545	0.157	0.001	0.360	-0.362	-0.298	0.360	-0.280	0.852	0.025	3.3
Reading	3	2273	B	A		7867	0.757	0.091	0.757	0.047	0.088	0.016	0.492	-0.371	0.492	-0.359	-0.416	-0.348	0.029	-7.9
Reading	3	2274	C	A	2	7867	0.506	0.019	0.230	0.506	0.244	0.001	0.333	-0.404	-0.349	0.333	-0.250	1.023	0.025	6.3
Reading	3	2275	D	A	2	7867	0.768	0.019	0.065	0.147	0.768	0.001	0.375	-0.316	-0.381	-0.221	0.375	-0.423	0.029	0.0
Reading	3	2276	B	B	2	7867	0.502	0.134	0.502	0.133	0.229	0.002	0.388	-0.388	0.388	-0.340	-0.345	1.040	0.025	1.2
Reading	3	2277	A	A	2	7867	0.715	0.715	0.037	0.070	0.174	0.004	0.332	0.332	-0.310	-0.289	-0.217	-0.085	0.028	2.3
Reading	3	2278	C	A	1	7867	0.728	0.098	0.104	0.728	0.057	0.013	0.447	-0.394	-0.309	0.447	-0.322	-0.160	0.028	-4.1

Appendix L: 2008 Grades 3–8 and 11 Multiple-Choice Statistics

Information						Proportions						Correlations					Rasch			
Cont.	Grade	Pub. ID	Key	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Reading	3	2279	A	A	2	7867	0.721	0.721	0.195	0.059	0.023	0.002	0.167	0.167	-0.097	-0.123	-0.228	-0.119	0.028	9.9
Reading	3	2280	B	A	2	7867	0.519	0.149	0.519	0.136	0.192	0.004	0.344	-0.301	0.344	-0.384	-0.249	0.960	0.025	5.0
Reading	3	2281	D	A	3	7867	0.440	0.333	0.074	0.149	0.440	0.004	0.212	-0.118	-0.405	-0.229	0.212	1.350	0.025	9.9
Reading	3	2282	B	B	3	7867	0.651	0.047	0.651	0.021	0.281	0.001	0.284	-0.334	0.284	-0.330	-0.190	0.282	0.026	6.8
Reading	3	2283	D	B	3	7867	0.501	0.314	0.089	0.093	0.501	0.002	0.277	-0.225	-0.294	-0.258	0.277	1.044	0.025	9.9
Reading	3	2284	C	B		7823	0.792	0.008	0.102	0.792	0.098	0.000	0.402	-0.254	-0.249	0.402	-0.378	-0.597	0.031	-2.0
Reading	3	2285	D	A		7823	0.627	0.166	0.177	0.029	0.627	0.001	0.356	-0.275	-0.299	-0.387	0.356	0.399	0.026	4.4
Reading	3	2286	A	A		7823	0.916	0.916	0.027	0.029	0.027	0.001	0.477	0.477	-0.314	-0.343	-0.285	-1.805	0.043	-9.9
Reading	3	2287	D	A		7823	0.863	0.025	0.074	0.034	0.863	0.003	0.489	-0.335	-0.351	-0.341	0.489	-1.195	0.036	-9.5
Reading	3	2288	C	A		7823	0.868	0.041	0.024	0.868	0.065	0.001	0.410	-0.310	-0.276	0.410	-0.259	-1.260	0.036	-2.0
Reading	3	2289	B	A		7823	0.856	0.029	0.856	0.064	0.047	0.004	0.471	-0.259	0.471	-0.368	-0.337	-1.136	0.035	-8.8
Reading	3	2290	B	A		7823	0.586	0.156	0.586	0.173	0.082	0.002	0.370	-0.294	0.370	-0.345	-0.286	0.626	0.026	3.0
Reading	3	2291	A	A		7823	0.721	0.721	0.107	0.028	0.117	0.027	0.425	0.425	-0.370	-0.368	-0.317	-0.134	0.028	-2.9
Reading	3	2292	D	A	1	7823	0.623	0.152	0.126	0.096	0.623	0.003	0.462	-0.452	-0.305	-0.411	0.462	0.432	0.026	-5.0
Reading	3	2293	C	A	2	7823	0.710	0.085	0.130	0.710	0.074	0.001	0.518	-0.356	-0.442	0.518	-0.426	-0.064	0.028	-9.9
Reading	3	2294	A	A	2	7823	0.872	0.872	0.037	0.060	0.028	0.003	0.521	0.521	-0.389	-0.345	-0.367	-1.309	0.037	-9.9
Reading	3	2295	A	A	1	7823	0.635	0.635	0.048	0.152	0.163	0.002	0.487	0.487	-0.417	-0.373	-0.457	0.365	0.026	-6.2
Reading	3	2296	B	A	2	7823	0.675	0.111	0.675	0.095	0.118	0.002	0.488	-0.461	0.488	-0.391	-0.338	0.145	0.027	-7.8
Reading	3	2297	D	A	2	7823	0.637	0.080	0.147	0.131	0.637	0.005	0.388	-0.267	-0.335	-0.327	0.388	0.353	0.026	1.4
Reading	3	2298	B	A	2	7823	0.700	0.068	0.700	0.038	0.193	0.001	0.472	-0.394	0.472	-0.442	-0.360	-0.002	0.028	-6.6
Reading	3	2299	A	B	2	7823	0.729	0.729	0.093	0.084	0.091	0.003	0.426	0.426	-0.310	-0.332	-0.321	-0.182	0.028	-3.4
Reading	3	2300	C	A	3	7823	0.531	0.101	0.307	0.531	0.059	0.002	0.271	-0.407	-0.116	0.271	-0.408	0.905	0.025	9.9
Reading	3	2301	B	A	2	7823	0.685	0.029	0.685	0.180	0.103	0.003	0.414	-0.403	0.414	-0.300	-0.363	0.086	0.027	-0.1
Reading	3	2302	C	B		7857	0.831	0.094	0.033	0.831	0.041	0.000	0.436	-0.318	-0.326	0.436	-0.288	-0.932	0.033	-5.6
Reading	3	2303	A	B		7857	0.769	0.769	0.146	0.048	0.036	0.001	0.383	0.383	-0.268	-0.329	-0.280	-0.451	0.030	-2.1
Reading	3	2304	D	A		7857	0.536	0.161	0.111	0.192	0.536	0.001	0.287	-0.256	-0.401	-0.144	0.287	0.864	0.025	9.9
Reading	3	2305	B	A		7857	0.801	0.083	0.801	0.048	0.066	0.002	0.526	-0.483	0.526	-0.323	-0.329	-0.687	0.031	-9.9
Reading	3	2306	B	B		7857	0.740	0.092	0.740	0.062	0.106	0.001	0.516	-0.455	0.516	-0.394	-0.354	-0.258	0.028	-9.9
Reading	3	2307	C	A		7857	0.750	0.039	0.050	0.750	0.157	0.004	0.426	-0.385	-0.380	0.426	-0.282	-0.324	0.029	-3.8
Reading	3	2308	A	A		7857	0.845	0.845	0.035	0.078	0.040	0.002	0.499	0.499	-0.351	-0.368	-0.356	-1.051	0.034	-8.9
Reading	3	2309	B	B		7857	0.838	0.018	0.838	0.030	0.108	0.005	0.460	-0.321	0.460	-0.311	-0.369	-0.983	0.033	-6.0
Reading	3	2310	A	A	2	7857	0.551	0.551	0.117	0.068	0.262	0.002	0.140	0.140	-0.233	-0.336	0.032	0.781	0.025	9.9
Reading	3	2311	C	A	2	7857	0.561	0.134	0.118	0.561	0.186	0.002	0.356	-0.394	-0.321	0.356	-0.225	0.729	0.025	3.1
Reading	3	2312	D	A	2	7857	0.735	0.103	0.078	0.081	0.735	0.003	0.441	-0.357	-0.302	-0.347	0.441	-0.230	0.028	-5.3
Reading	3	2313	A	A	2	7857	0.931	0.931	0.031	0.017	0.018	0.002	0.442	0.442	-0.324	-0.272	-0.252	-2.081	0.047	-9.9
Reading	3	2314	D	A	2	7857	0.693	0.078	0.161	0.066	0.693	0.003	0.485	-0.476	-0.346	-0.386	0.485	0.026	0.027	-8.2
Reading	3	2315	C	A	2	7857	0.504	0.177	0.224	0.504	0.086	0.009	0.330	-0.327	-0.215	0.330	-0.416	1.014	0.025	6.4
Reading	3	2316	B	A	2	7857	0.639	0.102	0.639	0.152	0.105	0.002	0.399	-0.284	0.399	-0.266	-0.452	0.327	0.026	-0.8
Reading	3	2317	C	B	2	7857	0.316	0.304	0.116	0.316	0.262	0.003	0.257	-0.256	-0.333	0.257	-0.261	1.972	0.026	9.9
Reading	3	2318	B	B	2	7857	0.740	0.106	0.740	0.076	0.076	0.001	0.459	-0.366	0.459	-0.372	-0.306	-0.262	0.029	-6.0
Reading	3	2319	C	B	2	7857	0.270	0.198	0.137	0.270	0.390	0.005	0.146	-0.241	-0.330	0.146	-0.053	2.233	0.028	9.9
Reading	3	2320	B	B		7768	0.799	0.098	0.799	0.046	0.056	0.001	0.486	-0.471	0.486	-0.210	-0.326	-0.673	0.031	-6.7
Reading	3	2321	B	A		7768	0.733	0.043	0.733	0.203	0.020	0.001	0.395	-0.331	0.395	-0.305	-0.353	-0.224	0.029	-0.5

Appendix L: 2008 Grades 3–8 and 11 Multiple-Choice Statistics

Information						Proportions							Correlations					Rasch		
Cont.	Grade	Pub. ID	Key	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Reading	3	2322	C	B		7768	0.785	0.028	0.148	0.785	0.038	0.001	0.411	-0.316	-0.314	0.411	-0.300	-0.582	0.031	-3.3
Reading	3	2323	C	A		7768	0.917	0.024	0.032	0.917	0.028	0.001	0.477	-0.323	-0.296	0.477	-0.332	-1.858	0.043	-9.9
Reading	3	2324	C	A		7768	0.791	0.083	0.032	0.791	0.091	0.002	0.474	-0.426	-0.293	0.474	-0.313	-0.622	0.031	-8.0
Reading	3	2325	A	A		7768	0.702	0.702	0.044	0.036	0.219	0.001	0.508	0.508	-0.467	-0.342	-0.427	-0.029	0.028	-9.9
Reading	3	2326	D	A		7768	0.819	0.076	0.063	0.040	0.819	0.002	0.505	-0.359	-0.430	-0.296	0.505	-0.835	0.032	-9.9
Reading	3	2327	B	B		7768	0.804	0.024	0.804	0.031	0.134	0.007	0.408	-0.368	0.408	-0.370	-0.267	-0.714	0.032	-0.5
Reading	3	2328	C	A	2	7768	0.549	0.046	0.107	0.549	0.296	0.002	0.468	-0.479	-0.567	0.468	-0.345	0.798	0.026	-5.1
Reading	3	2329	D	A	2	7768	0.625	0.130	0.072	0.170	0.625	0.004	0.520	-0.470	-0.483	-0.398	0.520	0.398	0.026	-9.9
Reading	3	2330	A	A	2	7768	0.715	0.715	0.090	0.057	0.137	0.001	0.274	0.274	-0.114	-0.352	-0.199	-0.118	0.028	9.9
Reading	3	2331	C	A	2	7768	0.831	0.089	0.041	0.831	0.037	0.002	0.514	-0.382	-0.372	0.514	-0.368	-0.948	0.033	-8.9
Reading	3	2332	B	A	2	7768	0.823	0.067	0.823	0.054	0.053	0.002	0.564	-0.425	0.564	-0.458	-0.356	-0.882	0.033	-9.9
Reading	3	2333	D	A	1	7768	0.688	0.136	0.071	0.100	0.688	0.005	0.492	-0.317	-0.347	-0.522	0.492	0.044	0.028	-7.2
Reading	3	2334	C	B	2	7768	0.756	0.064	0.113	0.756	0.065	0.002	0.469	-0.377	-0.332	0.469	-0.363	-0.379	0.029	-6.1
Reading	3	2335	B	B	2	7768	0.442	0.188	0.442	0.259	0.106	0.004	0.296	-0.326	0.296	-0.205	-0.373	1.335	0.025	9.9
Reading	3	2336	B	B	2	7768	0.413	0.307	0.413	0.134	0.144	0.002	0.274	-0.168	0.274	-0.403	-0.321	1.481	0.026	9.9
Reading	3	2337	D	A	3	7768	0.414	0.160	0.318	0.106	0.414	0.002	0.320	-0.330	-0.253	-0.427	0.320	1.479	0.026	9.9
Reading	4	2338	D	B		126266	0.814	0.046	0.040	0.100	0.814	0.000	0.368	-0.325	-0.224	-0.242	0.368	-0.763	0.008	6.9
Reading	4	2339	C	A		126266	0.848	0.089	0.021	0.848	0.041	0.000	0.515	-0.439	-0.296	0.515	-0.313	-1.052	0.009	-9.9
Reading	4	2340	B	A		126266	0.893	0.052	0.893	0.027	0.027	0.001	0.384	-0.245	0.384	-0.250	-0.270	-1.515	0.010	-9.9
Reading	4	2341	B	A		126266	0.911	0.022	0.911	0.053	0.014	0.000	0.411	-0.263	0.411	-0.301	-0.240	-1.737	0.010	-9.9
Reading	4	2342	A	B		126266	0.948	0.948	0.029	0.011	0.012	0.000	0.357	0.357	-0.228	-0.231	-0.224	-2.355	0.013	-9.9
Reading	4	2343	A	A		126266	0.727	0.727	0.200	0.029	0.043	0.001	0.509	0.509	-0.412	-0.381	-0.440	-0.161	0.007	-9.9
Reading	4	2344	B	A		126266	0.660	0.231	0.660	0.036	0.073	0.001	0.371	-0.255	0.371	-0.370	-0.373	0.230	0.007	9.9
Reading	4	2345	C	A		126266	0.730	0.142	0.071	0.730	0.054	0.003	0.419	-0.293	-0.379	0.419	-0.296	-0.182	0.007	-0.4
Reading	4	2346	C	B	2	126266	0.528	0.341	0.099	0.528	0.031	0.001	0.310	-0.288	-0.211	0.310	-0.333	0.919	0.006	9.9
Reading	4	2347	C	B	2	126266	0.557	0.176	0.173	0.557	0.092	0.001	0.375	-0.359	-0.316	0.375	-0.278	0.776	0.006	9.9
Reading	4	2348	A	A	2	126266	0.594	0.594	0.263	0.108	0.033	0.001	0.395	0.395	-0.347	-0.312	-0.377	0.582	0.006	9.9
Reading	4	2349	C	A	2	126266	0.748	0.098	0.138	0.748	0.014	0.001	0.368	-0.371	-0.212	0.368	-0.260	-0.298	0.007	9.9
Reading	4	2350	B	A	2	126266	0.459	0.170	0.459	0.309	0.059	0.002	0.226	-0.303	0.226	-0.102	-0.361	1.265	0.006	9.9
Reading	4	2351	D	A	2	126266	0.511	0.197	0.192	0.099	0.511	0.002	0.244	-0.103	-0.345	-0.181	0.244	1.007	0.006	9.9
Reading	4	2352	B	B	3	126266	0.741	0.067	0.741	0.120	0.068	0.003	0.429	-0.327	0.429	-0.305	-0.344	-0.248	0.007	-2.9
Reading	4	2353	D	A	2	126266	0.764	0.064	0.067	0.103	0.764	0.002	0.539	-0.481	-0.358	-0.390	0.539	-0.403	0.007	-9.9
Reading	4	2354	B	A	2	126266	0.404	0.249	0.404	0.126	0.218	0.003	0.330	-0.295	0.330	-0.386	-0.301	1.551	0.006	9.9
Reading	4	2355	D	B	2	126266	0.769	0.091	0.068	0.068	0.769	0.002	0.539	-0.344	-0.458	-0.421	0.539	-0.434	0.007	-9.9
Reading	4	2356	A	B	2	126266	0.733	0.733	0.119	0.080	0.065	0.003	0.536	0.536	-0.457	-0.373	-0.386	-0.196	0.007	-9.9
Reading	4	2357	C	B	2	126266	0.737	0.082	0.125	0.737	0.053	0.003	0.540	-0.443	-0.442	0.540	-0.337	-0.221	0.007	-9.9
Reading	4	2358	C	B	2	126266	0.656	0.079	0.178	0.656	0.084	0.003	0.501	-0.490	-0.372	0.501	-0.387	0.254	0.007	-9.9
Reading	4	2359	D	A	2	126266	0.573	0.048	0.107	0.268	0.573	0.004	0.284	-0.329	-0.248	-0.202	0.284	0.695	0.006	9.9
Reading	4	2360	C	A	2	126266	0.836	0.048	0.058	0.836	0.052	0.005	0.556	-0.396	-0.414	0.556	-0.385	-0.942	0.008	-9.9
Reading	4	2361	C	A	2	126266	0.722	0.104	0.119	0.722	0.055	0.001	0.456	-0.364	-0.370	0.456	-0.301	-0.130	0.007	-7.8
Reading	4	2362	C	A	2	126266	0.802	0.068	0.077	0.802	0.053	0.000	0.541	-0.401	-0.410	0.541	-0.372	-0.667	0.008	-9.9
Reading	4	2363	B	A	2	126266	0.737	0.090	0.737	0.069	0.104	0.000	0.524	-0.305	0.524	-0.456	-0.453	-0.226	0.007	-9.9
Reading	4	2364	A	A	2	126266	0.714	0.714	0.108	0.057	0.120	0.001	0.452	0.452	-0.361	-0.385	-0.315	-0.082	0.007	-9.3

Appendix L: 2008 Grades 3–8 and 11 Multiple-Choice Statistics

Information						Proportions							Correlations					Rasch		
Cont.	Grade	Pub. ID	Key	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Reading	4	2365	A	B	2	126266	0.738	0.738	0.086	0.067	0.108	0.000	0.499	0.499	-0.426	-0.348	-0.367	-0.231	0.007	-9.9
Reading	4	2366	A	A	2	126266	0.515	0.515	0.160	0.264	0.060	0.001	0.314	0.314	-0.303	-0.235	-0.348	0.987	0.006	9.9
Reading	4	2367	D	A	2	126266	0.448	0.036	0.289	0.227	0.448	0.001	0.436	-0.492	-0.390	-0.423	0.436	1.328	0.006	9.9
Reading	4	2368	D	B	2	126266	0.491	0.272	0.120	0.116	0.491	0.001	0.361	-0.239	-0.414	-0.404	0.361	1.109	0.006	9.9
Reading	4	2369	C	A	2	126266	0.592	0.137	0.088	0.592	0.181	0.002	0.477	-0.384	-0.458	0.477	-0.395	0.598	0.006	-9.9
Reading	4	2370	D	A		126266	0.763	0.072	0.036	0.127	0.763	0.001	0.530	-0.497	-0.394	-0.347	0.530	-0.394	0.007	-9.9
Reading	4	2371	B	B		126266	0.679	0.091	0.679	0.074	0.154	0.002	0.393	-0.321	0.393	-0.360	-0.265	0.124	0.007	9.9
Reading	4	2372	D	A		126266	0.778	0.129	0.058	0.033	0.778	0.002	0.566	-0.434	-0.443	-0.417	0.566	-0.496	0.007	-9.9
Reading	4	2373	A	A		126266	0.790	0.790	0.059	0.092	0.056	0.002	0.576	0.576	-0.451	-0.416	-0.430	-0.577	0.008	-9.9
Reading	4	2374	D	A		126266	0.608	0.192	0.116	0.081	0.608	0.002	0.381	-0.303	-0.252	-0.424	0.381	0.508	0.006	9.9
Reading	4	2375	C	B		126266	0.760	0.083	0.072	0.760	0.083	0.002	0.558	-0.414	-0.445	0.558	-0.405	-0.372	0.007	-9.9
Reading	4	2376	C	A		126266	0.308	0.288	0.102	0.308	0.300	0.002	0.247	-0.272	-0.414	0.247	-0.184	2.073	0.007	9.9
Reading	4	2377	A	B		126266	0.769	0.769	0.097	0.069	0.062	0.003	0.471	0.471	-0.361	-0.308	-0.377	-0.432	0.007	-9.9
Reading	4	2378	C	B	2	6573	0.637	0.079	0.098	0.637	0.185	0.000	0.364	-0.349	-0.340	0.364	-0.229	0.259	0.029	2.6
Reading	4	2379	D	A	2	6573	0.563	0.148	0.215	0.073	0.563	0.000	0.458	-0.309	-0.507	-0.292	0.458	0.650	0.028	-4.2
Reading	4	2380	D	A	1	6573	0.845	0.040	0.066	0.048	0.845	0.001	0.474	-0.298	-0.366	-0.312	0.474	-1.133	0.037	-7.9
Reading	4	2381	B	B	2	6573	0.706	0.045	0.706	0.037	0.211	0.000	0.378	-0.345	0.378	-0.380	-0.255	-0.136	0.030	1.9
Reading	4	2382	A	A	2	6573	0.654	0.654	0.066	0.121	0.158	0.001	0.420	0.420	-0.304	-0.438	-0.275	0.166	0.029	0.4
Reading	4	2383	B	A	2	6573	0.487	0.291	0.487	0.181	0.040	0.002	0.324	-0.296	0.324	-0.276	-0.349	1.040	0.028	9.9
Reading	4	2384	C	A	2	6573	0.542	0.351	0.030	0.542	0.076	0.001	0.155	-0.095	-0.307	0.155	-0.150	0.758	0.028	9.9
Reading	4	2385	B	A	2	6573	0.769	0.045	0.769	0.085	0.099	0.001	0.502	-0.417	0.502	-0.405	-0.319	-0.538	0.032	-6.9
Reading	4	2386	A	A	1	6573	0.629	0.629	0.216	0.080	0.073	0.001	0.465	0.465	-0.396	-0.376	-0.376	0.305	0.029	-3.9
Reading	4	2387	A	A	2	6573	0.804	0.804	0.060	0.070	0.063	0.001	0.496	0.496	-0.348	-0.321	-0.401	-0.793	0.034	-6.8
Reading	4	2388	B	A	2	6573	0.533	0.177	0.533	0.150	0.137	0.002	0.382	-0.180	0.382	-0.435	-0.418	0.805	0.028	5.8
Reading	4	2389	C	A	2	6573	0.675	0.107	0.143	0.675	0.073	0.001	0.501	-0.396	-0.409	0.501	-0.375	0.045	0.030	-8.3
Reading	4	2390	C	A	2	6573	0.595	0.151	0.155	0.595	0.097	0.002	0.492	-0.432	-0.424	0.492	-0.374	0.483	0.028	-7.0
Reading	4	2391	D	A	2	6573	0.653	0.170	0.085	0.089	0.653	0.002	0.405	-0.242	-0.360	-0.414	0.405	0.175	0.029	1.2
Reading	4	2392	C	B	2	6573	0.720	0.085	0.077	0.720	0.115	0.002	0.549	-0.387	-0.390	0.549	-0.476	-0.219	0.031	-9.9
Reading	4	2393	B	A	2	6573	0.660	0.160	0.660	0.100	0.077	0.002	0.413	-0.312	0.413	-0.348	-0.337	0.135	0.029	0.5
Reading	4	2394	A	A	1	6343	0.596	0.596	0.250	0.125	0.028	0.000	0.321	0.321	-0.263	-0.279	-0.265	0.529	0.029	7.0
Reading	4	2395	D	B	2	6343	0.747	0.016	0.061	0.175	0.747	0.000	0.392	-0.207	-0.325	-0.316	0.392	-0.332	0.032	-1.1
Reading	4	2396	C	A	1	6343	0.759	0.058	0.093	0.759	0.088	0.000	0.458	-0.259	-0.372	0.458	-0.359	-0.414	0.032	-5.5
Reading	4	2397	D	A	1	6343	0.724	0.091	0.063	0.120	0.724	0.001	0.388	-0.364	-0.326	-0.213	0.388	-0.189	0.031	1.6
Reading	4	2398	A	B	2	6343	0.711	0.711	0.059	0.152	0.077	0.001	0.457	0.457	-0.406	-0.377	-0.274	-0.105	0.031	-6.0
Reading	4	2399	B	A	2	6343	0.791	0.102	0.791	0.032	0.074	0.001	0.424	-0.312	0.424	-0.251	-0.344	-0.632	0.034	-2.1
Reading	4	2400	D	A	1	6343	0.619	0.124	0.132	0.124	0.619	0.000	0.438	-0.519	-0.304	-0.267	0.438	0.409	0.029	-2.5
Reading	4	2401	A	A	1	6343	0.831	0.831	0.055	0.077	0.036	0.000	0.519	0.519	-0.390	-0.368	-0.348	-0.948	0.036	-9.9
Reading	4	2402	C	A	2	6343	0.666	0.121	0.072	0.666	0.139	0.001	0.406	-0.249	-0.376	0.406	-0.343	0.154	0.030	-1.2
Reading	4	2403	C	A	2	6343	0.231	0.224	0.477	0.231	0.066	0.002	-0.046	0.101	0.109	-0.046	-0.380	2.486	0.032	9.9
Reading	4	2404	C	B	2	6343	0.676	0.128	0.087	0.676	0.107	0.001	0.400	-0.280	-0.369	0.400	-0.285	0.095	0.030	-1.9
Reading	4	2405	B	A	2	6343	0.800	0.044	0.800	0.069	0.084	0.002	0.509	-0.345	0.509	-0.357	-0.391	-0.699	0.034	-9.9
Reading	4	2406	A	A	1	6343	0.626	0.626	0.155	0.100	0.117	0.001	0.434	0.434	-0.344	-0.353	-0.363	0.369	0.029	-3.3
Reading	4	2407	B	B	2	6343	0.783	0.068	0.783	0.071	0.076	0.001	0.499	-0.311	0.499	-0.364	-0.411	-0.579	0.034	-8.7

Appendix L: 2008 Grades 3–8 and 11 Multiple-Choice Statistics

Information						Proportions						Correlations					Rasch			
Cont.	Grade	Pub. ID	Key	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Reading	4	2408	D	B	2	6343	0.474	0.225	0.119	0.179	0.474	0.002	0.350	-0.251	-0.331	-0.413	0.350	1.145	0.028	5.5
Reading	4	2409	B	A	2	6343	0.678	0.082	0.678	0.156	0.081	0.003	0.503	-0.435	0.503	-0.368	-0.425	0.085	0.030	-8.6
Reading	4	2410	B	A	2	6327	0.703	0.061	0.703	0.150	0.086	0.000	0.402	-0.350	0.402	-0.321	-0.264	-0.050	0.031	-0.5
Reading	4	2411	D	A	2	6327	0.654	0.143	0.128	0.075	0.654	0.000	0.437	-0.346	-0.375	-0.336	0.437	0.232	0.030	-3.2
Reading	4	2412	A	A	2	6327	0.820	0.820	0.104	0.044	0.031	0.000	0.409	0.409	-0.289	-0.304	-0.286	-0.854	0.036	-3.6
Reading	4	2413	C	A	1	6327	0.799	0.044	0.049	0.799	0.109	0.000	0.454	-0.340	-0.352	0.454	-0.313	-0.687	0.035	-4.7
Reading	4	2414	D	A	2	6327	0.631	0.080	0.154	0.135	0.631	0.000	0.451	-0.470	-0.414	-0.264	0.451	0.354	0.029	-2.8
Reading	4	2415	B	B	2	6327	0.590	0.095	0.590	0.110	0.203	0.001	0.378	-0.372	0.378	-0.343	-0.271	0.570	0.029	2.7
Reading	4	2416	B	A	2	6327	0.863	0.039	0.863	0.069	0.028	0.001	0.454	-0.330	0.454	-0.299	-0.317	-1.239	0.040	-6.4
Reading	4	2417	A	A	1	6327	0.818	0.818	0.056	0.053	0.072	0.001	0.499	0.499	-0.340	-0.364	-0.359	-0.836	0.036	-9.1
Reading	4	2418	A	A	2	6327	0.586	0.586	0.043	0.259	0.110	0.002	0.392	0.392	-0.403	-0.264	-0.435	0.592	0.029	1.0
Reading	4	2419	C	A	2	6327	0.722	0.049	0.123	0.722	0.104	0.001	0.460	-0.375	-0.363	0.460	-0.326	-0.166	0.031	-5.1
Reading	4	2420	C	A	2	6327	0.721	0.168	0.049	0.721	0.060	0.002	0.402	-0.235	-0.387	0.402	-0.382	-0.161	0.031	-0.8
Reading	4	2421	B	A	2	6327	0.826	0.038	0.826	0.060	0.073	0.002	0.438	-0.335	0.438	-0.313	-0.280	-0.904	0.036	-4.8
Reading	4	2422	C	B	2	6327	0.672	0.145	0.065	0.672	0.117	0.001	0.457	-0.341	-0.404	0.457	-0.368	0.131	0.030	-3.8
Reading	4	2423	B	B	2	6327	0.697	0.118	0.697	0.081	0.102	0.001	0.454	-0.335	0.454	-0.417	-0.321	-0.017	0.031	-2.1
Reading	4	2424	D	A	2	6327	0.719	0.137	0.061	0.080	0.719	0.002	0.453	-0.313	-0.387	-0.366	0.453	-0.149	0.031	-5.0
Reading	4	2425	B	A	2	6327	0.740	0.069	0.740	0.054	0.134	0.003	0.475	-0.425	0.475	-0.332	-0.338	-0.283	0.032	-6.5
Reading	4	2426	C	A	1	6344	0.786	0.133	0.048	0.786	0.033	0.000	0.512	-0.414	-0.388	0.512	-0.321	-0.544	0.034	-8.7
Reading	4	2427	B	A	2	6344	0.889	0.019	0.889	0.064	0.027	0.001	0.391	-0.270	0.391	-0.235	-0.305	-1.466	0.043	-3.8
Reading	4	2428	A	A	2	6344	0.910	0.910	0.044	0.023	0.021	0.001	0.434	0.434	-0.309	-0.266	-0.275	-1.731	0.047	-7.1
Reading	4	2429	C	A	2	6344	0.697	0.065	0.117	0.697	0.120	0.000	0.538	-0.389	-0.416	0.538	-0.477	0.033	0.030	-9.9
Reading	4	2430	A	A	2	6344	0.624	0.624	0.160	0.053	0.163	0.000	0.439	0.439	-0.280	-0.434	-0.413	0.436	0.029	-3.1
Reading	4	2431	D	B	2	6344	0.766	0.043	0.029	0.160	0.766	0.001	0.366	-0.255	-0.287	-0.284	0.366	-0.406	0.033	1.5
Reading	4	2432	B	A	1	6344	0.899	0.055	0.899	0.024	0.021	0.001	0.390	-0.314	0.390	-0.195	-0.227	-1.590	0.045	-5.2
Reading	4	2433	A	A	2	6344	0.742	0.742	0.188	0.043	0.025	0.001	0.406	0.406	-0.288	-0.385	-0.329	-0.246	0.032	-1.8
Reading	4	2434	D	A	2	6344	0.522	0.082	0.229	0.166	0.522	0.002	0.428	-0.524	-0.367	-0.325	0.428	0.962	0.028	-1.7
Reading	4	2435	A	A	1	6344	0.831	0.831	0.071	0.044	0.053	0.001	0.405	0.405	-0.316	-0.254	-0.261	-0.893	0.037	-3.3
Reading	4	2436	C	B	2	6344	0.537	0.219	0.170	0.537	0.072	0.002	0.284	-0.271	-0.143	0.284	-0.390	0.888	0.028	9.9
Reading	4	2437	B	A	1	6344	0.663	0.122	0.663	0.165	0.047	0.002	0.481	-0.380	0.481	-0.409	-0.353	0.224	0.030	-7.2
Reading	4	2438	C	B	1	6344	0.764	0.106	0.033	0.764	0.096	0.001	0.334	-0.277	-0.194	0.334	-0.237	-0.387	0.033	2.9
Reading	4	2439	D	B	2	6344	0.833	0.047	0.051	0.068	0.833	0.001	0.494	-0.355	-0.331	-0.353	0.494	-0.912	0.037	-9.1
Reading	4	2440	B	A	2	6344	0.276	0.127	0.276	0.359	0.235	0.002	0.071	-0.137	0.071	-0.056	-0.069	2.247	0.031	9.9
Reading	4	2441	A	B	2	6344	0.554	0.554	0.262	0.090	0.090	0.003	0.232	0.232	-0.055	-0.344	-0.363	0.799	0.028	9.9
Reading	4	2442	D	A	1	6286	0.746	0.151	0.049	0.053	0.746	0.000	0.330	-0.240	-0.296	-0.207	0.330	-0.279	0.032	1.6
Reading	4	2443	B	B	2	6286	0.761	0.095	0.761	0.025	0.119	0.000	0.479	-0.388	0.479	-0.290	-0.374	-0.374	0.033	-7.4
Reading	4	2444	C	A	2	6286	0.580	0.061	0.300	0.580	0.058	0.001	0.464	-0.349	-0.470	0.464	-0.229	0.657	0.029	-4.6
Reading	4	2445	C	A	2	6286	0.776	0.047	0.054	0.776	0.122	0.001	0.414	-0.308	-0.272	0.414	-0.318	-0.476	0.033	-3.6
Reading	4	2446	D	B	2	6286	0.791	0.026	0.120	0.061	0.791	0.001	0.506	-0.242	-0.520	-0.240	0.506	-0.585	0.034	-8.6
Reading	4	2447	A	B	2	6286	0.726	0.726	0.039	0.032	0.200	0.001	0.435	0.435	-0.258	-0.293	-0.389	-0.152	0.031	-4.5
Reading	4	2448	D	A	2	6286	0.909	0.049	0.022	0.020	0.909	0.001	0.374	-0.290	-0.242	-0.176	0.374	-1.713	0.046	-4.5
Reading	4	2449	A	A	2	6286	0.873	0.873	0.075	0.029	0.022	0.001	0.379	0.379	-0.249	-0.299	-0.230	-1.286	0.041	-3.1
Reading	4	2450	C	A	2	6286	0.383	0.304	0.065	0.383	0.247	0.001	0.232	-0.225	-0.412	0.232	-0.171	1.648	0.029	9.9

Appendix L: 2008 Grades 3–8 and 11 Multiple-Choice Statistics

Information						Proportions						Correlations					Rasch			
Cont.	Grade	Pub. ID	Key	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Reading	4	2451	B	B	2	6286	0.691	0.115	0.691	0.058	0.134	0.001	0.412	-0.274	0.412	-0.298	-0.380	0.060	0.030	-1.9
Reading	4	2452	D	B	3	6286	0.840	0.066	0.029	0.064	0.840	0.001	0.441	-0.307	-0.331	-0.302	0.441	-0.977	0.037	-5.2
Reading	4	2453	C	B	2	6286	0.487	0.260	0.174	0.487	0.078	0.001	0.389	-0.420	-0.242	0.389	-0.428	1.127	0.028	1.9
Reading	4	2454	C	A	2	6286	0.574	0.256	0.118	0.574	0.050	0.002	0.329	-0.210	-0.368	0.329	-0.348	0.689	0.029	7.7
Reading	4	2455	D	B	2	6286	0.739	0.115	0.074	0.070	0.739	0.001	0.395	-0.182	-0.381	-0.363	0.395	-0.234	0.032	0.1
Reading	4	2456	A	A	2	6286	0.859	0.859	0.038	0.067	0.033	0.002	0.486	0.486	-0.306	-0.362	-0.349	-1.148	0.039	-7.7
Reading	4	2457	B	A	2	6286	0.641	0.147	0.641	0.139	0.070	0.003	0.386	-0.317	0.386	-0.290	-0.347	0.338	0.029	0.8
Reading	4	2458	A	B	2	6287	0.513	0.513	0.365	0.024	0.097	0.000	0.357	0.357	-0.312	-0.334	-0.347	0.983	0.028	2.3
Reading	4	2459	B	A	2	6287	0.686	0.095	0.686	0.148	0.069	0.001	0.269	-0.220	0.269	-0.205	-0.182	0.098	0.030	6.3
Reading	4	2460	D	B	2	6287	0.672	0.066	0.112	0.148	0.672	0.001	0.423	-0.394	-0.312	-0.334	0.423	0.175	0.030	-0.7
Reading	4	2461	D	A	2	6287	0.527	0.235	0.171	0.065	0.527	0.001	0.332	-0.305	-0.243	-0.353	0.332	0.915	0.028	3.9
Reading	4	2462	A	A	2	6287	0.750	0.750	0.105	0.106	0.039	0.001	0.481	0.481	-0.355	-0.398	-0.326	-0.278	0.032	-8.0
Reading	4	2463	B	A	2	6287	0.673	0.174	0.673	0.078	0.073	0.002	0.495	-0.422	0.495	-0.337	-0.418	0.173	0.030	-9.3
Reading	4	2464	C	A	2	6287	0.723	0.112	0.079	0.723	0.086	0.001	0.475	-0.403	-0.336	0.475	-0.348	-0.111	0.031	-7.2
Reading	4	2465	D	A	1	6287	0.621	0.095	0.132	0.151	0.621	0.001	0.438	-0.378	-0.353	-0.355	0.438	0.448	0.029	-5.9
Reading	4	2466	B	A	2	6287	0.404	0.148	0.404	0.190	0.255	0.001	0.147	-0.173	0.147	-0.210	-0.057	1.517	0.028	9.9
Reading	4	2467	A	A	2	6287	0.617	0.617	0.097	0.188	0.095	0.002	0.186	0.186	-0.237	-0.029	-0.249	0.470	0.029	9.9
Reading	4	2468	B	A	2	6287	0.512	0.266	0.512	0.071	0.149	0.002	0.409	-0.345	0.409	-0.403	-0.377	0.992	0.028	-3.2
Reading	4	2469	C	B	2	6287	0.400	0.156	0.184	0.400	0.258	0.001	0.175	-0.243	-0.150	0.175	-0.137	1.538	0.028	9.9
Reading	4	2470	D	A	2	6287	0.633	0.064	0.100	0.200	0.633	0.002	0.392	-0.299	-0.340	-0.313	0.392	0.386	0.029	-3.6
Reading	4	2471	D	A	2	6287	0.421	0.108	0.300	0.170	0.421	0.001	0.236	-0.383	-0.125	-0.273	0.236	1.435	0.028	9.9
Reading	4	2472	B	A	2	6287	0.371	0.225	0.371	0.206	0.196	0.002	0.099	-0.134	0.099	-0.101	-0.048	1.688	0.029	9.9
Reading	4	2473	B	A	2	6287	0.475	0.123	0.475	0.164	0.234	0.003	0.343	-0.426	0.343	-0.380	-0.193	1.169	0.028	4.2
Reading	4	2474	D	B	2	6322	0.876	0.025	0.029	0.070	0.876	0.000	0.387	-0.311	-0.298	-0.217	0.387	-1.295	0.041	-4.0
Reading	4	2475	C	A	2	6322	0.837	0.073	0.069	0.837	0.021	0.000	0.288	-0.178	-0.182	0.288	-0.277	-0.923	0.037	4.0
Reading	4	2476	B	A	1	6322	0.804	0.125	0.804	0.036	0.034	0.000	0.475	-0.406	0.475	-0.230	-0.342	-0.666	0.034	-8.1
Reading	4	2477	C	B	2	6322	0.846	0.065	0.034	0.846	0.054	0.000	0.299	-0.160	-0.265	0.299	-0.205	-1.004	0.038	5.0
Reading	4	2478	D	A	2	6322	0.615	0.240	0.115	0.030	0.615	0.000	0.401	-0.358	-0.322	-0.304	0.401	0.480	0.029	-1.5
Reading	4	2479	A	B	2	6322	0.598	0.598	0.161	0.100	0.140	0.001	0.442	0.442	-0.399	-0.354	-0.359	0.567	0.028	-4.2
Reading	4	2480	D	A	2	6322	0.714	0.102	0.066	0.117	0.714	0.000	0.421	-0.404	-0.258	-0.292	0.421	-0.068	0.031	-3.0
Reading	4	2481	C	A	2	6322	0.595	0.131	0.125	0.595	0.148	0.001	0.490	-0.449	-0.357	0.490	-0.443	0.581	0.028	-8.2
Reading	4	2482	B	A	2	6322	0.734	0.129	0.734	0.045	0.090	0.001	0.392	-0.336	0.392	-0.360	-0.198	-0.187	0.031	-1.7
Reading	4	2483	C	B	2	6322	0.807	0.054	0.059	0.807	0.078	0.002	0.391	-0.295	-0.270	0.391	-0.259	-0.684	0.035	-2.8
Reading	4	2484	D	A	2	6322	0.752	0.094	0.064	0.088	0.752	0.001	0.433	-0.205	-0.352	-0.414	0.433	-0.304	0.032	-3.3
Reading	4	2485	D	A	2	6322	0.467	0.146	0.214	0.171	0.467	0.001	0.199	-0.194	-0.172	-0.183	0.199	1.220	0.028	9.9
Reading	4	2486	B	A	2	6322	0.412	0.313	0.412	0.133	0.141	0.001	0.215	-0.147	0.215	-0.137	-0.381	1.493	0.028	9.9
Reading	4	2487	B	B	2	6322	0.536	0.142	0.536	0.258	0.061	0.002	0.317	-0.216	0.317	-0.275	-0.375	0.877	0.028	6.5
Reading	4	2488	A	B	3	6322	0.441	0.441	0.056	0.194	0.308	0.001	0.208	0.208	-0.307	-0.245	-0.120	1.349	0.028	9.9
Reading	4	2489	C	B	1	6322	0.494	0.244	0.067	0.494	0.194	0.002	0.418	-0.389	-0.397	0.418	-0.367	1.087	0.028	-2.9
Reading	4	2490	D	A	2	6284	0.762	0.022	0.016	0.199	0.762	0.000	0.418	-0.292	-0.304	-0.357	0.418	-0.355	0.033	-1.3
Reading	4	2491	A	A	2	6284	0.786	0.786	0.165	0.006	0.043	0.001	0.281	0.281	-0.246	-0.167	-0.162	-0.522	0.034	3.3
Reading	4	2492	B	B	2	6284	0.675	0.037	0.675	0.029	0.259	0.000	0.380	-0.258	0.380	-0.318	-0.326	0.177	0.030	0.2
Reading	4	2493	A	A	2	6284	0.876	0.876	0.071	0.031	0.022	0.000	0.433	0.433	-0.303	-0.328	-0.260	-1.299	0.041	-5.7

Appendix L: 2008 Grades 3–8 and 11 Multiple-Choice Statistics

Information						Proportions							Correlations					Rasch		
Cont.	Grade	Pub. ID	Key	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Reading	4	2494	D	A	2	6284	0.607	0.104	0.033	0.255	0.607	0.001	0.462	-0.338	-0.403	-0.431	0.462	0.546	0.029	-5.4
Reading	4	2495	D	A	2	6284	0.884	0.022	0.036	0.055	0.884	0.002	0.459	-0.317	-0.319	-0.307	0.459	-1.390	0.042	-7.5
Reading	4	2496	A	A	2	6284	0.878	0.878	0.050	0.037	0.034	0.001	0.472	0.472	-0.330	-0.325	-0.301	-1.321	0.041	-9.2
Reading	4	2497	D	A	2	6284	0.870	0.041	0.028	0.060	0.870	0.001	0.470	-0.319	-0.321	-0.334	0.470	-1.239	0.041	-6.8
Reading	4	2498	B	A	2	6284	0.627	0.219	0.627	0.050	0.101	0.002	0.292	-0.199	0.292	-0.344	-0.237	0.438	0.029	9.4
Reading	4	2499	D	A	1	6284	0.694	0.060	0.125	0.119	0.694	0.001	0.483	-0.358	-0.353	-0.426	0.483	0.067	0.031	-7.4
Reading	4	2500	B	A	2	6284	0.457	0.363	0.457	0.111	0.067	0.001	0.409	-0.348	0.409	-0.454	-0.416	1.304	0.028	1.0
Reading	4	2501	C	A	2	6284	0.500	0.110	0.272	0.500	0.116	0.001	0.263	-0.323	-0.143	0.263	-0.327	1.089	0.028	9.9
Reading	4	2502	D	A	2	6284	0.726	0.099	0.108	0.065	0.726	0.002	0.466	-0.372	-0.316	-0.401	0.466	-0.124	0.031	-6.0
Reading	4	2503	A	B	2	6284	0.820	0.820	0.079	0.048	0.050	0.002	0.502	0.502	-0.308	-0.414	-0.377	-0.783	0.036	-8.3
Reading	4	2504	A	B	2	6284	0.509	0.509	0.111	0.141	0.237	0.002	0.390	0.390	-0.418	-0.454	-0.249	1.042	0.028	2.6
Reading	4	2505	B	B	2	6284	0.656	0.098	0.656	0.123	0.121	0.003	0.442	-0.355	0.442	-0.369	-0.351	0.281	0.030	-3.2
Reading	4	2506	C	A	1	6309	0.817	0.037	0.120	0.817	0.026	0.000	0.457	-0.362	-0.384	0.457	-0.178	-0.794	0.036	-6.4
Reading	4	2507	C	B	2	6309	0.761	0.126	0.055	0.761	0.058	0.000	0.396	-0.278	-0.292	0.396	-0.307	-0.384	0.033	-2.7
Reading	4	2508	B	B	1	6309	0.801	0.037	0.801	0.052	0.110	0.000	0.448	-0.272	0.448	-0.319	-0.355	-0.665	0.034	-5.9
Reading	4	2509	C	B	2	6309	0.577	0.094	0.201	0.577	0.126	0.001	0.293	-0.314	-0.196	0.293	-0.259	0.662	0.028	9.9
Reading	4	2510	A	A	2	6309	0.607	0.607	0.079	0.060	0.252	0.001	0.333	0.333	-0.363	-0.276	-0.245	0.507	0.029	5.7
Reading	4	2511	B	A	2	6309	0.819	0.062	0.819	0.075	0.043	0.002	0.450	-0.332	0.450	-0.306	-0.330	-0.802	0.036	-4.5
Reading	4	2512	A	A	2	6309	0.492	0.492	0.215	0.059	0.233	0.000	0.362	0.362	-0.335	-0.369	-0.293	1.090	0.028	5.6
Reading	4	2513	D	A	2	6309	0.769	0.036	0.113	0.081	0.769	0.001	0.389	-0.318	-0.243	-0.318	0.389	-0.436	0.033	-0.6
Reading	4	2514	B	B	2	6309	0.472	0.284	0.472	0.086	0.156	0.001	0.425	-0.453	0.425	-0.455	-0.264	1.187	0.028	-2.6
Reading	4	2515	A	A	2	6309	0.481	0.481	0.171	0.222	0.125	0.001	0.393	0.393	-0.505	-0.267	-0.332	1.145	0.028	1.1
Reading	4	2516	D	B	2	6309	0.722	0.073	0.129	0.073	0.722	0.001	0.529	-0.476	-0.339	-0.469	0.529	-0.139	0.031	-9.0
Reading	4	2517	B	A	2	6309	0.407	0.126	0.407	0.263	0.202	0.001	0.236	-0.299	0.236	-0.248	-0.153	1.516	0.028	9.9
Reading	4	2518	B	A	2	6309	0.662	0.120	0.662	0.098	0.118	0.001	0.460	-0.368	0.460	-0.391	-0.343	0.209	0.030	-6.4
Reading	4	2519	C	B	2	6309	0.661	0.138	0.122	0.661	0.077	0.001	0.436	-0.336	-0.320	0.436	-0.411	0.215	0.030	-2.3
Reading	4	2520	A	A	2	6309	0.609	0.609	0.214	0.071	0.103	0.001	0.448	0.448	-0.368	-0.402	-0.370	0.497	0.029	-4.7
Reading	4	2521	C	A	2	6309	0.792	0.100	0.053	0.792	0.052	0.003	0.445	-0.285	-0.355	0.445	-0.367	-0.597	0.034	-2.9
Reading	4	2522	B	B	2	6260	0.658	0.144	0.658	0.124	0.073	0.000	0.384	-0.338	0.384	-0.297	-0.260	0.238	0.030	-0.2
Reading	4	2523	B	A	2	6260	0.397	0.192	0.397	0.047	0.364	0.000	0.350	-0.293	0.350	-0.406	-0.350	1.572	0.029	6.0
Reading	4	2524	A	A	2	6260	0.580	0.580	0.205	0.145	0.069	0.000	0.483	0.483	-0.351	-0.543	-0.358	0.649	0.029	-6.8
Reading	4	2525	C	B	2	6260	0.714	0.079	0.086	0.714	0.121	0.000	0.537	-0.522	-0.434	0.537	-0.344	-0.086	0.031	-9.9
Reading	4	2526	D	A	2	6260	0.741	0.044	0.030	0.184	0.741	0.001	0.320	-0.386	-0.339	-0.164	0.320	-0.250	0.032	6.9
Reading	4	2527	A	A	1	6260	0.699	0.699	0.135	0.057	0.108	0.000	0.521	0.521	-0.399	-0.399	-0.445	0.004	0.031	-9.9
Reading	4	2528	B	A	2	6260	0.535	0.292	0.535	0.076	0.096	0.001	0.383	-0.326	0.383	-0.363	-0.340	0.877	0.028	1.4
Reading	4	2529	B	A	2	6260	0.326	0.431	0.326	0.066	0.176	0.002	0.325	-0.298	0.325	-0.423	-0.365	1.951	0.030	8.5
Reading	4	2530	D	B	2	6260	0.613	0.262	0.057	0.065	0.613	0.001	0.295	-0.167	-0.327	-0.375	0.295	0.477	0.029	9.9
Reading	4	2531	D	B	2	6260	0.604	0.150	0.081	0.161	0.604	0.003	0.395	-0.225	-0.441	-0.354	0.395	0.526	0.029	0.7
Reading	4	2532	C	A	2	6260	0.719	0.119	0.107	0.719	0.053	0.002	0.510	-0.404	-0.381	0.510	-0.409	-0.112	0.031	-9.3
Reading	4	2533	D	B	2	6260	0.618	0.098	0.130	0.151	0.618	0.003	0.414	-0.319	-0.327	-0.366	0.414	0.453	0.029	-2.3
Reading	4	2534	C	A	2	6260	0.615	0.145	0.159	0.615	0.077	0.002	0.464	-0.350	-0.412	0.464	-0.392	0.465	0.029	-6.4
Reading	4	2535	C	B	2	6260	0.730	0.105	0.044	0.730	0.118	0.002	0.342	-0.277	-0.372	0.342	-0.180	-0.181	0.031	4.7
Reading	4	2536	B	A	2	6260	0.601	0.201	0.601	0.090	0.104	0.003	0.438	-0.327	0.438	-0.409	-0.400	0.539	0.029	-3.2

Appendix L: 2008 Grades 3–8 and 11 Multiple-Choice Statistics

Information						Proportions						Correlations					Rasch			
Cont.	Grade	Pub. ID	Key	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Reading	4	2537	B	A	2	6260	0.395	0.334	0.395	0.154	0.113	0.004	0.328	-0.267	0.328	-0.347	-0.430	1.581	0.029	6.8
Reading	4	2538	A	A	2	6337	0.773	0.773	0.102	0.064	0.061	0.000	0.320	0.320	-0.156	-0.209	-0.338	-0.456	0.033	1.4
Reading	4	2539	D	B	2	6337	0.860	0.048	0.030	0.061	0.860	0.000	0.523	-0.386	-0.269	-0.411	0.523	-1.146	0.039	-9.9
Reading	4	2540	B	A	2	6337	0.603	0.095	0.603	0.251	0.050	0.001	0.286	-0.340	0.286	-0.147	-0.376	0.529	0.029	9.9
Reading	4	2541	D	A	1	6337	0.449	0.197	0.031	0.322	0.449	0.001	0.321	-0.412	-0.379	-0.212	0.321	1.298	0.028	8.4
Reading	4	2542	C	A	2	6337	0.863	0.072	0.023	0.863	0.041	0.000	0.458	-0.348	-0.255	0.458	-0.322	-1.174	0.039	-7.8
Reading	4	2543	B	A	2	6337	0.778	0.107	0.778	0.040	0.072	0.003	0.456	-0.373	0.456	-0.327	-0.299	-0.491	0.033	-5.2
Reading	4	2544	D	A	2	6337	0.270	0.256	0.134	0.337	0.270	0.002	-0.064	0.092	-0.212	0.186	-0.064	2.245	0.031	9.9
Reading	4	2545	C	A	2	6337	0.692	0.114	0.091	0.692	0.101	0.003	0.264	-0.176	-0.234	0.264	-0.180	0.051	0.030	6.3
Reading	4	2546	A	A	2	6337	0.534	0.534	0.225	0.145	0.092	0.003	0.106	0.106	-0.047	-0.068	-0.180	0.878	0.028	9.9
Reading	4	2547	A	A	1	6337	0.728	0.728	0.169	0.048	0.051	0.003	0.380	0.380	-0.262	-0.329	-0.324	-0.162	0.031	0.7
Reading	4	2548	B	A	1	6337	0.620	0.085	0.620	0.059	0.233	0.003	0.383	-0.360	0.383	-0.399	-0.260	0.443	0.029	-0.2
Reading	4	2549	B	A	2	6337	0.485	0.143	0.485	0.073	0.295	0.003	0.321	-0.347	0.321	-0.452	-0.198	1.118	0.028	8.1
Reading	4	2550	B	B	2	6337	0.669	0.103	0.669	0.089	0.136	0.003	0.445	-0.323	0.445	-0.385	-0.356	0.180	0.030	-4.7
Reading	4	2551	C	B	2	6337	0.725	0.084	0.082	0.725	0.106	0.002	0.495	-0.409	-0.392	0.495	-0.338	-0.144	0.031	-8.0
Reading	4	2552	D	B	2	6337	0.419	0.204	0.258	0.115	0.419	0.003	0.348	-0.371	-0.267	-0.415	0.348	1.445	0.028	4.3
Reading	4	2553	D	A	2	6337	0.711	0.079	0.089	0.116	0.711	0.005	0.505	-0.392	-0.429	-0.362	0.505	-0.059	0.031	-9.9
Reading	4	2554	C	A	1	6322	0.716	0.098	0.020	0.716	0.166	0.000	0.263	-0.233	-0.246	0.263	-0.166	-0.082	0.031	7.1
Reading	4	2555	C	A	1	6322	0.852	0.056	0.040	0.852	0.053	0.000	0.469	-0.323	-0.293	0.469	-0.344	-1.078	0.038	-8.7
Reading	4	2556	A	A	2	6322	0.657	0.657	0.130	0.111	0.100	0.000	0.320	0.320	-0.174	-0.243	-0.356	0.254	0.030	5.9
Reading	4	2557	D	A	2	6322	0.770	0.058	0.137	0.034	0.770	0.000	0.403	-0.308	-0.298	-0.286	0.403	-0.432	0.033	-2.9
Reading	4	2558	B	A	2	6322	0.816	0.058	0.816	0.040	0.085	0.000	0.469	-0.336	0.469	-0.271	-0.376	-0.766	0.035	-6.3
Reading	4	2559	D	A	2	6322	0.752	0.033	0.058	0.156	0.752	0.002	0.430	-0.386	-0.386	-0.281	0.430	-0.307	0.032	-3.7
Reading	4	2560	C	A	2	6322	0.552	0.111	0.283	0.552	0.054	0.001	0.329	-0.465	-0.193	0.329	-0.302	0.806	0.028	7.5
Reading	4	2561	C	A	1	6322	0.574	0.045	0.333	0.574	0.048	0.001	0.320	-0.367	-0.236	0.320	-0.359	0.696	0.028	9.9
Reading	4	2562	C	B	2	6322	0.272	0.165	0.420	0.272	0.142	0.001	0.212	-0.392	-0.155	0.212	-0.258	2.266	0.031	9.9
Reading	4	2563	D	B	2	6322	0.464	0.165	0.179	0.189	0.464	0.001	0.340	-0.236	-0.451	-0.250	0.340	1.245	0.028	5.4
Reading	4	2564	C	B	2	6322	0.528	0.212	0.138	0.528	0.119	0.002	0.344	-0.306	-0.240	0.344	-0.362	0.926	0.028	5.8
Reading	4	2565	B	A	2	6322	0.864	0.031	0.864	0.075	0.028	0.001	0.432	-0.308	0.432	-0.284	-0.309	-1.193	0.040	-5.5
Reading	4	2566	C	B	1	6322	0.380	0.088	0.204	0.380	0.326	0.001	0.293	-0.431	-0.208	0.293	-0.301	1.672	0.029	9.9
Reading	4	2567	B	A	1	6322	0.700	0.190	0.700	0.063	0.046	0.002	0.412	-0.342	0.412	-0.320	-0.281	0.013	0.031	-1.5
Reading	4	2568	B	A	2	6322	0.787	0.079	0.787	0.056	0.076	0.002	0.428	-0.258	0.428	-0.344	-0.327	-0.547	0.034	-4.2
Reading	4	2569	A	A	2	6322	0.845	0.845	0.027	0.096	0.029	0.003	0.442	0.442	-0.269	-0.332	-0.329	-1.011	0.038	-5.5
Reading	4	2570	B	A	1	6272	0.776	0.090	0.776	0.056	0.078	0.000	0.233	-0.186	0.233	-0.264	-0.052	-0.482	0.033	7.7
Reading	4	2571	C	A	2	6272	0.624	0.042	0.196	0.624	0.138	0.000	0.269	-0.305	-0.194	0.269	-0.204	0.420	0.029	9.3
Reading	4	2572	B	A	1	6272	0.519	0.264	0.519	0.034	0.181	0.001	0.266	-0.171	0.266	-0.257	-0.311	0.955	0.028	9.9
Reading	4	2573	D	A	2	6272	0.784	0.050	0.039	0.126	0.784	0.000	0.351	-0.345	-0.342	-0.164	0.351	-0.540	0.034	1.6
Reading	4	2574	B	A	2	6272	0.477	0.285	0.477	0.047	0.189	0.001	0.332	-0.279	0.332	-0.416	-0.301	1.167	0.028	7.6
Reading	4	2575	C	B	2	6272	0.709	0.184	0.050	0.709	0.055	0.003	0.470	-0.396	-0.349	0.470	-0.343	-0.053	0.031	-6.4
Reading	4	2576	B	B	2	6272	0.753	0.103	0.753	0.074	0.069	0.001	0.486	-0.368	0.486	-0.365	-0.354	-0.331	0.032	-8.5
Reading	4	2577	D	B	2	6272	0.728	0.080	0.170	0.021	0.728	0.001	0.496	-0.440	-0.397	-0.305	0.496	-0.172	0.031	-7.6
Reading	4	2578	B	B	2	6272	0.828	0.057	0.828	0.055	0.058	0.002	0.487	-0.309	0.487	-0.372	-0.343	-0.880	0.036	-9.0
Reading	4	2579	B	A	2	6272	0.612	0.066	0.612	0.083	0.236	0.002	0.306	-0.297	0.306	-0.277	-0.222	0.484	0.029	8.7

Appendix L: 2008 Grades 3–8 and 11 Multiple-Choice Statistics

Information						Proportions						Correlations					Rasch			
Cont.	Grade	Pub. ID	Key	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Reading	4	2580	C	A	1	6272	0.766	0.087	0.055	0.766	0.091	0.002	0.468	-0.372	-0.355	0.468	-0.319	-0.416	0.033	-6.8
Reading	4	2581	B	B	2	6272	0.521	0.287	0.521	0.096	0.094	0.002	0.257	-0.149	0.257	-0.316	-0.298	0.946	0.028	9.9
Reading	4	2582	C	A	2	6272	0.820	0.061	0.065	0.820	0.052	0.002	0.437	-0.318	-0.299	0.437	-0.309	-0.809	0.036	-5.1
Reading	4	2583	D	B	2	6272	0.721	0.117	0.085	0.074	0.721	0.002	0.530	-0.434	-0.430	-0.359	0.530	-0.129	0.031	-9.9
Reading	4	2584	D	A	2	6272	0.624	0.117	0.115	0.142	0.624	0.002	0.386	-0.364	-0.307	-0.284	0.386	0.420	0.029	0.4
Reading	4	2585	B	A	2	6272	0.615	0.062	0.615	0.098	0.220	0.004	0.353	-0.351	0.353	-0.350	-0.239	0.466	0.029	3.4
Reading	4	2586	D	A	2	6320	0.691	0.209	0.066	0.033	0.691	0.001	0.285	-0.151	-0.327	-0.298	0.285	0.087	0.030	6.8
Reading	4	2587	C	B	2	6320	0.792	0.135	0.042	0.792	0.030	0.000	0.443	-0.356	-0.346	0.443	-0.247	-0.564	0.034	-4.9
Reading	4	2588	D	A	2	6320	0.777	0.017	0.053	0.151	0.777	0.000	0.392	-0.298	-0.424	-0.235	0.392	-0.459	0.033	0.3
Reading	4	2589	C	B	2	6320	0.869	0.068	0.043	0.869	0.019	0.000	0.477	-0.370	-0.315	0.477	-0.282	-1.221	0.040	-7.6
Reading	4	2590	B	A	2	6320	0.680	0.077	0.680	0.185	0.058	0.000	0.317	-0.218	0.317	-0.209	-0.369	0.149	0.030	6.2
Reading	4	2591	B	B	2	6320	0.720	0.053	0.720	0.138	0.088	0.001	0.382	-0.318	0.382	-0.240	-0.348	-0.088	0.031	0.8
Reading	4	2592	B	A	2	6320	0.894	0.028	0.894	0.052	0.025	0.000	0.458	-0.312	0.458	-0.352	-0.240	-1.507	0.044	-7.1
Reading	4	2593	D	A	2	6320	0.767	0.027	0.101	0.105	0.767	0.001	0.476	-0.375	-0.376	-0.345	0.476	-0.387	0.033	-6.3
Reading	4	2594	A	A	2	6320	0.806	0.806	0.110	0.035	0.048	0.000	0.447	0.447	-0.336	-0.330	-0.305	-0.670	0.035	-4.7
Reading	4	2595	B	B	1	6320	0.534	0.257	0.534	0.140	0.068	0.001	0.378	-0.341	0.378	-0.314	-0.358	0.918	0.028	3.7
Reading	4	2596	B	A	2	6320	0.802	0.115	0.802	0.052	0.030	0.001	0.428	-0.306	0.428	-0.315	-0.335	-0.638	0.035	-3.6
Reading	4	2597	A	A	2	6320	0.583	0.583	0.118	0.112	0.184	0.001	0.442	0.442	-0.395	-0.406	-0.346	0.667	0.028	-3.7
Reading	4	2598	D	B	2	6320	0.813	0.055	0.069	0.062	0.813	0.000	0.479	-0.371	-0.293	-0.373	0.479	-0.722	0.035	-7.2
Reading	4	2599	C	B	2	6320	0.740	0.053	0.054	0.740	0.151	0.002	0.374	-0.375	-0.325	0.374	-0.215	-0.210	0.032	0.5
Reading	4	2600	D	B	2	6320	0.548	0.063	0.136	0.251	0.548	0.002	0.462	-0.478	-0.473	-0.350	0.462	0.847	0.028	-5.3
Reading	4	2601	C	B	3	6320	0.645	0.128	0.068	0.645	0.154	0.005	0.326	-0.243	-0.334	0.326	-0.239	0.343	0.029	5.1
Reading	4	2602	B	A	2	6273	0.592	0.161	0.592	0.077	0.170	0.000	0.332	-0.414	0.332	-0.280	-0.136	0.574	0.029	6.3
Reading	4	2603	D	A	2	6273	0.766	0.054	0.116	0.062	0.766	0.001	0.457	-0.358	-0.334	-0.330	0.457	-0.432	0.033	-6.0
Reading	4	2604	D	B	2	6273	0.445	0.319	0.113	0.122	0.445	0.001	0.401	-0.315	-0.397	-0.520	0.401	1.313	0.028	1.3
Reading	4	2605	B	B	2	6273	0.692	0.143	0.692	0.102	0.061	0.001	0.411	-0.262	0.411	-0.341	-0.405	0.029	0.030	1.7
Reading	4	2606	A	A	2	6273	0.499	0.499	0.101	0.083	0.316	0.001	0.318	0.318	-0.374	-0.451	-0.192	1.047	0.028	8.0
Reading	4	2607	B	A	1	6273	0.705	0.122	0.705	0.062	0.108	0.002	0.490	-0.355	0.490	-0.375	-0.419	-0.045	0.031	-8.1
Reading	4	2608	C	A	2	6273	0.723	0.130	0.096	0.723	0.048	0.002	0.386	-0.323	-0.263	0.386	-0.288	-0.155	0.031	2.5
Reading	4	2609	B	A	1	6273	0.722	0.138	0.722	0.049	0.088	0.003	0.376	-0.289	0.376	-0.313	-0.249	-0.149	0.031	0.2
Reading	4	2610	B	B	2	6273	0.519	0.124	0.519	0.110	0.245	0.002	0.223	-0.129	0.223	-0.368	-0.133	0.946	0.028	9.9
Reading	4	2611	D	B	2	6273	0.520	0.048	0.178	0.249	0.520	0.003	0.252	-0.400	-0.228	-0.162	0.252	0.938	0.028	9.9
Reading	4	2612	A	A	2	6273	0.659	0.659	0.059	0.081	0.196	0.003	0.476	0.476	-0.375	-0.376	-0.393	0.215	0.030	-6.9
Reading	4	2613	A	B	2	6273	0.744	0.744	0.073	0.077	0.104	0.003	0.468	0.468	-0.350	-0.412	-0.300	-0.283	0.032	-6.0
Reading	4	2614	B	A	2	6273	0.785	0.098	0.785	0.053	0.060	0.003	0.474	-0.346	0.474	-0.344	-0.334	-0.561	0.034	-8.4
Reading	4	2615	C	B	2	6273	0.767	0.038	0.123	0.767	0.068	0.004	0.494	-0.336	-0.417	0.494	-0.318	-0.433	0.033	-8.3
Reading	4	2616	A	B	2	6273	0.755	0.755	0.087	0.058	0.097	0.003	0.436	0.436	-0.380	-0.342	-0.251	-0.353	0.032	-4.7
Reading	4	2617	C	A	2	6273	0.537	0.105	0.184	0.537	0.170	0.004	0.424	-0.369	-0.388	0.424	-0.368	0.855	0.028	-1.9
Reading	4	2618	B	A	1	6290	0.759	0.166	0.759	0.038	0.037	0.000	0.291	-0.186	0.291	-0.319	-0.194	-0.356	0.032	4.8
Reading	4	2619	D	A	2	6290	0.758	0.046	0.018	0.178	0.758	0.000	0.286	-0.391	-0.266	-0.136	0.286	-0.349	0.032	7.3
Reading	4	2620	A	A	1	6290	0.482	0.482	0.113	0.234	0.172	0.000	0.359	0.359	-0.256	-0.295	-0.419	1.160	0.028	3.5
Reading	4	2621	C	A	2	6290	0.843	0.045	0.067	0.843	0.044	0.000	0.472	-0.289	-0.373	0.472	-0.316	-0.995	0.037	-7.4
Reading	4	2622	B	B	2	6290	0.849	0.022	0.849	0.099	0.029	0.000	0.415	-0.304	0.415	-0.292	-0.309	-1.036	0.038	-2.9

Appendix L: 2008 Grades 3–8 and 11 Multiple-Choice Statistics

Information						Proportions							Correlations					Rasch		
Cont.	Grade	Pub. ID	Key	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Reading	4	2623	A	B	2	6290	0.793	0.793	0.088	0.046	0.071	0.002	0.332	0.332	-0.187	-0.292	-0.251	-0.589	0.034	2.4
Reading	4	2624	A	A	2	6290	0.674	0.674	0.063	0.219	0.042	0.001	0.211	0.211	-0.297	-0.079	-0.233	0.157	0.030	9.9
Reading	4	2625	C	B	2	6290	0.423	0.145	0.141	0.423	0.290	0.001	0.261	-0.245	-0.312	0.261	-0.214	1.424	0.028	9.9
Reading	4	2626	D	B	2	6290	0.501	0.200	0.135	0.162	0.501	0.002	0.326	-0.185	-0.438	-0.290	0.326	1.042	0.028	5.1
Reading	4	2627	A	B	2	6290	0.544	0.544	0.247	0.139	0.068	0.002	0.284	0.284	-0.215	-0.252	-0.318	0.828	0.028	9.3
Reading	4	2628	D	A	2	6290	0.366	0.195	0.150	0.287	0.366	0.002	0.240	-0.262	-0.290	-0.200	0.240	1.710	0.029	9.9
Reading	4	2629	D	B	2	6290	0.518	0.076	0.302	0.100	0.518	0.002	0.376	-0.293	-0.332	-0.389	0.376	0.955	0.028	1.8
Reading	4	2630	B	A	2	6290	0.683	0.113	0.683	0.114	0.088	0.001	0.526	-0.441	0.526	-0.409	-0.408	0.109	0.030	-9.9
Reading	4	2631	C	A	1	6290	0.615	0.089	0.134	0.615	0.160	0.002	0.412	-0.439	-0.354	0.412	-0.260	0.473	0.029	-2.8
Reading	4	2632	A	B	2	6290	0.731	0.731	0.119	0.112	0.037	0.002	0.394	0.394	-0.371	-0.230	-0.294	-0.171	0.031	-0.7
Reading	4	2633	C	B	3	6290	0.539	0.104	0.099	0.539	0.254	0.004	0.349	-0.339	-0.281	0.349	-0.305	0.852	0.028	4.1
Reading	4	2634	B	A		6281	0.769	0.105	0.769	0.058	0.067	0.000	0.433	-0.376	0.433	-0.324	-0.230	-0.454	0.033	-4.3
Reading	4	2635	C	A		6281	0.843	0.035	0.042	0.843	0.079	0.000	0.468	-0.312	-0.348	0.468	-0.324	-1.017	0.038	-8.0
Reading	4	2636	D	A		6281	0.623	0.079	0.178	0.118	0.623	0.001	0.343	-0.246	-0.260	-0.314	0.343	0.418	0.029	2.4
Reading	4	2637	A	A		6281	0.729	0.729	0.069	0.130	0.072	0.000	0.508	0.508	-0.376	-0.383	-0.419	-0.180	0.031	-9.8
Reading	4	2638	C	A		6281	0.749	0.148	0.059	0.749	0.043	0.000	0.280	-0.117	-0.291	0.280	-0.292	-0.326	0.032	5.7
Reading	4	2639	D	A		6281	0.754	0.050	0.172	0.022	0.754	0.002	0.457	-0.400	-0.347	-0.339	0.457	-0.347	0.032	-5.3
Reading	4	2640	B	A	3	6281	0.632	0.111	0.632	0.074	0.183	0.000	0.372	-0.348	0.372	-0.360	-0.247	0.363	0.029	3.8
Reading	4	2641	B	A	2	6281	0.434	0.336	0.434	0.060	0.169	0.001	0.303	-0.247	0.303	-0.374	-0.316	1.370	0.028	9.9
Reading	4	2642	C	A	2	6281	0.619	0.107	0.082	0.619	0.191	0.001	0.408	-0.316	-0.390	0.408	-0.311	0.432	0.029	-2.0
Reading	4	2643	B	B	2	6281	0.352	0.235	0.352	0.135	0.277	0.001	0.132	-0.041	0.132	-0.218	-0.171	1.796	0.029	9.9
Reading	4	2644	A	B	2	6281	0.783	0.783	0.092	0.058	0.066	0.000	0.497	0.497	-0.352	-0.400	-0.350	-0.547	0.034	-7.2
Reading	4	2645	C	B	2	6281	0.630	0.084	0.209	0.630	0.076	0.001	0.379	-0.376	-0.283	0.379	-0.300	0.374	0.029	3.2
Reading	4	2646	C	A	2	6281	0.781	0.091	0.072	0.781	0.054	0.001	0.366	-0.224	-0.350	0.366	-0.219	-0.535	0.034	3.0
Reading	4	2647	D	A	2	6281	0.737	0.052	0.060	0.150	0.737	0.001	0.402	-0.316	-0.333	-0.286	0.402	-0.243	0.032	1.2
Reading	4	2648	B	B	2	6281	0.762	0.154	0.762	0.047	0.036	0.001	0.467	-0.357	0.467	-0.372	-0.340	-0.399	0.033	-6.1
Reading	4	2649	D	B	2	6281	0.609	0.230	0.086	0.073	0.609	0.003	0.411	-0.290	-0.389	-0.414	0.411	0.489	0.029	-0.1
Reading	4	2650	B	A		6271	0.707	0.099	0.707	0.104	0.090	0.000	0.400	-0.259	0.400	-0.353	-0.301	-0.036	0.031	-0.7
Reading	4	2651	A	B		6271	0.746	0.746	0.078	0.065	0.110	0.000	0.547	0.547	-0.432	-0.420	-0.413	-0.276	0.032	-9.9
Reading	4	2652	B	A		6271	0.708	0.070	0.708	0.133	0.088	0.000	0.336	-0.259	0.336	-0.264	-0.237	-0.040	0.031	3.4
Reading	4	2653	C	A		6271	0.703	0.168	0.053	0.703	0.075	0.000	0.437	-0.329	-0.340	0.437	-0.362	-0.001	0.031	-4.7
Reading	4	2654	C	B		6271	0.769	0.063	0.071	0.769	0.096	0.000	0.392	-0.286	-0.314	0.392	-0.262	-0.428	0.033	-1.4
Reading	4	2655	D	B		6271	0.593	0.152	0.206	0.046	0.593	0.002	0.414	-0.342	-0.355	-0.374	0.414	0.592	0.029	-1.3
Reading	4	2656	A	A	2	6271	0.930	0.930	0.023	0.012	0.035	0.001	0.388	0.388	-0.294	-0.214	-0.240	-2.023	0.052	-6.6
Reading	4	2657	A	A	2	6271	0.753	0.753	0.146	0.043	0.058	0.001	0.466	0.466	-0.383	-0.366	-0.306	-0.316	0.032	-5.2
Reading	4	2658	D	A	2	6271	0.510	0.092	0.318	0.078	0.510	0.001	0.366	-0.418	-0.248	-0.460	0.366	1.016	0.028	4.2
Reading	4	2659	C	A	2	6271	0.853	0.036	0.049	0.853	0.060	0.001	0.516	-0.348	-0.326	0.516	-0.401	-1.090	0.039	-9.9
Reading	4	2660	C	A	1	6271	0.883	0.023	0.044	0.883	0.048	0.001	0.473	-0.296	-0.368	0.473	-0.292	-1.393	0.042	-9.0
Reading	4	2661	D	A	2	6271	0.580	0.092	0.063	0.263	0.580	0.001	0.363	-0.351	-0.488	-0.231	0.363	0.662	0.029	3.4
Reading	4	2662	B	B	2	6271	0.462	0.065	0.462	0.168	0.303	0.001	0.367	-0.474	0.367	-0.326	-0.315	1.253	0.028	3.8
Reading	4	2663	B	B	2	6271	0.820	0.049	0.820	0.067	0.063	0.001	0.467	-0.359	0.467	-0.233	-0.407	-0.800	0.036	-5.1
Reading	4	2664	C	B	2	6271	0.693	0.104	0.069	0.693	0.133	0.001	0.386	-0.327	-0.344	0.386	-0.239	0.053	0.030	0.6
Reading	4	2665	C	A	2	6271	0.585	0.073	0.211	0.585	0.128	0.003	0.454	-0.417	-0.375	0.454	-0.382	0.637	0.029	-5.2

Appendix L: 2008 Grades 3–8 and 11 Multiple-Choice Statistics

Information						Proportions						Correlations					Rasch			
Cont.	Grade	Pub. ID	Key	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Reading	4	2666	C	A	2	6292	0.857	0.034	0.060	0.857	0.049	0.000	0.511	-0.332	-0.388	0.511	-0.346	-1.123	0.039	-9.8
Reading	4	2667	D	B	2	6292	0.818	0.074	0.053	0.055	0.818	0.000	0.333	-0.168	-0.273	-0.262	0.333	-0.784	0.036	1.0
Reading	4	2668	B	A	2	6292	0.875	0.028	0.875	0.052	0.045	0.000	0.497	-0.274	0.497	-0.367	-0.363	-1.317	0.041	-9.4
Reading	4	2669	B	A	2	6292	0.791	0.047	0.791	0.083	0.077	0.000	0.513	-0.415	0.513	-0.354	-0.375	-0.585	0.034	-8.9
Reading	4	2670	C	A	2	6292	0.767	0.041	0.061	0.767	0.131	0.000	0.380	-0.312	-0.314	0.380	-0.244	-0.420	0.033	0.2
Reading	4	2671	A	B	2	6292	0.753	0.753	0.049	0.126	0.070	0.002	0.409	0.409	-0.259	-0.354	-0.271	-0.325	0.032	-1.6
Reading	4	2672	C	A	2	6292	0.213	0.568	0.178	0.213	0.039	0.001	0.156	-0.146	-0.214	0.156	-0.344	2.636	0.033	9.9
Reading	4	2673	C	A	1	6292	0.628	0.077	0.072	0.628	0.221	0.001	0.475	-0.319	-0.411	0.475	-0.428	0.413	0.029	-7.3
Reading	4	2674	D	A	2	6292	0.589	0.113	0.124	0.172	0.589	0.001	0.389	-0.316	-0.328	-0.340	0.389	0.615	0.029	1.0
Reading	4	2675	A	A	2	6292	0.536	0.536	0.144	0.088	0.228	0.002	0.268	0.268	-0.183	-0.255	-0.244	0.883	0.028	9.3
Reading	4	2676	D	A	2	6292	0.563	0.274	0.057	0.102	0.563	0.002	0.404	-0.328	-0.427	-0.350	0.404	0.745	0.028	-2.0
Reading	4	2677	A	A	2	6292	0.646	0.646	0.111	0.075	0.165	0.002	0.359	0.359	-0.295	-0.283	-0.279	0.317	0.029	0.6
Reading	4	2678	B	A	2	6292	0.597	0.096	0.597	0.142	0.164	0.002	0.293	-0.356	0.293	-0.221	-0.182	0.575	0.029	7.1
Reading	4	2679	D	A	1	6292	0.252	0.352	0.073	0.320	0.252	0.002	0.244	-0.343	-0.337	-0.175	0.244	2.377	0.032	9.9
Reading	4	2680	B	B	2	6292	0.431	0.137	0.431	0.302	0.128	0.002	0.207	-0.157	0.207	-0.223	-0.186	1.402	0.028	9.9
Reading	4	2681	D	A	2	6292	0.567	0.299	0.060	0.071	0.567	0.003	0.368	-0.310	-0.328	-0.321	0.368	0.727	0.028	0.5
Reading	4	2682	B	B	2	6273	0.631	0.271	0.631	0.084	0.014	0.000	0.350	-0.312	0.350	-0.276	-0.257	0.417	0.029	2.4
Reading	4	2683	D	B	2	6273	0.563	0.295	0.109	0.033	0.563	0.000	0.302	-0.209	-0.344	-0.345	0.302	0.772	0.028	8.0
Reading	4	2684	D	A	2	6273	0.881	0.062	0.035	0.022	0.881	0.000	0.413	-0.280	-0.286	-0.271	0.413	-1.345	0.042	-5.7
Reading	4	2685	A	B	2	6273	0.649	0.649	0.242	0.077	0.031	0.000	0.467	0.467	-0.441	-0.286	-0.364	0.316	0.029	-7.2
Reading	4	2686	C	B	2	6273	0.822	0.051	0.072	0.822	0.054	0.000	0.413	-0.272	-0.327	0.413	-0.266	-0.796	0.036	-3.9
Reading	4	2687	A	B	2	6273	0.909	0.909	0.016	0.029	0.044	0.001	0.420	0.420	-0.210	-0.270	-0.330	-1.692	0.047	-7.6
Reading	4	2688	B	B	2	6273	0.558	0.172	0.558	0.114	0.155	0.001	0.312	-0.403	0.312	-0.186	-0.173	0.779	0.028	5.7
Reading	4	2689	C	A	2	6273	0.716	0.034	0.106	0.716	0.142	0.002	0.417	-0.308	-0.428	0.417	-0.240	-0.068	0.031	-3.4
Reading	4	2690	C	A	2	6273	0.548	0.357	0.049	0.548	0.044	0.001	0.335	-0.255	-0.340	0.335	-0.402	0.828	0.028	5.0
Reading	4	2691	D	A	2	6273	0.360	0.205	0.354	0.079	0.360	0.001	0.162	-0.149	-0.102	-0.361	0.162	1.759	0.029	9.9
Reading	4	2692	A	A	2	6273	0.622	0.622	0.250	0.077	0.048	0.002	0.375	0.375	-0.264	-0.407	-0.338	0.454	0.029	1.0
Reading	4	2693	C	B	1	6273	0.535	0.081	0.212	0.535	0.171	0.002	0.314	-0.313	-0.204	0.314	-0.329	0.894	0.028	6.6
Reading	4	2694	A	B	3	6273	0.504	0.504	0.068	0.374	0.053	0.001	0.291	0.291	-0.338	-0.216	-0.360	1.043	0.028	9.2
Reading	4	2695	B	A	3	6273	0.790	0.056	0.790	0.088	0.065	0.001	0.380	-0.335	0.380	-0.192	-0.315	-0.544	0.034	1.7
Reading	4	2696	A	B	2	6273	0.649	0.649	0.087	0.109	0.153	0.001	0.476	0.476	-0.366	-0.374	-0.418	0.311	0.029	-6.7
Reading	4	2697	D	A	2	6273	0.632	0.165	0.062	0.138	0.632	0.003	0.230	-0.204	-0.227	-0.142	0.230	0.404	0.029	9.9
Reading	5	2698	A	A		127189	0.786	0.786	0.014	0.173	0.026	0.000	0.339	0.339	-0.213	-0.283	-0.229	-0.417	0.008	9.9
Reading	5	2699	C	A		127189	0.900	0.037	0.046	0.900	0.016	0.000	0.468	-0.322	-0.376	0.468	-0.197	-1.455	0.010	-9.9
Reading	5	2700	D	A		127189	0.872	0.040	0.045	0.042	0.872	0.001	0.425	-0.271	-0.352	-0.232	0.425	-1.146	0.009	-9.9
Reading	5	2701	C	A		127189	0.796	0.111	0.039	0.796	0.054	0.001	0.545	-0.435	-0.391	0.545	-0.387	-0.482	0.008	-9.9
Reading	5	2702	B	B		127189	0.672	0.048	0.672	0.242	0.037	0.001	0.396	-0.414	0.396	-0.296	-0.326	0.297	0.007	9.9
Reading	5	2703	B	A		127189	0.668	0.172	0.668	0.049	0.110	0.001	0.405	-0.308	0.405	-0.330	-0.340	0.320	0.007	5.9
Reading	5	2704	C	A		127189	0.660	0.190	0.076	0.660	0.072	0.001	0.466	-0.370	-0.368	0.466	-0.410	0.369	0.007	-9.9
Reading	5	2705	D	A		127189	0.759	0.081	0.032	0.125	0.759	0.002	0.470	-0.369	-0.373	-0.348	0.470	-0.231	0.007	-9.9
Reading	5	2706	D	B	2	127189	0.631	0.091	0.090	0.186	0.631	0.001	0.454	-0.465	-0.392	-0.322	0.454	0.524	0.007	-2.1
Reading	5	2707	A	A	2	127189	0.673	0.673	0.046	0.243	0.037	0.001	0.415	0.415	-0.326	-0.332	-0.390	0.293	0.007	1.9
Reading	5	2708	D	A	2	127189	0.662	0.124	0.136	0.077	0.662	0.001	0.542	-0.482	-0.410	-0.458	0.542	0.358	0.007	-9.9

Appendix L: 2008 Grades 3–8 and 11 Multiple-Choice Statistics

Information						Proportions							Correlations					Rasch		
Cont.	Grade	Pub. ID	Key	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Reading	5	2709	C	A	2	127189	0.443	0.211	0.151	0.443	0.193	0.002	0.328	-0.318	-0.245	0.328	-0.366	1.478	0.006	9.9
Reading	5	2710	C	A	2	127189	0.744	0.061	0.097	0.744	0.096	0.001	0.477	-0.392	-0.393	0.477	-0.306	-0.133	0.007	-9.9
Reading	5	2711	D	B	2	127189	0.660	0.041	0.230	0.067	0.660	0.001	0.446	-0.463	-0.357	-0.341	0.446	0.366	0.007	0.7
Reading	5	2712	B	B	2	127189	0.543	0.269	0.543	0.109	0.077	0.002	0.451	-0.387	0.451	-0.442	-0.395	0.979	0.006	1.9
Reading	5	2713	B	A	2	127189	0.763	0.100	0.763	0.094	0.040	0.003	0.448	-0.362	0.448	-0.301	-0.358	-0.254	0.007	-3.2
Reading	5	2714	B	A	2	127189	0.788	0.030	0.788	0.131	0.048	0.003	0.507	-0.330	0.507	-0.443	-0.310	-0.421	0.008	-9.9
Reading	5	2715	A	A	2	127189	0.549	0.549	0.067	0.158	0.224	0.003	0.297	0.297	-0.422	-0.285	-0.162	0.948	0.006	9.9
Reading	5	2716	D	B	2	127189	0.757	0.135	0.057	0.048	0.757	0.003	0.528	-0.431	-0.390	-0.383	0.528	-0.207	0.007	-9.9
Reading	5	2717	C	A	2	127189	0.701	0.170	0.089	0.701	0.037	0.003	0.475	-0.343	-0.426	0.475	-0.398	0.131	0.007	-9.9
Reading	5	2718	A	B	2	127189	0.784	0.784	0.123	0.034	0.055	0.003	0.324	0.324	-0.169	-0.313	-0.282	-0.403	0.008	9.9
Reading	5	2719	B	B	2	127189	0.812	0.039	0.812	0.085	0.060	0.003	0.519	-0.364	0.519	-0.429	-0.320	-0.609	0.008	-9.9
Reading	5	2720	A	B	3	127189	0.626	0.626	0.239	0.075	0.056	0.004	0.279	0.279	-0.188	-0.264	-0.305	0.552	0.007	9.9
Reading	5	2721	C	B	2	127189	0.670	0.045	0.174	0.670	0.105	0.005	0.494	-0.478	-0.368	0.494	-0.420	0.309	0.007	-9.9
Reading	5	2722	B	A	2	127189	0.780	0.056	0.780	0.069	0.095	0.000	0.527	-0.411	0.527	-0.352	-0.416	-0.371	0.007	-9.9
Reading	5	2723	B	A	2	127189	0.574	0.081	0.574	0.155	0.190	0.000	0.351	-0.167	0.351	-0.429	-0.264	0.821	0.006	9.9
Reading	5	2724	C	B	2	127189	0.621	0.087	0.136	0.621	0.156	0.000	0.400	-0.379	-0.352	0.400	-0.284	0.581	0.006	9.9
Reading	5	2725	D	A	1	127189	0.735	0.110	0.082	0.072	0.735	0.000	0.573	-0.456	-0.445	-0.447	0.573	-0.074	0.007	-9.9
Reading	5	2726	B	B	2	127189	0.491	0.404	0.491	0.052	0.052	0.001	0.253	-0.146	0.253	-0.411	-0.437	1.239	0.006	9.9
Reading	5	2727	B	A	2	127189	0.851	0.024	0.851	0.081	0.042	0.001	0.516	-0.328	0.516	-0.395	-0.365	-0.938	0.009	-9.9
Reading	5	2728	A	A	2	127189	0.787	0.787	0.121	0.065	0.026	0.001	0.488	0.488	-0.332	-0.414	-0.386	-0.418	0.008	-9.9
Reading	5	2729	C	A	2	127189	0.708	0.082	0.173	0.708	0.035	0.002	0.406	-0.375	-0.276	0.406	-0.384	0.089	0.007	9.9
Reading	5	2730	D	A	2	127189	0.771	0.128	0.025	0.075	0.771	0.001	0.519	-0.404	-0.367	-0.415	0.519	-0.309	0.007	-9.9
Reading	5	2731	A	A	2	127189	0.677	0.677	0.120	0.103	0.099	0.001	0.437	0.437	-0.373	-0.324	-0.341	0.273	0.007	-1.7
Reading	5	2732	C	B	2	127189	0.544	0.078	0.268	0.544	0.109	0.002	0.342	-0.451	-0.248	0.342	-0.278	0.979	0.006	9.9
Reading	5	2733	A	B	2	127189	0.843	0.843	0.104	0.027	0.023	0.002	0.500	0.500	-0.399	-0.336	-0.315	-0.864	0.008	-9.9
Reading	5	2734	B	A	2	127189	0.678	0.086	0.678	0.189	0.045	0.001	0.382	-0.281	0.382	-0.295	-0.364	0.269	0.007	9.9
Reading	5	2735	C	B	3	127189	0.617	0.095	0.221	0.617	0.065	0.002	0.454	-0.556	-0.283	0.454	-0.402	0.596	0.006	1.7
Reading	5	2736	B	A	2	127189	0.652	0.075	0.652	0.040	0.231	0.002	0.456	-0.352	0.456	-0.442	-0.373	0.411	0.007	-7.5
Reading	5	2737	A	A	3	127189	0.579	0.579	0.221	0.107	0.090	0.002	0.344	0.344	-0.227	-0.350	-0.366	0.798	0.006	9.9
Reading	5	2738	B	A	2	6687	0.864	0.043	0.864	0.067	0.027	0.000	0.418	-0.332	0.418	-0.255	-0.279	-1.232	0.039	-3.9
Reading	5	2739	D	A	2	6687	0.671	0.161	0.099	0.068	0.671	0.000	0.430	-0.303	-0.363	-0.392	0.430	0.163	0.029	-0.9
Reading	5	2740	D	A	2	6687	0.524	0.047	0.086	0.343	0.524	0.000	0.244	-0.409	-0.333	-0.122	0.244	0.947	0.028	9.9
Reading	5	2741	B	B	2	6687	0.850	0.049	0.850	0.058	0.042	0.000	0.538	-0.368	0.538	-0.390	-0.372	-1.101	0.037	-9.9
Reading	5	2742	A	A	3	6687	0.782	0.782	0.082	0.082	0.054	0.001	0.464	0.464	-0.387	-0.327	-0.284	-0.541	0.033	-5.8
Reading	5	2743	A	B	2	6687	0.463	0.463	0.131	0.163	0.240	0.003	0.215	0.215	-0.274	-0.209	-0.150	1.256	0.027	9.9
Reading	5	2744	D	B	1	6687	0.852	0.076	0.051	0.021	0.852	0.001	0.420	-0.345	-0.269	-0.226	0.420	-1.114	0.038	-2.7
Reading	5	2745	B	A	2	6687	0.758	0.025	0.758	0.046	0.170	0.001	0.383	-0.298	0.383	-0.345	-0.271	-0.373	0.032	1.6
Reading	5	2746	C	B	2	6687	0.891	0.050	0.036	0.891	0.021	0.001	0.499	-0.395	-0.314	0.499	-0.276	-1.527	0.042	-9.9
Reading	5	2747	A	A	1	6687	0.769	0.769	0.040	0.100	0.089	0.001	0.464	0.464	-0.340	-0.303	-0.395	-0.451	0.032	-5.0
Reading	5	2748	D	A	1	6687	0.859	0.032	0.086	0.021	0.859	0.001	0.537	-0.362	-0.431	-0.313	0.537	-1.186	0.038	-9.9
Reading	5	2749	B	A	1	6687	0.622	0.094	0.622	0.108	0.174	0.001	0.451	-0.440	0.451	-0.409	-0.312	0.439	0.028	-2.1
Reading	5	2750	A	B	2	6687	0.751	0.751	0.087	0.110	0.050	0.002	0.499	0.499	-0.396	-0.372	-0.359	-0.329	0.032	-7.5
Reading	5	2751	C	A	3	6687	0.550	0.082	0.197	0.550	0.169	0.002	0.380	-0.424	-0.275	0.380	-0.342	0.815	0.028	6.2

Appendix L: 2008 Grades 3–8 and 11 Multiple-Choice Statistics

Information						Proportions						Correlations					Rasch			
Cont.	Grade	Pub. ID	Key	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Reading	5	2752	D	B	2	6687	0.785	0.077	0.067	0.068	0.785	0.001	0.526	-0.405	-0.398	-0.368	0.526	-0.568	0.033	-8.4
Reading	5	2753	B	B	3	6687	0.729	0.173	0.729	0.044	0.051	0.003	0.440	-0.281	0.440	-0.406	-0.430	-0.183	0.031	-2.5
Reading	5	2754	B	A	2	6384	0.828	0.094	0.828	0.035	0.043	0.000	0.487	-0.419	0.487	-0.284	-0.289	-0.772	0.036	-8.6
Reading	5	2755	B	B	2	6384	0.597	0.078	0.597	0.066	0.259	0.001	0.333	-0.415	0.333	-0.384	-0.181	0.672	0.029	6.0
Reading	5	2756	A	A	2	6384	0.597	0.597	0.060	0.210	0.131	0.001	0.385	0.385	-0.361	-0.272	-0.374	0.668	0.029	0.4
Reading	5	2757	C	A	3	6384	0.564	0.107	0.100	0.564	0.228	0.000	0.269	-0.299	-0.282	0.269	-0.157	0.838	0.028	9.9
Reading	5	2758	A	B	3	6384	0.757	0.757	0.177	0.034	0.031	0.001	0.425	0.425	-0.350	-0.312	-0.285	-0.246	0.032	-3.5
Reading	5	2759	C	B	1	6384	0.742	0.030	0.050	0.742	0.176	0.002	0.318	-0.287	-0.300	0.318	-0.203	-0.148	0.032	4.7
Reading	5	2760	C	A	1	6384	0.739	0.182	0.051	0.739	0.028	0.000	0.423	-0.374	-0.285	0.423	-0.234	-0.131	0.032	-4.0
Reading	5	2761	D	A	2	6384	0.701	0.036	0.126	0.135	0.701	0.001	0.229	-0.304	-0.248	-0.042	0.229	0.098	0.030	9.9
Reading	5	2762	B	A	2	6384	0.670	0.102	0.670	0.179	0.047	0.001	0.525	-0.424	0.525	-0.433	-0.435	0.279	0.030	-9.9
Reading	5	2763	A	A	2	6384	0.513	0.513	0.274	0.039	0.172	0.001	0.413	0.413	-0.434	-0.410	-0.276	1.096	0.028	-0.8
Reading	5	2764	D	A	2	6384	0.676	0.062	0.140	0.122	0.676	0.001	0.401	-0.221	-0.323	-0.372	0.401	0.246	0.030	-1.1
Reading	5	2765	C	A	2	6384	0.701	0.164	0.049	0.701	0.085	0.001	0.505	-0.464	-0.426	0.505	-0.292	0.103	0.030	-8.7
Reading	5	2766	C	B	2	6384	0.796	0.047	0.108	0.796	0.049	0.001	0.422	-0.331	-0.288	0.422	-0.308	-0.519	0.034	-4.4
Reading	5	2767	C	A	2	6384	0.639	0.206	0.069	0.639	0.085	0.001	0.328	-0.225	-0.339	0.328	-0.282	0.449	0.029	7.6
Reading	5	2768	D	A	2	6384	0.596	0.191	0.086	0.125	0.596	0.002	0.518	-0.408	-0.494	-0.472	0.518	0.678	0.029	-9.9
Reading	5	2769	B	B	2	6384	0.317	0.301	0.317	0.272	0.107	0.003	0.158	-0.100	0.158	-0.173	-0.301	2.109	0.030	9.9
Reading	5	2770	A	A	2	6350	0.746	0.746	0.054	0.169	0.031	0.000	0.439	0.439	-0.367	-0.337	-0.320	-0.192	0.032	-3.5
Reading	5	2771	D	A	2	6350	0.398	0.085	0.075	0.442	0.398	0.000	0.280	-0.416	-0.408	-0.209	0.280	1.671	0.028	9.9
Reading	5	2772	D	A	3	6350	0.535	0.078	0.346	0.039	0.535	0.001	0.292	-0.435	-0.178	-0.355	0.292	0.980	0.028	9.9
Reading	5	2773	A	B	2	6350	0.778	0.778	0.125	0.068	0.028	0.000	0.414	0.414	-0.305	-0.304	-0.320	-0.410	0.033	-2.8
Reading	5	2774	B	A	2	6350	0.786	0.059	0.786	0.087	0.067	0.000	0.496	-0.378	0.496	-0.347	-0.376	-0.468	0.034	-7.5
Reading	5	2775	D	A	2	6350	0.638	0.113	0.072	0.176	0.638	0.001	0.485	-0.427	-0.362	-0.414	0.485	0.444	0.029	-6.2
Reading	5	2776	B	A	1	6350	0.828	0.031	0.828	0.104	0.036	0.001	0.505	-0.350	0.505	-0.413	-0.298	-0.796	0.036	-8.2
Reading	5	2777	D	B	2	6350	0.837	0.063	0.048	0.052	0.837	0.001	0.566	-0.459	-0.391	-0.360	0.566	-0.866	0.037	-9.9
Reading	5	2778	C	A	1	6350	0.870	0.043	0.048	0.870	0.038	0.001	0.430	-0.305	-0.270	0.430	-0.298	-1.186	0.040	-4.6
Reading	5	2779	D	A	2	6350	0.428	0.313	0.176	0.080	0.428	0.002	0.263	-0.250	-0.208	-0.312	0.263	1.516	0.028	9.9
Reading	5	2780	C	A	3	6350	0.432	0.226	0.246	0.432	0.094	0.001	0.228	-0.139	-0.231	0.228	-0.348	1.496	0.028	9.9
Reading	5	2781	B	A	2	6350	0.665	0.238	0.665	0.045	0.050	0.002	0.479	-0.386	0.479	-0.377	-0.449	0.295	0.030	-7.2
Reading	5	2782	A	A	2	6350	0.532	0.532	0.128	0.117	0.220	0.001	0.405	0.405	-0.477	-0.476	-0.212	0.995	0.028	0.7
Reading	5	2783	C	A	2	6350	0.774	0.078	0.082	0.774	0.062	0.002	0.557	-0.423	-0.430	0.557	-0.396	-0.382	0.033	-9.9
Reading	5	2784	C	B	3	6350	0.512	0.103	0.158	0.512	0.224	0.002	0.397	-0.386	-0.408	0.397	-0.299	1.097	0.028	1.6
Reading	5	2785	B	B	3	6350	0.441	0.089	0.441	0.283	0.182	0.004	0.269	-0.367	0.269	-0.156	-0.331	1.451	0.028	9.9
Reading	5	2786	B	A	3	6326	0.813	0.083	0.813	0.056	0.048	0.000	0.487	-0.429	0.487	-0.298	-0.292	-0.642	0.035	-8.6
Reading	5	2787	C	A	1	6326	0.881	0.032	0.051	0.881	0.035	0.000	0.354	-0.255	-0.248	0.354	-0.201	-1.276	0.042	-0.8
Reading	5	2788	D	A	3	6326	0.545	0.122	0.187	0.145	0.545	0.000	0.331	-0.234	-0.455	-0.131	0.331	0.949	0.028	9.3
Reading	5	2789	A	A	3	6326	0.655	0.655	0.040	0.179	0.126	0.000	0.403	0.403	-0.335	-0.328	-0.330	0.375	0.030	0.1
Reading	5	2790	C	A	2	6326	0.664	0.097	0.122	0.664	0.117	0.000	0.439	-0.378	-0.358	0.439	-0.326	0.323	0.030	-3.4
Reading	5	2791	C	B	2	6326	0.844	0.047	0.054	0.844	0.052	0.001	0.485	-0.365	-0.348	0.485	-0.314	-0.908	0.038	-5.9
Reading	5	2792	A	A	1	6326	0.775	0.775	0.076	0.112	0.036	0.001	0.412	0.412	-0.245	-0.392	-0.207	-0.366	0.033	-2.5
Reading	5	2793	D	B	2	6326	0.768	0.052	0.137	0.042	0.768	0.001	0.368	-0.298	-0.233	-0.329	0.368	-0.316	0.033	0.3
Reading	5	2794	B	B	2	6326	0.553	0.197	0.553	0.183	0.065	0.001	0.314	-0.242	0.314	-0.271	-0.341	0.909	0.028	8.4

Appendix L: 2008 Grades 3–8 and 11 Multiple-Choice Statistics

Information						Proportions						Correlations					Rasch			
Cont.	Grade	Pub. ID	Key	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Reading	5	2795	C	A	2	6326	0.797	0.091	0.048	0.797	0.062	0.001	0.479	-0.359	-0.349	0.479	-0.336	-0.524	0.034	-8.2
Reading	5	2796	A	A	2	6326	0.515	0.515	0.141	0.083	0.257	0.002	0.231	0.231	-0.326	-0.314	-0.070	1.098	0.028	9.9
Reading	5	2797	B	A	2	6326	0.692	0.091	0.692	0.112	0.103	0.002	0.488	-0.371	0.488	-0.387	-0.395	0.165	0.030	-7.8
Reading	5	2798	A	A	2	6326	0.738	0.738	0.086	0.118	0.055	0.003	0.478	0.478	-0.321	-0.403	-0.359	-0.115	0.032	-7.4
Reading	5	2799	C	A	3	6326	0.298	0.328	0.313	0.298	0.058	0.002	0.300	-0.251	-0.369	0.300	-0.435	2.230	0.030	8.8
Reading	5	2800	D	B	3	6326	0.535	0.245	0.055	0.163	0.535	0.003	0.386	-0.340	-0.447	-0.310	0.386	1.001	0.028	2.3
Reading	5	2801	D	B	3	6326	0.497	0.168	0.190	0.141	0.497	0.003	0.245	-0.238	-0.140	-0.282	0.245	1.189	0.028	9.9
Reading	5	2802	A	A	2	6371	0.681	0.681	0.110	0.095	0.114	0.000	0.295	0.295	-0.226	-0.196	-0.266	0.239	0.030	9.5
Reading	5	2803	B	B	2	6371	0.677	0.109	0.677	0.167	0.047	0.000	0.389	-0.290	0.389	-0.341	-0.276	0.263	0.030	0.4
Reading	5	2804	C	B	2	6371	0.857	0.038	0.044	0.857	0.059	0.001	0.433	-0.324	-0.279	0.433	-0.291	-1.019	0.039	-5.6
Reading	5	2805	B	A	2	6371	0.411	0.187	0.411	0.243	0.157	0.001	0.265	-0.236	0.265	-0.250	-0.295	1.624	0.028	9.9
Reading	5	2806	A	A	2	6371	0.615	0.615	0.106	0.176	0.102	0.001	0.383	0.383	-0.267	-0.376	-0.281	0.601	0.029	1.0
Reading	5	2807	C	A	2	6371	0.594	0.181	0.114	0.594	0.109	0.003	0.389	-0.316	-0.352	0.389	-0.329	0.708	0.029	1.2
Reading	5	2808	C	B		6371	0.896	0.035	0.029	0.896	0.039	0.001	0.419	-0.305	-0.276	0.419	-0.255	-1.437	0.044	-4.6
Reading	5	2809	B	A		6371	0.776	0.101	0.776	0.058	0.063	0.001	0.448	-0.364	0.448	-0.320	-0.293	-0.357	0.033	-5.2
Reading	5	2810	D	A		6371	0.861	0.060	0.016	0.063	0.861	0.001	0.276	-0.161	-0.224	-0.195	0.276	-1.051	0.039	5.9
Reading	5	2811	C	A		6371	0.890	0.024	0.044	0.890	0.039	0.002	0.416	-0.304	-0.248	0.416	-0.287	-1.370	0.043	-4.8
Reading	5	2812	A	B		6371	0.900	0.900	0.023	0.053	0.023	0.001	0.339	0.339	-0.244	-0.204	-0.228	-1.483	0.045	-1.2
Reading	5	2813	C	A		6371	0.740	0.040	0.016	0.740	0.202	0.002	0.366	-0.237	-0.306	0.366	-0.306	-0.119	0.032	1.0
Reading	5	2814	D	A		6371	0.781	0.025	0.119	0.074	0.781	0.001	0.338	-0.267	-0.240	-0.243	0.338	-0.392	0.033	1.2
Reading	5	2815	A	B		6371	0.600	0.600	0.210	0.143	0.045	0.002	0.266	0.266	-0.301	-0.110	-0.241	0.677	0.029	9.9
Reading	5	2816	B	B		6371	0.685	0.143	0.685	0.145	0.024	0.002	0.542	-0.449	0.542	-0.468	-0.402	0.212	0.030	-9.9
Reading	5	2817	A	B		6371	0.199	0.199	0.321	0.110	0.368	0.003	0.143	0.143	-0.132	-0.307	-0.163	2.851	0.034	9.9
Reading	5	2818	C	B	2	6331	0.828	0.076	0.047	0.828	0.048	0.000	0.373	-0.247	-0.362	0.373	-0.178	-0.735	0.036	-0.2
Reading	5	2819	D	A	2	6331	0.645	0.203	0.057	0.094	0.645	0.000	0.401	-0.381	-0.334	-0.233	0.401	0.454	0.029	0.1
Reading	5	2820	A	A	2	6331	0.585	0.585	0.040	0.336	0.038	0.000	0.259	0.259	-0.414	-0.140	-0.406	0.774	0.029	9.9
Reading	5	2821	C	B	2	6331	0.684	0.057	0.087	0.684	0.172	0.000	0.372	-0.365	-0.233	0.372	-0.294	0.239	0.030	0.8
Reading	5	2822	D	B	2	6331	0.782	0.038	0.133	0.046	0.782	0.000	0.488	-0.377	-0.377	-0.358	0.488	-0.384	0.034	-7.0
Reading	5	2823	B	B	2	6331	0.816	0.127	0.816	0.027	0.028	0.002	0.498	-0.429	0.498	-0.267	-0.354	-0.641	0.036	-7.5
Reading	5	2824	C	B	1	6331	0.828	0.075	0.042	0.828	0.056	0.000	0.512	-0.392	-0.365	0.512	-0.342	-0.731	0.036	-9.7
Reading	5	2825	C	A	2	6331	0.583	0.095	0.213	0.583	0.107	0.001	0.422	-0.377	-0.355	0.422	-0.347	0.780	0.029	-3.1
Reading	5	2826	D	A	2	6331	0.415	0.087	0.229	0.268	0.415	0.001	0.326	-0.415	-0.288	-0.298	0.326	1.627	0.028	7.7
Reading	5	2827	C	A	1	6331	0.716	0.097	0.128	0.716	0.058	0.000	0.398	-0.231	-0.337	0.398	-0.351	0.050	0.031	-1.3
Reading	5	2828	B	A	1	6331	0.810	0.072	0.810	0.066	0.051	0.001	0.423	-0.329	0.423	-0.267	-0.310	-0.588	0.035	-1.9
Reading	5	2829	A	A	1	6331	0.777	0.777	0.057	0.097	0.067	0.000	0.412	0.412	-0.328	-0.255	-0.332	-0.348	0.033	-3.1
Reading	5	2830	D	A	2	6331	0.453	0.223	0.081	0.242	0.453	0.001	0.274	-0.181	-0.350	-0.291	0.274	1.437	0.028	9.9
Reading	5	2831	B	B	3	6331	0.700	0.072	0.700	0.156	0.072	0.000	0.385	-0.325	0.385	-0.252	-0.356	0.145	0.031	1.1
Reading	5	2832	A	B	3	6331	0.291	0.291	0.133	0.221	0.354	0.001	0.222	0.222	-0.249	-0.254	-0.227	2.294	0.030	9.9
Reading	5	2833	B	B	3	6331	0.845	0.056	0.845	0.045	0.052	0.002	0.483	-0.328	0.483	-0.325	-0.364	-0.886	0.038	-6.5
Reading	5	2834	B	A	2	6364	0.582	0.118	0.582	0.157	0.143	0.000	0.256	-0.269	0.256	-0.158	-0.215	0.790	0.028	9.9
Reading	5	2835	D	B	3	6364	0.443	0.179	0.091	0.286	0.443	0.000	0.380	-0.467	-0.381	-0.295	0.380	1.485	0.028	3.9
Reading	5	2836	C	A	2	6364	0.642	0.126	0.138	0.642	0.094	0.000	0.463	-0.418	-0.341	0.463	-0.384	0.471	0.029	-5.6
Reading	5	2837	B	B	2	6364	0.826	0.045	0.826	0.073	0.055	0.000	0.477	-0.352	0.477	-0.316	-0.355	-0.727	0.036	-7.4

Appendix L: 2008 Grades 3–8 and 11 Multiple-Choice Statistics

Information							Proportions						Correlations					Rasch		
Cont.	Grade	Pub. ID	Key	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Reading	5	2838	D	B	3	6364	0.814	0.036	0.086	0.063	0.814	0.001	0.399	-0.324	-0.241	-0.311	0.399	-0.627	0.035	-2.0
Reading	5	2839	B	B	2	6364	0.679	0.153	0.679	0.099	0.066	0.002	0.518	-0.440	0.518	-0.442	-0.357	0.263	0.030	-9.9
Reading	5	2840	B	A	2	6364	0.803	0.056	0.803	0.096	0.044	0.001	0.536	-0.408	0.536	-0.421	-0.339	-0.542	0.035	-9.9
Reading	5	2841	D	A	1	6364	0.751	0.028	0.134	0.086	0.751	0.001	0.499	-0.371	-0.393	-0.385	0.499	-0.175	0.032	-8.5
Reading	5	2842	B	A	1	6364	0.779	0.045	0.779	0.069	0.104	0.001	0.490	-0.375	0.490	-0.395	-0.331	-0.364	0.033	-8.1
Reading	5	2843	A	A	2	6364	0.781	0.781	0.103	0.044	0.070	0.001	0.392	0.392	-0.243	-0.355	-0.288	-0.381	0.033	-0.4
Reading	5	2844	D	A	1	6364	0.488	0.261	0.133	0.115	0.488	0.002	0.412	-0.291	-0.506	-0.426	0.412	1.262	0.028	-0.8
Reading	5	2845	C	A	2	6364	0.618	0.247	0.078	0.618	0.055	0.002	0.265	-0.247	-0.216	0.265	-0.132	0.601	0.029	9.9
Reading	5	2846	C	A	1	6364	0.486	0.059	0.256	0.486	0.197	0.002	0.332	-0.451	-0.240	0.332	-0.325	1.273	0.028	5.5
Reading	5	2847	D	A	1	6364	0.773	0.033	0.139	0.052	0.773	0.002	0.529	-0.384	-0.414	-0.404	0.529	-0.325	0.033	-9.9
Reading	5	2848	A	B	2	6364	0.816	0.816	0.052	0.064	0.066	0.002	0.512	0.512	-0.387	-0.392	-0.325	-0.644	0.035	-8.5
Reading	5	2849	B	B	3	6364	0.548	0.090	0.548	0.145	0.212	0.005	0.356	-0.386	0.356	-0.381	-0.222	0.961	0.028	4.3
Reading	5	2850	C	A	2	6334	0.854	0.052	0.051	0.854	0.043	0.000	0.445	-0.382	-0.325	0.445	-0.203	-0.963	0.039	-4.5
Reading	5	2851	B	B	2	6334	0.843	0.060	0.843	0.048	0.048	0.000	0.363	-0.253	0.363	-0.248	-0.240	-0.865	0.038	-2.3
Reading	5	2852	D	A	2	6334	0.563	0.122	0.212	0.103	0.563	0.000	0.214	-0.232	-0.097	-0.254	0.214	0.883	0.028	9.9
Reading	5	2853	B	B	2	6334	0.450	0.257	0.450	0.081	0.211	0.000	0.436	-0.433	0.436	-0.494	-0.381	1.440	0.028	-2.7
Reading	5	2854	C	A	2	6334	0.649	0.134	0.051	0.649	0.165	0.001	0.353	-0.322	-0.415	0.353	-0.195	0.432	0.029	3.4
Reading	5	2855	B	B	2	6334	0.762	0.031	0.762	0.046	0.159	0.001	0.445	-0.358	0.445	-0.304	-0.357	-0.246	0.033	-4.0
Reading	5	2856	B	A		6334	0.833	0.079	0.833	0.056	0.032	0.001	0.457	-0.344	0.457	-0.276	-0.363	-0.773	0.037	-5.4
Reading	5	2857	D	A		6334	0.404	0.090	0.356	0.148	0.404	0.001	0.290	-0.377	-0.264	-0.276	0.290	1.670	0.028	8.9
Reading	5	2858	B	A		6334	0.835	0.044	0.835	0.086	0.034	0.001	0.474	-0.366	0.474	-0.327	-0.324	-0.792	0.037	-7.3
Reading	5	2859	A	A		6334	0.862	0.862	0.024	0.063	0.049	0.002	0.404	0.404	-0.307	-0.371	-0.158	-1.042	0.039	-0.4
Reading	5	2860	B	A		6334	0.411	0.290	0.411	0.161	0.136	0.002	0.326	-0.296	0.326	-0.369	-0.313	1.639	0.028	6.7
Reading	5	2861	B	B		6334	0.618	0.120	0.618	0.108	0.153	0.001	0.361	-0.307	0.361	-0.310	-0.273	0.599	0.029	2.1
Reading	5	2862	C	B		6334	0.799	0.054	0.079	0.799	0.066	0.001	0.518	-0.351	-0.388	0.518	-0.390	-0.509	0.034	-9.9
Reading	5	2863	B	B		6334	0.721	0.095	0.721	0.033	0.150	0.001	0.431	-0.409	0.431	-0.328	-0.292	0.017	0.031	-2.9
Reading	5	2864	D	A		6334	0.216	0.439	0.268	0.074	0.216	0.003	0.081	-0.047	-0.073	-0.380	0.081	2.741	0.033	9.9
Reading	5	2865	D	A		6334	0.537	0.294	0.057	0.108	0.537	0.003	0.374	-0.290	-0.368	-0.397	0.374	1.010	0.028	2.5
Reading	5	2866	C	A	2	6337	0.753	0.065	0.068	0.753	0.114	0.000	0.422	-0.293	-0.364	0.422	-0.296	-0.167	0.032	-3.9
Reading	5	2867	B	A	2	6337	0.584	0.083	0.584	0.130	0.203	0.001	0.369	-0.301	0.369	-0.328	-0.316	0.780	0.028	1.9
Reading	5	2868	C	B	2	6337	0.834	0.034	0.109	0.834	0.023	0.000	0.379	-0.258	-0.289	0.379	-0.244	-0.759	0.037	-4.0
Reading	5	2869	D	A	2	6337	0.719	0.040	0.060	0.180	0.719	0.001	0.499	-0.400	-0.387	-0.408	0.499	0.043	0.031	-8.3
Reading	5	2870	D	B	2	6337	0.771	0.134	0.046	0.047	0.771	0.001	0.447	-0.341	-0.328	-0.335	0.447	-0.289	0.033	-6.0
Reading	5	2871	D	A	3	6337	0.650	0.199	0.077	0.074	0.650	0.001	0.299	-0.232	-0.290	-0.204	0.299	0.438	0.029	6.8
Reading	5	2872	C	A	2	6337	0.525	0.151	0.071	0.525	0.251	0.002	0.264	-0.295	-0.214	0.264	-0.197	1.072	0.028	9.9
Reading	5	2873	C	A	2	6337	0.600	0.216	0.090	0.600	0.091	0.002	0.330	-0.233	-0.354	0.330	-0.281	0.696	0.028	5.8
Reading	5	2874	B	A	2	6337	0.459	0.345	0.459	0.079	0.116	0.002	0.276	-0.189	0.276	-0.327	-0.374	1.398	0.028	9.1
Reading	5	2875	D	A	2	6337	0.771	0.091	0.078	0.058	0.771	0.002	0.489	-0.318	-0.397	-0.391	0.489	-0.286	0.033	-7.6
Reading	5	2876	C	A	3	6337	0.543	0.144	0.272	0.543	0.039	0.002	0.364	-0.368	-0.295	0.364	-0.329	0.986	0.028	2.9
Reading	5	2877	D	B	2	6337	0.497	0.118	0.243	0.140	0.497	0.002	0.339	-0.480	-0.262	-0.224	0.339	1.211	0.028	4.3
Reading	5	2878	D	B	3	6337	0.360	0.131	0.234	0.272	0.360	0.002	0.059	-0.069	-0.054	-0.057	0.059	1.897	0.029	9.9
Reading	5	2879	C	B	2	6337	0.649	0.178	0.077	0.649	0.093	0.002	0.455	-0.417	-0.354	0.455	-0.319	0.439	0.029	-6.4
Reading	5	2880	B	A	2	6337	0.537	0.231	0.537	0.153	0.076	0.002	0.257	-0.115	0.257	-0.290	-0.360	1.017	0.028	9.9

Appendix L: 2008 Grades 3–8 and 11 Multiple-Choice Statistics

Information						Proportions						Correlations					Rasch			
Cont.	Grade	Pub. ID	Key	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Reading	5	2881	A	B	3	6337	0.702	0.702	0.091	0.057	0.147	0.004	0.413	0.413	-0.385	-0.365	-0.258	0.148	0.030	-3.4
Reading	5	2882	B	A	3	6316	0.749	0.087	0.749	0.063	0.102	0.000	0.509	-0.402	0.509	-0.363	-0.408	-0.163	0.032	-7.7
Reading	5	2883	B	A	2	6316	0.367	0.333	0.367	0.229	0.071	0.000	0.294	-0.354	0.294	-0.153	-0.462	1.849	0.029	9.1
Reading	5	2884	D	A	1	6316	0.684	0.120	0.070	0.125	0.684	0.000	0.380	-0.320	-0.341	-0.246	0.380	0.227	0.030	0.2
Reading	5	2885	D	A	2	6316	0.432	0.128	0.353	0.087	0.432	0.000	0.326	-0.498	-0.243	-0.276	0.326	1.520	0.028	5.8
Reading	5	2886	C	A	2	6316	0.625	0.041	0.249	0.625	0.084	0.000	0.349	-0.360	-0.275	0.349	-0.285	0.551	0.029	3.7
Reading	5	2887	C	A	2	6316	0.700	0.074	0.149	0.700	0.076	0.002	0.460	-0.349	-0.394	0.460	-0.326	0.137	0.030	-6.1
Reading	5	2888	B	A	2	6316	0.841	0.087	0.841	0.038	0.033	0.001	0.508	-0.435	0.508	-0.318	-0.278	-0.846	0.037	-9.5
Reading	5	2889	C	A	1	6316	0.663	0.110	0.191	0.663	0.034	0.002	0.343	-0.319	-0.217	0.343	-0.357	0.344	0.030	1.8
Reading	5	2890	A	A	2	6316	0.811	0.811	0.029	0.113	0.045	0.001	0.416	0.416	-0.305	-0.269	-0.363	-0.602	0.035	-2.8
Reading	5	2891	C	A	3	6316	0.437	0.098	0.260	0.437	0.202	0.002	0.284	-0.334	-0.204	0.284	-0.311	1.495	0.028	9.4
Reading	5	2892	A	B	2	6316	0.735	0.735	0.099	0.065	0.098	0.002	0.473	0.473	-0.354	-0.369	-0.349	-0.077	0.031	-7.8
Reading	5	2893	D	A	2	6316	0.494	0.124	0.132	0.249	0.494	0.002	0.360	-0.394	-0.354	-0.281	0.360	1.211	0.028	2.5
Reading	5	2894	A	A	1	6316	0.422	0.422	0.308	0.161	0.107	0.002	0.344	0.344	-0.247	-0.394	-0.435	1.569	0.028	5.6
Reading	5	2895	C	B	2	6316	0.543	0.139	0.139	0.543	0.177	0.003	0.378	-0.289	-0.366	0.378	-0.329	0.971	0.028	1.2
Reading	5	2896	C	A	3	6316	0.680	0.165	0.078	0.680	0.075	0.003	0.531	-0.436	-0.463	0.531	-0.374	0.253	0.030	-9.9
Reading	5	2897	C	B	3	6316	0.270	0.152	0.514	0.270	0.061	0.003	0.135	-0.288	-0.042	0.135	-0.458	2.389	0.031	9.9
Reading	5	2898	B	B	2	6338	0.743	0.087	0.743	0.069	0.100	0.000	0.372	-0.329	0.372	-0.302	-0.207	-0.117	0.032	-0.1
Reading	5	2899	B	A	2	6338	0.527	0.317	0.527	0.036	0.119	0.000	0.316	-0.303	0.316	-0.330	-0.214	1.051	0.028	6.4
Reading	5	2900	D	B	2	6338	0.717	0.122	0.066	0.094	0.717	0.000	0.426	-0.335	-0.307	-0.331	0.426	0.044	0.031	-4.4
Reading	5	2901	C	A	2	6338	0.636	0.271	0.068	0.636	0.023	0.001	0.276	-0.174	-0.334	0.276	-0.319	0.496	0.029	9.9
Reading	5	2902	C	A	2	6338	0.490	0.192	0.169	0.490	0.148	0.000	0.436	-0.434	-0.356	0.436	-0.425	1.233	0.028	-3.7
Reading	5	2903	D	A	2	6338	0.733	0.038	0.029	0.197	0.733	0.002	0.330	-0.262	-0.266	-0.254	0.330	-0.053	0.031	2.3
Reading	5	2904	B	A	2	6338	0.757	0.040	0.757	0.140	0.062	0.001	0.244	-0.180	0.244	-0.184	-0.168	-0.206	0.032	8.0
Reading	5	2905	A	A	2	6338	0.545	0.545	0.170	0.159	0.126	0.000	0.373	0.373	-0.293	-0.381	-0.290	0.964	0.028	1.5
Reading	5	2906	D	B	1	6338	0.666	0.078	0.180	0.076	0.666	0.000	0.474	-0.449	-0.327	-0.435	0.474	0.339	0.029	-7.2
Reading	5	2907	A	A	3	6338	0.498	0.498	0.099	0.185	0.216	0.001	0.273	0.273	-0.304	-0.155	-0.291	1.193	0.028	9.9
Reading	5	2908	A	A	1	6338	0.745	0.745	0.171	0.038	0.045	0.001	0.447	0.447	-0.335	-0.369	-0.359	-0.125	0.032	-5.3
Reading	5	2909	D	A	2	6338	0.667	0.119	0.142	0.070	0.667	0.001	0.380	-0.311	-0.251	-0.365	0.380	0.332	0.029	-0.1
Reading	5	2910	B	A	2	6338	0.520	0.073	0.520	0.121	0.284	0.000	0.306	-0.301	0.306	-0.366	-0.214	1.083	0.028	7.7
Reading	5	2911	B	A	2	6338	0.192	0.174	0.192	0.355	0.278	0.001	0.024	-0.262	0.024	0.180	-0.137	2.894	0.034	9.9
Reading	5	2912	C	B	3	6338	0.219	0.123	0.548	0.219	0.109	0.000	0.036	-0.251	0.051	0.036	-0.221	2.699	0.033	9.9
Reading	5	2913	C	B	3	6338	0.742	0.170	0.047	0.742	0.039	0.001	0.465	-0.399	-0.309	0.465	-0.319	-0.109	0.032	-6.9
Reading	5	2914	A	A	2	6345	0.911	0.911	0.029	0.019	0.040	0.000	0.277	0.277	-0.171	-0.199	-0.170	-1.622	0.047	1.0
Reading	5	2915	D	A	2	6345	0.572	0.185	0.094	0.149	0.572	0.000	0.363	-0.235	-0.365	-0.359	0.363	0.820	0.028	2.4
Reading	5	2916	B	A	2	6345	0.708	0.075	0.708	0.175	0.042	0.000	0.378	-0.283	0.378	-0.315	-0.246	0.084	0.031	-0.6
Reading	5	2917	C	B	2	6345	0.707	0.177	0.053	0.707	0.062	0.001	0.447	-0.349	-0.350	-0.362	0.447	0.086	0.031	-4.2
Reading	5	2918	A	B	2	6345	0.823	0.823	0.101	0.037	0.038	0.001	0.486	0.486	-0.374	-0.367	-0.307	-0.702	0.036	-8.0
Reading	5	2919	B	B	2	6345	0.594	0.161	0.594	0.088	0.156	0.002	0.368	-0.298	0.368	-0.406	-0.262	0.707	0.028	2.8
Reading	5	2920	A	B	3	6345	0.380	0.380	0.384	0.161	0.074	0.001	0.030	0.030	-0.013	0.031	-0.187	1.776	0.028	9.9
Reading	5	2921	C	B	3	6345	0.534	0.309	0.119	0.534	0.036	0.002	0.181	-0.065	-0.268	0.181	-0.325	1.009	0.028	9.9
Reading	5	2922	D	A	1	6345	0.476	0.293	0.053	0.176	0.476	0.001	0.317	-0.233	-0.465	-0.321	0.317	1.294	0.028	7.4
Reading	5	2923	B	B	2	6345	0.681	0.249	0.681	0.044	0.023	0.001	0.467	-0.399	0.467	-0.380	-0.374	0.238	0.030	-5.8

Appendix L: 2008 Grades 3–8 and 11 Multiple-Choice Statistics

Information						Proportions						Correlations					Rasch			
Cont.	Grade	Pub. ID	Key	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Reading	5	2924	D	A	2	6345	0.850	0.042	0.029	0.076	0.850	0.001	0.373	-0.214	-0.317	-0.252	0.373	-0.943	0.038	0.1
Reading	5	2925	B	A	2	6345	0.691	0.053	0.691	0.180	0.074	0.002	0.411	-0.364	0.411	-0.303	-0.328	0.183	0.030	-2.3
Reading	5	2926	D	B	2	6345	0.803	0.059	0.068	0.068	0.803	0.002	0.545	-0.374	-0.415	-0.411	0.545	-0.551	0.035	-9.9
Reading	5	2927	B	A	2	6345	0.887	0.023	0.887	0.044	0.044	0.001	0.488	-0.304	0.488	-0.322	-0.363	-1.321	0.042	-9.5
Reading	5	2928	B	B	2	6345	0.722	0.156	0.722	0.086	0.035	0.001	0.387	-0.235	0.387	-0.377	-0.340	-0.002	0.031	0.8
Reading	5	2929	A	A	3	6345	0.621	0.621	0.108	0.186	0.082	0.003	0.364	0.364	-0.272	-0.304	-0.337	0.566	0.029	3.6
Reading	5	2930	D	A	2	6333	0.735	0.111	0.099	0.055	0.735	0.000	0.533	-0.452	-0.429	-0.349	0.533	-0.056	0.032	-9.9
Reading	5	2931	C	A	2	6333	0.704	0.090	0.079	0.704	0.127	0.000	0.387	-0.302	-0.291	0.387	-0.296	0.129	0.031	-1.2
Reading	5	2932	B	B	2	6333	0.577	0.244	0.577	0.116	0.062	0.001	0.373	-0.258	0.373	-0.406	-0.360	0.818	0.028	1.6
Reading	5	2933	A	A	2	6333	0.813	0.813	0.094	0.061	0.032	0.000	0.419	0.419	-0.264	-0.336	-0.316	-0.601	0.035	-4.5
Reading	5	2934	B	B	2	6333	0.595	0.211	0.595	0.111	0.082	0.001	0.345	-0.199	0.345	-0.351	-0.398	0.727	0.029	4.7
Reading	5	2935	D	B	2	6333	0.845	0.048	0.047	0.059	0.845	0.001	0.505	-0.321	-0.380	-0.375	0.505	-0.869	0.038	-8.2
Reading	5	2936	C	A	1	6333	0.884	0.064	0.024	0.884	0.027	0.001	0.423	-0.304	-0.283	0.423	-0.268	-1.258	0.042	-5.3
Reading	5	2937	B	A	2	6333	0.943	0.019	0.943	0.022	0.016	0.001	0.391	-0.265	0.391	-0.223	-0.255	-2.120	0.056	-7.2
Reading	5	2938	C	A	2	6333	0.690	0.116	0.160	0.690	0.032	0.001	0.434	-0.381	-0.308	0.434	-0.365	0.212	0.030	-4.9
Reading	5	2939	D	A	1	6333	0.880	0.059	0.031	0.029	0.880	0.000	0.506	-0.377	-0.354	-0.303	0.506	-1.220	0.042	-9.9
Reading	5	2940	C	A	1	6333	0.591	0.334	0.040	0.591	0.033	0.001	0.202	-0.081	-0.405	0.202	-0.333	0.748	0.028	9.9
Reading	5	2941	D	A	2	6333	0.849	0.029	0.077	0.044	0.849	0.001	0.476	-0.319	-0.327	-0.362	0.476	-0.905	0.038	-7.7
Reading	5	2942	D	A	2	6333	0.520	0.043	0.311	0.124	0.520	0.002	0.384	-0.488	-0.324	-0.330	0.384	1.107	0.028	2.5
Reading	5	2943	A	B	2	6333	0.740	0.740	0.059	0.109	0.090	0.001	0.415	0.415	-0.340	-0.312	-0.295	-0.093	0.032	-2.2
Reading	5	2944	B	A	2	6333	0.749	0.024	0.749	0.069	0.156	0.001	0.453	-0.375	0.453	-0.328	-0.362	-0.150	0.032	-4.6
Reading	5	2945	B	B	2	6333	0.737	0.043	0.737	0.078	0.140	0.002	0.373	-0.340	0.373	-0.368	-0.201	-0.069	0.032	1.2
Reading	5	2946	D	A	2	6322	0.823	0.094	0.059	0.024	0.823	0.000	0.420	-0.316	-0.323	-0.232	0.420	-0.665	0.036	-5.2
Reading	5	2947	A	A	2	6322	0.561	0.561	0.240	0.046	0.152	0.000	0.331	0.331	-0.269	-0.352	-0.284	0.905	0.028	4.9
Reading	5	2948	D	A	2	6322	0.597	0.206	0.083	0.115	0.597	0.000	0.395	-0.282	-0.387	-0.371	0.395	0.724	0.028	-0.9
Reading	5	2949	A	A	2	6322	0.750	0.750	0.095	0.050	0.105	0.000	0.400	0.400	-0.295	-0.327	-0.288	-0.143	0.032	-1.3
Reading	5	2950	A	A	2	6322	0.832	0.832	0.048	0.049	0.070	0.001	0.472	0.472	-0.327	-0.428	-0.267	-0.739	0.036	-6.0
Reading	5	2951	D	A	2	6322	0.672	0.022	0.263	0.041	0.672	0.001	0.299	-0.345	-0.222	-0.286	0.299	0.322	0.030	9.7
Reading	5	2952	A	A	1	6322	0.882	0.882	0.042	0.020	0.054	0.000	0.429	0.429	-0.281	-0.277	-0.302	-1.221	0.042	-7.8
Reading	5	2953	C	A	1	6322	0.801	0.057	0.098	0.801	0.043	0.000	0.505	-0.318	-0.444	0.505	-0.303	-0.493	0.034	-9.9
Reading	5	2954	A	A	2	6322	0.529	0.529	0.379	0.037	0.055	0.000	0.332	0.332	-0.246	-0.439	-0.427	1.065	0.028	5.6
Reading	5	2955	A	B	2	6322	0.807	0.807	0.080	0.066	0.044	0.001	0.334	0.334	-0.169	-0.279	-0.285	-0.542	0.035	5.1
Reading	5	2956	C	B	2	6322	0.761	0.069	0.090	0.761	0.079	0.001	0.482	-0.366	-0.359	0.482	-0.360	-0.214	0.032	-7.1
Reading	5	2957	D	B	2	6322	0.500	0.092	0.261	0.147	0.500	0.000	0.456	-0.559	-0.379	-0.388	0.456	1.208	0.028	-5.9
Reading	5	2958	D	A	2	6322	0.415	0.122	0.307	0.155	0.415	0.000	0.332	-0.426	-0.235	-0.393	0.332	1.628	0.028	6.3
Reading	5	2959	C	B	2	6322	0.211	0.142	0.159	0.211	0.486	0.001	0.012	-0.264	-0.216	0.012	0.136	2.782	0.033	9.9
Reading	5	2960	C	B	2	6322	0.615	0.073	0.261	0.615	0.051	0.000	0.322	-0.384	-0.194	0.322	-0.354	0.630	0.029	6.1
Reading	5	2961	B	B	3	6322	0.670	0.117	0.670	0.044	0.167	0.001	0.424	-0.392	0.424	-0.379	-0.290	0.332	0.030	-2.7
Reading	5	2962	A	A	2	6333	0.886	0.886	0.015	0.057	0.041	0.000	0.416	0.416	-0.256	-0.300	-0.279	-1.267	0.042	-6.4
Reading	5	2963	D	A	2	6333	0.841	0.037	0.053	0.069	0.841	0.000	0.428	-0.285	-0.246	-0.351	0.428	-0.826	0.037	-4.7
Reading	5	2964	C	B	2	6333	0.858	0.057	0.051	0.858	0.034	0.000	0.508	-0.342	-0.384	0.508	-0.334	-0.979	0.039	-9.9
Reading	5	2965	C	B	2	6333	0.568	0.293	0.095	0.568	0.044	0.000	0.348	-0.270	-0.326	0.348	-0.397	0.875	0.028	3.5
Reading	5	2966	D	A	2	6333	0.556	0.017	0.213	0.212	0.556	0.001	0.284	-0.353	-0.274	-0.206	0.284	0.934	0.028	9.2

Appendix L: 2008 Grades 3–8 and 11 Multiple-Choice Statistics

Information						Proportions							Correlations					Rasch		
Cont.	Grade	Pub. ID	Key	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Reading	5	2967	B	A	2	6333	0.824	0.039	0.824	0.030	0.105	0.001	0.411	-0.199	0.411	-0.321	-0.341	-0.681	0.036	-2.5
Reading	5	2968	A	A	2	6333	0.798	0.798	0.042	0.099	0.061	0.000	0.358	0.358	-0.321	-0.265	-0.194	-0.473	0.034	0.5
Reading	5	2969	A	B	2	6333	0.896	0.896	0.040	0.031	0.032	0.000	0.493	0.493	-0.305	-0.338	-0.359	-1.388	0.044	-7.7
Reading	5	2970	B	A	3	6333	0.483	0.272	0.483	0.068	0.177	0.000	0.342	-0.364	0.342	-0.406	-0.198	1.294	0.028	6.1
Reading	5	2971	B	A	2	6333	0.735	0.162	0.735	0.062	0.040	0.001	0.398	-0.267	0.398	-0.357	-0.341	-0.044	0.032	-0.9
Reading	5	2972	D	A	2	6333	0.769	0.049	0.082	0.099	0.769	0.000	0.522	-0.390	-0.407	-0.392	0.522	-0.266	0.033	-9.6
Reading	5	2973	C	B	2	6333	0.745	0.106	0.084	0.745	0.064	0.001	0.493	-0.371	-0.432	0.493	-0.317	-0.108	0.032	-8.8
Reading	5	2974	C	B	2	6333	0.536	0.093	0.120	0.536	0.249	0.001	0.270	-0.374	-0.325	0.270	-0.108	1.034	0.028	9.9
Reading	5	2975	C	B	2	6333	0.408	0.134	0.213	0.408	0.243	0.001	0.134	-0.226	-0.063	0.134	-0.121	1.669	0.028	9.9
Reading	5	2976	D	B	2	6333	0.622	0.147	0.074	0.154	0.622	0.001	0.495	-0.399	-0.496	-0.392	0.495	0.599	0.029	-9.2
Reading	5	2977	D	B	1	6333	0.800	0.068	0.055	0.075	0.800	0.003	0.428	-0.315	-0.327	-0.292	0.428	-0.489	0.034	-3.2
Reading	5	2978	D	A	1	6343	0.824	0.046	0.059	0.071	0.824	0.000	0.492	-0.377	-0.289	-0.394	0.492	-0.657	0.036	-8.5
Reading	5	2979	D	A	2	6343	0.851	0.067	0.040	0.041	0.851	0.000	0.461	-0.314	-0.339	-0.312	0.461	-0.893	0.038	-7.5
Reading	5	2980	B	A	2	6343	0.817	0.062	0.817	0.041	0.080	0.000	0.409	-0.312	0.409	-0.262	-0.289	-0.603	0.036	-3.6
Reading	5	2981	C	A	2	6343	0.902	0.035	0.039	0.902	0.023	0.000	0.417	-0.310	-0.237	0.417	-0.282	-1.439	0.045	-6.5
Reading	5	2982	C	A	2	6343	0.451	0.362	0.140	0.451	0.046	0.001	0.271	-0.163	-0.366	0.271	-0.465	1.478	0.028	9.9
Reading	5	2983	C	A	2	6343	0.904	0.013	0.053	0.904	0.028	0.002	0.444	-0.266	-0.341	0.444	-0.281	-1.461	0.045	-6.6
Reading	5	2984	B	A		6343	0.884	0.064	0.884	0.028	0.023	0.000	0.369	-0.250	0.369	-0.263	-0.242	-1.245	0.042	0.4
Reading	5	2985	B	A		6343	0.372	0.170	0.372	0.300	0.157	0.001	0.202	-0.323	0.202	-0.155	-0.146	1.875	0.029	9.9
Reading	5	2986	C	B		6343	0.808	0.058	0.048	0.808	0.085	0.001	0.434	-0.338	-0.337	0.434	-0.274	-0.534	0.035	-2.2
Reading	5	2987	A	A		6343	0.756	0.756	0.125	0.055	0.063	0.001	0.488	0.488	-0.362	-0.385	-0.376	-0.164	0.032	-7.8
Reading	5	2988	B	A		6343	0.884	0.059	0.884	0.034	0.022	0.001	0.472	-0.330	0.472	-0.307	-0.327	-1.236	0.042	-8.9
Reading	5	2989	C	A		6343	0.621	0.159	0.076	0.621	0.142	0.002	0.313	-0.323	-0.200	0.313	-0.218	0.623	0.029	6.1
Reading	5	2990	B	A		6343	0.721	0.094	0.721	0.096	0.087	0.001	0.525	-0.430	0.525	-0.386	-0.425	0.058	0.031	-9.7
Reading	5	2991	D	B		6343	0.712	0.169	0.047	0.071	0.712	0.001	0.476	-0.351	-0.445	-0.390	0.476	0.115	0.031	-5.2
Reading	5	2992	B	A		6343	0.421	0.073	0.421	0.086	0.418	0.001	0.178	-0.384	0.178	-0.395	-0.041	1.625	0.028	9.9
Reading	5	2993	B	B		6343	0.512	0.180	0.512	0.147	0.159	0.002	0.368	-0.338	0.368	-0.312	-0.348	1.178	0.028	3.5
Reading	5	2994	C	A	2	6327	0.733	0.201	0.023	0.733	0.043	0.000	0.311	-0.253	-0.277	0.311	-0.195	-0.012	0.031	4.1
Reading	5	2995	B	A	2	6327	0.813	0.044	0.813	0.089	0.053	0.000	0.352	-0.296	0.352	-0.200	-0.280	-0.562	0.035	1.9
Reading	5	2996	A	A	2	6327	0.824	0.824	0.150	0.018	0.009	0.000	0.322	0.322	-0.246	-0.295	-0.212	-0.666	0.036	1.4
Reading	5	2997	D	A	2	6327	0.781	0.166	0.032	0.020	0.781	0.000	0.310	-0.198	-0.326	-0.262	0.310	-0.338	0.033	4.2
Reading	5	2998	C	B	2	6327	0.838	0.059	0.069	0.838	0.033	0.000	0.457	-0.336	-0.343	0.457	-0.273	-0.774	0.037	-7.0
Reading	5	2999	C	A	1	6327	0.747	0.037	0.142	0.747	0.071	0.003	0.339	-0.267	-0.248	0.339	-0.253	-0.103	0.032	1.4
Reading	5	3000	B	A	2	6327	0.726	0.128	0.726	0.058	0.087	0.001	0.439	-0.337	0.439	-0.311	-0.359	0.022	0.031	-4.0
Reading	5	3001	B	A	1	6327	0.684	0.116	0.684	0.154	0.044	0.002	0.399	-0.341	0.399	-0.282	-0.357	0.270	0.030	-0.7
Reading	5	3002	A	A	1	6327	0.849	0.849	0.082	0.020	0.046	0.001	0.461	0.461	-0.319	-0.300	-0.362	-0.885	0.038	-6.9
Reading	5	3003	C	A	2	6327	0.634	0.060	0.264	0.634	0.040	0.002	0.367	-0.430	-0.239	0.367	-0.415	0.545	0.029	3.5
Reading	5	3004	A	B	2	6327	0.881	0.881	0.033	0.065	0.019	0.002	0.364	0.364	-0.253	-0.235	-0.269	-1.208	0.042	-0.5
Reading	5	3005	D	A	1	6327	0.680	0.102	0.115	0.100	0.680	0.001	0.381	-0.233	-0.367	-0.287	0.381	0.293	0.030	0.5
Reading	5	3006	D	B	2	6327	0.714	0.074	0.115	0.096	0.714	0.001	0.491	-0.391	-0.328	-0.448	0.491	0.094	0.031	-7.1
Reading	5	3007	D	A	2	6327	0.733	0.071	0.139	0.055	0.733	0.001	0.450	-0.431	-0.324	-0.298	0.450	-0.024	0.031	-4.4
Reading	5	3008	C	A	3	6327	0.709	0.057	0.203	0.709	0.028	0.002	0.278	-0.272	-0.179	0.278	-0.280	0.121	0.031	9.0
Reading	5	3009	A	B	2	6327	0.659	0.659	0.228	0.051	0.059	0.003	0.413	0.413	-0.338	-0.345	-0.350	0.407	0.029	-1.8

Appendix L: 2008 Grades 3–8 and 11 Multiple-Choice Statistics

Information						Proportions							Correlations					Rasch		
Cont.	Grade	Pub. ID	Key	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Reading	5	3010	D	A	2	6342	0.729	0.118	0.036	0.117	0.729	0.000	0.500	-0.502	-0.288	-0.335	0.500	-0.014	0.031	-6.6
Reading	5	3011	A	A	2	6342	0.596	0.596	0.059	0.225	0.120	0.000	0.373	0.373	-0.380	-0.314	-0.284	0.723	0.029	2.2
Reading	5	3012	B	A	2	6342	0.785	0.022	0.785	0.107	0.086	0.000	0.408	-0.243	0.408	-0.380	-0.244	-0.387	0.034	-1.1
Reading	5	3013	A	A	2	6342	0.843	0.843	0.097	0.029	0.031	0.000	0.435	0.435	-0.328	-0.248	-0.334	-0.831	0.037	-5.9
Reading	5	3014	A	A	2	6342	0.683	0.683	0.170	0.057	0.089	0.000	0.412	0.412	-0.289	-0.299	-0.403	0.256	0.030	-3.1
Reading	5	3015	D	B	2	6342	0.699	0.054	0.212	0.034	0.699	0.001	0.516	-0.329	-0.479	-0.342	0.516	0.170	0.030	-9.7
Reading	5	3016	B	A	2	6342	0.779	0.143	0.779	0.021	0.057	0.000	0.373	-0.320	0.373	-0.219	-0.237	-0.341	0.033	-1.2
Reading	5	3017	C	A	2	6342	0.618	0.140	0.085	0.618	0.156	0.000	0.240	-0.274	-0.313	0.240	-0.037	0.615	0.029	9.9
Reading	5	3018	B	A	3	6342	0.681	0.084	0.681	0.145	0.089	0.001	0.298	-0.268	0.298	-0.237	-0.188	0.272	0.030	7.2
Reading	5	3019	D	A	3	6342	0.682	0.042	0.096	0.179	0.682	0.001	0.333	-0.277	-0.325	-0.221	0.333	0.263	0.030	5.4
Reading	5	3020	C	A	2	6342	0.524	0.290	0.072	0.524	0.112	0.001	0.276	-0.197	-0.345	0.276	-0.256	1.091	0.028	9.9
Reading	5	3021	B	B	2	6342	0.577	0.078	0.577	0.196	0.148	0.001	0.339	-0.333	0.339	-0.305	-0.240	0.827	0.028	5.0
Reading	5	3022	D	B	3	6342	0.294	0.357	0.290	0.058	0.294	0.001	0.141	-0.148	-0.084	-0.388	0.141	2.276	0.030	9.9
Reading	5	3023	A	B	3	6342	0.739	0.739	0.059	0.080	0.120	0.001	0.420	0.420	-0.355	-0.340	-0.276	-0.076	0.032	-3.8
Reading	5	3024	D	B	2	6342	0.737	0.065	0.137	0.058	0.737	0.002	0.464	-0.369	-0.334	-0.397	0.464	-0.062	0.032	-5.0
Reading	5	3025	A	B	2	6342	0.669	0.669	0.201	0.091	0.037	0.003	0.304	0.304	-0.208	-0.263	-0.313	0.341	0.030	5.4
Reading	5	3026	B	A	2	6380	0.776	0.096	0.776	0.064	0.064	0.000	0.403	-0.360	0.403	-0.248	-0.259	-0.320	0.033	-0.8
Reading	5	3027	C	B	2	6380	0.478	0.138	0.261	0.478	0.123	0.001	0.311	-0.356	-0.130	0.311	-0.499	1.329	0.028	9.1
Reading	5	3028	A	B	2	6380	0.858	0.858	0.102	0.020	0.019	0.000	0.355	0.355	-0.263	-0.248	-0.240	-0.982	0.039	-0.8
Reading	5	3029	D	B	2	6380	0.858	0.049	0.028	0.064	0.858	0.000	0.474	-0.325	-0.270	-0.371	0.474	-0.979	0.039	-7.9
Reading	5	3030	C	B	2	6380	0.813	0.050	0.076	0.813	0.061	0.000	0.461	-0.341	-0.331	0.461	-0.318	-0.585	0.035	-6.6
Reading	5	3031	C	B	2	6380	0.741	0.161	0.040	0.741	0.057	0.002	0.458	-0.419	-0.279	0.458	-0.299	-0.087	0.032	-3.9
Reading	5	3032	A	A	2	6380	0.799	0.799	0.069	0.063	0.068	0.000	0.518	0.518	-0.382	-0.366	-0.391	-0.492	0.034	-9.6
Reading	5	3033	D	A	2	6380	0.781	0.040	0.088	0.090	0.781	0.000	0.391	-0.374	-0.269	-0.250	0.391	-0.362	0.033	-0.7
Reading	5	3034	D	A	2	6380	0.779	0.061	0.043	0.117	0.779	0.000	0.545	-0.420	-0.403	-0.417	0.545	-0.344	0.033	-9.9
Reading	5	3035	A	A	2	6380	0.750	0.750	0.072	0.075	0.102	0.000	0.485	0.485	-0.400	-0.333	-0.375	-0.149	0.032	-6.2
Reading	5	3036	C	B	2	6380	0.744	0.050	0.061	0.744	0.145	0.000	0.401	-0.422	-0.404	0.401	-0.193	-0.107	0.032	1.2
Reading	5	3037	B	B	3	6380	0.611	0.126	0.611	0.202	0.060	0.000	0.290	-0.275	0.290	-0.241	-0.188	0.656	0.029	9.9
Reading	5	3038	B	B	2	6380	0.458	0.110	0.458	0.168	0.263	0.001	0.222	-0.390	0.222	-0.221	-0.100	1.428	0.028	9.9
Reading	5	3039	D	A	3	6380	0.748	0.125	0.082	0.044	0.748	0.000	0.439	-0.369	-0.307	-0.311	0.439	-0.138	0.032	-3.8
Reading	5	3040	B	B	3	6380	0.660	0.124	0.660	0.159	0.056	0.001	0.389	-0.351	0.389	-0.260	-0.368	0.395	0.030	0.4
Reading	5	3041	C	B	2	6380	0.463	0.164	0.222	0.463	0.149	0.002	0.294	-0.239	-0.337	0.294	-0.222	1.405	0.028	9.9
Reading	5	3042	D	A	2	6326	0.893	0.073	0.027	0.007	0.893	0.000	0.373	-0.282	-0.284	-0.159	0.373	-1.353	0.044	-2.3
Reading	5	3043	A	A	2	6326	0.855	0.855	0.103	0.034	0.008	0.000	0.463	0.463	-0.384	-0.324	-0.227	-0.933	0.038	-7.5
Reading	5	3044	D	A	2	6326	0.815	0.043	0.022	0.120	0.815	0.000	0.451	-0.327	-0.245	-0.372	0.451	-0.595	0.035	-5.6
Reading	5	3045	C	A	2	6326	0.809	0.053	0.027	0.809	0.110	0.000	0.420	-0.364	-0.298	0.420	-0.274	-0.549	0.035	-5.1
Reading	5	3046	B	A	2	6326	0.657	0.226	0.657	0.056	0.061	0.000	0.370	-0.256	0.370	-0.327	-0.400	0.406	0.029	0.8
Reading	5	3047	A	B	2	6326	0.705	0.705	0.154	0.081	0.059	0.001	0.444	0.444	-0.338	-0.356	-0.371	0.134	0.030	-4.5
Reading	5	3048	A	A	1	6326	0.744	0.744	0.044	0.145	0.067	0.000	0.390	0.390	-0.273	-0.311	-0.279	-0.096	0.032	-3.3
Reading	5	3049	B	B	2	6326	0.539	0.177	0.539	0.104	0.180	0.000	0.320	-0.268	0.320	-0.330	-0.261	1.011	0.028	6.1
Reading	5	3050	B	A	2	6326	0.255	0.515	0.255	0.043	0.184	0.002	0.018	0.059	0.018	-0.305	-0.124	2.483	0.031	9.9
Reading	5	3051	D	B	2	6326	0.835	0.049	0.049	0.065	0.835	0.001	0.392	-0.292	-0.254	-0.269	0.392	-0.758	0.037	-1.3
Reading	5	3052	C	A	2	6326	0.613	0.064	0.184	0.613	0.137	0.001	0.334	-0.354	-0.279	0.334	-0.227	0.639	0.029	2.6

Appendix L: 2008 Grades 3–8 and 11 Multiple-Choice Statistics

Information						Proportions						Correlations					Rasch			
Cont.	Grade	Pub. ID	Key	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Reading	5	3053	A	B	2	6326	0.582	0.582	0.143	0.130	0.144	0.001	0.341	0.341	-0.302	-0.323	-0.241	0.796	0.028	3.6
Reading	5	3054	A	A	3	6326	0.724	0.724	0.088	0.034	0.153	0.001	0.325	0.325	-0.256	-0.298	-0.218	0.023	0.031	1.1
Reading	5	3055	C	A	2	6326	0.270	0.145	0.480	0.270	0.105	0.001	0.227	-0.321	-0.195	0.227	-0.340	2.393	0.031	9.9
Reading	5	3056	A	B	2	6326	0.509	0.509	0.116	0.190	0.184	0.001	0.288	0.288	-0.342	-0.203	-0.246	1.158	0.028	8.0
Reading	5	3057	A	B	3	6326	0.451	0.451	0.134	0.180	0.232	0.003	0.269	0.269	-0.246	-0.324	-0.205	1.441	0.028	9.9
Reading	6	3058	B	A	1	130692	0.799	0.069	0.799	0.087	0.045	0.000	0.456	-0.385	0.456	-0.268	-0.353	-0.746	0.008	-9.9
Reading	6	3059	C	A	2	130692	0.652	0.173	0.102	0.652	0.072	0.000	0.404	-0.392	-0.278	0.404	-0.274	0.163	0.006	9.9
Reading	6	3060	C	B	2	130692	0.593	0.073	0.258	0.593	0.077	0.000	0.353	-0.376	-0.225	0.353	-0.395	0.476	0.006	9.9
Reading	6	3061	C	B	2	130692	0.549	0.138	0.150	0.549	0.162	0.001	0.398	-0.420	-0.321	0.398	-0.303	0.700	0.006	9.9
Reading	6	3062	C	A	2	130692	0.714	0.156	0.094	0.714	0.035	0.000	0.385	-0.271	-0.356	0.385	-0.244	-0.188	0.007	6.2
Reading	6	3063	D	A	2	130692	0.449	0.161	0.089	0.301	0.449	0.001	0.372	-0.375	-0.427	-0.314	0.372	1.204	0.006	9.9
Reading	6	3064	D	B	2	130692	0.545	0.195	0.150	0.109	0.545	0.002	0.403	-0.313	-0.327	-0.460	0.403	0.720	0.006	9.9
Reading	6	3065	B	A	2	130692	0.767	0.028	0.767	0.185	0.019	0.000	0.416	-0.272	0.416	-0.386	-0.136	-0.515	0.007	-7.0
Reading	6	3066	D	B	2	130692	0.626	0.136	0.090	0.147	0.626	0.001	0.492	-0.435	-0.355	-0.431	0.492	0.307	0.006	-9.9
Reading	6	3067	C	A	2	130692	0.898	0.028	0.042	0.898	0.031	0.001	0.456	-0.341	-0.291	0.456	-0.282	-1.654	0.010	-9.9
Reading	6	3068	C	B	2	130692	0.658	0.077	0.114	0.658	0.150	0.001	0.356	-0.379	-0.308	0.356	-0.198	0.136	0.007	9.9
Reading	6	3069	B	A	2	130692	0.580	0.220	0.580	0.082	0.116	0.001	0.495	-0.453	0.495	-0.378	-0.434	0.547	0.006	-9.9
Reading	6	3070	D	B	2	130692	0.714	0.101	0.040	0.144	0.714	0.002	0.494	-0.391	-0.341	-0.404	0.494	-0.185	0.007	-9.9
Reading	6	3071	A	B	2	130692	0.766	0.766	0.129	0.030	0.072	0.003	0.356	0.356	-0.211	-0.326	-0.307	-0.510	0.007	9.9
Reading	6	3072	B	A	2	130692	0.689	0.128	0.689	0.050	0.131	0.002	0.434	-0.409	0.434	-0.335	-0.277	-0.037	0.007	2.2
Reading	6	3073	B	A	1	130692	0.420	0.054	0.420	0.446	0.077	0.002	0.295	-0.411	0.295	-0.231	-0.359	1.345	0.006	9.9
Reading	6	3074	C	B	2	130692	0.739	0.097	0.057	0.739	0.105	0.003	0.503	-0.399	-0.420	0.503	-0.350	-0.327	0.007	-9.9
Reading	6	3075	A	A	2	130692	0.676	0.676	0.042	0.092	0.187	0.003	0.482	0.482	-0.385	-0.372	-0.404	0.035	0.007	-9.9
Reading	6	3076	C	A	3	130692	0.643	0.168	0.147	0.643	0.039	0.003	0.421	-0.287	-0.382	0.421	-0.399	0.213	0.006	3.2
Reading	6	3077	D	B	2	130692	0.509	0.240	0.134	0.114	0.509	0.004	0.376	-0.269	-0.422	-0.364	0.376	0.902	0.006	9.9
Reading	6	3078	B	A	2	130692	0.885	0.036	0.885	0.072	0.007	0.000	0.380	-0.350	0.380	-0.234	-0.185	-1.504	0.009	-9.9
Reading	6	3079	B	A	2	130692	0.668	0.184	0.668	0.058	0.090	0.000	0.465	-0.439	0.465	-0.360	-0.291	0.078	0.007	-9.9
Reading	6	3080	D	A	2	130692	0.910	0.024	0.044	0.022	0.910	0.000	0.461	-0.308	-0.316	-0.288	0.461	-1.804	0.010	-9.9
Reading	6	3081	A	A	1	130692	0.912	0.912	0.045	0.025	0.019	0.000	0.485	0.485	-0.363	-0.315	-0.275	-1.829	0.010	-9.9
Reading	6	3082	B	B	2	130692	0.466	0.152	0.466	0.095	0.286	0.001	0.387	-0.327	0.387	-0.488	-0.325	1.113	0.006	9.9
Reading	6	3083	C	B	1	130692	0.759	0.046	0.131	0.759	0.062	0.001	0.496	-0.330	-0.439	0.496	-0.310	-0.467	0.007	-9.9
Reading	6	3084	A	B	2	130692	0.768	0.768	0.058	0.103	0.070	0.002	0.384	0.384	-0.317	-0.231	-0.315	-0.523	0.007	9.9
Reading	6	3085	B	A	2	130692	0.818	0.056	0.818	0.065	0.061	0.001	0.438	-0.373	0.438	-0.322	-0.234	-0.888	0.008	-9.6
Reading	6	3086	D	B	2	130692	0.448	0.166	0.134	0.251	0.448	0.001	0.353	-0.277	-0.383	-0.361	0.353	1.203	0.006	9.9
Reading	6	3087	B	A	1	130692	0.806	0.097	0.806	0.069	0.026	0.001	0.455	-0.328	0.455	-0.317	-0.370	-0.799	0.008	-9.9
Reading	6	3088	C	A	2	130692	0.687	0.118	0.068	0.687	0.124	0.001	0.399	-0.286	-0.386	0.399	-0.288	-0.035	0.007	9.9
Reading	6	3089	B	A	2	130692	0.359	0.404	0.359	0.043	0.192	0.001	0.321	-0.264	0.321	-0.499	-0.380	1.660	0.006	9.9
Reading	6	3090	A	B	2	130692	0.742	0.742	0.120	0.076	0.060	0.001	0.437	0.437	-0.329	-0.300	-0.373	-0.360	0.007	2.8
Reading	6	3091	B	A	2	130692	0.782	0.069	0.782	0.085	0.062	0.002	0.493	-0.404	0.493	-0.362	-0.323	-0.623	0.007	-9.9
Reading	6	3092	D	A	1	130692	0.655	0.033	0.048	0.262	0.655	0.003	0.362	-0.418	-0.422	-0.234	0.362	0.151	0.007	9.9
Reading	6	3093	C	A	2	130692	0.642	0.105	0.126	0.642	0.124	0.003	0.488	-0.379	-0.523	0.488	-0.281	0.222	0.006	-9.9
Reading	6	3094	C	A	2	130692	0.736	0.051	0.072	0.736	0.137	0.003	0.565	-0.398	-0.473	0.565	-0.443	-0.315	0.007	-9.9
Reading	6	3095	D	B	2	130692	0.700	0.192	0.047	0.057	0.700	0.003	0.496	-0.393	-0.396	-0.416	0.496	-0.101	0.007	-9.9

Appendix L: 2008 Grades 3–8 and 11 Multiple-Choice Statistics

Information						Proportions							Correlations					Rasch		
Cont.	Grade	Pub. ID	Key	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Reading	6	3096	C	B	1	130692	0.648	0.143	0.151	0.648	0.055	0.004	0.381	-0.364	-0.246	0.381	-0.317	0.188	0.006	9.9
Reading	6	3097	A	B	2	130692	0.695	0.695	0.174	0.064	0.063	0.004	0.378	0.378	-0.256	-0.317	-0.348	-0.078	0.007	9.9
Reading	6	3098	C	A	2	6876	0.644	0.064	0.066	0.644	0.227	0.000	0.433	-0.387	-0.425	0.433	-0.311	0.081	0.028	-3.6
Reading	6	3099	C	A	2	6876	0.523	0.037	0.346	0.523	0.093	0.000	0.294	-0.388	-0.258	0.294	-0.189	0.709	0.027	9.9
Reading	6	3100	A	A	1	6876	0.718	0.718	0.027	0.054	0.200	0.000	0.469	0.469	-0.332	-0.438	-0.362	-0.344	0.030	-4.5
Reading	6	3101	D	B	2	6876	0.471	0.237	0.241	0.051	0.471	0.001	0.384	-0.536	-0.161	-0.414	0.384	0.973	0.027	3.4
Reading	6	3102	D	B	2	6876	0.807	0.033	0.132	0.026	0.807	0.001	0.312	-0.268	-0.207	-0.228	0.312	-0.949	0.033	4.0
Reading	6	3103	A	B	2	6876	0.565	0.565	0.119	0.052	0.263	0.002	0.324	0.324	-0.376	-0.414	-0.186	0.499	0.027	9.1
Reading	6	3104	A	A	2	6876	0.528	0.528	0.053	0.274	0.144	0.001	0.203	0.203	-0.372	-0.114	-0.167	0.683	0.027	9.9
Reading	6	3105	B	A	2	6876	0.776	0.068	0.776	0.107	0.049	0.001	0.469	-0.320	0.469	-0.366	-0.338	-0.724	0.032	-6.4
Reading	6	3106	B	A	2	6876	0.476	0.139	0.476	0.308	0.075	0.001	0.294	-0.243	0.294	-0.257	-0.341	0.944	0.027	9.9
Reading	6	3107	A	B	3	6876	0.129	0.129	0.212	0.192	0.465	0.001	0.055	0.055	-0.293	-0.035	0.011	3.117	0.038	9.9
Reading	6	3108	A	B	2	6876	0.850	0.850	0.031	0.051	0.066	0.002	0.386	0.386	-0.290	-0.240	-0.267	-1.309	0.037	-1.0
Reading	6	3109	B	B	2	6876	0.661	0.113	0.661	0.175	0.050	0.001	0.491	-0.452	0.491	-0.350	-0.434	-0.012	0.029	-6.7
Reading	6	3110	C	A	1	6876	0.700	0.065	0.065	0.700	0.168	0.001	0.407	-0.370	-0.401	0.407	-0.236	-0.240	0.029	-2.5
Reading	6	3111	C	B	2	6876	0.813	0.065	0.067	0.813	0.054	0.001	0.562	-0.443	-0.440	0.562	-0.330	-0.994	0.034	-9.9
Reading	6	3112	B	B	2	6876	0.672	0.196	0.672	0.056	0.075	0.001	0.462	-0.347	0.462	-0.385	-0.414	-0.074	0.029	-3.8
Reading	6	3113	C	A	3	6876	0.687	0.229	0.043	0.687	0.038	0.003	0.343	-0.203	-0.403	0.343	-0.377	-0.160	0.029	4.9
Reading	6	3114	C	A	2	6521	0.660	0.097	0.096	0.660	0.148	0.000	0.404	-0.337	-0.260	0.404	-0.350	0.081	0.029	-1.6
Reading	6	3115	D	A	2	6521	0.423	0.070	0.279	0.228	0.423	0.000	0.369	-0.401	-0.464	-0.214	0.369	1.286	0.028	3.5
Reading	6	3116	C	B	2	6521	0.754	0.127	0.062	0.754	0.056	0.001	0.429	-0.325	-0.291	0.429	-0.341	-0.479	0.032	-3.6
Reading	6	3117	B	A	2	6521	0.591	0.121	0.591	0.204	0.083	0.001	0.304	-0.295	0.304	-0.213	-0.261	0.444	0.028	7.3
Reading	6	3118	A	B	2	6521	0.625	0.625	0.028	0.236	0.110	0.000	0.275	0.275	-0.297	-0.178	-0.285	0.267	0.029	9.9
Reading	6	3119	B	B	2	6521	0.761	0.144	0.761	0.063	0.031	0.001	0.265	-0.121	0.265	-0.288	-0.248	-0.528	0.032	9.9
Reading	6	3120	D	A	2	6521	0.860	0.043	0.045	0.051	0.860	0.000	0.447	-0.345	-0.341	-0.235	0.447	-1.311	0.038	-6.1
Reading	6	3121	A	A	1	6521	0.899	0.899	0.054	0.034	0.012	0.000	0.427	0.427	-0.352	-0.266	-0.183	-1.728	0.044	-7.4
Reading	6	3122	D	B	2	6521	0.841	0.031	0.035	0.092	0.841	0.001	0.540	-0.295	-0.383	-0.439	0.540	-1.134	0.037	-9.9
Reading	6	3123	C	A	1	6521	0.867	0.065	0.045	0.867	0.023	0.001	0.413	-0.271	-0.310	0.413	-0.259	-1.373	0.039	-5.2
Reading	6	3124	D	A	2	6521	0.813	0.116	0.040	0.030	0.813	0.001	0.323	-0.170	-0.303	-0.281	0.323	-0.903	0.035	3.7
Reading	6	3125	B	A	2	6521	0.330	0.255	0.330	0.266	0.147	0.001	0.151	-0.354	0.151	-0.002	-0.089	1.772	0.029	9.9
Reading	6	3126	C	A	1	6521	0.659	0.167	0.058	0.659	0.114	0.002	0.487	-0.348	-0.449	0.487	-0.421	0.083	0.029	-8.4
Reading	6	3127	A	B	2	6521	0.714	0.714	0.046	0.196	0.043	0.001	0.425	0.425	-0.374	-0.312	-0.359	-0.232	0.030	-2.4
Reading	6	3128	B	A	2	6521	0.794	0.044	0.794	0.062	0.098	0.001	0.522	-0.379	0.522	-0.384	-0.387	-0.759	0.034	-9.9
Reading	6	3129	C	A	2	6521	0.484	0.211	0.192	0.484	0.111	0.001	0.329	-0.342	-0.234	0.329	-0.328	0.982	0.028	7.3
Reading	6	3130	D	A	2	6480	0.564	0.171	0.086	0.179	0.564	0.000	0.321	-0.252	-0.465	-0.180	0.321	0.589	0.028	6.2
Reading	6	3131	C	B	2	6480	0.816	0.057	0.058	0.816	0.069	0.000	0.433	-0.292	-0.338	0.433	-0.283	-0.912	0.035	-5.1
Reading	6	3132	D	B	2	6480	0.566	0.249	0.056	0.127	0.566	0.001	0.261	-0.243	-0.263	-0.160	0.261	0.581	0.028	9.9
Reading	6	3133	B	B	2	6480	0.561	0.059	0.561	0.055	0.324	0.000	0.323	-0.439	0.323	-0.391	-0.204	0.605	0.028	6.5
Reading	6	3134	C	B	1	6480	0.718	0.055	0.144	0.718	0.082	0.000	0.376	-0.273	-0.272	0.376	-0.316	-0.245	0.030	-0.3
Reading	6	3135	B	B	3	6480	0.532	0.114	0.532	0.214	0.140	0.001	0.358	-0.387	0.358	-0.265	-0.316	0.752	0.028	3.7
Reading	6	3136	B	A	3	6480	0.729	0.148	0.729	0.058	0.064	0.000	0.501	-0.412	0.501	-0.356	-0.371	-0.312	0.031	-8.5
Reading	6	3137	D	A	2	6480	0.510	0.324	0.071	0.094	0.510	0.001	0.376	-0.305	-0.401	-0.373	0.376	0.858	0.028	1.4
Reading	6	3138	C	A	2	6480	0.769	0.041	0.083	0.769	0.106	0.000	0.497	-0.353	-0.391	0.497	-0.365	-0.572	0.032	-9.1

Appendix L: 2008 Grades 3–8 and 11 Multiple-Choice Statistics

Information						Proportions						Correlations					Rasch			
Cont.	Grade	Pub. ID	Key	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Reading	6	3139	A	A	3	6480	0.503	0.503	0.201	0.220	0.074	0.001	0.312	0.312	-0.261	-0.246	-0.390	0.893	0.028	8.7
Reading	6	3140	A	A	2	6480	0.567	0.567	0.226	0.088	0.118	0.001	0.369	0.369	-0.251	-0.374	-0.368	0.576	0.028	1.9
Reading	6	3141	C	A	2	6480	0.559	0.199	0.162	0.559	0.078	0.001	0.322	-0.233	-0.304	0.322	-0.308	0.613	0.028	5.3
Reading	6	3142	B	A	3	6480	0.742	0.118	0.742	0.099	0.041	0.000	0.396	-0.311	0.396	-0.270	-0.319	-0.390	0.031	-0.7
Reading	6	3143	A	B	2	6480	0.735	0.735	0.091	0.083	0.090	0.001	0.560	0.560	-0.430	-0.454	-0.414	-0.349	0.031	-9.9
Reading	6	3144	B	A	3	6480	0.497	0.152	0.497	0.151	0.199	0.001	0.156	-0.122	0.156	-0.248	-0.068	0.923	0.028	9.9
Reading	6	3145	D	B	2	6480	0.704	0.076	0.097	0.121	0.704	0.002	0.514	-0.419	-0.421	-0.373	0.514	-0.160	0.030	-9.9
Reading	6	3146	D	A	2	6505	0.711	0.078	0.142	0.069	0.711	0.001	0.467	-0.378	-0.354	-0.373	0.467	-0.191	0.030	-5.2
Reading	6	3147	D	B	2	6505	0.731	0.130	0.089	0.049	0.731	0.001	0.489	-0.376	-0.404	-0.337	0.489	-0.314	0.031	-7.9
Reading	6	3148	D	B	2	6505	0.748	0.050	0.122	0.080	0.748	0.000	0.444	-0.339	-0.337	-0.320	0.444	-0.421	0.032	-5.6
Reading	6	3149	A	B	2	6505	0.730	0.730	0.062	0.053	0.154	0.001	0.474	0.474	-0.333	-0.361	-0.388	-0.304	0.031	-6.5
Reading	6	3150	B	B	2	6505	0.803	0.040	0.803	0.064	0.092	0.001	0.400	-0.273	0.400	-0.288	-0.290	-0.803	0.034	-3.7
Reading	6	3151	C	B	2	6505	0.733	0.075	0.096	0.733	0.094	0.002	0.410	-0.367	-0.311	0.410	-0.260	-0.325	0.031	-0.6
Reading	6	3152	A	A	1	6505	0.779	0.779	0.053	0.146	0.020	0.001	0.407	0.407	-0.372	-0.278	-0.296	-0.633	0.033	-1.9
Reading	6	3153	D	A	2	6505	0.818	0.048	0.061	0.071	0.818	0.001	0.472	-0.336	-0.356	-0.322	0.472	-0.923	0.035	-6.1
Reading	6	3154	A	A	1	6505	0.774	0.774	0.044	0.152	0.029	0.001	0.444	0.444	-0.346	-0.328	-0.359	-0.593	0.033	-4.3
Reading	6	3155	B	B	2	6505	0.822	0.078	0.822	0.059	0.040	0.001	0.471	-0.341	0.471	-0.323	-0.346	-0.952	0.035	-6.4
Reading	6	3156	B	B	3	6505	0.339	0.316	0.339	0.189	0.153	0.002	0.103	-0.015	0.103	-0.194	-0.162	1.762	0.029	9.9
Reading	6	3157	D	A	3	6505	0.658	0.124	0.138	0.078	0.658	0.002	0.432	-0.386	-0.303	-0.358	0.432	0.120	0.029	-3.2
Reading	6	3158	C	A	2	6505	0.599	0.114	0.085	0.599	0.198	0.002	0.274	-0.168	-0.361	0.274	-0.192	0.433	0.028	9.9
Reading	6	3159	A	B	2	6505	0.624	0.624	0.095	0.100	0.179	0.002	0.372	0.372	-0.343	-0.334	-0.259	0.303	0.029	2.4
Reading	6	3160	C	A	1	6505	0.880	0.037	0.051	0.880	0.030	0.002	0.507	-0.328	-0.382	0.507	-0.324	-1.499	0.041	-9.9
Reading	6	3161	D	A	3	6505	0.667	0.184	0.056	0.089	0.667	0.004	0.308	-0.225	-0.322	-0.222	0.308	0.070	0.029	8.2
Reading	6	3162	D	A	1	6500	0.716	0.101	0.090	0.094	0.716	0.000	0.503	-0.372	-0.411	-0.402	0.503	-0.182	0.030	-8.9
Reading	6	3163	A	B	2	6500	0.777	0.777	0.077	0.058	0.087	0.000	0.513	0.513	-0.360	-0.424	-0.371	-0.577	0.033	-9.8
Reading	6	3164	D	A	1	6500	0.758	0.054	0.096	0.092	0.758	0.000	0.417	-0.288	-0.253	-0.375	0.417	-0.444	0.032	-4.6
Reading	6	3165	B	A	2	6500	0.510	0.028	0.510	0.423	0.037	0.001	0.195	-0.343	0.195	-0.114	-0.369	0.900	0.028	9.9
Reading	6	3166	C	B	2	6500	0.843	0.055	0.022	0.843	0.080	0.000	0.416	-0.300	-0.284	0.416	-0.293	-1.083	0.037	-3.5
Reading	6	3167	A	B	2	6500	0.838	0.838	0.085	0.042	0.034	0.001	0.394	0.394	-0.255	-0.288	-0.295	-1.040	0.036	-2.2
Reading	6	3168	C	A	2	6500	0.312	0.130	0.111	0.312	0.446	0.001	0.268	-0.360	-0.349	0.268	-0.231	1.911	0.029	9.9
Reading	6	3169	C	A	1	6500	0.935	0.019	0.030	0.935	0.014	0.001	0.334	-0.200	-0.225	0.334	-0.208	-2.201	0.053	-3.6
Reading	6	3170	A	A	2	6500	0.832	0.832	0.066	0.061	0.039	0.001	0.465	0.465	-0.350	-0.297	-0.335	-0.996	0.036	-7.3
Reading	6	3171	C	A	3	6500	0.655	0.146	0.093	0.655	0.105	0.002	0.315	-0.140	-0.354	0.315	-0.290	0.164	0.029	6.2
Reading	6	3172	D	A	2	6500	0.670	0.135	0.090	0.103	0.670	0.001	0.358	-0.246	-0.431	-0.192	0.358	0.078	0.029	3.9
Reading	6	3173	B	A	1	6500	0.567	0.121	0.567	0.076	0.236	0.001	0.305	-0.339	0.305	-0.429	-0.123	0.620	0.028	6.8
Reading	6	3174	D	B	2	6500	0.572	0.226	0.088	0.112	0.572	0.002	0.385	-0.243	-0.408	-0.418	0.385	0.596	0.028	1.5
Reading	6	3175	A	A	2	6500	0.678	0.678	0.096	0.101	0.122	0.002	0.385	0.385	-0.333	-0.276	-0.298	0.033	0.029	-0.6
Reading	6	3176	B	B	3	6500	0.563	0.123	0.563	0.143	0.168	0.002	0.320	-0.303	0.320	-0.279	-0.244	0.640	0.028	6.0
Reading	6	3177	A	B	3	6500	0.656	0.656	0.162	0.042	0.136	0.003	0.238	0.238	-0.136	-0.318	-0.184	0.155	0.029	9.9
Reading	6	3178	B	B	2	6515	0.647	0.122	0.647	0.100	0.131	0.000	0.321	-0.215	0.321	-0.288	-0.259	0.206	0.029	4.4
Reading	6	3179	A	A	1	6515	0.784	0.784	0.056	0.130	0.030	0.000	0.488	0.488	-0.305	-0.409	-0.342	-0.615	0.033	-9.6
Reading	6	3180	B	A	2	6515	0.814	0.064	0.814	0.067	0.055	0.000	0.466	-0.329	0.466	-0.329	-0.335	-0.833	0.034	-7.7
Reading	6	3181	D	B	2	6515	0.533	0.096	0.122	0.249	0.533	0.001	0.327	-0.409	-0.325	-0.208	0.327	0.790	0.028	5.3

Appendix L: 2008 Grades 3–8 and 11 Multiple-Choice Statistics

Information						Proportions							Correlations					Rasch		
Cont.	Grade	Pub. ID	Key	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Reading	6	3182	C	B	2	6515	0.547	0.075	0.187	0.547	0.191	0.000	0.401	-0.364	-0.384	0.401	-0.313	0.721	0.028	-1.9
Reading	6	3183	D	A	2	6515	0.715	0.159	0.061	0.064	0.715	0.001	0.368	-0.396	-0.171	-0.198	0.368	-0.175	0.030	5.8
Reading	6	3184	C	A	2	6515	0.812	0.091	0.043	0.812	0.052	0.001	0.360	-0.323	-0.213	0.360	-0.181	-0.820	0.034	-2.2
Reading	6	3185	D	B	2	6515	0.611	0.117	0.232	0.038	0.611	0.002	0.382	-0.277	-0.330	-0.393	0.382	0.396	0.028	0.5
Reading	6	3186	A	B	2	6515	0.854	0.854	0.032	0.082	0.031	0.001	0.341	0.341	-0.258	-0.223	-0.227	-1.173	0.038	-0.8
Reading	6	3187	D	A	2	6515	0.276	0.149	0.441	0.132	0.276	0.002	0.330	-0.412	-0.333	-0.385	0.330	2.113	0.030	5.0
Reading	6	3188	A	A	2	6515	0.540	0.540	0.103	0.078	0.278	0.002	0.464	0.464	-0.480	-0.432	-0.381	0.756	0.028	-7.2
Reading	6	3189	B	A	2	6515	0.577	0.093	0.577	0.137	0.192	0.001	0.327	-0.300	0.327	-0.351	-0.204	0.572	0.028	4.4
Reading	6	3190	A	A	2	6515	0.595	0.595	0.224	0.093	0.085	0.003	0.150	0.150	-0.049	-0.188	-0.196	0.479	0.028	9.9
Reading	6	3191	C	B	2	6515	0.530	0.118	0.185	0.530	0.165	0.002	0.291	-0.381	-0.208	0.291	-0.199	0.803	0.028	8.1
Reading	6	3192	D	B	3	6515	0.622	0.212	0.123	0.040	0.622	0.002	0.303	-0.215	-0.257	-0.331	0.303	0.340	0.028	6.2
Reading	6	3193	C	B	3	6515	0.782	0.079	0.079	0.782	0.057	0.003	0.411	-0.308	-0.280	0.411	-0.313	-0.600	0.033	-3.8
Reading	6	3194	C	A	2	6518	0.828	0.091	0.047	0.828	0.034	0.000	0.394	-0.338	-0.274	0.394	-0.172	-0.961	0.036	-1.7
Reading	6	3195	C	A	2	6518	0.631	0.099	0.103	0.631	0.166	0.001	0.307	-0.263	-0.324	0.307	-0.191	0.298	0.029	9.2
Reading	6	3196	A	A	3	6518	0.620	0.620	0.087	0.115	0.178	0.000	0.315	0.315	-0.298	-0.282	-0.210	0.354	0.028	4.9
Reading	6	3197	B	B	2	6518	0.749	0.104	0.749	0.055	0.093	0.000	0.476	-0.342	0.476	-0.404	-0.349	-0.384	0.032	-7.1
Reading	6	3198	D	A	2	6518	0.540	0.158	0.184	0.118	0.540	0.000	0.410	-0.425	-0.241	-0.459	0.410	0.766	0.028	-0.5
Reading	6	3199	B	B	2	6518	0.759	0.041	0.759	0.046	0.152	0.001	0.445	-0.385	0.445	-0.397	-0.299	-0.454	0.032	-4.1
Reading	6	3200	A	A	1	6518	0.919	0.919	0.030	0.038	0.013	0.001	0.366	0.366	-0.222	-0.261	-0.220	-1.938	0.048	-4.4
Reading	6	3201	D	A	2	6518	0.765	0.099	0.055	0.080	0.765	0.001	0.503	-0.379	-0.390	-0.373	0.503	-0.493	0.032	-8.3
Reading	6	3202	A	A	2	6518	0.293	0.293	0.185	0.301	0.220	0.001	0.221	0.221	-0.309	-0.221	-0.204	2.033	0.030	9.9
Reading	6	3203	C	B	2	6518	0.809	0.096	0.043	0.809	0.050	0.001	0.497	-0.339	-0.374	0.497	-0.383	-0.810	0.034	-8.5
Reading	6	3204	C	A	2	6518	0.797	0.042	0.066	0.797	0.094	0.001	0.416	-0.298	-0.379	0.416	-0.234	-0.719	0.034	-4.3
Reading	6	3205	D	B	2	6518	0.523	0.116	0.139	0.220	0.523	0.002	0.294	-0.287	-0.374	-0.167	0.294	0.850	0.028	9.9
Reading	6	3206	B	B	2	6518	0.706	0.097	0.706	0.052	0.143	0.002	0.377	-0.263	0.377	-0.417	-0.250	-0.119	0.030	1.9
Reading	6	3207	D	A	3	6518	0.695	0.122	0.072	0.109	0.695	0.001	0.425	-0.344	-0.463	-0.236	0.425	-0.058	0.030	1.6
Reading	6	3208	B	B	2	6518	0.811	0.057	0.811	0.057	0.073	0.001	0.465	-0.340	0.465	-0.379	-0.287	-0.827	0.035	-5.9
Reading	6	3209	D	B	3	6518	0.671	0.130	0.108	0.089	0.671	0.001	0.415	-0.316	-0.279	-0.403	0.415	0.079	0.029	-1.8
Reading	6	3210	B	A	2	6517	0.698	0.098	0.698	0.064	0.141	0.000	0.328	-0.349	0.328	-0.178	-0.220	-0.096	0.030	4.7
Reading	6	3211	C	A	2	6517	0.724	0.029	0.095	0.724	0.152	0.000	0.349	-0.278	-0.304	0.349	-0.238	-0.255	0.031	2.3
Reading	6	3212	C	A	1	6517	0.713	0.246	0.021	0.713	0.020	0.000	0.387	-0.351	-0.212	0.387	-0.259	-0.186	0.030	-0.5
Reading	6	3213	A	B	2	6517	0.745	0.745	0.140	0.061	0.053	0.001	0.526	0.526	-0.437	-0.382	-0.377	-0.385	0.031	-9.9
Reading	6	3214	D	B	2	6517	0.749	0.045	0.080	0.125	0.749	0.000	0.441	-0.356	-0.324	-0.331	0.441	-0.411	0.031	-4.3
Reading	6	3215	A	A	2	6517	0.742	0.742	0.211	0.017	0.029	0.001	0.363	0.363	-0.278	-0.308	-0.329	-0.364	0.031	1.6
Reading	6	3216	B	A	1	6517	0.542	0.082	0.542	0.294	0.081	0.001	0.382	-0.441	0.382	-0.284	-0.359	0.729	0.028	1.6
Reading	6	3217	D	A	2	6517	0.915	0.026	0.028	0.029	0.915	0.001	0.459	-0.299	-0.305	-0.289	0.459	-1.907	0.047	-9.9
Reading	6	3218	A	A	2	6517	0.683	0.683	0.112	0.173	0.030	0.002	0.408	0.408	-0.328	-0.320	-0.354	-0.015	0.030	-1.6
Reading	6	3219	C	A	2	6517	0.805	0.067	0.041	0.805	0.085	0.002	0.501	-0.433	-0.376	0.501	-0.296	-0.804	0.034	-8.1
Reading	6	3220	B	A	2	6517	0.726	0.101	0.726	0.059	0.113	0.001	0.468	-0.315	0.468	-0.351	-0.416	-0.263	0.031	-4.5
Reading	6	3221	C	B	3	6517	0.331	0.392	0.230	0.331	0.045	0.002	0.180	-0.267	-0.028	0.180	-0.273	1.795	0.029	9.9
Reading	6	3222	B	B	2	6517	0.778	0.085	0.778	0.105	0.031	0.001	0.401	-0.285	0.401	-0.281	-0.334	-0.606	0.033	-2.2
Reading	6	3223	A	B	2	6517	0.721	0.721	0.050	0.091	0.136	0.001	0.426	0.426	-0.372	-0.408	-0.241	-0.235	0.031	-2.1
Reading	6	3224	B	A	3	6517	0.513	0.096	0.513	0.096	0.294	0.002	0.218	-0.299	0.218	-0.284	-0.103	0.874	0.028	9.9

Appendix L: 2008 Grades 3–8 and 11 Multiple-Choice Statistics

Information						Proportions						Correlations					Rasch			
Cont.	Grade	Pub. ID	Key	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Reading	6	3225	D	B	3	6517	0.480	0.416	0.032	0.071	0.480	0.002	0.211	-0.109	-0.355	-0.401	0.211	1.038	0.028	9.9
Reading	6	3226	D	A	2	6498	0.552	0.196	0.065	0.186	0.552	0.000	0.492	-0.440	-0.414	-0.461	0.492	0.709	0.028	-9.0
Reading	6	3227	C	A	3	6498	0.507	0.240	0.106	0.507	0.147	0.000	0.404	-0.366	-0.414	0.404	-0.349	0.936	0.028	-1.3
Reading	6	3228	B	A	3	6498	0.708	0.103	0.708	0.105	0.083	0.000	0.325	-0.104	0.325	-0.275	-0.366	-0.126	0.030	3.7
Reading	6	3229	D	B	2	6498	0.627	0.069	0.199	0.104	0.627	0.001	0.286	-0.307	-0.183	-0.255	0.286	0.324	0.029	9.9
Reading	6	3230	A	A	1	6498	0.720	0.720	0.116	0.107	0.056	0.000	0.411	0.411	-0.345	-0.296	-0.298	-0.200	0.031	-2.5
Reading	6	3231	D	B	2	6498	0.497	0.272	0.062	0.167	0.497	0.002	0.308	-0.201	-0.432	-0.323	0.308	0.984	0.028	9.6
Reading	6	3232	C	A	1	6498	0.734	0.116	0.094	0.734	0.055	0.001	0.506	-0.440	-0.429	0.506	-0.253	-0.286	0.031	-9.4
Reading	6	3233	B	A	3	6498	0.780	0.069	0.780	0.054	0.096	0.001	0.404	-0.302	0.404	-0.322	-0.261	-0.587	0.033	-3.5
Reading	6	3234	A	A	2	6498	0.757	0.757	0.070	0.054	0.116	0.001	0.405	0.405	-0.367	-0.370	-0.218	-0.435	0.032	1.8
Reading	6	3235	A	A	2	6498	0.595	0.595	0.135	0.123	0.146	0.001	0.404	0.404	-0.369	-0.335	-0.315	0.491	0.028	-1.0
Reading	6	3236	A	A	1	6498	0.603	0.603	0.082	0.177	0.136	0.001	0.383	0.383	-0.367	-0.287	-0.320	0.449	0.028	0.5
Reading	6	3237	D	A	2	6498	0.728	0.095	0.112	0.064	0.728	0.001	0.516	-0.377	-0.449	-0.363	0.516	-0.250	0.031	-9.9
Reading	6	3238	A	A	2	6498	0.798	0.798	0.042	0.071	0.086	0.002	0.512	0.512	-0.343	-0.417	-0.355	-0.719	0.034	-9.9
Reading	6	3239	B	B	2	6498	0.819	0.047	0.819	0.060	0.072	0.001	0.519	-0.389	0.519	-0.372	-0.362	-0.882	0.035	-9.8
Reading	6	3240	B	B	3	6498	0.544	0.191	0.544	0.120	0.144	0.001	0.411	-0.359	0.411	-0.411	-0.307	0.752	0.028	-1.0
Reading	6	3241	D	A	2	6498	0.644	0.081	0.080	0.194	0.644	0.002	0.407	-0.273	-0.331	-0.364	0.407	0.235	0.029	-1.4
Reading	6	3242	D	A	2	6559	0.741	0.203	0.028	0.028	0.741	0.000	0.452	-0.383	-0.337	-0.309	0.452	-0.320	0.031	-5.9
Reading	6	3243	B	A	2	6559	0.775	0.065	0.775	0.122	0.039	0.000	0.352	-0.324	0.352	-0.231	-0.206	-0.537	0.032	-0.5
Reading	6	3244	A	B	2	6559	0.610	0.610	0.241	0.089	0.060	0.000	0.256	0.256	-0.214	-0.186	-0.254	0.418	0.028	9.9
Reading	6	3245	D	A	1	6559	0.905	0.028	0.035	0.032	0.905	0.000	0.478	-0.276	-0.323	-0.349	0.478	-1.720	0.045	-9.9
Reading	6	3246	C	B	2	6559	0.772	0.076	0.080	0.772	0.072	0.001	0.426	-0.319	-0.329	0.426	-0.279	-0.519	0.032	-5.6
Reading	6	3247	D	A	2	6559	0.593	0.024	0.118	0.264	0.593	0.001	0.272	-0.322	-0.134	-0.264	0.272	0.503	0.028	9.0
Reading	6	3248	C	A	1	6559	0.818	0.118	0.016	0.818	0.047	0.001	0.440	-0.399	-0.243	0.440	-0.231	-0.858	0.035	-6.0
Reading	6	3249	B	B	3	6559	0.936	0.027	0.936	0.018	0.017	0.001	0.359	-0.245	0.359	-0.177	-0.254	-2.196	0.053	-5.4
Reading	6	3250	A	A	2	6559	0.733	0.733	0.093	0.114	0.059	0.001	0.393	0.393	-0.291	-0.314	-0.286	-0.268	0.031	-0.4
Reading	6	3251	D	A	3	6559	0.731	0.160	0.068	0.041	0.731	0.001	0.426	-0.298	-0.350	-0.381	0.426	-0.254	0.031	-3.7
Reading	6	3252	A	B	2	6559	0.744	0.744	0.072	0.060	0.122	0.001	0.402	0.402	-0.343	-0.332	-0.250	-0.340	0.031	-2.5
Reading	6	3253	A	A	2	6559	0.550	0.550	0.182	0.103	0.164	0.001	0.350	0.350	-0.239	-0.269	-0.396	0.715	0.027	3.0
Reading	6	3254	D	B	3	6559	0.508	0.106	0.234	0.151	0.508	0.001	0.254	-0.344	-0.153	-0.240	0.254	0.925	0.027	9.9
Reading	6	3255	B	A	3	6559	0.183	0.211	0.183	0.264	0.340	0.001	0.100	-0.138	0.100	-0.255	-0.009	2.731	0.034	9.9
Reading	6	3256	D	B	2	6559	0.877	0.023	0.074	0.024	0.877	0.001	0.366	-0.275	-0.235	-0.260	0.366	-1.390	0.040	-1.8
Reading	6	3257	C	B		6559	0.208	0.093	0.390	0.208	0.306	0.002	-0.024	-0.268	0.067	-0.024	0.084	2.545	0.033	9.9
Reading	6	3258	B	B	2	6552	0.827	0.051	0.827	0.053	0.070	0.000	0.441	-0.278	0.441	-0.320	-0.329	-0.931	0.035	-4.6
Reading	6	3259	A	A	2	6552	0.854	0.854	0.031	0.098	0.016	0.000	0.285	0.285	-0.270	-0.187	-0.128	-1.170	0.038	2.1
Reading	6	3260	D	B	2	6552	0.894	0.036	0.030	0.039	0.894	0.000	0.371	-0.207	-0.252	-0.271	0.371	-1.593	0.043	-2.1
Reading	6	3261	C	A	2	6552	0.830	0.057	0.051	0.830	0.061	0.000	0.342	-0.229	-0.273	0.342	-0.202	-0.959	0.036	-0.2
Reading	6	3262	D	A	2	6552	0.517	0.066	0.355	0.061	0.517	0.000	0.315	-0.426	-0.245	-0.290	0.315	0.889	0.027	7.5
Reading	6	3263	D	A	2	6552	0.768	0.076	0.089	0.065	0.768	0.001	0.431	-0.309	-0.331	-0.309	0.431	-0.498	0.032	-4.4
Reading	6	3264	C	A	2	6552	0.761	0.098	0.103	0.761	0.038	0.000	0.378	-0.340	-0.286	0.378	-0.161	-0.448	0.032	0.0
Reading	6	3265	D	A	1	6552	0.822	0.068	0.078	0.031	0.822	0.001	0.409	-0.335	-0.238	-0.306	0.409	-0.890	0.035	-3.6
Reading	6	3266	B	A	1	6552	0.748	0.078	0.748	0.053	0.120	0.001	0.478	-0.405	0.478	-0.370	-0.328	-0.366	0.031	-6.7
Reading	6	3267	A	A	2	6552	0.861	0.861	0.070	0.031	0.036	0.001	0.455	0.455	-0.303	-0.343	-0.307	-1.240	0.038	-6.1

Appendix L: 2008 Grades 3–8 and 11 Multiple-Choice Statistics

Information						Proportions						Correlations					Rasch			
Cont.	Grade	Pub. ID	Key	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Reading	6	3268	A	A	2	6552	0.680	0.680	0.065	0.147	0.106	0.002	0.521	0.521	-0.416	-0.513	-0.301	0.044	0.029	-9.9
Reading	6	3269	B	B	2	6552	0.340	0.060	0.340	0.307	0.291	0.002	0.061	-0.311	0.061	-0.073	0.031	1.781	0.029	9.9
Reading	6	3270	D	A	1	6552	0.534	0.177	0.150	0.138	0.534	0.001	0.261	-0.239	-0.206	-0.229	0.261	0.803	0.028	9.9
Reading	6	3271	A	B	2	6552	0.782	0.782	0.078	0.086	0.052	0.001	0.448	0.448	-0.326	-0.309	-0.342	-0.595	0.033	-6.6
Reading	6	3272	C	B	2	6552	0.558	0.282	0.082	0.558	0.076	0.002	0.405	-0.303	-0.404	0.405	-0.427	0.687	0.028	-0.9
Reading	6	3273	B	A	2	6552	0.473	0.195	0.473	0.102	0.227	0.002	0.316	-0.386	0.316	-0.397	-0.155	1.106	0.027	7.8
Reading	6	3274	D	A	2	6551	0.586	0.096	0.143	0.174	0.586	0.000	0.406	-0.408	-0.355	-0.305	0.406	0.531	0.028	-0.2
Reading	6	3275	D	A	2	6551	0.748	0.092	0.030	0.131	0.748	0.000	0.421	-0.268	-0.363	-0.344	0.421	-0.387	0.032	-2.4
Reading	6	3276	B	B	1	6551	0.802	0.073	0.802	0.068	0.057	0.000	0.425	-0.324	0.425	-0.293	-0.296	-0.768	0.034	-2.3
Reading	6	3277	C	A	2	6551	0.417	0.145	0.158	0.417	0.280	0.000	0.277	-0.369	-0.319	0.277	-0.168	1.381	0.028	9.9
Reading	6	3278	D	A	2	6551	0.722	0.053	0.145	0.079	0.722	0.000	0.427	-0.356	-0.304	-0.353	0.427	-0.229	0.031	-1.8
Reading	6	3279	B	A	2	6551	0.886	0.022	0.886	0.028	0.062	0.002	0.375	-0.267	0.375	-0.247	-0.256	-1.538	0.042	-0.7
Reading	6	3280	B	A	2	6551	0.585	0.180	0.585	0.170	0.063	0.002	0.399	-0.367	0.399	-0.311	-0.339	0.534	0.028	-0.5
Reading	6	3281	C	A	2	6551	0.746	0.076	0.121	0.746	0.056	0.001	0.402	-0.321	-0.303	0.402	-0.276	-0.376	0.031	-0.7
Reading	6	3282	A	A	2	6551	0.618	0.618	0.163	0.062	0.156	0.001	0.545	0.545	-0.457	-0.477	-0.463	0.361	0.028	-9.9
Reading	6	3283	B	B	3	6551	0.835	0.029	0.835	0.038	0.096	0.001	0.491	-0.309	0.491	-0.328	-0.388	-1.036	0.036	-8.5
Reading	6	3284	C	B	2	6551	0.782	0.065	0.072	0.782	0.080	0.001	0.523	-0.415	-0.420	0.523	-0.334	-0.622	0.033	-9.3
Reading	6	3285	D	A	2	6551	0.795	0.074	0.078	0.050	0.795	0.001	0.540	-0.418	-0.350	-0.436	0.540	-0.719	0.034	-9.9
Reading	6	3286	B	B	2	6551	0.321	0.211	0.321	0.328	0.137	0.002	0.095	-0.145	0.095	-0.071	-0.092	1.889	0.029	9.9
Reading	6	3287	A	A	1	6551	0.554	0.554	0.104	0.195	0.145	0.002	0.352	0.352	-0.293	-0.360	-0.259	0.691	0.028	5.7
Reading	6	3288	D	A	2	6551	0.690	0.059	0.115	0.133	0.690	0.002	0.547	-0.474	-0.432	-0.431	0.547	-0.038	0.030	-9.9
Reading	6	3289	C	A	2	6551	0.628	0.122	0.114	0.628	0.133	0.003	0.466	-0.387	-0.409	0.466	-0.363	0.308	0.029	-6.1
Reading	6	3290	D	A	2	6533	0.566	0.168	0.093	0.172	0.566	0.000	0.321	-0.246	-0.465	-0.172	0.321	0.598	0.028	5.8
Reading	6	3291	C	B	2	6533	0.824	0.056	0.054	0.824	0.066	0.000	0.435	-0.308	-0.315	0.435	-0.291	-0.947	0.035	-6.1
Reading	6	3292	D	B	2	6533	0.577	0.250	0.054	0.118	0.577	0.000	0.277	-0.264	-0.274	-0.156	0.277	0.541	0.028	9.4
Reading	6	3293	B	B	2	6533	0.559	0.047	0.559	0.063	0.330	0.001	0.297	-0.405	0.297	-0.378	-0.186	0.632	0.028	7.6
Reading	6	3294	C	B	1	6533	0.710	0.060	0.145	0.710	0.084	0.000	0.354	-0.269	-0.238	0.354	-0.319	-0.172	0.030	1.1
Reading	6	3295	B	B	3	6533	0.532	0.111	0.532	0.227	0.129	0.000	0.360	-0.379	0.360	-0.271	-0.324	0.768	0.027	1.8
Reading	6	3296	A	B	3	6533	0.816	0.816	0.116	0.042	0.025	0.001	0.424	0.424	-0.301	-0.323	-0.307	-0.878	0.035	-5.3
Reading	6	3297	A	A	1	6533	0.645	0.645	0.118	0.106	0.128	0.002	0.496	0.496	-0.366	-0.446	-0.413	0.189	0.029	-9.4
Reading	6	3298	D	A	1	6533	0.512	0.082	0.242	0.163	0.512	0.001	0.462	-0.458	-0.419	-0.409	0.462	0.867	0.027	-6.8
Reading	6	3299	C	B	3	6533	0.203	0.566	0.078	0.203	0.150	0.002	0.009	0.036	-0.229	0.009	-0.051	2.560	0.033	9.9
Reading	6	3300	B	B	2	6533	0.654	0.132	0.654	0.156	0.056	0.001	0.434	-0.308	0.434	-0.370	-0.400	0.144	0.029	-4.4
Reading	6	3301	A	A	2	6533	0.502	0.502	0.192	0.054	0.251	0.001	0.226	0.226	-0.193	-0.404	-0.143	0.915	0.027	9.9
Reading	6	3302	B	B	2	6533	0.711	0.073	0.711	0.158	0.057	0.001	0.483	-0.403	0.483	-0.340	-0.421	-0.175	0.030	-8.3
Reading	6	3303	D	A	3	6533	0.613	0.182	0.101	0.102	0.613	0.001	0.370	-0.275	-0.319	-0.357	0.370	0.360	0.028	3.4
Reading	6	3304	D	A	2	6533	0.454	0.341	0.114	0.088	0.454	0.002	0.256	-0.218	-0.226	-0.297	0.256	1.152	0.027	9.9
Reading	6	3305	C	A	3	6533	0.529	0.036	0.383	0.529	0.051	0.002	0.240	-0.409	-0.147	0.240	-0.346	0.782	0.027	9.9
Reading	6	3306	C	A	2	6530	0.596	0.062	0.310	0.596	0.032	0.000	0.210	-0.408	-0.077	0.210	-0.297	0.470	0.028	9.9
Reading	6	3307	B	A	2	6530	0.640	0.176	0.640	0.162	0.022	0.000	0.371	-0.294	0.371	-0.328	-0.272	0.240	0.029	0.7
Reading	6	3308	B	A	2	6530	0.753	0.105	0.753	0.118	0.023	0.001	0.363	-0.239	0.363	-0.309	-0.263	-0.416	0.031	-0.8
Reading	6	3309	A	A	2	6530	0.609	0.609	0.057	0.136	0.197	0.000	0.276	0.276	-0.249	-0.245	-0.203	0.401	0.028	8.9
Reading	6	3310	B	A	2	6530	0.657	0.291	0.657	0.027	0.025	0.000	0.330	-0.257	0.330	-0.320	-0.342	0.146	0.029	3.7

Appendix L: 2008 Grades 3–8 and 11 Multiple-Choice Statistics

Information						Proportions						Correlations					Rasch			
Cont.	Grade	Pub. ID	Key	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Reading	6	3311	D	B	2	6530	0.721	0.063	0.109	0.106	0.721	0.002	0.443	-0.363	-0.338	-0.327	0.443	-0.216	0.030	-4.6
Reading	6	3312	A	A	1	6530	0.873	0.873	0.026	0.086	0.013	0.000	0.392	0.392	-0.241	-0.318	-0.205	-1.376	0.040	-3.8
Reading	6	3313	A	A	2	6530	0.763	0.763	0.038	0.054	0.145	0.001	0.410	0.410	-0.303	-0.390	-0.268	-0.482	0.032	-2.7
Reading	6	3314	C	B	2	6530	0.620	0.053	0.109	0.620	0.216	0.001	0.287	-0.336	-0.298	0.287	-0.159	0.342	0.028	9.2
Reading	6	3315	A	B	2	6530	0.794	0.794	0.030	0.038	0.137	0.001	0.307	0.307	-0.287	-0.224	-0.196	-0.696	0.033	4.6
Reading	6	3316	B	B	2	6530	0.618	0.046	0.618	0.214	0.121	0.002	0.207	-0.297	0.207	-0.049	-0.273	0.357	0.028	9.9
Reading	6	3317	C	B	2	6530	0.809	0.054	0.083	0.809	0.052	0.001	0.479	-0.356	-0.331	0.479	-0.345	-0.810	0.034	-8.1
Reading	6	3318	B	A	3	6530	0.549	0.224	0.549	0.181	0.044	0.001	0.201	-0.198	0.201	-0.094	-0.301	0.705	0.028	9.9
Reading	6	3319	D	B	3	6530	0.702	0.123	0.071	0.102	0.702	0.002	0.447	-0.300	-0.378	-0.376	0.447	-0.107	0.030	-3.7
Reading	6	3320	D	A	2	6530	0.735	0.062	0.154	0.048	0.735	0.001	0.477	-0.393	-0.350	-0.388	0.477	-0.302	0.031	-6.7
Reading	6	3321	C	A	1	6530	0.672	0.168	0.104	0.672	0.053	0.002	0.360	-0.195	-0.398	0.360	-0.300	0.063	0.029	1.9
Reading	6	3322	D	B	2	6515	0.663	0.059	0.248	0.030	0.663	0.000	0.399	-0.405	-0.302	-0.351	0.399	0.131	0.029	0.1
Reading	6	3323	A	B	2	6515	0.796	0.796	0.080	0.097	0.026	0.000	0.364	0.364	-0.330	-0.203	-0.270	-0.702	0.034	0.3
Reading	6	3324	D	A	2	6515	0.584	0.159	0.149	0.108	0.584	0.000	0.435	-0.306	-0.392	-0.431	0.435	0.553	0.028	-5.1
Reading	6	3325	C	A	2	6515	0.672	0.089	0.055	0.672	0.183	0.000	0.360	-0.368	-0.309	0.360	-0.225	0.084	0.029	2.0
Reading	6	3326	B	B	2	6515	0.537	0.180	0.537	0.039	0.243	0.000	0.371	-0.386	0.371	-0.384	-0.271	0.787	0.028	1.7
Reading	6	3327	A	B	2	6515	0.513	0.513	0.145	0.151	0.190	0.002	0.300	0.300	-0.347	-0.262	-0.213	0.911	0.028	9.8
Reading	6	3328	B	A	1	6515	0.942	0.023	0.942	0.029	0.006	0.000	0.273	-0.214	0.273	-0.155	-0.146	-2.327	0.055	-0.6
Reading	6	3329	A	A	2	6515	0.723	0.723	0.091	0.154	0.031	0.001	0.437	0.437	-0.364	-0.341	-0.303	-0.213	0.031	-4.1
Reading	6	3330	C	B	2	6515	0.666	0.068	0.152	0.666	0.113	0.001	0.469	-0.399	-0.362	0.469	-0.385	0.114	0.029	-6.5
Reading	6	3331	C	A	2	6515	0.610	0.305	0.046	0.610	0.037	0.002	0.460	-0.394	-0.436	0.460	-0.373	0.417	0.028	-7.2
Reading	6	3332	A	A	3	6515	0.443	0.443	0.056	0.303	0.197	0.001	0.342	0.342	-0.242	-0.278	-0.418	1.254	0.028	6.7
Reading	6	3333	B	A	2	6515	0.716	0.066	0.716	0.159	0.057	0.002	0.423	-0.341	0.423	-0.337	-0.290	-0.174	0.030	-3.9
Reading	6	3334	D	B	2	6515	0.774	0.078	0.054	0.091	0.774	0.002	0.451	-0.324	-0.358	-0.323	0.451	-0.547	0.033	-4.6
Reading	6	3335	C	A	3	6515	0.657	0.135	0.165	0.657	0.040	0.002	0.382	-0.291	-0.301	0.382	-0.373	0.164	0.029	1.3
Reading	6	3336	B	B	2	6515	0.922	0.031	0.922	0.024	0.022	0.002	0.437	-0.322	0.437	-0.278	-0.252	-1.970	0.048	-8.3
Reading	6	3337	D	A	1	6515	0.706	0.040	0.106	0.145	0.706	0.002	0.357	-0.365	-0.179	-0.322	0.357	-0.111	0.030	3.4
Reading	6	3338	A	B	2	6538	0.566	0.566	0.082	0.149	0.202	0.001	0.346	0.346	-0.365	-0.217	-0.322	0.625	0.028	2.1
Reading	6	3339	C	B	1	6538	0.779	0.092	0.042	0.779	0.087	0.000	0.421	-0.268	-0.334	0.421	-0.336	-0.571	0.032	-4.4
Reading	6	3340	C	A	2	6538	0.750	0.088	0.048	0.750	0.115	0.000	0.461	-0.439	-0.320	0.461	-0.289	-0.385	0.031	-6.8
Reading	6	3341	B	A	2	6538	0.794	0.054	0.794	0.052	0.100	0.001	0.271	-0.187	0.271	-0.254	-0.152	-0.681	0.033	5.3
Reading	6	3342	D	B	2	6538	0.385	0.144	0.089	0.382	0.385	0.000	0.280	-0.513	-0.401	-0.146	0.280	1.530	0.028	7.5
Reading	6	3343	A	B	2	6538	0.675	0.675	0.186	0.036	0.101	0.002	0.274	0.274	-0.247	-0.204	-0.177	0.054	0.029	7.0
Reading	6	3344	D	A	2	6538	0.573	0.045	0.085	0.297	0.573	0.000	0.310	-0.490	-0.357	-0.171	0.310	0.597	0.028	5.8
Reading	6	3345	A	A	2	6538	0.479	0.479	0.389	0.071	0.060	0.001	0.376	0.376	-0.310	-0.432	-0.406	1.060	0.027	0.8
Reading	6	3346	D	A	2	6538	0.680	0.065	0.162	0.091	0.680	0.001	0.397	-0.343	-0.242	-0.401	0.397	0.035	0.029	-1.5
Reading	6	3347	C	A	2	6538	0.704	0.104	0.100	0.704	0.091	0.001	0.415	-0.283	-0.299	0.415	-0.383	-0.100	0.030	-3.4
Reading	6	3348	B	A	2	6538	0.595	0.292	0.595	0.068	0.043	0.001	0.349	-0.255	0.349	-0.380	-0.347	0.484	0.028	2.7
Reading	6	3349	B	A	2	6538	0.476	0.133	0.476	0.287	0.103	0.001	0.269	-0.356	0.269	-0.126	-0.375	1.074	0.027	9.9
Reading	6	3350	C	B	3	6538	0.475	0.094	0.233	0.475	0.195	0.002	0.285	-0.291	-0.275	0.285	-0.222	1.080	0.027	9.3
Reading	6	3351	B	A	1	6538	0.795	0.066	0.795	0.054	0.084	0.001	0.473	-0.351	0.473	-0.350	-0.331	-0.685	0.033	-8.4
Reading	6	3352	D	B	2	6538	0.469	0.316	0.112	0.101	0.469	0.002	0.349	-0.298	-0.348	-0.366	0.349	1.108	0.027	3.0
Reading	6	3353	A	A	3	6538	0.721	0.721	0.088	0.078	0.111	0.002	0.404	0.404	-0.319	-0.351	-0.258	-0.202	0.030	-2.5

Appendix L: 2008 Grades 3–8 and 11 Multiple-Choice Statistics

Information						Proportions							Correlations					Rasch		
Cont.	Grade	Pub. ID	Key	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Reading	6	3354	D	A		6511	0.800	0.137	0.031	0.031	0.800	0.000	0.297	-0.263	-0.190	-0.115	0.297	-0.723	0.034	1.8
Reading	6	3355	A	A		6511	0.840	0.840	0.045	0.104	0.011	0.000	0.404	0.404	-0.293	-0.315	-0.213	-1.033	0.036	-5.7
Reading	6	3356	B	A		6511	0.737	0.121	0.737	0.103	0.037	0.000	0.443	-0.390	0.443	-0.278	-0.348	-0.297	0.031	-4.7
Reading	6	3357	B	B		6511	0.588	0.088	0.588	0.157	0.167	0.000	0.333	-0.343	0.333	-0.343	-0.170	0.512	0.028	3.6
Reading	6	3358	C	A		6511	0.652	0.070	0.028	0.652	0.249	0.000	0.323	-0.437	-0.367	0.323	-0.171	0.188	0.029	5.6
Reading	6	3359	B	A		6511	0.938	0.015	0.938	0.022	0.024	0.001	0.407	-0.237	0.407	-0.269	-0.269	-2.197	0.053	-8.5
Reading	6	3360	D	B	3	6511	0.415	0.106	0.430	0.049	0.415	0.001	0.290	-0.462	-0.190	-0.481	0.290	1.381	0.028	8.4
Reading	6	3361	D	A	3	6511	0.421	0.219	0.085	0.274	0.421	0.001	0.251	-0.309	-0.339	-0.152	0.251	1.347	0.028	9.9
Reading	6	3362	A	A	2	6511	0.409	0.409	0.188	0.293	0.108	0.002	0.337	0.337	-0.264	-0.347	-0.372	1.407	0.028	5.0
Reading	6	3363	B	A	2	6511	0.640	0.109	0.640	0.146	0.103	0.002	0.464	-0.431	0.464	-0.360	-0.351	0.254	0.029	-7.6
Reading	6	3364	A	B	3	6511	0.477	0.477	0.097	0.276	0.147	0.002	0.173	0.173	-0.325	-0.081	-0.139	1.072	0.027	9.9
Reading	6	3365	C	A	3	6511	0.366	0.297	0.078	0.366	0.256	0.002	0.295	-0.269	-0.445	0.295	-0.261	1.630	0.028	8.3
Reading	6	3366	C	B	2	6511	0.438	0.305	0.118	0.438	0.137	0.002	0.287	-0.196	-0.395	0.287	-0.303	1.266	0.028	9.9
Reading	6	3367	B	B	2	6511	0.786	0.070	0.786	0.057	0.085	0.002	0.438	-0.334	0.438	-0.357	-0.267	-0.618	0.033	-4.0
Reading	6	3368	B	A	2	6511	0.795	0.068	0.795	0.076	0.060	0.002	0.505	-0.375	0.505	-0.376	-0.346	-0.683	0.033	-9.9
Reading	6	3369	D	A	3	6511	0.702	0.055	0.094	0.146	0.702	0.002	0.374	-0.301	-0.266	-0.303	0.374	-0.089	0.030	0.8
Reading	6	3370	C	A		6488	0.813	0.076	0.024	0.813	0.087	0.000	0.429	-0.305	-0.262	0.429	-0.337	-0.815	0.035	-5.1
Reading	6	3371	D	A		6488	0.743	0.052	0.136	0.068	0.743	0.000	0.464	-0.340	-0.423	-0.254	0.464	-0.331	0.031	-6.2
Reading	6	3372	B	A		6488	0.491	0.352	0.491	0.037	0.120	0.000	0.450	-0.384	0.450	-0.408	-0.501	1.041	0.028	-4.7
Reading	6	3373	B	A		6488	0.715	0.044	0.715	0.093	0.147	0.000	0.394	-0.364	0.394	-0.322	-0.261	-0.162	0.031	-1.7
Reading	6	3374	C	A		6488	0.672	0.247	0.036	0.672	0.045	0.001	0.358	-0.256	-0.380	0.358	-0.331	0.096	0.029	3.3
Reading	6	3375	B	B		6488	0.867	0.045	0.867	0.046	0.041	0.001	0.489	-0.322	0.489	-0.336	-0.355	-1.287	0.039	-8.6
Reading	6	3376	C	A	3	6488	0.735	0.048	0.062	0.735	0.154	0.002	0.471	-0.386	-0.376	0.471	-0.352	-0.275	0.031	-4.4
Reading	6	3377	A	B	2	6488	0.497	0.497	0.053	0.117	0.330	0.002	0.147	0.147	-0.333	-0.221	-0.034	1.009	0.028	9.9
Reading	6	3378	C	A	2	6488	0.861	0.055	0.060	0.861	0.021	0.002	0.413	-0.231	-0.338	0.413	-0.263	-1.239	0.039	-5.7
Reading	6	3379	A	B	2	6488	0.697	0.697	0.155	0.042	0.103	0.002	0.473	0.473	-0.362	-0.429	-0.361	-0.048	0.030	-7.1
Reading	6	3380	C	A	1	6488	0.674	0.201	0.049	0.674	0.073	0.002	0.444	-0.313	-0.429	0.444	-0.393	0.083	0.030	-4.1
Reading	6	3381	D	A	2	6488	0.618	0.135	0.153	0.090	0.618	0.003	0.482	-0.442	-0.407	-0.346	0.482	0.390	0.029	-7.0
Reading	6	3382	B	A	2	6488	0.713	0.150	0.713	0.091	0.045	0.002	0.454	-0.310	0.454	-0.417	-0.343	-0.144	0.030	-5.9
Reading	6	3383	B	A	3	6488	0.649	0.121	0.649	0.117	0.111	0.002	0.425	-0.371	0.425	-0.385	-0.277	0.224	0.029	-1.0
Reading	6	3384	D	B	2	6488	0.247	0.257	0.090	0.404	0.247	0.002	0.078	-0.016	-0.428	-0.037	0.078	2.355	0.031	9.9
Reading	6	3385	A	A	2	6488	0.783	0.783	0.120	0.044	0.051	0.002	0.439	0.439	-0.285	-0.362	-0.360	-0.593	0.033	-2.9
Reading	6	3386	A	A		6491	0.886	0.886	0.090	0.014	0.010	0.000	0.307	0.307	-0.217	-0.248	-0.202	-1.519	0.042	0.9
Reading	6	3387	B	A		6491	0.919	0.042	0.919	0.019	0.020	0.000	0.401	-0.285	0.401	-0.233	-0.256	-1.952	0.048	-6.3
Reading	6	3388	A	A		6491	0.566	0.566	0.304	0.036	0.093	0.000	0.288	0.288	-0.213	-0.393	-0.259	0.636	0.028	9.8
Reading	6	3389	C	A		6491	0.883	0.050	0.027	0.883	0.039	0.000	0.445	-0.305	-0.287	0.445	-0.305	-1.491	0.041	-7.6
Reading	6	3390	A	A		6491	0.880	0.880	0.027	0.068	0.025	0.000	0.382	0.382	-0.222	-0.268	-0.285	-1.450	0.041	-2.7
Reading	6	3391	A	A		6491	0.914	0.914	0.019	0.036	0.031	0.001	0.433	0.433	-0.275	-0.272	-0.307	-1.871	0.047	-8.0
Reading	6	3392	B	A	2	6491	0.792	0.089	0.792	0.031	0.087	0.001	0.425	-0.345	0.425	-0.308	-0.277	-0.687	0.034	-3.8
Reading	6	3393	D	B	2	6491	0.701	0.047	0.192	0.059	0.701	0.001	0.374	-0.389	-0.215	-0.396	0.374	-0.094	0.030	2.4
Reading	6	3394	C	A	2	6491	0.677	0.163	0.127	0.677	0.031	0.001	0.317	-0.245	-0.227	0.317	-0.317	0.048	0.030	4.5
Reading	6	3395	A	B	2	6491	0.834	0.834	0.052	0.053	0.060	0.001	0.460	0.460	-0.352	-0.303	-0.311	-1.011	0.036	-6.5
Reading	6	3396	B	A	2	6491	0.729	0.077	0.729	0.133	0.059	0.002	0.420	-0.312	0.420	-0.307	-0.342	-0.264	0.031	-4.2

Appendix L: 2008 Grades 3–8 and 11 Multiple-Choice Statistics

Information						Proportions						Correlations					Rasch			
Cont.	Grade	Pub. ID	Key	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Reading	6	3397	D	A	2	6491	0.620	0.067	0.037	0.273	0.620	0.001	0.427	-0.380	-0.393	-0.350	0.427	0.356	0.029	-2.0
Reading	6	3398	C	B	3	6491	0.767	0.106	0.049	0.767	0.075	0.002	0.422	-0.367	-0.332	0.422	-0.228	-0.510	0.032	-3.2
Reading	6	3399	A	B	3	6491	0.815	0.815	0.030	0.052	0.101	0.001	0.485	0.485	-0.336	-0.376	-0.348	-0.859	0.035	-7.9
Reading	6	3400	B	B	1	6491	0.589	0.120	0.589	0.110	0.179	0.002	0.290	-0.311	0.290	-0.290	-0.153	0.519	0.028	8.9
Reading	6	3401	A	B	2	6491	0.332	0.332	0.339	0.103	0.223	0.003	0.281	0.281	-0.193	-0.408	-0.383	1.817	0.029	9.9
Reading	6	3402	D	A	2	6494	0.726	0.086	0.100	0.088	0.726	0.000	0.404	-0.338	-0.279	-0.303	0.404	-0.234	0.031	-1.5
Reading	6	3403	C	B	2	6494	0.865	0.047	0.044	0.865	0.043	0.001	0.412	-0.303	-0.269	0.412	-0.259	-1.281	0.039	-4.8
Reading	6	3404	D	B	2	6494	0.865	0.057	0.039	0.038	0.865	0.001	0.521	-0.380	-0.340	-0.359	0.521	-1.287	0.039	-9.9
Reading	6	3405	C	A	1	6494	0.928	0.011	0.027	0.928	0.034	0.000	0.443	-0.234	-0.316	0.443	-0.302	-2.060	0.050	-9.7
Reading	6	3406	C	A	2	6494	0.743	0.035	0.120	0.743	0.101	0.001	0.412	-0.297	-0.306	0.412	-0.327	-0.344	0.031	-2.8
Reading	6	3407	B	A	2	6494	0.826	0.118	0.826	0.033	0.022	0.001	0.425	-0.358	0.425	-0.259	-0.254	-0.945	0.036	-4.2
Reading	6	3408	D	A	2	6494	0.753	0.117	0.059	0.069	0.753	0.001	0.520	-0.376	-0.450	-0.395	0.520	-0.410	0.032	-9.3
Reading	6	3409	A	A	2	6494	0.716	0.716	0.057	0.053	0.173	0.001	0.320	0.320	-0.229	-0.328	-0.208	-0.179	0.030	1.0
Reading	6	3410	C	B	2	6494	0.595	0.103	0.167	0.595	0.135	0.001	0.420	-0.423	-0.325	0.420	-0.330	0.480	0.028	-4.1
Reading	6	3411	D	A	2	6494	0.157	0.535	0.142	0.163	0.157	0.003	0.023	0.077	-0.261	0.165	0.023	2.945	0.036	9.9
Reading	6	3412	B	A	1	6494	0.733	0.103	0.733	0.115	0.047	0.002	0.316	-0.269	0.316	-0.193	-0.243	-0.283	0.031	3.0
Reading	6	3413	C	B	2	6494	0.685	0.087	0.075	0.685	0.151	0.001	0.440	-0.424	-0.349	0.440	-0.285	-0.002	0.030	-5.7
Reading	6	3414	A	A	2	6494	0.338	0.338	0.087	0.501	0.072	0.001	0.131	0.131	-0.228	-0.084	-0.243	1.765	0.029	9.9
Reading	6	3415	A	A	2	6494	0.351	0.351	0.273	0.295	0.079	0.001	0.283	0.283	-0.272	-0.270	-0.405	1.695	0.029	9.3
Reading	6	3416	C	B	3	6494	0.428	0.213	0.243	0.428	0.114	0.001	0.200	-0.176	-0.134	0.200	-0.291	1.304	0.028	9.9
Reading	6	3417	B	B	3	6494	0.367	0.077	0.367	0.130	0.425	0.002	0.223	-0.402	0.223	-0.367	-0.124	1.615	0.028	9.9
Reading	7	3418	A	A		135641	0.826	0.826	0.024	0.074	0.075	0.000	0.413	0.413	-0.268	-0.249	-0.345	-0.929	0.008	-9.0
Reading	7	3419	C	A		135641	0.884	0.039	0.034	0.884	0.042	0.000	0.333	-0.205	-0.252	0.333	-0.197	-1.474	0.009	1.7
Reading	7	3420	B	B		135641	0.770	0.048	0.770	0.015	0.165	0.000	0.383	-0.424	0.383	-0.241	-0.251	-0.514	0.007	9.9
Reading	7	3421	D	B		135641	0.622	0.041	0.084	0.252	0.622	0.001	0.381	-0.336	-0.386	-0.280	0.381	0.361	0.006	9.9
Reading	7	3422	C	A		135641	0.829	0.101	0.042	0.829	0.028	0.000	0.503	-0.419	-0.301	0.503	-0.334	-0.953	0.008	-9.9
Reading	7	3423	D	A		135641	0.742	0.016	0.085	0.155	0.742	0.001	0.258	-0.286	-0.301	-0.102	0.258	-0.331	0.007	9.9
Reading	7	3424	C	B	3	135641	0.808	0.074	0.078	0.808	0.039	0.001	0.491	-0.397	-0.391	0.491	-0.229	-0.791	0.008	-9.9
Reading	7	3425	D	B	2	135641	0.584	0.034	0.096	0.285	0.584	0.001	0.438	-0.368	-0.409	-0.373	0.438	0.559	0.006	3.0
Reading	7	3426	A	B	2	135641	0.711	0.711	0.068	0.056	0.164	0.001	0.438	0.438	-0.366	-0.330	-0.329	-0.132	0.007	-4.4
Reading	7	3427	A	A	2	135641	0.711	0.711	0.050	0.108	0.130	0.001	0.395	0.395	-0.368	-0.284	-0.288	-0.140	0.007	9.9
Reading	7	3428	C	B	3	135641	0.729	0.145	0.052	0.729	0.074	0.001	0.445	-0.383	-0.304	0.445	-0.301	-0.247	0.007	-5.4
Reading	7	3429	D	B	3	135641	0.642	0.024	0.106	0.225	0.642	0.001	0.273	-0.286	-0.213	-0.208	0.273	0.247	0.006	9.9
Reading	7	3430	B	B	2	135641	0.750	0.092	0.750	0.092	0.064	0.002	0.432	-0.352	0.432	-0.262	-0.355	-0.385	0.007	-2.1
Reading	7	3431	A	A	3	135641	0.773	0.773	0.085	0.066	0.073	0.004	0.533	0.533	-0.433	-0.403	-0.337	-0.534	0.007	-9.9
Reading	7	3432	D	A	1	135641	0.526	0.246	0.037	0.188	0.526	0.003	0.384	-0.312	-0.451	-0.339	0.384	0.858	0.006	9.9
Reading	7	3433	C	A	3	135641	0.645	0.079	0.118	0.645	0.154	0.004	0.484	-0.439	-0.368	0.484	-0.384	0.238	0.006	-9.9
Reading	7	3434	B	B	3	135641	0.687	0.067	0.687	0.083	0.158	0.004	0.495	-0.451	0.495	-0.406	-0.349	0.001	0.007	-9.9
Reading	7	3435	C	A	1	135641	0.589	0.094	0.201	0.589	0.111	0.004	0.461	-0.432	-0.393	0.461	-0.341	0.534	0.006	-6.8
Reading	7	3436	D	B	2	135641	0.624	0.182	0.070	0.119	0.624	0.005	0.363	-0.199	-0.431	-0.335	0.363	0.350	0.006	9.9
Reading	7	3437	C	B	2	135641	0.525	0.090	0.093	0.525	0.285	0.005	0.493	-0.534	-0.513	0.493	-0.369	0.864	0.006	-9.9
Reading	7	3438	C	A		135641	0.819	0.058	0.047	0.819	0.075	0.001	0.406	-0.335	-0.297	0.406	-0.232	-0.871	0.008	0.2
Reading	7	3439	C	A		135641	0.885	0.027	0.075	0.885	0.012	0.000	0.347	-0.240	-0.251	0.347	-0.201	-1.487	0.009	-1.9

Appendix L: 2008 Grades 3–8 and 11 Multiple-Choice Statistics

Information						Proportions						Correlations					Rasch			
Cont.	Grade	Pub. ID	Key	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Reading	7	3440	A	A		135641	0.606	0.606	0.175	0.050	0.169	0.001	0.465	0.465	-0.406	-0.308	-0.413	0.444	0.006	-9.9
Reading	7	3441	D	A		135641	0.689	0.211	0.040	0.059	0.689	0.001	0.439	-0.354	-0.359	-0.338	0.439	-0.008	0.007	-4.7
Reading	7	3442	C	A		135641	0.520	0.219	0.097	0.520	0.163	0.001	0.408	-0.355	-0.476	0.408	-0.295	0.888	0.006	9.9
Reading	7	3443	D	A		135641	0.551	0.058	0.218	0.172	0.551	0.001	0.483	-0.472	-0.441	-0.393	0.483	0.733	0.006	-9.9
Reading	7	3444	D	A		135641	0.753	0.080	0.057	0.109	0.753	0.001	0.431	-0.328	-0.357	-0.289	0.431	-0.400	0.007	-4.1
Reading	7	3445	C	A	2	135641	0.839	0.054	0.040	0.839	0.066	0.001	0.429	-0.340	-0.389	0.429	-0.189	-1.031	0.008	-6.0
Reading	7	3446	A	A	2	135641	0.555	0.555	0.314	0.069	0.061	0.001	0.349	0.349	-0.255	-0.385	-0.374	0.710	0.006	9.9
Reading	7	3447	B	B	2	135641	0.480	0.086	0.480	0.322	0.110	0.001	0.425	-0.342	0.425	-0.396	-0.422	1.092	0.006	9.9
Reading	7	3448	D	A	2	135641	0.466	0.077	0.360	0.095	0.466	0.002	0.374	-0.433	-0.313	-0.371	0.374	1.163	0.006	9.9
Reading	7	3449	C	B	2	135641	0.745	0.059	0.078	0.745	0.116	0.002	0.453	-0.434	-0.380	0.453	-0.250	-0.348	0.007	3.5
Reading	7	3450	B	B	3	135641	0.570	0.042	0.570	0.128	0.258	0.002	0.426	-0.425	0.426	-0.329	-0.376	0.636	0.006	5.9
Reading	7	3451	A	B	3	135641	0.810	0.810	0.054	0.076	0.058	0.003	0.498	0.498	-0.369	-0.335	-0.373	-0.799	0.008	-9.9
Reading	7	3452	B	A	2	135641	0.770	0.072	0.770	0.054	0.100	0.003	0.552	-0.431	0.552	-0.371	-0.433	-0.511	0.007	-9.9
Reading	7	3453	A	A	2	135641	0.718	0.718	0.074	0.158	0.047	0.003	0.519	0.519	-0.395	-0.417	-0.396	-0.178	0.007	-9.9
Reading	7	3454	B	A	2	135641	0.737	0.095	0.737	0.062	0.102	0.003	0.529	-0.391	0.529	-0.432	-0.390	-0.297	0.007	-9.9
Reading	7	3455	A	A	2	135641	0.833	0.833	0.056	0.041	0.065	0.003	0.505	0.505	-0.378	-0.376	-0.312	-0.982	0.008	-9.9
Reading	7	3456	C	B	2	135641	0.590	0.203	0.109	0.590	0.095	0.004	0.378	-0.252	-0.419	0.378	-0.304	0.531	0.006	9.9
Reading	7	3457	D	B	2	135641	0.622	0.091	0.093	0.190	0.622	0.004	0.473	-0.446	-0.459	-0.320	0.473	0.365	0.006	-8.6
Reading	7	3458	A	A	2	7104	0.745	0.745	0.057	0.085	0.113	0.000	0.440	0.440	-0.363	-0.311	-0.319	-0.486	0.030	-3.5
Reading	7	3459	C	B	2	7104	0.572	0.120	0.247	0.572	0.060	0.001	0.233	-0.073	-0.303	0.233	-0.094	0.499	0.027	9.9
Reading	7	3460	D	B	2	7104	0.547	0.083	0.087	0.282	0.547	0.001	0.416	-0.357	-0.429	-0.335	0.416	0.630	0.027	0.0
Reading	7	3461	C	A	2	7104	0.461	0.164	0.163	0.461	0.212	0.000	0.378	-0.295	-0.354	0.378	-0.394	1.073	0.027	5.1
Reading	7	3462	C	B	2	7104	0.571	0.252	0.096	0.571	0.081	0.001	0.487	-0.360	-0.510	0.487	-0.476	0.509	0.027	-4.5
Reading	7	3463	D	B	2	7104	0.675	0.081	0.170	0.073	0.675	0.001	0.450	-0.351	-0.320	-0.428	0.450	-0.059	0.028	-3.5
Reading	7	3464	B	B	3	7104	0.842	0.058	0.842	0.040	0.059	0.001	0.403	-0.314	0.403	-0.268	-0.240	-1.205	0.035	-1.6
Reading	7	3465	C	A	2	7104	0.699	0.205	0.030	0.699	0.066	0.001	0.445	-0.334	-0.324	0.445	-0.407	-0.197	0.029	-3.5
Reading	7	3466	B	A	2	7104	0.437	0.153	0.437	0.051	0.358	0.002	0.311	-0.227	0.311	-0.422	-0.286	1.199	0.027	9.9
Reading	7	3467	A	A	2	7104	0.738	0.738	0.121	0.055	0.084	0.001	0.522	0.522	-0.384	-0.418	-0.405	-0.441	0.030	-8.5
Reading	7	3468	D	B	2	7104	0.497	0.218	0.182	0.101	0.497	0.002	0.376	-0.277	-0.367	-0.407	0.376	0.890	0.027	4.4
Reading	7	3469	A	B	2	7104	0.732	0.732	0.109	0.091	0.067	0.001	0.525	0.525	-0.445	-0.389	-0.358	-0.400	0.030	-8.3
Reading	7	3470	C	A	1	7104	0.544	0.289	0.093	0.544	0.073	0.002	0.364	-0.302	-0.325	0.364	-0.345	0.649	0.027	6.3
Reading	7	3471	B	B	3	7104	0.836	0.046	0.836	0.086	0.030	0.002	0.488	-0.381	0.488	-0.322	-0.341	-1.156	0.035	-3.4
Reading	7	3472	A	B	3	7104	0.619	0.619	0.102	0.069	0.209	0.001	0.316	0.316	-0.331	-0.407	-0.140	0.255	0.028	9.9
Reading	7	3473	D	A	3	7104	0.486	0.203	0.172	0.137	0.486	0.001	0.280	-0.120	-0.316	-0.352	0.280	0.946	0.027	9.9
Reading	7	3474	B	A	1	6785	0.933	0.027	0.933	0.015	0.025	0.000	0.326	-0.208	0.326	-0.151	-0.247	-2.185	0.051	-1.0
Reading	7	3475	B	A	2	6785	0.828	0.032	0.828	0.066	0.074	0.001	0.495	-0.335	0.495	-0.378	-0.337	-0.984	0.035	-8.9
Reading	7	3476	D	A	2	6785	0.730	0.085	0.020	0.164	0.730	0.000	0.341	-0.331	-0.301	-0.207	0.341	-0.287	0.030	3.2
Reading	7	3477	C	A	2	6785	0.820	0.097	0.053	0.820	0.030	0.000	0.481	-0.353	-0.347	0.481	-0.326	-0.918	0.034	-8.6
Reading	7	3478	A	A	2	6785	0.691	0.691	0.060	0.083	0.165	0.001	0.426	0.426	-0.379	-0.446	-0.233	-0.055	0.029	-2.2
Reading	7	3479	D	A	2	6785	0.781	0.026	0.158	0.034	0.781	0.001	0.380	-0.293	-0.293	-0.269	0.380	-0.626	0.032	-0.4
Reading	7	3480	D	A	2	6785	0.651	0.179	0.126	0.043	0.651	0.001	0.414	-0.402	-0.274	-0.298	0.414	0.175	0.029	-0.3
Reading	7	3481	C	A	1	6785	0.722	0.069	0.093	0.722	0.114	0.001	0.484	-0.398	-0.391	0.484	-0.331	-0.241	0.030	-7.4
Reading	7	3482	B	B	2	6785	0.668	0.164	0.668	0.063	0.104	0.001	0.386	-0.389	0.386	-0.299	-0.197	0.080	0.029	1.9

Appendix L: 2008 Grades 3–8 and 11 Multiple-Choice Statistics

Information						Proportions							Correlations					Rasch		
Cont.	Grade	Pub. ID	Key	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Reading	7	3483	D	A	1	6785	0.593	0.073	0.236	0.096	0.593	0.001	0.416	-0.294	-0.296	-0.503	0.416	0.481	0.028	-0.1
Reading	7	3484	D	A	1	6785	0.447	0.219	0.157	0.174	0.447	0.002	0.178	-0.225	-0.084	-0.178	0.178	1.223	0.027	9.9
Reading	7	3485	B	B	3	6785	0.757	0.073	0.757	0.125	0.044	0.001	0.525	-0.377	0.525	-0.427	-0.367	-0.459	0.031	-9.9
Reading	7	3486	A	A	3	6785	0.782	0.782	0.099	0.085	0.032	0.001	0.363	0.363	-0.217	-0.302	-0.288	-0.635	0.032	3.4
Reading	7	3487	B	B	2	6785	0.401	0.273	0.401	0.140	0.183	0.002	0.237	-0.102	0.237	-0.400	-0.273	1.460	0.028	9.9
Reading	7	3488	C	B	3	6785	0.645	0.058	0.165	0.645	0.130	0.002	0.414	-0.404	-0.339	0.414	-0.290	0.206	0.028	0.4
Reading	7	3489	A	B	3	6785	0.537	0.537	0.094	0.251	0.116	0.002	0.333	0.333	-0.369	-0.193	-0.408	0.770	0.027	8.9
Reading	7	3490	B	A	2	6780	0.872	0.033	0.872	0.092	0.004	0.000	0.207	-0.188	0.207	-0.137	-0.103	-1.350	0.039	8.7
Reading	7	3491	C	B	2	6780	0.745	0.037	0.067	0.745	0.151	0.000	0.262	-0.279	-0.177	0.262	-0.169	-0.356	0.031	7.6
Reading	7	3492	D	A	2	6780	0.829	0.068	0.048	0.055	0.829	0.000	0.473	-0.397	-0.304	-0.285	0.473	-0.962	0.035	-7.7
Reading	7	3493	A	A	2	6780	0.867	0.867	0.026	0.053	0.054	0.000	0.300	0.300	-0.187	-0.207	-0.199	-1.300	0.038	1.1
Reading	7	3494	C	A	2	6780	0.627	0.063	0.139	0.627	0.170	0.001	0.436	-0.397	-0.350	0.436	-0.347	0.322	0.028	-4.0
Reading	7	3495	A	B	2	6780	0.571	0.571	0.035	0.129	0.264	0.001	0.399	0.399	-0.403	-0.289	-0.373	0.610	0.027	0.7
Reading	7	3496	D	A	1	6780	0.629	0.075	0.119	0.176	0.629	0.001	0.404	-0.337	-0.380	-0.294	0.404	0.311	0.028	-1.1
Reading	7	3497	A	A	1	6780	0.867	0.867	0.032	0.032	0.067	0.001	0.374	0.374	-0.276	-0.228	-0.249	-1.307	0.038	-3.3
Reading	7	3498	B	B	2	6780	0.201	0.051	0.201	0.599	0.147	0.001	-0.032	-0.312	-0.032	0.108	-0.114	2.637	0.033	9.9
Reading	7	3499	A	B	2	6780	0.827	0.827	0.096	0.041	0.035	0.001	0.426	0.426	-0.327	-0.347	-0.211	-0.940	0.035	-2.2
Reading	7	3500	B	B	3	6780	0.605	0.081	0.605	0.214	0.099	0.002	0.408	-0.383	0.408	-0.396	-0.207	0.437	0.028	0.6
Reading	7	3501	B	A	2	6780	0.462	0.297	0.462	0.105	0.134	0.002	0.241	-0.132	0.241	-0.354	-0.274	1.156	0.027	9.9
Reading	7	3502	D	A	2	6780	0.798	0.049	0.055	0.096	0.798	0.001	0.462	-0.346	-0.334	-0.324	0.462	-0.719	0.033	-6.5
Reading	7	3503	C	B	3	6780	0.474	0.211	0.211	0.474	0.101	0.002	0.325	-0.248	-0.322	0.325	-0.332	1.094	0.027	7.2
Reading	7	3504	A	B	3	6780	0.605	0.605	0.177	0.077	0.139	0.002	0.227	0.227	-0.099	-0.276	-0.225	0.435	0.028	9.9
Reading	7	3505	C	A	3	6780	0.644	0.067	0.039	0.644	0.248	0.002	0.304	-0.291	-0.397	0.304	-0.191	0.231	0.028	9.7
Reading	7	3506	C	A	2	6755	0.688	0.043	0.171	0.688	0.097	0.000	0.353	-0.378	-0.212	0.353	-0.317	-0.014	0.029	6.9
Reading	7	3507	B	B	2	6755	0.822	0.027	0.822	0.057	0.093	0.000	0.399	-0.241	0.399	-0.250	-0.322	-0.908	0.035	-3.5
Reading	7	3508	B	A	2	6755	0.742	0.202	0.742	0.017	0.039	0.000	0.419	-0.355	0.419	-0.290	-0.290	-0.337	0.031	-3.4
Reading	7	3509	D	B	2	6755	0.623	0.072	0.130	0.175	0.623	0.001	0.392	-0.343	-0.319	-0.320	0.392	0.347	0.028	2.2
Reading	7	3510	C	B	2	6755	0.807	0.076	0.070	0.807	0.046	0.001	0.484	-0.344	-0.373	0.484	-0.313	-0.790	0.034	-9.3
Reading	7	3511	B	A	2	6755	0.693	0.054	0.693	0.126	0.127	0.001	0.373	-0.339	0.373	-0.240	-0.308	-0.042	0.029	1.4
Reading	7	3512	B	A	2	6755	0.723	0.114	0.723	0.068	0.094	0.002	0.413	-0.367	0.413	-0.257	-0.291	-0.219	0.030	-2.6
Reading	7	3513	D	B	2	6755	0.849	0.046	0.057	0.046	0.849	0.001	0.464	-0.318	-0.323	-0.322	0.464	-1.137	0.037	-7.4
Reading	7	3514	D	A	1	6755	0.722	0.065	0.096	0.115	0.722	0.002	0.456	-0.349	-0.316	-0.371	0.456	-0.215	0.030	-5.7
Reading	7	3515	A	B	2	6755	0.600	0.600	0.194	0.145	0.059	0.002	0.411	0.411	-0.388	-0.302	-0.322	0.467	0.028	-0.9
Reading	7	3516	A	A	2	6755	0.452	0.452	0.172	0.224	0.149	0.002	0.002	0.002	-0.037	0.048	-0.025	1.215	0.027	9.9
Reading	7	3517	C	B	2	6755	0.540	0.071	0.208	0.540	0.178	0.002	0.305	-0.334	-0.238	0.305	-0.261	0.771	0.027	9.0
Reading	7	3518	C	B	2	6755	0.563	0.330	0.050	0.563	0.054	0.002	0.131	-0.051	-0.257	0.131	-0.180	0.653	0.027	9.9
Reading	7	3519	B	B	3	6755	0.360	0.133	0.360	0.413	0.091	0.002	0.261	-0.385	0.261	-0.164	-0.425	1.687	0.028	9.9
Reading	7	3520	D	B	3	6755	0.805	0.047	0.064	0.081	0.805	0.002	0.518	-0.351	-0.413	-0.363	0.518	-0.773	0.034	-9.9
Reading	7	3521	C	B	2	6755	0.560	0.126	0.185	0.560	0.126	0.003	0.332	-0.297	-0.223	0.332	-0.353	0.671	0.027	7.0
Reading	7	3522	A	A	1	6764	0.933	0.933	0.017	0.014	0.036	0.000	0.237	0.237	-0.103	-0.148	-0.180	-2.143	0.051	2.8
Reading	7	3523	B	B	3	6764	0.776	0.087	0.776	0.094	0.042	0.000	0.289	-0.121	0.289	-0.262	-0.244	-0.558	0.032	7.9
Reading	7	3524	C	B	2	6764	0.603	0.067	0.139	0.603	0.191	0.000	0.392	-0.320	-0.323	0.392	-0.338	0.454	0.028	0.9
Reading	7	3525	A	A	2	6764	0.686	0.686	0.100	0.160	0.053	0.000	0.326	0.326	-0.267	-0.238	-0.251	0.006	0.029	4.9

Appendix L: 2008 Grades 3–8 and 11 Multiple-Choice Statistics

Information						Proportions							Correlations					Rasch		
Cont.	Grade	Pub. ID	Key	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Reading	7	3526	D	B	3	6764	0.553	0.104	0.140	0.202	0.553	0.001	0.223	-0.253	-0.217	-0.127	0.223	0.713	0.027	9.9
Reading	7	3527	B	B	3	6764	0.814	0.071	0.814	0.074	0.040	0.001	0.339	-0.250	0.339	-0.262	-0.175	-0.835	0.034	-0.2
Reading	7	3528	D	A	2	6764	0.746	0.034	0.198	0.020	0.746	0.001	0.348	-0.266	-0.278	-0.270	0.348	-0.358	0.031	2.8
Reading	7	3529	D	A	2	6764	0.619	0.130	0.200	0.050	0.619	0.001	0.353	-0.248	-0.289	-0.391	0.353	0.372	0.028	4.0
Reading	7	3530	C	A	1	6764	0.921	0.038	0.027	0.921	0.013	0.002	0.435	-0.332	-0.278	0.435	-0.228	-1.949	0.047	-8.9
Reading	7	3531	C	B	1	6764	0.624	0.071	0.257	0.624	0.046	0.002	0.445	-0.450	-0.365	0.445	-0.304	0.345	0.028	-4.0
Reading	7	3532	D	A	2	6764	0.649	0.188	0.089	0.072	0.649	0.001	0.359	-0.339	-0.258	-0.237	0.359	0.209	0.028	3.1
Reading	7	3533	A	A	2	6764	0.856	0.856	0.046	0.044	0.052	0.001	0.500	0.500	-0.318	-0.346	-0.375	-1.194	0.037	-9.9
Reading	7	3534	B	B	2	6764	0.769	0.071	0.769	0.035	0.123	0.001	0.406	-0.347	0.406	-0.333	-0.258	-0.505	0.032	0.7
Reading	7	3535	B	A	3	6764	0.294	0.196	0.294	0.133	0.375	0.002	0.204	-0.224	0.204	-0.369	-0.160	2.062	0.029	9.9
Reading	7	3536	A	B	2	6764	0.607	0.607	0.160	0.087	0.143	0.001	0.361	0.361	-0.278	-0.319	-0.296	0.432	0.028	1.7
Reading	7	3537	C	B	3	6764	0.384	0.110	0.360	0.384	0.142	0.003	0.168	-0.238	-0.011	0.168	-0.427	1.564	0.028	9.9
Reading	7	3538	A	B	3	6746	0.800	0.800	0.048	0.045	0.107	0.000	0.319	0.319	-0.282	-0.275	-0.161	-0.734	0.033	3.9
Reading	7	3539	D	A	2	6746	0.539	0.250	0.134	0.076	0.539	0.000	0.395	-0.302	-0.394	-0.391	0.395	0.795	0.028	1.2
Reading	7	3540	A	B	2	6746	0.604	0.604	0.111	0.133	0.153	0.000	0.317	0.317	-0.248	-0.268	-0.267	0.459	0.028	9.4
Reading	7	3541	C	B	3	6746	0.452	0.284	0.038	0.452	0.226	0.000	0.372	-0.401	-0.466	0.372	-0.269	1.239	0.028	4.3
Reading	7	3542	B	B	2	6746	0.841	0.068	0.841	0.053	0.037	0.000	0.462	-0.292	0.462	-0.355	-0.327	-1.065	0.036	-5.2
Reading	7	3543	B	A	2	6746	0.722	0.064	0.722	0.154	0.059	0.001	0.459	-0.341	0.459	-0.376	-0.330	-0.210	0.030	-5.2
Reading	7	3544	B	A	2	6746	0.642	0.297	0.642	0.022	0.039	0.000	0.412	-0.366	0.412	-0.271	-0.319	0.255	0.029	-3.3
Reading	7	3545	D	A	2	6746	0.562	0.074	0.263	0.099	0.562	0.002	0.379	-0.339	-0.262	-0.452	0.379	0.675	0.028	3.5
Reading	7	3546	A	B	2	6746	0.768	0.768	0.112	0.086	0.034	0.000	0.367	0.367	-0.206	-0.346	-0.262	-0.505	0.032	1.0
Reading	7	3547	C	A	2	6746	0.592	0.118	0.171	0.592	0.118	0.001	0.262	-0.326	-0.092	0.262	-0.270	0.522	0.028	9.9
Reading	7	3548	D	A	2	6746	0.705	0.079	0.100	0.115	0.705	0.001	0.541	-0.384	-0.442	-0.435	0.541	-0.105	0.030	-9.9
Reading	7	3549	B	A	2	6746	0.610	0.179	0.610	0.143	0.067	0.001	0.461	-0.349	0.461	-0.437	-0.352	0.424	0.028	-5.7
Reading	7	3550	B	A	2	6746	0.644	0.212	0.644	0.085	0.057	0.001	0.475	-0.354	0.475	-0.441	-0.419	0.241	0.029	-5.0
Reading	7	3551	A	A	2	6746	0.382	0.382	0.134	0.157	0.325	0.000	0.274	0.274	-0.329	-0.251	-0.256	1.600	0.028	9.9
Reading	7	3552	D	A	2	6746	0.519	0.304	0.114	0.062	0.519	0.000	0.266	-0.155	-0.284	-0.406	0.266	0.898	0.027	9.9
Reading	7	3553	C	A	2	6746	0.812	0.079	0.063	0.812	0.045	0.001	0.491	-0.334	-0.371	0.491	-0.366	-0.824	0.034	-5.9
Reading	7	3554	A	A	3	6744	0.859	0.859	0.025	0.052	0.064	0.000	0.373	0.373	-0.251	-0.294	-0.217	-1.194	0.037	-3.6
Reading	7	3555	D	A	1	6744	0.627	0.104	0.186	0.082	0.627	0.000	0.345	-0.288	-0.307	-0.220	0.345	0.331	0.028	2.2
Reading	7	3556	A	A	2	6744	0.587	0.587	0.102	0.219	0.090	0.001	0.271	0.271	-0.339	-0.208	-0.137	0.536	0.027	9.9
Reading	7	3557	A	A	2	6744	0.638	0.638	0.111	0.077	0.173	0.000	0.388	0.388	-0.250	-0.292	-0.370	0.277	0.028	-0.7
Reading	7	3558	B	A	3	6744	0.793	0.118	0.793	0.050	0.039	0.000	0.389	-0.268	0.389	-0.274	-0.313	-0.656	0.033	-2.0
Reading	7	3559	C	B	2	6744	0.597	0.152	0.075	0.597	0.174	0.002	0.354	-0.288	-0.326	0.354	-0.281	0.486	0.028	2.3
Reading	7	3560	B	A	2	6744	0.808	0.098	0.808	0.032	0.061	0.001	0.340	-0.287	0.340	-0.193	-0.206	-0.763	0.033	-0.6
Reading	7	3561	C	A	1	6744	0.680	0.038	0.216	0.680	0.065	0.001	0.313	-0.240	-0.238	0.313	-0.265	0.047	0.029	5.0
Reading	7	3562	D	A	2	6744	0.793	0.041	0.117	0.047	0.793	0.001	0.391	-0.298	-0.245	-0.328	0.391	-0.660	0.033	-3.0
Reading	7	3563	D	A	2	6744	0.664	0.203	0.082	0.050	0.664	0.001	0.373	-0.258	-0.364	-0.303	0.373	0.136	0.028	0.7
Reading	7	3564	B	B	1	6744	0.471	0.338	0.471	0.123	0.065	0.002	0.312	-0.256	0.312	-0.341	-0.314	1.114	0.027	8.5
Reading	7	3565	C	A	1	6744	0.578	0.220	0.072	0.578	0.129	0.001	0.377	-0.290	-0.403	0.377	-0.309	0.587	0.027	1.7
Reading	7	3566	B	A	2	6744	0.522	0.157	0.522	0.197	0.123	0.001	0.351	-0.248	0.351	-0.345	-0.312	0.866	0.027	3.5
Reading	7	3567	A	B	2	6744	0.631	0.631	0.097	0.038	0.234	0.001	0.237	0.237	-0.269	-0.283	-0.122	0.313	0.028	9.9
Reading	7	3568	B	B	3	6744	0.396	0.312	0.396	0.250	0.041	0.001	0.262	-0.291	0.262	-0.188	-0.373	1.491	0.028	9.9

Appendix L: 2008 Grades 3–8 and 11 Multiple-Choice Statistics

Information						Proportions							Correlations					Rasch		
Cont.	Grade	Pub. ID	Key	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Reading	7	3569	C	B	3	6744	0.520	0.056	0.379	0.520	0.044	0.001	0.223	-0.321	-0.126	0.223	-0.384	0.875	0.027	9.9
Reading	7	3570	D	B	2	6759	0.626	0.208	0.046	0.120	0.626	0.000	0.261	-0.156	-0.327	-0.237	0.261	0.342	0.028	9.9
Reading	7	3571	C	A	2	6759	0.709	0.082	0.080	0.709	0.129	0.000	0.342	-0.311	-0.282	0.342	-0.204	-0.117	0.030	4.4
Reading	7	3572	B	B	2	6759	0.636	0.238	0.636	0.077	0.048	0.000	0.513	-0.480	0.513	-0.380	-0.359	0.287	0.028	-9.9
Reading	7	3573	C	A	2	6759	0.814	0.079	0.070	0.814	0.036	0.000	0.471	-0.336	-0.376	0.471	-0.278	-0.826	0.034	-7.2
Reading	7	3574	D	B	2	6759	0.661	0.102	0.091	0.145	0.661	0.000	0.383	-0.350	-0.350	-0.239	0.383	0.154	0.029	3.8
Reading	7	3575	B	A	2	6759	0.723	0.026	0.723	0.098	0.152	0.001	0.354	-0.346	0.354	-0.253	-0.266	-0.204	0.030	3.0
Reading	7	3576	C	A	1	6759	0.630	0.189	0.129	0.630	0.050	0.002	0.397	-0.361	-0.338	0.397	-0.208	0.320	0.028	-1.0
Reading	7	3577	B	A	1	6759	0.322	0.254	0.322	0.103	0.319	0.002	0.114	-0.188	0.114	-0.317	0.025	1.898	0.029	9.9
Reading	7	3578	D	A	1	6759	0.559	0.034	0.369	0.036	0.559	0.002	0.275	-0.348	-0.187	-0.398	0.275	0.686	0.027	9.9
Reading	7	3579	D	B	1	6759	0.417	0.122	0.233	0.225	0.417	0.002	0.333	-0.302	-0.325	-0.337	0.333	1.395	0.027	5.8
Reading	7	3580	B	A	1	6759	0.348	0.454	0.348	0.119	0.078	0.002	0.173	-0.083	0.173	-0.360	-0.295	1.759	0.028	9.9
Reading	7	3581	C	A	1	6759	0.739	0.081	0.132	0.739	0.046	0.002	0.399	-0.321	-0.269	0.399	-0.318	-0.303	0.031	-2.8
Reading	7	3582	C	B	1	6759	0.700	0.058	0.176	0.700	0.063	0.002	0.380	-0.298	-0.270	0.380	-0.324	-0.066	0.029	-0.4
Reading	7	3583	A	B	1	6759	0.737	0.737	0.094	0.084	0.082	0.002	0.502	0.502	-0.373	-0.349	-0.419	-0.288	0.030	-8.6
Reading	7	3584	D	B	1	6759	0.633	0.126	0.148	0.090	0.633	0.002	0.484	-0.393	-0.392	-0.412	0.484	0.304	0.028	-8.3
Reading	7	3585	A	B	1	6759	0.408	0.408	0.154	0.212	0.223	0.004	0.270	0.270	-0.333	-0.253	-0.219	1.443	0.027	9.9
Reading	7	3586	C	A	2	6770	0.792	0.083	0.082	0.792	0.043	0.000	0.313	-0.194	-0.248	0.313	-0.223	-0.652	0.033	2.4
Reading	7	3587	B	A	2	6770	0.736	0.152	0.736	0.053	0.059	0.000	0.443	-0.352	0.443	-0.360	-0.298	-0.280	0.030	-4.0
Reading	7	3588	D	B	2	6770	0.506	0.068	0.220	0.204	0.506	0.001	0.246	-0.363	-0.146	-0.231	0.246	0.958	0.027	9.9
Reading	7	3589	A	B	2	6770	0.818	0.818	0.104	0.030	0.046	0.001	0.462	0.462	-0.338	-0.335	-0.335	-0.856	0.034	-4.9
Reading	7	3590	B	A	2	6770	0.734	0.120	0.734	0.090	0.055	0.001	0.478	-0.396	0.478	-0.357	-0.317	-0.265	0.030	-7.3
Reading	7	3591	D	B	2	6770	0.718	0.084	0.160	0.036	0.718	0.002	0.387	-0.357	-0.239	-0.356	0.387	-0.170	0.030	-0.2
Reading	7	3592	C	A	2	6770	0.639	0.149	0.127	0.639	0.085	0.001	0.468	-0.460	-0.349	0.468	-0.308	0.281	0.028	-6.0
Reading	7	3593	A	B	2	6770	0.877	0.877	0.058	0.031	0.034	0.001	0.427	0.427	-0.273	-0.329	-0.272	-1.383	0.039	-4.1
Reading	7	3594	C	B	1	6770	0.602	0.102	0.074	0.602	0.220	0.001	0.273	-0.237	-0.360	0.273	-0.150	0.475	0.028	9.9
Reading	7	3595	C	A	1	6770	0.744	0.084	0.089	0.744	0.080	0.001	0.400	-0.285	-0.243	0.400	-0.353	-0.334	0.031	-1.2
Reading	7	3596	A	B	3	6770	0.450	0.450	0.193	0.196	0.159	0.003	0.199	0.199	-0.227	-0.144	-0.183	1.242	0.027	9.9
Reading	7	3597	A	A	3	6770	0.382	0.382	0.332	0.106	0.178	0.002	0.206	0.206	-0.082	-0.295	-0.340	1.588	0.028	9.9
Reading	7	3598	D	A	2	6770	0.684	0.089	0.062	0.164	0.684	0.001	0.472	-0.390	-0.406	-0.350	0.472	0.032	0.029	-5.6
Reading	7	3599	D	A	1	6770	0.517	0.073	0.109	0.299	0.517	0.001	0.294	-0.388	-0.377	-0.157	0.294	0.904	0.027	9.9
Reading	7	3600	D	A	1	6770	0.692	0.046	0.115	0.144	0.692	0.002	0.478	-0.389	-0.324	-0.420	0.478	-0.019	0.029	-7.4
Reading	7	3601	B	B	2	6770	0.444	0.139	0.444	0.312	0.103	0.002	0.405	-0.434	0.405	-0.340	-0.416	1.272	0.027	0.2
Reading	7	3602	C	A	1	6765	0.766	0.046	0.126	0.766	0.062	0.001	0.420	-0.316	-0.328	0.420	-0.269	-0.478	0.032	-3.9
Reading	7	3603	B	A	2	6765	0.558	0.163	0.558	0.094	0.184	0.001	0.340	-0.341	0.340	-0.254	-0.257	0.693	0.027	5.0
Reading	7	3604	A	A	2	6765	0.537	0.537	0.129	0.076	0.258	0.000	0.477	0.477	-0.501	-0.435	-0.379	0.802	0.027	-7.7
Reading	7	3605	B	A	2	6765	0.803	0.099	0.803	0.067	0.031	0.000	0.399	-0.353	0.399	-0.257	-0.208	-0.741	0.033	0.6
Reading	7	3606	A	A	2	6765	0.689	0.689	0.040	0.140	0.130	0.001	0.404	0.404	-0.346	-0.289	-0.340	-0.004	0.029	0.6
Reading	7	3607	D	B	2	6765	0.688	0.149	0.060	0.102	0.688	0.001	0.355	-0.219	-0.328	-0.309	0.355	0.005	0.029	4.8
Reading	7	3608	D	A	2	6765	0.735	0.175	0.052	0.038	0.735	0.000	0.406	-0.291	-0.337	-0.347	0.406	-0.277	0.030	-0.9
Reading	7	3609	D	A	2	6765	0.474	0.056	0.395	0.075	0.474	0.000	0.169	-0.388	-0.056	-0.306	0.169	1.116	0.027	9.9
Reading	7	3610	C	A	1	6765	0.562	0.182	0.220	0.562	0.035	0.001	0.296	-0.379	-0.121	0.296	-0.393	0.672	0.027	9.9
Reading	7	3611	A	A	1	6765	0.863	0.863	0.038	0.036	0.062	0.000	0.464	0.464	-0.309	-0.328	-0.313	-1.254	0.038	-7.4

Appendix L: 2008 Grades 3–8 and 11 Multiple-Choice Statistics

Information						Proportions							Correlations					Rasch		
Cont.	Grade	Pub. ID	Key	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Reading	7	3612	C	A	1	6765	0.634	0.115	0.063	0.634	0.187	0.000	0.358	-0.234	-0.390	0.358	-0.280	0.299	0.028	3.4
Reading	7	3613	D	B	2	6765	0.781	0.049	0.123	0.046	0.781	0.001	0.502	-0.359	-0.388	-0.363	0.502	-0.583	0.032	-7.9
Reading	7	3614	C	B	3	6765	0.715	0.121	0.096	0.715	0.066	0.001	0.462	-0.279	-0.409	0.462	-0.385	-0.156	0.030	-5.7
Reading	7	3615	B	A	2	6765	0.510	0.293	0.510	0.096	0.100	0.001	0.296	-0.187	0.296	-0.352	-0.355	0.933	0.027	9.9
Reading	7	3616	B	B	3	6765	0.258	0.319	0.258	0.364	0.057	0.001	0.012	0.029	0.012	0.001	-0.252	2.278	0.030	9.9
Reading	7	3617	C	B	3	6765	0.543	0.191	0.055	0.543	0.210	0.001	0.410	-0.413	-0.433	0.410	-0.285	0.768	0.027	-0.8
Reading	7	3618	D	A	3	6811	0.559	0.177	0.103	0.161	0.559	0.000	0.425	-0.459	-0.264	-0.353	0.425	0.680	0.027	-2.6
Reading	7	3619	B	A	1	6811	0.769	0.080	0.769	0.051	0.100	0.000	0.344	-0.170	0.344	-0.335	-0.255	-0.515	0.032	2.5
Reading	7	3620	A	A	2	6811	0.596	0.596	0.154	0.035	0.214	0.001	0.341	0.341	-0.280	-0.270	-0.303	0.486	0.028	5.7
Reading	7	3621	C	B	2	6811	0.708	0.050	0.217	0.708	0.025	0.000	0.272	-0.283	-0.167	0.272	-0.301	-0.127	0.030	9.9
Reading	7	3622	D	B	2	6811	0.739	0.050	0.060	0.150	0.739	0.001	0.430	-0.389	-0.360	-0.280	0.430	-0.316	0.030	-3.3
Reading	7	3623	B	A	2	6811	0.620	0.097	0.620	0.261	0.021	0.001	0.314	-0.396	0.314	-0.187	-0.331	0.365	0.028	8.6
Reading	7	3624	B	A	2	6811	0.567	0.185	0.567	0.222	0.026	0.001	0.279	-0.252	0.279	-0.236	-0.217	0.637	0.027	9.9
Reading	7	3625	B	A	2	6811	0.916	0.023	0.916	0.025	0.036	0.000	0.416	-0.217	0.416	-0.275	-0.307	-1.888	0.046	-6.4
Reading	7	3626	B	A	2	6811	0.583	0.075	0.583	0.273	0.068	0.001	0.318	-0.431	0.318	-0.156	-0.396	0.556	0.027	7.8
Reading	7	3627	C	A	2	6811	0.759	0.073	0.088	0.759	0.079	0.001	0.357	-0.268	-0.301	0.357	-0.210	-0.448	0.031	2.5
Reading	7	3628	B	A	1	6811	0.812	0.029	0.812	0.085	0.073	0.001	0.481	-0.322	0.481	-0.424	-0.278	-0.827	0.034	-7.9
Reading	7	3629	A	B	2	6811	0.856	0.856	0.053	0.029	0.061	0.001	0.435	0.435	-0.320	-0.329	-0.260	-1.202	0.037	-5.7
Reading	7	3630	D	B	2	6811	0.773	0.081	0.048	0.097	0.773	0.001	0.478	-0.361	-0.355	-0.351	0.478	-0.543	0.032	-5.3
Reading	7	3631	D	B	2	6811	0.885	0.046	0.043	0.026	0.885	0.001	0.454	-0.301	-0.303	-0.311	0.454	-1.494	0.040	-8.6
Reading	7	3632	B	B	2	6811	0.356	0.209	0.356	0.405	0.030	0.001	0.151	-0.179	0.151	-0.106	-0.341	1.705	0.028	9.9
Reading	7	3633	D	A	2	6811	0.759	0.049	0.127	0.063	0.759	0.001	0.438	-0.321	-0.333	-0.324	0.438	-0.449	0.031	-3.8
Reading	7	3634	B	A	1	6773	0.682	0.140	0.682	0.122	0.055	0.001	0.339	-0.285	0.339	-0.219	-0.282	0.043	0.029	1.8
Reading	7	3635	C	B	1	6773	0.776	0.040	0.081	0.776	0.102	0.000	0.474	-0.312	-0.300	0.474	-0.416	-0.532	0.032	-7.7
Reading	7	3636	A	A	2	6773	0.724	0.724	0.106	0.076	0.093	0.001	0.341	0.341	-0.321	-0.250	-0.187	-0.201	0.030	4.4
Reading	7	3637	C	B	2	6773	0.721	0.083	0.174	0.721	0.020	0.001	0.405	-0.284	-0.346	0.405	-0.277	-0.183	0.030	-3.2
Reading	7	3638	B	B	2	6773	0.656	0.092	0.656	0.182	0.068	0.001	0.396	-0.304	0.396	-0.308	-0.347	0.187	0.028	-1.8
Reading	7	3639	A	B	2	6773	0.880	0.880	0.041	0.042	0.035	0.001	0.487	0.487	-0.306	-0.335	-0.350	-1.405	0.040	-9.9
Reading	7	3640	C	B	2	6773	0.604	0.106	0.265	0.604	0.024	0.001	0.217	-0.291	-0.114	0.217	-0.208	0.465	0.028	9.9
Reading	7	3641	C	B	2	6773	0.635	0.167	0.089	0.635	0.107	0.002	0.436	-0.376	-0.307	0.436	-0.368	0.301	0.028	-2.9
Reading	7	3642	D	A	2	6773	0.655	0.057	0.106	0.178	0.655	0.003	0.453	-0.386	-0.342	-0.372	0.453	0.192	0.028	-6.5
Reading	7	3643	A	B	2	6773	0.353	0.353	0.208	0.102	0.333	0.002	0.148	0.148	-0.122	-0.329	-0.099	1.728	0.028	9.9
Reading	7	3644	A	A	2	6773	0.411	0.411	0.262	0.117	0.209	0.001	0.260	0.260	-0.231	-0.321	-0.229	1.430	0.027	9.9
Reading	7	3645	D	A	2	6773	0.354	0.382	0.138	0.123	0.354	0.002	0.179	-0.071	-0.318	-0.315	0.179	1.720	0.028	9.9
Reading	7	3646	C	B	3	6773	0.644	0.080	0.186	0.644	0.087	0.003	0.324	-0.232	-0.248	0.324	-0.306	0.251	0.028	6.0
Reading	7	3647	B	B	2	6773	0.812	0.052	0.812	0.069	0.063	0.002	0.457	-0.366	0.457	-0.294	-0.313	-0.796	0.034	-5.2
Reading	7	3648	B	A	3	6773	0.597	0.072	0.597	0.152	0.176	0.002	0.281	-0.298	0.281	-0.274	-0.152	0.498	0.028	9.9
Reading	7	3649	B	A	3	6773	0.276	0.326	0.276	0.213	0.183	0.003	0.212	-0.140	0.212	-0.335	-0.277	2.162	0.030	9.9
Reading	7	3650	B	A	2	6807	0.830	0.133	0.830	0.015	0.023	0.000	0.412	-0.367	0.412	-0.175	-0.245	-0.951	0.035	-4.1
Reading	7	3651	C	A	2	6807	0.800	0.026	0.115	0.800	0.058	0.000	0.382	-0.289	-0.299	0.382	-0.233	-0.722	0.033	-0.6
Reading	7	3652	A	A	2	6807	0.864	0.864	0.043	0.050	0.043	0.000	0.374	0.374	-0.271	-0.241	-0.242	-1.256	0.038	-3.1
Reading	7	3653	B	B	2	6807	0.918	0.029	0.918	0.031	0.021	0.000	0.361	-0.224	0.361	-0.264	-0.199	-1.903	0.047	-4.4
Reading	7	3654	D	B	2	6807	0.895	0.024	0.035	0.045	0.895	0.001	0.459	-0.294	-0.289	-0.332	0.459	-1.596	0.042	-8.4

Appendix L: 2008 Grades 3–8 and 11 Multiple-Choice Statistics

Information						Proportions						Correlations					Rasch			
Cont.	Grade	Pub. ID	Key	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Reading	7	3655	A	A	2	6807	0.794	0.794	0.138	0.033	0.034	0.001	0.383	0.383	-0.274	-0.340	-0.252	-0.676	0.033	0.5
Reading	7	3656	B	B	2	6807	0.649	0.223	0.649	0.074	0.053	0.001	0.342	-0.261	0.342	-0.350	-0.215	0.220	0.028	4.9
Reading	7	3657	B	A	2	6807	0.774	0.047	0.774	0.056	0.121	0.001	0.354	-0.334	0.354	-0.306	-0.186	-0.533	0.032	4.6
Reading	7	3658	C	B	3	6807	0.574	0.231	0.092	0.574	0.101	0.001	0.357	-0.288	-0.300	0.357	-0.317	0.618	0.027	2.1
Reading	7	3659	D	A	2	6807	0.714	0.117	0.102	0.065	0.714	0.001	0.326	-0.229	-0.227	-0.289	0.326	-0.150	0.030	4.1
Reading	7	3660	D	B	2	6807	0.593	0.072	0.231	0.103	0.593	0.001	0.445	-0.326	-0.400	-0.390	0.445	0.521	0.028	-3.5
Reading	7	3661	B	B	1	6807	0.752	0.080	0.752	0.047	0.119	0.001	0.350	-0.297	0.350	-0.312	-0.190	-0.385	0.031	1.7
Reading	7	3662	C	A	1	6807	0.294	0.215	0.315	0.294	0.174	0.001	0.013	-0.107	0.067	0.013	-0.032	2.069	0.029	9.9
Reading	7	3663	D	B	2	6807	0.584	0.217	0.042	0.154	0.584	0.002	0.449	-0.391	-0.469	-0.355	0.449	0.563	0.027	-4.0
Reading	7	3664	A	B	2	6807	0.686	0.686	0.171	0.085	0.055	0.002	0.331	0.331	-0.186	-0.338	-0.299	0.019	0.029	4.4
Reading	7	3665	C	B	2	6807	0.471	0.063	0.251	0.471	0.212	0.003	0.285	-0.377	-0.233	0.285	-0.248	1.132	0.027	9.9
Reading	7	3666	D	A	2	6789	0.678	0.101	0.035	0.186	0.678	0.000	0.471	-0.458	-0.449	-0.309	0.471	0.055	0.029	-7.6
Reading	7	3667	C	A	2	6789	0.838	0.031	0.035	0.838	0.095	0.000	0.392	-0.229	-0.295	0.392	-0.285	-1.012	0.035	-4.8
Reading	7	3668	A	A	2	6789	0.710	0.710	0.084	0.103	0.102	0.000	0.397	0.397	-0.327	-0.351	-0.234	-0.129	0.029	-0.6
Reading	7	3669	D	A	2	6789	0.770	0.064	0.108	0.058	0.770	0.000	0.414	-0.328	-0.307	-0.262	0.414	-0.502	0.031	-4.3
Reading	7	3670	B	A	2	6789	0.672	0.122	0.672	0.132	0.072	0.001	0.360	-0.203	0.360	-0.297	-0.360	0.087	0.029	1.4
Reading	7	3671	C	A	2	6789	0.568	0.218	0.163	0.568	0.049	0.001	0.409	-0.379	-0.306	0.409	-0.383	0.631	0.027	-1.9
Reading	7	3672	A	A	2	6789	0.810	0.810	0.105	0.057	0.027	0.001	0.358	0.358	-0.233	-0.308	-0.217	-0.787	0.033	0.4
Reading	7	3673	C	A	2	6789	0.480	0.236	0.089	0.480	0.194	0.001	0.326	-0.226	-0.288	0.326	-0.385	1.070	0.027	6.7
Reading	7	3674	B	B	2	6789	0.383	0.229	0.383	0.215	0.170	0.002	0.204	-0.282	0.204	-0.186	-0.102	1.558	0.028	9.9
Reading	7	3675	D	A	2	6789	0.323	0.086	0.205	0.384	0.323	0.001	0.075	-0.333	-0.227	0.082	0.075	1.878	0.029	9.9
Reading	7	3676	A	A	1	6789	0.506	0.506	0.064	0.320	0.108	0.001	0.248	0.248	-0.403	-0.177	-0.179	0.940	0.027	9.9
Reading	7	3677	B	B	1	6789	0.401	0.263	0.401	0.212	0.122	0.002	0.029	-0.019	0.029	-0.024	-0.046	1.465	0.027	9.9
Reading	7	3678	D	A	2	6789	0.261	0.306	0.182	0.249	0.261	0.001	0.122	-0.138	-0.165	-0.112	0.122	2.234	0.030	9.9
Reading	7	3679	D	B	3	6789	0.500	0.106	0.188	0.203	0.500	0.002	0.334	-0.340	-0.301	-0.278	0.334	0.973	0.027	7.0
Reading	7	3680	C	B	3	6789	0.485	0.266	0.136	0.485	0.111	0.002	0.328	-0.199	-0.408	0.328	-0.344	1.047	0.027	6.0
Reading	7	3681	C	B	3	6789	0.446	0.142	0.290	0.446	0.119	0.002	0.324	-0.361	-0.218	0.324	-0.417	1.237	0.027	6.9
Reading	7	3682	D	A	2	6794	0.674	0.134	0.091	0.100	0.674	0.001	0.295	-0.303	-0.177	-0.184	0.295	0.096	0.029	6.9
Reading	7	3683	C	A	2	6794	0.824	0.139	0.020	0.824	0.017	0.000	0.372	-0.306	-0.188	0.372	-0.280	-0.886	0.035	-2.2
Reading	7	3684	B	B	2	6794	0.697	0.112	0.697	0.081	0.110	0.000	0.248	-0.185	0.248	-0.256	-0.129	-0.031	0.029	9.9
Reading	7	3685	B	A	2	6794	0.805	0.066	0.805	0.079	0.049	0.000	0.399	-0.218	0.399	-0.353	-0.269	-0.741	0.033	-0.9
Reading	7	3686	D	B	2	6794	0.601	0.228	0.086	0.085	0.601	0.001	0.333	-0.277	-0.250	-0.310	0.333	0.493	0.028	5.5
Reading	7	3687	A	B	3	6794	0.848	0.848	0.056	0.058	0.036	0.002	0.405	0.405	-0.311	-0.302	-0.208	-1.093	0.036	-2.0
Reading	7	3688	C	A	1	6794	0.704	0.136	0.119	0.704	0.041	0.001	0.484	-0.407	-0.395	0.484	-0.289	-0.072	0.029	-8.3
Reading	7	3689	C	A	1	6794	0.870	0.029	0.068	0.870	0.031	0.001	0.452	-0.292	-0.324	0.452	-0.299	-1.308	0.039	-7.2
Reading	7	3690	B	A	2	6794	0.550	0.136	0.550	0.087	0.225	0.002	0.462	-0.398	0.462	-0.418	-0.402	0.749	0.027	-6.0
Reading	7	3691	C	B	2	6794	0.707	0.100	0.096	0.707	0.095	0.001	0.473	-0.341	-0.427	0.473	-0.325	-0.094	0.030	-6.9
Reading	7	3692	B	B	2	6794	0.611	0.273	0.611	0.067	0.049	0.001	0.316	-0.228	0.316	-0.286	-0.348	0.439	0.028	6.5
Reading	7	3693	A	B	2	6794	0.752	0.752	0.072	0.123	0.052	0.001	0.454	0.454	-0.338	-0.371	-0.285	-0.368	0.031	-6.2
Reading	7	3694	C	B	1	6794	0.753	0.061	0.100	0.753	0.084	0.001	0.477	-0.400	-0.338	0.477	-0.335	-0.379	0.031	-7.5
Reading	7	3695	D	B	3	6794	0.661	0.138	0.063	0.135	0.661	0.001	0.437	-0.308	-0.404	-0.358	0.437	0.168	0.029	-4.3
Reading	7	3696	B	B	3	6794	0.436	0.361	0.436	0.093	0.108	0.001	0.156	-0.063	0.156	-0.321	-0.190	1.323	0.027	9.9
Reading	7	3697	C	B	3	6794	0.657	0.091	0.056	0.657	0.194	0.002	0.315	-0.297	-0.343	0.315	-0.184	0.191	0.028	7.7

Appendix L: 2008 Grades 3–8 and 11 Multiple-Choice Statistics

Information						Proportions						Correlations					Rasch			
Cont.	Grade	Pub. ID	Key	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Reading	7	3698	C	A	2	6759	0.834	0.073	0.052	0.834	0.042	0.000	0.427	-0.359	-0.299	0.427	-0.204	-0.969	0.035	-4.2
Reading	7	3699	C	A	2	6759	0.767	0.062	0.125	0.767	0.046	0.001	0.384	-0.276	-0.304	0.384	-0.248	-0.475	0.032	-0.2
Reading	7	3700	D	A	2	6759	0.524	0.352	0.085	0.038	0.524	0.000	0.319	-0.217	-0.497	-0.271	0.319	0.882	0.027	9.2
Reading	7	3701	B	A	1	6759	0.575	0.387	0.575	0.017	0.020	0.000	0.317	-0.274	0.317	-0.278	-0.339	0.624	0.028	7.2
Reading	7	3702	B	B	2	6759	0.817	0.035	0.817	0.099	0.049	0.000	0.490	-0.296	0.490	-0.364	-0.389	-0.828	0.034	-8.1
Reading	7	3703	A	B	2	6759	0.743	0.743	0.090	0.038	0.129	0.000	0.499	0.499	-0.349	-0.374	-0.415	-0.309	0.031	-8.1
Reading	7	3704	B	A	2	6759	0.852	0.074	0.852	0.042	0.031	0.001	0.367	-0.259	0.367	-0.256	-0.229	-1.149	0.037	-0.9
Reading	7	3705	D	A	1	6759	0.914	0.023	0.020	0.042	0.914	0.001	0.452	-0.275	-0.251	-0.343	0.452	-1.849	0.046	-9.7
Reading	7	3706	A	A	2	6759	0.722	0.722	0.113	0.063	0.101	0.001	0.387	0.387	-0.292	-0.205	-0.356	-0.193	0.030	1.5
Reading	7	3707	D	A	2	6759	0.682	0.074	0.116	0.126	0.682	0.001	0.419	-0.238	-0.362	-0.357	0.419	0.043	0.029	-1.6
Reading	7	3708	B	A	2	6759	0.627	0.080	0.627	0.077	0.215	0.001	0.459	-0.420	0.459	-0.388	-0.361	0.351	0.028	-3.7
Reading	7	3709	D	A	2	6759	0.850	0.042	0.060	0.046	0.850	0.001	0.495	-0.351	-0.340	-0.335	0.495	-1.127	0.037	-9.9
Reading	7	3710	B	B	3	6759	0.808	0.130	0.808	0.030	0.030	0.002	0.389	-0.282	0.389	-0.292	-0.280	-0.774	0.034	0.2
Reading	7	3711	C	B	3	6759	0.830	0.091	0.055	0.830	0.022	0.002	0.443	-0.294	-0.364	0.443	-0.285	-0.955	0.035	-4.7
Reading	7	3712	C	A	3	6759	0.597	0.084	0.136	0.597	0.182	0.001	0.348	-0.390	-0.271	0.348	-0.243	0.509	0.028	5.1
Reading	7	3713	B	B	2	6759	0.588	0.115	0.588	0.126	0.169	0.003	0.349	-0.308	0.349	-0.288	-0.280	0.556	0.028	5.3
Reading	7	3714	A	A		6743	0.889	0.889	0.056	0.042	0.013	0.000	0.393	0.393	-0.321	-0.260	-0.145	-1.510	0.041	-5.6
Reading	7	3715	C	A		6743	0.914	0.038	0.028	0.914	0.020	0.000	0.350	-0.214	-0.249	0.350	-0.209	-1.826	0.045	-4.3
Reading	7	3716	A	A		6743	0.420	0.420	0.138	0.074	0.367	0.001	0.322	0.322	-0.508	-0.342	-0.213	1.398	0.028	9.9
Reading	7	3717	D	A		6743	0.649	0.033	0.295	0.022	0.649	0.000	0.339	-0.351	-0.264	-0.314	0.339	0.227	0.029	5.7
Reading	7	3718	A	A		6743	0.460	0.460	0.088	0.325	0.125	0.001	0.254	0.254	-0.302	-0.243	-0.151	1.197	0.027	9.9
Reading	7	3719	D	B		6743	0.874	0.080	0.020	0.025	0.874	0.001	0.375	-0.241	-0.262	-0.300	0.375	-1.335	0.039	-2.7
Reading	7	3720	A	A	1	6743	0.849	0.849	0.018	0.019	0.113	0.001	0.376	0.376	-0.256	-0.258	-0.285	-1.129	0.037	-3.1
Reading	7	3721	C	A	2	6743	0.571	0.125	0.277	0.571	0.024	0.002	0.270	-0.241	-0.221	0.270	-0.256	0.642	0.028	9.9
Reading	7	3722	D	A	2	6743	0.852	0.068	0.034	0.044	0.852	0.001	0.490	-0.383	-0.317	-0.309	0.490	-1.159	0.037	-9.1
Reading	7	3723	C	A	1	6743	0.783	0.082	0.081	0.783	0.052	0.001	0.362	-0.243	-0.248	0.362	-0.289	-0.601	0.033	-0.8
Reading	7	3724	B	A	2	6743	0.821	0.043	0.821	0.070	0.064	0.002	0.445	-0.277	0.445	-0.338	-0.306	-0.884	0.035	-6.7
Reading	7	3725	B	A	1	6743	0.853	0.042	0.853	0.052	0.051	0.001	0.443	-0.310	0.443	-0.317	-0.278	-1.165	0.037	-6.6
Reading	7	3726	C	B	2	6743	0.797	0.053	0.098	0.797	0.050	0.002	0.496	-0.365	-0.350	0.496	-0.372	-0.701	0.033	-8.6
Reading	7	3727	C	A	2	6743	0.913	0.032	0.028	0.913	0.024	0.002	0.431	-0.309	-0.246	0.431	-0.285	-1.847	0.046	-5.8
Reading	7	3728	B	A	2	6743	0.660	0.194	0.660	0.038	0.106	0.002	0.371	-0.276	0.371	-0.358	-0.293	0.168	0.029	0.8
Reading	7	3729	A	B	2	6743	0.519	0.519	0.342	0.087	0.050	0.002	0.348	0.348	-0.264	-0.351	-0.448	0.907	0.027	6.3
Reading	7	3730	B	A	1	6741	0.789	0.045	0.789	0.086	0.080	0.000	0.440	-0.272	0.440	-0.340	-0.323	-0.616	0.033	-6.4
Reading	7	3731	D	A	2	6741	0.761	0.091	0.071	0.076	0.761	0.001	0.423	-0.342	-0.343	-0.248	0.423	-0.426	0.031	-1.4
Reading	7	3732	C	A	1	6741	0.665	0.174	0.109	0.665	0.050	0.000	0.381	-0.289	-0.279	0.381	-0.365	0.137	0.029	0.8
Reading	7	3733	A	A	2	6741	0.592	0.592	0.173	0.183	0.051	0.000	0.292	0.292	-0.195	-0.257	-0.322	0.530	0.028	8.9
Reading	7	3734	A	B	2	6741	0.756	0.756	0.060	0.065	0.119	0.000	0.406	0.406	-0.308	-0.333	-0.270	-0.397	0.031	-3.0
Reading	7	3735	C	A	2	6741	0.811	0.062	0.042	0.811	0.084	0.001	0.457	-0.355	-0.304	0.457	-0.322	-0.782	0.034	-6.2
Reading	7	3736	B	B	2	6741	0.750	0.085	0.750	0.080	0.084	0.001	0.368	-0.359	0.368	-0.268	-0.179	-0.363	0.031	0.8
Reading	7	3737	A	B	1	6741	0.735	0.735	0.120	0.102	0.041	0.002	0.457	0.457	-0.357	-0.389	-0.257	-0.268	0.031	-6.4
Reading	7	3738	C	A	1	6741	0.740	0.075	0.030	0.740	0.153	0.001	0.463	-0.413	-0.387	0.463	-0.312	-0.299	0.031	-6.0
Reading	7	3739	D	B	2	6741	0.501	0.142	0.275	0.080	0.501	0.003	0.277	-0.209	-0.226	-0.348	0.277	0.999	0.027	9.9
Reading	7	3740	D	B	2	6741	0.710	0.197	0.043	0.047	0.710	0.002	0.506	-0.383	-0.455	-0.442	0.506	-0.114	0.030	-6.5

Appendix L: 2008 Grades 3–8 and 11 Multiple-Choice Statistics

Information						Proportions						Correlations					Rasch			
Cont.	Grade	Pub. ID	Key	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Reading	7	3741	B	A	2	6741	0.605	0.232	0.605	0.109	0.052	0.001	0.437	-0.366	0.437	-0.399	-0.327	0.468	0.028	-2.3
Reading	7	3742	A	A	3	6741	0.780	0.780	0.032	0.167	0.018	0.002	0.296	0.296	-0.297	-0.196	-0.223	-0.569	0.032	6.6
Reading	7	3743	A	A	2	6741	0.414	0.414	0.145	0.192	0.247	0.002	0.287	0.287	-0.394	-0.252	-0.210	1.444	0.028	9.9
Reading	7	3744	D	B	3	6741	0.556	0.266	0.077	0.098	0.556	0.002	0.375	-0.273	-0.453	-0.337	0.375	0.724	0.028	4.0
Reading	7	3745	C	A	3	6741	0.575	0.080	0.256	0.575	0.086	0.003	0.300	-0.350	-0.161	0.300	-0.356	0.624	0.028	9.0
Reading	7	3746	D	A	2	6729	0.773	0.108	0.059	0.060	0.773	0.000	0.429	-0.356	-0.328	-0.236	0.429	-0.509	0.032	-4.9
Reading	7	3747	B	B	2	6729	0.725	0.156	0.725	0.099	0.019	0.000	0.344	-0.292	0.344	-0.246	-0.218	-0.201	0.030	2.7
Reading	7	3748	B	B	2	6729	0.805	0.011	0.805	0.098	0.084	0.000	0.403	-0.235	0.403	-0.314	-0.304	-0.743	0.034	-2.5
Reading	7	3749	B	A	2	6729	0.653	0.294	0.653	0.032	0.020	0.000	0.401	-0.339	0.401	-0.342	-0.372	0.204	0.029	0.9
Reading	7	3750	C	A	2	6729	0.619	0.153	0.120	0.619	0.108	0.000	0.381	-0.333	-0.290	0.381	-0.315	0.400	0.028	1.4
Reading	7	3751	A	B	2	6729	0.674	0.674	0.083	0.204	0.038	0.001	0.429	0.429	-0.336	-0.356	-0.371	0.100	0.029	0.1
Reading	7	3752	C	B	3	6729	0.678	0.153	0.063	0.678	0.105	0.001	0.396	-0.367	-0.325	0.396	-0.224	0.066	0.029	0.0
Reading	7	3753	A	A	1	6729	0.439	0.439	0.197	0.211	0.151	0.002	0.239	0.239	-0.300	-0.156	-0.230	1.302	0.027	9.9
Reading	7	3754	B	A	1	6729	0.640	0.053	0.640	0.281	0.025	0.002	0.406	-0.419	0.406	-0.326	-0.309	0.277	0.028	-0.2
Reading	7	3755	D	A	2	6729	0.729	0.047	0.115	0.106	0.729	0.002	0.479	-0.333	-0.368	-0.385	0.479	-0.237	0.030	-7.7
Reading	7	3756	B	B	2	6729	0.540	0.163	0.540	0.212	0.083	0.001	0.265	-0.296	0.265	-0.128	-0.328	0.797	0.027	9.9
Reading	7	3757	D	A	2	6729	0.832	0.036	0.033	0.097	0.832	0.001	0.448	-0.348	-0.332	-0.297	0.448	-0.976	0.035	-5.0
Reading	7	3758	A	A	1	6729	0.744	0.744	0.100	0.060	0.095	0.001	0.370	0.370	-0.262	-0.326	-0.237	-0.334	0.031	-0.3
Reading	7	3759	B	B	3	6729	0.697	0.107	0.697	0.107	0.087	0.002	0.477	-0.291	0.477	-0.439	-0.380	-0.043	0.030	-6.5
Reading	7	3760	A	B	3	6729	0.597	0.597	0.106	0.222	0.071	0.003	0.314	0.314	-0.316	-0.206	-0.302	0.502	0.028	8.0
Reading	7	3761	D	A	3	6729	0.857	0.050	0.040	0.049	0.857	0.003	0.457	-0.274	-0.311	-0.350	0.457	-1.197	0.038	-6.6
Reading	7	3762	D	B	2	6723	0.789	0.055	0.103	0.053	0.789	0.000	0.388	-0.280	-0.330	-0.203	0.388	-0.602	0.033	-0.8
Reading	7	3763	B	B	2	6723	0.765	0.156	0.765	0.049	0.030	0.000	0.451	-0.366	0.451	-0.362	-0.260	-0.436	0.032	-4.7
Reading	7	3764	A	A	2	6723	0.635	0.635	0.061	0.126	0.177	0.000	0.295	0.295	-0.337	-0.151	-0.255	0.328	0.028	8.5
Reading	7	3765	A	B	2	6723	0.709	0.709	0.164	0.051	0.075	0.001	0.457	0.457	-0.361	-0.333	-0.370	-0.079	0.030	-4.6
Reading	7	3766	D	B	2	6723	0.872	0.057	0.043	0.027	0.872	0.001	0.425	-0.287	-0.293	-0.284	0.425	-1.299	0.039	-5.3
Reading	7	3767	C	B	2	6723	0.824	0.053	0.090	0.824	0.032	0.000	0.442	-0.310	-0.325	0.442	-0.302	-0.871	0.035	-5.6
Reading	7	3768	D	A	2	6723	0.624	0.050	0.285	0.038	0.624	0.002	0.349	-0.366	-0.255	-0.375	0.349	0.386	0.028	5.0
Reading	7	3769	B	A	1	6723	0.742	0.053	0.742	0.107	0.096	0.002	0.449	-0.401	0.449	-0.338	-0.284	-0.295	0.031	-5.3
Reading	7	3770	B	B	2	6723	0.615	0.225	0.615	0.105	0.053	0.002	0.166	-0.057	0.166	-0.209	-0.220	0.439	0.028	9.9
Reading	7	3771	C	A	2	6723	0.577	0.211	0.166	0.577	0.044	0.002	0.446	-0.396	-0.360	0.446	-0.414	0.633	0.028	-4.1
Reading	7	3772	D	A	1	6723	0.921	0.025	0.024	0.027	0.921	0.002	0.455	-0.282	-0.312	-0.298	0.455	-1.933	0.048	-9.5
Reading	7	3773	B	A	2	6723	0.607	0.176	0.607	0.025	0.189	0.002	0.427	-0.380	0.427	-0.388	-0.351	0.479	0.028	-1.1
Reading	7	3774	A	B	2	6723	0.738	0.738	0.109	0.074	0.077	0.002	0.460	0.460	-0.356	-0.356	-0.330	-0.271	0.031	-5.1
Reading	7	3775	D	A	2	6723	0.536	0.206	0.129	0.127	0.536	0.002	0.412	-0.260	-0.417	-0.471	0.412	0.845	0.027	1.0
Reading	7	3776	C	A	2	6723	0.676	0.104	0.183	0.676	0.035	0.002	0.454	-0.320	-0.396	0.454	-0.363	0.105	0.029	-4.6
Reading	7	3777	A	B	2	6723	0.508	0.508	0.043	0.375	0.072	0.003	0.217	0.217	-0.387	-0.112	-0.329	0.987	0.027	9.9
Reading	8	3778	B	B	2	138339	0.867	0.066	0.867	0.044	0.022	0.000	0.428	-0.352	0.428	-0.281	-0.202	-0.729	0.009	-9.9
Reading	8	3779	B	A	2	138339	0.764	0.063	0.764	0.161	0.012	0.000	0.448	-0.406	0.448	-0.343	-0.241	0.095	0.007	-6.9
Reading	8	3780	B	A	2	138339	0.862	0.044	0.862	0.050	0.044	0.000	0.460	-0.288	0.460	-0.333	-0.319	-0.680	0.008	-9.9
Reading	8	3781	C	A	2	138339	0.416	0.207	0.082	0.416	0.294	0.001	0.362	-0.363	-0.426	0.362	-0.324	1.992	0.006	9.9
Reading	8	3782	C	B	2	138339	0.809	0.045	0.097	0.809	0.049	0.001	0.545	-0.367	-0.439	0.545	-0.378	-0.222	0.008	-9.9
Reading	8	3783	D	B	2	138339	0.702	0.171	0.082	0.044	0.702	0.001	0.471	-0.346	-0.382	-0.434	0.471	0.489	0.007	-9.9

Appendix L: 2008 Grades 3–8 and 11 Multiple-Choice Statistics

Information						Proportions						Correlations					Rasch			
Cont.	Grade	Pub. ID	Key	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Reading	8	3784	C	A	2	138339	0.784	0.062	0.053	0.784	0.100	0.001	0.482	-0.329	-0.310	0.482	-0.400	-0.040	0.007	-9.9
Reading	8	3785	B	A	2	138339	0.601	0.043	0.601	0.258	0.097	0.001	0.375	-0.320	0.375	-0.309	-0.308	1.042	0.006	9.9
Reading	8	3786	C	A	2	138339	0.758	0.109	0.057	0.758	0.074	0.001	0.462	-0.316	-0.396	0.462	-0.338	0.135	0.007	-9.6
Reading	8	3787	A	A	2	138339	0.696	0.696	0.021	0.263	0.019	0.001	0.404	0.404	-0.322	-0.346	-0.310	0.523	0.007	9.9
Reading	8	3788	A	B	2	138339	0.603	0.603	0.218	0.144	0.033	0.001	0.487	0.487	-0.451	-0.369	-0.452	1.040	0.006	-9.9
Reading	8	3789	D	A	2	138339	0.600	0.131	0.202	0.065	0.600	0.002	0.461	-0.387	-0.364	-0.461	0.461	1.056	0.006	-4.4
Reading	8	3790	D	A	2	138339	0.536	0.222	0.142	0.098	0.536	0.003	0.382	-0.324	-0.368	-0.317	0.382	1.384	0.006	9.9
Reading	8	3791	B	A	1	138339	0.524	0.105	0.524	0.252	0.116	0.003	0.431	-0.485	0.431	-0.349	-0.349	1.444	0.006	9.9
Reading	8	3792	C	A	1	138339	0.581	0.322	0.058	0.581	0.035	0.004	0.350	-0.265	-0.388	0.350	-0.334	1.152	0.006	9.9
Reading	8	3793	B	A	2	138339	0.752	0.077	0.752	0.079	0.088	0.003	0.541	-0.367	0.541	-0.427	-0.430	0.176	0.007	-9.9
Reading	8	3794	C	B	2	138339	0.621	0.159	0.105	0.621	0.111	0.003	0.360	-0.218	-0.367	0.360	-0.312	0.941	0.006	9.9
Reading	8	3795	B	A	2	138339	0.605	0.113	0.605	0.116	0.162	0.004	0.453	-0.349	0.453	-0.365	-0.403	1.027	0.006	-3.8
Reading	8	3796	A	B	3	138339	0.430	0.430	0.100	0.108	0.357	0.005	0.318	0.318	-0.439	-0.435	-0.200	1.921	0.006	9.9
Reading	8	3797	D	B	2	138339	0.688	0.176	0.079	0.052	0.688	0.004	0.426	-0.265	-0.394	-0.428	0.426	0.569	0.007	9.9
Reading	8	3798	C	B	2	138339	0.829	0.118	0.023	0.829	0.030	0.000	0.471	-0.390	-0.315	0.471	-0.275	-0.391	0.008	-9.9
Reading	8	3799	D	B	2	138339	0.544	0.327	0.036	0.093	0.544	0.000	0.291	-0.193	-0.359	-0.367	0.291	1.341	0.006	9.9
Reading	8	3800	B	A	2	138339	0.849	0.054	0.849	0.031	0.066	0.001	0.362	-0.159	0.362	-0.314	-0.284	-0.563	0.008	9.9
Reading	8	3801	C	A	2	138339	0.773	0.024	0.120	0.773	0.082	0.001	0.480	-0.334	-0.339	0.480	-0.414	0.038	0.007	-9.9
Reading	8	3802	D	A	1	138339	0.792	0.082	0.096	0.028	0.792	0.001	0.458	-0.266	-0.395	-0.358	0.458	-0.102	0.007	-8.6
Reading	8	3803	C	A	2	138339	0.716	0.186	0.065	0.716	0.032	0.001	0.513	-0.400	-0.470	0.513	-0.350	0.403	0.007	-9.9
Reading	8	3804	A	A	2	138339	0.587	0.587	0.071	0.055	0.285	0.002	0.435	0.435	-0.349	-0.386	-0.384	1.119	0.006	3.9
Reading	8	3805	B	B	2	138339	0.844	0.068	0.844	0.046	0.041	0.001	0.453	-0.410	0.453	-0.276	-0.220	-0.506	0.008	-9.9
Reading	8	3806	A	B	2	138339	0.573	0.573	0.154	0.083	0.190	0.001	0.430	0.430	-0.374	-0.418	-0.341	1.196	0.006	6.2
Reading	8	3807	A	B	2	138339	0.489	0.489	0.066	0.260	0.183	0.001	0.415	0.415	-0.408	-0.381	-0.380	1.617	0.006	9.9
Reading	8	3808	D	B	2	138339	0.738	0.040	0.160	0.061	0.738	0.001	0.460	-0.378	-0.314	-0.422	0.460	0.270	0.007	-3.0
Reading	8	3809	C	A	2	138339	0.815	0.070	0.062	0.815	0.051	0.001	0.408	-0.249	-0.333	0.408	-0.280	-0.276	0.008	3.9
Reading	8	3810	B	B	3	138339	0.558	0.228	0.558	0.055	0.157	0.002	0.339	-0.232	0.339	-0.354	-0.340	1.269	0.006	9.9
Reading	8	3811	A	A		138339	0.831	0.831	0.086	0.045	0.034	0.003	0.505	0.505	-0.386	-0.333	-0.350	-0.406	0.008	-9.9
Reading	8	3812	D	A		138339	0.735	0.114	0.046	0.102	0.735	0.003	0.505	-0.328	-0.414	-0.448	0.505	0.287	0.007	-9.9
Reading	8	3813	A	B		138339	0.501	0.501	0.161	0.111	0.223	0.004	0.438	0.438	-0.411	-0.540	-0.310	1.558	0.006	9.9
Reading	8	3814	D	A		138339	0.849	0.026	0.079	0.043	0.849	0.003	0.578	-0.378	-0.451	-0.395	0.578	-0.554	0.008	-9.9
Reading	8	3815	D	A		138339	0.792	0.059	0.063	0.082	0.792	0.003	0.545	-0.446	-0.428	-0.350	0.545	-0.093	0.007	-9.9
Reading	8	3816	A	B		138339	0.594	0.594	0.174	0.100	0.128	0.004	0.381	0.381	-0.330	-0.438	-0.199	1.088	0.006	9.9
Reading	8	3817	A	B		138339	0.684	0.684	0.098	0.181	0.033	0.004	0.420	0.420	-0.340	-0.311	-0.397	0.592	0.006	5.9
Reading	8	3818	B	A	2	7264	0.595	0.342	0.595	0.015	0.048	0.000	0.362	-0.290	0.362	-0.252	-0.464	0.976	0.027	5.5
Reading	8	3819	A	B	2	7264	0.613	0.613	0.108	0.069	0.209	0.001	0.369	0.369	-0.361	-0.424	-0.220	0.879	0.027	5.7
Reading	8	3820	D	A	2	7264	0.554	0.078	0.225	0.143	0.554	0.000	0.386	-0.253	-0.334	-0.386	0.386	1.192	0.027	3.2
Reading	8	3821	B	B	2	7264	0.771	0.114	0.771	0.086	0.028	0.000	0.520	-0.332	0.520	-0.488	-0.358	-0.066	0.031	-7.5
Reading	8	3822	B	A	1	7264	0.543	0.264	0.543	0.076	0.116	0.001	0.351	-0.235	0.351	-0.413	-0.353	1.247	0.027	8.2
Reading	8	3823	D	B	2	7264	0.711	0.092	0.051	0.146	0.711	0.001	0.379	-0.193	-0.397	-0.312	0.379	0.327	0.029	2.4
Reading	8	3824	B	A	1	7264	0.678	0.021	0.678	0.142	0.158	0.001	0.328	-0.247	0.328	-0.225	-0.293	0.522	0.028	7.7
Reading	8	3825	D	A	2	7264	0.682	0.091	0.154	0.071	0.682	0.001	0.480	-0.404	-0.362	-0.373	0.480	0.495	0.028	-7.4
Reading	8	3826	B	A	2	7264	0.639	0.198	0.639	0.086	0.076	0.001	0.471	-0.446	0.471	-0.354	-0.294	0.741	0.028	-5.4

Appendix L: 2008 Grades 3–8 and 11 Multiple-Choice Statistics

Information						Proportions						Correlations					Rasch			
Cont.	Grade	Pub. ID	Key	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Reading	8	3827	B	A	3	7264	0.554	0.084	0.554	0.100	0.261	0.001	0.406	-0.403	0.406	-0.447	-0.276	1.191	0.027	1.5
Reading	8	3828	A	A	2	7264	0.817	0.817	0.052	0.085	0.044	0.001	0.491	0.491	-0.372	-0.337	-0.344	-0.409	0.033	-7.1
Reading	8	3829	A	A	1	7264	0.496	0.496	0.128	0.240	0.134	0.002	0.301	0.301	-0.325	-0.307	-0.169	1.488	0.026	9.9
Reading	8	3830	B	A	3	7264	0.408	0.239	0.408	0.082	0.268	0.002	0.233	-0.297	0.233	-0.419	-0.079	1.935	0.027	9.9
Reading	8	3831	C	A	2	7264	0.720	0.061	0.058	0.720	0.160	0.001	0.439	-0.371	-0.422	0.439	-0.276	0.271	0.029	-2.6
Reading	8	3832	A	A	2	7264	0.644	0.644	0.239	0.044	0.071	0.002	0.405	0.405	-0.260	-0.424	-0.425	0.710	0.028	0.2
Reading	8	3833	D	B	3	7264	0.282	0.130	0.077	0.510	0.282	0.002	0.123	-0.371	-0.369	-0.013	0.123	2.631	0.029	9.9
Reading	8	3834	D	A	2	6900	0.779	0.045	0.089	0.086	0.779	0.000	0.536	-0.360	-0.391	-0.440	0.536	-0.020	0.032	-9.9
Reading	8	3835	D	A	2	6900	0.751	0.083	0.117	0.049	0.751	0.000	0.468	-0.347	-0.368	-0.339	0.468	0.169	0.031	-7.1
Reading	8	3836	C	B	2	6900	0.447	0.175	0.279	0.447	0.099	0.000	0.295	-0.270	-0.254	0.295	-0.330	1.808	0.027	9.9
Reading	8	3837	D	A	2	6900	0.580	0.275	0.054	0.090	0.580	0.001	0.456	-0.354	-0.432	-0.473	0.456	1.140	0.027	-4.2
Reading	8	3838	A	A	2	6900	0.780	0.780	0.094	0.074	0.051	0.001	0.385	0.385	-0.267	-0.316	-0.243	-0.023	0.032	-0.5
Reading	8	3839	B	B	2	6900	0.711	0.096	0.711	0.038	0.154	0.001	0.433	-0.349	0.433	-0.366	-0.322	0.420	0.029	-3.8
Reading	8	3840	D	A	1	6900	0.700	0.116	0.062	0.120	0.700	0.001	0.362	-0.331	-0.333	-0.199	0.362	0.482	0.029	3.5
Reading	8	3841	A	B	3	6900	0.444	0.444	0.216	0.147	0.191	0.001	0.321	0.321	-0.339	-0.395	-0.183	1.819	0.027	8.5
Reading	8	3842	C	A	2	6900	0.638	0.089	0.214	0.638	0.057	0.001	0.294	-0.238	-0.218	0.294	-0.283	0.831	0.028	8.4
Reading	8	3843	A	B	2	6900	0.762	0.762	0.113	0.047	0.076	0.002	0.386	0.386	-0.213	-0.416	-0.280	0.098	0.031	0.2
Reading	8	3844	B	B	3	6900	0.445	0.202	0.445	0.061	0.289	0.001	0.363	-0.328	0.363	-0.441	-0.323	1.817	0.027	5.9
Reading	8	3845	D	A	2	6900	0.269	0.241	0.397	0.090	0.269	0.003	0.214	-0.278	-0.143	-0.483	0.214	2.768	0.030	9.9
Reading	8	3846	C	A	2	6900	0.242	0.051	0.670	0.242	0.034	0.002	0.094	-0.365	-0.042	0.094	-0.405	2.935	0.031	9.9
Reading	8	3847	D	A	2	6900	0.420	0.095	0.303	0.178	0.420	0.003	0.299	-0.376	-0.196	-0.369	0.299	1.942	0.027	9.9
Reading	8	3848	C	A	2	6900	0.311	0.267	0.121	0.311	0.298	0.003	0.116	-0.048	-0.244	0.116	-0.129	2.521	0.029	9.9
Reading	8	3849	A	B	3	6900	0.699	0.699	0.103	0.110	0.084	0.003	0.475	0.475	-0.327	-0.398	-0.391	0.489	0.029	-6.4
Reading	8	3850	B	B	3	6873	0.629	0.055	0.629	0.121	0.195	0.001	0.197	-0.185	0.197	-0.266	-0.066	0.889	0.028	9.9
Reading	8	3851	B	A	2	6873	0.444	0.239	0.444	0.139	0.177	0.001	0.359	-0.298	0.359	-0.422	-0.331	1.831	0.027	6.9
Reading	8	3852	D	A	1	6873	0.864	0.032	0.043	0.061	0.864	0.001	0.422	-0.345	-0.243	-0.287	0.422	-0.717	0.038	-4.7
Reading	8	3853	B	A	2	6873	0.818	0.018	0.818	0.145	0.017	0.001	0.411	-0.273	0.411	-0.334	-0.273	-0.316	0.034	-4.1
Reading	8	3854	A	B	2	6873	0.715	0.715	0.093	0.125	0.066	0.001	0.328	0.328	-0.299	-0.251	-0.169	0.396	0.030	3.2
Reading	8	3855	C	B	2	6873	0.756	0.122	0.049	0.756	0.070	0.002	0.449	-0.325	-0.349	0.449	-0.337	0.134	0.031	-5.7
Reading	8	3856	A	A	2	6873	0.674	0.674	0.095	0.134	0.096	0.001	0.369	0.369	-0.385	-0.187	-0.320	0.637	0.029	4.6
Reading	8	3857	B	A	1	6873	0.755	0.150	0.755	0.047	0.047	0.002	0.468	-0.371	0.468	-0.357	-0.319	0.146	0.031	-6.3
Reading	8	3858	A	B	3	6873	0.576	0.576	0.195	0.103	0.124	0.002	0.246	0.246	-0.167	-0.283	-0.189	1.167	0.027	9.9
Reading	8	3859	B	B	3	6873	0.796	0.029	0.796	0.108	0.065	0.001	0.439	-0.342	0.439	-0.287	-0.356	-0.147	0.033	-3.7
Reading	8	3860	D	A	1	6873	0.708	0.129	0.102	0.060	0.708	0.001	0.337	-0.241	-0.257	-0.279	0.337	0.439	0.030	3.7
Reading	8	3861	C	A	2	6873	0.793	0.036	0.042	0.793	0.127	0.001	0.388	-0.390	-0.351	0.388	-0.203	-0.123	0.033	0.7
Reading	8	3862	C	B	2	6873	0.747	0.082	0.073	0.747	0.095	0.001	0.499	-0.422	-0.401	0.499	-0.308	0.194	0.031	-8.8
Reading	8	3863	B	A	2	6873	0.415	0.370	0.415	0.140	0.073	0.002	0.344	-0.258	0.344	-0.432	-0.403	1.981	0.027	7.9
Reading	8	3864	C	B	3	6873	0.353	0.095	0.065	0.353	0.484	0.001	0.138	-0.289	-0.343	0.138	-0.055	2.303	0.028	9.9
Reading	8	3865	D	B	3	6873	0.590	0.136	0.121	0.151	0.590	0.001	0.353	-0.326	-0.304	-0.252	0.353	1.090	0.028	4.2
Reading	8	3866	C	A	1	6905	0.766	0.071	0.114	0.766	0.049	0.000	0.403	-0.251	-0.388	0.403	-0.186	0.065	0.031	-2.5
Reading	8	3867	A	A	2	6905	0.677	0.677	0.095	0.033	0.194	0.000	0.338	0.338	-0.299	-0.297	-0.239	0.610	0.029	3.5
Reading	8	3868	D	A	2	6905	0.743	0.086	0.052	0.118	0.743	0.001	0.483	-0.361	-0.365	-0.373	0.483	0.218	0.030	-8.0
Reading	8	3869	A	B	2	6905	0.667	0.667	0.127	0.143	0.063	0.001	0.400	0.400	-0.301	-0.350	-0.297	0.669	0.028	0.0

Appendix L: 2008 Grades 3–8 and 11 Multiple-Choice Statistics

Information						Proportions						Correlations					Rasch			
Cont.	Grade	Pub. ID	Key	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Reading	8	3870	D	B	2	6905	0.686	0.046	0.150	0.118	0.686	0.001	0.446	-0.392	-0.340	-0.350	0.446	0.559	0.029	-5.1
Reading	8	3871	C	B	3	6905	0.731	0.100	0.104	0.731	0.063	0.001	0.486	-0.341	-0.376	0.486	-0.406	0.287	0.030	-6.4
Reading	8	3872	C	A	1	6905	0.913	0.038	0.027	0.913	0.021	0.001	0.444	-0.353	-0.285	0.444	-0.215	-1.301	0.045	-7.4
Reading	8	3873	A	B	2	6905	0.639	0.639	0.159	0.143	0.057	0.002	0.374	0.374	-0.282	-0.380	-0.193	0.821	0.028	1.9
Reading	8	3874	B	A	2	6905	0.357	0.524	0.357	0.071	0.046	0.001	0.334	-0.295	0.334	-0.435	-0.431	2.261	0.028	8.0
Reading	8	3875	D	A	2	6905	0.705	0.061	0.124	0.108	0.705	0.002	0.407	-0.387	-0.265	-0.312	0.407	0.450	0.029	-1.0
Reading	8	3876	C	A	1	6905	0.620	0.084	0.232	0.620	0.062	0.001	0.405	-0.389	-0.310	0.405	-0.347	0.921	0.028	-0.4
Reading	8	3877	A	A	1	6905	0.361	0.361	0.304	0.281	0.051	0.002	0.347	0.347	-0.307	-0.379	-0.397	2.242	0.028	7.2
Reading	8	3878	D	B	2	6905	0.730	0.056	0.120	0.092	0.730	0.002	0.444	-0.390	-0.369	-0.265	0.444	0.293	0.030	-2.4
Reading	8	3879	C	B	1	6905	0.347	0.242	0.277	0.347	0.130	0.004	0.020	-0.029	0.027	0.020	-0.089	2.317	0.028	9.9
Reading	8	3880	C	B	3	6905	0.589	0.192	0.162	0.589	0.056	0.001	0.258	-0.201	-0.151	0.258	-0.376	1.084	0.027	9.9
Reading	8	3881	B	B	3	6905	0.473	0.221	0.473	0.081	0.222	0.003	0.259	-0.174	0.259	-0.335	-0.255	1.668	0.027	9.9
Reading	8	3882	A	A	1	6905	0.826	0.826	0.073	0.041	0.060	0.000	0.286	0.286	-0.254	-0.174	-0.145	-0.380	0.035	4.4
Reading	8	3883	D	B	2	6905	0.734	0.175	0.062	0.029	0.734	0.000	0.392	-0.309	-0.270	-0.357	0.392	0.276	0.030	0.8
Reading	8	3884	C	A	2	6905	0.896	0.028	0.061	0.896	0.016	0.000	0.354	-0.255	-0.232	0.354	-0.223	-1.069	0.042	-1.3
Reading	8	3885	D	B	2	6905	0.885	0.025	0.022	0.067	0.885	0.000	0.416	-0.224	-0.247	-0.336	0.416	-0.947	0.040	-5.9
Reading	8	3886	C	A	1	6905	0.641	0.097	0.065	0.641	0.197	0.000	0.276	-0.266	-0.327	0.276	-0.139	0.810	0.028	8.7
Reading	8	3887	B	A	2	6905	0.468	0.130	0.468	0.224	0.177	0.001	0.296	-0.281	0.296	-0.228	-0.327	1.696	0.027	9.9
Reading	8	3888	A	A	2	6905	0.753	0.753	0.061	0.046	0.138	0.001	0.329	0.329	-0.317	-0.160	-0.231	0.150	0.031	0.6
Reading	8	3889	D	A	1	6905	0.832	0.072	0.056	0.038	0.832	0.002	0.370	-0.252	-0.231	-0.280	0.370	-0.436	0.035	-3.1
Reading	8	3890	D	A	1	6905	0.571	0.064	0.293	0.070	0.571	0.002	0.360	-0.346	-0.277	-0.370	0.360	1.180	0.027	3.5
Reading	8	3891	A	A	2	6905	0.523	0.523	0.139	0.285	0.051	0.002	0.363	0.363	-0.275	-0.346	-0.340	1.422	0.027	3.4
Reading	8	3892	B	B	3	6905	0.396	0.290	0.396	0.167	0.144	0.003	0.180	-0.063	0.180	-0.273	-0.248	2.060	0.027	9.9
Reading	8	3893	B	B	3	6905	0.358	0.287	0.358	0.166	0.186	0.003	0.169	-0.018	0.169	-0.277	-0.293	2.261	0.028	9.9
Reading	8	3894	A	B	3	6905	0.317	0.317	0.058	0.060	0.563	0.002	0.351	0.351	-0.533	-0.408	-0.323	2.483	0.029	6.4
Reading	8	3895	B	B	3	6905	0.776	0.109	0.776	0.071	0.043	0.002	0.432	-0.278	0.432	-0.347	-0.347	-0.005	0.032	-3.6
Reading	8	3896	D	A	2	6905	0.804	0.070	0.071	0.053	0.804	0.002	0.473	-0.359	-0.310	-0.356	0.473	-0.212	0.033	-5.9
Reading	8	3897	C	B	3	6905	0.698	0.165	0.072	0.698	0.063	0.002	0.469	-0.349	-0.398	0.469	-0.379	0.493	0.029	-5.1
Reading	8	3898	B	A	2	6921	0.761	0.088	0.761	0.105	0.045	0.001	0.395	-0.372	0.395	-0.224	-0.269	0.134	0.031	-2.7
Reading	8	3899	D	A	2	6921	0.605	0.089	0.267	0.039	0.605	0.000	0.348	-0.318	-0.265	-0.365	0.348	1.035	0.027	4.7
Reading	8	3900	C	A	2	6921	0.347	0.291	0.080	0.347	0.282	0.000	0.331	-0.311	-0.284	0.331	-0.399	2.341	0.028	8.4
Reading	8	3901	A	A	2	6921	0.852	0.852	0.086	0.047	0.015	0.000	0.378	0.378	-0.275	-0.266	-0.253	-0.569	0.037	-1.9
Reading	8	3902	D	B	3	6921	0.547	0.141	0.197	0.113	0.547	0.001	0.392	-0.318	-0.409	-0.285	0.392	1.331	0.027	0.1
Reading	8	3903	A	A	2	6921	0.778	0.778	0.154	0.036	0.032	0.001	0.319	0.319	-0.168	-0.350	-0.313	0.022	0.032	8.4
Reading	8	3904	A	A	1	6921	0.495	0.495	0.104	0.102	0.298	0.001	0.188	0.188	-0.283	-0.183	-0.109	1.588	0.027	9.9
Reading	8	3905	A	A	3	6921	0.784	0.784	0.057	0.122	0.036	0.002	0.321	0.321	-0.285	-0.212	-0.209	-0.020	0.032	4.8
Reading	8	3906	B	A	1	6921	0.433	0.051	0.433	0.145	0.369	0.002	0.345	-0.330	0.345	-0.434	-0.285	1.899	0.027	6.0
Reading	8	3907	D	A	1	6921	0.800	0.052	0.060	0.086	0.800	0.001	0.414	-0.275	-0.369	-0.255	0.414	-0.139	0.033	-1.4
Reading	8	3908	D	A	1	6921	0.613	0.186	0.121	0.078	0.613	0.002	0.328	-0.200	-0.273	-0.391	0.328	0.996	0.028	5.7
Reading	8	3909	B	A	2	6921	0.838	0.063	0.838	0.075	0.022	0.002	0.377	-0.294	0.377	-0.245	-0.237	-0.443	0.035	-1.2
Reading	8	3910	B	A	3	6921	0.438	0.150	0.438	0.355	0.054	0.002	0.227	-0.275	0.227	-0.150	-0.340	1.872	0.027	9.9
Reading	8	3911	A	B	3	6921	0.737	0.737	0.039	0.111	0.112	0.002	0.387	0.387	-0.355	-0.209	-0.342	0.293	0.030	1.1
Reading	8	3912	B	A	2	6921	0.755	0.083	0.755	0.090	0.069	0.002	0.450	-0.340	0.450	-0.365	-0.301	0.175	0.031	-3.6

Appendix L: 2008 Grades 3–8 and 11 Multiple-Choice Statistics

Information						Proportions						Correlations					Rasch			
Cont.	Grade	Pub. ID	Key	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Reading	8	3913	C	A	3	6921	0.629	0.198	0.092	0.629	0.079	0.002	0.450	-0.380	-0.382	0.450	-0.351	0.909	0.028	-4.4
Reading	8	3914	C	B	2	6895	0.859	0.068	0.046	0.859	0.027	0.000	0.376	-0.274	-0.248	0.376	-0.244	-0.628	0.038	-1.7
Reading	8	3915	B	A	3	6895	0.767	0.039	0.767	0.061	0.131	0.001	0.361	-0.167	0.361	-0.261	-0.308	0.110	0.032	-0.6
Reading	8	3916	D	A	1	6895	0.824	0.099	0.041	0.036	0.824	0.000	0.523	-0.425	-0.313	-0.369	0.523	-0.312	0.035	-9.9
Reading	8	3917	D	B	2	6895	0.886	0.034	0.032	0.047	0.886	0.001	0.458	-0.291	-0.322	-0.311	0.458	-0.910	0.041	-8.6
Reading	8	3918	B	B	3	6895	0.672	0.136	0.672	0.089	0.101	0.001	0.376	-0.242	0.376	-0.347	-0.304	0.697	0.029	0.3
Reading	8	3919	C	B	2	6895	0.766	0.063	0.059	0.766	0.109	0.002	0.373	-0.289	-0.322	0.373	-0.230	0.115	0.031	1.1
Reading	8	3920	B	A	1	6895	0.709	0.093	0.709	0.151	0.047	0.001	0.249	-0.260	0.249	-0.091	-0.283	0.480	0.030	9.9
Reading	8	3921	A	B	2	6895	0.840	0.840	0.049	0.066	0.044	0.001	0.424	0.424	-0.358	-0.252	-0.279	-0.452	0.036	-3.0
Reading	8	3922	C	A	2	6895	0.854	0.035	0.044	0.854	0.066	0.001	0.471	-0.351	-0.341	0.471	-0.296	-0.574	0.037	-8.5
Reading	8	3923	C	A	3	6895	0.519	0.352	0.096	0.519	0.031	0.002	0.388	-0.326	-0.395	0.388	-0.418	1.498	0.027	3.3
Reading	8	3924	D	A	2	6895	0.437	0.168	0.347	0.047	0.437	0.001	0.350	-0.362	-0.289	-0.503	0.350	1.905	0.027	5.5
Reading	8	3925	A	B	2	6895	0.692	0.692	0.071	0.120	0.116	0.001	0.488	0.488	-0.393	-0.394	-0.389	0.580	0.029	-5.1
Reading	8	3926	D	A	1	6895	0.849	0.061	0.042	0.048	0.849	0.001	0.475	-0.316	-0.318	-0.363	0.475	-0.530	0.037	-7.8
Reading	8	3927	C	B	3	6895	0.364	0.363	0.234	0.364	0.037	0.001	0.194	-0.126	-0.231	0.194	-0.433	2.277	0.028	9.9
Reading	8	3928	B	B	3	6895	0.414	0.240	0.414	0.063	0.282	0.001	0.307	-0.365	0.307	-0.392	-0.219	2.022	0.027	9.0
Reading	8	3929	C	B	3	6895	0.496	0.055	0.133	0.496	0.314	0.002	0.334	-0.508	-0.293	0.334	-0.258	1.611	0.027	7.9
Reading	8	3930	D	B	2	6903	0.765	0.087	0.042	0.105	0.765	0.001	0.362	-0.305	-0.275	-0.227	0.362	0.108	0.031	1.1
Reading	8	3931	B	A	2	6903	0.719	0.154	0.719	0.098	0.029	0.000	0.267	-0.133	0.267	-0.298	-0.214	0.404	0.030	9.9
Reading	8	3932	B	B	2	6903	0.724	0.113	0.724	0.098	0.064	0.001	0.414	-0.346	0.414	-0.283	-0.320	0.370	0.030	1.1
Reading	8	3933	D	B	2	6903	0.780	0.063	0.097	0.057	0.780	0.001	0.364	-0.337	-0.127	-0.379	0.364	0.004	0.032	5.0
Reading	8	3934	D	A	2	6903	0.862	0.035	0.057	0.045	0.862	0.001	0.450	-0.307	-0.318	-0.296	0.450	-0.662	0.038	-8.1
Reading	8	3935	A	B	2	6903	0.746	0.746	0.074	0.138	0.041	0.001	0.463	0.463	-0.381	-0.349	-0.327	0.238	0.031	-5.3
Reading	8	3936	A	A	2	6903	0.718	0.718	0.131	0.115	0.034	0.002	0.429	0.429	-0.324	-0.347	-0.286	0.408	0.030	-5.7
Reading	8	3937	C	A	2	6903	0.705	0.220	0.040	0.705	0.034	0.001	0.389	-0.315	-0.355	0.389	-0.247	0.489	0.029	-0.3
Reading	8	3938	D	A	2	6903	0.361	0.487	0.056	0.094	0.361	0.002	0.190	-0.087	-0.441	-0.401	0.190	2.259	0.027	9.9
Reading	8	3939	A	B	2	6903	0.228	0.228	0.086	0.489	0.194	0.003	0.209	0.209	-0.465	-0.170	-0.281	3.021	0.031	9.9
Reading	8	3940	B	B	2	6903	0.700	0.158	0.700	0.043	0.097	0.002	0.281	-0.197	0.281	-0.297	-0.194	0.518	0.029	9.9
Reading	8	3941	B	A	1	6903	0.737	0.094	0.737	0.061	0.105	0.002	0.413	-0.354	0.413	-0.285	-0.285	0.294	0.030	-2.5
Reading	8	3942	D	A	2	6903	0.817	0.060	0.053	0.068	0.817	0.002	0.437	-0.287	-0.346	-0.292	0.437	-0.268	0.034	-4.5
Reading	8	3943	A	B	2	6903	0.802	0.802	0.075	0.075	0.047	0.002	0.463	0.463	-0.327	-0.335	-0.330	-0.151	0.033	-7.3
Reading	8	3944	B	B	2	6903	0.488	0.182	0.488	0.117	0.210	0.002	0.332	-0.341	0.332	-0.371	-0.219	1.621	0.027	6.2
Reading	8	3945	C	A	3	6903	0.762	0.024	0.147	0.762	0.064	0.002	0.269	-0.245	-0.203	0.269	-0.164	0.127	0.031	7.6
Reading	8	3946	B	A	2	6921	0.818	0.070	0.818	0.046	0.065	0.000	0.494	-0.431	0.494	-0.338	-0.278	-0.276	0.034	-8.6
Reading	8	3947	B	A	1	6921	0.825	0.047	0.825	0.105	0.023	0.000	0.330	-0.276	0.330	-0.199	-0.244	-0.332	0.034	-0.8
Reading	8	3948	C	A	2	6921	0.782	0.065	0.033	0.782	0.120	0.000	0.432	-0.316	-0.269	0.432	-0.342	-0.001	0.032	-4.3
Reading	8	3949	B	A	2	6921	0.527	0.046	0.527	0.121	0.305	0.001	0.317	-0.410	0.317	-0.431	-0.169	1.431	0.027	8.9
Reading	8	3950	A	A	2	6921	0.505	0.505	0.124	0.164	0.206	0.001	0.347	0.347	-0.339	-0.360	-0.248	1.542	0.027	4.4
Reading	8	3951	D	B	2	6921	0.869	0.038	0.039	0.053	0.869	0.001	0.486	-0.356	-0.318	-0.326	0.486	-0.724	0.038	-9.9
Reading	8	3952	C	A	1	6921	0.362	0.540	0.067	0.362	0.029	0.002	0.217	-0.170	-0.364	0.217	-0.326	2.260	0.028	9.9
Reading	8	3953	D	A	2	6921	0.255	0.290	0.237	0.215	0.255	0.003	0.313	-0.309	-0.450	-0.322	0.313	2.862	0.030	8.1
Reading	8	3954	B	B	3	6921	0.758	0.039	0.758	0.185	0.016	0.003	0.115	-0.252	0.115	0.017	-0.228	0.163	0.031	9.9
Reading	8	3955	A	B	2	6921	0.525	0.525	0.086	0.295	0.090	0.003	0.181	0.181	-0.303	-0.016	-0.346	1.441	0.027	9.9

Appendix L: 2008 Grades 3–8 and 11 Multiple-Choice Statistics

Information						Proportions						Correlations					Rasch			
Cont.	Grade	Pub. ID	Key	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Reading	8	3956	D	B	2	6921	0.720	0.142	0.035	0.101	0.720	0.002	0.419	-0.370	-0.366	-0.243	0.419	0.401	0.030	-2.8
Reading	8	3957	B	B	2	6921	0.839	0.038	0.839	0.034	0.086	0.002	0.408	-0.311	0.408	-0.321	-0.245	-0.447	0.035	-3.0
Reading	8	3958	C	B	3	6921	0.325	0.562	0.075	0.325	0.035	0.003	0.121	-0.041	-0.367	0.121	-0.408	2.459	0.028	9.9
Reading	8	3959	B	A	1	6921	0.746	0.161	0.746	0.055	0.035	0.002	0.407	-0.295	0.407	-0.373	-0.260	0.237	0.030	-0.7
Reading	8	3960	C	B	3	6921	0.669	0.099	0.085	0.669	0.145	0.002	0.308	-0.174	-0.266	0.308	-0.268	0.698	0.028	5.7
Reading	8	3961	D	B	3	6921	0.718	0.098	0.086	0.096	0.718	0.002	0.426	-0.354	-0.282	-0.340	0.426	0.412	0.030	-1.4
Reading	8	3962	A	A	2	6904	0.718	0.718	0.134	0.094	0.054	0.000	0.249	0.249	-0.233	-0.138	-0.162	0.405	0.030	8.5
Reading	8	3963	D	A	2	6904	0.551	0.048	0.350	0.051	0.551	0.000	0.243	-0.296	-0.182	-0.245	0.243	1.313	0.027	9.9
Reading	8	3964	C	A	2	6904	0.815	0.046	0.069	0.815	0.069	0.000	0.506	-0.325	-0.397	0.506	-0.355	-0.265	0.034	-9.9
Reading	8	3965	D	B	2	6904	0.746	0.047	0.103	0.103	0.746	0.000	0.479	-0.355	-0.339	-0.395	0.479	0.226	0.031	-6.8
Reading	8	3966	B	B	2	6904	0.799	0.052	0.799	0.067	0.081	0.000	0.326	-0.256	0.326	-0.226	-0.209	-0.135	0.033	1.6
Reading	8	3967	A	A	2	6904	0.617	0.617	0.156	0.172	0.054	0.001	0.297	0.297	-0.200	-0.288	-0.244	0.973	0.028	9.8
Reading	8	3968	A	B	2	6904	0.676	0.676	0.127	0.141	0.053	0.002	0.430	0.430	-0.340	-0.355	-0.316	0.649	0.029	-3.1
Reading	8	3969	A	B	3	6904	0.458	0.458	0.182	0.166	0.193	0.001	0.208	0.208	-0.328	-0.190	-0.050	1.781	0.027	9.9
Reading	8	3970	C	B	2	6904	0.604	0.186	0.065	0.604	0.143	0.001	0.408	-0.286	-0.415	0.408	-0.373	1.042	0.028	2.2
Reading	8	3971	D	A	3	6904	0.680	0.051	0.167	0.100	0.680	0.002	0.414	-0.336	-0.288	-0.383	0.414	0.629	0.029	-1.3
Reading	8	3972	D	A	1	6904	0.553	0.133	0.143	0.169	0.553	0.002	0.374	-0.320	-0.321	-0.330	0.374	1.302	0.027	2.5
Reading	8	3973	C	A	1	6904	0.755	0.067	0.093	0.755	0.082	0.002	0.373	-0.326	-0.288	0.373	-0.205	0.171	0.031	-0.1
Reading	8	3974	B	B	3	6904	0.728	0.089	0.728	0.074	0.107	0.002	0.476	-0.343	0.476	-0.378	-0.378	0.346	0.030	-5.1
Reading	8	3975	C	B	3	6904	0.814	0.120	0.033	0.814	0.032	0.002	0.504	-0.401	-0.359	0.504	-0.319	-0.250	0.034	-9.9
Reading	8	3976	B	B	2	6904	0.806	0.091	0.806	0.067	0.034	0.002	0.497	-0.367	0.497	-0.358	-0.358	-0.195	0.033	-8.3
Reading	8	3977	D	B	3	6904	0.391	0.188	0.234	0.186	0.391	0.002	0.326	-0.348	-0.345	-0.281	0.326	2.122	0.027	8.4
Reading	8	3978	A	B	2	6910	0.805	0.805	0.153	0.020	0.022	0.000	0.377	0.377	-0.309	-0.241	-0.245	-0.185	0.033	-2.5
Reading	8	3979	B	A	3	6910	0.722	0.100	0.722	0.081	0.096	0.000	0.346	-0.253	0.346	-0.240	-0.279	0.372	0.030	2.2
Reading	8	3980	B	B	2	6910	0.903	0.026	0.903	0.033	0.038	0.000	0.467	-0.276	0.467	-0.328	-0.319	-1.125	0.043	-9.5
Reading	8	3981	A	A	3	6910	0.871	0.871	0.032	0.072	0.024	0.000	0.404	0.404	-0.230	-0.304	-0.282	-0.766	0.039	-4.7
Reading	8	3982	D	B	2	6910	0.620	0.254	0.081	0.044	0.620	0.001	0.289	-0.220	-0.244	-0.296	0.289	0.951	0.028	9.5
Reading	8	3983	D	B	2	6910	0.586	0.123	0.144	0.146	0.586	0.001	0.277	-0.160	-0.209	-0.317	0.277	1.125	0.027	9.9
Reading	8	3984	A	B	2	6910	0.702	0.702	0.073	0.123	0.101	0.000	0.340	0.340	-0.348	-0.255	-0.188	0.494	0.029	2.8
Reading	8	3985	C	A	3	6910	0.711	0.095	0.118	0.711	0.075	0.000	0.301	-0.193	-0.195	0.301	-0.309	0.441	0.029	7.4
Reading	8	3986	C	B	2	6910	0.394	0.208	0.123	0.394	0.273	0.001	0.173	-0.086	-0.284	0.173	-0.178	2.086	0.027	9.9
Reading	8	3987	B	A	2	6910	0.901	0.024	0.901	0.048	0.026	0.001	0.419	-0.274	0.419	-0.249	-0.323	-1.097	0.043	-5.4
Reading	8	3988	B	A	2	6910	0.640	0.086	0.640	0.178	0.094	0.001	0.469	-0.382	0.469	-0.363	-0.424	0.841	0.028	-5.8
Reading	8	3989	C	A	2	6910	0.598	0.068	0.206	0.598	0.127	0.001	0.385	-0.456	-0.320	0.385	-0.233	1.063	0.027	1.9
Reading	8	3990	A	B	3	6910	0.637	0.637	0.113	0.113	0.135	0.001	0.430	0.430	-0.366	-0.439	-0.259	0.858	0.028	-2.1
Reading	8	3991	A	B	2	6910	0.339	0.339	0.233	0.209	0.218	0.002	0.268	0.268	-0.143	-0.393	-0.307	2.377	0.028	9.9
Reading	8	3992	D	B	3	6910	0.614	0.077	0.191	0.116	0.614	0.001	0.336	-0.286	-0.226	-0.327	0.336	0.980	0.028	5.0
Reading	8	3993	D	B	3	6910	0.544	0.277	0.107	0.070	0.544	0.002	0.295	-0.136	-0.362	-0.459	0.295	1.341	0.027	9.9
Reading	8	3994	B	A	1	6877	0.797	0.044	0.797	0.053	0.106	0.000	0.244	-0.282	0.244	-0.140	-0.124	-0.121	0.033	6.7
Reading	8	3995	D	A	2	6877	0.845	0.028	0.056	0.071	0.845	0.000	0.526	-0.335	-0.362	-0.411	0.526	-0.517	0.036	-9.9
Reading	8	3996	B	A	3	6877	0.790	0.110	0.790	0.028	0.072	0.000	0.423	-0.277	0.423	-0.298	-0.361	-0.072	0.033	-3.6
Reading	8	3997	A	A	3	6877	0.814	0.814	0.023	0.096	0.068	0.000	0.367	0.367	-0.279	-0.223	-0.313	-0.252	0.034	1.6
Reading	8	3998	D	B	2	6877	0.778	0.126	0.025	0.070	0.778	0.001	0.369	-0.352	-0.185	-0.200	0.369	0.015	0.032	0.6

Appendix L: 2008 Grades 3–8 and 11 Multiple-Choice Statistics

Information						Proportions							Correlations					Rasch		
Cont.	Grade	Pub. ID	Key	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Reading	8	3999	B	B	1	6877	0.649	0.078	0.649	0.235	0.037	0.001	0.260	-0.247	0.260	-0.169	-0.298	0.810	0.028	9.9
Reading	8	4000	C	B	3	6877	0.802	0.080	0.047	0.802	0.070	0.001	0.493	-0.356	-0.366	0.493	-0.353	-0.159	0.033	-7.8
Reading	8	4001	D	A	1	6877	0.544	0.185	0.081	0.188	0.544	0.001	0.428	-0.304	-0.440	-0.424	0.428	1.359	0.027	-1.2
Reading	8	4002	D	B	2	6877	0.760	0.065	0.113	0.061	0.760	0.001	0.395	-0.322	-0.260	-0.319	0.395	0.140	0.031	2.6
Reading	8	4003	A	B	2	6877	0.766	0.766	0.064	0.139	0.030	0.001	0.479	0.479	-0.370	-0.373	-0.336	0.101	0.032	-6.5
Reading	8	4004	D	A	2	6877	0.776	0.110	0.044	0.068	0.776	0.001	0.498	-0.340	-0.399	-0.402	0.498	0.028	0.032	-6.2
Reading	8	4005	C	A	3	6877	0.634	0.115	0.134	0.634	0.115	0.002	0.383	-0.305	-0.354	0.383	-0.266	0.891	0.028	2.0
Reading	8	4006	C	A	3	6877	0.759	0.050	0.149	0.759	0.041	0.001	0.408	-0.355	-0.266	0.408	-0.358	0.148	0.031	1.1
Reading	8	4007	A	B	3	6877	0.737	0.737	0.078	0.046	0.136	0.002	0.397	0.397	-0.375	-0.369	-0.214	0.288	0.030	0.4
Reading	8	4008	B	A	2	6877	0.709	0.118	0.709	0.096	0.076	0.001	0.445	-0.329	0.445	-0.387	-0.328	0.464	0.030	-1.3
Reading	8	4009	B	B	2	6877	0.658	0.126	0.658	0.170	0.044	0.001	0.321	-0.293	0.321	-0.193	-0.350	0.758	0.028	7.8
Reading	8	4010	D	A	1	6860	0.652	0.125	0.145	0.076	0.652	0.001	0.303	-0.180	-0.312	-0.210	0.303	0.801	0.028	6.6
Reading	8	4011	C	B	2	6860	0.852	0.073	0.044	0.852	0.031	0.000	0.417	-0.301	-0.325	0.417	-0.222	-0.560	0.037	-3.9
Reading	8	4012	D	A	2	6860	0.686	0.100	0.088	0.124	0.686	0.001	0.499	-0.432	-0.437	-0.344	0.499	0.606	0.029	-7.9
Reading	8	4013	A	A	2	6860	0.679	0.679	0.197	0.048	0.076	0.000	0.428	0.428	-0.389	-0.344	-0.261	0.651	0.029	-1.6
Reading	8	4014	B	B	2	6860	0.595	0.047	0.595	0.234	0.122	0.001	0.480	-0.426	0.480	-0.392	-0.444	1.100	0.028	-6.7
Reading	8	4015	B	B	1	6860	0.585	0.079	0.585	0.104	0.229	0.002	0.303	-0.277	0.303	-0.393	-0.147	1.153	0.027	7.4
Reading	8	4016	D	A	2	6860	0.910	0.036	0.025	0.028	0.910	0.001	0.419	-0.264	-0.295	-0.260	0.419	-1.210	0.045	-7.2
Reading	8	4017	B	A	1	6860	0.683	0.053	0.683	0.216	0.047	0.001	0.376	-0.366	0.376	-0.278	-0.273	0.627	0.029	0.2
Reading	8	4018	D	A	3	6860	0.548	0.053	0.156	0.242	0.548	0.001	0.227	-0.354	-0.290	-0.079	0.227	1.343	0.027	9.9
Reading	8	4019	C	B	2	6860	0.616	0.295	0.059	0.616	0.028	0.002	0.255	-0.185	-0.263	0.255	-0.261	0.992	0.028	9.9
Reading	8	4020	B	A	2	6860	0.879	0.050	0.879	0.039	0.030	0.001	0.487	-0.346	0.487	-0.327	-0.309	-0.831	0.040	-9.9
Reading	8	4021	B	A	2	6860	0.592	0.150	0.592	0.165	0.091	0.002	0.345	-0.343	0.345	-0.244	-0.269	1.116	0.027	6.2
Reading	8	4022	B	A	3	6860	0.323	0.242	0.323	0.373	0.061	0.001	0.217	-0.280	0.217	-0.147	-0.413	2.494	0.028	9.9
Reading	8	4023	C	B	2	6860	0.552	0.248	0.079	0.552	0.118	0.002	0.356	-0.210	-0.427	0.356	-0.388	1.320	0.027	5.4
Reading	8	4024	D	B	3	6860	0.812	0.076	0.069	0.041	0.812	0.002	0.526	-0.403	-0.386	-0.345	0.526	-0.221	0.034	-9.9
Reading	8	4025	A	B	3	6860	0.559	0.559	0.095	0.116	0.228	0.002	0.315	0.315	-0.381	-0.282	-0.203	1.287	0.027	8.6
Reading	8	4026	C	A	1	6923	0.720	0.073	0.116	0.720	0.091	0.000	0.349	-0.376	-0.295	0.349	-0.117	0.381	0.030	1.9
Reading	8	4027	B	A	1	6923	0.709	0.175	0.709	0.036	0.079	0.000	0.374	-0.300	0.374	-0.327	-0.243	0.446	0.029	-0.3
Reading	8	4028	B	A	2	6923	0.536	0.036	0.536	0.140	0.287	0.001	0.287	-0.287	0.287	-0.221	-0.256	1.379	0.027	9.9
Reading	8	4029	C	A	2	6923	0.690	0.078	0.053	0.690	0.178	0.000	0.354	-0.304	-0.336	0.354	-0.232	0.557	0.029	2.3
Reading	8	4030	D	B	2	6923	0.622	0.090	0.190	0.097	0.622	0.001	0.413	-0.373	-0.333	-0.338	0.413	0.937	0.028	0.2
Reading	8	4031	D	A	2	6923	0.805	0.030	0.054	0.109	0.805	0.001	0.445	-0.322	-0.312	-0.332	0.445	-0.197	0.033	-4.8
Reading	8	4032	C	A	2	6923	0.838	0.089	0.034	0.838	0.037	0.002	0.454	-0.351	-0.340	0.454	-0.241	-0.468	0.036	-6.6
Reading	8	4033	B	A	1	6923	0.724	0.144	0.724	0.096	0.034	0.002	0.430	-0.342	0.430	-0.329	-0.299	0.356	0.030	-3.3
Reading	8	4034	C	A	2	6923	0.482	0.217	0.252	0.482	0.047	0.002	0.346	-0.357	-0.262	0.346	-0.382	1.651	0.027	6.7
Reading	8	4035	D	B	2	6923	0.870	0.054	0.032	0.042	0.870	0.002	0.524	-0.384	-0.335	-0.354	0.524	-0.769	0.039	-9.9
Reading	8	4036	A	B	2	6923	0.681	0.681	0.129	0.138	0.049	0.003	0.412	0.412	-0.330	-0.294	-0.389	0.610	0.029	1.6
Reading	8	4037	C	A	1	6923	0.869	0.040	0.048	0.869	0.040	0.002	0.489	-0.330	-0.357	0.489	-0.299	-0.763	0.038	-9.7
Reading	8	4038	D	A	2	6923	0.694	0.191	0.034	0.079	0.694	0.002	0.499	-0.377	-0.417	-0.445	0.499	0.538	0.029	-9.7
Reading	8	4039	B	B	3	6923	0.636	0.167	0.636	0.092	0.102	0.002	0.442	-0.326	0.442	-0.416	-0.353	0.860	0.028	-3.8
Reading	8	4040	A	B	2	6923	0.670	0.670	0.087	0.089	0.152	0.002	0.248	0.248	-0.260	-0.293	-0.074	0.677	0.029	9.9
Reading	8	4041	A	B	3	6923	0.458	0.458	0.126	0.293	0.119	0.002	0.171	0.171	-0.217	-0.052	-0.312	1.771	0.027	9.9

Appendix L: 2008 Grades 3–8 and 11 Multiple-Choice Statistics

Information						Proportions						Correlations					Rasch			
Cont.	Grade	Pub. ID	Key	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Reading	8	4042	B	B	2	6912	0.678	0.080	0.678	0.147	0.093	0.001	0.201	-0.139	0.201	-0.199	-0.099	0.622	0.029	9.9
Reading	8	4043	C	A	3	6912	0.852	0.033	0.052	0.852	0.062	0.000	0.450	-0.225	-0.326	0.450	-0.354	-0.600	0.037	-6.0
Reading	8	4044	D	A	2	6912	0.599	0.214	0.071	0.115	0.599	0.001	0.459	-0.439	-0.327	-0.355	0.459	1.052	0.027	-5.1
Reading	8	4045	A	B	3	6912	0.750	0.750	0.120	0.055	0.074	0.000	0.537	0.537	-0.426	-0.437	-0.372	0.186	0.031	-9.9
Reading	8	4046	C	B	3	6912	0.609	0.228	0.112	0.609	0.049	0.001	0.438	-0.382	-0.330	0.438	-0.394	1.000	0.028	-2.9
Reading	8	4047	D	B	2	6912	0.574	0.220	0.053	0.152	0.574	0.001	0.448	-0.371	-0.450	-0.385	0.448	1.182	0.027	-2.9
Reading	8	4048	D	A	2	6912	0.729	0.156	0.081	0.032	0.729	0.001	0.519	-0.448	-0.393	-0.346	0.519	0.316	0.030	-8.8
Reading	8	4049	A	A	2	6912	0.784	0.784	0.059	0.072	0.085	0.001	0.354	0.354	-0.234	-0.294	-0.232	-0.045	0.032	4.5
Reading	8	4050	C	A	2	6912	0.707	0.069	0.142	0.707	0.079	0.002	0.335	-0.278	-0.250	0.335	-0.230	0.451	0.029	2.7
Reading	8	4051	B	B	1	6912	0.792	0.077	0.792	0.077	0.051	0.001	0.405	-0.251	0.405	-0.320	-0.298	-0.108	0.033	-1.5
Reading	8	4052	C	A	1	6912	0.485	0.418	0.030	0.485	0.065	0.002	0.273	-0.180	-0.402	0.273	-0.454	1.629	0.027	9.9
Reading	8	4053	A	A	1	6912	0.875	0.875	0.035	0.063	0.024	0.002	0.428	0.428	-0.303	-0.277	-0.296	-0.829	0.039	-5.2
Reading	8	4054	A	B	3	6912	0.535	0.535	0.189	0.063	0.211	0.002	0.320	0.320	-0.222	-0.477	-0.257	1.378	0.027	9.2
Reading	8	4055	D	B	3	6912	0.554	0.055	0.123	0.266	0.554	0.001	0.176	-0.368	-0.338	0.021	0.176	1.282	0.027	9.9
Reading	8	4056	C	B	3	6912	0.572	0.159	0.147	0.572	0.120	0.002	0.342	-0.251	-0.366	0.342	-0.243	1.190	0.027	6.2
Reading	8	4057	B	B	3	6912	0.678	0.076	0.678	0.049	0.194	0.002	0.343	-0.350	0.343	-0.345	-0.207	0.623	0.029	6.1
Reading	8	4058	C	A	1	6921	0.938	0.017	0.028	0.938	0.016	0.000	0.303	-0.201	-0.235	0.303	-0.118	-1.674	0.052	-1.5
Reading	8	4059	D	B	2	6921	0.575	0.074	0.313	0.038	0.575	0.000	0.327	-0.449	-0.219	-0.348	0.327	1.196	0.027	9.9
Reading	8	4060	A	A	2	6921	0.852	0.852	0.079	0.050	0.018	0.000	0.380	0.380	-0.239	-0.298	-0.266	-0.568	0.037	-3.0
Reading	8	4061	D	A	1	6921	0.923	0.033	0.031	0.013	0.923	0.000	0.400	-0.272	-0.271	-0.220	0.400	-1.414	0.047	-8.1
Reading	8	4062	A	A	1	6921	0.742	0.742	0.049	0.126	0.083	0.000	0.453	0.453	-0.314	-0.363	-0.335	0.257	0.030	-6.6
Reading	8	4063	A	A	2	6921	0.878	0.878	0.037	0.048	0.036	0.001	0.368	0.368	-0.263	-0.224	-0.252	-0.833	0.039	-0.6
Reading	8	4064	B	A	2	6921	0.787	0.088	0.787	0.077	0.047	0.001	0.365	-0.299	0.365	-0.274	-0.186	-0.058	0.032	1.0
Reading	8	4065	A	A	1	6921	0.718	0.718	0.090	0.136	0.054	0.001	0.371	0.371	-0.243	-0.295	-0.310	0.399	0.030	0.5
Reading	8	4066	B	B	3	6921	0.464	0.120	0.464	0.335	0.079	0.001	0.285	-0.252	0.285	-0.241	-0.326	1.747	0.027	9.9
Reading	8	4067	B	A	1	6921	0.784	0.076	0.784	0.083	0.057	0.001	0.491	-0.293	0.491	-0.414	-0.376	-0.030	0.032	-7.3
Reading	8	4068	A	B	2	6921	0.430	0.430	0.080	0.076	0.413	0.001	0.281	0.281	-0.364	-0.386	-0.209	1.921	0.027	9.9
Reading	8	4069	B	A	2	6921	0.749	0.110	0.749	0.069	0.070	0.001	0.428	-0.333	0.428	-0.374	-0.234	0.205	0.031	-3.8
Reading	8	4070	C	A	1	6921	0.724	0.110	0.106	0.724	0.058	0.001	0.511	-0.455	-0.367	0.511	-0.345	0.362	0.030	-8.5
Reading	8	4071	C	A	3	6921	0.483	0.136	0.121	0.483	0.258	0.002	0.243	-0.204	-0.382	0.243	-0.134	1.655	0.027	9.9
Reading	8	4072	C	B	3	6921	0.557	0.060	0.242	0.557	0.140	0.002	0.326	-0.367	-0.297	0.326	-0.203	1.281	0.027	8.0
Reading	8	4073	A	A	3	6921	0.569	0.569	0.094	0.042	0.293	0.002	0.242	0.242	-0.197	-0.349	-0.171	1.220	0.027	9.9
Reading	8	4074	B	B		6906	0.947	0.036	0.947	0.013	0.003	0.000	0.315	-0.284	0.315	-0.142	-0.091	-1.819	0.055	-2.6
Reading	8	4075	A	A		6906	0.872	0.872	0.077	0.029	0.023	0.000	0.426	0.426	-0.303	-0.320	-0.250	-0.747	0.039	-6.1
Reading	8	4076	D	A		6906	0.881	0.029	0.026	0.064	0.881	0.000	0.386	-0.243	-0.259	-0.273	0.386	-0.854	0.040	-3.6
Reading	8	4077	B	A		6906	0.940	0.008	0.940	0.028	0.024	0.000	0.372	-0.181	0.372	-0.259	-0.253	-1.673	0.052	-7.2
Reading	8	4078	C	B		6906	0.789	0.050	0.045	0.789	0.114	0.001	0.245	-0.181	-0.249	0.245	-0.124	-0.045	0.033	8.8
Reading	8	4079	D	B		6906	0.749	0.062	0.064	0.124	0.749	0.000	0.453	-0.326	-0.400	-0.320	0.453	0.238	0.031	-3.9
Reading	8	4080	C	B	2	6906	0.877	0.040	0.051	0.877	0.032	0.001	0.398	-0.257	-0.311	0.398	-0.209	-0.822	0.040	-5.5
Reading	8	4081	B	A	1	6906	0.760	0.046	0.760	0.024	0.169	0.001	0.381	-0.264	0.381	-0.304	-0.298	0.152	0.031	-0.7
Reading	8	4082	A	A	2	6906	0.852	0.852	0.036	0.088	0.022	0.001	0.345	0.345	-0.314	-0.198	-0.224	-0.572	0.037	0.7
Reading	8	4083	B	A	2	6906	0.711	0.115	0.711	0.095	0.079	0.001	0.331	-0.163	0.331	-0.311	-0.293	0.467	0.030	4.6
Reading	8	4084	D	A	2	6906	0.614	0.028	0.098	0.258	0.614	0.001	0.562	-0.426	-0.484	-0.509	0.562	1.008	0.028	-9.9

Appendix L: 2008 Grades 3–8 and 11 Multiple-Choice Statistics

Information						Proportions						Correlations					Rasch			
Cont.	Grade	Pub. ID	Key	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Reading	8	4085	A	B	3	6906	0.616	0.616	0.042	0.276	0.064	0.001	0.281	0.281	-0.408	-0.139	-0.367	0.999	0.028	9.9
Reading	8	4086	D	B	2	6906	0.683	0.061	0.070	0.184	0.683	0.002	0.477	-0.480	-0.367	-0.352	0.477	0.629	0.029	-4.4
Reading	8	4087	B	A	1	6906	0.405	0.357	0.405	0.157	0.079	0.001	0.270	-0.175	0.270	-0.384	-0.356	2.066	0.027	9.9
Reading	8	4088	C	B	3	6906	0.849	0.033	0.033	0.849	0.083	0.002	0.442	-0.359	-0.335	0.442	-0.265	-0.542	0.037	-2.4
Reading	8	4089	D	A	3	6906	0.709	0.184	0.044	0.061	0.709	0.002	0.313	-0.191	-0.327	-0.276	0.313	0.476	0.030	7.3
Reading	8	4090	A	A	2	6903	0.890	0.890	0.040	0.055	0.014	0.000	0.264	0.264	-0.214	-0.153	-0.151	-0.921	0.041	1.8
Reading	8	4091	A	A	1	6903	0.780	0.780	0.159	0.028	0.033	0.000	0.305	0.305	-0.179	-0.331	-0.282	0.041	0.032	9.8
Reading	8	4092	C	A	2	6903	0.871	0.073	0.026	0.871	0.030	0.000	0.328	-0.287	-0.204	0.328	-0.125	-0.718	0.038	-1.1
Reading	8	4093	D	A	2	6903	0.678	0.058	0.220	0.044	0.678	0.001	0.396	-0.300	-0.307	-0.385	0.396	0.677	0.029	-1.5
Reading	8	4094	C	B	2	6903	0.603	0.070	0.147	0.603	0.179	0.001	0.333	-0.229	-0.319	0.333	-0.257	1.072	0.027	4.6
Reading	8	4095	C	A		6903	0.491	0.142	0.219	0.491	0.147	0.001	0.132	-0.059	-0.036	0.132	-0.294	1.632	0.027	9.9
Reading	8	4096	B	B	2	6903	0.835	0.097	0.835	0.042	0.025	0.001	0.276	-0.184	0.276	-0.178	-0.230	-0.391	0.035	8.6
Reading	8	4097	C	A	1	6903	0.781	0.080	0.036	0.781	0.102	0.001	0.481	-0.329	-0.354	0.481	-0.379	0.026	0.032	-8.1
Reading	8	4098	D	B	3	6903	0.333	0.318	0.219	0.127	0.333	0.002	0.256	-0.292	-0.281	-0.218	0.256	2.431	0.028	9.9
Reading	8	4099	A	A	2	6903	0.779	0.779	0.042	0.153	0.024	0.002	0.453	0.453	-0.342	-0.355	-0.318	0.041	0.032	-5.8
Reading	8	4100	A	B	3	6903	0.781	0.781	0.088	0.045	0.084	0.002	0.411	0.411	-0.284	-0.336	-0.281	0.022	0.032	-3.1
Reading	8	4101	C	B	2	6903	0.552	0.164	0.247	0.552	0.034	0.002	0.326	-0.313	-0.234	0.326	-0.412	1.332	0.027	6.9
Reading	8	4102	D	B	3	6903	0.635	0.190	0.085	0.087	0.635	0.002	0.379	-0.308	-0.329	-0.295	0.379	0.903	0.028	2.5
Reading	8	4103	B	B	2	6903	0.525	0.400	0.525	0.040	0.033	0.002	0.191	-0.084	0.191	-0.456	-0.351	1.464	0.027	9.9
Reading	8	4104	B	A	2	6903	0.793	0.099	0.793	0.054	0.050	0.003	0.482	-0.379	0.482	-0.347	-0.313	-0.066	0.033	-7.5
Reading	8	4105	D	A	1	6903	0.780	0.093	0.069	0.056	0.780	0.002	0.485	-0.404	-0.321	-0.330	0.485	0.034	0.032	-7.9
Reading	8	4106	C	B		6862	0.844	0.031	0.023	0.844	0.102	0.001	0.300	-0.214	-0.233	0.300	-0.196	-0.487	0.036	1.4
Reading	8	4107	D	A		6862	0.874	0.041	0.026	0.057	0.874	0.001	0.455	-0.324	-0.301	-0.303	0.455	-0.786	0.039	-8.6
Reading	8	4108	A	A		6862	0.622	0.622	0.052	0.169	0.156	0.000	0.335	0.335	-0.396	-0.233	-0.261	0.940	0.028	5.9
Reading	8	4109	A	A		6862	0.776	0.776	0.051	0.058	0.114	0.001	0.193	0.193	-0.216	-0.185	-0.049	0.014	0.032	9.9
Reading	8	4110	C	B		6862	0.689	0.021	0.056	0.689	0.232	0.001	0.364	-0.308	-0.287	0.364	-0.294	0.566	0.029	2.3
Reading	8	4111	B	A		6862	0.903	0.031	0.903	0.037	0.028	0.001	0.423	-0.274	0.423	-0.285	-0.271	-1.107	0.043	-7.3
Reading	8	4112	B	A	2	6862	0.893	0.054	0.893	0.027	0.026	0.001	0.381	-0.218	0.381	-0.272	-0.286	-1.019	0.042	-1.6
Reading	8	4113	D	B	1	6862	0.839	0.038	0.083	0.039	0.839	0.001	0.374	-0.311	-0.206	-0.290	0.374	-0.471	0.036	-1.5
Reading	8	4114	B	A	2	6862	0.847	0.071	0.847	0.029	0.051	0.001	0.391	-0.280	0.391	-0.288	-0.243	-0.550	0.036	-2.9
Reading	8	4115	C	A	2	6862	0.573	0.197	0.079	0.573	0.148	0.002	0.274	-0.313	-0.222	0.274	-0.135	1.191	0.027	9.9
Reading	8	4116	D	A	1	6862	0.861	0.058	0.056	0.024	0.861	0.001	0.438	-0.320	-0.289	-0.295	0.438	-0.680	0.038	-6.6
Reading	8	4117	C	B	3	6862	0.640	0.140	0.036	0.640	0.184	0.001	0.311	-0.243	-0.402	0.311	-0.215	0.839	0.028	9.9
Reading	8	4118	A	B	3	6862	0.713	0.713	0.105	0.079	0.101	0.002	0.329	0.329	-0.292	-0.302	-0.151	0.421	0.030	4.4
Reading	8	4119	B	B	3	6862	0.812	0.085	0.812	0.054	0.048	0.001	0.468	-0.300	0.468	-0.383	-0.326	-0.250	0.034	-7.8
Reading	8	4120	C	B	3	6862	0.874	0.028	0.031	0.874	0.066	0.001	0.455	-0.297	-0.277	0.455	-0.341	-0.807	0.039	-8.3
Reading	8	4121	A	B	3	6862	0.544	0.544	0.056	0.279	0.119	0.002	0.259	0.259	-0.343	-0.117	-0.347	1.342	0.027	9.9
Reading	8	4122	C	A	2	6874	0.851	0.081	0.026	0.851	0.041	0.001	0.399	-0.298	-0.282	0.399	-0.243	-0.572	0.037	-3.8
Reading	8	4123	D	B	2	6874	0.734	0.144	0.027	0.094	0.734	0.000	0.285	-0.226	-0.358	-0.136	0.285	0.315	0.030	9.9
Reading	8	4124	D	A	1	6874	0.775	0.097	0.069	0.059	0.775	0.001	0.539	-0.410	-0.436	-0.363	0.539	0.047	0.032	-9.9
Reading	8	4125	C	B	2	6874	0.673	0.127	0.154	0.673	0.046	0.000	0.338	-0.257	-0.272	0.338	-0.267	0.679	0.029	4.2
Reading	8	4126	B	A	2	6874	0.793	0.105	0.793	0.062	0.039	0.001	0.476	-0.370	0.476	-0.340	-0.322	-0.089	0.033	-7.6
Reading	8	4127	A	B	2	6874	0.702	0.702	0.105	0.074	0.117	0.001	0.484	0.484	-0.383	-0.356	-0.399	0.516	0.029	-6.7

Appendix L: 2008 Grades 3–8 and 11 Multiple-Choice Statistics

Information						Proportions						Correlations					Rasch			
Cont.	Grade	Pub. ID	Key	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Reading	8	4128	C	A	2	6874	0.692	0.123	0.148	0.692	0.035	0.002	0.411	-0.393	-0.312	0.411	-0.189	0.564	0.029	-1.5
Reading	8	4129	A	B	2	6874	0.585	0.585	0.171	0.101	0.142	0.002	0.442	0.442	-0.373	-0.468	-0.308	1.155	0.028	-2.9
Reading	8	4130	C	B	2	6874	0.509	0.094	0.126	0.509	0.269	0.001	0.349	-0.406	-0.414	0.349	-0.213	1.543	0.027	6.6
Reading	8	4131	C	A	2	6874	0.607	0.144	0.076	0.607	0.170	0.002	0.408	-0.427	-0.350	0.408	-0.262	1.038	0.028	1.7
Reading	8	4132	B	A	2	6874	0.734	0.122	0.734	0.068	0.075	0.001	0.431	-0.328	0.431	-0.356	-0.288	0.311	0.030	-3.2
Reading	8	4133	A	B	3	6874	0.347	0.347	0.118	0.168	0.365	0.002	0.204	0.204	-0.270	-0.414	-0.082	2.379	0.028	9.9
Reading	8	4134	D	B	3	6874	0.461	0.193	0.122	0.221	0.461	0.002	0.329	-0.324	-0.349	-0.266	0.329	1.782	0.027	8.1
Reading	8	4135	B	B	2	6874	0.336	0.348	0.336	0.164	0.150	0.002	0.237	-0.177	0.237	-0.300	-0.300	2.441	0.028	9.9
Reading	8	4136	D	B	2	6874	0.708	0.073	0.086	0.130	0.708	0.002	0.532	-0.429	-0.421	-0.413	0.532	0.468	0.030	-9.9
Reading	8	4137	B	A	2	6874	0.784	0.048	0.784	0.091	0.074	0.003	0.431	-0.320	0.431	-0.251	-0.381	-0.024	0.032	-2.9
Reading	11	4138	D	A	2	134984	0.710	0.227	0.026	0.036	0.710	0.001	0.416	-0.338	-0.279	-0.401	0.416	-0.119	0.007	8.1
Reading	11	4139	C	A	2	134984	0.865	0.022	0.047	0.865	0.065	0.001	0.430	-0.245	-0.278	0.430	-0.341	-1.243	0.009	-9.9
Reading	11	4140	D	A	2	134984	0.735	0.033	0.099	0.132	0.735	0.001	0.545	-0.428	-0.462	-0.406	0.545	-0.266	0.007	-9.9
Reading	11	4141	A	A	1	134984	0.631	0.631	0.125	0.088	0.155	0.001	0.441	0.441	-0.346	-0.340	-0.386	0.321	0.006	-5.3
Reading	11	4142	C	A	2	134984	0.839	0.012	0.028	0.839	0.120	0.001	0.354	-0.226	-0.223	0.354	-0.286	-1.014	0.008	9.9
Reading	11	4143	B	A	2	134984	0.736	0.032	0.736	0.012	0.220	0.001	0.338	-0.214	0.338	-0.266	-0.291	-0.280	0.007	9.9
Reading	11	4144	A	B	2	134984	0.784	0.784	0.096	0.016	0.103	0.001	0.352	0.352	-0.309	-0.302	-0.204	-0.593	0.007	9.9
Reading	11	4145	B	A	2	134984	0.742	0.084	0.742	0.072	0.101	0.001	0.286	-0.252	0.286	-0.272	-0.115	-0.315	0.007	9.9
Reading	11	4146	C	A	2	134984	0.893	0.015	0.037	0.893	0.054	0.001	0.433	-0.256	-0.322	0.433	-0.288	-1.549	0.009	-9.9
Reading	11	4147	A	A	2	134984	0.583	0.583	0.227	0.148	0.040	0.001	0.319	0.319	-0.335	-0.186	-0.261	0.570	0.006	9.9
Reading	11	4148	B	B	2	134984	0.849	0.050	0.849	0.027	0.073	0.001	0.427	-0.161	0.427	-0.268	-0.418	-1.100	0.008	-5.8
Reading	11	4149	C	A	2	134984	0.670	0.178	0.110	0.670	0.040	0.001	0.368	-0.264	-0.377	0.368	-0.214	0.110	0.006	9.9
Reading	11	4150	B	A	2	134984	0.518	0.237	0.518	0.125	0.117	0.002	0.388	-0.370	0.388	-0.291	-0.367	0.894	0.006	9.9
Reading	11	4151	B	B	2	134984	0.495	0.118	0.495	0.312	0.072	0.002	0.411	-0.432	0.411	-0.356	-0.326	1.010	0.006	9.9
Reading	11	4152	B	A	2	134984	0.928	0.041	0.928	0.019	0.010	0.001	0.389	-0.278	0.389	-0.241	-0.221	-2.023	0.011	-9.9
Reading	11	4153	B	A	2	134984	0.623	0.056	0.623	0.018	0.301	0.002	0.417	-0.309	0.417	-0.335	-0.373	0.364	0.006	6.9
Reading	11	4154	C	A	2	134984	0.565	0.116	0.276	0.565	0.039	0.004	0.301	-0.287	-0.230	0.301	-0.287	0.658	0.006	9.9
Reading	11	4155	A	A	2	134984	0.871	0.871	0.046	0.049	0.031	0.003	0.430	0.430	-0.283	-0.304	-0.271	-1.308	0.009	-9.9
Reading	11	4156	C	A	2	134984	0.647	0.056	0.242	0.647	0.052	0.002	0.471	-0.357	-0.402	0.471	-0.373	0.238	0.006	-9.9
Reading	11	4157	D	A	2	134984	0.568	0.206	0.034	0.189	0.568	0.003	0.451	-0.350	-0.465	-0.426	0.451	0.648	0.006	-4.5
Reading	11	4158	C	A	2	134984	0.615	0.080	0.211	0.615	0.091	0.003	0.383	-0.362	-0.335	0.383	-0.238	0.402	0.006	9.9
Reading	11	4159	A	B	2	134984	0.453	0.453	0.082	0.152	0.309	0.003	0.398	0.398	-0.508	-0.419	-0.305	1.224	0.006	9.9
Reading	11	4160	A	A	1	134984	0.539	0.539	0.096	0.244	0.117	0.003	0.403	0.403	-0.362	-0.364	-0.331	0.792	0.006	9.9
Reading	11	4161	A	B	2	134984	0.670	0.670	0.087	0.086	0.153	0.004	0.517	0.517	-0.449	-0.473	-0.355	0.111	0.006	-9.9
Reading	11	4162	D	A	1	134984	0.793	0.148	0.031	0.027	0.793	0.001	0.415	-0.298	-0.321	-0.361	0.415	-0.650	0.007	0.0
Reading	11	4163	B	B	2	134984	0.819	0.153	0.819	0.017	0.011	0.001	0.394	-0.326	0.394	-0.286	-0.240	-0.851	0.008	-4.5
Reading	11	4164	A	B	2	134984	0.519	0.519	0.168	0.135	0.175	0.002	0.476	0.476	-0.449	-0.412	-0.432	0.895	0.006	-9.9
Reading	11	4165	B	B	2	134984	0.372	0.036	0.372	0.043	0.548	0.001	0.414	-0.446	0.414	-0.506	-0.392	1.637	0.006	9.9
Reading	11	4166	D	B	2	134984	0.656	0.201	0.086	0.056	0.656	0.001	0.520	-0.450	-0.442	-0.373	0.520	0.187	0.006	-9.9
Reading	11	4167	C	A	2	134984	0.850	0.034	0.079	0.850	0.036	0.001	0.328	-0.289	-0.195	0.328	-0.210	-1.110	0.008	9.9
Reading	11	4168	C	A	2	134984	0.689	0.039	0.084	0.689	0.187	0.001	0.381	-0.332	-0.387	0.381	-0.241	0.002	0.007	9.9
Reading	11	4169	B	A	2	134984	0.809	0.079	0.809	0.076	0.033	0.003	0.534	-0.429	0.534	-0.413	-0.275	-0.771	0.008	-9.9
Reading	11	4170	D	A	2	134984	0.792	0.102	0.034	0.070	0.792	0.002	0.589	-0.446	-0.377	-0.489	0.589	-0.642	0.007	-9.9

Appendix L: 2008 Grades 3–8 and 11 Multiple-Choice Statistics

Information						Proportions						Correlations					Rasch			
Cont.	Grade	Pub. ID	Key	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Reading	11	4171	C	B	3	134984	0.776	0.065	0.128	0.776	0.028	0.003	0.415	-0.401	-0.238	0.415	-0.327	-0.532	0.007	5.4
Reading	11	4172	D	B	3	134984	0.802	0.028	0.141	0.025	0.802	0.003	0.487	-0.336	-0.386	-0.357	0.487	-0.716	0.007	-9.9
Reading	11	4173	C	B	2	134984	0.652	0.112	0.092	0.652	0.140	0.003	0.373	-0.222	-0.393	0.373	-0.273	0.205	0.006	9.9
Reading	11	4174	B	A	3	134984	0.578	0.097	0.578	0.152	0.169	0.003	0.472	-0.429	0.472	-0.436	-0.366	0.596	0.006	-5.3
Reading	11	4175	D	B	2	134984	0.348	0.025	0.469	0.153	0.348	0.004	0.283	-0.448	-0.289	-0.235	0.283	1.763	0.006	9.9
Reading	11	4176	B	B	3	134984	0.617	0.123	0.617	0.044	0.212	0.003	0.369	-0.434	0.369	-0.346	-0.203	0.390	0.006	9.9
Reading	11	4177	A	A	2	134984	0.791	0.791	0.042	0.142	0.022	0.003	0.475	0.475	-0.345	-0.371	-0.348	-0.639	0.007	-9.9
Reading	11	4178	B	A	2	7038	0.737	0.101	0.737	0.035	0.126	0.001	0.451	-0.330	0.451	-0.322	-0.367	-0.375	0.030	-3.9
Reading	11	4179	C	B	2	7038	0.665	0.133	0.168	0.665	0.034	0.000	0.476	-0.320	-0.456	0.476	-0.348	0.058	0.028	-4.5
Reading	11	4180	D	B	2	7038	0.574	0.089	0.223	0.113	0.574	0.001	0.466	-0.371	-0.435	-0.383	0.466	0.546	0.027	-4.1
Reading	11	4181	C	A	2	7038	0.825	0.021	0.078	0.825	0.075	0.000	0.449	-0.307	-0.350	0.449	-0.302	-1.008	0.034	-5.1
Reading	11	4182	C	A	3	7038	0.486	0.039	0.155	0.486	0.319	0.001	0.195	-0.273	-0.133	0.195	-0.179	0.993	0.027	9.9
Reading	11	4183	B	A	1	7038	0.906	0.033	0.906	0.036	0.024	0.000	0.404	-0.340	0.404	-0.219	-0.238	-1.836	0.043	-0.4
Reading	11	4184	A	B	3	7038	0.657	0.657	0.053	0.143	0.144	0.003	0.377	0.377	-0.377	-0.354	-0.206	0.104	0.028	2.4
Reading	11	4185	A	A	1	7038	0.755	0.755	0.058	0.049	0.136	0.002	0.378	0.378	-0.298	-0.352	-0.232	-0.488	0.031	1.5
Reading	11	4186	C	B	1	7038	0.869	0.029	0.067	0.869	0.032	0.002	0.384	-0.298	-0.234	0.384	-0.260	-1.413	0.038	-2.4
Reading	11	4187	B	B	1	7038	0.687	0.026	0.687	0.253	0.031	0.002	0.379	-0.309	0.379	-0.293	-0.381	-0.066	0.029	1.7
Reading	11	4188	C	A	1	7038	0.518	0.076	0.024	0.518	0.379	0.002	0.298	-0.233	-0.396	0.298	-0.259	0.834	0.027	9.9
Reading	11	4189	C	B	1	7038	0.857	0.022	0.089	0.857	0.030	0.002	0.384	-0.294	-0.262	0.384	-0.247	-1.292	0.037	-2.5
Reading	11	4190	B	A	2	7038	0.870	0.039	0.870	0.074	0.015	0.002	0.349	-0.256	0.349	-0.220	-0.268	-1.417	0.038	2.6
Reading	11	4191	B	A	2	7038	0.683	0.058	0.683	0.072	0.184	0.002	0.462	-0.389	0.462	-0.409	-0.336	-0.048	0.029	-5.4
Reading	11	4192	D	B	2	7038	0.783	0.052	0.090	0.072	0.783	0.003	0.506	-0.398	-0.360	-0.374	0.506	-0.685	0.032	-7.9
Reading	11	4193	C	A	2	7038	0.864	0.053	0.037	0.864	0.044	0.002	0.488	-0.358	-0.316	0.488	-0.327	-1.362	0.038	-8.3
Reading	11	4194	D	A	2	6729	0.873	0.045	0.018	0.063	0.873	0.000	0.469	-0.395	-0.247	-0.310	0.469	-1.351	0.039	-7.8
Reading	11	4195	C	A	2	6729	0.936	0.024	0.030	0.936	0.011	0.000	0.374	-0.281	-0.254	0.374	-0.149	-2.188	0.052	-6.3
Reading	11	4196	A	A	2	6729	0.770	0.770	0.040	0.109	0.080	0.001	0.267	0.267	-0.206	-0.115	-0.284	-0.496	0.032	9.9
Reading	11	4197	C	A	2	6729	0.860	0.049	0.053	0.860	0.037	0.001	0.346	-0.210	-0.268	0.346	-0.219	-1.213	0.038	0.2
Reading	11	4198	D	B	2	6729	0.848	0.090	0.038	0.023	0.848	0.001	0.368	-0.226	-0.351	-0.207	0.368	-1.108	0.037	-1.4
Reading	11	4199	B	A	3	6729	0.637	0.146	0.637	0.101	0.114	0.001	0.493	-0.411	0.493	-0.417	-0.388	0.295	0.028	-8.5
Reading	11	4200	A	B	3	6729	0.679	0.679	0.151	0.022	0.147	0.001	0.428	0.428	-0.372	-0.330	-0.323	0.068	0.029	-3.2
Reading	11	4201	C	A	2	6729	0.675	0.176	0.089	0.675	0.059	0.002	0.463	-0.345	-0.462	0.463	-0.294	0.090	0.029	-6.8
Reading	11	4202	B	A	1	6729	0.897	0.027	0.897	0.032	0.042	0.001	0.431	-0.281	0.431	-0.268	-0.302	-1.619	0.043	-7.5
Reading	11	4203	A	A	3	6729	0.660	0.660	0.061	0.128	0.150	0.002	0.363	0.363	-0.419	-0.388	-0.130	0.174	0.029	3.8
Reading	11	4204	B	B	2	6729	0.624	0.024	0.624	0.102	0.248	0.001	0.431	-0.362	0.431	-0.406	-0.346	0.364	0.028	-2.4
Reading	11	4205	C	A	2	6729	0.655	0.193	0.066	0.655	0.085	0.001	0.254	-0.151	-0.313	0.254	-0.192	0.197	0.029	9.9
Reading	11	4206	B	A	2	6729	0.669	0.113	0.669	0.169	0.046	0.002	0.470	-0.508	0.470	-0.290	-0.371	0.119	0.029	-4.4
Reading	11	4207	C	A	2	6729	0.612	0.131	0.144	0.612	0.111	0.003	0.415	-0.251	-0.480	0.415	-0.268	0.429	0.028	-1.2
Reading	11	4208	D	A	2	6729	0.623	0.119	0.093	0.163	0.623	0.002	0.299	-0.226	-0.232	-0.274	0.299	0.369	0.028	9.9
Reading	11	4209	A	B	3	6729	0.606	0.606	0.081	0.091	0.219	0.003	0.285	0.285	-0.271	-0.382	-0.137	0.458	0.028	9.9
Reading	11	4210	B	B	2	6738	0.682	0.070	0.682	0.071	0.176	0.001	0.376	-0.375	0.376	-0.184	-0.310	0.066	0.029	-0.8
Reading	11	4211	C	B	2	6738	0.808	0.043	0.082	0.808	0.067	0.000	0.239	-0.217	-0.185	0.239	-0.105	-0.745	0.034	9.1
Reading	11	4212	B	A	2	6738	0.774	0.113	0.774	0.093	0.019	0.001	0.323	-0.168	0.323	-0.334	-0.199	-0.505	0.032	4.5
Reading	11	4213	A	A	1	6738	0.935	0.935	0.025	0.013	0.027	0.000	0.379	0.379	-0.257	-0.185	-0.263	-2.142	0.052	-6.7

Appendix L: 2008 Grades 3–8 and 11 Multiple-Choice Statistics

Information						Proportions						Correlations					Rasch			
Cont.	Grade	Pub. ID	Key	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Reading	11	4214	D	A	2	6738	0.689	0.110	0.141	0.060	0.689	0.001	0.260	-0.156	-0.187	-0.277	0.260	0.025	0.029	8.1
Reading	11	4215	B	B	3	6738	0.650	0.083	0.650	0.246	0.019	0.001	0.274	-0.326	0.274	-0.168	-0.260	0.242	0.028	7.5
Reading	11	4216	C	B	2	6738	0.890	0.041	0.036	0.890	0.032	0.001	0.453	-0.285	-0.376	0.453	-0.256	-1.512	0.042	-6.0
Reading	11	4217	C	A	1	6738	0.718	0.176	0.065	0.718	0.040	0.001	0.361	-0.202	-0.351	0.361	-0.383	-0.145	0.030	1.6
Reading	11	4218	A	B	3	6738	0.705	0.705	0.181	0.076	0.036	0.002	0.487	0.487	-0.469	-0.309	-0.259	-0.067	0.030	-9.1
Reading	11	4219	D	B	2	6738	0.650	0.182	0.056	0.110	0.650	0.001	0.384	-0.300	-0.383	-0.289	0.384	0.242	0.028	1.3
Reading	11	4220	B	A	1	6738	0.528	0.018	0.528	0.359	0.092	0.001	0.269	-0.331	0.269	-0.184	-0.365	0.866	0.027	9.9
Reading	11	4221	D	A	2	6738	0.682	0.077	0.032	0.208	0.682	0.001	0.436	-0.360	-0.388	-0.345	0.436	0.068	0.029	-3.4
Reading	11	4222	A	B	2	6738	0.714	0.714	0.129	0.047	0.109	0.001	0.483	0.483	-0.348	-0.428	-0.386	-0.119	0.030	-6.8
Reading	11	4223	B	B	3	6738	0.813	0.077	0.813	0.046	0.062	0.001	0.391	-0.283	0.391	-0.316	-0.231	-0.789	0.034	-3.0
Reading	11	4224	B	B	2	6738	0.791	0.059	0.791	0.079	0.069	0.001	0.354	-0.260	0.354	-0.269	-0.220	-0.622	0.033	-0.6
Reading	11	4225	A	B	3	6738	0.711	0.711	0.112	0.071	0.104	0.002	0.333	0.333	-0.301	-0.310	-0.163	-0.103	0.030	5.7
Reading	11	4226	B	B	2	6733	0.853	0.030	0.853	0.105	0.012	0.000	0.322	-0.278	0.322	-0.220	-0.193	-1.129	0.037	1.3
Reading	11	4227	B	B	2	6733	0.783	0.093	0.783	0.059	0.065	0.001	0.411	-0.341	0.411	-0.263	-0.271	-0.569	0.032	-3.4
Reading	11	4228	D	A	2	6733	0.546	0.036	0.145	0.272	0.546	0.000	0.368	-0.324	-0.324	-0.338	0.368	0.777	0.027	4.0
Reading	11	4229	B	B	2	6733	0.679	0.256	0.679	0.026	0.038	0.001	0.275	-0.174	0.275	-0.338	-0.309	0.078	0.029	8.8
Reading	11	4230	C	A	2	6733	0.903	0.022	0.029	0.903	0.044	0.001	0.423	-0.272	-0.288	0.423	-0.277	-1.680	0.044	-6.6
Reading	11	4231	C	A	2	6733	0.912	0.019	0.042	0.912	0.026	0.001	0.324	-0.244	-0.136	0.324	-0.277	-1.791	0.045	3.3
Reading	11	4232	C	A	1	6733	0.640	0.038	0.219	0.640	0.100	0.002	0.277	-0.325	-0.248	0.277	-0.119	0.290	0.028	8.7
Reading	11	4233	B	A	1	6733	0.760	0.197	0.760	0.018	0.023	0.002	0.411	-0.348	0.411	-0.259	-0.305	-0.414	0.031	-2.9
Reading	11	4234	C	A	2	6733	0.736	0.020	0.180	0.736	0.061	0.002	0.433	-0.336	-0.343	0.433	-0.329	-0.259	0.031	-5.6
Reading	11	4235	C	A	2	6733	0.622	0.097	0.020	0.622	0.259	0.001	0.276	-0.357	-0.306	0.276	-0.145	0.386	0.028	7.7
Reading	11	4236	A	B	2	6733	0.847	0.847	0.044	0.059	0.049	0.002	0.461	0.461	-0.364	-0.348	-0.239	-1.079	0.037	-7.2
Reading	11	4237	A	A	2	6733	0.688	0.688	0.100	0.062	0.147	0.002	0.114	0.114	-0.157	-0.141	0.010	0.026	0.029	9.9
Reading	11	4238	D	B	3	6733	0.622	0.269	0.052	0.055	0.622	0.002	0.365	-0.243	-0.406	-0.404	0.365	0.388	0.028	2.7
Reading	11	4239	A	A	3	6733	0.809	0.809	0.102	0.034	0.052	0.003	0.451	0.451	-0.348	-0.336	-0.285	-0.760	0.034	-6.3
Reading	11	4240	B	B	2	6733	0.749	0.069	0.749	0.135	0.043	0.004	0.497	-0.391	0.497	-0.405	-0.299	-0.343	0.031	-9.0
Reading	11	4241	C	A	2	6733	0.611	0.134	0.201	0.611	0.051	0.003	0.375	-0.319	-0.305	0.375	-0.314	0.448	0.028	1.2
Reading	11	4242	C	A	2	6749	0.855	0.029	0.063	0.855	0.053	0.000	0.447	-0.281	-0.334	0.447	-0.305	-1.160	0.037	-6.4
Reading	11	4243	A	A	2	6749	0.754	0.754	0.100	0.100	0.044	0.001	0.465	0.465	-0.346	-0.378	-0.321	-0.386	0.031	-6.0
Reading	11	4244	D	A	2	6749	0.845	0.032	0.091	0.032	0.845	0.000	0.389	-0.275	-0.278	-0.263	0.389	-1.065	0.036	-2.8
Reading	11	4245	C	B	2	6749	0.664	0.029	0.053	0.664	0.252	0.001	0.446	-0.371	-0.373	0.446	-0.371	0.153	0.029	-5.9
Reading	11	4246	B	B	2	6749	0.535	0.194	0.535	0.249	0.021	0.001	0.282	-0.302	0.282	-0.194	-0.318	0.825	0.027	9.5
Reading	11	4247	B	A	2	6749	0.747	0.179	0.747	0.044	0.028	0.001	0.389	-0.277	0.389	-0.363	-0.302	-0.339	0.031	-0.9
Reading	11	4248	A	A	2	6749	0.744	0.744	0.195	0.024	0.035	0.001	0.510	0.510	-0.476	-0.326	-0.254	-0.317	0.031	-9.9
Reading	11	4249	B	A	2	6749	0.868	0.031	0.868	0.037	0.062	0.001	0.432	-0.299	0.432	-0.281	-0.304	-1.288	0.039	-6.6
Reading	11	4250	D	B	3	6749	0.851	0.087	0.027	0.033	0.851	0.001	0.430	-0.305	-0.280	-0.324	0.430	-1.123	0.037	-5.6
Reading	11	4251	A	A	2	6749	0.781	0.781	0.087	0.072	0.058	0.001	0.433	0.433	-0.406	-0.267	-0.255	-0.568	0.032	-3.6
Reading	11	4252	A	B	2	6749	0.619	0.619	0.065	0.267	0.048	0.002	0.385	0.385	-0.374	-0.308	-0.300	0.398	0.028	-0.5
Reading	11	4253	B	B	2	6749	0.535	0.049	0.535	0.264	0.149	0.002	0.325	-0.383	0.325	-0.278	-0.244	0.825	0.027	6.7
Reading	11	4254	D	B	3	6749	0.435	0.060	0.402	0.101	0.435	0.002	0.248	-0.207	-0.266	-0.166	0.248	1.324	0.027	9.9
Reading	11	4255	C	A	2	6749	0.663	0.028	0.137	0.663	0.170	0.002	0.199	-0.267	-0.137	0.199	-0.141	0.160	0.029	9.9
Reading	11	4256	B	B	3	6749	0.348	0.423	0.348	0.165	0.060	0.003	0.176	-0.148	0.176	-0.248	-0.188	1.772	0.028	9.9

Appendix L: 2008 Grades 3–8 and 11 Multiple-Choice Statistics

Information						Proportions							Correlations					Rasch		
Cont.	Grade	Pub. ID	Key	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Reading	11	4257	C	B	3	6749	0.722	0.033	0.087	0.722	0.154	0.004	0.258	-0.349	-0.157	0.258	-0.163	-0.183	0.030	8.8
Reading	11	4258	B	A	2	6764	0.677	0.130	0.677	0.133	0.059	0.001	0.437	-0.367	0.437	-0.435	-0.161	0.065	0.029	-2.1
Reading	11	4259	D	A	2	6764	0.574	0.250	0.102	0.073	0.574	0.001	0.264	-0.167	-0.302	-0.273	0.264	0.607	0.027	9.9
Reading	11	4260	C	B	1	6764	0.740	0.073	0.138	0.740	0.048	0.001	0.298	-0.277	-0.142	0.298	-0.296	-0.306	0.031	5.8
Reading	11	4261	A	A	2	6764	0.445	0.445	0.105	0.036	0.412	0.002	0.349	0.349	-0.378	-0.257	-0.326	1.251	0.027	5.0
Reading	11	4262	B	A	2	6764	0.878	0.023	0.878	0.039	0.058	0.001	0.352	-0.248	0.352	-0.266	-0.197	-1.407	0.040	-2.1
Reading	11	4263	A	A	3	6764	0.751	0.751	0.028	0.065	0.155	0.001	0.378	0.378	-0.290	-0.223	-0.318	-0.381	0.031	-1.7
Reading	11	4264	A	A	2	6764	0.898	0.898	0.034	0.025	0.042	0.001	0.465	0.465	-0.334	-0.300	-0.293	-1.625	0.043	-9.9
Reading	11	4265	B	B	2	6764	0.853	0.065	0.853	0.045	0.036	0.001	0.432	-0.308	0.432	-0.309	-0.260	-1.151	0.037	-6.4
Reading	11	4266	B	B	3	6764	0.750	0.075	0.750	0.127	0.047	0.002	0.437	-0.295	0.437	-0.378	-0.271	-0.370	0.031	-4.9
Reading	11	4267	C	A	1	6764	0.786	0.070	0.057	0.786	0.084	0.002	0.447	-0.297	-0.292	0.447	-0.364	-0.618	0.032	-7.0
Reading	11	4268	B	B	2	6764	0.857	0.054	0.857	0.029	0.059	0.002	0.415	-0.288	0.415	-0.303	-0.264	-1.188	0.037	-4.6
Reading	11	4269	D	A	1	6764	0.485	0.173	0.137	0.204	0.485	0.001	0.244	-0.300	-0.254	-0.125	0.244	1.053	0.027	9.9
Reading	11	4270	A	B	3	6764	0.701	0.701	0.052	0.212	0.032	0.002	0.487	0.487	-0.319	-0.426	-0.376	-0.071	0.029	-8.9
Reading	11	4271	C	A	3	6764	0.767	0.088	0.111	0.767	0.033	0.001	0.332	-0.252	-0.245	0.332	-0.228	-0.482	0.032	4.9
Reading	11	4272	D	A	3	6764	0.274	0.038	0.035	0.652	0.274	0.002	-0.027	-0.199	-0.363	0.083	-0.027	2.166	0.030	9.9
Reading	11	4273	D	A	2	6764	0.752	0.114	0.099	0.033	0.752	0.003	0.381	-0.244	-0.309	-0.319	0.381	-0.383	0.031	-1.0
Reading	11	4274	B	A	1	6729	0.808	0.042	0.808	0.104	0.045	0.000	0.324	-0.242	0.324	-0.170	-0.316	-0.782	0.034	2.2
Reading	11	4275	D	A	2	6729	0.663	0.064	0.120	0.152	0.663	0.001	0.321	-0.245	-0.200	-0.299	0.321	0.139	0.029	4.8
Reading	11	4276	A	B	2	6729	0.878	0.878	0.022	0.037	0.062	0.000	0.383	0.383	-0.287	-0.312	-0.202	-1.412	0.040	-2.3
Reading	11	4277	D	B	2	6729	0.716	0.185	0.070	0.029	0.716	0.000	0.356	-0.265	-0.316	-0.257	0.356	-0.168	0.030	2.4
Reading	11	4278	C	B	2	6729	0.668	0.089	0.024	0.668	0.218	0.001	0.319	-0.200	-0.310	0.319	-0.281	0.111	0.029	6.5
Reading	11	4279	D	A	2	6729	0.748	0.120	0.051	0.080	0.748	0.002	0.382	-0.253	-0.316	-0.307	0.382	-0.364	0.031	-0.2
Reading	11	4280	D	A	1	6729	0.463	0.129	0.175	0.230	0.463	0.002	0.366	-0.485	-0.343	-0.271	0.366	1.154	0.027	3.7
Reading	11	4281	D	B	2	6729	0.828	0.089	0.049	0.033	0.828	0.001	0.418	-0.263	-0.300	-0.346	0.418	-0.941	0.035	-3.7
Reading	11	4282	D	B	3	6729	0.442	0.209	0.302	0.045	0.442	0.002	0.215	-0.307	-0.075	-0.357	0.215	1.259	0.027	9.9
Reading	11	4283	B	A	2	6729	0.825	0.085	0.825	0.058	0.030	0.002	0.449	-0.293	0.449	-0.367	-0.294	-0.918	0.035	-6.2
Reading	11	4284	A	B	3	6729	0.733	0.733	0.070	0.056	0.138	0.002	0.371	0.371	-0.353	-0.298	-0.225	-0.268	0.030	2.0
Reading	11	4285	A	A	2	6729	0.813	0.813	0.056	0.065	0.064	0.002	0.495	0.495	-0.326	-0.388	-0.345	-0.822	0.034	-9.0
Reading	11	4286	C	A	3	6729	0.860	0.036	0.058	0.860	0.044	0.002	0.372	-0.261	-0.230	0.372	-0.262	-1.229	0.038	-1.4
Reading	11	4287	B	B	2	6729	0.874	0.049	0.874	0.053	0.022	0.002	0.464	-0.336	0.464	-0.310	-0.301	-1.368	0.039	-8.4
Reading	11	4288	A	A	3	6729	0.390	0.390	0.159	0.142	0.306	0.003	0.153	0.153	-0.166	-0.182	-0.122	1.518	0.028	9.9
Reading	11	4289	B	B	3	6729	0.324	0.112	0.324	0.437	0.123	0.003	0.119	-0.211	0.119	-0.028	-0.299	1.868	0.029	9.9
Reading	11	4290	B	B	3	6749	0.816	0.049	0.816	0.071	0.064	0.001	0.400	-0.298	0.400	-0.290	-0.250	-0.852	0.034	-3.5
Reading	11	4291	A	A	2	6749	0.665	0.665	0.227	0.056	0.052	0.000	0.370	0.370	-0.228	-0.391	-0.390	0.126	0.029	0.8
Reading	11	4292	D	A	2	6749	0.807	0.111	0.025	0.056	0.807	0.001	0.382	-0.312	-0.225	-0.250	0.382	-0.783	0.034	0.3
Reading	11	4293	A	B	3	6749	0.792	0.792	0.065	0.118	0.024	0.001	0.477	0.477	-0.340	-0.395	-0.278	-0.675	0.033	-7.5
Reading	11	4294	D	A	2	6749	0.552	0.055	0.296	0.095	0.552	0.001	0.502	-0.448	-0.447	-0.465	0.502	0.727	0.027	-9.4
Reading	11	4295	C	B	2	6749	0.690	0.073	0.159	0.690	0.076	0.002	0.309	-0.309	-0.144	0.309	-0.339	-0.013	0.029	9.9
Reading	11	4296	C	B	3	6749	0.697	0.092	0.107	0.697	0.103	0.001	0.325	-0.316	-0.234	0.325	-0.194	-0.056	0.030	4.3
Reading	11	4297	D	A	2	6749	0.224	0.440	0.089	0.245	0.224	0.002	0.187	-0.096	-0.440	-0.332	0.187	2.522	0.032	9.9
Reading	11	4298	C	B	3	6749	0.657	0.202	0.113	0.657	0.027	0.001	0.405	-0.357	-0.286	0.405	-0.316	0.172	0.029	-3.4
Reading	11	4299	A	A	2	6749	0.610	0.610	0.186	0.082	0.119	0.001	0.485	0.485	-0.481	-0.330	-0.371	0.426	0.028	-8.0

Appendix L: 2008 Grades 3–8 and 11 Multiple-Choice Statistics

Information						Proportions						Correlations					Rasch			
Cont.	Grade	Pub. ID	Key	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Reading	11	4300	A	B	3	6749	0.683	0.683	0.186	0.035	0.094	0.002	0.495	0.495	-0.398	-0.425	-0.392	0.027	0.029	-8.9
Reading	11	4301	D	B	2	6749	0.493	0.098	0.130	0.277	0.493	0.002	0.339	-0.360	-0.334	-0.274	0.339	1.026	0.027	6.2
Reading	11	4302	C	A	2	6749	0.824	0.064	0.054	0.824	0.057	0.002	0.454	-0.292	-0.329	0.454	-0.344	-0.917	0.035	-5.4
Reading	11	4303	A	A	1	6749	0.772	0.772	0.065	0.089	0.072	0.001	0.474	0.474	-0.390	-0.394	-0.255	-0.530	0.032	-7.1
Reading	11	4304	B	A	2	6749	0.810	0.079	0.810	0.058	0.052	0.001	0.461	-0.316	0.461	-0.341	-0.337	-0.805	0.034	-5.8
Reading	11	4305	B	A	2	6749	0.790	0.111	0.790	0.051	0.045	0.001	0.499	-0.347	0.499	-0.407	-0.374	-0.662	0.033	-6.9
Reading	11	4306	B	A	2	6742	0.881	0.075	0.881	0.023	0.021	0.000	0.377	-0.319	0.377	-0.248	-0.142	-1.434	0.040	-3.3
Reading	11	4307	A	A	2	6742	0.894	0.894	0.021	0.047	0.039	0.000	0.486	0.486	-0.271	-0.356	-0.343	-1.579	0.042	-9.9
Reading	11	4308	D	A	2	6742	0.640	0.169	0.072	0.117	0.640	0.001	0.408	-0.319	-0.351	-0.337	0.408	0.282	0.028	-1.5
Reading	11	4309	D	A	2	6742	0.803	0.098	0.037	0.061	0.803	0.001	0.353	-0.128	-0.349	-0.349	0.353	-0.733	0.034	3.5
Reading	11	4310	B	B	2	6742	0.689	0.066	0.689	0.118	0.127	0.001	0.411	-0.318	0.411	-0.375	-0.274	0.012	0.029	-0.3
Reading	11	4311	D	B	3	6742	0.803	0.076	0.076	0.044	0.803	0.001	0.340	-0.320	-0.146	-0.268	0.340	-0.731	0.034	2.8
Reading	11	4312	D	A	2	6742	0.424	0.016	0.044	0.515	0.424	0.001	0.104	-0.362	-0.215	-0.059	0.104	1.378	0.027	9.9
Reading	11	4313	C	A	1	6742	0.398	0.186	0.105	0.398	0.308	0.002	0.215	-0.206	-0.175	0.215	-0.224	1.506	0.028	9.9
Reading	11	4314	A	B	3	6742	0.913	0.913	0.045	0.024	0.017	0.001	0.432	0.432	-0.308	-0.290	-0.252	-1.835	0.046	-6.6
Reading	11	4315	B	B	2	6742	0.890	0.020	0.890	0.058	0.031	0.002	0.370	-0.280	0.370	-0.265	-0.209	-1.535	0.042	-0.1
Reading	11	4316	A	A	1	6742	0.905	0.905	0.043	0.024	0.027	0.002	0.366	0.366	-0.228	-0.241	-0.249	-1.718	0.044	-3.4
Reading	11	4317	B	B	2	6742	0.834	0.061	0.834	0.070	0.033	0.001	0.434	-0.322	0.434	-0.292	-0.303	-0.980	0.036	-5.0
Reading	11	4318	A	A	1	6742	0.846	0.846	0.031	0.097	0.023	0.001	0.415	0.415	-0.284	-0.310	-0.282	-1.087	0.037	-3.7
Reading	11	4319	C	B	3	6742	0.787	0.047	0.116	0.787	0.049	0.002	0.331	-0.149	-0.241	0.331	-0.319	-0.610	0.033	1.3
Reading	11	4320	D	B	3	6742	0.805	0.075	0.024	0.093	0.805	0.002	0.504	-0.348	-0.349	-0.412	0.504	-0.749	0.034	-9.0
Reading	11	4321	D	A	2	6742	0.720	0.037	0.206	0.035	0.720	0.002	0.442	-0.306	-0.378	-0.342	0.442	-0.174	0.030	-3.0
Reading	11	4322	D	A	2	6737	0.821	0.029	0.083	0.066	0.821	0.001	0.462	-0.298	-0.362	-0.325	0.462	-0.875	0.035	-6.7
Reading	11	4323	A	A	2	6737	0.625	0.625	0.105	0.089	0.180	0.000	0.338	0.338	-0.204	-0.363	-0.275	0.362	0.028	5.2
Reading	11	4324	D	B	2	6737	0.898	0.023	0.025	0.054	0.898	0.000	0.483	-0.303	-0.328	-0.347	0.483	-1.633	0.043	-9.6
Reading	11	4325	B	A	3	6737	0.533	0.090	0.533	0.290	0.085	0.001	0.385	-0.286	0.385	-0.301	-0.513	0.832	0.027	3.3
Reading	11	4326	B	A	2	6737	0.889	0.043	0.889	0.023	0.044	0.000	0.396	-0.289	0.396	-0.290	-0.225	-1.525	0.041	-4.3
Reading	11	4327	C	B	2	6737	0.672	0.118	0.129	0.672	0.081	0.001	0.350	-0.445	-0.166	0.350	-0.202	0.107	0.029	4.9
Reading	11	4328	D	A	2	6737	0.576	0.042	0.034	0.347	0.576	0.001	0.265	-0.407	-0.401	-0.158	0.265	0.615	0.028	9.9
Reading	11	4329	B	A	2	6737	0.761	0.167	0.761	0.021	0.049	0.001	0.344	-0.198	0.344	-0.316	-0.363	-0.441	0.032	1.7
Reading	11	4330	C	B	2	6737	0.578	0.291	0.059	0.578	0.069	0.002	0.393	-0.285	-0.444	0.393	-0.399	0.607	0.028	0.6
Reading	11	4331	D	A	1	6737	0.843	0.077	0.034	0.045	0.843	0.001	0.561	-0.406	-0.371	-0.430	0.561	-1.062	0.036	-9.9
Reading	11	4332	B	A	3	6737	0.678	0.057	0.678	0.202	0.061	0.003	0.367	-0.331	0.367	-0.219	-0.417	0.072	0.029	2.8
Reading	11	4333	B	B	2	6737	0.869	0.045	0.869	0.036	0.047	0.003	0.398	-0.207	0.398	-0.327	-0.270	-1.310	0.039	-2.6
Reading	11	4334	C	A	3	6737	0.557	0.047	0.289	0.557	0.104	0.003	0.395	-0.437	-0.265	0.395	-0.474	0.712	0.027	1.3
Reading	11	4335	A	B	2	6737	0.758	0.758	0.098	0.044	0.097	0.003	0.525	0.525	-0.395	-0.419	-0.395	-0.418	0.031	-9.9
Reading	11	4336	A	B	3	6737	0.564	0.564	0.069	0.211	0.153	0.002	0.449	0.449	-0.428	-0.406	-0.352	0.675	0.027	-4.5
Reading	11	4337	B	B	3	6737	0.596	0.059	0.596	0.195	0.147	0.003	0.400	-0.256	0.400	-0.311	-0.416	0.513	0.028	-0.1
Reading	11	4338	A	A	2	6738	0.776	0.776	0.078	0.052	0.093	0.001	0.424	0.424	-0.378	-0.266	-0.281	-0.531	0.032	-4.5
Reading	11	4339	A	A	3	6738	0.586	0.586	0.151	0.089	0.174	0.001	0.338	0.338	-0.298	-0.407	-0.206	0.560	0.027	5.2
Reading	11	4340	B	B	2	6738	0.862	0.060	0.862	0.049	0.028	0.001	0.452	-0.311	0.452	-0.381	-0.212	-1.229	0.038	-7.1
Reading	11	4341	D	B	2	6738	0.741	0.142	0.025	0.091	0.741	0.000	0.329	-0.171	-0.295	-0.334	0.329	-0.302	0.031	3.6
Reading	11	4342	B	B	2	6738	0.648	0.235	0.648	0.081	0.035	0.001	0.331	-0.288	0.331	-0.279	-0.181	0.236	0.028	3.0

Appendix L: 2008 Grades 3–8 and 11 Multiple-Choice Statistics

Information						Proportions						Correlations					Rasch			
Cont.	Grade	Pub. ID	Key	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Reading	11	4343	D	A	1	6738	0.893	0.015	0.038	0.054	0.893	0.000	0.399	-0.250	-0.265	-0.282	0.399	-1.556	0.042	-6.3
Reading	11	4344	D	A	3	6738	0.896	0.024	0.063	0.016	0.896	0.001	0.433	-0.268	-0.348	-0.213	0.433	-1.588	0.042	-6.5
Reading	11	4345	D	A	2	6738	0.804	0.134	0.028	0.031	0.804	0.002	0.475	-0.362	-0.348	-0.345	0.475	-0.735	0.033	-8.1
Reading	11	4346	D	A	1	6738	0.328	0.236	0.319	0.116	0.328	0.002	0.308	-0.330	-0.278	-0.420	0.308	1.858	0.028	7.1
Reading	11	4347	A	B	3	6738	0.679	0.679	0.262	0.030	0.028	0.002	0.335	0.335	-0.240	-0.353	-0.333	0.065	0.029	2.6
Reading	11	4348	A	B	2	6738	0.610	0.610	0.107	0.215	0.066	0.002	0.204	0.204	-0.043	-0.182	-0.306	0.434	0.028	9.9
Reading	11	4349	C	A	2	6738	0.559	0.118	0.291	0.559	0.030	0.001	0.269	-0.324	-0.174	0.269	-0.283	0.695	0.027	9.9
Reading	11	4350	D	A	2	6738	0.217	0.177	0.182	0.423	0.217	0.002	-0.114	0.009	0.160	0.184	-0.114	2.527	0.032	9.9
Reading	11	4351	B	B	2	6738	0.715	0.068	0.715	0.133	0.082	0.002	0.379	-0.310	0.379	-0.264	-0.299	-0.142	0.030	0.5
Reading	11	4352	B	A	2	6738	0.733	0.070	0.733	0.097	0.098	0.002	0.326	-0.184	0.326	-0.242	-0.279	-0.252	0.030	1.8
Reading	11	4353	B	B	3	6738	0.738	0.081	0.738	0.113	0.067	0.001	0.412	-0.378	0.412	-0.283	-0.262	-0.282	0.030	-2.4
Reading	11	4354	B	A	2	6727	0.600	0.033	0.600	0.336	0.031	0.000	0.437	-0.320	0.437	-0.392	-0.396	0.467	0.028	-3.9
Reading	11	4355	D	A	2	6727	0.709	0.075	0.162	0.053	0.709	0.001	0.415	-0.284	-0.327	-0.370	0.415	-0.130	0.030	-3.1
Reading	11	4356	B	A	2	6727	0.822	0.053	0.822	0.064	0.060	0.001	0.380	-0.211	0.380	-0.299	-0.275	-0.893	0.035	-2.3
Reading	11	4357	C	A	2	6727	0.697	0.085	0.148	0.697	0.070	0.001	0.326	-0.192	-0.273	0.326	-0.278	-0.057	0.029	4.2
Reading	11	4358	D	A	2	6727	0.862	0.068	0.037	0.032	0.862	0.001	0.469	-0.346	-0.343	-0.281	0.469	-1.241	0.038	-8.0
Reading	11	4359	A	B	2	6727	0.734	0.734	0.032	0.115	0.117	0.001	0.403	0.403	-0.288	-0.332	-0.295	-0.281	0.030	-1.7
Reading	11	4360	B	B	2	6727	0.629	0.216	0.629	0.027	0.126	0.002	0.413	-0.340	0.413	-0.318	-0.360	0.317	0.028	-2.7
Reading	11	4361	A	A	2	6727	0.505	0.505	0.426	0.040	0.027	0.002	0.374	0.374	-0.325	-0.439	-0.386	0.941	0.027	2.7
Reading	11	4362	B	A	1	6727	0.908	0.025	0.908	0.048	0.018	0.001	0.394	-0.258	0.394	-0.273	-0.242	-1.756	0.044	-5.2
Reading	11	4363	C	A	2	6727	0.560	0.027	0.066	0.560	0.346	0.002	0.105	-0.335	-0.237	0.105	0.003	0.669	0.027	9.9
Reading	11	4364	A	A	3	6727	0.611	0.611	0.287	0.055	0.045	0.002	0.309	0.309	-0.217	-0.332	-0.313	0.408	0.028	6.0
Reading	11	4365	C	B	3	6727	0.599	0.131	0.111	0.599	0.156	0.002	0.364	-0.224	-0.286	0.364	-0.379	0.468	0.028	3.2
Reading	11	4366	D	B	2	6727	0.475	0.325	0.116	0.082	0.475	0.002	0.232	-0.203	-0.205	-0.228	0.232	1.088	0.027	9.9
Reading	11	4367	A	A	2	6727	0.618	0.618	0.128	0.127	0.126	0.002	0.421	0.421	-0.353	-0.414	-0.274	0.374	0.028	-2.8
Reading	11	4368	D	B	3	6727	0.783	0.053	0.108	0.053	0.783	0.002	0.460	-0.347	-0.317	-0.362	0.460	-0.601	0.032	-7.6
Reading	11	4369	C	B	3	6727	0.747	0.175	0.048	0.747	0.028	0.003	0.228	-0.078	-0.318	0.228	-0.253	-0.361	0.031	9.9
Reading	11	4370	C	A	2	6765	0.911	0.047	0.025	0.911	0.017	0.000	0.328	-0.225	-0.225	0.328	-0.183	-1.775	0.045	-1.7
Reading	11	4371	C	A	1	6765	0.893	0.027	0.042	0.893	0.037	0.000	0.374	-0.186	-0.265	0.374	-0.276	-1.549	0.042	-3.6
Reading	11	4372	A	B	2	6765	0.806	0.806	0.075	0.047	0.071	0.002	0.300	0.300	-0.238	-0.264	-0.135	-0.743	0.033	4.2
Reading	11	4373	D	A	1	6765	0.905	0.021	0.026	0.048	0.905	0.000	0.421	-0.258	-0.280	-0.291	0.421	-1.690	0.044	-7.5
Reading	11	4374	A	A	2	6765	0.732	0.732	0.073	0.129	0.065	0.000	0.309	0.309	-0.259	-0.197	-0.242	-0.243	0.030	3.0
Reading	11	4375	B	B	2	6765	0.854	0.044	0.854	0.083	0.018	0.000	0.445	-0.298	0.445	-0.349	-0.261	-1.144	0.037	-7.4
Reading	11	4376	A	A	2	6765	0.625	0.625	0.155	0.023	0.195	0.002	0.378	0.378	-0.343	-0.347	-0.287	0.365	0.028	1.7
Reading	11	4377	B	A	2	6765	0.411	0.049	0.411	0.504	0.034	0.002	0.225	-0.341	0.225	-0.179	-0.286	1.436	0.027	9.9
Reading	11	4378	C	A	2	6765	0.629	0.078	0.097	0.629	0.194	0.002	0.321	-0.278	-0.321	0.321	-0.209	0.340	0.028	4.2
Reading	11	4379	D	B	2	6765	0.789	0.055	0.051	0.103	0.789	0.002	0.398	-0.307	-0.262	-0.290	0.398	-0.616	0.033	-3.3
Reading	11	4380	B	A	2	6765	0.759	0.085	0.759	0.042	0.112	0.003	0.378	-0.261	0.378	-0.299	-0.277	-0.410	0.031	-0.8
Reading	11	4381	A	B	3	6765	0.427	0.427	0.116	0.362	0.093	0.002	0.147	0.147	-0.146	-0.154	-0.080	1.354	0.027	9.9
Reading	11	4382	D	A	2	6765	0.714	0.076	0.116	0.092	0.714	0.002	0.344	-0.296	-0.216	-0.279	0.344	-0.131	0.030	2.9
Reading	11	4383	C	B	3	6765	0.643	0.029	0.224	0.643	0.100	0.004	0.420	-0.329	-0.402	0.420	-0.247	0.270	0.028	-3.8
Reading	11	4384	C	B	3	6765	0.600	0.234	0.037	0.600	0.124	0.004	0.265	-0.146	-0.349	0.265	-0.274	0.492	0.028	9.6
Reading	11	4385	B	B	3	6765	0.669	0.083	0.669	0.159	0.084	0.003	0.403	-0.288	0.403	-0.343	-0.314	0.123	0.029	-2.4

Appendix L: 2008 Grades 3–8 and 11 Multiple-Choice Statistics

Information						Proportions						Correlations					Rasch			
Cont.	Grade	Pub. ID	Key	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Reading	11	4386	B	A	2	6729	0.776	0.136	0.776	0.033	0.054	0.000	0.366	-0.297	0.366	-0.231	-0.250	-0.544	0.032	-0.2
Reading	11	4387	A	A	2	6729	0.569	0.569	0.258	0.131	0.041	0.001	0.440	0.440	-0.325	-0.488	-0.404	0.642	0.027	-4.1
Reading	11	4388	C	A	2	6729	0.650	0.270	0.061	0.650	0.017	0.001	0.413	-0.344	-0.399	0.413	-0.260	0.217	0.028	-2.4
Reading	11	4389	D	A	2	6729	0.666	0.122	0.074	0.137	0.666	0.000	0.305	-0.212	-0.358	-0.181	0.305	0.128	0.029	6.6
Reading	11	4390	C	A	2	6729	0.541	0.227	0.132	0.541	0.099	0.000	0.399	-0.323	-0.358	0.399	-0.376	0.781	0.027	0.2
Reading	11	4391	D	B	2	6729	0.488	0.165	0.156	0.189	0.488	0.002	0.289	-0.238	-0.216	-0.329	0.289	1.048	0.027	9.9
Reading	11	4392	A	A	1	6729	0.699	0.699	0.233	0.034	0.033	0.001	0.244	0.244	-0.136	-0.337	-0.233	-0.057	0.029	8.6
Reading	11	4393	B	B	2	6729	0.447	0.384	0.447	0.092	0.075	0.002	0.079	-0.015	0.079	-0.102	-0.227	1.253	0.027	9.9
Reading	11	4394	D	B	3	6729	0.519	0.069	0.250	0.159	0.519	0.003	0.392	-0.344	-0.295	-0.433	0.392	0.890	0.027	0.2
Reading	11	4395	C	B	2	6729	0.741	0.144	0.044	0.741	0.069	0.002	0.402	-0.325	-0.342	0.402	-0.229	-0.310	0.031	-3.0
Reading	11	4396	C	B	2	6729	0.779	0.060	0.098	0.779	0.060	0.002	0.443	-0.287	-0.358	0.443	-0.297	-0.566	0.032	-8.0
Reading	11	4397	A	A	2	6729	0.675	0.675	0.088	0.162	0.073	0.001	0.343	0.343	-0.384	-0.214	-0.239	0.078	0.029	4.5
Reading	11	4398	B	A	2	6729	0.723	0.086	0.723	0.127	0.062	0.002	0.517	-0.400	0.517	-0.409	-0.373	-0.199	0.030	-9.9
Reading	11	4399	C	B	3	6729	0.759	0.090	0.084	0.759	0.066	0.002	0.505	-0.339	-0.389	0.505	-0.408	-0.426	0.031	-9.9
Reading	11	4400	B	B	3	6729	0.293	0.153	0.293	0.095	0.456	0.002	0.195	-0.342	0.195	-0.383	-0.103	2.070	0.029	9.9
Reading	11	4401	D	B	2	6729	0.794	0.051	0.063	0.090	0.794	0.002	0.528	-0.409	-0.390	-0.377	0.528	-0.669	0.033	-9.9
Reading	11	4402	D	B	2	6744	0.765	0.154	0.041	0.040	0.765	0.000	0.324	-0.213	-0.364	-0.199	0.324	-0.451	0.031	5.8
Reading	11	4403	A	A	1	6744	0.875	0.875	0.079	0.028	0.018	0.000	0.394	0.394	-0.289	-0.286	-0.222	-1.344	0.039	-5.1
Reading	11	4404	B	A	2	6744	0.762	0.109	0.762	0.059	0.070	0.001	0.366	-0.190	0.366	-0.341	-0.310	-0.429	0.031	2.8
Reading	11	4405	C	A	2	6744	0.789	0.017	0.158	0.789	0.035	0.000	0.436	-0.292	-0.355	0.436	-0.311	-0.613	0.032	-6.0
Reading	11	4406	A	A	2	6744	0.686	0.686	0.081	0.130	0.103	0.000	0.294	0.294	-0.231	-0.330	-0.092	0.030	0.029	5.5
Reading	11	4407	D	A	1	6744	0.718	0.214	0.025	0.042	0.718	0.001	0.497	-0.435	-0.301	-0.392	0.497	-0.152	0.030	-9.6
Reading	11	4408	A	B	2	6744	0.739	0.739	0.045	0.042	0.173	0.002	0.280	0.280	-0.255	-0.279	-0.164	-0.281	0.030	5.6
Reading	11	4409	D	A	2	6744	0.722	0.187	0.044	0.044	0.722	0.003	0.377	-0.288	-0.316	-0.290	0.377	-0.177	0.030	-1.3
Reading	11	4410	C	B	3	6744	0.487	0.027	0.314	0.487	0.169	0.003	0.050	-0.286	0.008	0.050	-0.053	1.047	0.027	9.9
Reading	11	4411	B	A	2	6744	0.889	0.064	0.889	0.030	0.016	0.002	0.336	-0.205	0.336	-0.243	-0.239	-1.493	0.041	-3.0
Reading	11	4412	D	B	2	6744	0.439	0.017	0.433	0.108	0.439	0.002	0.212	-0.301	-0.170	-0.263	0.212	1.281	0.027	9.9
Reading	11	4413	B	A	2	6744	0.767	0.123	0.767	0.029	0.078	0.002	0.444	-0.325	0.444	-0.303	-0.361	-0.465	0.031	-6.2
Reading	11	4414	A	B	3	6744	0.592	0.592	0.093	0.144	0.169	0.003	0.272	0.272	-0.206	-0.179	-0.278	0.530	0.027	9.9
Reading	11	4415	B	B	3	6744	0.457	0.099	0.457	0.215	0.226	0.003	0.249	-0.281	0.249	-0.289	-0.141	1.195	0.027	9.9
Reading	11	4416	C	A	2	6744	0.720	0.123	0.050	0.720	0.103	0.003	0.328	-0.240	-0.348	0.328	-0.190	-0.167	0.030	3.4
Reading	11	4417	B	A	2	6744	0.903	0.049	0.903	0.023	0.021	0.003	0.452	-0.320	0.452	-0.278	-0.300	-1.663	0.043	-9.0
Reading	11	4418	C	B	2	6711	0.737	0.123	0.028	0.737	0.111	0.000	0.370	-0.298	-0.278	0.370	-0.260	-0.253	0.030	-2.1
Reading	11	4419	A	A	1	6711	0.787	0.787	0.092	0.052	0.069	0.000	0.296	0.296	-0.212	-0.286	-0.147	-0.574	0.032	5.3
Reading	11	4420	C	B	2	6711	0.675	0.037	0.196	0.675	0.091	0.001	0.320	-0.325	-0.285	0.320	-0.154	0.099	0.029	2.8
Reading	11	4421	D	B	2	6711	0.810	0.028	0.035	0.127	0.810	0.001	0.433	-0.311	-0.357	-0.306	0.433	-0.744	0.034	-6.7
Reading	11	4422	D	A	2	6711	0.568	0.060	0.185	0.185	0.568	0.002	0.284	-0.260	-0.243	-0.227	0.284	0.666	0.027	7.9
Reading	11	4423	B	A	2	6711	0.635	0.011	0.635	0.076	0.277	0.001	0.330	-0.225	0.330	-0.219	-0.312	0.317	0.028	5.6
Reading	11	4424	A	B	2	6711	0.803	0.803	0.080	0.071	0.043	0.002	0.317	0.317	-0.158	-0.300	-0.196	-0.702	0.033	1.6
Reading	11	4425	C	A	2	6711	0.593	0.073	0.292	0.593	0.040	0.002	0.282	-0.268	-0.196	0.282	-0.349	0.547	0.028	9.9
Reading	11	4426	D	B	3	6711	0.710	0.044	0.183	0.059	0.710	0.003	0.346	-0.243	-0.233	-0.372	0.346	-0.092	0.030	5.6
Reading	11	4427	D	A	1	6711	0.834	0.060	0.043	0.060	0.834	0.002	0.455	-0.274	-0.336	-0.341	0.455	-0.948	0.035	-6.4
Reading	11	4428	B	B	2	6711	0.443	0.022	0.443	0.286	0.244	0.005	0.321	-0.392	0.321	-0.365	-0.226	1.292	0.027	6.7

Appendix L: 2008 Grades 3–8 and 11 Multiple-Choice Statistics

Information						Proportions						Correlations					Rasch			
Cont.	Grade	Pub. ID	Key	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Reading	11	4429	D	A	1	6711	0.588	0.193	0.136	0.079	0.588	0.004	0.405	-0.341	-0.330	-0.359	0.405	0.572	0.028	-1.7
Reading	11	4430	B	A	2	6711	0.393	0.303	0.393	0.192	0.109	0.003	0.252	-0.164	0.252	-0.352	-0.244	1.547	0.028	9.9
Reading	11	4431	A	B	3	6711	0.540	0.540	0.117	0.180	0.159	0.003	0.352	0.352	-0.387	-0.269	-0.272	0.811	0.027	4.1
Reading	11	4432	C	A	3	6711	0.751	0.089	0.030	0.751	0.126	0.003	0.415	-0.331	-0.343	0.415	-0.278	-0.345	0.031	-4.5
Reading	11	4433	B	B	2	6711	0.591	0.093	0.591	0.127	0.186	0.004	0.377	-0.283	0.377	-0.422	-0.258	0.556	0.028	1.9
Reading	11	4434	A	A		6731	0.705	0.705	0.037	0.082	0.175	0.001	0.278	0.278	-0.290	-0.287	-0.137	-0.065	0.029	6.6
Reading	11	4435	D	B		6731	0.718	0.108	0.053	0.119	0.718	0.000	0.361	-0.208	-0.329	-0.309	0.361	-0.138	0.030	1.3
Reading	11	4436	B	A		6731	0.766	0.068	0.766	0.131	0.034	0.001	0.444	-0.352	0.444	-0.333	-0.305	-0.436	0.031	-6.2
Reading	11	4437	C	A		6731	0.596	0.166	0.122	0.596	0.116	0.001	0.287	-0.161	-0.304	0.287	-0.262	0.522	0.028	8.5
Reading	11	4438	C	A		6731	0.496	0.092	0.271	0.496	0.139	0.002	0.365	-0.403	-0.220	0.365	-0.452	1.015	0.027	3.3
Reading	11	4439	B	B		6731	0.658	0.024	0.658	0.024	0.293	0.001	0.236	-0.318	0.236	-0.287	-0.155	0.195	0.028	9.9
Reading	11	4440	C	A	2	6731	0.892	0.022	0.055	0.892	0.030	0.001	0.360	-0.266	-0.208	0.360	-0.267	-1.513	0.042	-1.8
Reading	11	4441	C	B	2	6731	0.445	0.124	0.415	0.445	0.013	0.002	0.070	0.087	-0.109	0.070	-0.176	1.275	0.027	9.9
Reading	11	4442	D	B	2	6731	0.643	0.088	0.072	0.195	0.643	0.003	0.482	-0.334	-0.454	-0.412	0.482	0.284	0.028	-8.3
Reading	11	4443	A	A	3	6731	0.741	0.741	0.040	0.193	0.024	0.002	0.281	0.281	-0.284	-0.168	-0.313	-0.280	0.031	7.2
Reading	11	4444	D	B	2	6731	0.842	0.047	0.046	0.063	0.842	0.001	0.469	-0.298	-0.328	-0.355	0.469	-1.017	0.036	-7.3
Reading	11	4445	A	A	2	6731	0.633	0.633	0.218	0.129	0.018	0.002	0.454	0.454	-0.331	-0.478	-0.354	0.335	0.028	-5.2
Reading	11	4446	D	A	1	6731	0.515	0.043	0.249	0.192	0.515	0.002	0.213	-0.310	-0.212	-0.117	0.213	0.935	0.027	9.9
Reading	11	4447	B	B	3	6731	0.535	0.157	0.535	0.035	0.272	0.002	0.319	-0.318	0.319	-0.409	-0.230	0.834	0.027	6.2
Reading	11	4448	B	B	3	6731	0.774	0.081	0.774	0.096	0.047	0.002	0.420	-0.297	0.420	-0.345	-0.263	-0.496	0.032	-3.8
Reading	11	4449	C	B	3	6731	0.550	0.262	0.127	0.550	0.058	0.003	0.315	-0.263	-0.226	0.315	-0.395	0.761	0.027	6.8
Reading	11	4450	C	A	2	6733	0.782	0.166	0.029	0.782	0.023	0.001	0.443	-0.391	-0.331	0.443	-0.181	-0.580	0.032	-5.4
Reading	11	4451	D	A	1	6733	0.812	0.081	0.077	0.029	0.812	0.001	0.419	-0.334	-0.267	-0.298	0.419	-0.801	0.034	-5.8
Reading	11	4452	B	A	2	6733	0.808	0.028	0.808	0.030	0.133	0.000	0.360	-0.286	0.360	-0.296	-0.242	-0.769	0.034	-0.9
Reading	11	4453	D	A	2	6733	0.723	0.050	0.111	0.116	0.723	0.001	0.394	-0.307	-0.265	-0.324	0.394	-0.203	0.030	-2.4
Reading	11	4454	B	A	1	6733	0.862	0.073	0.862	0.041	0.023	0.001	0.422	-0.302	0.422	-0.298	-0.255	-1.221	0.038	-7.4
Reading	11	4455	B	A	2	6733	0.840	0.037	0.840	0.042	0.080	0.001	0.418	-0.255	0.418	-0.261	-0.335	-1.024	0.036	-5.0
Reading	11	4456	A	A	1	6733	0.909	0.909	0.036	0.028	0.027	0.001	0.377	0.377	-0.227	-0.252	-0.254	-1.759	0.045	-4.0
Reading	11	4457	D	B	3	6733	0.831	0.064	0.081	0.022	0.831	0.001	0.371	-0.274	-0.254	-0.260	0.371	-0.952	0.035	0.0
Reading	11	4458	C	A	1	6733	0.375	0.017	0.372	0.375	0.233	0.002	0.269	-0.378	-0.284	0.269	-0.233	1.615	0.028	9.9
Reading	11	4459	A	A	2	6733	0.765	0.765	0.160	0.047	0.025	0.002	0.374	0.374	-0.261	-0.324	-0.300	-0.467	0.032	0.4
Reading	11	4460	C	A	2	6733	0.629	0.056	0.260	0.629	0.053	0.002	0.441	-0.394	-0.383	0.441	-0.309	0.333	0.028	-4.3
Reading	11	4461	B	B	2	6733	0.379	0.450	0.379	0.044	0.125	0.002	0.153	-0.114	0.153	-0.264	-0.185	1.596	0.028	9.9
Reading	11	4462	B	A	3	6733	0.499	0.111	0.499	0.279	0.109	0.003	0.367	-0.279	0.367	-0.326	-0.391	0.990	0.027	4.3
Reading	11	4463	C	B	2	6733	0.331	0.183	0.224	0.331	0.259	0.003	0.181	-0.209	-0.159	0.181	-0.198	1.849	0.029	9.9
Reading	11	4464	B	A	3	6733	0.426	0.202	0.426	0.200	0.169	0.003	0.202	-0.185	0.202	-0.119	-0.278	1.354	0.027	9.9
Reading	11	4465	D	B	3	6733	0.762	0.050	0.142	0.043	0.762	0.003	0.428	-0.256	-0.347	-0.346	0.428	-0.442	0.031	-2.9
Reading	11	4466	D	A		6712	0.718	0.171	0.085	0.026	0.718	0.000	0.375	-0.288	-0.319	-0.250	0.375	-0.150	0.030	0.6
Reading	11	4467	C	B		6712	0.782	0.041	0.121	0.782	0.055	0.001	0.426	-0.341	-0.340	0.426	-0.243	-0.562	0.033	-3.0
Reading	11	4468	B	B		6712	0.753	0.043	0.753	0.022	0.181	0.000	0.368	-0.251	0.368	-0.341	-0.285	-0.363	0.031	0.9
Reading	11	4469	B	B		6712	0.898	0.027	0.898	0.062	0.013	0.000	0.417	-0.277	0.417	-0.318	-0.209	-1.592	0.043	-7.4
Reading	11	4470	B	B		6712	0.652	0.059	0.652	0.036	0.252	0.001	0.294	-0.377	0.294	-0.327	-0.167	0.225	0.029	9.9
Reading	11	4471	A	A		6712	0.873	0.873	0.034	0.065	0.027	0.001	0.420	0.420	-0.294	-0.295	-0.259	-1.317	0.039	-5.6

Appendix L: 2008 Grades 3–8 and 11 Multiple-Choice Statistics

Information						Proportions						Correlations					Rasch			
Cont.	Grade	Pub. ID	Key	R.C.	D.O.K.	N	P-Val.	A	B	C	D	Omit	Pt. Bis.	A	B	C	D	Logit	Logit SE	Fit
Reading	11	4472	D	A	1	6712	0.897	0.051	0.023	0.028	0.897	0.002	0.429	-0.343	-0.246	-0.234	0.429	-1.622	0.043	-6.1
Reading	11	4473	C	A	2	6712	0.850	0.024	0.029	0.850	0.094	0.002	0.317	-0.272	-0.289	0.317	-0.159	-1.125	0.037	2.9
Reading	11	4474	B	A	2	6712	0.935	0.021	0.935	0.024	0.018	0.002	0.393	-0.265	0.393	-0.252	-0.214	-2.194	0.052	-7.1
Reading	11	4475	B	A	2	6712	0.889	0.073	0.889	0.024	0.011	0.003	0.385	-0.252	0.385	-0.311	-0.228	-1.530	0.042	-2.5
Reading	11	4476	D	A	1	6712	0.897	0.027	0.040	0.034	0.897	0.002	0.388	-0.271	-0.187	-0.307	0.388	-1.622	0.043	-2.3
Reading	11	4477	B	A	2	6712	0.878	0.055	0.878	0.032	0.034	0.002	0.413	-0.293	0.413	-0.277	-0.246	-1.404	0.040	-5.4
Reading	11	4478	C	B	2	6712	0.895	0.052	0.033	0.895	0.017	0.002	0.403	-0.276	-0.266	0.403	-0.243	-1.600	0.043	-5.6
Reading	11	4479	A	B	3	6712	0.777	0.777	0.137	0.062	0.022	0.002	0.247	0.247	-0.096	-0.256	-0.275	-0.538	0.032	9.3
Reading	11	4480	C	B	3	6712	0.707	0.195	0.042	0.707	0.053	0.003	0.359	-0.241	-0.332	0.359	-0.312	-0.086	0.030	2.6
Reading	11	4481	A	A	3	6712	0.867	0.867	0.026	0.026	0.079	0.003	0.433	0.433	-0.290	-0.320	-0.293	-1.285	0.039	-5.5
Reading	11	4482	A	A		6686	0.862	0.862	0.030	0.025	0.083	0.001	0.395	0.395	-0.319	-0.310	-0.237	-1.195	0.038	-2.3
Reading	11	4483	A	A		6686	0.657	0.657	0.036	0.291	0.015	0.000	0.355	0.355	-0.333	-0.292	-0.324	0.217	0.029	1.5
Reading	11	4484	C	B		6686	0.873	0.050	0.026	0.873	0.051	0.001	0.409	-0.293	-0.286	0.409	-0.252	-1.320	0.039	-5.2
Reading	11	4485	D	A		6686	0.570	0.078	0.131	0.220	0.570	0.001	0.507	-0.444	-0.532	-0.395	0.507	0.674	0.027	-9.9
Reading	11	4486	B	A		6686	0.655	0.149	0.655	0.048	0.147	0.000	0.375	-0.276	0.375	-0.348	-0.298	0.216	0.029	-0.3
Reading	11	4487	B	A		6686	0.789	0.090	0.789	0.047	0.073	0.001	0.494	-0.341	0.494	-0.368	-0.396	-0.595	0.033	-7.7
Reading	11	4488	B	B	2	6686	0.781	0.149	0.781	0.037	0.032	0.002	0.501	-0.459	0.501	-0.326	-0.237	-0.542	0.032	-8.9
Reading	11	4489	C	A	3	6686	0.870	0.072	0.020	0.870	0.035	0.002	0.306	-0.185	-0.243	0.306	-0.211	-1.284	0.039	0.8
Reading	11	4490	A	A	2	6686	0.754	0.754	0.050	0.130	0.063	0.002	0.474	0.474	-0.390	-0.376	-0.306	-0.364	0.031	-7.7
Reading	11	4491	B	A	2	6686	0.752	0.046	0.752	0.104	0.095	0.002	0.299	-0.153	0.299	-0.212	-0.267	-0.349	0.031	4.8
Reading	11	4492	C	A	1	6686	0.521	0.213	0.148	0.521	0.116	0.002	0.355	-0.284	-0.429	0.355	-0.212	0.910	0.027	4.0
Reading	11	4493	D	B	2	6686	0.885	0.054	0.034	0.026	0.885	0.002	0.354	-0.196	-0.264	-0.269	0.354	-1.446	0.041	0.6
Reading	11	4494	A	A	1	6686	0.436	0.436	0.134	0.051	0.376	0.002	0.281	0.281	-0.286	-0.305	-0.248	1.333	0.027	9.9
Reading	11	4495	D	B	2	6686	0.767	0.054	0.132	0.044	0.767	0.003	0.187	-0.065	-0.117	-0.251	0.187	-0.444	0.032	9.9
Reading	11	4496	B	B	3	6686	0.306	0.315	0.306	0.334	0.042	0.003	0.049	-0.083	0.049	0.001	-0.156	2.010	0.029	9.9
Reading	11	4497	A	B	3	6686	0.557	0.557	0.111	0.100	0.230	0.003	0.305	0.305	-0.252	-0.276	-0.265	0.733	0.027	8.2

Appendix M:

2008 Grades 3–8 and 11 Open-Ended Statistics

Table Legend

Column	Description
Cont.	Tested Content
Grade	Tested Grade
Pub. ID	Public item identification number
Pts.	Maximum points possible
R.C.	Reporting category
D.O.K.	Depth of knowledge
N	Number of students
Mean	Mean score
Proportion [0-4, Omit]	Proportion achieving score point
Pt. Bis.	Item total correlation
Correlation [0-4]	Point biserial of the score point
Logit	Rasch logit difficulty
Logit SE	Rasch logit difficulty standard error
Fit	Rasch outfit statistic

Appendix M: 2008 Grades 3–8 and 11 Open-Ended Statistics

Information							Proportions							Correlations					Rasch			
Cont.	Grade	Pub. ID	Pts.	R.C.	D.O.K.	N	Mean	0	1	2	3	4	Omit	Pt. Bis.	0	1	2	3	4	Logit	Logit SE	Fit
Math	3	4498	4	A	2	126563	2.938	0.028	0.080	0.174	0.362	0.356	0.001	0.657	-0.377	-0.421	-0.213	0.135	0.402	1.338	0.004	7.6
Math	3	4499	4	C	1	126563	2.985	0.034	0.089	0.164	0.286	0.428	0.010	0.478	-0.268	-0.286	-0.154	0.041	0.341	1.331	0.004	9.9
Math	3	4500	4	B	3	126563	2.337	0.039	0.164	0.362	0.292	0.144	0.001	0.537	-0.396	-0.313	-0.009	0.236	0.256	2.183	0.004	9.9
Math	3	4501	4	D	2	8153	2.599	0.029	0.178	0.258	0.235	0.300	0.001	0.596	-0.345	-0.393	-0.097	0.165	0.394	1.613	0.014	8.1
Math	3	4502	4	C	3	3816	2.410	0.031	0.129	0.313	0.453	0.074	0.011	0.547	-0.290	-0.388	-0.085	0.344	0.186	2.180	0.024	7.8
Math	3	4503	4	A	1	7940	2.720	0.081	0.127	0.165	0.246	0.381	0.001	0.651	-0.514	-0.300	-0.070	0.145	0.419	1.833	0.014	7.9
Math	3	4504	4	E	3	3578	1.593	0.083	0.342	0.489	0.070	0.016	0.013	0.434	-0.297	-0.260	0.308	0.170	0.067	3.723	0.027	7.9
Math	3	4505	4	B	3	7960	2.357	0.056	0.219	0.230	0.303	0.193	0.001	0.629	-0.425	-0.397	0.024	0.266	0.329	2.210	0.014	3.4
Math	3	4506	4	A	3	3712	2.699	0.093	0.148	0.158	0.172	0.430	0.010	0.655	-0.553	-0.285	0.002	0.097	0.453	2.013	0.019	6.2
Math	3	4507	4	A	3	7963	2.513	0.061	0.139	0.258	0.312	0.231	0.002	0.596	-0.473	-0.291	-0.048	0.220	0.315	2.032	0.014	9.9
Math	3	4508	4	A	3	3701	2.675	0.053	0.157	0.245	0.151	0.394	0.009	0.652	-0.499	-0.345	-0.054	0.102	0.459	1.893	0.019	0.0
Math	3	4509	4	D	2	7959	2.174	0.070	0.184	0.393	0.206	0.146	0.001	0.583	-0.505	-0.264	0.086	0.233	0.270	2.477	0.015	6.7
Math	3	4510	4	D	3	3590	2.023	0.110	0.268	0.272	0.187	0.162	0.010	0.516	-0.470	-0.165	0.101	0.197	0.267	2.777	0.020	9.9
Math	3	4511	4	C	2	7895	2.926	0.009	0.040	0.100	0.718	0.133	0.000	0.481	-0.256	-0.250	-0.289	0.195	0.212	1.158	0.021	9.1
Math	3	4512	4	E	3	3541	2.659	0.053	0.131	0.281	0.174	0.361	0.011	0.557	-0.373	-0.331	-0.062	0.096	0.389	1.914	0.020	7.4
Math	3	4513	4	E	3	7897	2.523	0.073	0.118	0.199	0.433	0.177	0.001	0.598	-0.523	-0.239	-0.057	0.294	0.237	2.208	0.015	9.9
Math	3	4514	4	C	3	3414	2.160	0.060	0.263	0.235	0.342	0.100	0.006	0.497	-0.307	-0.329	0.064	0.258	0.226	2.672	0.022	9.9
Math	3	4515	4	A	3	7828	2.863	0.023	0.123	0.187	0.302	0.365	0.001	0.626	-0.358	-0.420	-0.161	0.129	0.405	1.408	0.015	5.8
Math	3	4516	4	E	3	3640	2.325	0.028	0.086	0.553	0.200	0.134	0.008	0.467	-0.319	-0.261	-0.065	0.175	0.259	2.198	0.025	5.3
Math	3	4517	4	C	3	7948	2.903	0.012	0.069	0.199	0.444	0.276	0.000	0.584	-0.283	-0.383	-0.250	0.151	0.341	1.155	0.017	5.3
Math	3	4518	4	A	3	3644	3.291	0.027	0.051	0.088	0.270	0.563	0.015	0.561	-0.237	-0.400	-0.198	-0.079	0.439	1.038	0.024	9.9
Math	3	4519	4	E	3	7887	2.982	0.003	0.035	0.209	0.482	0.271	0.001	0.551	-0.159	-0.401	-0.323	0.152	0.310	0.651	0.018	5.6
Math	3	4520	4	D	3	3608	2.010	0.116	0.257	0.289	0.180	0.159	0.007	0.535	-0.495	-0.162	0.127	0.177	0.284	2.833	0.020	9.6
Math	3	4521	4	B	3	7887	2.061	0.084	0.232	0.340	0.228	0.116	0.001	0.636	-0.556	-0.254	0.106	0.297	0.270	2.701	0.015	-3.5
Math	3	4522	4	C	3	3610	2.928	0.044	0.070	0.189	0.309	0.388	0.010	0.565	-0.375	-0.257	-0.214	0.088	0.380	1.590	0.022	9.9
Math	3	4523	4	C	2	7891	2.544	0.025	0.153	0.288	0.323	0.212	0.001	0.598	-0.308	-0.400	-0.140	0.246	0.343	1.796	0.015	3.4
Math	3	4524	4	B	3	3561	1.999	0.098	0.270	0.284	0.232	0.116	0.007	0.586	-0.502	-0.221	0.110	0.259	0.277	2.883	0.021	2.2
Math	3	4525	4	A	2	7878	2.155	0.094	0.179	0.355	0.220	0.152	0.002	0.630	-0.594	-0.239	0.135	0.254	0.266	2.582	0.014	2.9
Math	3	4526	4	A	3	3650	2.339	0.091	0.227	0.183	0.247	0.251	0.011	0.577	-0.380	-0.307	-0.048	0.236	0.357	2.399	0.019	6.8
Math	3	4527	4	D	3	7830	2.942	0.018	0.094	0.170	0.364	0.354	0.001	0.590	-0.367	-0.415	-0.144	0.125	0.343	1.252	0.016	9.9
Math	3	4528	4	B	3	3433	2.349	0.082	0.142	0.304	0.288	0.183	0.010	0.604	-0.466	-0.282	-0.007	0.235	0.319	2.436	0.021	3.0
Math	3	4529	4	E	3	7867	3.140	0.011	0.033	0.099	0.519	0.338	0.002	0.505	-0.257	-0.211	-0.305	-0.007	0.337	0.810	0.019	9.9
Math	3	4530	4	D	3	3418	3.021	0.028	0.071	0.166	0.321	0.414	0.007	0.571	-0.280	-0.382	-0.203	0.057	0.392	1.388	0.023	9.1
Math	3	4531	4	A	2	7780	2.740	0.114	0.078	0.159	0.252	0.397	0.001	0.689	-0.635	-0.195	-0.061	0.178	0.407	1.942	0.014	4.8
Math	3	4532	4	B	3	3343	2.687	0.054	0.134	0.221	0.252	0.338	0.014	0.618	-0.421	-0.346	-0.102	0.156	0.398	1.923	0.021	4.6
Math	4	4533	4	B		126403	2.404	0.090	0.163	0.252	0.242	0.253	0.005	0.597	-0.366	-0.304	-0.082	0.160	0.424	0.759	0.003	9.9
Math	4	4534	4	A		126403	1.665	0.328	0.136	0.212	0.192	0.132	0.016	0.664	-0.583	-0.073	0.117	0.309	0.381	1.719	0.003	9.9
Math	4	4535	4	E		126403	2.153	0.118	0.216	0.243	0.241	0.182	0.002	0.638	-0.477	-0.276	0.030	0.270	0.360	1.075	0.003	9.9
Math	4	4536	4	E	3	6593	1.974	0.066	0.278	0.311	0.309	0.037	0.002	0.623	-0.311	-0.437	0.084	0.424	0.202	1.388	0.017	1.0
Math	4	4537	4	A	3	3115	2.181	0.084	0.197	0.242	0.408	0.069	0.014	0.626	-0.413	-0.344	-0.006	0.393	0.240	1.200	0.023	4.2
Math	4	4538	4	B	3	6351	1.819	0.129	0.316	0.260	0.193	0.101	0.002	0.666	-0.515	-0.274	0.177	0.331	0.306	1.432	0.015	-1.9
Math	4	4539	4	A	3	2971	2.640	0.069	0.142	0.232	0.194	0.363	0.019	0.575	-0.340	-0.334	-0.099	0.097	0.428	0.488	0.021	9.9
Math	4	4540	4	A		6334	2.507	0.179	0.052	0.282	0.057	0.430	0.002	0.558	-0.506	-0.103	-0.010	0.043	0.427	0.747	0.013	9.9
Math	4	4541	4	A	3	2959	2.646	0.068	0.146	0.227	0.192	0.368	0.012	0.601	-0.381	-0.324	-0.097	0.084	0.452	0.496	0.021	9.7
Math	4	4542	4	A	3	6350	1.248	0.359	0.254	0.244	0.065	0.077	0.004	0.567	-0.514	-0.010	0.297	0.199	0.277	2.175	0.015	7.9
Math	4	4543	4	B	2	3529	2.862	0.065	0.095	0.160	0.275	0.406	0.011	0.670	-0.394	-0.356	-0.190	0.037	0.518	0.321	0.020	3.4

Appendix M: 2008 Grades 3–8 and 11 Open-Ended Statistics

Cont.	Grade	Pub. ID	Information				N	Mean	Proportions						Correlations					Rasch		
			Pts.	R.C.	D.O.K.				0	1	2	3	4	Omit	Pt. Bis.	0	1	2	3	4	Logit	Logit SE
Math	4	4544	4	C		6293	2.055	0.140	0.131	0.337	0.316	0.075	0.003	0.510	-0.425	-0.189	0.079	0.267	0.190	1.428	0.015	9.9
Math	4	4545	4	C	2	2810	2.100	0.105	0.210	0.265	0.319	0.100	0.006	0.630	-0.395	-0.317	-0.032	0.365	0.312	1.324	0.023	0.8
Math	4	4546	4	A	2	6296	2.181	0.099	0.192	0.338	0.169	0.201	0.004	0.661	-0.487	-0.268	0.004	0.207	0.428	1.008	0.015	0.9
Math	4	4547	4	E	2	2811	2.050	0.076	0.309	0.284	0.151	0.180	0.015	0.521	-0.369	-0.274	0.087	0.164	0.329	1.126	0.022	9.9
Math	4	4548	4	B		6328	2.454	0.155	0.112	0.213	0.162	0.357	0.003	0.641	-0.540	-0.173	-0.051	0.150	0.450	0.825	0.013	9.9
Math	4	4549	4	E	2	2953	1.454	0.180	0.450	0.201	0.071	0.097	0.011	0.568	-0.527	-0.045	0.227	0.152	0.319	1.880	0.022	4.7
Math	4	4550	4	B		6295	1.909	0.171	0.258	0.222	0.187	0.161	0.002	0.676	-0.578	-0.189	0.140	0.267	0.376	1.375	0.014	1.2
Math	4	4551	4	A	3	2949	1.442	0.223	0.351	0.216	0.183	0.027	0.014	0.660	-0.593	-0.061	0.236	0.390	0.172	2.314	0.023	-4.0
Math	4	4552	4	A		6315	1.531	0.350	0.156	0.241	0.120	0.134	0.003	0.616	-0.564	-0.038	0.190	0.263	0.341	1.822	0.014	8.3
Math	4	4553	4	C	2	2830	2.125	0.105	0.096	0.428	0.310	0.061	0.013	0.506	-0.291	-0.230	-0.121	0.347	0.235	1.414	0.025	9.8
Math	4	4554	4	A	3	6264	2.313	0.035	0.225	0.282	0.305	0.152	0.003	0.601	-0.333	-0.405	-0.033	0.281	0.323	0.695	0.016	6.7
Math	4	4555	4	B	2	2950	1.637	0.265	0.176	0.342	0.089	0.127	0.012	0.628	-0.581	-0.082	0.261	0.185	0.334	1.779	0.020	2.4
Math	4	4556	4	A	3	6338	2.328	0.053	0.104	0.468	0.214	0.161	0.002	0.625	-0.381	-0.318	-0.129	0.279	0.358	0.769	0.016	1.2
Math	4	4557	4	D	2	2935	2.262	0.127	0.211	0.159	0.279	0.224	0.009	0.623	-0.483	-0.256	0.005	0.247	0.366	1.074	0.021	9.5
Math	4	4558	4	A	2	6324	2.443	0.190	0.067	0.239	0.118	0.386	0.003	0.625	-0.538	-0.142	-0.020	0.069	0.478	0.868	0.013	9.9
Math	4	4559	4	D	2	2967	2.031	0.149	0.220	0.166	0.381	0.084	0.011	0.568	-0.459	-0.189	0.013	0.363	0.220	1.497	0.021	9.9
Math	4	4560	4	D		6275	1.911	0.168	0.189	0.279	0.291	0.073	0.001	0.669	-0.574	-0.183	0.107	0.389	0.238	1.584	0.015	0.2
Math	4	4561	4	C	2	2953	2.113	0.072	0.230	0.325	0.259	0.114	0.009	0.505	-0.313	-0.281	0.016	0.242	0.269	1.210	0.023	9.9
Math	4	4562	4	C	3	6320	1.634	0.170	0.323	0.266	0.184	0.056	0.002	0.582	-0.443	-0.185	0.153	0.338	0.234	1.846	0.015	7.0
Math	4	4563	4	D	2	2917	1.369	0.103	0.591	0.180	0.086	0.040	0.012	0.546	-0.343	-0.253	0.273	0.279	0.235	2.086	0.026	-2.1
Math	4	4564	4	A	3	6278	2.379	0.020	0.193	0.310	0.342	0.135	0.002	0.625	-0.257	-0.449	-0.110	0.314	0.337	0.509	0.017	0.5
Math	4	4565	4	E	3	2822	2.647	0.036	0.164	0.205	0.308	0.287	0.011	0.527	-0.277	-0.322	-0.136	0.134	0.362	0.369	0.023	9.9
Math	4	4566	4	A	2	6293	2.388	0.060	0.227	0.199	0.294	0.220	0.003	0.623	-0.400	-0.367	-0.040	0.246	0.368	0.716	0.015	7.5
Math	4	4567	4	A	3	2876	2.120	0.057	0.233	0.305	0.345	0.061	0.015	0.565	-0.306	-0.351	-0.011	0.345	0.252	1.289	0.024	4.7
Math	4	4568	4	A	2	6292	2.237	0.094	0.170	0.268	0.343	0.126	0.002	0.644	-0.482	-0.227	-0.088	0.319	0.341	1.048	0.015	2.8
Math	4	4569	4	A	2	2822	1.132	0.364	0.309	0.196	0.095	0.037	0.013	0.572	-0.511	0.021	0.292	0.280	0.203	2.514	0.023	0.7
Math	4	4570	4	A		6274	2.410	0.138	0.047	0.290	0.319	0.206	0.002	0.655	-0.492	-0.076	-0.234	0.251	0.432	0.906	0.015	5.2
Math	4	4571	4	B	2	2931	1.737	0.215	0.280	0.220	0.124	0.161	0.009	0.604	-0.517	-0.122	0.150	0.211	0.368	1.611	0.020	6.4
Math	4	4572	4	D	3	6305	2.930	0.058	0.102	0.151	0.230	0.459	0.002	0.631	-0.397	-0.334	-0.173	0.039	0.480	0.179	0.015	7.1
Math	4	4573	4	A	3	2917	2.306	0.058	0.205	0.185	0.475	0.077	0.018	0.644	-0.358	-0.416	-0.064	0.410	0.269	1.123	0.024	0.3
Math	4	4574	4	B		6285	1.965	0.164	0.175	0.361	0.131	0.169	0.004	0.644	-0.550	-0.142	0.079	0.230	0.380	1.322	0.014	4.8
Math	4	4575	4	A	3	2835	0.801	0.320	0.582	0.075	0.020	0.002	0.013	0.520	-0.481	0.256	0.275	0.164	0.056	3.756	0.034	-2.6
Math	5	4576	4	C		127302	1.924	0.161	0.251	0.236	0.207	0.145	0.003	0.630	-0.491	-0.214	0.083	0.280	0.354	1.738	0.003	9.9
Math	5	4577	4	E		127302	2.530	0.122	0.175	0.090	0.277	0.336	0.018	0.661	-0.479	-0.288	-0.035	0.089	0.501	1.062	0.003	9.9
Math	5	4578	4	A		127302	2.337	0.099	0.212	0.224	0.181	0.283	0.002	0.660	-0.494	-0.312	0.024	0.170	0.443	1.171	0.003	9.9
Math	5	4579	4	A	3	6708	1.837	0.206	0.307	0.131	0.158	0.198	0.003	0.654	-0.526	-0.180	0.121	0.220	0.438	1.663	0.013	9.9
Math	5	4580	4	E	3	3138	1.636	0.169	0.244	0.399	0.155	0.032	0.010	0.714	-0.563	-0.224	0.258	0.392	0.224	2.302	0.024	-7.8
Math	5	4581	4	A	2	6387	1.802	0.184	0.258	0.237	0.215	0.106	0.003	0.705	-0.574	-0.201	0.141	0.348	0.348	1.921	0.015	-4.0
Math	5	4582	4	D	2	2845	2.627	0.050	0.065	0.248	0.481	0.156	0.009	0.416	-0.226	-0.132	-0.176	0.071	0.337	0.992	0.026	9.9
Math	5	4583	4	A	2	6354	1.658	0.108	0.395	0.293	0.138	0.066	0.003	0.634	-0.489	-0.296	0.299	0.290	0.243	2.020	0.016	1.2
Math	5	4584	4	C	2	2956	2.208	0.110	0.227	0.170	0.331	0.162	0.012	0.575	-0.447	-0.221	-0.048	0.307	0.287	1.506	0.021	9.9
Math	5	4585	4	D	3	6334	2.155	0.050	0.210	0.359	0.296	0.084	0.002	0.535	-0.280	-0.366	0.029	0.271	0.261	1.407	0.017	9.9
Math	5	4586	4	B	3	2998	2.357	0.055	0.205	0.131	0.545	0.064	0.009	0.625	-0.329	-0.423	-0.068	0.410	0.266	1.436	0.024	3.3
Math	5	4587	4	A	2	6376	2.299	0.068	0.234	0.238	0.253	0.208	0.003	0.649	-0.401	-0.380	-0.025	0.258	0.395	1.152	0.015	3.9
Math	5	4588	4	E	2	2963	2.190	0.049	0.230	0.290	0.345	0.086	0.005	0.568	-0.329	-0.324	-0.059	0.328	0.279	1.445	0.024	5.8
Math	5	4589	4	E		6334	2.911	0.036	0.089	0.195	0.288	0.392	0.002	0.615	-0.338	-0.354	-0.253	0.141	0.410	0.402	0.016	9.9

Appendix M: 2008 Grades 3–8 and 11 Open-Ended Statistics

Information							Proportions							Correlations					Rasch			
Cont.	Grade	Pub. ID	Pts.	R.C.	D.O.K.	N	Mean	0	1	2	3	4	Omit	Pt. Bis.	0	1	2	3	4	Logit	Logit SE	Fit
Math	5	4590	4	A	2	2891	1.726	0.073	0.480	0.202	0.137	0.108	0.008	0.519	-0.255	-0.354	0.160	0.246	0.306	1.839	0.023	9.2
Math	5	4591	4	B	2	6373	1.822	0.074	0.363	0.265	0.263	0.035	0.003	0.582	-0.375	-0.336	0.151	0.351	0.211	2.023	0.017	6.3
Math	5	4592	4	D	3	2910	1.632	0.253	0.113	0.446	0.127	0.061	0.005	0.627	-0.578	-0.056	0.235	0.281	0.244	2.382	0.023	3.3
Math	5	4593	4	A		6339	2.391	0.095	0.207	0.184	0.240	0.274	0.001	0.705	-0.430	-0.383	-0.078	0.217	0.491	1.152	0.014	-1.8
Math	5	4594	4	A	3	2984	1.182	0.268	0.455	0.162	0.057	0.058	0.004	0.569	-0.518	0.039	0.273	0.213	0.257	2.740	0.024	0.8
Math	5	4595	4	C	2	6339	1.670	0.137	0.350	0.277	0.177	0.058	0.003	0.591	-0.402	-0.252	0.152	0.339	0.260	2.140	0.016	4.1
Math	5	4596	4	B	2	2968	1.811	0.114	0.369	0.214	0.197	0.105	0.008	0.644	-0.411	-0.355	0.179	0.318	0.332	1.939	0.022	-1.6
Math	5	4597	4	A	2	6317	1.684	0.157	0.314	0.272	0.201	0.056	0.003	0.643	-0.540	-0.194	0.223	0.335	0.231	2.177	0.016	1.5
Math	5	4598	4	B	3	2965	1.506	0.248	0.302	0.210	0.176	0.064	0.009	0.655	-0.560	-0.096	0.211	0.343	0.283	2.452	0.022	-0.9
Math	5	4599	4	A	2	6345	1.628	0.271	0.280	0.104	0.242	0.103	0.004	0.668	-0.522	-0.167	0.116	0.391	0.343	2.173	0.014	2.9
Math	5	4600	4	C	3	2979	1.800	0.211	0.156	0.255	0.375	0.002	0.007	0.604	-0.507	-0.127	0.033	0.490	0.037	3.293	0.023	7.9
Math	5	4601	4	B	3	6350	1.563	0.213	0.359	0.129	0.251	0.049	0.003	0.621	-0.478	-0.155	0.117	0.406	0.255	2.352	0.015	6.0
Math	5	4602	4	E	2	2916	2.844	0.025	0.107	0.189	0.358	0.322	0.005	0.613	-0.237	-0.409	-0.222	0.098	0.435	0.475	0.024	5.0
Math	5	4603	4	C	2	6342	2.005	0.096	0.237	0.303	0.294	0.070	0.002	0.585	-0.371	-0.307	0.030	0.356	0.251	1.753	0.016	8.3
Math	5	4604	4	A	2	2893	1.351	0.185	0.447	0.230	0.110	0.029	0.008	0.665	-0.575	-0.095	0.324	0.320	0.204	2.759	0.025	-6.8
Math	5	4605	4	E	2	6324	2.885	0.092	0.039	0.123	0.383	0.363	0.000	0.592	-0.420	-0.238	-0.187	0.067	0.409	0.749	0.015	9.5
Math	5	4606	4	A	2	2838	2.759	0.047	0.064	0.179	0.504	0.206	0.005	0.589	-0.355	-0.204	-0.304	0.185	0.368	0.876	0.025	3.5
Math	5	4607	4	C	2	6338	2.480	0.102	0.126	0.219	0.296	0.257	0.002	0.624	-0.438	-0.249	-0.118	0.174	0.422	1.118	0.014	9.7
Math	5	4608	4	A	2	2905	1.825	0.116	0.356	0.208	0.227	0.093	0.007	0.677	-0.507	-0.300	0.165	0.353	0.313	1.940	0.022	-2.7
Math	5	4609	4	B	2	6352	1.621	0.088	0.392	0.376	0.098	0.046	0.001	0.640	-0.485	-0.321	0.352	0.261	0.220	2.156	0.018	-4.5
Math	5	4610	4	A	3	2928	1.383	0.309	0.225	0.335	0.036	0.095	0.007	0.620	-0.554	-0.115	0.412	0.107	0.305	2.522	0.022	2.3
Math	5	4611	4	B		6331	2.489	0.153	0.048	0.356	0.043	0.400	0.002	0.573	-0.410	-0.172	-0.141	0.062	0.488	1.117	0.013	9.9
Math	5	4612	4	C	2	2968	1.386	0.106	0.515	0.282	0.081	0.016	0.004	0.542	-0.411	-0.200	0.313	0.251	0.136	2.709	0.028	0.9
Math	5	4613	4	A		6343	2.121	0.204	0.192	0.160	0.165	0.279	0.003	0.633	-0.453	-0.252	0.004	0.193	0.467	1.528	0.013	9.9
Math	5	4614	4	A	3	2921	1.637	0.250	0.277	0.162	0.210	0.102	0.009	0.709	-0.600	-0.141	0.180	0.379	0.338	2.265	0.021	-4.7
Math	5	4615	4	C		6381	2.489	0.030	0.141	0.280	0.408	0.141	0.002	0.574	-0.267	-0.351	-0.175	0.272	0.324	0.919	0.017	8.1
Math	5	4616	4	A	3	3888	1.557	0.155	0.468	0.085	0.250	0.042	0.009	0.617	-0.524	-0.131	0.133	0.398	0.224	2.383	0.020	3.7
Math	5	4617	4	B		6335	2.569	0.189	0.046	0.239	0.058	0.468	0.003	0.644	-0.522	-0.157	-0.119	0.074	0.542	1.076	0.013	9.9
Math	5	4618	4	D	2	2972	1.760	0.156	0.297	0.272	0.179	0.096	0.008	0.622	-0.464	-0.227	0.138	0.312	0.311	2.078	0.022	2.4
Math	6	4619	4	C		130839	2.407	0.121	0.151	0.196	0.264	0.268	0.005	0.657	-0.448	-0.291	-0.089	0.191	0.455	0.774	0.003	9.9
Math	6	4620	4	D	3	130839	1.780	0.173	0.225	0.310	0.234	0.058	0.021	0.599	-0.445	-0.211	0.108	0.344	0.259	1.704	0.003	9.9
Math	6	4621	4	A		130839	1.883	0.200	0.158	0.345	0.155	0.143	0.003	0.647	-0.541	-0.188	0.162	0.223	0.363	1.421	0.003	9.9
Math	6	4622	4	B	2	6895	1.299	0.365	0.257	0.189	0.094	0.096	0.004	0.670	-0.639	0.047	0.276	0.271	0.339	1.954	0.014	-2.2
Math	6	4623	4	A	3	3309	0.545	0.522	0.430	0.030	0.017	0.002	0.015	0.363	-0.333	0.242	0.152	0.148	0.055	3.954	0.032	6.9
Math	6	4624	4	A	2	6528	2.253	0.047	0.234	0.293	0.270	0.156	0.001	0.646	-0.352	-0.436	-0.004	0.302	0.350	0.743	0.016	3.9
Math	6	4625	4	D	3	3098	2.011	0.082	0.236	0.318	0.317	0.047	0.010	0.670	-0.405	-0.384	0.032	0.452	0.229	1.474	0.024	-2.3
Math	6	4626	4	D	2	6487	2.193	0.205	0.106	0.167	0.335	0.187	0.003	0.611	-0.509	-0.153	-0.006	0.230	0.374	1.117	0.014	9.9
Math	6	4627	4	A	3	3099	1.665	0.286	0.213	0.188	0.178	0.136	0.012	0.653	-0.561	-0.101	0.143	0.286	0.377	1.711	0.020	5.9
Math	6	4628	4	A	2	6513	1.555	0.217	0.341	0.205	0.144	0.093	0.005	0.652	-0.548	-0.135	0.220	0.315	0.310	1.778	0.015	3.1
Math	6	4629	4	E	3	3086	0.740	0.467	0.409	0.078	0.010	0.036	0.009	0.488	-0.484	0.263	0.225	0.104	0.224	2.932	0.027	3.1
Math	6	4630	4	C	2	6507	2.280	0.091	0.110	0.355	0.315	0.129	0.003	0.537	-0.374	-0.220	-0.076	0.248	0.291	0.974	0.016	9.9
Math	6	4631	4	A	3	3106	1.120	0.305	0.447	0.118	0.085	0.046	0.009	0.565	-0.482	0.030	0.247	0.265	0.255	2.502	0.023	0.1
Math	6	4632	4	A	2	6517	2.322	0.120	0.195	0.197	0.219	0.269	0.002	0.722	-0.537	-0.327	-0.003	0.247	0.458	0.854	0.014	1.6
Math	6	4633	4	C	2	3130	1.567	0.115	0.468	0.223	0.124	0.071	0.008	0.532	-0.372	-0.221	0.187	0.245	0.276	1.792	0.023	7.0
Math	6	4634	4	E	2	6524	1.747	0.120	0.339	0.266	0.223	0.052	0.005	0.656	-0.501	-0.261	0.165	0.391	0.229	1.669	0.016	-0.4
Math	6	4635	4	A	3	2971	1.892	0.100	0.305	0.264	0.266	0.065	0.008	0.610	-0.423	-0.312	0.136	0.328	0.266	1.537	0.023	4.9

Appendix M: 2008 Grades 3–8 and 11 Open-Ended Statistics

Information							Proportions							Correlations					Rasch			
Cont.	Grade	Pub. ID	Pts.	R.C.	D.O.K.	N	Mean	0	1	2	3	4	Omit	Pt. Bis.	0	1	2	3	4	Logit	Logit SE	Fit
Math	6	4636	4	A	2	6521	1.523	0.296	0.273	0.193	0.089	0.149	0.005	0.657	-0.505	-0.175	0.233	0.223	0.430	1.758	0.014	2.3
Math	6	4637	4	B	2	3067	1.899	0.127	0.286	0.257	0.219	0.111	0.009	0.614	-0.447	-0.243	0.076	0.293	0.334	1.496	0.022	6.3
Math	6	4638	4	E	2	6501	2.257	0.039	0.256	0.273	0.270	0.161	0.001	0.668	-0.309	-0.469	-0.036	0.308	0.392	0.729	0.016	-0.9
Math	6	4639	4	B	3	3095	2.343	0.078	0.102	0.313	0.410	0.096	0.006	0.630	-0.407	-0.268	-0.172	0.370	0.299	1.066	0.024	1.4
Math	6	4640	4	D	2	6567	2.526	0.032	0.133	0.311	0.328	0.197	0.002	0.613	-0.255	-0.391	-0.195	0.245	0.384	0.421	0.016	5.1
Math	6	4641	4	B	3	3115	1.673	0.082	0.384	0.330	0.191	0.014	0.007	0.635	-0.408	-0.360	0.249	0.387	0.148	2.107	0.026	-3.1
Math	6	4642	4	B	3	6562	2.473	0.119	0.148	0.131	0.345	0.257	0.003	0.629	-0.496	-0.181	-0.171	0.237	0.389	0.780	0.014	9.9
Math	6	4643	4	E	2	3128	1.676	0.201	0.362	0.153	0.128	0.156	0.007	0.644	-0.534	-0.152	0.180	0.240	0.393	1.693	0.020	3.4
Math	6	4644	4	B	2	6557	2.031	0.133	0.265	0.207	0.228	0.167	0.002	0.655	-0.497	-0.254	0.057	0.266	0.391	1.192	0.014	7.9
Math	6	4645	4	E	3	2997	2.072	0.148	0.247	0.194	0.205	0.206	0.010	0.646	-0.511	-0.210	0.029	0.231	0.415	1.201	0.020	6.3
Math	6	4646	4	C	2	6539	1.406	0.313	0.304	0.155	0.121	0.107	0.005	0.642	-0.559	-0.026	0.181	0.278	0.370	1.933	0.014	2.9
Math	6	4647	4	E	3	3006	1.794	0.093	0.394	0.220	0.214	0.080	0.014	0.521	-0.341	-0.268	0.093	0.313	0.234	1.513	0.023	9.9
Math	6	4648	4	E	2	6540	2.065	0.153	0.217	0.238	0.197	0.195	0.004	0.677	-0.512	-0.252	0.047	0.252	0.423	1.148	0.014	6.1
Math	6	4649	4	D	3	3002	2.025	0.050	0.219	0.442	0.235	0.055	0.012	0.571	-0.315	-0.376	0.073	0.319	0.231	1.325	0.026	2.8
Math	6	4650	4	C	2	6521	2.393	0.076	0.156	0.248	0.339	0.181	0.004	0.670	-0.426	-0.342	-0.089	0.248	0.411	0.772	0.015	2.3
Math	6	4651	4	D	3	2954	2.216	0.091	0.058	0.449	0.348	0.054	0.009	0.593	-0.451	-0.212	-0.074	0.351	0.217	1.335	0.026	2.7
Math	6	4652	4	E		6540	1.707	0.265	0.258	0.145	0.171	0.162	0.007	0.632	-0.505	-0.149	0.104	0.290	0.386	1.606	0.014	9.9
Math	6	4653	4	C	2	2971	2.115	0.138	0.058	0.419	0.320	0.065	0.008	0.550	-0.359	-0.117	-0.211	0.404	0.271	1.493	0.024	9.9
Math	6	4654	4	D		6517	2.383	0.065	0.068	0.458	0.237	0.172	0.003	0.531	-0.364	-0.163	-0.170	0.218	0.325	0.728	0.016	9.9
Math	6	4655	4	A	3	3051	1.251	0.363	0.290	0.184	0.060	0.103	0.005	0.623	-0.556	0.007	0.265	0.226	0.354	2.169	0.021	0.4
Math	6	4656	4	E	2	6502	2.066	0.044	0.331	0.337	0.089	0.198	0.002	0.567	-0.314	-0.458	0.237	0.052	0.385	0.874	0.015	9.9
Math	6	4657	4	A	3	3056	1.717	0.110	0.451	0.145	0.201	0.093	0.009	0.616	-0.493	-0.228	0.158	0.302	0.313	1.647	0.022	3.7
Math	6	4658	4	A		6498	1.964	0.115	0.284	0.302	0.120	0.179	0.002	0.704	-0.491	-0.358	0.167	0.229	0.436	1.193	0.015	-3.2
Math	6	4659	4	C	2	2953	1.395	0.169	0.475	0.199	0.104	0.052	0.016	0.615	-0.482	-0.162	0.290	0.294	0.252	2.131	0.024	-1.8
Math	6	4660	4	E		6503	2.380	0.185	0.065	0.268	0.150	0.332	0.006	0.587	-0.483	-0.148	-0.056	0.142	0.421	0.845	0.013	9.9
Math	6	4661	4	B	3	3021	1.755	0.187	0.291	0.228	0.169	0.125	0.009	0.638	-0.480	-0.229	0.161	0.283	0.354	1.589	0.021	1.7
Math	7	4662	4	E	3	135784	1.268	0.273	0.390	0.193	0.084	0.060	0.010	0.606	-0.485	-0.054	0.225	0.301	0.296	1.969	0.003	-5.1
Math	7	4663	4	D		135784	2.000	0.257	0.136	0.186	0.190	0.230	0.029	0.669	-0.539	-0.164	0.014	0.231	0.465	1.081	0.003	9.9
Math	7	4664	4	A		135784	1.958	0.207	0.223	0.180	0.184	0.206	0.009	0.705	-0.566	-0.201	0.077	0.257	0.456	1.091	0.003	2.0
Math	7	4665	4	C	2	7121	1.400	0.227	0.377	0.215	0.131	0.050	0.004	0.653	-0.587	-0.036	0.234	0.330	0.255	1.811	0.015	-1.2
Math	7	4666	4	D	3	3368	1.658	0.316	0.216	0.139	0.152	0.177	0.015	0.713	-0.645	-0.054	0.145	0.286	0.444	1.435	0.018	0.4
Math	7	4667	4	E	2	6796	1.358	0.286	0.320	0.211	0.115	0.067	0.007	0.665	-0.597	-0.035	0.286	0.308	0.284	1.850	0.014	-3.1
Math	7	4668	4	B	3	3222	1.160	0.427	0.260	0.085	0.181	0.047	0.014	0.640	-0.590	0.077	0.176	0.393	0.273	2.275	0.020	-0.2
Math	7	4669	4	E	2	6791	1.964	0.191	0.178	0.214	0.313	0.105	0.012	0.593	-0.464	-0.176	0.028	0.302	0.318	1.237	0.014	9.9
Math	7	4670	4	B	2	3229	1.830	0.156	0.258	0.326	0.121	0.139	0.017	0.681	-0.508	-0.242	0.136	0.262	0.407	1.301	0.020	-1.8
Math	7	4671	4	D	2	6761	2.355	0.299	0.056	0.089	0.105	0.451	0.008	0.676	-0.614	-0.096	-0.016	0.070	0.574	0.743	0.012	9.7
Math	7	4672	4	A	2	3187	2.781	0.077	0.108	0.188	0.210	0.416	0.014	0.649	-0.413	-0.332	-0.160	0.079	0.494	0.238	0.020	5.2
Math	7	4673	4	A	2	6770	2.385	0.182	0.088	0.273	0.077	0.380	0.008	0.658	-0.511	-0.183	-0.086	0.113	0.530	0.631	0.013	8.8
Math	7	4674	4	E	3	3218	1.200	0.254	0.383	0.284	0.070	0.010	0.011	0.665	-0.601	0.009	0.378	0.287	0.136	2.635	0.025	-6.1
Math	7	4675	4	A	2	6750	1.336	0.326	0.133	0.470	0.022	0.049	0.006	0.556	-0.449	-0.137	0.349	0.143	0.286	2.025	0.015	7.8
Math	7	4676	4	C	3	3212	1.811	0.059	0.398	0.318	0.122	0.102	0.014	0.641	-0.348	-0.422	0.178	0.306	0.348	1.175	0.023	-2.8
Math	7	4677	4	A	3	6751	1.727	0.255	0.218	0.191	0.218	0.118	0.014	0.710	-0.600	-0.131	0.117	0.362	0.372	1.435	0.013	-3.5
Math	7	4678	4	E	3	3212	2.524	0.068	0.129	0.210	0.397	0.196	0.007	0.566	-0.341	-0.318	-0.109	0.215	0.332	0.549	0.021	7.5
Math	7	4679	4	A	2	6761	1.680	0.236	0.298	0.150	0.181	0.135	0.014	0.610	-0.512	-0.110	0.128	0.253	0.365	1.391	0.013	9.9
Math	7	4680	4	E	3	3206	1.803	0.153	0.280	0.284	0.174	0.108	0.011	0.592	-0.484	-0.207	0.183	0.251	0.288	1.333	0.020	7.0
Math	7	4681	4	C	2	6779	1.430	0.252	0.226	0.364	0.154	0.003	0.012	0.643	-0.528	-0.177	0.359	0.350	0.077	2.611	0.016	-2.9

Appendix M: 2008 Grades 3–8 and 11 Open-Ended Statistics

Information							Proportions							Correlations					Rasch			
Cont.	Grade	Pub. ID	Pts.	R.C.	D.O.K.	N	Mean	0	1	2	3	4	Omit	Pt. Bis.	0	1	2	3	4	Logit	Logit SE	Fit
Math	7	4682	4	A	3	3179	1.779	0.162	0.260	0.291	0.213	0.075	0.010	0.655	-0.440	-0.276	0.111	0.350	0.339	1.519	0.021	-0.9
Math	7	4683	4	A	2	6772	1.576	0.271	0.261	0.197	0.166	0.106	0.005	0.698	-0.568	-0.159	0.196	0.369	0.346	1.575	0.014	-5.3
Math	7	4684	4	D	3	3205	1.094	0.440	0.274	0.123	0.079	0.085	0.013	0.630	-0.595	0.101	0.269	0.245	0.346	2.162	0.020	-1.8
Math	7	4685	4	B	2	6819	1.527	0.371	0.169	0.116	0.249	0.095	0.017	0.711	-0.643	-0.024	0.112	0.409	0.364	1.697	0.013	-3.8
Math	7	4686	4	A	3	3225	1.541	0.248	0.301	0.224	0.114	0.112	0.014	0.690	-0.598	-0.111	0.253	0.283	0.360	1.657	0.020	-3.7
Math	7	4687	4	D	2	6785	1.597	0.206	0.310	0.277	0.094	0.113	0.012	0.625	-0.509	-0.140	0.199	0.235	0.356	1.482	0.014	3.7
Math	7	4688	4	C	3	3200	1.791	0.224	0.285	0.153	0.153	0.185	0.023	0.651	-0.470	-0.222	0.094	0.247	0.446	1.345	0.019	3.6
Math	7	4689	4	E	2	6809	2.351	0.112	0.218	0.169	0.211	0.290	0.004	0.628	-0.429	-0.307	-0.019	0.161	0.447	0.611	0.013	9.9
Math	7	4690	4	B	3	3168	0.499	0.608	0.310	0.064	0.010	0.008	0.011	0.547	-0.549	0.372	0.295	0.126	0.129	3.546	0.031	-6.3
Math	7	4691	4	C	2	6794	2.192	0.080	0.209	0.286	0.289	0.136	0.006	0.546	-0.397	-0.262	0.009	0.254	0.278	0.796	0.015	9.9
Math	7	4692	4	D	3	3224	1.520	0.374	0.124	0.267	0.077	0.158	0.012	0.701	-0.637	-0.054	0.239	0.222	0.442	1.668	0.019	-1.5
Math	7	4693	4	C		6797	1.428	0.174	0.421	0.249	0.113	0.042	0.008	0.536	-0.416	-0.128	0.203	0.287	0.211	1.899	0.016	9.9
Math	7	4694	4	E	3	3225	2.103	0.163	0.181	0.147	0.407	0.101	0.010	0.682	-0.500	-0.250	-0.028	0.358	0.381	1.264	0.020	1.4
Math	7	4695	4	D	2	6760	2.395	0.125	0.189	0.152	0.234	0.299	0.008	0.707	-0.510	-0.291	-0.013	0.081	0.552	0.618	0.013	1.6
Math	7	4696	4	C	3	3241	2.501	0.068	0.116	0.210	0.459	0.147	0.009	0.544	-0.351	-0.295	-0.129	0.301	0.241	0.676	0.022	8.6
Math	7	4697	4	B		6753	1.658	0.216	0.260	0.280	0.139	0.105	0.008	0.650	-0.497	-0.175	0.155	0.277	0.377	1.505	0.014	0.8
Math	7	4698	4	D	3	3245	2.080	0.192	0.148	0.108	0.492	0.060	0.018	0.694	-0.579	-0.212	0.036	0.451	0.279	1.449	0.020	0.7
Math	7	4699	4	E	3	6749	1.953	0.147	0.223	0.268	0.256	0.106	0.008	0.663	-0.508	-0.260	0.090	0.356	0.301	1.186	0.014	3.3
Math	7	4700	4	C	3	3194	1.302	0.147	0.483	0.293	0.076	0.001	0.013	0.672	-0.518	-0.196	0.442	0.297	0.044	3.058	0.027	-8.3
Math	7	4701	4	A	3	6739	1.545	0.249	0.305	0.223	0.098	0.126	0.006	0.637	-0.560	-0.085	0.231	0.219	0.364	1.529	0.014	4.9
Math	7	4702	4	D	3	3096	1.589	0.091	0.471	0.236	0.161	0.041	0.010	0.659	-0.377	-0.393	0.262	0.393	0.248	1.668	0.024	-6.9
Math	7	4703	4	C		6727	2.667	0.032	0.136	0.201	0.396	0.235	0.004	0.606	-0.288	-0.365	-0.206	0.187	0.393	0.136	0.015	5.2
Math	7	4704	4	A	3	3215	1.486	0.229	0.385	0.176	0.093	0.118	0.007	0.701	-0.566	-0.134	0.241	0.265	0.416	1.702	0.020	-6.8
Math	8	4706	4	B		138545	1.687	0.245	0.227	0.193	0.268	0.068	0.031	0.675	-0.577	-0.124	0.124	0.415	0.268	1.788	0.003	-0.7
Math	8	4707	4	D		138545	2.368	0.128	0.176	0.201	0.189	0.305	0.030	0.669	-0.450	-0.359	0.015	0.160	0.475	0.781	0.003	9.9
Math	8	4708	4	C		138545	2.301	0.061	0.140	0.407	0.222	0.170	0.006	0.634	-0.375	-0.311	-0.129	0.277	0.388	0.761	0.003	6.3
Math	8	4709	4	E		7276	1.572	0.272	0.283	0.174	0.143	0.128	0.015	0.662	-0.520	-0.134	0.130	0.315	0.396	1.667	0.013	0.9
Math	8	4710	4	D	3	3419	1.276	0.288	0.390	0.120	0.161	0.041	0.016	0.633	-0.520	-0.062	0.233	0.403	0.213	2.288	0.022	-1.6
Math	8	4711	4	D	2	6898	2.308	0.081	0.227	0.216	0.256	0.220	0.010	0.703	-0.493	-0.361	0.002	0.238	0.437	0.764	0.014	-1.5
Math	8	4712	4	B	3	3265	0.746	0.516	0.323	0.096	0.030	0.035	0.021	0.560	-0.602	0.328	0.272	0.159	0.217	2.971	0.024	-4.4
Math	8	4713	4	B	2	6890	1.255	0.380	0.233	0.205	0.118	0.065	0.017	0.645	-0.563	-0.030	0.265	0.332	0.291	2.194	0.014	-2.3
Math	8	4714	4	D	3	3185	0.971	0.105	0.842	0.032	0.017	0.003	0.014	0.368	-0.339	0.155	0.142	0.141	0.073	3.242	0.042	0.5
Math	8	4715	4	A	3	6910	1.718	0.171	0.234	0.362	0.170	0.062	0.012	0.642	-0.552	-0.183	0.244	0.292	0.242	1.684	0.015	2.0
Math	8	4716	4	D	3	3221	1.749	0.233	0.199	0.202	0.320	0.047	0.019	0.562	-0.422	-0.198	0.084	0.382	0.216	1.880	0.021	9.9
Math	8	4717	4	D	2	6914	1.691	0.290	0.225	0.139	0.194	0.151	0.014	0.539	-0.460	-0.095	0.120	0.231	0.321	1.577	0.013	9.9
Math	8	4718	4	A	3	3242	1.429	0.426	0.091	0.251	0.092	0.140	0.025	0.628	-0.569	-0.031	0.195	0.240	0.394	1.970	0.018	3.5
Math	8	4719	4	B	2	6926	1.536	0.346	0.205	0.159	0.147	0.143	0.013	0.661	-0.606	-0.043	0.199	0.289	0.372	1.775	0.013	2.6
Math	8	4720	4	A	3	3263	1.272	0.329	0.304	0.181	0.135	0.050	0.011	0.654	-0.630	0.054	0.276	0.336	0.229	2.324	0.021	-3.9
Math	8	4721	4	C	2	6903	1.508	0.257	0.305	0.200	0.147	0.091	0.013	0.590	-0.549	-0.021	0.175	0.286	0.272	1.856	0.014	9.9
Math	8	4722	4	E	3	3130	1.222	0.236	0.456	0.176	0.113	0.019	0.016	0.540	-0.516	0.061	0.208	0.287	0.135	2.537	0.024	4.3
Math	8	4723	4	D	2	6917	1.898	0.144	0.220	0.322	0.223	0.091	0.017	0.539	-0.394	-0.167	0.033	0.237	0.324	1.441	0.015	9.9
Math	8	4724	4	C	3	3233	1.332	0.200	0.499	0.081	0.208	0.011	0.011	0.603	-0.510	-0.051	0.157	0.424	0.134	2.589	0.023	-0.7
Math	8	4725	4	C	2	6931	2.457	0.057	0.163	0.251	0.328	0.202	0.005	0.662	-0.343	-0.424	-0.083	0.211	0.430	0.619	0.015	0.8
Math	8	4726	4	B	3	3234	1.638	0.178	0.269	0.326	0.190	0.036	0.009	0.660	-0.598	-0.085	0.185	0.346	0.235	2.085	0.023	-1.5
Math	8	4727	4	A	2	6913	1.698	0.304	0.196	0.128	0.240	0.132	0.014	0.690	-0.635	-0.056	0.132	0.349	0.358	1.679	0.013	2.3
Math	8	4728	4	C	3	3214	2.152	0.056	0.144	0.454	0.284	0.062	0.015	0.617	-0.346	-0.357	-0.043	0.353	0.278	1.231	0.025	-2.0

Appendix M: 2008 Grades 3–8 and 11 Open-Ended Statistics

Information							Proportions						Correlations					Rasch				
Cont.	Grade	Pub. ID	Pts.	R.C.	D.O.K.	N	Mean	0	1	2	3	4	Omit	Pt. Bis.	0	1	2	3	4	Logit	Logit SE	Fit
Math	8	4729	4	A	2	6919	1.914	0.154	0.364	0.116	0.146	0.220	0.018	0.602	-0.472	-0.197	0.087	0.168	0.430	1.228	0.013	9.9
Math	8	4730	4	D	3	3225	1.568	0.365	0.167	0.142	0.187	0.139	0.026	0.684	-0.653	0.006	0.168	0.316	0.377	1.879	0.018	-1.3
Math	8	4731	4	A		6891	1.841	0.139	0.283	0.272	0.208	0.097	0.008	0.618	-0.496	-0.176	0.075	0.308	0.314	1.455	0.014	5.6
Math	8	4732	4	E	3	3173	1.670	0.311	0.205	0.145	0.182	0.158	0.007	0.629	-0.570	-0.041	0.109	0.272	0.376	1.723	0.018	5.7
Math	8	4733	4	D	2	6882	2.105	0.111	0.248	0.234	0.237	0.170	0.022	0.725	-0.480	-0.378	0.059	0.298	0.433	1.098	0.014	-8.0
Math	8	4734	4	A	3	3207	1.270	0.342	0.288	0.182	0.134	0.054	0.020	0.640	-0.594	0.032	0.249	0.336	0.251	2.348	0.021	-3.7
Math	8	4735	4	E	2	6932	1.875	0.121	0.286	0.243	0.299	0.052	0.006	0.650	-0.500	-0.265	0.118	0.397	0.229	1.571	0.015	2.4
Math	8	4736	4	A	3	3205	1.567	0.267	0.314	0.096	0.229	0.093	0.014	0.618	-0.460	-0.173	0.131	0.355	0.331	1.904	0.020	3.0
Math	8	4737	4	E		6922	2.308	0.021	0.358	0.142	0.252	0.228	0.007	0.697	-0.212	-0.612	0.042	0.265	0.462	0.425	0.014	-3.9
Math	8	4738	4	A	3	3213	1.289	0.287	0.371	0.178	0.094	0.070	0.013	0.665	-0.637	0.047	0.287	0.275	0.295	2.219	0.022	-4.9
Math	8	4739	4	D	2	6932	2.293	0.119	0.217	0.247	0.084	0.332	0.014	0.747	-0.543	-0.340	0.032	0.127	0.567	0.800	0.013	-4.9
Math	8	4740	4	E	3	3235	1.322	0.173	0.517	0.143	0.151	0.016	0.013	0.537	-0.443	-0.073	0.185	0.342	0.132	2.469	0.024	4.7
Math	8	4741	4	C	2	6925	1.912	0.191	0.149	0.310	0.257	0.093	0.012	0.666	-0.542	-0.231	0.134	0.347	0.282	1.522	0.014	1.7
Math	8	4742	4	E	3	3244	2.600	0.068	0.038	0.262	0.490	0.142	0.011	0.593	-0.391	-0.119	-0.302	0.265	0.349	0.736	0.024	3.1
Math	8	4743	4	B		6912	2.105	0.118	0.243	0.243	0.208	0.188	0.011	0.682	-0.519	-0.285	0.058	0.262	0.405	1.082	0.014	0.6
Math	8	4744	4	D	3	3225	2.388	0.053	0.066	0.333	0.538	0.011	0.016	0.646	-0.367	-0.309	-0.285	0.567	0.097	1.457	0.027	-3.9
Math	8	4745	4	D		6870	2.240	0.049	0.163	0.366	0.342	0.079	0.010	0.620	-0.397	-0.353	-0.019	0.303	0.301	0.940	0.017	0.5
Math	8	4746	4	E	3	3203	1.140	0.282	0.452	0.162	0.052	0.052	0.014	0.528	-0.449	0.013	0.258	0.202	0.252	2.364	0.023	2.6
Math	8	4747	4	E		6882	2.646	0.095	0.079	0.197	0.344	0.286	0.006	0.609	-0.426	-0.249	-0.161	0.159	0.399	0.523	0.014	9.9
Math	8	4748	4	D	3	3198	1.645	0.203	0.322	0.213	0.148	0.113	0.013	0.699	-0.615	-0.114	0.186	0.312	0.360	1.742	0.020	-7.9
Math	11	4749	4	D	3	135120	2.420	0.099	0.183	0.240	0.154	0.324	0.014	0.732	-0.476	-0.377	-0.052	0.154	0.545	0.070	0.003	-8.2
Math	11	4750	4	B		135120	1.703	0.285	0.189	0.187	0.214	0.124	0.061	0.713	-0.656	-0.021	0.092	0.344	0.386	1.074	0.003	-4.0
Math	11	4751	4	E		135120	1.438	0.256	0.385	0.117	0.151	0.092	0.084	0.662	-0.511	-0.143	0.215	0.343	0.350	1.332	0.003	-9.9
Math	11	4752	4	A	3	7061	2.167	0.145	0.113	0.360	0.194	0.188	0.018	0.704	-0.533	-0.168	-0.092	0.263	0.462	0.406	0.014	0.4
Math	11	4753	4	B	2	3529	1.091	0.384	0.331	0.135	0.113	0.038	0.053	0.707	-0.674	0.123	0.317	0.360	0.250	2.004	0.022	-9.9
Math	11	4754	4	C	3	6732	1.818	0.224	0.232	0.166	0.258	0.120	0.026	0.743	-0.620	-0.165	0.109	0.355	0.406	0.957	0.014	-6.1
Math	11	4755	4	A	2	3059	1.434	0.340	0.239	0.145	0.199	0.077	0.041	0.711	-0.660	0.000	0.193	0.413	0.299	1.567	0.021	-4.2
Math	11	4756	4	B	3	6753	0.926	0.527	0.242	0.077	0.086	0.068	0.056	0.596	-0.543	0.101	0.243	0.293	0.323	1.884	0.015	0.1
Math	11	4757	4	A	2	3021	1.299	0.230	0.427	0.183	0.137	0.024	0.049	0.710	-0.556	-0.135	0.324	0.424	0.194	1.818	0.024	-9.9
Math	11	4758	4	C	3	6739	1.649	0.281	0.233	0.176	0.176	0.134	0.045	0.711	-0.572	-0.150	0.127	0.343	0.415	1.117	0.014	-1.4
Math	11	4759	4	D	2	3244	1.105	0.406	0.296	0.115	0.153	0.030	0.045	0.604	-0.581	0.116	0.219	0.359	0.194	2.138	0.022	3.3
Math	11	4760	4	D	3	6751	0.807	0.497	0.321	0.089	0.066	0.028	0.075	0.595	-0.543	0.171	0.276	0.307	0.225	2.329	0.017	-7.7
Math	11	4761	4	E	2	3087	1.330	0.286	0.319	0.211	0.145	0.038	0.033	0.630	-0.589	-0.003	0.285	0.324	0.193	1.799	0.022	2.3
Math	11	4762	4	E	3	6770	0.567	0.590	0.288	0.103	0.004	0.015	0.029	0.549	-0.551	0.307	0.357	0.075	0.153	2.777	0.020	-5.9
Math	11	4763	4	B	2	4380	0.847	0.386	0.456	0.110	0.021	0.027	0.047	0.657	-0.656	0.296	0.357	0.171	0.221	2.337	0.023	-9.9
Math	11	4764	4	A	2	6741	2.112	0.084	0.207	0.338	0.253	0.118	0.026	0.660	-0.431	-0.323	-0.021	0.350	0.336	0.495	0.015	2.5
Math	11	4765	4	E	2	3055	2.205	0.090	0.170	0.342	0.241	0.157	0.039	0.635	-0.438	-0.267	-0.030	0.214	0.408	0.474	0.022	4.6
Math	11	4766	4	C	3	6749	1.452	0.223	0.433	0.051	0.255	0.038	0.029	0.693	-0.572	-0.099	0.132	0.487	0.240	1.524	0.015	-5.2
Math	11	4767	4	D	2	3209	1.928	0.153	0.143	0.394	0.241	0.069	0.039	0.611	-0.431	-0.196	-0.022	0.380	0.288	1.004	0.022	7.0
Math	11	4768	4	E	3	6740	1.696	0.201	0.248	0.276	0.200	0.074	0.028	0.632	-0.510	-0.152	0.128	0.345	0.287	1.125	0.015	7.6
Math	11	4769	4	D	2	3068	2.179	0.160	0.193	0.184	0.232	0.230	0.025	0.718	-0.589	-0.250	0.079	0.225	0.449	0.557	0.020	2.8
Math	11	4770	4	C	3	6745	1.895	0.231	0.187	0.229	0.163	0.191	0.034	0.715	-0.625	-0.129	0.100	0.277	0.431	0.770	0.013	2.0
Math	11	4771	4	D	2	3251	2.018	0.177	0.137	0.264	0.337	0.086	0.025	0.739	-0.571	-0.281	0.068	0.397	0.344	0.934	0.021	-4.7
Math	11	4772	4	D	3	6744	2.352	0.124	0.127	0.208	0.356	0.186	0.031	0.713	-0.533	-0.309	-0.028	0.280	0.402	0.296	0.014	-2.5
Math	11	4773	4	E	3	3114	1.224	0.212	0.522	0.132	0.099	0.036	0.026	0.600	-0.494	-0.042	0.254	0.322	0.221	1.823	0.024	-2.0
Math	11	4774	4	D	3	6735	1.105	0.462	0.221	0.130	0.124	0.063	0.052	0.656	-0.649	0.130	0.263	0.351	0.272	1.795	0.014	-2.0

Appendix M: 2008 Grades 3–8 and 11 Open-Ended Statistics

Information							Proportions							Correlations					Rasch			
Cont.	Grade	Pub. ID	Pts.	R.C.	D.O.K.	N	Mean	0	1	2	3	4	Omit	Pt. Bis.	0	1	2	3	4	Logit	Logit SE	Fit
Math	11	4775	4	D	2	3101	0.915	0.364	0.419	0.163	0.045	0.009	0.041	0.534	-0.478	0.125	0.290	0.241	0.122	2.630	0.027	1.8
Math	11	4776	4	D	2	6773	1.369	0.328	0.287	0.156	0.146	0.083	0.074	0.740	-0.654	-0.037	0.246	0.397	0.341	1.481	0.014	-9.9
Math	11	4777	4	E	2	3094	2.056	0.060	0.294	0.283	0.256	0.107	0.027	0.575	-0.379	-0.348	0.080	0.297	0.268	0.587	0.023	9.9
Math	11	4778	4	D	3	6732	1.205	0.432	0.167	0.219	0.130	0.052	0.067	0.684	-0.661	0.098	0.261	0.352	0.288	1.758	0.014	-6.2
Math	11	4779	4	C	2	3236	1.032	0.380	0.379	0.096	0.119	0.026	0.079	0.574	-0.466	0.012	0.245	0.368	0.183	2.186	0.023	1.1
Math	11	4780	4	A	3	6752	1.368	0.074	0.593	0.271	0.016	0.046	0.016	0.594	-0.327	-0.400	0.478	0.104	0.268	1.359	0.019	-5.8
Math	11	4781	4	C	2	3017	1.647	0.078	0.484	0.169	0.252	0.017	0.028	0.684	-0.429	-0.414	0.263	0.466	0.163	1.459	0.025	-6.3
Math	11	4782	4	E	3	6715	2.117	0.036	0.274	0.317	0.282	0.090	0.013	0.617	-0.313	-0.403	-0.012	0.340	0.317	0.379	0.016	3.3
Math	11	4783	4	D	2	3007	1.551	0.232	0.268	0.270	0.174	0.055	0.043	0.717	-0.606	-0.119	0.210	0.398	0.285	1.488	0.022	-7.2
Math	11	4784	4	D	3	6738	1.331	0.465	0.137	0.131	0.136	0.131	0.043	0.616	-0.512	-0.092	0.141	0.308	0.398	1.417	0.013	7.0
Math	11	4785	4	C	3	3019	0.733	0.564	0.251	0.097	0.063	0.025	0.068	0.588	-0.585	0.241	0.289	0.288	0.195	2.584	0.025	-5.9
Math	11	4786	4	E		6740	1.374	0.238	0.370	0.207	0.150	0.035	0.067	0.554	-0.473	-0.055	0.208	0.296	0.207	1.619	0.016	9.9
Math	11	4787	4	A	3	3106	1.542	0.231	0.298	0.227	0.185	0.058	0.041	0.702	-0.585	-0.141	0.224	0.390	0.279	1.467	0.022	-5.5
Math	11	4788	4	A		6716	2.110	0.204	0.183	0.206	0.114	0.293	0.026	0.733	-0.566	-0.244	0.048	0.163	0.552	0.525	0.013	-0.7
Math	11	4789	4	C	3	3061	0.980	0.452	0.304	0.108	0.083	0.053	0.057	0.683	-0.667	0.181	0.308	0.322	0.289	2.086	0.023	-9.9
Math	11	4790	4	D		6694	2.049	0.211	0.068	0.324	0.256	0.141	0.036	0.734	-0.615	-0.149	0.013	0.320	0.411	0.722	0.014	-4.5
Math	11	4791	4	D	3	3116	1.023	0.436	0.288	0.133	0.105	0.039	0.080	0.638	-0.604	0.134	0.260	0.334	0.250	2.139	0.023	-2.7
Reading	3	4792	3	A		126402	1.565	0.094	0.373	0.407	0.126		0.006	0.527	-0.462	-0.177	0.284	0.244		0.856	0.004	9.9
Reading	3	4793	3	B	2	126402	1.685	0.081	0.342	0.387	0.189		0.005	0.495	-0.410	-0.199	0.194	0.285		0.587	0.004	9.9
Reading	3	4794	3	B	3	8121	1.436	0.109	0.435	0.367	0.089		0.008	0.523	-0.469	-0.118	0.282	0.240		1.032	0.017	1.2
Reading	3	4795	3	A	2	3575	0.849	0.400	0.397	0.156	0.047		0.006	0.535	-0.541	0.241	0.289	0.199		2.218	0.024	-3.5
Reading	3	4796	3	A	3	7934	1.097	0.228	0.479	0.259	0.033		0.006	0.544	-0.527	0.094	0.331	0.164		1.951	0.018	-2.7
Reading	3	4797	3	B	2	3604	1.337	0.124	0.486	0.319	0.071		0.006	0.531	-0.445	-0.132	0.334	0.220		1.371	0.026	-1.7
Reading	3	4798	3	B		7952	1.449	0.116	0.442	0.319	0.123		0.005	0.548	-0.481	-0.135	0.279	0.278		0.985	0.016	-3.0
Reading	3	4799	3	A	2	3606	1.635	0.149	0.293	0.333	0.225		0.006	0.534	-0.394	-0.208	0.172	0.368		0.812	0.022	1.3
Reading	3	4800	3	B	3	7953	1.606	0.060	0.415	0.384	0.141		0.006	0.456	-0.337	-0.230	0.209	0.263		0.630	0.017	7.4
Reading	3	4801	3	A	3	3526	1.975	0.065	0.190	0.449	0.296		0.008	0.626	-0.440	-0.368	0.149	0.392		0.206	0.025	-5.6
Reading	3	4802	3	A	3	7953	1.480	0.124	0.383	0.382	0.111		0.005	0.570	-0.457	-0.199	0.333	0.273		1.063	0.017	-4.7
Reading	3	4803	3	A	1	3562	1.749	0.105	0.278	0.379	0.238		0.004	0.484	-0.381	-0.194	0.150	0.308		0.637	0.023	7.6
Reading	3	4804	3	A	3	7889	1.293	0.080	0.680	0.105	0.134		0.006	0.411	-0.421	-0.021	0.116	0.261		0.977	0.017	9.0
Reading	3	4805	3	A	2	3500	1.815	0.094	0.246	0.412	0.248		0.008	0.641	-0.471	-0.327	0.219	0.394		0.512	0.024	-7.1
Reading	3	4806	3	A	2	7893	1.865	0.083	0.241	0.404	0.272		0.008	0.604	-0.435	-0.326	0.183	0.382		0.391	0.016	-4.3
Reading	3	4807	3	A	2	3593	1.045	0.247	0.500	0.213	0.040		0.007	0.415	-0.350	0.021	0.258	0.178		2.093	0.026	5.2
Reading	3	4808	3	B	3	7821	1.600	0.081	0.379	0.398	0.142		0.006	0.552	-0.411	-0.262	0.274	0.303		0.742	0.017	-4.8
Reading	3	4809	3	B	2	3554	1.205	0.252	0.413	0.212	0.122		0.006	0.514	-0.469	0.014	0.261	0.274		1.534	0.022	0.0
Reading	3	4810	3	A		7937	1.088	0.257	0.462	0.216	0.064		0.006	0.496	-0.460	0.066	0.280	0.216		1.803	0.017	2.9
Reading	3	4811	3	B	3	3630	1.326	0.111	0.514	0.312	0.063		0.005	0.497	-0.468	-0.069	0.292	0.190		1.431	0.027	0.6
Reading	3	4812	3	A		7873	1.251	0.140	0.548	0.235	0.077		0.003	0.518	-0.486	-0.014	0.260	0.243		1.377	0.017	-2.7
Reading	3	4813	3	B	3	3704	1.018	0.261	0.526	0.148	0.066		0.006	0.445	-0.385	0.068	0.211	0.244		1.874	0.024	1.1
Reading	3	4814	3	B		7881	1.263	0.169	0.467	0.294	0.069		0.005	0.488	-0.439	-0.038	0.289	0.204		1.502	0.017	3.7
Reading	3	4815	3	B	2	3628	1.060	0.232	0.512	0.219	0.037		0.004	0.486	-0.466	0.101	0.276	0.170		2.023	0.026	0.2
Reading	3	4816	3	A	3	7880	1.433	0.120	0.414	0.380	0.086		0.006	0.488	-0.438	-0.110	0.288	0.202		1.174	0.017	5.7
Reading	3	4817	3	A	2	3594	1.376	0.125	0.464	0.321	0.090		0.006	0.451	-0.365	-0.136	0.276	0.206		1.273	0.025	4.8
Reading	3	4818	3	A		7867	1.683	0.089	0.332	0.387	0.193		0.004	0.496	-0.397	-0.209	0.201	0.287		0.633	0.016	7.4
Reading	3	4819	3	B	2	3533	1.016	0.307	0.436	0.191	0.066		0.005	0.469	-0.440	0.102	0.249	0.219		1.958	0.024	3.2
Reading	3	4820	3	B		7823	1.941	0.056	0.231	0.429	0.284		0.004	0.504	-0.356	-0.289	0.115	0.325		0.144	0.017	6.9

Appendix M: 2008 Grades 3–8 and 11 Open-Ended Statistics

Information							Proportions						Correlations					Rasch				
Cont.	Grade	Pub. ID	Pts.	R.C.	D.O.K.	N	Mean	0	1	2	3	4	Omit	Pt. Bis.	0	1	2	3	4	Logit	Logit SE	Fit
Reading	3	4821	3	B	2	3579	1.270	0.191	0.464	0.232	0.114		0.004	0.548	-0.473	-0.044	0.258	0.310		1.443	0.024	-2.4
Reading	3	4822	3	B		7857	1.075	0.224	0.511	0.231	0.034		0.007	0.374	-0.378	0.104	0.193	0.131		1.929	0.018	9.9
Reading	3	4823	3	A	2	3567	1.140	0.201	0.514	0.228	0.057		0.006	0.478	-0.456	0.058	0.260	0.194		1.741	0.025	0.2
Reading	3	4824	3	B		7768	1.389	0.100	0.482	0.346	0.072		0.005	0.428	-0.409	-0.079	0.254	0.160		1.185	0.018	9.6
Reading	3	4825	3	B	2	3571	1.306	0.140	0.486	0.303	0.072		0.004	0.561	-0.499	-0.084	0.337	0.232		1.450	0.026	-4.7
Reading	4	4826	3	B		126266	1.717	0.073	0.309	0.446	0.172		0.004	0.494	-0.361	-0.238	0.182	0.301		0.579	0.004	9.9
Reading	4	4827	3	A	3	126266	1.446	0.205	0.345	0.249	0.201		0.006	0.519	-0.443	-0.072	0.165	0.354		1.091	0.004	9.9
Reading	4	4828	3	A	3	126266	1.621	0.219	0.215	0.292	0.274		0.004	0.579	-0.509	-0.104	0.168	0.397		0.895	0.004	9.9
Reading	4	4829	3	A		126266	1.796	0.047	0.277	0.510	0.166		0.007	0.625	-0.344	-0.443	0.270	0.365		0.368	0.005	-9.9
Reading	4	4830	3	B	3	6573	1.743	0.077	0.288	0.450	0.185		0.004	0.494	-0.377	-0.231	0.188	0.287		0.464	0.018	8.6
Reading	4	4831	3	A	3	2915	1.670	0.154	0.277	0.315	0.255		0.003	0.549	-0.430	-0.169	0.124	0.398		0.820	0.024	4.6
Reading	4	4832	3	B	3	6343	2.104	0.060	0.192	0.331	0.417		0.003	0.525	-0.385	-0.260	-0.003	0.396		-0.097	0.018	7.1
Reading	4	4833	3	A	2	2935	1.347	0.286	0.258	0.279	0.176		0.002	0.549	-0.521	0.002	0.257	0.312		1.371	0.023	4.1
Reading	4	4834	3	B	2	6327	1.728	0.095	0.311	0.366	0.228		0.004	0.529	-0.369	-0.253	0.149	0.365		0.548	0.018	6.4
Reading	4	4835	3	A	3	2910	1.320	0.179	0.432	0.279	0.110		0.005	0.462	-0.386	-0.067	0.219	0.265		1.395	0.026	7.1
Reading	4	4836	3	B	3	6344	1.466	0.194	0.277	0.399	0.130		0.004	0.568	-0.499	-0.113	0.317	0.275		1.213	0.017	1.2
Reading	4	4837	3	A	2	2918	1.880	0.134	0.218	0.282	0.366		0.002	0.608	-0.510	-0.196	0.098	0.438		0.578	0.024	0.5
Reading	4	4838	3	A	3	6286	1.391	0.143	0.398	0.384	0.075		0.001	0.555	-0.487	-0.116	0.348	0.219		1.337	0.019	-1.8
Reading	4	4839	3	A	2	2939	2.366	0.045	0.158	0.183	0.614		0.003	0.477	-0.296	-0.292	-0.089	0.415		-0.344	0.027	5.4
Reading	4	4840	3	B	3	6287	1.908	0.039	0.262	0.452	0.247		0.002	0.413	-0.269	-0.238	0.063	0.291		0.131	0.019	9.8
Reading	4	4841	3	B	2	2925	1.220	0.225	0.418	0.269	0.088		0.005	0.450	-0.387	-0.013	0.215	0.256		1.605	0.026	4.5
Reading	4	4842	3	A	3	6322	1.831	0.068	0.271	0.421	0.239		0.005	0.521	-0.369	-0.263	0.124	0.350		0.384	0.018	3.8
Reading	4	4843	3	B	2	2972	1.594	0.183	0.303	0.250	0.264		0.003	0.510	-0.401	-0.152	0.143	0.370		0.950	0.023	7.2
Reading	4	4844	3	A	3	6284	1.510	0.166	0.299	0.395	0.140		0.005	0.474	-0.448	-0.067	0.247	0.221		1.121	0.017	9.9
Reading	4	4845	3	A	3	2929	1.891	0.077	0.247	0.384	0.292		0.003	0.613	-0.436	-0.311	0.117	0.426		0.427	0.026	-2.9
Reading	4	4846	3	A	3	6309	1.244	0.258	0.345	0.291	0.106		0.003	0.480	-0.452	0.033	0.229	0.254		1.522	0.017	9.9
Reading	4	4847	3	A	2	2937	1.491	0.220	0.298	0.252	0.229		0.002	0.516	-0.469	-0.057	0.189	0.328		1.136	0.023	7.8
Reading	4	4848	3	A	3	6260	1.490	0.168	0.345	0.315	0.171		0.003	0.496	-0.420	-0.127	0.247	0.274		1.047	0.017	9.9
Reading	4	4849	3	B	2	2954	1.634	0.151	0.256	0.401	0.192		0.004	0.574	-0.519	-0.133	0.252	0.305		0.971	0.025	0.8
Reading	4	4850	3	B	3	6337	1.499	0.154	0.341	0.357	0.148		0.005	0.528	-0.475	-0.105	0.264	0.267		1.045	0.017	3.9
Reading	4	4851	3	A	2	2944	1.476	0.193	0.316	0.315	0.177		0.009	0.602	-0.507	-0.135	0.271	0.358		1.195	0.024	-3.2
Reading	4	4852	3	A	3	6322	1.708	0.148	0.245	0.359	0.248		0.004	0.583	-0.495	-0.180	0.204	0.358		0.736	0.017	1.9
Reading	4	4853	3	B	2	2969	1.861	0.113	0.202	0.396	0.289		0.003	0.556	-0.393	-0.275	0.120	0.388		0.558	0.025	3.3
Reading	4	4854	3	A	3	6272	1.440	0.153	0.360	0.381	0.107		0.004	0.551	-0.470	-0.143	0.336	0.243		1.200	0.018	0.8
Reading	4	4855	3	A	2	2966	1.396	0.167	0.436	0.230	0.167		0.004	0.548	-0.463	-0.096	0.217	0.345		1.233	0.025	-0.1
Reading	4	4856	3	A	2	6320	1.892	0.078	0.237	0.401	0.284		0.004	0.507	-0.405	-0.244	0.151	0.307		0.342	0.018	8.1
Reading	4	4857	3	B	3	2970	1.406	0.185	0.368	0.303	0.144		0.004	0.383	-0.309	-0.087	0.174	0.233		1.288	0.025	9.9
Reading	4	4858	3	B	3	6273	1.522	0.234	0.247	0.283	0.236		0.004	0.506	-0.424	-0.101	0.163	0.352		1.022	0.016	9.9
Reading	4	4859	3	A	2	2911	1.763	0.155	0.239	0.294	0.312		0.004	0.664	-0.545	-0.227	0.185	0.453		0.703	0.024	-5.5
Reading	4	4860	3	B	3	6290	1.352	0.197	0.352	0.351	0.100		0.002	0.401	-0.330	-0.071	0.205	0.225		1.362	0.017	9.9
Reading	4	4861	3	B	3	2895	1.804	0.090	0.291	0.343	0.276		0.002	0.455	-0.350	-0.200	0.111	0.309		0.557	0.025	7.8
Reading	4	4862	3	A		6281	1.586	0.201	0.243	0.323	0.232		0.003	0.616	-0.530	-0.139	0.230	0.389		0.923	0.016	-1.4
Reading	4	4863	3	B	3	2891	0.958	0.384	0.347	0.195	0.073		0.006	0.490	-0.444	0.092	0.261	0.264		2.053	0.025	3.4
Reading	4	4864	3	A		6271	1.578	0.053	0.434	0.394	0.119		0.003	0.283	-0.248	-0.128	0.158	0.129		0.705	0.020	9.9
Reading	4	4865	3	A	2	2923	2.077	0.093	0.157	0.330	0.420		0.004	0.603	-0.473	-0.274	0.055	0.428		0.246	0.025	-0.2
Reading	4	4866	3	A	2	6292	1.784	0.087	0.263	0.428	0.222		0.005	0.566	-0.431	-0.279	0.220	0.327		0.517	0.018	0.9

Appendix M: 2008 Grades 3–8 and 11 Open-Ended Statistics

Cont.	Information						Proportions						Correlations					Rasch				
	Grade	Pub. ID	Pts.	R.C.	D.O.K.	N	Mean	0	1	2	3	4	Omit	Pt. Bis.	0	1	2	3	4	Logit	Logit SE	Fit
Reading	4	4867	3	A	2	2967	1.040	0.317	0.394	0.221	0.068		0.005	0.497	-0.461	0.095	0.250	0.255		1.974	0.026	1.9
Reading	4	4868	3	B	3	6273	1.379	0.137	0.418	0.374	0.071		0.004	0.436	-0.429	-0.033	0.255	0.158		1.342	0.019	8.5
Reading	4	4869	3	B	3	2957	1.019	0.462	0.204	0.187	0.147		0.004	0.424	-0.392	0.040	0.213	0.273		1.827	0.022	9.3
Reading	5	4870	3	A		127189	1.950	0.064	0.262	0.336	0.339		0.003	0.615	-0.397	-0.369	0.101	0.447		0.283	0.004	-9.9
Reading	5	4871	3	B	3	127189	1.753	0.057	0.362	0.351	0.230		0.004	0.498	-0.330	-0.286	0.149	0.341		0.515	0.004	9.9
Reading	5	4872	3	A	3	127189	1.586	0.064	0.443	0.336	0.157		0.003	0.551	-0.411	-0.281	0.264	0.318		0.802	0.004	-9.9
Reading	5	4873	3	B	3	127189	1.452	0.108	0.431	0.363	0.099		0.005	0.532	-0.371	-0.242	0.317	0.278		1.228	0.004	-6.7
Reading	5	4874	3	A	3	6687	1.882	0.076	0.263	0.364	0.297		0.004	0.477	-0.310	-0.245	0.048	0.366		0.288	0.017	9.9
Reading	5	4875	3	A	3	3015	1.687	0.071	0.308	0.483	0.137		0.002	0.504	-0.337	-0.275	0.228	0.291		0.739	0.028	2.2
Reading	5	4876	3	B	3	6384	1.786	0.086	0.307	0.340	0.266		0.003	0.510	-0.372	-0.249	0.139	0.347		0.565	0.017	8.6
Reading	5	4877	3	A	3	2848	1.487	0.229	0.213	0.398	0.159		0.004	0.580	-0.462	-0.161	0.259	0.364		1.369	0.025	0.4
Reading	5	4878	3	B	2	6350	1.883	0.072	0.229	0.444	0.256		0.002	0.493	-0.272	-0.324	0.108	0.350		0.408	0.018	7.9
Reading	5	4879	3	B	3	2872	1.782	0.093	0.228	0.484	0.195		0.002	0.408	-0.233	-0.259	0.135	0.274		0.753	0.027	9.9
Reading	5	4880	3	B	3	6326	1.604	0.056	0.442	0.345	0.157		0.002	0.530	-0.400	-0.267	0.230	0.317		0.724	0.019	0.5
Reading	5	4881	3	B	3	2894	1.922	0.046	0.198	0.545	0.211		0.002	0.527	-0.337	-0.298	0.091	0.353		0.371	0.030	0.1
Reading	5	4882	3	B	3	6371	2.014	0.055	0.213	0.393	0.338		0.003	0.566	-0.383	-0.342	0.092	0.386		0.159	0.018	-0.1
Reading	5	4883	3	B		2932	1.231	0.282	0.317	0.287	0.113		0.003	0.546	-0.496	0.007	0.279	0.296		1.737	0.024	0.5
Reading	5	4884	3	B	3	6331	2.207	0.035	0.151	0.385	0.429		0.002	0.553	-0.351	-0.331	-0.050	0.419		-0.213	0.019	1.5
Reading	5	4885	3	B	3	2864	1.796	0.071	0.259	0.475	0.196		0.001	0.553	-0.410	-0.276	0.192	0.327		0.687	0.028	-0.8
Reading	5	4886	3	B	3	6364	2.031	0.057	0.229	0.339	0.374		0.002	0.501	-0.341	-0.294	0.059	0.361		0.154	0.018	9.9
Reading	5	4887	3	A	3	2886	1.775	0.047	0.262	0.559	0.132		0.003	0.546	-0.371	-0.342	0.281	0.267		0.661	0.031	-2.6
Reading	5	4888	3	A	3	6334	1.967	0.094	0.177	0.397	0.332		0.004	0.620	-0.478	-0.292	0.121	0.407		0.417	0.017	-3.8
Reading	5	4889	3	A		2926	2.012	0.042	0.186	0.490	0.282		0.002	0.532	-0.335	-0.329	0.067	0.360		0.230	0.028	-1.0
Reading	5	4890	3	B	3	6337	1.721	0.103	0.274	0.422	0.201		0.003	0.562	-0.430	-0.252	0.224	0.330		0.800	0.018	-1.4
Reading	5	4891	3	B	3	2822	1.678	0.068	0.326	0.466	0.140		0.003	0.502	-0.335	-0.266	0.207	0.306		0.897	0.029	-0.3
Reading	5	4892	3	A	3	6316	1.666	0.108	0.316	0.380	0.197		0.004	0.381	-0.281	-0.173	0.153	0.234		0.847	0.018	9.9
Reading	5	4893	3	B	3	2871	1.487	0.138	0.329	0.442	0.091		0.005	0.480	-0.357	-0.203	0.314	0.217		1.383	0.027	3.3
Reading	5	4894	3	B	3	6338	1.661	0.091	0.347	0.374	0.189		0.003	0.475	-0.369	-0.206	0.192	0.283		0.809	0.018	7.2
Reading	5	4895	3	B	3	2900	1.556	0.051	0.379	0.534	0.036		0.003	0.485	-0.318	-0.293	0.360	0.175		1.273	0.033	-1.2
Reading	5	4896	3	B	3	6345	1.585	0.070	0.426	0.354	0.151		0.002	0.548	-0.385	-0.291	0.270	0.316		0.827	0.019	-2.9
Reading	5	4897	3	A	3	2969	1.687	0.063	0.343	0.439	0.155		0.002	0.458	-0.345	-0.225	0.193	0.262		0.771	0.028	3.8
Reading	5	4898	3	A	3	6333	1.620	0.149	0.303	0.326	0.222		0.005	0.595	-0.473	-0.213	0.240	0.370		0.978	0.017	-3.3
Reading	5	4899	3	B	3	2852	1.701	0.082	0.310	0.433	0.175		0.004	0.433	-0.277	-0.231	0.149	0.287		0.861	0.027	6.4
Reading	5	4900	3	A	3	6322	1.965	0.040	0.241	0.433	0.286		0.001	0.467	-0.290	-0.286	0.058	0.333		0.181	0.019	6.6
Reading	5	4901	3	B	3	2922	1.740	0.103	0.248	0.456	0.193		0.002	0.573	-0.483	-0.218	0.242	0.304		0.891	0.026	-1.8
Reading	5	4902	3	B	3	6333	2.020	0.079	0.179	0.386	0.357		0.004	0.525	-0.354	-0.315	0.089	0.360		0.312	0.018	6.8
Reading	5	4903	3	A	3	2917	1.542	0.059	0.438	0.403	0.099		0.004	0.408	-0.334	-0.180	0.221	0.200		1.030	0.029	4.8
Reading	5	4904	3	B	3	6343	2.131	0.047	0.136	0.457	0.360		0.002	0.536	-0.385	-0.320	0.052	0.344		0.030	0.019	0.9
Reading	5	4905	3	A		2922	1.790	0.061	0.264	0.499	0.176		0.001	0.529	-0.337	-0.319	0.200	0.318		0.683	0.028	-0.8
Reading	5	4906	3	A	2	6327	2.116	0.111	0.166	0.218	0.505		0.001	0.587	-0.463	-0.238	-0.005	0.472		0.299	0.016	3.1
Reading	5	4907	3	B	3	2924	1.668	0.055	0.344	0.479	0.122		0.001	0.585	-0.366	-0.372	0.319	0.308		0.866	0.029	-5.8
Reading	5	4908	3	A	3	6342	2.371	0.031	0.128	0.281	0.561		0.003	0.587	-0.318	-0.393	-0.122	0.485		-0.444	0.019	-3.1
Reading	5	4909	3	B	3	2965	1.602	0.067	0.350	0.497	0.086		0.002	0.524	-0.372	-0.287	0.332	0.229		1.088	0.030	-1.6
Reading	5	4910	3	B	3	6380	1.912	0.066	0.257	0.377	0.300		0.003	0.631	-0.446	-0.351	0.145	0.423		0.380	0.018	-7.7
Reading	5	4911	3	B	3	2938	1.576	0.060	0.396	0.452	0.092		0.003	0.470	-0.316	-0.261	0.266	0.243		1.036	0.030	1.3
Reading	5	4912	3	A	3	6326	2.304	0.052	0.134	0.273	0.541		0.002	0.441	-0.281	-0.259	-0.065	0.360		-0.160	0.018	9.9

Appendix M: 2008 Grades 3–8 and 11 Open-Ended Statistics

Cont.	Grade	Pub. ID	Information				N	Mean	Proportions						Correlations					Rasch		
			Pts.	R.C.	D.O.K.	0			1	2	3	4	Omit	Pt. Bis.	0	1	2	3	4	Logit	Logit SE	Fit
Reading	5	4913	3	B	3	2884	1.401	0.123	0.377	0.476	0.024		0.001	0.525	-0.386	-0.226	0.431	0.136		1.913	0.030	-1.3
Reading	6	4914	3	B	3	130692	1.936	0.059	0.230	0.426	0.284		0.004	0.570	-0.344	-0.367	0.123	0.388		0.084	0.004	-9.9
Reading	6	4915	3	A	3	130692	1.754	0.099	0.281	0.387	0.233		0.007	0.577	-0.429	-0.261	0.180	0.374		0.464	0.004	-7.1
Reading	6	4916	3	B	3	130692	2.066	0.036	0.186	0.455	0.323		0.004	0.498	-0.306	-0.318	0.034	0.350		-0.243	0.004	9.9
Reading	6	4917	3	A	3	130692	1.715	0.050	0.352	0.431	0.167		0.004	0.583	-0.386	-0.363	0.269	0.333		0.361	0.004	-9.9
Reading	6	4918	3	B	3	6876	1.791	0.050	0.282	0.496	0.172		0.003	0.616	-0.386	-0.415	0.288	0.335		0.149	0.019	-8.4
Reading	6	4919	3	B	3	3086	1.744	0.071	0.283	0.476	0.170		0.003	0.587	-0.406	-0.332	0.264	0.326		0.426	0.027	-3.9
Reading	6	4920	3	B	3	6521	1.937	0.036	0.249	0.456	0.259		0.002	0.563	-0.322	-0.402	0.150	0.364		-0.113	0.019	-3.1
Reading	6	4921	3	A	3	3019	1.645	0.102	0.350	0.349	0.199		0.003	0.607	-0.443	-0.277	0.237	0.384		0.635	0.025	-5.3
Reading	6	4922	3	B	3	6480	1.598	0.098	0.353	0.402	0.147		0.004	0.555	-0.393	-0.244	0.223	0.350		0.690	0.018	-1.4
Reading	6	4923	3	A	3	3015	1.678	0.068	0.337	0.443	0.151		0.002	0.508	-0.327	-0.286	0.213	0.311		0.542	0.028	1.0
Reading	6	4924	3	B	3	6505	1.585	0.065	0.397	0.426	0.112		0.006	0.587	-0.387	-0.341	0.337	0.303		0.651	0.020	-6.9
Reading	6	4925	3	B	3	3031	1.970	0.067	0.172	0.485	0.276		0.005	0.633	-0.436	-0.381	0.159	0.388		0.118	0.027	-5.9
Reading	6	4926	3	B	3	6500	1.648	0.071	0.358	0.421	0.149		0.004	0.533	-0.352	-0.294	0.238	0.320		0.575	0.019	-1.4
Reading	6	4927	3	B	3	3041	1.866	0.095	0.198	0.455	0.253		0.005	0.636	-0.517	-0.264	0.182	0.381		0.427	0.026	-6.1
Reading	6	4928	3	B	3	6515	1.939	0.051	0.240	0.429	0.280		0.003	0.551	-0.327	-0.359	0.110	0.381		0.054	0.018	-1.6
Reading	6	4929	3	B	3	3093	1.470	0.077	0.379	0.540	0.004		0.001	0.479	-0.039	-0.254	0.421	0.057		2.006	0.033	-1.6
Reading	6	4930	3	B	3	6518	1.719	0.084	0.346	0.337	0.233		0.005	0.513	-0.350	-0.259	0.145	0.359		0.447	0.017	4.9
Reading	6	4931	3	A	3	3119	1.404	0.245	0.251	0.358	0.146		0.003	0.627	-0.566	-0.060	0.309	0.344		1.232	0.023	-4.2
Reading	6	4932	3	B	3	6517	2.096	0.031	0.223	0.367	0.379		0.004	0.569	-0.292	-0.419	0.037	0.426		-0.369	0.018	-2.8
Reading	6	4933	3	B	3	3095	1.487	0.134	0.375	0.361	0.130		0.002	0.496	-0.395	-0.164	0.260	0.264		1.021	0.025	2.9
Reading	6	4934	3	B	3	6498	2.024	0.034	0.225	0.426	0.315		0.004	0.523	-0.308	-0.344	0.048	0.377		-0.194	0.019	3.4
Reading	6	4935	3	A	3	3040	1.729	0.080	0.285	0.461	0.174		0.003	0.542	-0.367	-0.292	0.215	0.328		0.605	0.027	-0.7
Reading	6	4936	3	B		6559	1.737	0.057	0.342	0.409	0.192		0.005	0.527	-0.281	-0.349	0.179	0.362		0.364	0.018	-1.9
Reading	6	4937	3	B	3	3016	1.712	0.036	0.433	0.313	0.218		0.003	0.373	-0.232	-0.241	0.114	0.265		0.248	0.026	8.5
Reading	6	4938	3	B	3	6552	2.071	0.032	0.174	0.483	0.310		0.002	0.541	-0.335	-0.338	0.024	0.379		-0.246	0.019	-1.7
Reading	6	4939	3	A	3	3122	1.658	0.118	0.308	0.374	0.201		0.004	0.583	-0.437	-0.241	0.216	0.369		0.750	0.025	-2.1
Reading	6	4940	3	A	3	6551	1.720	0.087	0.304	0.411	0.198		0.003	0.503	-0.378	-0.228	0.178	0.311		0.500	0.018	6.5
Reading	6	4941	3	B	3	3122	1.509	0.083	0.419	0.405	0.094		0.005	0.568	-0.455	-0.228	0.326	0.267		0.948	0.028	-4.5
Reading	6	4942	3	B	3	6533	1.600	0.091	0.360	0.407	0.142		0.003	0.563	-0.387	-0.269	0.243	0.347		0.688	0.018	-3.7
Reading	6	4943	3	B	3	3100	1.723	0.079	0.325	0.391	0.205		0.003	0.487	-0.364	-0.236	0.181	0.298		0.496	0.025	3.7
Reading	6	4944	3	A	3	6530	1.964	0.070	0.211	0.406	0.314		0.005	0.585	-0.370	-0.343	0.079	0.421		0.100	0.018	-2.5
Reading	6	4945	3	B	3	3073	1.467	0.154	0.357	0.356	0.132		0.005	0.560	-0.458	-0.141	0.258	0.323		1.076	0.025	-2.3
Reading	6	4946	3	B	3	6515	1.872	0.099	0.214	0.404	0.284		0.002	0.594	-0.459	-0.271	0.158	0.379		0.340	0.017	-1.5
Reading	6	4947	3	A	3	3063	1.626	0.103	0.354	0.357	0.186		0.002	0.482	-0.335	-0.220	0.171	0.322		0.730	0.025	4.9
Reading	6	4948	3	B	3	6538	2.006	0.039	0.216	0.446	0.299		0.003	0.511	-0.361	-0.299	0.074	0.340		-0.113	0.019	2.5
Reading	6	4949	3	A	3	3088	1.787	0.103	0.249	0.404	0.243		0.005	0.545	-0.356	-0.294	0.152	0.376		0.526	0.025	1.0
Reading	6	4950	3	A		6511	1.971	0.032	0.214	0.506	0.248		0.004	0.491	-0.322	-0.295	0.070	0.330		-0.099	0.020	2.9
Reading	6	4951	3	A	3	3043	1.699	0.075	0.322	0.431	0.172		0.003	0.527	-0.386	-0.258	0.211	0.312		0.603	0.026	-0.7
Reading	6	4952	3	A		6488	1.858	0.074	0.228	0.465	0.233		0.002	0.577	-0.373	-0.308	0.111	0.405		0.321	0.018	-1.6
Reading	6	4953	3	A	3	3041	1.661	0.089	0.329	0.415	0.168		0.004	0.595	-0.434	-0.288	0.266	0.343		0.723	0.027	-3.7
Reading	6	4954	3	B		6491	1.910	0.045	0.256	0.445	0.254		0.003	0.501	-0.322	-0.317	0.125	0.327		0.040	0.019	4.6
Reading	6	4955	3	B	3	3046	1.761	0.049	0.359	0.376	0.217		0.003	0.500	-0.324	-0.315	0.184	0.319		0.312	0.026	2.3
Reading	6	4956	3	A	3	6494	1.893	0.040	0.212	0.562	0.186		0.003	0.542	-0.311	-0.375	0.179	0.323		0.107	0.020	-2.2
Reading	6	4957	3	B	3	3057	1.749	0.058	0.298	0.481	0.163		0.003	0.486	-0.322	-0.298	0.226	0.267		0.473	0.028	1.6
Reading	7	4958	3	B		135641	1.612	0.138	0.248	0.479	0.136		0.006	0.581	-0.429	-0.267	0.319	0.303		0.891	0.004	0.7

Appendix M: 2008 Grades 3–8 and 11 Open-Ended Statistics

Cont.	Grade	Information						Proportions						Correlations					Rasch			
		Pub. ID	Pts.	R.C.	D.O.K.	N	Mean	0	1	2	3	4	Omit	Pt. Bis.	0	1	2	3	4	Logit	Logit SE	Fit
Reading	7	4959	3	B	3	135641	1.850	0.063	0.248	0.465	0.224		0.008	0.567	-0.382	-0.323	0.166	0.359		0.273	0.004	-1.5
Reading	7	4960	3	A		135641	1.580	0.153	0.301	0.360	0.186		0.007	0.604	-0.478	-0.195	0.239	0.376		0.854	0.004	-9.9
Reading	7	4961	3	B	3	135641	1.545	0.142	0.296	0.438	0.124		0.012	0.653	-0.540	-0.207	0.356	0.322		0.992	0.004	-9.9
Reading	7	4962	3	B	3	7104	1.738	0.074	0.288	0.462	0.175		0.006	0.565	-0.377	-0.313	0.221	0.343		0.381	0.018	1.6
Reading	7	4963	3	A	3	3112	1.845	0.065	0.253	0.455	0.228		0.007	0.608	-0.355	-0.389	0.172	0.407		0.336	0.027	-4.4
Reading	7	4964	3	B	2	6785	1.756	0.094	0.292	0.378	0.236		0.005	0.574	-0.406	-0.287	0.185	0.376		0.445	0.017	0.7
Reading	7	4965	3	B	3	3087	1.638	0.081	0.305	0.509	0.105		0.010	0.602	-0.385	-0.340	0.322	0.329		0.843	0.029	-4.9
Reading	7	4966	3	A	3	6780	1.873	0.067	0.268	0.390	0.275		0.007	0.503	-0.343	-0.258	0.076	0.364		0.210	0.017	6.9
Reading	7	4967	3	B	3	3051	1.496	0.167	0.303	0.398	0.132		0.009	0.628	-0.512	-0.180	0.325	0.338		1.115	0.025	-5.8
Reading	7	4968	3	B	3	6755	1.798	0.131	0.181	0.445	0.243		0.010	0.613	-0.471	-0.263	0.193	0.384		0.538	0.017	-2.1
Reading	7	4969	3	B	3	3148	1.723	0.124	0.236	0.433	0.207		0.011	0.556	-0.414	-0.245	0.204	0.344		0.700	0.025	1.2
Reading	7	4970	3	B	3	6764	1.523	0.092	0.412	0.377	0.119		0.010	0.526	-0.365	-0.246	0.264	0.305		0.867	0.018	0.7
Reading	7	4971	3	B	3	3081	1.829	0.021	0.248	0.612	0.119		0.005	0.496	-0.234	-0.370	0.202	0.294		0.182	0.033	-1.1
Reading	7	4972	3	B	2	6746	1.733	0.086	0.263	0.484	0.167		0.006	0.612	-0.410	-0.342	0.265	0.356		0.572	0.018	-4.4
Reading	7	4973	3	A	3	3154	1.871	0.118	0.148	0.480	0.255		0.002	0.689	-0.530	-0.288	0.158	0.446		0.514	0.025	-9.5
Reading	7	4974	3	B	3	6744	1.629	0.087	0.358	0.395	0.160		0.008	0.565	-0.392	-0.278	0.236	0.350		0.673	0.018	-2.5
Reading	7	4975	3	B	3	3055	1.227	0.281	0.317	0.296	0.106		0.004	0.351	-0.226	-0.118	0.159	0.273		1.523	0.024	9.9
Reading	7	4976	3	B	3	6759	1.692	0.145	0.260	0.352	0.243		0.008	0.556	-0.408	-0.212	0.134	0.402		0.671	0.016	4.8
Reading	7	4977	3	B	3	3128	1.533	0.189	0.257	0.387	0.167		0.008	0.596	-0.461	-0.191	0.256	0.375		1.071	0.024	-2.1
Reading	7	4978	3	B	3	6770	1.470	0.162	0.347	0.350	0.141		0.012	0.589	-0.448	-0.191	0.279	0.354		1.055	0.017	-2.6
Reading	7	4979	3	A	3	3117	1.536	0.299	0.138	0.291	0.272		0.009	0.488	-0.336	-0.243	0.117	0.414		1.061	0.021	9.9
Reading	7	4980	3	B	3	6765	1.625	0.130	0.319	0.349	0.203		0.006	0.561	-0.428	-0.217	0.212	0.358		0.737	0.017	1.6
Reading	7	4981	3	A	3	3101	2.043	0.040	0.176	0.485	0.299		0.007	0.600	-0.306	-0.436	0.069	0.418		-0.036	0.028	-5.2
Reading	7	4982	3	A	3	6811	1.625	0.126	0.334	0.329	0.211		0.006	0.555	-0.432	-0.214	0.219	0.347		0.700	0.016	3.2
Reading	7	4983	3	B	3	3055	1.741	0.089	0.223	0.545	0.142		0.007	0.625	-0.497	-0.249	0.253	0.340		0.702	0.028	-6.2
Reading	7	4984	3	A	2	6773	1.725	0.068	0.342	0.386	0.204		0.004	0.434	-0.238	-0.292	0.169	0.288		0.446	0.018	9.9
Reading	7	4985	3	B	3	3133	1.757	0.078	0.239	0.531	0.152		0.006	0.566	-0.372	-0.315	0.229	0.334		0.647	0.027	-3.0
Reading	7	4986	3	B	3	6807	1.670	0.123	0.270	0.421	0.186		0.006	0.563	-0.464	-0.200	0.241	0.314		0.714	0.017	1.8
Reading	7	4987	3	B	3	3198	1.812	0.137	0.243	0.290	0.330		0.006	0.607	-0.436	-0.228	0.030	0.499		0.576	0.023	-2.1
Reading	7	4988	3	A	3	6789	1.492	0.148	0.311	0.442	0.099		0.005	0.623	-0.487	-0.217	0.366	0.306		1.103	0.018	-8.7
Reading	7	4989	3	B	3	3084	1.717	0.095	0.250	0.497	0.157		0.005	0.605	-0.454	-0.267	0.243	0.349		0.726	0.027	-4.2
Reading	7	4990	3	A	3	6794	1.317	0.233	0.330	0.323	0.113		0.007	0.558	-0.478	-0.063	0.287	0.308		1.371	0.016	1.2
Reading	7	4991	3	B	3	3121	1.518	0.149	0.314	0.407	0.130		0.005	0.544	-0.444	-0.150	0.253	0.306		1.110	0.025	0.9
Reading	7	4992	3	A	3	6759	1.833	0.098	0.246	0.381	0.275		0.005	0.547	-0.412	-0.260	0.160	0.352		0.397	0.017	5.8
Reading	7	4993	3	B	3	3157	1.394	0.159	0.404	0.319	0.117		0.005	0.506	-0.389	-0.151	0.267	0.286		1.275	0.025	2.8
Reading	7	4994	3	B		6743	1.550	0.131	0.355	0.346	0.168		0.006	0.575	-0.420	-0.228	0.241	0.364		0.872	0.017	-0.4
Reading	7	4995	3	A	3	3156	2.072	0.064	0.116	0.506	0.315		0.004	0.641	-0.402	-0.349	-0.022	0.475		0.087	0.027	-6.2
Reading	7	4996	3	A	3	6741	1.628	0.178	0.232	0.374	0.216		0.004	0.626	-0.518	-0.180	0.236	0.389		0.837	0.016	-3.5
Reading	7	4997	3	B	3	3166	1.784	0.059	0.274	0.492	0.175		0.005	0.621	-0.358	-0.416	0.256	0.373		0.490	0.028	-6.3
Reading	7	4998	3	B	3	6729	1.440	0.144	0.400	0.328	0.128		0.006	0.584	-0.428	-0.221	0.314	0.332		1.071	0.018	-3.2
Reading	7	4999	3	A	3	3196	1.462	0.208	0.291	0.332	0.169		0.007	0.611	-0.527	-0.108	0.272	0.360		1.155	0.023	-3.4
Reading	7	5000	3	B	3	6723	1.904	0.051	0.257	0.429	0.263		0.006	0.571	-0.328	-0.371	0.116	0.402		0.146	0.018	-0.3
Reading	7	5001	3	A	3	3096	1.641	0.078	0.317	0.491	0.114		0.005	0.532	-0.356	-0.289	0.278	0.287		0.871	0.028	0.5
Reading	8	5002	3	B	3	138339	1.310	0.231	0.361	0.276	0.133		0.018	0.572	-0.499	-0.054	0.284	0.322		1.879	0.004	-2.9
Reading	8	5003	3	B	3	138339	1.599	0.132	0.265	0.476	0.128		0.015	0.673	-0.523	-0.288	0.397	0.316		1.472	0.004	-9.9
Reading	8	5004	3	A	3	138339	1.721	0.055	0.387	0.339	0.219		0.012	0.521	-0.371	-0.296	0.195	0.331		0.911	0.004	9.9

Appendix M: 2008 Grades 3–8 and 11 Open-Ended Statistics

Cont.	Grade	Pub. ID	Information				N	Mean	Proportions						Correlations					Rasch		
			Pts.	R.C.	D.O.K.	0			1	2	3	4	Omit	Pt. Bis.	0	1	2	3	4	Logit	Logit SE	Fit
Reading	8	5005	3	B		138339	1.652	0.154	0.193	0.499	0.154		0.016	0.654	-0.548	-0.224	0.338	0.324		1.426	0.004	-9.9
Reading	8	5006	3	B	3	7264	1.774	0.100	0.277	0.371	0.252		0.010	0.593	-0.441	-0.284	0.197	0.379		0.930	0.016	1.3
Reading	8	5007	3	B	3	3232	2.116	0.022	0.143	0.531	0.304		0.004	0.534	-0.266	-0.418	0.048	0.351		0.241	0.029	-2.8
Reading	8	5008	3	A	3	6900	1.672	0.091	0.362	0.332	0.215		0.010	0.570	-0.341	-0.340	0.214	0.391		1.114	0.017	-1.8
Reading	8	5009	3	B	2	3268	1.854	0.078	0.241	0.430	0.251		0.011	0.627	-0.426	-0.333	0.148	0.423		0.956	0.025	-4.8
Reading	8	5010	3	B	3	6873	1.460	0.117	0.412	0.366	0.105		0.013	0.548	-0.453	-0.157	0.281	0.284		1.598	0.018	-0.2
Reading	8	5011	3	B	3	3230	1.802	0.080	0.251	0.454	0.214		0.011	0.621	-0.399	-0.342	0.172	0.418		1.077	0.026	-4.8
Reading	8	5012	3	B	3	6905	1.660	0.113	0.320	0.359	0.207		0.011	0.505	-0.390	-0.202	0.187	0.316		1.202	0.017	9.6
Reading	8	5013	3	B	3	3231	1.906	0.052	0.237	0.465	0.246		0.007	0.595	-0.336	-0.392	0.131	0.408		0.770	0.027	-3.8
Reading	8	5014	3	B	3	6905	1.683	0.116	0.304	0.362	0.218		0.010	0.536	-0.419	-0.189	0.150	0.360		1.177	0.017	5.3
Reading	8	5015	3	A	3	3238	1.888	0.063	0.233	0.459	0.246		0.006	0.567	-0.352	-0.338	0.124	0.386		0.884	0.026	-2.1
Reading	8	5016	3	B	3	6921	1.845	0.099	0.236	0.386	0.279		0.008	0.529	-0.399	-0.234	0.120	0.357		0.956	0.017	5.7
Reading	8	5017	3	B	3	3221	1.510	0.124	0.356	0.405	0.114		0.009	0.502	-0.366	-0.194	0.243	0.296		1.658	0.026	1.9
Reading	8	5018	3	A	3	6895	1.656	0.120	0.291	0.404	0.186		0.010	0.481	-0.429	-0.112	0.163	0.284		1.309	0.017	9.9
Reading	8	5019	3	A	3	3238	1.690	0.103	0.288	0.428	0.182		0.006	0.563	-0.380	-0.290	0.224	0.352		1.329	0.025	-1.5
Reading	8	5020	3	B	3	6903	0.761	0.564	0.155	0.235	0.046		0.533	0.256	-0.165	-0.129	0.218	0.173		2.867	0.016	9.9
Reading	8	5021	3	A	3	3206	1.546	0.123	0.360	0.366	0.151		0.006	0.472	-0.312	-0.212	0.187	0.319		1.614	0.025	5.2
Reading	8	5022	3	A	3	6921	1.722	0.106	0.293	0.372	0.228		0.010	0.508	-0.393	-0.221	0.189	0.311		1.139	0.016	6.7
Reading	8	5023	3	B	3	3231	1.938	0.048	0.204	0.510	0.238		0.008	0.570	-0.338	-0.365	0.117	0.377		0.762	0.027	-3.4
Reading	8	5024	3	A	3	6904	1.988	0.060	0.210	0.412	0.318		0.011	0.505	-0.351	-0.275	0.063	0.353		0.621	0.018	7.1
Reading	8	5025	3	B	3	3253	1.729	0.047	0.342	0.446	0.165		0.005	0.580	-0.383	-0.358	0.253	0.337		1.036	0.027	-4.4
Reading	8	5026	3	B	3	6910	1.267	0.193	0.444	0.267	0.096		0.010	0.498	-0.438	-0.039	0.269	0.248		1.939	0.017	4.7
Reading	8	5027	3	B	3	3221	1.834	0.075	0.226	0.489	0.210		0.005	0.537	-0.382	-0.265	0.142	0.344		1.031	0.026	0.8
Reading	8	5028	3	A	3	6877	2.129	0.040	0.181	0.387	0.391		0.006	0.502	-0.326	-0.313	0.018	0.361		0.294	0.018	7.8
Reading	8	5029	3	B	3	3244	1.641	0.118	0.291	0.423	0.168		0.005	0.631	-0.518	-0.223	0.280	0.348		1.444	0.025	-6.2
Reading	8	5030	3	B	3	6860	1.743	0.148	0.243	0.326	0.283		0.007	0.624	-0.520	-0.188	0.161	0.422		1.190	0.016	-4.0
Reading	8	5031	3	B	3	3212	1.806	0.078	0.246	0.469	0.208		0.005	0.591	-0.397	-0.315	0.171	0.385		1.102	0.026	-3.5
Reading	8	5032	3	A	3	6923	1.674	0.095	0.342	0.355	0.207		0.007	0.505	-0.382	-0.203	0.149	0.339		1.156	0.017	7.8
Reading	8	5033	3	B	3	3167	1.626	0.122	0.278	0.452	0.148		0.007	0.615	-0.477	-0.243	0.291	0.338		1.487	0.026	-4.4
Reading	8	5034	3	B	3	6912	1.812	0.081	0.239	0.468	0.213		0.007	0.495	-0.404	-0.226	0.195	0.267		0.963	0.018	8.0
Reading	8	5035	3	B	3	3285	1.750	0.084	0.260	0.479	0.177		0.011	0.632	-0.472	-0.299	0.245	0.365		1.180	0.026	-6.4
Reading	8	5036	3	A	3	6921	1.894	0.040	0.267	0.453	0.240		0.006	0.560	-0.321	-0.381	0.144	0.373		0.626	0.018	-1.5
Reading	8	5037	3	B	3	3226	1.887	0.038	0.242	0.516	0.204		0.005	0.552	-0.310	-0.357	0.122	0.374		0.760	0.028	-2.2
Reading	8	5038	3	A		6906	2.138	0.039	0.196	0.352	0.413		0.005	0.543	-0.339	-0.351	0.014	0.403		0.276	0.018	3.0
Reading	8	5039	3	A	3	3275	1.909	0.036	0.240	0.504	0.220		0.006	0.553	-0.320	-0.377	0.147	0.354		0.705	0.028	-2.3
Reading	8	5040	3	A	3	6903	2.033	0.078	0.144	0.445	0.333		0.009	0.584	-0.479	-0.257	0.095	0.363		0.681	0.017	-1.6
Reading	8	5041	3	A	3	3268	1.747	0.046	0.316	0.484	0.154		0.008	0.554	-0.352	-0.345	0.233	0.325		1.050	0.028	-3.5
Reading	8	5042	3	A		6862	1.749	0.069	0.320	0.405	0.206		0.007	0.575	-0.375	-0.327	0.196	0.375		0.980	0.018	-2.8
Reading	8	5043	3	B	3	3241	1.668	0.082	0.342	0.402	0.174		0.007	0.568	-0.409	-0.284	0.245	0.335		1.238	0.026	-1.9
Reading	8	5044	3	B	3	6874	2.100	0.055	0.193	0.351	0.402		0.008	0.605	-0.369	-0.372	0.006	0.464		0.420	0.018	-2.9
Reading	8	5045	3	A	3	3255	1.603	0.123	0.300	0.430	0.148		0.007	0.552	-0.448	-0.194	0.264	0.296		1.526	0.025	1.6
Reading	11	5046	3	A	2	134984	1.936	0.036	0.156	0.642	0.165		0.011	0.518	-0.357	-0.318	0.165	0.278		0.099	0.005	-9.9
Reading	11	5047	3	B	3	134984	1.898	0.062	0.205	0.505	0.228		0.022	0.581	-0.408	-0.311	0.141	0.366		0.237	0.004	-9.9
Reading	11	5048	3	B	3	134984	1.914	0.074	0.186	0.492	0.248		0.025	0.627	-0.435	-0.343	0.151	0.397		0.259	0.004	-9.9
Reading	11	5049	3	B	3	134984	1.673	0.074	0.331	0.441	0.153		0.028	0.585	-0.394	-0.311	0.246	0.354		0.607	0.004	-9.9
Reading	11	5050	3	B	3	7038	1.466	0.092	0.464	0.331	0.113		0.015	0.549	-0.433	-0.203	0.280	0.298		0.862	0.018	-0.9

Appendix M: 2008 Grades 3–8 and 11 Open-Ended Statistics

Cont.	Grade	Pub. ID	Information				N	Mean	Proportions						Correlations					Rasch		
			Pts.	R.C.	D.O.K.	0			1	2	3	4	Omit	Pt. Bis.	0	1	2	3	4	Logit	Logit SE	Fit
Reading	11	5051	3	B	3	3285	2.154	0.029	0.137	0.486	0.348		0.011	0.567	-0.297	-0.402	-0.011	0.405		-0.356	0.028	-2.5
Reading	11	5052	3	B	3	6729	1.813	0.078	0.242	0.470	0.211		0.019	0.615	-0.458	-0.301	0.203	0.369		0.410	0.018	-7.0
Reading	11	5053	3	B	3	3166	2.047	0.051	0.150	0.501	0.298		0.019	0.585	-0.354	-0.335	0.004	0.427		0.072	0.027	-4.4
Reading	11	5054	3	B	3	6738	1.849	0.055	0.255	0.478	0.213		0.014	0.556	-0.403	-0.304	0.174	0.335		0.270	0.018	-2.2
Reading	11	5055	3	B	3	3234	2.160	0.030	0.141	0.469	0.361		0.011	0.542	-0.325	-0.338	-0.035	0.396		-0.262	0.028	-2.6
Reading	11	5056	3	B	3	6733	2.064	0.048	0.158	0.474	0.319		0.013	0.592	-0.417	-0.330	0.051	0.395		-0.080	0.019	-4.8
Reading	11	5057	3	A	3	3186	2.206	0.016	0.105	0.535	0.343		0.009	0.563	-0.264	-0.398	-0.085	0.416		-0.517	0.031	-5.4
Reading	11	5058	3	B	3	6749	1.772	0.122	0.192	0.477	0.209		0.029	0.674	-0.509	-0.297	0.235	0.410		0.610	0.017	-9.9
Reading	11	5059	3	B	3	3220	1.993	0.055	0.177	0.486	0.281		0.016	0.605	-0.391	-0.355	0.082	0.410		0.146	0.027	-4.5
Reading	11	5060	3	B	3	6764	1.832	0.084	0.230	0.455	0.231		0.025	0.567	-0.369	-0.306	0.135	0.389		0.384	0.017	-1.2
Reading	11	5061	3	B	3	3248	2.056	0.034	0.161	0.519	0.285		0.009	0.611	-0.353	-0.407	0.053	0.414		-0.122	0.028	-6.6
Reading	11	5062	3	A	3	6729	1.947	0.066	0.211	0.434	0.289		0.018	0.621	-0.425	-0.340	0.105	0.423		0.132	0.018	-7.1
Reading	11	5063	3	B	3	3147	1.895	0.070	0.189	0.517	0.224		0.021	0.618	-0.435	-0.331	0.165	0.380		0.329	0.027	-5.4
Reading	11	5064	3	B	3	6749	2.011	0.047	0.195	0.459	0.299		0.015	0.600	-0.379	-0.366	0.070	0.414		-0.059	0.019	-2.9
Reading	11	5065	3	B	3	3136	1.382	0.220	0.317	0.324	0.139		0.029	0.566	-0.488	-0.070	0.252	0.337		1.283	0.024	0.7
Reading	11	5066	3	B	3	6742	2.218	0.034	0.113	0.455	0.398		0.012	0.589	-0.361	-0.336	-0.095	0.447		-0.432	0.020	-5.4
Reading	11	5067	3	B	3	3213	2.096	0.043	0.139	0.498	0.321		0.017	0.598	-0.364	-0.363	0.001	0.426		-0.078	0.028	-5.0
Reading	11	5068	3	A	3	6737	1.680	0.102	0.294	0.426	0.178		0.014	0.562	-0.401	-0.266	0.225	0.343		0.661	0.018	0.0
Reading	11	5069	3	B	3	3177	1.985	0.064	0.171	0.481	0.284		0.014	0.537	-0.423	-0.250	0.092	0.336		0.202	0.027	1.6
Reading	11	5070	3	B	3	6738	2.046	0.022	0.173	0.541	0.264		0.010	0.549	-0.312	-0.385	0.064	0.362		-0.299	0.020	-5.0
Reading	11	5071	3	A	3	3166	1.910	0.048	0.203	0.540	0.209		0.009	0.570	-0.352	-0.345	0.126	0.371		0.273	0.028	-5.0
Reading	11	5072	3	A	3	6727	1.817	0.076	0.240	0.477	0.208		0.012	0.559	-0.404	-0.272	0.160	0.352		0.382	0.018	-1.1
Reading	11	5073	3	B	3	3155	1.853	0.068	0.253	0.438	0.242		0.020	0.608	-0.403	-0.344	0.159	0.402		0.368	0.026	-5.3
Reading	11	5074	3	B	3	6765	1.819	0.068	0.236	0.504	0.192		0.024	0.591	-0.401	-0.328	0.197	0.360		0.395	0.018	-5.6
Reading	11	5075	3	B	3	3214	2.055	0.058	0.153	0.466	0.323		0.016	0.586	-0.385	-0.327	0.025	0.416		0.069	0.026	-3.6
Reading	11	5076	3	B	3	6729	2.083	0.054	0.165	0.425	0.356		0.015	0.611	-0.368	-0.365	-0.003	0.459		-0.096	0.018	-6.1
Reading	11	5077	3	A	3	3198	1.832	0.097	0.193	0.492	0.219		0.016	0.654	-0.493	-0.303	0.205	0.394		0.542	0.025	-8.3
Reading	11	5078	3	A	3	6744	1.977	0.051	0.189	0.493	0.267		0.013	0.524	-0.400	-0.264	0.089	0.331		0.064	0.018	-0.4
Reading	11	5079	3	B	3	3195	1.910	0.074	0.172	0.525	0.229		0.020	0.591	-0.452	-0.271	0.136	0.362		0.381	0.026	-4.7
Reading	11	5080	3	B	3	6711	1.837	0.050	0.256	0.500	0.193		0.019	0.577	-0.360	-0.364	0.197	0.352		0.295	0.019	-4.6
Reading	11	5081	3	B	3	3230	1.985	0.059	0.182	0.473	0.285		0.020	0.654	-0.430	-0.378	0.095	0.443		0.191	0.026	-7.8
Reading	11	5082	3	A		6731	1.961	0.055	0.168	0.538	0.239		0.013	0.608	-0.416	-0.346	0.125	0.380		0.150	0.019	-6.8
Reading	11	5083	3	B	3	3215	2.159	0.032	0.130	0.486	0.352		0.011	0.551	-0.313	-0.325	-0.076	0.423		-0.231	0.028	-2.4
Reading	11	5084	3	B		6733	1.937	0.064	0.196	0.480	0.261		0.014	0.649	-0.428	-0.365	0.114	0.438		0.174	0.018	-9.9
Reading	11	5085	3	B	3	3219	1.828	0.105	0.226	0.405	0.264		0.029	0.599	-0.413	-0.281	0.108	0.434		0.534	0.024	-1.6
Reading	11	5086	3	B		6712	1.930	0.057	0.195	0.510	0.238		0.016	0.599	-0.407	-0.339	0.133	0.380		0.169	0.019	-6.6
Reading	11	5087	3	B	3	3266	2.198	0.041	0.125	0.430	0.404		0.014	0.660	-0.338	-0.412	-0.121	0.536		-0.276	0.027	-8.6
Reading	11	5088	3	B		6686	1.887	0.046	0.204	0.567	0.183		0.017	0.549	-0.401	-0.300	0.169	0.313		0.221	0.020	-2.2
Reading	11	5089	3	B	3	3177	2.091	0.035	0.162	0.479	0.324		0.012	0.530	-0.348	-0.318	0.020	0.366		-0.118	0.028	-1.3

Appendix N:

2008 Reading and Mathematics Reliability

Table Legend

Column	Description
Strand	Reporting category or strand
Group	Sub-population
K	Number of raw score points
N	Number of students
X	Raw score mean
SD	Raw score standard deviation
P	P-Value mean
R	Reliability
SEM	Standard error of measurement
Types	Item types contained in strand

Table 1. Grade 3 Reading

Overall

Strand	Group	K	N	X	SD	P	R	SEM	Types
Overall	All	46	126402	30.640	8.869	0.678	0.900	2.810	MC/OE
A	All	32	126402	21.573	6.321	0.684	0.867	2.301	MC/OE
B	All	14	126402	9.067	2.980	0.662	0.707	1.614	MC/OE

Gender

Strand	Group	K	N	X	SD	P	R	SEM	Types
Overall	Male	46	64776	29.814	9.169	0.661	0.905	2.831	MC/OE
	Female	46	61505	31.521	8.448	0.696	0.892	2.781	MC/OE
A	Male	32	64776	21.050	6.550	0.668	0.874	2.321	MC/OE
	Female	32	61505	22.131	6.017	0.701	0.857	2.277	MC/OE
B	Male	14	64776	8.764	3.048	0.642	0.717	1.622	MC/OE
	Female	14	61505	9.389	2.870	0.683	0.689	1.600	MC/OE

Ethnicity

Strand	Group	K	N	X	SD	P	R	SEM	Types
Overall	White	46	92031	32.210	8.140	0.713	0.886	2.744	MC/OE
	Black	46	19967	25.464	9.028	0.562	0.890	3.001	MC/OE
	Hispanic	46	9449	25.656	9.462	0.566	0.900	2.992	MC/OE
	Asian	46	3569	33.207	7.933	0.732	0.884	2.699	MC/OE
	Am. Indian	46	206	29.034	8.991	0.641	0.898	2.871	MC/OE
	Multi	46	1021	28.807	9.070	0.637	0.899	2.889	MC/OE
A	White	32	92031	22.709	5.784	0.720	0.850	2.242	MC/OE
	Black	32	19967	17.878	6.468	0.567	0.854	2.472	MC/OE
	Hispanic	32	9449	17.938	6.763	0.568	0.868	2.459	MC/OE
	Asian	32	3569	23.197	5.659	0.734	0.847	2.216	MC/OE
	Am. Indian	32	206	20.393	6.340	0.646	0.861	2.360	MC/OE
	Multi	32	1021	20.305	6.420	0.644	0.864	2.370	MC/OE
B	White	14	92031	9.501	2.803	0.695	0.681	1.583	MC/OE
	Black	14	19967	7.587	3.033	0.550	0.684	1.704	MC/OE
	Hispanic	14	9449	7.718	3.155	0.560	0.707	1.708	MC/OE
	Asian	14	3569	10.010	2.694	0.728	0.671	1.546	MC/OE
	Am. Indian	14	206	8.641	3.005	0.629	0.699	1.649	MC/OE
	Multi	14	1021	8.502	3.048	0.620	0.703	1.661	MC/OE

Table 1 (continued). Grade 3 Reading

ELL

Strand	Group	K	N	X	SD	P	R	SEM	Types
Overall	All	46	3461	22.104	8.782	0.487	0.878	3.073	MC/OE
A	All	32	3461	15.444	6.295	0.489	0.838	2.532	MC/OE
B	All	14	3461	6.660	2.989	0.483	0.659	1.746	MC/OE

IEP

Strand	Group	K	N	X	SD	P	R	SEM	Types
Overall	All	46	19062	23.120	10.078	0.513	0.912	2.994	MC/OE
A	All	32	19062	16.356	7.225	0.520	0.883	2.469	MC/OE
B	All	14	19062	6.764	3.285	0.495	0.734	1.696	MC/OE

ED

Strand	Group	K	N	X	SD	P	R	SEM	Types
Overall	All	46	48792	26.738	9.209	0.591	0.897	2.962	MC/OE
A	All	32	48792	18.790	6.581	0.596	0.863	2.438	MC/OE
B	All	14	48792	7.948	3.087	0.579	0.702	1.685	MC/OE

Table 2. Grade 3 Mathematics

Overall

Strand	Group	K	N	X	SD	P	R	SEM	Types
Overall	All	66	126563	55.001	9.911	0.856	0.921	2.794	MC/OE
A	All	30	126563	24.917	5.260	0.841	0.876	1.850	MC/OE
B	All	9	126563	6.531	1.750	0.796	0.526	1.205	MC/OE
C	All	9	126563	7.330	1.732	0.849	0.481	1.247	MC/OE
D	All	9	126563	8.111	1.434	0.901	0.699	0.786	MC
E	All	9	126563	8.111	1.354	0.901	0.648	0.803	MC

Gender

Strand	Group	K	N	X	SD	P	R	SEM	Types
Overall	Male	66	64863	55.120	10.011	0.858	0.923	2.780	MC/OE
	Female	66	61579	54.893	9.783	0.854	0.918	2.803	MC/OE
A	Male	30	64863	24.998	5.270	0.844	0.879	1.836	MC/OE
	Female	30	61579	24.840	5.241	0.838	0.874	1.863	MC/OE
B	Male	9	64863	6.617	1.735	0.808	0.530	1.190	MC/OE
	Female	9	61579	6.443	1.759	0.785	0.522	1.216	MC/OE
C	Male	9	64863	7.276	1.774	0.843	0.497	1.258	MC/OE
	Female	9	61579	7.391	1.682	0.855	0.461	1.235	MC/OE
D	Male	9	64863	8.151	1.428	0.906	0.711	0.768	MC
	Female	9	61579	8.071	1.437	0.897	0.687	0.804	MC
E	Male	9	64863	8.078	1.395	0.898	0.661	0.812	MC
	Female	9	61579	8.148	1.304	0.905	0.631	0.792	MC

Table 2 (continued). Grade 3 Mathematics

Ethnicity									
Strand	Group	K	N	X	SD	P	R	SEM	Types
Overall	<i>White</i>	66	92106	56.801	8.367	0.883	0.902	2.616	MC/OE
	<i>Black</i>	66	20011	48.786	11.944	0.765	0.926	3.253	MC/OE
	<i>Hispanic</i>	66	9480	49.739	11.928	0.777	0.929	3.189	MC/OE
	<i>Asian</i>	66	3578	58.583	7.449	0.907	0.892	2.453	MC/OE
	<i>Am. Indian</i>	66	205	53.449	9.983	0.833	0.914	2.930	MC/OE
	<i>Multi</i>	66	1024	52.549	11.003	0.821	0.926	3.003	MC/OE
A	<i>White</i>	30	92106	25.829	4.551	0.871	0.857	1.722	MC/OE
	<i>Black</i>	30	20011	21.821	6.177	0.739	0.875	2.184	MC/OE
	<i>Hispanic</i>	30	9480	22.136	6.233	0.751	0.882	2.145	MC/OE
	<i>Asian</i>	30	3578	26.739	3.913	0.901	0.838	1.577	MC/OE
	<i>Am. Indian</i>	30	205	24.005	5.416	0.811	0.869	1.963	MC/OE
	<i>Multi</i>	30	1024	23.674	5.727	0.801	0.878	1.999	MC/OE
B	<i>White</i>	9	92106	6.784	1.592	0.826	0.473	1.156	MC/OE
	<i>Black</i>	9	20011	5.638	1.948	0.696	0.543	1.316	MC/OE
	<i>Hispanic</i>	9	9480	5.798	1.941	0.711	0.549	1.303	MC/OE
	<i>Asian</i>	9	3578	7.137	1.569	0.852	0.478	1.134	MC/OE
	<i>Am. Indian</i>	9	205	6.273	1.780	0.765	0.521	1.232	MC/OE
	<i>Multi</i>	9	1024	6.188	1.876	0.758	0.559	1.247	MC/OE
C	<i>White</i>	9	92106	7.546	1.570	0.869	0.437	1.178	MC/OE
	<i>Black</i>	9	20011	6.534	2.013	0.774	0.514	1.403	MC/OE
	<i>Hispanic</i>	9	9480	6.785	1.978	0.792	0.519	1.372	MC/OE
	<i>Asian</i>	9	3578	7.851	1.502	0.905	0.451	1.113	MC/OE
	<i>Am. Indian</i>	9	205	7.239	1.745	0.846	0.473	1.267	MC/OE
	<i>Multi</i>	9	1024	6.990	1.929	0.818	0.523	1.332	MC/OE
D	<i>White</i>	9	92106	8.328	1.202	0.925	0.653	0.708	MC
	<i>Black</i>	9	20011	7.391	1.843	0.821	0.707	0.997	MC
	<i>Hispanic</i>	9	9480	7.430	1.829	0.826	0.712	0.981	MC
	<i>Asian</i>	9	3578	8.487	1.018	0.943	0.612	0.634	MC
	<i>Am. Indian</i>	9	205	8.088	1.299	0.899	0.600	0.822	MC
	<i>Multi</i>	9	1024	7.850	1.622	0.872	0.709	0.874	MC
E	<i>White</i>	9	92106	8.314	1.110	0.924	0.561	0.735	MC
	<i>Black</i>	9	20011	7.403	1.821	0.823	0.704	0.991	MC
	<i>Hispanic</i>	9	9480	7.589	1.714	0.843	0.694	0.948	MC
	<i>Asian</i>	9	3578	8.369	1.010	0.930	0.506	0.710	MC
	<i>Am. Indian</i>	9	205	7.844	1.416	0.872	0.589	0.908	MC
	<i>Multi</i>	9	1024	7.848	1.518	0.872	0.654	0.893	MC

ELL

Strand	Group	K	N	X	SD	P	R	SEM	Types
Overall	<i>All</i>	66	3485	46.432	12.672	0.727	0.929	3.365	MC/OE
A	<i>All</i>	30	3485	20.518	6.462	0.698	0.878	2.258	MC/OE
B	<i>All</i>	9	3485	5.394	2.013	0.663	0.552	1.348	MC/OE
C	<i>All</i>	9	3485	6.347	2.154	0.739	0.559	1.430	MC/OE
D	<i>All</i>	9	3485	6.994	2.001	0.777	0.714	1.070	MC
E	<i>All</i>	9	3485	7.178	1.909	0.798	0.707	1.033	MC

Table 2 (continued). Grade 3 Mathematics

IEP

Strand	Group	K	N	X	SD	P	R	SEM	Types
Overall	<i>All</i>	66	19105	47.341	13.316	0.740	0.939	3.290	MC/OE
A	<i>All</i>	30	19105	21.016	6.848	0.712	0.896	2.207	MC/OE
B	<i>All</i>	9	19105	5.552	2.048	0.688	0.591	1.310	MC/OE
C	<i>All</i>	9	19105	6.339	2.128	0.736	0.556	1.417	MC/OE
D	<i>All</i>	9	19105	7.139	2.069	0.793	0.752	1.030	MC
E	<i>All</i>	9	19105	7.296	1.997	0.811	0.747	1.005	MC

ED

Strand	Group	K	N	X	SD	P	R	SEM	Types
Overall	<i>All</i>	66	48896	50.921	11.379	0.796	0.925	3.112	MC/OE
A	<i>All</i>	30	48896	22.819	5.974	0.773	0.878	2.085	MC/OE
B	<i>All</i>	9	48896	5.932	1.884	0.729	0.541	1.277	MC/OE
C	<i>All</i>	9	48896	6.842	1.922	0.798	0.502	1.356	MC/OE
D	<i>All</i>	9	48896	7.638	1.737	0.849	0.712	0.933	MC
E	<i>All</i>	9	48896	7.690	1.647	0.854	0.681	0.930	MC

Table 3. Grade 4 Reading

Overall

Strand	Group	K	N	X	SD	P	R	SEM	Types
Overall	<i>All</i>	52	126266	33.930	9.816	0.671	0.902	3.068	MC/OE
A	<i>All</i>	35	126266	22.296	6.779	0.657	0.856	2.576	MC/OE
B	<i>All</i>	17	126266	11.635	3.461	0.699	0.767	1.669	MC/OE

Gender

Strand	Group	K	N	X	SD	P	R	SEM	Types
Overall	<i>Male</i>	52	64701	33.016	10.087	0.655	0.906	3.085	MC/OE
	<i>Female</i>	52	61483	34.902	9.420	0.689	0.896	3.040	MC/OE
A	<i>Male</i>	35	64701	21.770	6.948	0.643	0.862	2.581	MC/OE
	<i>Female</i>	35	61483	22.856	6.546	0.672	0.847	2.562	MC/OE
B	<i>Male</i>	17	64701	11.246	3.556	0.678	0.774	1.691	MC/OE
	<i>Female</i>	17	61483	12.046	3.307	0.722	0.755	1.638	MC/OE

Table 3 (continued). Grade 4 Reading

Ethnicity									
Strand	Group	K	N	X	SD	P	R	SEM	Types
Overall	<i>White</i>	52	92236	35.675	9.085	0.705	0.891	3.001	MC/OE
	<i>Black</i>	52	19794	27.761	9.645	0.553	0.887	3.237	MC/OE
	<i>Hispanic</i>	52	9366	28.600	10.020	0.567	0.896	3.232	MC/OE
	<i>Asian</i>	52	3651	37.828	8.684	0.742	0.889	2.894	MC/OE
	<i>Am. Indian</i>	52	205	31.888	10.119	0.632	0.904	3.143	MC/OE
	<i>Multi</i>	52	902	31.741	10.292	0.631	0.907	3.132	MC/OE
A	<i>White</i>	35	92236	23.498	6.310	0.691	0.840	2.524	MC/OE
	<i>Black</i>	35	19794	18.050	6.557	0.538	0.831	2.692	MC/OE
	<i>Hispanic</i>	35	9366	18.640	6.837	0.552	0.845	2.690	MC/OE
	<i>Asian</i>	35	3651	24.935	6.046	0.725	0.837	2.439	MC/OE
	<i>Am. Indian</i>	35	205	20.902	7.010	0.617	0.859	2.630	MC/OE
	<i>Multi</i>	35	902	20.667	7.087	0.613	0.863	2.622	MC/OE
B	<i>White</i>	17	92236	12.177	3.214	0.733	0.745	1.624	MC/OE
	<i>Black</i>	17	19794	9.710	3.564	0.582	0.744	1.802	MC/OE
	<i>Hispanic</i>	17	9366	9.961	3.645	0.598	0.758	1.794	MC/OE
	<i>Asian</i>	17	3651	12.893	3.075	0.773	0.744	1.556	MC/OE
	<i>Am. Indian</i>	17	205	10.985	3.533	0.663	0.762	1.725	MC/OE
	<i>Multi</i>	17	902	11.073	3.609	0.666	0.773	1.718	MC/OE

ELL

Strand	Group	K	N	X	SD	P	R	SEM	Types
Overall	<i>All</i>	52	2948	23.815	9.171	0.473	0.870	3.310	MC/OE
A	<i>All</i>	35	2948	15.502	6.351	0.460	0.816	2.725	MC/OE
B	<i>All</i>	17	2948	8.313	3.372	0.497	0.689	1.881	MC/OE

IEP

Strand	Group	K	N	X	SD	P	R	SEM	Types
Overall	<i>All</i>	52	20264	25.383	10.610	0.507	0.906	3.258	MC/OE
A	<i>All</i>	35	20264	16.599	7.322	0.495	0.864	2.698	MC/OE
B	<i>All</i>	17	20264	8.784	3.738	0.529	0.761	1.829	MC/OE

ED

Strand	Group	K	N	X	SD	P	R	SEM	Types
Overall	<i>All</i>	52	48003	29.368	9.839	0.584	0.894	3.207	MC/OE
A	<i>All</i>	35	48003	19.173	6.745	0.569	0.843	2.672	MC/OE
B	<i>All</i>	17	48003	10.194	3.559	0.612	0.751	1.776	MC/OE

Table 4. Grade 4 Mathematics

Overall

Strand	Group	K	N	X	SD	P	R	SEM	Types
Overall	<i>All</i>	66	126403	44.285	13.248	0.695	0.926	3.603	MC/OE
A	<i>All</i>	30	126403	19.203	6.523	0.665	0.855	2.482	MC/OE
B	<i>All</i>	10	126403	6.751	2.376	0.707	0.600	1.502	MC/OE
C	<i>All</i>	8	126403	5.882	1.756	0.735	0.616	1.089	MC
D	<i>All</i>	9	126403	6.333	2.246	0.704	0.732	1.163	MC
E	<i>All</i>	9	126403	6.117	2.188	0.750	0.599	1.385	MC/OE

Gender

Strand	Group	K	N	X	SD	P	R	SEM	Types
Overall	<i>Male</i>	66	64771	44.721	13.431	0.702	0.929	3.581	MC/OE
	<i>Female</i>	66	61549	43.841	13.027	0.688	0.923	3.621	MC/OE
A	<i>Male</i>	30	64771	19.466	6.626	0.673	0.861	2.471	MC/OE
	<i>Female</i>	30	61549	18.933	6.397	0.656	0.848	2.491	MC/OE
B	<i>Male</i>	10	64771	6.879	2.355	0.720	0.599	1.491	MC/OE
	<i>Female</i>	10	61549	6.618	2.389	0.693	0.599	1.512	MC/OE
C	<i>Male</i>	8	64771	5.863	1.800	0.733	0.635	1.088	MC
	<i>Female</i>	8	61549	5.904	1.707	0.738	0.593	1.089	MC
D	<i>Male</i>	9	64771	6.403	2.264	0.711	0.741	1.151	MC
	<i>Female</i>	9	61549	6.261	2.224	0.696	0.722	1.173	MC
E	<i>Male</i>	9	64771	6.110	2.185	0.752	0.604	1.374	MC/OE
	<i>Female</i>	9	61549	6.125	2.189	0.749	0.594	1.394	MC/OE

Table 4 (continued). Grade 4 Mathematics

Ethnicity									
Strand	Group	K	N	X	SD	P	R	SEM	Types
Overall	<i>White</i>	66	92296	46.623	12.113	0.730	0.916	3.517	MC/OE
	<i>Black</i>	66	19822	35.490	13.410	0.565	0.920	3.791	MC/OE
	<i>Hispanic</i>	66	9403	37.757	13.601	0.598	0.925	3.736	MC/OE
	<i>Asian</i>	66	3658	50.976	11.454	0.791	0.917	3.299	MC/OE
	<i>Am. Indian</i>	66	206	41.432	13.312	0.653	0.923	3.691	MC/OE
	<i>Multi</i>	66	905	41.246	13.906	0.650	0.931	3.663	MC/OE
A	<i>White</i>	30	92296	20.215	6.129	0.698	0.841	2.447	MC/OE
	<i>Black</i>	30	19822	15.398	6.413	0.540	0.841	2.556	MC/OE
	<i>Hispanic</i>	30	9403	16.221	6.591	0.568	0.852	2.532	MC/OE
	<i>Asian</i>	30	3658	22.533	5.777	0.769	0.841	2.302	MC/OE
	<i>Am. Indian</i>	30	206	17.859	6.468	0.621	0.847	2.527	MC/OE
	<i>Multi</i>	30	905	17.781	6.772	0.620	0.864	2.493	MC/OE
B	<i>White</i>	10	92296	7.201	2.168	0.753	0.549	1.456	MC/OE
	<i>Black</i>	10	19822	5.105	2.414	0.541	0.576	1.572	MC/OE
	<i>Hispanic</i>	10	9403	5.597	2.375	0.584	0.574	1.550	MC/OE
	<i>Asian</i>	10	3658	7.506	2.106	0.768	0.550	1.412	MC/OE
	<i>Am. Indian</i>	10	206	6.136	2.317	0.645	0.560	1.537	MC/OE
	<i>Multi</i>	10	905	6.200	2.411	0.650	0.599	1.527	MC/OE
C	<i>White</i>	8	92296	6.101	1.637	0.763	0.588	1.052	MC
	<i>Black</i>	8	19822	5.013	1.914	0.627	0.592	1.223	MC
	<i>Hispanic</i>	8	9403	5.334	1.875	0.667	0.607	1.176	MC
	<i>Asian</i>	8	3658	6.614	1.475	0.827	0.587	0.949	MC
	<i>Am. Indian</i>	8	206	5.592	1.799	0.699	0.612	1.121	MC
	<i>Multi</i>	8	905	5.545	1.848	0.693	0.617	1.144	MC
D	<i>White</i>	9	92296	6.623	2.118	0.736	0.715	1.131	MC
	<i>Black</i>	9	19822	5.238	2.342	0.582	0.704	1.274	MC
	<i>Hispanic</i>	9	9403	5.460	2.365	0.607	0.717	1.257	MC
	<i>Asian</i>	9	3658	7.334	1.893	0.815	0.720	1.001	MC
	<i>Am. Indian</i>	9	206	6.010	2.270	0.668	0.710	1.222	MC
	<i>Multi</i>	9	905	5.983	2.356	0.665	0.743	1.196	MC
E	<i>White</i>	9	92296	6.483	1.963	0.792	0.532	1.343	MC/OE
	<i>Black</i>	9	19822	4.737	2.401	0.596	0.640	1.440	MC/OE
	<i>Hispanic</i>	9	9403	5.145	2.375	0.642	0.639	1.426	MC/OE
	<i>Asian</i>	9	3658	6.990	1.898	0.831	0.545	1.281	MC/OE
	<i>Am. Indian</i>	9	206	5.835	2.257	0.723	0.588	1.449	MC/OE
	<i>Multi</i>	9	905	5.737	2.313	0.705	0.617	1.432	MC/OE

ELL

Strand	Group	K	N	X	SD	P	R	SEM	Types
Overall	<i>All</i>	66	2973	33.311	13.321	0.529	0.919	3.790	MC/OE
A	<i>All</i>	30	2973	14.314	6.409	0.504	0.843	2.536	MC/OE
B	<i>All</i>	10	2973	4.936	2.265	0.515	0.523	1.564	MC/OE
C	<i>All</i>	8	2973	4.795	1.922	0.599	0.583	1.241	MC
D	<i>All</i>	9	2973	4.811	2.338	0.535	0.689	1.304	MC
E	<i>All</i>	9	2973	4.455	2.467	0.559	0.657	1.445	MC/OE

Table 4 (continued). Grade 4 Mathematics

IEP

Strand	Group	K	N	X	SD	P	R	SEM	Types
Overall	<i>All</i>	66	20307	34.300	14.281	0.543	0.930	3.772	MC/OE
A	<i>All</i>	30	20307	14.594	6.831	0.512	0.863	2.529	MC/OE
B	<i>All</i>	10	20307	5.374	2.493	0.567	0.607	1.562	MC/OE
C	<i>All</i>	8	20307	4.793	1.974	0.599	0.613	1.228	MC
D	<i>All</i>	9	20307	4.840	2.454	0.538	0.728	1.280	MC
E	<i>All</i>	9	20307	4.699	2.490	0.591	0.667	1.437	MC/OE

ED

Strand	Group	K	N	X	SD	P	R	SEM	Types
Overall	<i>All</i>	66	48087	38.561	13.506	0.611	0.923	3.740	MC/OE
A	<i>All</i>	30	48087	16.599	6.526	0.581	0.849	2.539	MC/OE
B	<i>All</i>	10	48087	5.781	2.442	0.611	0.596	1.551	MC/OE
C	<i>All</i>	8	48087	5.334	1.862	0.667	0.601	1.176	MC
D	<i>All</i>	9	48087	5.557	2.335	0.617	0.714	1.249	MC
E	<i>All</i>	9	48087	5.290	2.342	0.661	0.630	1.424	MC/OE

Table 5. Grade 5 Reading

Overall

Strand	Group	K	N	X	SD	P	R	SEM	Types
Overall	<i>All</i>	52	127189	34.569	9.799	0.684	0.906	3.002	MC/OE
A	<i>All</i>	32	127189	22.093	6.332	0.705	0.867	2.311	MC/OE
B	<i>All</i>	20	127189	12.476	3.915	0.646	0.760	1.919	MC/OE

Gender

Strand	Group	K	N	X	SD	P	R	SEM	Types
Overall	<i>Male</i>	52	64607	33.789	10.073	0.671	0.911	3.005	MC/OE
	<i>Female</i>	52	62468	35.388	9.434	0.697	0.900	2.990	MC/OE
A	<i>Male</i>	32	64607	21.720	6.484	0.696	0.873	2.309	MC/OE
	<i>Female</i>	32	62468	22.486	6.144	0.715	0.859	2.304	MC/OE
B	<i>Male</i>	20	64607	12.069	4.025	0.628	0.771	1.925	MC/OE
	<i>Female</i>	20	62468	12.901	3.750	0.666	0.741	1.907	MC/OE

Table 5 (continued). Grade 5 Reading

Ethnicity									
Strand	Group	K	N	X	SD	P	R	SEM	Types
Overall	<i>White</i>	52	93454	36.272	8.950	0.717	0.892	2.940	MC/OE
	<i>Black</i>	52	19915	28.766	10.064	0.570	0.901	3.174	MC/OE
	<i>Hispanic</i>	52	9091	28.719	10.376	0.567	0.907	3.169	MC/OE
	<i>Asian</i>	52	3600	37.943	9.218	0.744	0.904	2.850	MC/OE
	<i>Am. Indian</i>	52	186	34.435	9.916	0.684	0.911	2.965	MC/OE
	<i>Multi</i>	52	789	32.792	10.317	0.648	0.912	3.058	MC/OE
A	<i>White</i>	32	93454	23.194	5.756	0.740	0.848	2.247	MC/OE
	<i>Black</i>	32	19915	18.384	6.586	0.587	0.857	2.491	MC/OE
	<i>Hispanic</i>	32	9091	18.247	6.794	0.582	0.866	2.485	MC/OE
	<i>Asian</i>	32	3600	24.194	5.994	0.765	0.870	2.165	MC/OE
	<i>Am. Indian</i>	32	186	22.070	6.421	0.708	0.873	2.290	MC/OE
	<i>Multi</i>	32	789	20.925	6.597	0.668	0.871	2.367	MC/OE
B	<i>White</i>	20	93454	13.078	3.664	0.678	0.732	1.898	MC/OE
	<i>Black</i>	20	19915	10.382	3.970	0.538	0.754	1.967	MC/OE
	<i>Hispanic</i>	20	9091	10.471	4.040	0.542	0.762	1.971	MC/OE
	<i>Asian</i>	20	3600	13.749	3.670	0.706	0.744	1.856	MC/OE
	<i>Am. Indian</i>	20	186	12.366	3.948	0.642	0.772	1.883	MC/OE
	<i>Multi</i>	20	789	11.867	4.135	0.613	0.780	1.942	MC/OE

ELL

Strand	Group	K	N	X	SD	P	R	SEM	Types
Overall	<i>All</i>	52	2718	23.159	9.218	0.456	0.875	3.256	MC/OE
A	<i>All</i>	32	2718	14.641	6.166	0.467	0.826	2.573	MC/OE
B	<i>All</i>	20	2718	8.517	3.616	0.437	0.695	1.996	MC/OE

IEP

Strand	Group	K	N	X	SD	P	R	SEM	Types
Overall	<i>All</i>	52	20506	25.022	10.608	0.497	0.910	3.182	MC/OE
A	<i>All</i>	32	20506	16.081	6.971	0.517	0.871	2.503	MC/OE
B	<i>All</i>	20	20506	8.941	4.106	0.464	0.771	1.965	MC/OE

ED

Strand	Group	K	N	X	SD	P	R	SEM	Types
Overall	<i>All</i>	52	47199	29.973	10.083	0.594	0.903	3.147	MC/OE
A	<i>All</i>	32	47199	19.143	6.570	0.612	0.860	2.459	MC/OE
B	<i>All</i>	20	47199	10.830	3.995	0.562	0.758	1.966	MC/OE

Table 6. Grade 5 Mathematics

Overall

Strand	Group	K	N	X	SD	P	R	SEM	Types
Overall	<i>All</i>	66	127302	43.391	14.080	0.672	0.932	3.675	MC/OE
A	<i>All</i>	27	127302	17.758	6.323	0.667	0.872	2.263	MC/OE
B	<i>All</i>	9	127302	6.087	2.248	0.676	0.699	1.234	MC
C	<i>All</i>	10	127302	6.050	2.575	0.658	0.647	1.529	MC/OE
D	<i>All</i>	10	127302	6.660	2.323	0.666	0.667	1.341	MC
E	<i>All</i>	10	127302	6.836	2.513	0.706	0.585	1.620	MC/OE

Gender

Strand	Group	K	N	X	SD	P	R	SEM	Types
Overall	<i>Male</i>	66	64679	43.489	14.306	0.675	0.934	3.663	MC/OE
	<i>Female</i>	66	62509	43.310	13.833	0.669	0.929	3.681	MC/OE
A	<i>Male</i>	27	64679	17.942	6.388	0.675	0.877	2.242	MC/OE
	<i>Female</i>	27	62509	17.576	6.245	0.659	0.867	2.281	MC/OE
B	<i>Male</i>	9	64679	6.169	2.259	0.685	0.708	1.220	MC
	<i>Female</i>	9	62509	6.005	2.233	0.667	0.689	1.246	MC
C	<i>Male</i>	10	64679	6.041	2.604	0.658	0.655	1.530	MC/OE
	<i>Female</i>	10	62509	6.062	2.544	0.659	0.639	1.528	MC/OE
D	<i>Male</i>	10	64679	6.592	2.351	0.659	0.676	1.337	MC
	<i>Female</i>	10	62509	6.734	2.291	0.673	0.657	1.342	MC
E	<i>Male</i>	10	64679	6.746	2.562	0.700	0.592	1.637	MC/OE
	<i>Female</i>	10	62509	6.933	2.456	0.711	0.577	1.598	MC/OE

Table 6 (continued). Grade 5 Mathematics

Ethnicity									
Strand	Group	K	N	X	SD	P	R	SEM	Types
Overall	White	66	93506	45.741	13.029	0.707	0.924	3.598	MC/OE
	Black	66	19943	34.653	14.027	0.540	0.924	3.859	MC/OE
	Hispanic	66	9116	36.045	14.385	0.561	0.928	3.857	MC/OE
	Asian	66	3606	50.626	12.472	0.779	0.930	3.290	MC/OE
	Am. Indian	66	185	42.730	14.030	0.667	0.929	3.748	MC/OE
	Multi	66	792	39.872	14.813	0.619	0.935	3.789	MC/OE
A	White	27	93506	18.701	5.952	0.702	0.862	2.210	MC/OE
	Black	27	19943	14.250	6.255	0.539	0.854	2.392	MC/OE
	Hispanic	27	9116	14.604	6.377	0.549	0.859	2.395	MC/OE
	Asian	27	3606	21.219	5.500	0.793	0.870	1.984	MC/OE
	Am. Indian	27	185	17.595	6.084	0.666	0.856	2.306	MC/OE
	Multi	27	792	16.240	6.620	0.611	0.875	2.337	MC/OE
B	White	9	93506	6.465	2.081	0.718	0.666	1.203	MC
	Black	9	19943	4.685	2.251	0.521	0.645	1.340	MC
	Hispanic	9	9116	4.981	2.335	0.553	0.681	1.318	MC
	Asian	9	3606	7.001	1.992	0.778	0.697	1.097	MC
	Am. Indian	9	185	5.968	2.361	0.663	0.730	1.228	MC
	Multi	9	792	5.628	2.305	0.625	0.691	1.281	MC
C	White	10	93506	6.459	2.424	0.700	0.609	1.515	MC/OE
	Black	10	19943	4.535	2.525	0.500	0.647	1.500	MC/OE
	Hispanic	10	9116	4.889	2.584	0.548	0.649	1.532	MC/OE
	Asian	10	3606	6.960	2.451	0.747	0.634	1.484	MC/OE
	Am. Indian	10	185	5.886	2.488	0.649	0.602	1.570	MC/OE
	Multi	10	792	5.504	2.661	0.602	0.661	1.548	MC/OE
D	White	10	93506	6.942	2.211	0.694	0.645	1.317	MC
	Black	10	19943	5.576	2.380	0.558	0.639	1.431	MC
	Hispanic	10	9116	5.803	2.400	0.580	0.652	1.416	MC
	Asian	10	3606	7.669	2.114	0.767	0.682	1.193	MC
	Am. Indian	10	185	6.746	2.374	0.675	0.689	1.323	MC
	Multi	10	792	6.178	2.441	0.618	0.682	1.377	MC
E	White	10	93506	7.175	2.343	0.740	0.547	1.576	MC/OE
	Black	10	19943	5.607	2.679	0.582	0.588	1.720	MC/OE
	Hispanic	10	9116	5.768	2.716	0.600	0.604	1.709	MC/OE
	Asian	10	3606	7.777	2.160	0.782	0.579	1.402	MC/OE
	Am. Indian	10	185	6.535	2.640	0.685	0.577	1.716	MC/OE
	Multi	10	792	6.323	2.695	0.656	0.608	1.687	MC/OE

ELL

Strand	Group	K	N	X	SD	P	R	SEM	Types
Overall	All	66	2733	30.154	13.458	0.474	0.917	3.870	MC/OE
A	All	27	2733	12.432	6.115	0.469	0.843	2.424	MC/OE
B	All	9	2733	4.176	2.263	0.464	0.649	1.341	MC
C	All	10	2733	3.724	2.329	0.431	0.614	1.447	MC/OE
D	All	10	2733	5.031	2.350	0.503	0.617	1.453	MC
E	All	10	2733	4.791	2.651	0.504	0.584	1.711	MC/OE

Table 6 (continued). Grade 5 Mathematics

IEP

Strand	Group	K	N	X	SD	P	R	SEM	Types
Overall	<i>All</i>	66	20543	31.203	14.619	0.491	0.930	3.861	MC/OE
A	<i>All</i>	27	20543	12.614	6.489	0.477	0.863	2.398	MC/OE
B	<i>All</i>	9	20543	4.442	2.365	0.494	0.684	1.330	MC
C	<i>All</i>	10	20543	4.130	2.584	0.470	0.665	1.495	MC/OE
D	<i>All</i>	10	20543	5.019	2.448	0.502	0.656	1.436	MC
E	<i>All</i>	10	20543	4.998	2.746	0.539	0.607	1.721	MC/OE

ED

Strand	Group	K	N	X	SD	P	R	SEM	Types
Overall	<i>All</i>	66	47272	37.141	14.162	0.579	0.927	3.836	MC/OE
A	<i>All</i>	27	47272	15.092	6.311	0.569	0.858	2.378	MC/OE
B	<i>All</i>	9	47272	5.180	2.304	0.576	0.675	1.314	MC
C	<i>All</i>	10	47272	5.038	2.575	0.560	0.651	1.522	MC/OE
D	<i>All</i>	10	47272	5.871	2.369	0.587	0.643	1.416	MC
E	<i>All</i>	10	47272	5.960	2.652	0.622	0.590	1.698	MC/OE

Table 7. Grade 6 Reading

Overall

Strand	Group	K	N	X	SD	P	R	SEM	Types
Overall	<i>All</i>	52	130692	34.539	9.596	0.672	0.902	3.005	MC/OE
A	<i>All</i>	29	130692	19.614	5.515	0.692	0.843	2.186	MC/OE
B	<i>All</i>	23	130692	14.924	4.512	0.645	0.790	2.066	MC/OE

Gender

Strand	Group	K	N	X	SD	P	R	SEM	Types
Overall	<i>Male</i>	52	67117	33.590	9.868	0.657	0.906	3.018	MC/OE
	<i>Female</i>	52	63485	35.558	9.182	0.688	0.895	2.972	MC/OE
A	<i>Male</i>	29	67117	19.237	5.674	0.682	0.850	2.194	MC/OE
	<i>Female</i>	29	63485	20.022	5.308	0.703	0.834	2.165	MC/OE
B	<i>Male</i>	23	67117	14.352	4.615	0.625	0.798	2.075	MC/OE
	<i>Female</i>	23	63485	15.536	4.314	0.667	0.776	2.040	MC/OE

Table 7 (continued). Grade 6 Reading

Ethnicity									
Strand	Group	K	N	X	SD	P	R	SEM	Types
Overall	<i>White</i>	52	97072	36.273	8.790	0.707	0.888	2.937	MC/OE
	<i>Black</i>	52	20037	28.463	9.564	0.551	0.888	3.205	MC/OE
	<i>Hispanic</i>	52	8967	28.386	10.072	0.549	0.899	3.200	MC/OE
	<i>Asian</i>	52	3527	37.801	8.612	0.729	0.889	2.864	MC/OE
	<i>Am. Indian</i>	52	210	33.614	9.478	0.650	0.898	3.023	MC/OE
	<i>Multi</i>	52	729	32.005	9.825	0.624	0.900	3.114	MC/OE
A	<i>White</i>	29	97072	20.647	5.018	0.729	0.820	2.126	MC/OE
	<i>Black</i>	29	20037	16.033	5.510	0.566	0.818	2.353	MC/OE
	<i>Hispanic</i>	29	8967	15.967	5.820	0.563	0.837	2.349	MC/OE
	<i>Asian</i>	29	3527	21.299	5.037	0.744	0.828	2.091	MC/OE
	<i>Am. Indian</i>	29	210	19.014	5.470	0.666	0.839	2.195	MC/OE
	<i>Multi</i>	29	729	18.203	5.686	0.645	0.842	2.260	MC/OE
B	<i>White</i>	23	97072	15.627	4.219	0.678	0.769	2.029	MC/OE
	<i>Black</i>	23	20037	12.430	4.544	0.531	0.770	2.179	MC/OE
	<i>Hispanic</i>	23	8967	12.419	4.708	0.530	0.786	2.178	MC/OE
	<i>Asian</i>	23	3527	16.502	4.018	0.708	0.762	1.960	MC/OE
	<i>Am. Indian</i>	23	210	14.600	4.437	0.628	0.779	2.084	MC/OE
	<i>Multi</i>	23	729	13.802	4.595	0.597	0.782	2.147	MC/OE

ELL

Strand	Group	K	N	X	SD	P	R	SEM	Types
Overall	<i>All</i>	52	2326	22.532	8.622	0.433	0.855	3.287	MC/OE
A	<i>All</i>	29	2326	12.633	5.063	0.444	0.772	2.418	MC/OE
B	<i>All</i>	23	2326	9.899	4.118	0.418	0.706	2.231	MC/OE

IEP

Strand	Group	K	N	X	SD	P	R	SEM	Types
Overall	<i>All</i>	52	20589	24.844	9.796	0.487	0.892	3.217	MC/OE
A	<i>All</i>	29	20589	14.312	5.763	0.511	0.832	2.363	MC/OE
B	<i>All</i>	23	20589	10.532	4.523	0.455	0.766	2.187	MC/OE

ED

Strand	Group	K	N	X	SD	P	R	SEM	Types
Overall	<i>All</i>	52	47358	29.837	9.742	0.579	0.894	3.166	MC/OE
A	<i>All</i>	29	47358	16.887	5.627	0.597	0.830	2.317	MC/OE
B	<i>All</i>	23	47358	12.950	4.591	0.556	0.779	2.160	MC/OE

Table 8. Grade 6 Mathematics

Overall

Strand	Group	K	N	X	SD	P	R	SEM	Types
Overall	<i>All</i>	66	130839	42.960	13.846	0.674	0.934	3.562	MC/OE
A	<i>All</i>	20	130839	12.731	4.771	0.666	0.828	1.978	MC/OE
B	<i>All</i>	8	130839	5.695	1.853	0.712	0.641	1.110	MC
C	<i>All</i>	13	130839	8.417	3.142	0.661	0.700	1.720	MC/OE
D	<i>All</i>	13	130839	8.106	3.040	0.677	0.735	1.566	MC/OE
E	<i>All</i>	12	130839	8.009	2.810	0.667	0.743	1.425	MC

Gender

Strand	Group	K	N	X	SD	P	R	SEM	Types
Overall	<i>Male</i>	66	67203	43.147	14.061	0.678	0.937	3.534	MC/OE
	<i>Female</i>	66	63544	42.783	13.599	0.670	0.931	3.582	MC/OE
A	<i>Male</i>	20	67203	12.739	4.830	0.668	0.837	1.953	MC/OE
	<i>Female</i>	20	63544	12.731	4.702	0.664	0.819	2.001	MC/OE
B	<i>Male</i>	8	67203	5.816	1.859	0.727	0.651	1.098	MC
	<i>Female</i>	8	63544	5.570	1.837	0.696	0.628	1.120	MC
C	<i>Male</i>	13	67203	8.467	3.163	0.667	0.706	1.715	MC/OE
	<i>Female</i>	13	63544	8.369	3.117	0.656	0.695	1.722	MC/OE
D	<i>Male</i>	13	67203	8.101	3.087	0.680	0.747	1.552	MC/OE
	<i>Female</i>	13	63544	8.117	2.987	0.675	0.723	1.572	MC/OE
E	<i>Male</i>	12	67203	8.024	2.848	0.669	0.751	1.421	MC
	<i>Female</i>	12	63544	7.996	2.767	0.666	0.734	1.427	MC

Table 8 (continued). Grade 6 Mathematics

Ethnicity									
Strand	Group	K	N	X	SD	P	R	SEM	Types
Overall	<i>White</i>	66	97137	45.207	12.900	0.708	0.927	3.485	MC/OE
	<i>Black</i>	66	20063	34.349	13.604	0.545	0.924	3.741	MC/OE
	<i>Hispanic</i>	66	9001	35.368	13.847	0.559	0.927	3.732	MC/OE
	<i>Asian</i>	66	3539	50.721	11.950	0.788	0.928	3.214	MC/OE
	<i>Am. Indian</i>	66	211	41.749	13.801	0.656	0.931	3.623	MC/OE
	<i>Multi</i>	66	735	38.672	14.462	0.609	0.935	3.675	MC/OE
A	<i>White</i>	20	97137	13.382	4.515	0.698	0.815	1.943	MC/OE
	<i>Black</i>	20	20063	10.211	4.800	0.541	0.816	2.058	MC/OE
	<i>Hispanic</i>	20	9001	10.481	4.809	0.552	0.816	2.063	MC/OE
	<i>Asian</i>	20	3539	15.350	4.027	0.796	0.807	1.770	MC/OE
	<i>Am. Indian</i>	20	211	12.408	4.695	0.649	0.818	2.000	MC/OE
	<i>Multi</i>	20	735	11.245	5.069	0.590	0.841	2.021	MC/OE
B	<i>White</i>	8	97137	5.967	1.740	0.746	0.616	1.079	MC
	<i>Black</i>	8	20063	4.630	1.892	0.579	0.583	1.223	MC
	<i>Hispanic</i>	8	9001	4.901	1.881	0.613	0.592	1.201	MC
	<i>Asian</i>	8	3539	6.470	1.590	0.809	0.618	0.983	MC
	<i>Am. Indian</i>	8	211	5.545	1.837	0.693	0.607	1.151	MC
	<i>Multi</i>	8	735	5.196	1.999	0.649	0.662	1.162	MC
C	<i>White</i>	13	97137	8.891	2.936	0.696	0.676	1.671	MC/OE
	<i>Black</i>	13	20063	6.635	3.187	0.532	0.685	1.789	MC/OE
	<i>Hispanic</i>	13	9001	6.815	3.250	0.543	0.694	1.799	MC/OE
	<i>Asian</i>	13	3539	9.878	2.749	0.766	0.688	1.536	MC/OE
	<i>Am. Indian</i>	13	211	8.071	3.212	0.637	0.700	1.760	MC/OE
	<i>Multi</i>	13	735	7.596	3.246	0.599	0.694	1.795	MC/OE
D	<i>White</i>	13	97137	8.529	2.877	0.710	0.714	1.538	MC/OE
	<i>Black</i>	13	20063	6.489	3.019	0.553	0.715	1.611	MC/OE
	<i>Hispanic</i>	13	9001	6.597	3.070	0.559	0.726	1.607	MC/OE
	<i>Asian</i>	13	3539	9.754	2.683	0.800	0.701	1.467	MC/OE
	<i>Am. Indian</i>	13	211	8.000	3.077	0.671	0.739	1.571	MC/OE
	<i>Multi</i>	13	735	7.254	3.133	0.609	0.738	1.603	MC/OE
E	<i>White</i>	12	97137	8.439	2.663	0.703	0.726	1.394	MC
	<i>Black</i>	12	20063	6.384	2.724	0.532	0.686	1.527	MC
	<i>Hispanic</i>	12	9001	6.574	2.767	0.548	0.701	1.514	MC
	<i>Asian</i>	12	3539	9.270	2.482	0.772	0.727	1.296	MC
	<i>Am. Indian</i>	12	211	7.725	2.729	0.644	0.709	1.472	MC
	<i>Multi</i>	12	735	7.381	2.769	0.615	0.713	1.484	MC

ELL

Strand	Group	K	N	X	SD	P	R	SEM	Types
Overall	<i>All</i>	66	2345	29.936	13.243	0.478	0.920	3.747	MC/OE
A	<i>All</i>	20	2345	8.976	4.685	0.477	0.807	2.056	MC/OE
B	<i>All</i>	8	2345	4.329	1.874	0.541	0.564	1.238	MC
C	<i>All</i>	13	2345	5.470	3.118	0.445	0.675	1.776	MC/OE
D	<i>All</i>	13	2345	5.590	3.042	0.480	0.716	1.622	MC/OE
E	<i>All</i>	12	2345	5.572	2.625	0.464	0.661	1.529	MC

Table 8 (continued). Grade 6 Mathematics

IEP

Strand	Group	K	N	X	SD	P	R	SEM	Types
Overall	All	66	20636	29.712	13.631	0.474	0.925	3.731	MC/OE
A	All	20	20636	8.451	4.733	0.450	0.815	2.037	MC/OE
B	All	8	20636	4.352	1.988	0.544	0.616	1.232	MC
C	All	13	20636	5.704	3.171	0.461	0.684	1.781	MC/OE
D	All	13	20636	5.435	3.057	0.464	0.721	1.613	MC/OE
E	All	12	20636	5.770	2.699	0.481	0.679	1.529	MC

ED

Strand	Group	K	N	X	SD	P	R	SEM	Types
Overall	All	66	47440	36.664	13.825	0.579	0.928	3.716	MC/OE
A	All	20	47440	10.803	4.805	0.569	0.818	2.052	MC/OE
B	All	8	47440	4.994	1.916	0.624	0.615	1.189	MC
C	All	13	47440	7.138	3.215	0.568	0.690	1.789	MC/OE
D	All	13	47440	6.887	3.058	0.583	0.724	1.607	MC/OE
E	All	12	47440	6.842	2.790	0.570	0.709	1.507	MC

Table 9. Grade 7 Reading

Overall

Strand	Group	K	N	X	SD	P	R	SEM	Types
Overall	All	52	135641	34.123	10.044	0.676	0.909	3.026	MC/OE
A	All	26	135641	17.846	5.208	0.700	0.838	2.094	MC/OE
B	All	26	135641	16.277	5.277	0.647	0.829	2.181	MC/OE

Gender

Strand	Group	K	N	X	SD	P	R	SEM	Types
Overall	Male	52	69461	32.804	10.481	0.654	0.916	3.036	MC/OE
	Female	52	66010	35.539	9.344	0.699	0.898	2.984	MC/OE
A	Male	26	69461	17.413	5.491	0.684	0.853	2.102	MC/OE
	Female	26	66010	18.316	4.841	0.717	0.817	2.072	MC/OE
B	Male	26	69461	15.391	5.413	0.618	0.836	2.189	MC/OE
	Female	26	66010	17.223	4.953	0.677	0.812	2.145	MC/OE

Table 9 (continued). Grade 7 Reading

Ethnicity									
Strand	Group	K	N	X	SD	P	R	SEM	Types
Overall	<i>White</i>	52	101021	35.693	9.420	0.707	0.902	2.957	MC/OE
	<i>Black</i>	52	20937	28.418	9.970	0.564	0.895	3.230	MC/OE
	<i>Hispanic</i>	52	9040	28.618	10.181	0.566	0.900	3.217	MC/OE
	<i>Asian</i>	52	3523	38.566	8.855	0.754	0.899	2.820	MC/OE
	<i>Am. Indian</i>	52	232	31.789	10.272	0.630	0.910	3.089	MC/OE
	<i>Multi</i>	52	682	30.603	10.534	0.610	0.909	3.175	MC/OE
A	<i>White</i>	26	101021	18.624	4.900	0.730	0.826	2.042	MC/OE
	<i>Black</i>	26	20937	15.026	5.214	0.592	0.814	2.247	MC/OE
	<i>Hispanic</i>	26	9040	15.100	5.335	0.593	0.823	2.244	MC/OE
	<i>Asian</i>	26	3523	20.073	4.526	0.780	0.820	1.920	MC/OE
	<i>Am. Indian</i>	26	232	16.681	5.313	0.655	0.837	2.146	MC/OE
	<i>Multi</i>	26	682	16.063	5.536	0.633	0.844	2.186	MC/OE
B	<i>White</i>	26	101021	17.069	4.978	0.679	0.816	2.134	MC/OE
	<i>Black</i>	26	20937	13.392	5.247	0.530	0.805	2.318	MC/OE
	<i>Hispanic</i>	26	9040	13.517	5.314	0.534	0.812	2.306	MC/OE
	<i>Asian</i>	26	3523	18.494	4.749	0.724	0.812	2.061	MC/OE
	<i>Am. Indian</i>	26	232	15.108	5.356	0.601	0.828	2.223	MC/OE
	<i>Multi</i>	26	682	14.540	5.427	0.582	0.820	2.304	MC/OE

ELL

Strand	Group	K	N	X	SD	P	R	SEM	Types
Overall	<i>All</i>	52	2109	22.605	8.786	0.447	0.858	3.305	MC/OE
A	<i>All</i>	26	2109	12.179	4.649	0.476	0.743	2.356	MC/OE
B	<i>All</i>	26	2109	10.426	4.697	0.412	0.756	2.319	MC/OE

IEP

Strand	Group	K	N	X	SD	P	R	SEM	Types
Overall	<i>All</i>	52	21056	23.482	9.729	0.473	0.889	3.242	MC/OE
A	<i>All</i>	26	21056	12.649	5.188	0.500	0.804	2.297	MC/OE
B	<i>All</i>	26	21056	10.833	5.057	0.440	0.796	2.287	MC/OE

ED

Strand	Group	K	N	X	SD	P	R	SEM	Types
Overall	<i>All</i>	52	47939	29.317	10.012	0.583	0.898	3.195	MC/OE
A	<i>All</i>	26	47939	15.462	5.239	0.609	0.819	2.229	MC/OE
B	<i>All</i>	26	47939	13.855	5.257	0.551	0.811	2.287	MC/OE

Table 10. Grade 7 Mathematics

Overall

Strand	Group	K	N	X	SD	P	R	SEM	Types
Overall	<i>All</i>	66	135784	41.585	13.405	0.661	0.924	3.694	MC/OE
A	<i>All</i>	16	135784	10.099	3.762	0.664	0.734	1.940	MC/OE
B	<i>All</i>	10	135784	5.919	2.637	0.592	0.743	1.337	MC
C	<i>All</i>	12	135784	8.599	2.470	0.717	0.690	1.374	MC
D	<i>All</i>	15	135784	9.271	3.589	0.648	0.706	1.946	MC/OE
E	<i>All</i>	13	135784	7.698	2.716	0.675	0.674	1.552	MC/OE

Gender

Strand	Group	K	N	X	SD	P	R	SEM	Types
Overall	<i>Male</i>	66	69554	41.610	13.671	0.662	0.928	3.664	MC/OE
	<i>Female</i>	66	66050	41.597	13.104	0.661	0.919	3.719	MC/OE
A	<i>Male</i>	16	69554	10.148	3.815	0.666	0.746	1.923	MC/OE
	<i>Female</i>	16	66050	10.056	3.701	0.662	0.721	1.954	MC/OE
B	<i>Male</i>	10	69554	6.024	2.650	0.602	0.751	1.323	MC
	<i>Female</i>	10	66050	5.815	2.616	0.581	0.734	1.349	MC
C	<i>Male</i>	12	69554	8.561	2.539	0.713	0.708	1.371	MC
	<i>Female</i>	12	66050	8.644	2.392	0.720	0.668	1.377	MC
D	<i>Male</i>	15	69554	9.252	3.622	0.646	0.717	1.927	MC/OE
	<i>Female</i>	15	66050	9.299	3.552	0.649	0.695	1.963	MC/OE
E	<i>Male</i>	13	69554	7.624	2.752	0.670	0.686	1.543	MC/OE
	<i>Female</i>	13	66050	7.782	2.674	0.680	0.660	1.559	MC/OE

Table 10 (continued). Grade 7 Mathematics

Ethnicity									
Strand	Group	K	N	X	SD	P	R	SEM	Types
Overall	<i>White</i>	66	101081	43.738	12.656	0.693	0.917	3.643	MC/OE
	<i>Black</i>	66	20977	33.212	12.523	0.536	0.910	3.760	MC/OE
	<i>Hispanic</i>	66	9063	34.369	12.828	0.556	0.914	3.758	MC/OE
	<i>Asian</i>	66	3531	50.174	11.977	0.784	0.921	3.364	MC/OE
	<i>Am. Indian</i>	66	232	38.866	13.372	0.620	0.920	3.778	MC/OE
	<i>Multi</i>	66	683	36.526	13.307	0.586	0.921	3.732	MC/OE
A	<i>White</i>	16	101081	10.611	3.622	0.693	0.723	1.906	MC/OE
	<i>Black</i>	16	20977	8.110	3.554	0.549	0.696	1.958	MC/OE
	<i>Hispanic</i>	16	9063	8.304	3.598	0.562	0.703	1.960	MC/OE
	<i>Asian</i>	16	3531	12.355	3.258	0.797	0.715	1.739	MC/OE
	<i>Am. Indian</i>	16	232	9.267	3.852	0.611	0.731	1.996	MC/OE
	<i>Multi</i>	16	683	8.864	3.741	0.592	0.725	1.961	MC/OE
B	<i>White</i>	10	101081	6.296	2.521	0.630	0.726	1.319	MC
	<i>Black</i>	10	20977	4.416	2.487	0.442	0.679	1.408	MC
	<i>Hispanic</i>	10	9063	4.702	2.552	0.470	0.698	1.403	MC
	<i>Asian</i>	10	3531	7.500	2.354	0.750	0.753	1.169	MC
	<i>Am. Indian</i>	10	232	5.405	2.673	0.541	0.741	1.361	MC
	<i>Multi</i>	10	683	5.064	2.692	0.506	0.743	1.365	MC
C	<i>White</i>	12	101081	8.973	2.291	0.748	0.661	1.333	MC
	<i>Black</i>	12	20977	7.119	2.572	0.593	0.652	1.518	MC
	<i>Hispanic</i>	12	9063	7.521	2.557	0.627	0.659	1.494	MC
	<i>Asian</i>	12	3531	9.763	2.079	0.814	0.664	1.205	MC
	<i>Am. Indian</i>	12	232	8.211	2.527	0.684	0.685	1.418	MC
	<i>Multi</i>	12	683	7.722	2.640	0.643	0.695	1.458	MC
D	<i>White</i>	15	101081	9.773	3.443	0.679	0.688	1.923	MC/OE
	<i>Black</i>	15	20977	7.317	3.373	0.525	0.671	1.935	MC/OE
	<i>Hispanic</i>	15	9063	7.533	3.489	0.539	0.685	1.958	MC/OE
	<i>Asian</i>	15	3531	11.401	3.227	0.776	0.712	1.732	MC/OE
	<i>Am. Indian</i>	15	232	8.746	3.458	0.620	0.676	1.970	MC/OE
	<i>Multi</i>	15	683	8.117	3.441	0.574	0.677	1.954	MC/OE
E	<i>White</i>	13	101081	8.084	2.599	0.705	0.644	1.550	MC/OE
	<i>Black</i>	13	20977	6.249	2.581	0.560	0.663	1.497	MC/OE
	<i>Hispanic</i>	13	9063	6.309	2.607	0.568	0.674	1.489	MC/OE
	<i>Asian</i>	13	3531	9.155	2.631	0.775	0.640	1.579	MC/OE
	<i>Am. Indian</i>	13	232	7.237	2.784	0.635	0.676	1.584	MC/OE
	<i>Multi</i>	13	683	6.758	2.681	0.604	0.687	1.499	MC/OE

ELL

Strand	Group	K	N	X	SD	P	R	SEM	Types
Overall	<i>All</i>	66	2120	29.637	12.197	0.484	0.906	3.744	MC/OE
A	<i>All</i>	16	2120	7.300	3.434	0.504	0.682	1.936	MC/OE
B	<i>All</i>	10	2120	4.004	2.426	0.400	0.668	1.398	MC
C	<i>All</i>	12	2120	6.753	2.593	0.563	0.648	1.537	MC
D	<i>All</i>	15	2120	6.344	3.394	0.460	0.676	1.931	MC/OE
E	<i>All</i>	13	2120	5.235	2.466	0.477	0.642	1.476	MC/OE

Table 10 (continued). Grade 7 Mathematics

IEP

Strand	Group	K	N	X	SD	P	R	SEM	Types
Overall	All	66	21098	28.493	12.157	0.467	0.908	3.694	MC/OE
A	All	16	21098	6.725	3.430	0.462	0.692	1.902	MC/OE
B	All	10	21098	3.890	2.401	0.389	0.661	1.398	MC
C	All	12	21098	6.475	2.641	0.540	0.664	1.531	MC
D	All	15	21098	6.089	3.291	0.447	0.669	1.894	MC/OE
E	All	13	21098	5.313	2.445	0.486	0.647	1.454	MC/OE

ED

Strand	Group	K	N	X	SD	P	R	SEM	Types
Overall	All	66	48020	35.332	12.827	0.569	0.914	3.751	MC/OE
A	All	16	48020	8.549	3.627	0.575	0.709	1.957	MC/OE
B	All	10	48020	4.829	2.561	0.483	0.701	1.400	MC
C	All	12	48020	7.624	2.567	0.635	0.668	1.479	MC
D	All	15	48020	7.762	3.462	0.553	0.680	1.958	MC/OE
E	All	13	48020	6.568	2.589	0.589	0.668	1.492	MC/OE

Table 11. Grade 8 Reading

Overall

Strand	Group	K	N	X	SD	P	R	SEM	Types
Overall	All	52	138339	33.577	10.129	0.668	0.910	3.032	MC/OE
A	All	26	138339	17.942	5.232	0.700	0.845	2.057	MC/OE
B	All	26	138339	15.635	5.323	0.630	0.825	2.225	MC/OE

Gender

Strand	Group	K	N	X	SD	P	R	SEM	Types
Overall	Male	52	70991	32.568	10.533	0.653	0.917	3.033	MC/OE
	Female	52	67164	34.673	9.546	0.684	0.901	3.004	MC/OE
A	Male	26	70991	17.627	5.490	0.690	0.859	2.060	MC/OE
	Female	26	67164	18.289	4.913	0.710	0.828	2.038	MC/OE
B	Male	26	70991	14.941	5.454	0.608	0.834	2.224	MC/OE
	Female	26	67164	16.384	5.069	0.653	0.811	2.205	MC/OE

Table 11 (continued). Grade 8 Reading

Ethnicity									
Strand	Group	K	N	X	SD	P	R	SEM	Types
Overall	White	52	103101	35.388	9.344	0.703	0.899	2.963	MC/OE
	Black	52	21553	27.132	9.955	0.543	0.895	3.220	MC/OE
	Hispanic	52	9002	27.392	10.304	0.546	0.903	3.203	MC/OE
	Asian	52	3518	37.387	9.259	0.734	0.902	2.900	MC/OE
	Am. Indian	52	231	32.082	9.822	0.640	0.901	3.091	MC/OE
	Multi	52	701	29.993	10.667	0.601	0.912	3.158	MC/OE
A	White	26	103101	18.881	4.796	0.737	0.827	1.996	MC/OE
	Black	26	21553	14.663	5.268	0.570	0.818	2.246	MC/OE
	Hispanic	26	9002	14.683	5.424	0.571	0.830	2.238	MC/OE
	Asian	26	3518	19.616	4.754	0.761	0.832	1.950	MC/OE
	Am. Indian	26	231	17.134	4.979	0.668	0.812	2.156	MC/OE
	Multi	26	701	16.208	5.514	0.633	0.844	2.176	MC/OE
B	White	26	103101	16.507	4.991	0.663	0.808	2.186	MC/OE
	Black	26	21553	12.469	5.176	0.510	0.801	2.307	MC/OE
	Hispanic	26	9002	12.709	5.346	0.516	0.816	2.291	MC/OE
	Asian	26	3518	17.770	4.918	0.701	0.810	2.145	MC/OE
	Am. Indian	26	231	14.948	5.281	0.606	0.825	2.212	MC/OE
	Multi	26	701	13.785	5.566	0.564	0.831	2.289	MC/OE

ELL

Strand	Group	K	N	X	SD	P	R	SEM	Types
Overall	All	52	1995	21.143	8.631	0.422	0.857	3.266	MC/OE
A	All	26	1995	11.527	4.773	0.446	0.764	2.321	MC/OE
B	All	26	1995	9.616	4.461	0.395	0.735	2.296	MC/OE

IEP

Strand	Group	K	N	X	SD	P	R	SEM	Types
Overall	All	52	21480	22.611	9.893	0.459	0.895	3.211	MC/OE
A	All	26	21480	12.570	5.351	0.492	0.819	2.274	MC/OE
B	All	26	21480	10.041	5.036	0.421	0.797	2.268	MC/OE

ED

Strand	Group	K	N	X	SD	P	R	SEM	Types
Overall	All	52	47172	28.454	10.149	0.569	0.902	3.182	MC/OE
A	All	26	47172	15.391	5.359	0.600	0.830	2.207	MC/OE
B	All	26	47172	13.063	5.261	0.533	0.810	2.292	MC/OE

Table 12. Grade 8 Mathematics

Overall

Strand	Group	K	N	X	SD	P	R	SEM	Types
Overall	<i>All</i>	66	138545	44.171	13.537	0.691	0.932	3.533	MC/OE
A	<i>All</i>	14	138545	10.303	3.009	0.736	0.766	1.456	MC
B	<i>All</i>	10	138545	5.514	2.649	0.607	0.678	1.503	MC/OE
C	<i>All</i>	12	138545	7.852	2.644	0.681	0.671	1.516	MC/OE
D	<i>All</i>	20	138545	13.555	4.700	0.693	0.818	2.008	MC/OE
E	<i>All</i>	10	138545	6.947	2.333	0.695	0.701	1.276	MC

Gender

Strand	Group	K	N	X	SD	P	R	SEM	Types
Overall	<i>Male</i>	66	71083	43.965	13.890	0.689	0.936	3.525	MC/OE
	<i>Female</i>	66	67278	44.425	13.132	0.694	0.928	3.534	MC/OE
A	<i>Male</i>	14	71083	10.376	3.053	0.741	0.777	1.442	MC
	<i>Female</i>	14	67278	10.234	2.955	0.731	0.754	1.466	MC
B	<i>Male</i>	10	71083	5.451	2.682	0.604	0.687	1.499	MC/OE
	<i>Female</i>	10	67278	5.585	2.612	0.611	0.668	1.505	MC/OE
C	<i>Male</i>	12	71083	7.835	2.709	0.679	0.688	1.513	MC/OE
	<i>Female</i>	12	67278	7.876	2.570	0.683	0.651	1.518	MC/OE
D	<i>Male</i>	20	71083	13.384	4.829	0.685	0.827	2.009	MC/OE
	<i>Female</i>	20	67278	13.747	4.548	0.702	0.806	2.002	MC/OE
E	<i>Male</i>	10	71083	6.918	2.372	0.692	0.711	1.274	MC
	<i>Female</i>	10	67278	6.983	2.289	0.698	0.689	1.276	MC

Table 12 (continued). Grade 8 Mathematics

Ethnicity									
Strand	Group	K	N	X	SD	P	R	SEM	Types
Overall	<i>White</i>	66	103179	46.322	12.599	0.723	0.924	3.465	MC/OE
	<i>Black</i>	66	21639	35.740	13.526	0.565	0.925	3.695	MC/OE
	<i>Hispanic</i>	66	9035	37.643	13.700	0.594	0.928	3.666	MC/OE
	<i>Asian</i>	66	3520	51.951	11.055	0.806	0.921	3.114	MC/OE
	<i>Am. Indian</i>	66	233	41.815	13.786	0.658	0.932	3.594	MC/OE
	<i>Multi</i>	66	704	38.615	14.981	0.609	0.941	3.649	MC/OE
A	<i>White</i>	14	103179	10.725	2.786	0.766	0.742	1.416	MC
	<i>Black</i>	14	21639	8.663	3.212	0.619	0.753	1.597	MC
	<i>Hispanic</i>	14	9035	8.984	3.230	0.642	0.765	1.566	MC
	<i>Asian</i>	14	3520	11.854	2.344	0.847	0.733	1.212	MC
	<i>Am. Indian</i>	14	233	9.785	3.140	0.699	0.770	1.505	MC
	<i>Multi</i>	14	704	9.232	3.420	0.659	0.797	1.542	MC
B	<i>White</i>	10	103179	5.853	2.571	0.640	0.664	1.491	MC/OE
	<i>Black</i>	10	21639	4.136	2.466	0.471	0.643	1.474	MC/OE
	<i>Hispanic</i>	10	9035	4.512	2.571	0.511	0.662	1.494	MC/OE
	<i>Asian</i>	10	3520	6.959	2.371	0.749	0.658	1.387	MC/OE
	<i>Am. Indian</i>	10	233	5.142	2.626	0.572	0.673	1.501	MC/OE
	<i>Multi</i>	10	704	4.624	2.744	0.523	0.708	1.483	MC/OE
C	<i>White</i>	12	103179	8.232	2.485	0.712	0.640	1.491	MC/OE
	<i>Black</i>	12	21639	6.320	2.698	0.554	0.665	1.560	MC/OE
	<i>Hispanic</i>	12	9035	6.832	2.645	0.598	0.667	1.526	MC/OE
	<i>Asian</i>	12	3520	9.147	2.251	0.787	0.626	1.377	MC/OE
	<i>Am. Indian</i>	12	233	7.536	2.603	0.656	0.657	1.524	MC/OE
	<i>Multi</i>	12	704	6.815	2.904	0.594	0.713	1.555	MC/OE
D	<i>White</i>	20	103179	14.196	4.446	0.724	0.804	1.968	MC/OE
	<i>Black</i>	20	21639	11.047	4.775	0.571	0.808	2.092	MC/OE
	<i>Hispanic</i>	20	9035	11.524	4.773	0.596	0.809	2.087	MC/OE
	<i>Asian</i>	20	3520	16.112	3.706	0.818	0.781	1.734	MC/OE
	<i>Am. Indian</i>	20	233	12.730	4.748	0.658	0.810	2.070	MC/OE
	<i>Multi</i>	20	704	11.830	5.015	0.610	0.824	2.104	MC/OE
E	<i>White</i>	10	103179	7.316	2.161	0.732	0.672	1.238	MC
	<i>Black</i>	10	21639	5.575	2.401	0.557	0.657	1.406	MC
	<i>Hispanic</i>	10	9035	5.790	2.448	0.579	0.679	1.387	MC
	<i>Asian</i>	10	3520	7.879	2.033	0.788	0.687	1.137	MC
	<i>Am. Indian</i>	10	233	6.622	2.433	0.662	0.712	1.305	MC
	<i>Multi</i>	10	704	6.115	2.610	0.612	0.739	1.334	MC

ELL

Strand	Group	K	N	X	SD	P	R	SEM	Types
Overall	<i>All</i>	66	2009	31.944	12.899	0.509	0.918	3.687	MC/OE
A	<i>All</i>	14	2009	7.909	3.190	0.565	0.740	1.627	MC
B	<i>All</i>	10	2009	3.652	2.386	0.428	0.637	1.438	MC/OE
C	<i>All</i>	12	2009	5.891	2.580	0.516	0.641	1.545	MC/OE
D	<i>All</i>	20	2009	9.849	4.656	0.519	0.805	2.054	MC/OE
E	<i>All</i>	10	2009	4.642	2.291	0.464	0.603	1.444	MC

Table 12 (continued). Grade 8 Mathematics

IEP

Strand	Group	K	N	X	SD	P	R	SEM	Types
Overall	All	66	21547	29.767	13.049	0.474	0.919	3.720	MC/OE
A	All	14	21547	7.259	3.266	0.518	0.739	1.668	MC
B	All	10	21547	3.364	2.310	0.393	0.611	1.441	MC/OE
C	All	12	21547	5.545	2.679	0.486	0.662	1.557	MC/OE
D	All	20	21547	8.852	4.545	0.464	0.787	2.097	MC/OE
E	All	10	21547	4.747	2.347	0.475	0.629	1.429	MC

ED

Strand	Group	K	N	X	SD	P	R	SEM	Types
Overall	All	66	47304	38.049	13.663	0.600	0.928	3.670	MC/OE
A	All	14	47304	9.107	3.207	0.650	0.761	1.569	MC
B	All	10	47304	4.512	2.547	0.509	0.658	1.490	MC/OE
C	All	12	47304	6.836	2.670	0.599	0.669	1.537	MC/OE
D	All	20	47304	11.627	4.797	0.599	0.810	2.091	MC/OE
E	All	10	47304	5.967	2.419	0.597	0.676	1.377	MC

Table 13. Grade 11 Reading

Overall

Strand	Group	K	N	X	SD	P	R	SEM	Types
Overall	All	52	134984	34.816	9.277	0.679	0.900	2.933	MC/OE
A	All	29	134984	20.517	5.221	0.712	0.833	2.134	MC/OE
B	All	23	134984	14.300	4.515	0.626	0.804	2.000	MC/OE

Gender

Strand	Group	K	N	X	SD	P	R	SEM	Types
Overall	Male	52	67938	33.759	9.640	0.663	0.905	2.964	MC/OE
	Female	52	66824	35.923	8.739	0.695	0.892	2.875	MC/OE
A	Male	29	67938	20.052	5.455	0.698	0.844	2.157	MC/OE
	Female	29	66824	21.006	4.915	0.727	0.817	2.101	MC/OE
B	Male	23	67938	13.707	4.642	0.608	0.810	2.021	MC/OE
	Female	23	66824	14.917	4.289	0.645	0.793	1.952	MC/OE

Table 13 (continued). Grade 11 Reading

Ethnicity									
Strand	Group	K	N	X	SD	P	R	SEM	Types
Overall	<i>White</i>	52	106818	36.210	8.618	0.707	0.889	2.872	MC/OE
	<i>Black</i>	52	17189	28.398	9.292	0.551	0.885	3.156	MC/OE
	<i>Hispanic</i>	52	6654	28.813	9.540	0.559	0.891	3.145	MC/OE
	<i>Asian</i>	52	3305	36.991	9.112	0.714	0.904	2.818	MC/OE
	<i>Am. Indian</i>	52	220	32.609	9.630	0.636	0.900	3.044	MC/OE
	<i>Multi</i>	52	520	30.106	10.607	0.591	0.914	3.106	MC/OE
A	<i>White</i>	29	106818	21.275	4.815	0.739	0.813	2.084	MC/OE
	<i>Black</i>	29	17189	17.103	5.486	0.591	0.819	2.332	MC/OE
	<i>Hispanic</i>	29	6654	17.179	5.626	0.594	0.829	2.327	MC/OE
	<i>Asian</i>	29	3305	21.413	5.236	0.742	0.847	2.050	MC/OE
	<i>Am. Indian</i>	29	220	19.245	5.553	0.668	0.840	2.222	MC/OE
	<i>Multi</i>	29	520	18.079	6.023	0.629	0.857	2.278	MC/OE
B	<i>White</i>	23	106818	14.935	4.271	0.656	0.788	1.965	MC/OE
	<i>Black</i>	23	17189	11.296	4.354	0.488	0.763	2.121	MC/OE
	<i>Hispanic</i>	23	6654	11.634	4.437	0.503	0.774	2.110	MC/OE
	<i>Asian</i>	23	3305	15.578	4.335	0.668	0.803	1.922	MC/OE
	<i>Am. Indian</i>	23	220	13.364	4.639	0.584	0.802	2.062	MC/OE
	<i>Multi</i>	23	520	12.027	5.025	0.530	0.825	2.102	MC/OE

ELL

Strand	Group	K	N	X	SD	P	R	SEM	Types
Overall	<i>All</i>	52	1308	22.413	7.782	0.429	0.826	3.243	MC/OE
A	<i>All</i>	29	1308	13.178	4.827	0.454	0.742	2.452	MC/OE
B	<i>All</i>	23	1308	9.235	3.617	0.388	0.656	2.121	MC/OE

IEP

Strand	Group	K	N	X	SD	P	R	SEM	Types
Overall	<i>All</i>	52	18101	24.079	9.069	0.474	0.875	3.211	MC/OE
A	<i>All</i>	29	18101	14.676	5.439	0.509	0.803	2.417	MC/OE
B	<i>All</i>	23	18101	9.403	4.203	0.419	0.749	2.108	MC/OE

ED

Strand	Group	K	N	X	SD	P	R	SEM	Types
Overall	<i>All</i>	52	33803	29.859	9.439	0.581	0.891	3.112	MC/OE
A	<i>All</i>	29	33803	17.853	5.518	0.618	0.826	2.299	MC/OE
B	<i>All</i>	23	33803	12.006	4.439	0.521	0.778	2.090	MC/OE

Table 14. Grade 11 Mathematics

Overall

Strand	Group	K	N	X	SD	P	R	SEM	Types
Overall	<i>All</i>	66	135120	42.001	14.334	0.664	0.936	3.633	MC/OE
A	<i>All</i>	10	135120	7.134	2.309	0.713	0.716	1.231	MC
B	<i>All</i>	9	135120	5.098	2.376	0.637	0.555	1.585	MC/OE
C	<i>All</i>	10	135120	5.954	2.486	0.595	0.699	1.365	MC
D	<i>All</i>	26	135120	17.402	6.108	0.678	0.866	2.239	MC/OE
E	<i>All</i>	11	135120	6.413	2.632	0.667	0.659	1.536	MC/OE

Gender

Strand	Group	K	N	X	SD	P	R	SEM	Types
Overall	<i>Male</i>	66	68020	42.208	14.655	0.668	0.940	3.604	MC/OE
	<i>Female</i>	66	66877	41.838	13.979	0.660	0.932	3.655	MC/OE
A	<i>Male</i>	10	68020	7.214	2.343	0.721	0.734	1.208	MC
	<i>Female</i>	10	66877	7.060	2.269	0.706	0.697	1.248	MC
B	<i>Male</i>	9	68020	5.078	2.422	0.635	0.562	1.602	MC/OE
	<i>Female</i>	9	66877	5.123	2.326	0.639	0.547	1.566	MC/OE
C	<i>Male</i>	10	68020	6.060	2.509	0.606	0.711	1.349	MC
	<i>Female</i>	10	66877	5.852	2.457	0.585	0.685	1.378	MC
D	<i>Male</i>	26	68020	17.428	6.228	0.679	0.874	2.214	MC/OE
	<i>Female</i>	26	66877	17.396	5.975	0.677	0.857	2.257	MC/OE
E	<i>Male</i>	11	68020	6.428	2.656	0.673	0.672	1.521	MC/OE
	<i>Female</i>	11	66877	6.406	2.605	0.662	0.646	1.549	MC/OE

Table 14 (continued). Grade 11 Mathematics

Ethnicity									
Strand	Group	K	N	X	SD	P	R	SEM	Types
Overall	White	66	106892	44.007	13.485	0.693	0.930	3.579	MC/OE
	Black	66	17214	31.765	13.742	0.513	0.926	3.726	MC/OE
	Hispanic	66	6682	33.461	13.765	0.539	0.927	3.728	MC/OE
	Asian	66	3315	50.481	12.803	0.789	0.933	3.308	MC/OE
	Am. Indian	66	219	38.511	14.516	0.614	0.936	3.676	MC/OE
	Multi	66	521	33.777	14.783	0.542	0.936	3.726	MC/OE
A	White	10	106892	7.415	2.162	0.741	0.690	1.203	MC
	Black	10	17214	5.671	2.456	0.567	0.691	1.366	MC
	Hispanic	10	6682	5.982	2.371	0.598	0.675	1.351	MC
	Asian	10	3315	8.415	1.876	0.841	0.707	1.015	MC
	Am. Indian	10	219	6.671	2.509	0.667	0.749	1.256	MC
	Multi	10	521	5.933	2.536	0.593	0.723	1.336	MC
B	White	9	106892	5.411	2.289	0.667	0.529	1.571	MC/OE
	Black	9	17214	3.506	2.132	0.481	0.540	1.446	MC/OE
	Hispanic	9	6682	3.843	2.217	0.516	0.550	1.487	MC/OE
	Asian	9	3315	6.179	2.180	0.750	0.540	1.478	MC/OE
	Am. Indian	9	219	4.502	2.319	0.576	0.565	1.530	MC/OE
	Multi	9	521	3.833	2.378	0.510	0.593	1.518	MC/OE
C	White	10	106892	6.245	2.397	0.625	0.681	1.354	MC
	Black	10	17214	4.410	2.311	0.441	0.618	1.428	MC
	Hispanic	10	6682	4.744	2.335	0.474	0.627	1.426	MC
	Asian	10	3315	7.387	2.353	0.739	0.737	1.206	MC
	Am. Indian	10	219	5.452	2.366	0.545	0.643	1.414	MC
	Multi	10	521	4.793	2.462	0.479	0.674	1.406	MC
D	White	26	106892	18.185	5.766	0.707	0.856	2.186	MC/OE
	Black	26	17214	13.433	6.106	0.529	0.847	2.385	MC/OE
	Hispanic	26	6682	14.021	6.096	0.553	0.847	2.385	MC/OE
	Asian	26	3315	20.739	5.208	0.806	0.855	1.981	MC/OE
	Am. Indian	26	219	16.288	6.387	0.637	0.869	2.312	MC/OE
	Multi	26	521	14.075	6.438	0.553	0.864	2.376	MC/OE
E	White	11	106892	6.751	2.502	0.699	0.626	1.530	MC/OE
	Black	11	17214	4.746	2.537	0.509	0.656	1.487	MC/OE
	Hispanic	11	6682	4.871	2.527	0.526	0.662	1.468	MC/OE
	Asian	11	3315	7.760	2.588	0.764	0.641	1.551	MC/OE
	Am. Indian	11	219	5.598	2.585	0.598	0.658	1.511	MC/OE
	Multi	11	521	5.144	2.662	0.550	0.696	1.468	MC/OE

ELL

Strand	Group	K	N	X	SD	P	R	SEM	Types
Overall	All	66	1330	30.065	14.371	0.490	0.934	3.697	MC/OE
A	All	10	1330	5.598	2.560	0.560	0.715	1.366	MC
B	All	9	1330	3.383	2.230	0.462	0.586	1.434	MC/OE
C	All	10	1330	4.411	2.499	0.441	0.688	1.396	MC
D	All	26	1330	12.633	6.175	0.509	0.853	2.366	MC/OE
E	All	11	1330	4.040	2.592	0.426	0.670	1.489	MC/OE

Table 14 (continued). Grade 11 Mathematics

IEP

Strand	Group	K	N	X	SD	P	R	SEM	Types
Overall	<i>All</i>	66	18127	25.966	12.634	0.423	0.916	3.662	MC/OE
A	<i>All</i>	10	18127	4.783	2.372	0.478	0.656	1.390	MC
B	<i>All</i>	9	18127	2.958	2.041	0.414	0.534	1.394	MC/OE
C	<i>All</i>	10	18127	3.758	2.172	0.376	0.575	1.416	MC
D	<i>All</i>	26	18127	10.619	5.557	0.422	0.818	2.373	MC/OE
E	<i>All</i>	11	18127	3.848	2.349	0.424	0.655	1.380	MC/OE

ED

Strand	Group	K	N	X	SD	P	R	SEM	Types
Overall	<i>All</i>	66	33868	34.657	14.151	0.555	0.931	3.730	MC/OE
A	<i>All</i>	10	33868	6.118	2.440	0.612	0.702	1.333	MC
B	<i>All</i>	9	33868	4.033	2.296	0.532	0.560	1.524	MC/OE
C	<i>All</i>	10	33868	4.859	2.395	0.486	0.649	1.420	MC
D	<i>All</i>	26	33868	14.465	6.189	0.568	0.853	2.372	MC/OE
E	<i>All</i>	11	33868	5.183	2.565	0.555	0.667	1.481	MC/OE

Appendix O:

2008 Reading and Mathematics Linking Item Statistics

Table Legend

Column	Description
ID	Item identification number
Item Type	Type of the item 'MC' = multiple choice 'OE' = constructed response
ID	Item identification number
Form	Form on which the item appeared
Seq.	Sequence number of the item
Prev. Form	Form on which the item previously appeared 0 = common form
Prev. Seq.	Previous sequence number of the item
2007 P-Value	2007 P-Value OE p-value = mean/max pts
2008 P-Value	2008 P-Value OE p-value = mean/max pts
2007 Logit	2007 Rasch logit difficulty
2008 Logit	2008 Rasch logit difficulty

Grade 3 Mathematics

ID	Item Type	Form	Seq.	Prev. Form	Prev. Seq.	2007 P-Value	2008 P-Value	2007 Logit	2008 Logit
550247	MC	All	7	All	7	0.8226	0.8410	0.6738	0.6346
549494	MC	All	8	All	8	0.8558	0.8666	0.3756	0.3609
549491	MC	All	11	All	11	0.7918	0.8099	0.9331	0.9131
550245	MC	All	15	All	15	0.9026	0.9170	-0.2153	-0.2800
549483	MC	All	21	All	21	0.8969	0.9017	-0.1090	-0.0676
550278	MC	All	51	All	51	0.8609	0.8744	0.2956	0.2859
549485	MC	All	59	All	59	0.7974	0.8233	0.8945	0.7956
550258	MC	All	95	All	95	0.8597	0.8586	0.2794	0.4561
550303	MC	All	103	All	103	0.8522	0.8549	0.3969	0.4872
550276	MC	All	106	All	106	0.8843	0.8929	0.0296	0.0599
550241	MC	13	60	8	60	0.9152	0.9200	-0.3572	-0.3078
550284	MC	13	61	8	61	0.8683	0.8784	0.2332	0.2469
550220	MC	13	62	8	62	0.9601	0.9478	-1.2735	-0.8404
550291	MC	13	63	8	63	0.7939	0.8060	0.9038	0.9663
550270	MC	14	60	9	60	0.9643	0.9754	-1.3782	-1.6923
550269	MC	14	61	9	61	0.7684	0.7510	1.1239	1.3982
550293	MC	14	62	9	62	0.8970	0.9126	-0.0757	-0.1749
550208	MC	14	63	9	63	0.7704	0.8323	1.1097	0.7486
550209	MC	15	60	10	60	0.8312	0.8456	0.6256	0.5840
550231	MC	15	61	10	61	0.9168	0.9334	-0.3589	-0.5589
550264	MC	15	62	10	62	0.9540	0.9584	-1.0884	-1.1333
550228	MC	15	63	10	63	0.8580	0.8653	0.3699	0.3943
549492	MC	16	60	15	60	0.7763	0.7934	1.0678	1.0548
550255	MC	16	61	15	61	0.9412	0.9608	-0.7889	-1.2072
550273	MC	16	62	15	62	0.9088	0.9156	-0.2358	-0.2717
549479	MC	16	63	15	63	0.8497	0.8611	0.4534	0.4285
550238	OE	14	72	5	72	0.6680	0.7355	1.5848	1.2519
550216	OE	15	72	13	72	0.7945	0.7850	0.5583	0.8102
550256	OE	16	72	11	72	0.7118	0.6851	1.7092	1.9416
Mean						0.8508	0.8622	0.2668	0.2512

Grade 4 Mathematics

ID	Item Type	Form	Seq.	Prev. Form	Prev. Seq.	2007 P-Value	2008 P-Value	2007 Logit	2008 Logit
544322	MC	All	8	All	8	0.5640	0.5790	0.8315	0.8870
544121	MC	All	9	All	9	0.6332	0.6730	0.4694	0.3728
544269	MC	All	11	All	11	0.4062	0.4280	1.6376	1.6775
544150	MC	All	51	All	52	0.6772	0.6649	0.2269	0.4225
544274	MC	All	53	All	54	0.5827	0.6098	0.7356	0.7252
544205	MC	All	59	All	61	0.7812	0.7895	-0.4213	-0.3655
544292	MC	All	98	All	99	0.7377	0.7533	-0.1332	-0.1114
544181	MC	All	101	All	102	0.5682	0.5692	0.8098	0.9383
543716	MC	All	103	All	104	0.7852	0.8241	-0.4489	-0.6244
542431	MC	All	112	All	113	0.6132	0.6432	0.5758	0.5440
544343	MC	16	60	5	62	0.7903	0.7763	-0.4587	-0.2585
544092	MC	16	61	5	63	0.6474	0.6661	0.4069	0.4263
542328	MC	16	62	5	64	0.8394	0.8595	-0.8406	-0.9318
544123	MC	16	63	5	65	0.7761	0.7845	-0.3592	-0.3080
544088	MC	17	60	7	62	0.5668	0.5648	0.8083	0.9518
544115	MC	17	61	7	63	0.5077	0.5661	1.1023	0.9510
544296	MC	17	62	7	64	0.6117	0.5749	0.5794	0.9062
544316	MC	17	63	7	65	0.5540	0.6241	0.8726	0.6490
544242	MC	18	60	1	62	0.8279	0.8640	-0.8763	-0.9598
544232	MC	18	61	1	63	0.8090	0.8435	-0.7250	-0.7862
544057	MC	18	62	1	64	0.7837	0.8346	-0.5374	-0.7088
544198	MC	18	63	1	65	0.7405	0.7823	-0.2468	-0.3091
544112	MC	19	60	3	63	0.8593	0.8736	-1.0624	-1.0652
544079	MC	19	61	3	64	0.8822	0.8739	-1.2954	-1.0700
544204	MC	19	62	3	65	0.8459	0.8512	-0.9382	-0.8449
544286	MC	19	63	3	66	0.8081	0.8481	-0.6279	-0.8134
544062	MC	20	60	14	63	0.7640	0.7146	-0.2824	0.1634
544094	MC	20	61	14	64	0.6522	0.6912	0.3786	0.3040
544309	MC	20	62	14	65	0.6789	0.7330	0.2321	0.0545
544276	MC	20	63	14	66	0.7043	0.6985	0.0869	0.2634
548674	OE	18	72	6	73	0.5684	0.6024	0.9595	0.9062
542406	OE	19	72	1	73	0.6769	0.7326	0.2671	0.1792
548680	OE	20	72	14	73	0.4546	0.4914	1.3251	1.3217
Mean						0.6878	0.7086	0.0925	0.1057

Grade 5 Mathematics

ID	Item Type	Form	Seq.	Prev. Form	Prev. Seq.	2007 P-Value	2008 P-Value	2007 Logit	2008 Logit
541862	MC	All	3	All	3	0.6509	0.6711	0.7212	0.7449
544439	MC	All	14	All	14	0.8016	0.8203	-0.2310	-0.2386
540142	MC	All	51	All	51	0.6752	0.6706	0.5847	0.7515
544408	MC	All	53	All	53	0.5998	0.6133	0.9979	1.0721
540097	MC	All	54	All	54	0.5707	0.5651	1.1508	1.3259
544481	MC	All	56	All	56	0.6457	0.6745	0.7492	0.7286
544463	MC	All	57	All	57	0.6557	0.6925	0.6948	0.6248
540207	MC	All	58	All	58	0.6889	0.6699	0.5053	0.7562
544553	MC	All	96	All	96	0.8388	0.8550	-0.5288	-0.5417
543706	MC	All	104	All	104	0.6295	0.6880	0.8387	0.6566
544593	MC	16	61	8	63	0.8207	0.8511	-0.3296	-0.4689
544467	MC	16	62	8	64	0.6102	0.5998	0.9779	1.1719
544585	MC	16	63	8	65	0.7158	0.7155	0.3895	0.5116
544460	MC	16	64	8	66	0.6717	0.6941	0.6449	0.6429
544603	MC	17	61	10	63	0.5728	0.6302	1.1578	0.9760
544576	MC	17	62	10	64	0.8248	0.8523	-0.3905	-0.5005
544453	MC	17	64	10	66	0.6795	0.6760	0.5824	0.7253
544399	MC	18	61	4	63	0.6960	0.7332	0.4417	0.3911
544616	MC	18	62	4	64	0.8195	0.8384	-0.3960	-0.3777
544414	MC	18	63	4	65	0.6059	0.6729	0.9443	0.7656
544615	MC	18	64	4	66	0.6241	0.6724	0.8463	0.7629
544595	MC	19	61	14	62	0.4631	0.4725	1.7086	1.8297
544514	MC	19	62	14	63	0.8412	0.8622	-0.5454	-0.6078
544578	MC	19	63	14	64	0.8304	0.8422	-0.4524	-0.4101
544420	MC	19	64	14	65	0.6616	0.7480	0.6703	0.2962
544637	MC	20	61	9	62	0.7786	0.7514	-0.0398	0.2705
544601	MC	20	63	9	64	0.6653	0.7168	0.6519	0.4849
544535	MC	20	64	9	65	0.6165	0.7007	0.9144	0.5799
548712	OE	18	73	4	73	0.5427	0.5303	1.2723	1.5278
548725	OE	19	73	13	73	0.5720	0.6222	1.1577	0.9190
548721	OE	20	73	15	73	0.6375	0.6422	1.0088	1.0762
Mean						0.6776	0.7015	0.5386	0.5305

Grade 6 Mathematics

ID	Item Type	Form	Seq.	Prev. Form	Prev. Seq.	2007 P-Value	2008 P-Value	2007 Logit	2008 Logit
545144	MC	All	11	All	11	0.6412	0.6816	0.3334	0.2713
544982	MC	All	15	All	15	0.6124	0.6538	0.4892	0.4317
545213	MC	All	19	All	19	0.6177	0.6170	0.4602	0.6361
545236	MC	All	22	All	22	0.6437	0.6586	0.3196	0.4095
545038	MC	All	51	All	50	0.6571	0.6840	0.2455	0.2559
545008	MC	All	90	All	90	0.5953	0.6185	0.5789	0.6349
545157	MC	All	92	All	92	0.7403	0.7441	-0.2441	-0.1230
545095	MC	All	98	All	98	0.5682	0.6256	0.7209	0.5920
544986	MC	All	100	All	100	0.6619	0.7314	0.2190	-0.0321
545078	MC	All	108	All	108	0.7794	0.8276	-0.5030	-0.7204
544994	MC	16	57	7	58	0.8915	0.8979	-1.4759	-1.4035
545150	MC	16	58	7	59	0.4338	0.4771	1.3871	1.4163
545175	MC	16	59	7	60	0.4703	0.4772	1.2015	1.4195
545026	MC	16	60	7	61	0.7421	0.8177	-0.2579	-0.6189
545172	MC	17	57	9	58	0.6530	0.6968	0.2457	0.1885
542766	MC	17	58	9	59	0.8324	0.8475	-0.9217	-0.8834
542620	MC	17	59	9	60	0.8426	0.8550	-1.0090	-0.9583
545086	MC	17	60	9	61	0.7853	0.8068	-0.5623	-0.5459
545143	MC	18	57	5	58	0.3623	0.4217	1.7880	1.7310
545211	MC	18	58	5	59	0.6064	0.6533	0.5192	0.4756
542756	MC	18	59	5	60	0.7997	0.8184	-0.6529	-0.6057
545113	MC	18	60	5	61	0.7432	0.7733	-0.2653	-0.2767
545041	MC	19	57	15	59	0.7301	0.8107	-0.1714	-0.5602
545106	MC	19	58	15	60	0.8815	0.8975	-1.3646	-1.4006
542574	MC	19	59	15	61	0.4676	0.4346	1.2375	1.6290
545234	MC	19	60	15	62	0.8010	0.8327	-0.6513	-0.7375
545110	MC	20	57	12	59	0.5928	0.6050	0.6137	0.6976
545103	MC	20	58	12	60	0.7205	0.7703	-0.0977	-0.2888
545149	MC	20	59	12	61	0.8157	0.8082	-0.7503	-0.5593
545151	MC	20	60	12	62	0.5470	0.5657	0.8491	0.9037
548764	OE	17	69	13	69	0.5284	0.5957	0.9634	0.7275
548753	OE	19	69	8	69	0.4919	0.4909	0.9434	1.1934
548779	OE	20	69	6	69	0.5723	0.5949	0.7840	0.8451
Mean						0.6615	0.6906	0.1507	0.1438

Grade 7 Mathematics

ID	Item Type	Form	Seq.	Prev. Form	Prev. Seq.	2007 P-Value	2008 P-Value	2007 Logit	2008 Logit
542924	MC	All	2	All	2	0.6294	0.6756	0.2547	0.1434
542966	MC	All	5	All	6	0.7592	0.7614	-0.5298	-0.3865
544739	MC	All	10	All	11	0.5792	0.6347	0.5271	0.3730
544788	MC	All	51	All	51	0.7583	0.8095	-0.5217	-0.7186
544849	MC	All	53	All	53	0.6211	0.6548	0.2999	0.2583
544735	MC	All	55	All	56	0.6561	0.6926	0.1045	0.0449
544922	MC	All	56	All	57	0.5330	0.5797	0.7726	0.6631
544920	MC	All	91	All	91	0.7049	0.7361	-0.1820	-0.2173
544773	MC	All	96	All	96	0.5832	0.6284	0.5064	0.4012
544825	MC	All	99	All	99	0.6939	0.7192	-0.1159	-0.1126
544897	MC	16	57	11	59	0.6286	0.6169	0.2751	0.4785
544792	MC	16	58	11	60	0.7876	0.8379	-0.7161	-0.9337
544711	MC	16	59	11	61	0.8349	0.8496	-1.0914	-1.0258
544902	MC	16	60	11	62	0.3932	0.4453	1.5307	1.3757
544828	MC	17	57	3	59	0.7800	0.7921	-0.6839	-0.5576
544892	MC	17	58	3	60	0.7681	0.7979	-0.6007	-0.5966
544718	MC	17	59	3	61	0.6397	0.6963	0.1808	0.0604
544780	MC	17	60	3	62	0.5604	0.5830	0.6083	0.6714
544759	MC	18	57	4	59	0.6469	0.6431	0.1617	0.3247
544836	MC	18	58	4	60	0.4747	0.5405	1.0711	0.8746
544808	MC	18	59	4	61	0.8295	0.8527	-1.0389	-1.0684
544841	MC	18	60	4	62	0.5769	0.5940	0.5395	0.5978
544802	MC	19	57	1	58	0.8425	0.8963	-1.3253	-1.5091
544921	MC	19	58	1	59	0.5329	0.5756	0.6420	0.6919
544768	MC	19	59	1	60	0.7487	0.7896	-0.6074	-0.5594
544716	MC	19	60	1	61	0.5440	0.6078	0.5824	0.5293
544894	MC	20	57	15	59	0.5582	0.5683	0.6652	0.7234
544907	MC	20	58	15	60	0.6268	0.6377	0.2972	0.3656
544765	MC	20	59	15	61	0.7534	0.7800	-0.4590	-0.4934
544751	MC	20	60	15	62	0.7115	0.7399	-0.1919	-0.2219
542883	OE	18	69	14	69	0.4713	0.4882	1.1517	1.1858
542882	OE	19	69	13	69	0.3883	0.3864	1.4529	1.5288
548796	OE	20	69	15	69	0.6582	0.6668	0.0515	0.1361
Mean						0.6447	0.6751	0.1094	0.0917

Grade 8 Mathematics

ID	Item Type	Form	Seq.	Prev. Form	Prev. Seq.	2007 P-Value	2008 P-Value	2007 Logit	2008 Logit
541971	MC	All	3	All	3	0.6920	0.6875	0.1133	0.2364
540617	MC	All	9	All	10	0.7020	0.7508	0.0538	-0.1596
545657	MC	All	13	All	14	0.6330	0.6679	0.4513	0.3458
542071	MC	All	14	All	15	0.5752	0.5645	0.7646	0.9158
542029	MC	All	15	All	16	0.7858	0.8190	-0.4946	-0.6539
545630	MC	All	50	All	50	0.5185	0.4796	1.0631	1.3641
541979	MC	All	92	All	92	0.6186	0.6886	0.5297	0.2264
545715	MC	All	98	All	98	0.5606	0.6537	0.8412	0.4303
545573	MC	All	99	All	99	0.7488	0.7502	-0.2399	-0.1612
545602	MC	All	109	All	109	0.7151	0.7238	-0.0264	0.0209
545751	MC	16	57	12	58	0.7983	0.8077	-0.5855	-0.5779
545631	MC	16	58	12	59	0.6787	0.6845	0.1946	0.2499
540368	MC	16	59	12	60	0.5220	0.5495	1.0414	0.9899
545783	MC	16	60	12	61	0.6570	0.6420	0.3189	0.4931
545616	MC	17	57	4	58	0.6974	0.7131	0.0659	0.1200
545784	MC	17	58	4	59	0.8021	0.8195	-0.6406	-0.6187
545748	MC	17	59	4	60	0.6027	0.6378	0.6050	0.5604
545803	MC	17	60	4	61	0.5978	0.6046	0.6314	0.7438
545689	MC	18	57	14	59	0.4512	0.4468	1.4034	1.5609
545654	MC	18	58	14	60	0.6360	0.7037	0.4362	0.1690
545771	MC	18	59	14	61	0.7391	0.6995	-0.1717	0.1913
545668	MC	18	60	14	62	0.6988	0.7109	0.0775	0.1273
545720	MC	19	57	3	59	0.4649	0.5362	1.3265	1.0717
545612	MC	19	58	3	60	0.8671	0.8780	-1.2021	-1.1850
545821	MC	19	59	3	61	0.7716	0.7980	-0.4130	-0.4878
545724	MC	19	60	3	62	0.5748	0.6041	0.7511	0.7061
545770	MC	20	57	10	59	0.7936	0.8246	-0.5678	-0.6846
545673	MC	20	58	10	60	0.7179	0.7062	-0.0592	0.1370
545826	MC	20	59	10	61	0.6526	0.6380	0.3244	0.5332
545778	MC	20	60	10	62	0.4102	0.4310	1.6091	1.6402
548823	OE	18	69	3	69	0.4820	0.5262	1.1747	1.0818
548832	OE	19	69	10	69	0.5675	0.5599	0.8536	0.9398
548844	OE	20	69	16	69	0.6480	0.6616	0.5419	0.5232
Mean						0.6479	0.6657	0.3264	0.3288

Grade 11 Mathematics

ID	Item Type	Form	Seq.	Prev. Form	Prev. Seq.	2007 P-Value	2008 P-Value	2007 Logit	2008 Logit
542182	MC	All	2	All	2	0.6144	0.6028	-0.0008	0.1106
540672	MC	All	4	All	4	0.6046	0.6088	0.0517	0.0805
545451	MC	All	9	All	9	0.5827	0.6008	0.1676	0.1198
545279	MC	All	13	All	13	0.5967	0.6208	0.0948	0.0172
545274	MC	All	14	All	14	0.7118	0.7193	-0.5501	-0.5566
545293	MC	All	19	All	19	0.6498	0.7078	-0.1938	-0.4819
545461	MC	All	58	All	57	0.7096	0.7507	-0.5385	-0.7631
545513	MC	All	95	All	94	0.7050	0.6877	-0.5108	-0.3651
545359	MC	All	106	All	105	0.7667	0.7933	-0.9012	-1.0590
540675	MC	All	107	All	106	0.7907	0.7703	-1.0665	-0.8854
542260	MC	16	61	1	61	0.7255	0.8103	-0.7316	-1.1628
545264	MC	16	62	1	62	0.8507	0.8847	-1.6501	-1.8415
540526	MC	16	63	1	63	0.4437	0.4594	0.7942	0.9068
545393	MC	16	64	1	64	0.5755	0.6189	0.1102	0.0496
540655	MC	17	61	9	61	0.7384	0.7584	-0.7299	-0.7838
545440	MC	17	62	9	62	0.7254	0.7063	-0.6486	-0.4611
545363	MC	17	64	9	64	0.4144	0.4221	1.0363	1.0835
542221	MC	18	61	12	61	0.6960	0.7018	-0.4412	-0.4467
542247	MC	18	62	12	62	0.6713	0.6739	-0.2989	-0.2904
542274	MC	18	63	12	63	0.5968	0.5717	0.1067	0.2788
545328	MC	18	64	12	64	0.5474	0.5656	0.3643	0.3192
545319	MC	19	61	3	61	0.7708	0.7781	-0.9296	-0.9274
540654	MC	19	62	3	62	0.4837	0.5019	0.6822	0.6897
545444	MC	19	63	3	63	0.5009	0.4845	0.5936	0.7781
540687	MC	19	64	3	64	0.6829	0.6757	-0.3797	-0.2680
545396	MC	20	61	14	62	0.7050	0.7171	-0.4955	-0.5350
545408	MC	20	62	14	63	0.6503	0.6261	-0.1806	0.0015
545425	MC	20	63	14	64	0.7413	0.7511	-0.7202	-0.7560
545321	MC	20	64	14	65	0.6319	0.6270	-0.0793	-0.0059
548875	OE	18	73	13	72	0.3100	0.3434	1.6772	1.6186
548853	OE	19	73	17	72	0.5449	0.5275	0.3593	0.5250
548867	OE	20	73	15	72	0.4839	0.5123	0.8022	0.7220
Mean						0.6320	0.6431	-0.1315	-0.1340

Grade 3 Reading

ID	Item Type	Form	Seq.	Prev. Form	Prev. Seq.	2007 P-Value	2008 P-Value	2007 Logit	2008 Logit
550339	MC	13	74	5	74	0.8248	0.8321	-0.9746	-0.9117
550340	MC	13	75	5	75	0.8164	0.8407	-0.9064	-0.9864
550341	MC	13	76	5	76	0.5786	0.6249	0.5562	0.4297
550342	MC	13	77	5	77	0.8269	0.8409	-0.9923	-0.9855
550343	MC	13	78	5	78	0.8198	0.8393	-0.9336	-0.9700
550344	MC	13	79	5	79	0.7404	0.7523	-0.3653	-0.3173
550345	MC	13	80	5	80	0.4912	0.5448	1.0054	0.8518
550369	MC	14	74	2	74	0.7818	0.7920	-0.6787	-0.5971
550371	MC	14	75	2	75	0.6195	0.6269	0.3290	0.3987
550372	MC	14	76	2	76	0.8978	0.9158	-1.7545	-1.8046
550373	MC	14	77	2	77	0.8511	0.8626	-1.2501	-1.1954
550374	MC	14	78	2	78	0.8598	0.8685	-1.3335	-1.2604
549523	MC	14	79	2	79	0.8392	0.8563	-1.1407	-1.1362
550375	MC	14	80	2	80	0.5774	0.5857	0.5572	0.6260
550376	MC	14	81	2	81	0.6954	0.7210	-0.1073	-0.1342
550378	MC	15	74	7	74	0.8296	0.8312	-1.0018	-0.9324
550379	MC	15	75	7	75	0.7522	0.7690	-0.4224	-0.4505
550380	MC	15	76	7	76	0.5100	0.5356	0.9454	0.8636
550381	MC	15	77	7	77	0.7975	0.8012	-0.7441	-0.6873
550383	MC	15	78	7	78	0.7154	0.7402	-0.1856	-0.2581
550385	MC	15	80	7	80	0.8403	0.8450	-1.0942	-1.0513
550386	MC	15	81	7	81	0.8179	0.8385	-0.9040	-0.9828
550410	MC	16	74	13	74	0.7958	0.7985	-0.7476	-0.6732
550412	MC	16	75	13	75	0.7231	0.7331	-0.2455	-0.2241
550413	MC	16	76	13	76	0.7813	0.7849	-0.6391	-0.5823
550414	MC	16	77	13	77	0.8995	0.9166	-1.7396	-1.8582
550415	MC	16	78	13	78	0.7913	0.7915	-0.7135	-0.6221
550416	MC	16	79	13	79	0.6816	0.7017	0.0082	-0.0292
550418	MC	16	80	13	80	0.8052	0.8191	-0.8195	-0.8345
550419	MC	16	81	13	81	0.7945	0.8036	-0.7372	-0.7144
Mean						0.7585	0.7738	-0.5677	-0.5676

Grade 4 Reading

ID	Item Type	Form	Seq.	Prev. Form	Prev. Seq.	2007 P-Value	2008 P-Value	2007 Logit	2008 Logit
549346	MC	16	74	8	75	0.7575	0.7593	-0.4337	-0.3564
550116	MC	16	75	8	76	0.7799	0.7576	-0.5869	-0.3493
549347	MC	16	76	8	77	0.4783	0.4816	1.0828	1.1596
549348	MC	16	77	8	78	0.8421	0.8428	-1.0754	-0.9951
549349	MC	16	78	8	79	0.8546	0.8486	-1.1900	-1.0357
550117	MC	16	79	8	80	0.7885	0.7932	-0.6484	-0.5889
546265	MC	17	74	14	75	0.7466	0.7695	-0.3508	-0.4537
546266	MC	17	75	14	76	0.8343	0.8433	-0.9933	-1.0167
546263	MC	17	76	14	77	0.6326	0.6235	0.3084	0.4183
546261	MC	17	77	14	78	0.7300	0.7285	-0.2465	-0.1802
546268	MC	17	78	14	79	0.7522	0.7494	-0.3875	-0.3259
546270	MC	17	79	14	80	0.7485	0.7539	-0.3630	-0.3465
546479	MC	18	74	15	75	0.7021	0.7069	-0.1086	-0.0360
546467	MC	18	75	15	76	0.7159	0.7461	-0.1892	-0.2758
546469	MC	18	76	15	77	0.6791	0.7083	0.0218	-0.0398
546470	MC	18	77	15	78	0.6787	0.7028	0.0244	-0.0008
546471	MC	18	78	15	79	0.7357	0.7689	-0.3093	-0.4279
546474	MC	18	79	15	80	0.5809	0.5934	0.5384	0.5919
549035	MC	19	74	6	75	0.8505	0.8570	-1.1660	-1.1225
549037	MC	19	75	6	76	0.8036	0.8175	-0.7800	-0.7843
550081	MC	19	76	6	77	0.8638	0.8748	-1.2918	-1.3173
549038	MC	19	77	6	78	0.7504	0.7912	-0.4112	-0.5849
549039	MC	19	78	6	79	0.7457	0.7672	-0.3811	-0.4203
550082	MC	19	79	6	80	0.7333	0.7533	-0.3035	-0.3251
549280	MC	20	74	10	75	0.6185	0.6314	0.3629	0.4169
549281	MC	20	75	10	76	0.5382	0.5629	0.7710	0.7717
549282	MC	20	76	10	77	0.8705	0.8806	-1.3523	-1.3448
550096	MC	20	77	10	78	0.6481	0.6495	0.2054	0.3156
549284	MC	20	78	10	79	0.8200	0.8221	-0.8962	-0.7956
549285	MC	20	79	10	80	0.8999	0.9088	-1.6848	-1.6921
546271	OE	17	80	14	81	0.5078	0.5288	0.9626	0.9234
549041	OE	19	80	6	81	0.5859	0.5948	0.4436	0.5165
550097	OE	20	80	10	81	0.4073	0.4597	1.6060	1.3419
Mean						0.7176	0.7296	-0.2673	-0.2533

Grade 5 Reading

ID	Item Type	Form	Seq.	Prev. Form	Prev. Seq.	2007 P-Value	2008 P-Value	2007 Logit	2008 Logit
540833	MC	16	75	1	75	0.7650	0.8237	-0.4826	-0.6571
540831	MC	16	76	1	76	0.8145	0.8515	-0.8454	-0.8928
540830	MC	16	77	1	77	0.7772	0.8170	-0.5665	-0.6032
540832	MC	16	78	1	78	0.8614	0.9023	-1.2571	-1.4393
540835	MC	16	79	1	79	0.4533	0.4509	1.2247	1.4778
540841	MC	16	80	1	80	0.8558	0.9041	-1.2029	-1.4612
540750	MC	17	75	7	75	0.7224	0.7327	-0.0573	-0.0119
540743	MC	17	76	7	76	0.7957	0.8129	-0.5415	-0.5624
540741	MC	17	77	7	77	0.8148	0.8239	-0.6857	-0.6658
540740	MC	17	78	7	78	0.7647	0.7813	-0.3254	-0.3383
540742	MC	17	79	7	79	0.8361	0.8383	-0.8599	-0.7738
540748	MC	17	80	7	80	0.7502	0.7468	-0.2304	-0.1026
546034	MC	18	75	9	75	0.7224	0.7294	-0.0619	-0.0137
546033	MC	18	76	9	76	0.5579	0.5959	0.8269	0.7231
546019	MC	18	77	9	77	0.7695	0.7849	-0.3618	-0.3871
546035	MC	18	78	9	78	0.8219	0.8426	-0.7452	-0.8309
546023	MC	18	79	9	79	0.6782	0.6832	0.1949	0.2560
546179	MC	19	75	12	75	0.7705	0.7760	-0.3619	-0.3196
546169	MC	19	76	12	76	0.4788	0.4784	1.2217	1.3286
546181	MC	19	77	12	77	0.8519	0.8585	-0.9942	-0.9816
545836	MC	19	78	12	78	0.8441	0.8580	-0.9244	-0.9789
546172	MC	19	79	12	79	0.8132	0.8127	-0.6703	-0.5852
546184	MC	19	80	12	80	0.7378	0.7406	-0.1502	-0.0866
546049	MC	20	75	15	75	0.9017	0.8931	-1.5286	-1.3530
546046	MC	20	76	15	76	0.8338	0.8550	-0.8379	-0.9328
546041	MC	20	77	15	77	0.8120	0.8149	-0.6627	-0.5952
546054	MC	20	78	15	78	0.8062	0.8094	-0.6182	-0.5494
546053	MC	20	79	15	79	0.6468	0.6571	0.3699	0.4058
546048	MC	20	80	15	80	0.7040	0.7046	0.0516	0.1336
540843	OE	16	81	1	81	0.6421	0.7102	0.1971	0.0296
540744	OE	17	81	7	81	0.6568	0.7054	0.3464	0.2988
546175	OE	19	81	12	81	0.6658	0.6373	0.2599	0.3799
Mean						0.7477	0.7635	-0.3212	-0.3153

Grade 6 Reading

ID	Item Type	Form	Seq.	Prev. Form	Prev. Seq.	2007 P-Value	2008 P-Value	2007 Logit	2008 Logit
547534	MC	16	71	3	71	0.5529	0.5664	0.5743	0.6254
547533	MC	16	72	3	72	0.7593	0.7790	-0.5744	-0.5710
547525	MC	16	73	3	73	0.7253	0.7498	-0.3599	-0.3852
547536	MC	16	74	3	74	0.8115	0.7943	-0.9436	-0.6806
547523	MC	16	75	3	75	0.3547	0.3848	1.5761	1.5303
547537	MC	16	76	3	76	0.6224	0.6754	0.2177	0.0537
546703	MC	17	72	7	72	0.8219	0.8401	-1.0115	-1.0325
550023	MC	17	73	7	73	0.7183	0.7371	-0.3017	-0.2967
546704	MC	17	74	7	74	0.5813	0.5882	0.4471	0.5123
546705	MC	17	75	7	75	0.6266	0.6521	0.2121	0.1879
546706	MC	17	76	7	76	0.9199	0.9376	-2.0467	-2.1968
546732	MC	18	71	9	71	0.7906	0.8132	-0.7924	-0.8153
546733	MC	18	72	9	72	0.7346	0.7434	-0.4146	-0.3307
546743	MC	18	73	9	73	0.4543	0.4911	1.0912	1.0405
546734	MC	18	74	9	74	0.7050	0.7155	-0.2332	-0.1623
546735	MC	18	75	9	75	0.6269	0.6723	0.2061	0.0963
546736	MC	18	76	9	76	0.8386	0.8667	-1.1720	-1.2871
547612	MC	20	71	11	71	0.7236	0.7257	-0.3264	-0.2343
547598	MC	20	72	11	72	0.8335	0.8653	-1.1075	-1.2805
547599	MC	20	73	11	73	0.8456	0.8651	-1.2137	-1.2865
547601	MC	20	74	11	74	0.9232	0.9278	-2.1088	-2.0598
547597	MC	20	75	11	75	0.7500	0.7430	-0.4930	-0.3439
547607	MC	20	76	11	76	0.8093	0.8258	-0.9117	-0.9451
547538	OE	16	77	3	77	0.6448	0.6686	-0.0415	-0.1134
546737	OE	18	77	9	77	0.6003	0.6192	0.3259	0.3205
547614	OE	20	77	11	77	0.6370	0.6308	-0.0290	0.1067
Mean						0.7081	0.7261	-0.3627	-0.3672

Grade 7 Reading

ID	Item Type	Form	Seq.	Prev. Form	Prev. Seq.	2007 P-Value	2008 P-Value	2007 Logit	2008 Logit
547813	MC	16	71	5	71	0.8153	0.8337	-0.9642	-0.9689
547825	MC	16	72	5	72	0.7278	0.7671	-0.3520	-0.4749
547820	MC	16	73	5	73	0.5111	0.5239	0.8284	0.8821
547809	MC	16	74	5	74	0.5364	0.5752	0.7005	0.6235
547819	MC	16	75	5	75	0.7761	0.8171	-0.6711	-0.8279
547817	MC	16	76	5	76	0.7114	0.7430	-0.2509	-0.3091
547202	MC	17	71	3	71	0.8756	0.8891	-1.4706	-1.5100
547196	MC	17	72	3	72	0.8949	0.9140	-1.6847	-1.8259
547203	MC	17	73	3	73	0.4122	0.4203	1.2799	1.3975
547199	MC	17	74	3	74	0.6367	0.6490	0.1652	0.2271
547205	MC	17	75	3	75	0.4356	0.4605	1.1642	1.1966
547207	MC	17	76	3	76	0.8599	0.8736	-1.3160	-1.3352
547683	MC	18	71	7	71	0.7750	0.7886	-0.6423	-0.6157
547500	MC	18	72	7	72	0.7456	0.7615	-0.4454	-0.4263
547681	MC	18	73	7	73	0.6540	0.6655	0.0979	0.1366
547691	MC	18	74	7	74	0.6115	0.5925	0.3273	0.5296
547689	MC	18	75	7	75	0.7156	0.7557	-0.2578	-0.3965
547680	MC	18	76	7	76	0.8031	0.8107	-0.8451	-0.7818
547898	MC	19	71	10	71	0.7585	0.7728	-0.5395	-0.5086
547895	MC	19	72	10	72	0.7137	0.7251	-0.2571	-0.2013
547897	MC	19	73	10	73	0.7970	0.8053	-0.8085	-0.7432
547900	MC	19	74	10	74	0.6376	0.6534	0.1745	0.2036
547899	MC	19	75	10	75	0.6130	0.6187	0.3054	0.4001
547888	MC	19	76	10	76	0.6257	0.6742	0.2380	0.1003
547913	MC	20	71	11	71	0.7805	0.7892	-0.6906	-0.6023
547914	MC	20	72	11	72	0.7636	0.7651	-0.5738	-0.4359
547916	MC	20	73	11	73	0.6174	0.6353	0.2904	0.3284
547911	MC	20	74	11	74	0.6858	0.7088	-0.0896	-0.0794
547917	MC	20	75	11	75	0.8657	0.8718	-1.3954	-1.2993
547919	MC	20	76	11	76	0.7534	0.8237	-0.5059	-0.8706
Mean						0.7037	0.7228	-0.2730	-0.2729

Grade 8 Reading

ID	Item Type	Form	Seq.	Prev. Form	Prev. Seq.	2007 P-Value	2008 P-Value	2007 Logit	2008 Logit
541327	MC	16	71	13	71	0.9363	0.9380	-1.8092	-1.6739
541337	MC	16	72	13	72	0.5967	0.5748	0.9058	1.1962
541329	MC	16	73	13	73	0.8403	0.8518	-0.6415	-0.5684
541330	MC	16	74	13	74	0.9140	0.9234	-1.4506	-1.4136
541332	MC	16	75	13	75	0.7176	0.7418	0.2365	0.2574
541339	MC	16	76	13	76	0.8877	0.8776	-1.1148	-0.8330
543776	MC	17	71	12	71	0.9439	0.9469	-1.8868	-1.8185
543773	MC	17	72	12	72	0.8615	0.8717	-0.7860	-0.7465
543777	MC	17	73	12	73	0.8717	0.8811	-0.8865	-0.8538
543778	MC	17	74	12	74	0.9315	0.9396	-1.6551	-1.6729
543779	MC	17	75	12	75	0.7757	0.7890	-0.1062	-0.0452
543780	MC	17	76	12	76	0.7037	0.7492	0.3398	0.2383
541203	MC	18	71	9	71	0.8902	0.8905	-1.0999	-0.9213
541209	MC	18	72	9	72	0.7771	0.7798	-0.1222	0.0405
541207	MC	18	73	9	73	0.8579	0.8709	-0.7633	-0.7176
541208	MC	18	74	9	74	0.6627	0.6778	0.5657	0.6774
541210	MC	18	75	9	75	0.5706	0.6029	1.0397	1.0724
543810	MC	19	71	15	71	0.8384	0.8436	-0.6125	-0.4873
543812	MC	19	72	15	72	0.8682	0.8742	-0.8875	-0.7863
543813	MC	19	73	15	73	0.5276	0.6215	1.2335	0.9399
543815	MC	19	74	15	74	0.7389	0.7759	0.1032	0.0138
543816	MC	19	75	15	75	0.6824	0.6893	0.4356	0.5659
543809	MC	19	76	15	76	0.8933	0.9028	-1.1598	-1.1074
541082	MC	20	71	14	71	0.8472	0.8512	-0.6443	-0.5718
541086	MC	20	72	14	72	0.7224	0.7339	0.2418	0.3145
541105	MC	20	73	14	73	0.7593	0.7747	0.0134	0.0474
541109	MC	20	74	14	74	0.6545	0.6727	0.6220	0.6789
541085	MC	20	75	14	75	0.7711	0.7928	-0.0641	-0.0886
541087	MC	20	76	14	76	0.6795	0.7022	0.4869	0.5155
541211	OE	18	77	9	77	0.6114	0.6777	0.8342	0.6806
543808	OE	19	77	15	77	0.5253	0.5831	1.2280	0.9804
541088	OE	20	77	14	77	0.6514	0.7000	0.5920	0.4199
Mean						0.7659	0.7845	-0.2129	-0.1771

Grade 11 Reading

ID	Item Type	Form	Seq.	Prev. Form	Prev. Seq.	2007 P-Value	2008 P-Value	2007 Logit	2008 Logit
548635	MC	16	75	14	74	0.7211	0.7368	-0.2231	-0.2525
548648	MC	16	76	14	75	0.7814	0.7866	-0.6169	-0.5744
548636	MC	16	77	14	76	0.6565	0.6753	0.1485	0.0988
548637	MC	16	78	14	77	0.8077	0.8100	-0.8103	-0.7441
548632	MC	16	79	14	78	0.5579	0.5677	0.6628	0.6664
548634	MC	16	80	14	79	0.6335	0.6352	0.2732	0.3173
544007	MC	17	75	13	74	0.7158	0.7051	-0.1835	-0.0652
544005	MC	17	76	13	75	0.6913	0.7183	-0.0420	-0.1381
544004	MC	17	77	13	76	0.7492	0.7659	-0.3883	-0.4357
544009	MC	17	78	13	77	0.6073	0.5960	0.4080	0.5216
544010	MC	17	79	13	78	0.4977	0.4964	0.9527	1.0147
544006	MC	17	80	13	79	0.6526	0.6583	0.1713	0.1945
541593	MC	18	75	9	74	0.7780	0.7820	-0.6163	-0.5798
541595	MC	18	76	9	75	0.8312	0.8124	-1.0192	-0.8005
541599	MC	18	77	9	76	0.8022	0.8078	-0.7906	-0.7692
541592	MC	18	78	9	77	0.7328	0.7229	-0.3213	-0.2030
541600	MC	18	79	9	78	0.8595	0.8617	-1.2726	-1.2206
541601	MC	18	80	9	79	0.8492	0.8396	-1.1762	-1.0242
543956	MC	19	75	2	74	0.7153	0.7178	-0.2147	-0.1499
543959	MC	19	76	2	75	0.7918	0.7816	-0.7136	-0.5622
543913	MC	19	77	2	76	0.7277	0.7531	-0.2893	-0.3625
543958	MC	19	78	2	77	0.8795	0.8981	-1.4741	-1.5922
543960	MC	19	79	2	78	0.6325	0.6524	0.2475	0.2254
543961	MC	19	80	2	79	0.8614	0.8732	-1.2888	-1.3172
543967	MC	20	75	11	74	0.8511	0.8615	-1.1926	-1.1951
543968	MC	20	76	11	75	0.6436	0.6572	0.2074	0.2173
543965	MC	20	77	11	76	0.8619	0.8733	-1.2958	-1.3196
549472	MC	20	78	11	77	0.5738	0.5698	0.5745	0.6738
543971	MC	20	79	11	78	0.6447	0.6554	0.2018	0.2157
543969	MC	20	80	11	79	0.7889	0.7885	-0.6867	-0.5948
543911	OE	19	81	2	80	0.6145	0.6434	0.3090	0.1690
543963	OE	20	81	11	80	0.5919	0.6291	0.4189	0.2211
Mean						0.7220	0.7291	-0.3138	-0.2927

Appendix P:

2008 Reading and Mathematics Raw to Scaled Score Tables

Table Legend

Column	Description
Raw Score	Raw score
Meas.	Rasch ability measure
Meas. SE	Rasch ability measure standard error
Scaled Score	Scale score
Scaled Score SE	Scale score standard error
Freq.	Frequency
Freq. %	Frequency percent
Cum. Freq.	Cumulative frequency
Cum. Freq. %	Cumulative frequency percent
Pctile	Percentile

Table P-1. Grade 3 Mathematics Raw-to-Scale Score Table

Raw Score	Meas.	Meas. SE	Scaled Score	Scaled Score SE	Freq.	Freq. %	Cum. Freq.	Cum. Freq. %	Pctile
0	-5.3579	1.8334	750	236	0	0.0	0	0.0	0
1	-4.1343	1.0139	750	131	0	0.0	0	0.0	0
2	-3.4130	0.7268	750	94	0	0.0	0	0.0	0
3	-2.9792	0.6014	750	77	0	0.0	0	0.0	0
4	-2.6630	0.5278	750	68	0	0.0	0	0.0	0
5	-2.4112	0.4783	750	62	2	0.0	2	0.0	1
6	-2.2001	0.4422	750	57	0	0.0	2	0.0	1
7	-2.0169	0.4147	750	53	5	0.0	7	0.0	1
8	-1.8543	0.3928	750	51	8	0.0	15	0.0	1
9	-1.7070	0.3750	750	48	12	0.0	27	0.0	1
10	-1.5720	0.3602	762	46	20	0.0	47	0.0	1
11	-1.4468	0.3478	778	45	49	0.0	96	0.1	1
12	-1.3297	0.3371	793	43	54	0.0	150	0.1	1
13	-1.2192	0.3279	807	42	80	0.1	230	0.2	1
14	-1.1143	0.3199	821	41	96	0.1	326	0.3	1
15	-1.0143	0.3129	834	40	136	0.1	462	0.4	1
16	-0.9183	0.3067	846	40	133	0.1	595	0.5	1
17	-0.8259	0.3013	858	39	141	0.1	736	0.6	1
18	-0.7366	0.2965	869	38	146	0.1	882	0.7	1
19	-0.6499	0.2923	881	38	176	0.1	1058	0.8	1
20	-0.5656	0.2885	891	37	212	0.2	1270	1.0	1
21	-0.4833	0.2852	902	37	233	0.2	1503	1.2	1
22	-0.4028	0.2823	912	36	249	0.2	1752	1.4	1
23	-0.3238	0.2798	923	36	267	0.2	2019	1.6	1
24	-0.2462	0.2776	933	36	274	0.2	2293	1.8	2
25	-0.1697	0.2757	942	36	334	0.3	2627	2.1	2
26	-0.0942	0.2740	952	35	311	0.2	2938	2.3	2
27	-0.0195	0.2727	962	35	362	0.3	3300	2.6	2
28	0.0546	0.2716	971	35	428	0.3	3728	2.9	3
29	0.1282	0.2708	981	35	449	0.4	4177	3.3	3
30	0.2013	0.2702	990	35	461	0.4	4638	3.7	3
31	0.2743	0.2699	1000	35	507	0.4	5145	4.1	4
32	0.3471	0.2698	1009	35	548	0.4	5693	4.5	4
33	0.4199	0.2699	1018	35	598	0.5	6291	5.0	5
34	0.4928	0.2703	1028	35	637	0.5	6928	5.5	5
35	0.5661	0.2709	1037	35	665	0.5	7593	6.0	6
36	0.6397	0.2717	1047	35	777	0.6	8370	6.6	6
37	0.7138	0.2728	1056	35	839	0.7	9209	7.3	7
38	0.7886	0.2742	1066	35	838	0.7	10047	7.9	8
39	0.8642	0.2758	1076	36	989	0.8	11036	8.7	8
40	0.9408	0.2777	1085	36	1071	0.8	12107	9.6	9
41	1.0185	0.2799	1095	36	1120	0.9	13227	10.5	10
42	1.0976	0.2824	1106	36	1269	1.0	14496	11.5	11
43	1.1781	0.2853	1116	37	1302	1.0	15798	12.5	12
44	1.2605	0.2886	1127	37	1438	1.1	17236	13.6	13
45	1.3447	0.2922	1137	38	1593	1.3	18829	14.9	14
46	1.4314	0.2963	1149	38	1826	1.4	20655	16.3	16
47	1.5205	0.3009	1160	39	1954	1.5	22609	17.9	17
48	1.6126	0.3061	1172	39	2065	1.6	24674	19.5	19
49	1.7081	0.3119	1184	40	2196	1.7	26870	21.2	20
50	1.8074	0.3185	1197	41	2640	2.1	29510	23.3	22
51	1.9111	0.3258	1210	42	2918	2.3	32428	25.6	24
52	2.0200	0.3342	1224	43	3192	2.5	35620	28.1	27
53	2.1348	0.3436	1239	44	3474	2.7	39094	30.9	30
54	2.2565	0.3545	1255	46	4034	3.2	43128	34.1	32
55	2.3865	0.3670	1272	47	4533	3.6	47661	37.7	36
56	2.5264	0.3815	1290	49	5071	4.0	52732	41.7	40
57	2.6784	0.3985	1309	51	5995	4.7	58727	46.4	44
58	2.8452	0.4188	1331	54	6575	5.2	65302	51.6	49
59	3.0308	0.4435	1355	57	7432	5.9	72734	57.5	55
60	3.2408	0.4740	1382	61	8462	6.7	81196	64.2	61
61	3.4838	0.5133	1413	66	9110	7.2	90306	71.4	68
62	3.7736	0.5659	1450	73	9792	7.7	100098	79.1	75
63	4.1357	0.6422	1497	83	9580	7.6	109678	86.7	83
64	4.6256	0.7683	1560	99	8419	6.7	118097	93.3	90
65	5.4158	1.0508	1662	135	5925	4.7	124022	98.0	96
66	6.6966	1.8571	1827	239	2541	2.0	126563	100.0	99

Table P-2. Grade 4 Mathematics Raw-to-Scale Score Table

Raw Score	Meas.	Meas. SE	Scaled Score	Scaled Score SE	Freq.	Freq. %	Cum. Freq.	Cum. Freq. %	Pctile
0	-5.3949	1.8335	700	367	0	0.0	0	0.0	0
1	-4.1712	1.0140	700	203	0	0.0	0	0.0	0
2	-3.4498	0.7268	700	145	0	0.0	0	0.0	0
3	-3.0161	0.6013	700	120	0	0.0	0	0.0	0
4	-2.7002	0.5275	700	106	3	0.0	3	0.0	1
5	-2.4488	0.4777	700	96	5	0.0	8	0.0	1
6	-2.2383	0.4416	736	88	17	0.0	25	0.0	1
7	-2.0557	0.4138	772	83	33	0.0	58	0.0	1
8	-1.8937	0.3918	805	78	80	0.1	138	0.1	1
9	-1.7474	0.3739	834	75	130	0.1	268	0.2	1
10	-1.6133	0.3589	861	72	194	0.2	462	0.4	1
11	-1.4891	0.3463	886	69	306	0.2	768	0.6	1
12	-1.3730	0.3355	909	67	406	0.3	1174	0.9	1
13	-1.2636	0.3261	931	65	513	0.4	1687	1.3	1
14	-1.1599	0.3180	952	64	606	0.5	2293	1.8	2
15	-1.0611	0.3108	971	62	750	0.6	3043	2.4	2
16	-0.9665	0.3045	990	61	789	0.6	3832	3.0	3
17	-0.8754	0.2990	1008	60	846	0.7	4678	3.7	3
18	-0.7876	0.2940	1026	59	912	0.7	5590	4.4	4
19	-0.7024	0.2896	1043	58	993	0.8	6583	5.2	5
20	-0.6197	0.2857	1060	57	1105	0.9	7688	6.1	6
21	-0.5390	0.2822	1076	56	1141	0.9	8829	7.0	7
22	-0.4603	0.2791	1091	56	1174	0.9	10003	7.9	7
23	-0.3831	0.2764	1107	55	1293	1.0	11296	8.9	8
24	-0.3074	0.2740	1122	55	1326	1.0	12622	10.0	9
25	-0.2329	0.2718	1137	54	1414	1.1	14036	11.1	11
26	-0.1595	0.2700	1152	54	1487	1.2	15523	12.3	12
27	-0.0871	0.2684	1166	54	1524	1.2	17047	13.5	13
28	-0.0155	0.2670	1180	53	1584	1.3	18631	14.7	14
29	0.0555	0.2658	1195	53	1714	1.4	20345	16.1	15
30	0.1259	0.2649	1209	53	1755	1.4	22100	17.5	17
31	0.1958	0.2641	1223	53	1796	1.4	23896	18.9	18
32	0.2654	0.2636	1237	53	1993	1.6	25889	20.5	20
33	0.3348	0.2632	1250	53	2020	1.6	27909	22.1	21
34	0.4040	0.2630	1264	53	2182	1.7	30091	23.8	23
35	0.4732	0.2630	1278	53	2298	1.8	32389	25.6	25
36	0.5424	0.2633	1292	53	2323	1.8	34712	27.5	27
37	0.6118	0.2637	1306	53	2464	1.9	37176	29.4	28
38	0.6815	0.2643	1320	53	2517	2.0	39693	31.4	30
39	0.7516	0.2651	1334	53	2630	2.1	42323	33.5	32
40	0.8222	0.2662	1348	53	2672	2.1	44995	35.6	35
41	0.8933	0.2676	1362	54	2789	2.2	47784	37.8	37
42	0.9653	0.2692	1377	54	2914	2.3	50698	40.1	39
43	1.0383	0.2711	1391	54	2974	2.4	53672	42.5	41
44	1.1124	0.2734	1406	55	3068	2.4	56740	44.9	44
45	1.1878	0.2760	1421	55	3252	2.6	59992	47.5	46
46	1.2649	0.2791	1437	56	3262	2.6	63254	50.0	49
47	1.3437	0.2826	1452	57	3379	2.7	66633	52.7	51
48	1.4247	0.2867	1468	57	3528	2.8	70161	55.5	54
49	1.5081	0.2913	1485	58	3526	2.8	73687	58.3	57
50	1.5945	0.2967	1502	59	3704	2.9	77391	61.2	60
51	1.6843	0.3028	1520	61	3647	2.9	81038	64.1	63
52	1.7781	0.3099	1539	62	3926	3.1	84964	67.2	66
53	1.8766	0.3180	1559	64	3796	3.0	88760	70.2	69
54	1.9806	0.3274	1580	65	3773	3.0	92533	73.2	72
55	2.0913	0.3383	1602	68	3924	3.1	96457	76.3	75
56	2.2100	0.3510	1626	70	3967	3.1	100424	79.4	78
57	2.3384	0.3662	1651	73	3850	3.0	104274	82.5	81
58	2.4791	0.3844	1679	77	3772	3.0	108046	85.5	84
59	2.6353	0.4067	1711	81	3670	2.9	111716	88.4	87
60	2.8119	0.4347	1746	87	3364	2.7	115080	91.0	90
61	3.0165	0.4713	1787	94	3224	2.6	118304	93.6	92
62	3.2616	0.5214	1836	104	2694	2.1	120998	95.7	95
63	3.5710	0.5957	1898	119	2349	1.9	123347	97.6	97
64	3.9978	0.7219	1983	144	1671	1.3	125018	98.9	98
65	4.7119	1.0103	2126	202	1018	0.8	126036	99.7	99
66	5.9301	1.8313	2370	366	367	0.3	126403	100.0	99

Table P-3. Grade 5 Mathematics Raw-to-Scale Score Table

Raw Score	Meas.	Meas. SE	Scaled Score	Scaled Score SE	Freq.	Freq. %	Cum. Freq.	Cum. Freq. %	Pctile
0	-4.7798	1.8319	700	348	0	0.0	0	0.0	0
1	-3.5598	1.0114	700	192	0	0.0	0	0.0	0
2	-2.8437	0.7233	700	137	0	0.0	0	0.0	0
3	-2.4149	0.5972	700	113	0	0.0	0	0.0	0
4	-2.1038	0.5231	735	99	4	0.0	4	0.0	1
5	-1.8569	0.4731	782	90	11	0.0	15	0.0	1
6	-1.6507	0.4367	821	83	33	0.0	48	0.0	1
7	-1.4724	0.4088	855	78	92	0.1	140	0.1	1
8	-1.3145	0.3866	885	73	152	0.1	292	0.2	1
9	-1.1721	0.3686	912	70	248	0.2	540	0.4	1
10	-1.0419	0.3535	936	67	432	0.3	972	0.8	1
11	-0.9215	0.3408	959	65	549	0.4	1521	1.2	1
12	-0.8091	0.3299	981	63	691	0.5	2212	1.7	1
13	-0.7034	0.3205	1001	61	799	0.6	3011	2.4	2
14	-0.6034	0.3122	1020	59	915	0.7	3926	3.1	3
15	-0.5082	0.3050	1038	58	993	0.8	4919	3.9	3
16	-0.4172	0.2985	1055	57	1045	0.8	5964	4.7	4
17	-0.3298	0.2928	1072	56	1108	0.9	7072	5.6	5
18	-0.2455	0.2877	1088	55	1096	0.9	8168	6.4	6
19	-0.1641	0.2832	1103	54	1168	0.9	9336	7.3	7
20	-0.0851	0.2791	1118	53	1260	1.0	10596	8.3	8
21	-0.0082	0.2754	1133	52	1300	1.0	11896	9.3	9
22	0.0666	0.2720	1147	52	1334	1.0	13230	10.4	10
23	0.1398	0.2690	1161	51	1385	1.1	14615	11.5	11
24	0.2115	0.2664	1174	51	1454	1.1	16069	12.6	12
25	0.2818	0.2640	1188	50	1492	1.2	17561	13.8	13
26	0.3509	0.2618	1201	50	1612	1.3	19173	15.1	14
27	0.4189	0.2599	1214	49	1607	1.3	20780	16.3	16
28	0.4860	0.2583	1226	49	1669	1.3	22449	17.6	17
29	0.5524	0.2569	1239	49	1761	1.4	24210	19.0	18
30	0.6181	0.2557	1251	49	1866	1.5	26076	20.5	20
31	0.6832	0.2548	1264	48	1835	1.4	27911	21.9	21
32	0.7479	0.2541	1276	48	1975	1.6	29886	23.5	23
33	0.8123	0.2536	1288	48	2147	1.7	32033	25.2	24
34	0.8766	0.2534	1300	48	2114	1.7	34147	26.8	26
35	0.9407	0.2534	1313	48	2247	1.8	36394	28.6	28
36	1.0050	0.2536	1325	48	2299	1.8	38693	30.4	29
37	1.0695	0.2541	1337	48	2376	1.9	41069	32.3	31
38	1.1343	0.2549	1349	48	2434	1.9	43503	34.2	33
39	1.1995	0.2560	1362	49	2555	2.0	46058	36.2	35
40	1.2654	0.2574	1374	49	2564	2.0	48622	38.2	37
41	1.3320	0.2590	1387	49	2650	2.1	51272	40.3	39
42	1.3996	0.2610	1400	50	2696	2.1	53968	42.4	41
43	1.4683	0.2633	1413	50	2839	2.2	56807	44.6	44
44	1.5383	0.2660	1426	50	2956	2.3	59763	46.9	46
45	1.6099	0.2690	1440	51	3041	2.4	62804	49.3	48
46	1.6831	0.2725	1454	52	3147	2.5	65951	51.8	51
47	1.7584	0.2764	1468	52	3217	2.5	69168	54.3	53
48	1.8360	0.2808	1483	53	3255	2.6	72423	56.9	56
49	1.9163	0.2858	1498	54	3409	2.7	75832	59.6	58
50	1.9996	0.2915	1514	55	3348	2.6	79180	62.2	61
51	2.0864	0.2979	1530	57	3477	2.7	82657	64.9	64
52	2.1773	0.3052	1547	58	3555	2.8	86212	67.7	66
53	2.2729	0.3135	1565	60	3697	2.9	89909	70.6	69
54	2.3741	0.3230	1585	61	3647	2.9	93556	73.5	72
55	2.4820	0.3341	1605	63	3666	2.9	97222	76.4	75
56	2.5978	0.3470	1627	66	3690	2.9	100912	79.3	78
57	2.7234	0.3623	1651	69	3803	3.0	104715	82.3	81
58	2.8612	0.3806	1677	72	3718	2.9	108433	85.2	84
59	3.0145	0.4031	1706	77	3594	2.8	112027	88.0	87
60	3.1882	0.4314	1739	82	3431	2.7	115458	90.7	89
61	3.3899	0.4683	1778	89	3152	2.5	118610	93.2	92
62	3.6323	0.5188	1824	98	2959	2.3	121569	95.5	94
63	3.9391	0.5937	1882	113	2378	1.9	123947	97.4	96
64	4.3637	0.7205	1962	137	1805	1.4	125752	98.8	98
65	5.0759	1.0095	2098	192	1113	0.9	126865	99.7	99
66	6.2932	1.8310	2329	348	437	0.3	127302	100.0	99

Table P-4. Grade 6 Mathematics Raw-to-Scale Score Table

Raw Score	Meas.	Meas. SE	Scaled Score	Scaled Score SE	Freq.	Freq. %	Cum. Freq.	Cum. Freq. %	Pctile
0	-5.2548	1.8325	700	367	0	0.0	0	0.0	0
1	-4.0333	1.0124	700	202	0	0.0	0	0.0	0
2	-3.3152	0.7246	700	145	0	0.0	0	0.0	0
3	-2.8845	0.5988	700	120	2	0.0	2	0.0	1
4	-2.5716	0.5247	700	105	8	0.0	10	0.0	1
5	-2.3230	0.4748	737	95	13	0.0	23	0.0	1
6	-2.1152	0.4385	779	88	24	0.0	47	0.0	1
7	-1.9354	0.4106	814	82	51	0.0	98	0.1	1
8	-1.7760	0.3884	846	78	94	0.1	192	0.1	1
9	-1.6323	0.3704	875	74	187	0.1	379	0.3	1
10	-1.5008	0.3553	901	71	288	0.2	667	0.5	1
11	-1.3792	0.3425	926	69	458	0.4	1125	0.9	1
12	-1.2656	0.3316	948	66	582	0.4	1707	1.3	1
13	-1.1589	0.3221	970	64	810	0.6	2517	1.9	2
14	-1.0578	0.3138	990	63	887	0.7	3404	2.6	2
15	-0.9617	0.3065	1009	61	1068	0.8	4472	3.4	3
16	-0.8697	0.3001	1028	60	1098	0.8	5570	4.3	4
17	-0.7814	0.2944	1045	59	1215	0.9	6785	5.2	5
18	-0.6963	0.2893	1062	58	1307	1.0	8092	6.2	6
19	-0.6139	0.2847	1079	57	1337	1.0	9429	7.2	7
20	-0.5340	0.2807	1095	56	1426	1.1	10855	8.3	8
21	-0.4563	0.2771	1110	55	1458	1.1	12313	9.4	9
22	-0.3804	0.2739	1125	55	1466	1.1	13779	10.5	10
23	-0.3061	0.2711	1140	54	1551	1.2	15330	11.7	11
24	-0.2333	0.2686	1155	54	1560	1.2	16890	12.9	12
25	-0.1617	0.2665	1169	53	1589	1.2	18479	14.1	14
26	-0.0912	0.2646	1183	53	1718	1.3	20197	15.4	15
27	-0.0216	0.2631	1197	53	1738	1.3	21935	16.8	16
28	0.0473	0.2618	1211	52	1754	1.3	23689	18.1	17
29	0.1155	0.2608	1225	52	1916	1.5	25605	19.6	19
30	0.1833	0.2600	1238	52	1942	1.5	27547	21.1	20
31	0.2508	0.2595	1252	52	2102	1.6	29649	22.7	22
32	0.3180	0.2593	1265	52	2080	1.6	31729	24.3	23
33	0.3852	0.2593	1279	52	2201	1.7	33930	25.9	25
34	0.4525	0.2595	1292	52	2286	1.7	36216	27.7	27
35	0.5200	0.2600	1306	52	2368	1.8	38584	29.5	29
36	0.5878	0.2608	1319	52	2368	1.8	40952	31.3	30
37	0.6561	0.2619	1333	52	2499	1.9	43451	33.2	32
38	0.7249	0.2632	1347	53	2545	1.9	45996	35.2	34
39	0.7946	0.2648	1360	53	2688	2.1	48684	37.2	36
40	0.8652	0.2667	1375	53	2626	2.0	51310	39.2	38
41	0.9369	0.2688	1389	54	2846	2.2	54156	41.4	40
42	1.0098	0.2714	1404	54	3014	2.3	57170	43.7	43
43	1.0842	0.2742	1418	55	2953	2.3	60123	46.0	45
44	1.1603	0.2774	1434	55	3090	2.4	63213	48.3	47
45	1.2382	0.2810	1449	56	3065	2.3	66278	50.7	49
46	1.3184	0.2851	1465	57	3271	2.5	69549	53.2	52
47	1.4008	0.2895	1482	58	3483	2.7	73032	55.8	54
48	1.4861	0.2945	1499	59	3435	2.6	76467	58.4	57
49	1.5745	0.3001	1516	60	3403	2.6	79870	61.0	60
50	1.6663	0.3062	1535	61	3533	2.7	83403	63.7	62
51	1.7622	0.3131	1554	63	3624	2.8	87027	66.5	65
52	1.8627	0.3209	1574	64	3782	2.9	90809	69.4	68
53	1.9684	0.3296	1595	66	3756	2.9	94565	72.3	71
54	2.0803	0.3395	1618	68	3893	3.0	98458	75.3	74
55	2.1994	0.3509	1641	70	3777	2.9	102235	78.1	77
56	2.3270	0.3640	1667	73	3919	3.0	106154	81.1	80
57	2.4650	0.3795	1695	76	3850	2.9	110004	84.1	83
58	2.6160	0.3981	1725	80	3707	2.8	113711	86.9	85
59	2.7835	0.4209	1758	84	3575	2.7	117286	89.6	88
60	2.9725	0.4497	1796	90	3453	2.6	120739	92.3	91
61	3.1914	0.4875	1840	98	2932	2.2	123671	94.5	93
62	3.4538	0.5395	1892	108	2619	2.0	126290	96.5	96
63	3.7851	0.6164	1959	123	2076	1.6	128366	98.1	97
64	4.2415	0.7457	2050	149	1436	1.1	129802	99.2	99
65	4.9977	1.0350	2201	207	770	0.6	130572	99.8	99
66	6.2566	1.8492	2453	370	267	0.2	130839	100.0	99

Table P-5. Grade 7 Mathematics Raw-to-Scale Score Table

Raw Score	Meas.	Meas. SE	Scaled Score	Scaled Score SE	Freq.	Freq. %	Cum. Freq.	Cum. Freq. %	Pctile
0	-5.5798	1.8380	700	368	0	0.0	0	0.0	0
1	-4.3447	1.0217	700	204	0	0.0	0	0.0	0
2	-3.6083	0.7367	700	147	0	0.0	0	0.0	0
3	-3.1608	0.6123	700	122	0	0.0	0	0.0	0
4	-2.8320	0.5391	700	108	1	0.0	1	0.0	1
5	-2.5687	0.4897	712	98	4	0.0	5	0.0	1
6	-2.3470	0.4536	756	91	11	0.0	16	0.0	1
7	-2.1541	0.4258	794	85	28	0.0	44	0.0	1
8	-1.9823	0.4037	829	81	62	0.0	106	0.1	1
9	-1.8269	0.3855	860	77	113	0.1	219	0.2	1
10	-1.6842	0.3703	888	74	165	0.1	384	0.3	1
11	-1.5520	0.3573	915	71	289	0.2	673	0.5	1
12	-1.4283	0.3462	940	69	444	0.3	1117	0.8	1
13	-1.3118	0.3365	963	67	594	0.4	1711	1.3	1
14	-1.2015	0.3280	985	66	797	0.6	2508	1.8	2
15	-1.0965	0.3204	1006	64	961	0.7	3469	2.6	2
16	-0.9960	0.3137	1026	63	1058	0.8	4527	3.3	3
17	-0.8994	0.3078	1045	62	1326	1.0	5853	4.3	4
18	-0.8064	0.3024	1064	60	1422	1.0	7275	5.4	5
19	-0.7164	0.2976	1082	60	1524	1.1	8799	6.5	6
20	-0.6292	0.2932	1099	59	1699	1.3	10498	7.7	7
21	-0.5444	0.2893	1116	58	1723	1.3	12221	9.0	8
22	-0.4618	0.2857	1133	57	1837	1.4	14058	10.4	10
23	-0.3811	0.2825	1149	57	2000	1.5	16058	11.8	11
24	-0.3021	0.2796	1165	56	2061	1.5	18119	13.3	13
25	-0.2247	0.2770	1180	55	2138	1.6	20257	14.9	14
26	-0.1486	0.2746	1196	55	2191	1.6	22448	16.5	16
27	-0.0738	0.2725	1211	55	2301	1.7	24749	18.2	17
28	0.0000	0.2707	1225	54	2402	1.8	27151	20.0	19
29	0.0728	0.2691	1240	54	2450	1.8	29601	21.8	21
30	0.1448	0.2677	1254	54	2524	1.9	32125	23.7	23
31	0.2161	0.2665	1269	53	2473	1.8	34598	25.5	25
32	0.2869	0.2655	1283	53	2555	1.9	37153	27.4	26
33	0.3572	0.2648	1297	53	2740	2.0	39893	29.4	28
34	0.4271	0.2643	1311	53	2578	1.9	42471	31.3	30
35	0.4968	0.2640	1325	53	2747	2.0	45218	33.3	32
36	0.5665	0.2639	1339	53	2897	2.1	48115	35.4	34
37	0.6362	0.2641	1353	53	2832	2.1	50947	37.5	36
38	0.7061	0.2646	1367	53	2981	2.2	53928	39.7	39
39	0.7763	0.2654	1381	53	2972	2.2	56900	41.9	41
40	0.8470	0.2664	1395	53	3055	2.2	59955	44.2	43
41	0.9183	0.2678	1409	54	3075	2.3	63030	46.4	45
42	0.9905	0.2695	1423	54	3182	2.3	66212	48.8	48
43	1.0637	0.2716	1438	54	3349	2.5	69561	51.2	50
44	1.1381	0.2741	1453	55	3404	2.5	72965	53.7	52
45	1.2140	0.2770	1468	55	3358	2.5	76323	56.2	55
46	1.2916	0.2804	1484	56	3424	2.5	79747	58.7	57
47	1.3713	0.2843	1500	57	3517	2.6	83264	61.3	60
48	1.4534	0.2887	1516	58	3459	2.5	86723	63.9	63
49	1.5381	0.2937	1533	59	3651	2.7	90374	66.6	65
50	1.6261	0.2994	1551	60	3607	2.7	93981	69.2	68
51	1.7176	0.3059	1569	61	3538	2.6	97519	71.8	71
52	1.8134	0.3132	1588	63	3583	2.6	101102	74.5	73
53	1.9141	0.3215	1608	64	3648	2.7	104750	77.1	76
54	2.0204	0.3309	1629	66	3707	2.7	108457	79.9	79
55	2.1334	0.3416	1652	68	3539	2.6	111996	82.5	81
56	2.2543	0.3539	1676	71	3421	2.5	115417	85.0	84
57	2.3846	0.3683	1702	74	3329	2.5	118746	87.5	86
58	2.5264	0.3853	1731	77	3244	2.4	121990	89.8	89
59	2.6827	0.4060	1762	81	3045	2.2	125035	92.1	91
60	2.8579	0.4320	1797	86	2766	2.0	127801	94.1	93
61	3.0589	0.4662	1837	93	2408	1.8	130209	95.9	95
62	3.2977	0.5137	1885	103	2049	1.5	132258	97.4	97
63	3.5973	0.5856	1945	117	1631	1.2	133889	98.6	98
64	4.0098	0.7103	2027	142	1112	0.8	135001	99.4	99
65	4.7046	0.9993	2166	200	583	0.4	135584	99.9	99
66	5.9062	1.8242	2407	365	200	0.1	135784	100.0	99

Table P-6. Grade 8 Mathematics Raw-to-Scale Score Table

Raw Score	Meas.	Meas. SE	Scaled Score	Scaled Score SE	Freq.	Freq. %	Cum. Freq.	Cum. Freq. %	Pctile
0	-5.3811	1.8320	700	325	0	0.0	0	0.0	0
1	-4.1610	1.0115	700	180	0	0.0	0	0.0	0
2	-3.4446	0.7234	700	128	0	0.0	0	0.0	0
3	-3.0158	0.5974	700	106	2	0.0	2	0.0	1
4	-2.7044	0.5232	702	93	0	0.0	2	0.0	1
5	-2.4573	0.4733	746	84	10	0.0	12	0.0	1
6	-2.2508	0.4370	783	78	8	0.0	20	0.0	1
7	-2.0722	0.4092	814	73	39	0.0	59	0.0	1
8	-1.9140	0.3872	843	69	88	0.1	147	0.1	1
9	-1.7711	0.3693	868	66	188	0.1	335	0.2	1
10	-1.6404	0.3544	891	63	230	0.2	565	0.4	1
11	-1.5192	0.3418	913	61	348	0.3	913	0.7	1
12	-1.4061	0.3312	933	59	486	0.4	1399	1.0	1
13	-1.2996	0.3220	952	57	640	0.5	2039	1.5	1
14	-1.1985	0.3140	970	56	795	0.6	2834	2.0	2
15	-1.1021	0.3070	987	55	903	0.7	3737	2.7	2
16	-1.0098	0.3009	1003	53	992	0.7	4729	3.4	3
17	-0.9209	0.2955	1019	52	1155	0.8	5884	4.2	4
18	-0.8350	0.2908	1034	52	1205	0.9	7089	5.1	5
19	-0.7517	0.2866	1049	51	1284	0.9	8373	6.0	6
20	-0.6706	0.2829	1063	50	1344	1.0	9717	7.0	7
21	-0.5916	0.2796	1077	50	1327	1.0	11044	8.0	7
22	-0.5141	0.2768	1091	49	1389	1.0	12433	9.0	8
23	-0.4383	0.2742	1104	49	1458	1.1	13891	10.0	10
24	-0.3637	0.2720	1118	48	1540	1.1	15431	11.1	11
25	-0.2902	0.2701	1131	48	1557	1.1	16988	12.3	12
26	-0.2177	0.2685	1144	48	1736	1.3	18724	13.5	13
27	-0.1460	0.2671	1156	47	1653	1.2	20377	14.7	14
28	-0.0750	0.2659	1169	47	1742	1.3	22119	16.0	15
29	-0.0046	0.2650	1181	47	1811	1.3	23930	17.3	17
30	0.0654	0.2642	1194	47	1906	1.4	25836	18.6	18
31	0.1351	0.2637	1206	47	1884	1.4	27720	20.0	19
32	0.2045	0.2634	1219	47	2028	1.5	29748	21.5	21
33	0.2738	0.2632	1231	47	2034	1.5	31782	22.9	22
34	0.3431	0.2633	1243	47	2174	1.6	33956	24.5	24
35	0.4125	0.2635	1256	47	2244	1.6	36200	26.1	25
36	0.4820	0.2640	1268	47	2388	1.7	38588	27.9	27
37	0.5519	0.2646	1280	47	2493	1.8	41081	29.7	29
38	0.6221	0.2655	1293	47	2533	1.8	43614	31.5	31
39	0.6929	0.2666	1305	47	2677	1.9	46291	33.4	32
40	0.7643	0.2679	1318	48	2773	2.0	49064	35.4	34
41	0.8365	0.2695	1331	48	2913	2.1	51977	37.5	36
42	0.9096	0.2714	1344	48	3101	2.2	55078	39.8	39
43	0.9838	0.2735	1357	49	3089	2.2	58167	42.0	41
44	1.0593	0.2761	1370	49	3205	2.3	61372	44.3	43
45	1.1363	0.2790	1384	50	3397	2.5	64769	46.7	46
46	1.2150	0.2823	1398	50	3601	2.6	68370	49.3	48
47	1.2958	0.2861	1412	51	3559	2.6	71929	51.9	51
48	1.3789	0.2904	1427	52	3753	2.7	75682	54.6	53
49	1.4646	0.2954	1442	52	3846	2.8	79528	57.4	56
50	1.5535	0.3011	1458	53	4091	3.0	83619	60.4	59
51	1.6461	0.3076	1475	55	3897	2.8	87516	63.2	62
52	1.7429	0.3150	1492	56	4137	3.0	91653	66.2	65
53	1.8448	0.3236	1510	57	4309	3.1	95962	69.3	68
54	1.9527	0.3335	1529	59	4527	3.3	100489	72.5	71
55	2.0677	0.3450	1549	61	4479	3.2	104968	75.8	74
56	2.1914	0.3586	1571	64	4612	3.3	109580	79.1	77
57	2.3256	0.3746	1595	67	4388	3.2	113968	82.3	81
58	2.4731	0.3940	1621	70	4398	3.2	118366	85.4	84
59	2.6375	0.4178	1651	74	4281	3.1	122647	88.5	87
60	2.8244	0.4477	1684	79	3954	2.9	126601	91.4	90
61	3.0419	0.4868	1722	86	3720	2.7	130321	94.1	93
62	3.3043	0.5402	1769	96	3101	2.2	133422	96.3	95
63	3.6371	0.6185	1828	110	2446	1.8	135868	98.1	97
64	4.0974	0.7491	1910	133	1599	1.2	137467	99.2	99
65	4.8605	1.0392	2045	184	842	0.6	138309	99.8	99
66	6.1264	1.8523	2270	329	236	0.2	138545	100.0	99

Table P-7. Grade 11 Mathematics Raw-to-Scale Score Table

Raw Score	Meas.	Meas. SE	Scaled Score	Scaled Score SE	Freq.	Freq. %	Cum. Freq.	Cum. Freq. %	Pctile
0	-5.8462	1.8336	700	378	0	0.0	0	0.0	0
1	-4.6222	1.0142	700	209	0	0.0	0	0.0	0
2	-3.9005	0.7270	700	150	1	0.0	1	0.0	1
3	-3.4665	0.6015	700	124	2	0.0	3	0.0	1
4	-3.1504	0.5277	700	109	6	0.0	9	0.0	1
5	-2.8988	0.4780	700	99	16	0.0	25	0.0	1
6	-2.6881	0.4417	700	91	38	0.0	63	0.0	1
7	-2.5054	0.4140	700	85	90	0.1	153	0.1	1
8	-2.3433	0.3919	719	81	161	0.1	314	0.2	1
9	-2.1969	0.3739	750	77	267	0.2	581	0.4	1
10	-2.0627	0.3590	777	74	491	0.4	1072	0.8	1
11	-1.9385	0.3463	803	71	699	0.5	1771	1.3	1
12	-1.8224	0.3355	827	69	843	0.6	2614	1.9	2
13	-1.7130	0.3261	850	67	1083	0.8	3697	2.7	2
14	-1.6093	0.3180	871	66	1226	0.9	4923	3.6	3
15	-1.5105	0.3108	891	64	1385	1.0	6308	4.7	4
16	-1.4159	0.3046	911	63	1529	1.1	7837	5.8	5
17	-1.3249	0.2990	930	62	1482	1.1	9319	6.9	6
18	-1.2369	0.2941	948	61	1526	1.1	10845	8.0	7
19	-1.1518	0.2897	965	60	1553	1.1	12398	9.2	9
20	-1.0690	0.2858	982	59	1531	1.1	13929	10.3	10
21	-0.9883	0.2824	999	58	1468	1.1	15397	11.4	11
22	-0.9094	0.2793	1015	58	1615	1.2	17012	12.6	12
23	-0.8322	0.2766	1031	57	1667	1.2	18679	13.8	13
24	-0.7563	0.2743	1047	57	1633	1.2	20312	15.0	14
25	-0.6816	0.2722	1062	56	1698	1.3	22010	16.3	16
26	-0.6081	0.2704	1078	56	1738	1.3	23748	17.6	17
27	-0.5353	0.2688	1093	55	1923	1.4	25671	19.0	18
28	-0.4635	0.2675	1107	55	1835	1.4	27506	20.4	20
29	-0.3922	0.2664	1122	55	1966	1.5	29472	21.8	21
30	-0.3214	0.2656	1137	55	2017	1.5	31489	23.3	23
31	-0.2511	0.2649	1151	55	2136	1.6	33625	24.9	24
32	-0.1811	0.2644	1166	55	2262	1.7	35887	26.6	26
33	-0.1113	0.2641	1180	55	2317	1.7	38204	28.3	27
34	-0.0415	0.2640	1195	54	2329	1.7	40533	30.0	29
35	0.0282	0.2641	1209	55	2508	1.9	43041	31.9	31
36	0.0980	0.2644	1223	55	2490	1.8	45531	33.7	33
37	0.1680	0.2649	1238	55	2557	1.9	48088	35.6	35
38	0.2384	0.2656	1252	55	2684	2.0	50772	37.6	37
39	0.3092	0.2665	1267	55	2914	2.2	53686	39.7	39
40	0.3805	0.2677	1282	55	2890	2.1	56576	41.9	41
41	0.4525	0.2691	1297	56	3031	2.2	59607	44.1	43
42	0.5254	0.2707	1312	56	3038	2.2	62645	46.4	45
43	0.5992	0.2727	1327	56	3283	2.4	65928	48.8	48
44	0.6742	0.2750	1342	57	3237	2.4	69165	51.2	50
45	0.7505	0.2776	1358	57	3307	2.4	72472	53.6	52
46	0.8284	0.2806	1374	58	3469	2.6	75941	56.2	55
47	0.9081	0.2841	1391	59	3417	2.5	79358	58.7	57
48	0.9899	0.2880	1407	59	3380	2.5	82738	61.2	60
49	1.0741	0.2924	1425	60	3505	2.6	86243	63.8	63
50	1.1610	0.2975	1443	61	3482	2.6	89725	66.4	65
51	1.2513	0.3033	1461	63	3523	2.6	93248	69.0	68
52	1.3452	0.3100	1481	64	3438	2.5	96686	71.6	70
53	1.4436	0.3176	1501	66	3460	2.6	100146	74.1	73
54	1.5474	0.3266	1523	67	3599	2.7	103745	76.8	75
55	1.6573	0.3370	1545	70	3488	2.6	107233	79.4	78
56	1.7750	0.3494	1569	72	3499	2.6	110732	82.0	81
57	1.9021	0.3642	1596	75	3562	2.6	114294	84.6	83
58	2.0413	0.3823	1624	79	3321	2.5	117615	87.0	86
59	2.1960	0.4049	1656	84	3301	2.4	120916	89.5	88
60	2.3713	0.4336	1693	90	3189	2.4	124105	91.8	91
61	2.5752	0.4712	1735	97	2961	2.2	127066	94.0	93
62	2.8211	0.5230	1785	108	2650	2.0	129716	96.0	95
63	3.1333	0.5993	1850	124	2247	1.7	131963	97.7	97
64	3.5662	0.7275	1939	150	1645	1.2	133608	98.9	98
65	4.2907	1.0168	2089	210	1086	0.8	134694	99.7	99
66	5.5196	1.8360	2342	379	426	0.3	135120	100.0	99

Table P-8. Grade 3 Reading Raw-to-Scale Score Table

Raw Score	Meas.	Meas. SE	Scaled Score	Scaled Score SE	Freq.	Freq. %	Cum. Freq.	Cum. Freq. %	Pctile
0	-5.2576	1.8357	1000	227	0	0.0	0	0.0	0
1	-4.0282	1.0181	1000	126	1	0.0	1	0.0	1
2	-3.2982	0.7328	1000	91	4	0.0	5	0.0	1
3	-2.8555	0.6090	1000	75	9	0.0	14	0.0	1
4	-2.5300	0.5367	1000	66	49	0.0	63	0.0	1
5	-2.2686	0.4884	1000	60	112	0.1	175	0.1	1
6	-2.0474	0.4536	1000	56	215	0.2	390	0.3	1
7	-1.8538	0.4273	1000	53	410	0.3	800	0.6	1
8	-1.6803	0.4066	1000	50	638	0.5	1438	1.1	1
9	-1.5219	0.3899	1019	48	854	0.7	2292	1.8	1
10	-1.3752	0.3763	1037	47	1037	0.8	3329	2.6	2
11	-1.2380	0.3650	1054	45	1239	1.0	4568	3.6	3
12	-1.1082	0.3556	1071	44	1351	1.1	5919	4.7	4
13	-0.9846	0.3477	1086	43	1468	1.2	7387	5.8	5
14	-0.8662	0.3410	1100	42	1574	1.2	8961	7.1	6
15	-0.7519	0.3353	1115	42	1508	1.2	10469	8.3	8
16	-0.6410	0.3306	1128	41	1612	1.3	12081	9.6	9
17	-0.5330	0.3268	1142	40	1816	1.4	13897	11.0	10
18	-0.4273	0.3236	1155	40	1820	1.4	15717	12.4	12
19	-0.3235	0.3211	1168	40	1842	1.5	17559	13.9	13
20	-0.2210	0.3192	1180	40	2006	1.6	19565	15.5	15
21	-0.1195	0.3180	1193	39	2114	1.7	21679	17.2	16
22	-0.0187	0.3172	1205	39	2295	1.8	23974	19.0	18
23	0.0819	0.3171	1218	39	2542	2.0	26516	21.0	20
24	0.1825	0.3175	1230	39	2730	2.2	29246	23.1	22
25	0.2836	0.3185	1243	39	2967	2.3	32213	25.5	24
26	0.3855	0.3200	1255	40	3268	2.6	35481	28.1	27
27	0.4885	0.3222	1268	40	3562	2.8	39043	30.9	29
28	0.5932	0.3250	1281	40	3889	3.1	42932	34.0	32
29	0.6999	0.3285	1294	41	4406	3.5	47338	37.5	36
30	0.8092	0.3327	1308	41	4655	3.7	51993	41.1	39
31	0.9215	0.3379	1322	42	5063	4.0	57056	45.1	43
32	1.0377	0.3440	1336	43	5505	4.4	62561	49.5	47
33	1.1584	0.3512	1351	43	5953	4.7	68514	54.2	52
34	1.2847	0.3597	1367	45	6198	4.9	74712	59.1	57
35	1.4177	0.3699	1383	46	6469	5.1	81181	64.2	62
36	1.5589	0.3819	1401	47	6745	5.3	87926	69.6	67
37	1.7101	0.3964	1419	49	6943	5.5	94869	75.1	72
38	1.8742	0.4140	1440	51	6612	5.2	101481	80.3	78
39	2.0544	0.4358	1462	54	6271	5.0	107752	85.2	83
40	2.2561	0.4633	1487	57	5798	4.6	113550	89.8	88
41	2.4870	0.4993	1516	62	4829	3.8	118379	93.7	92
42	2.7603	0.5487	1549	68	3573	2.8	121952	96.5	95
43	3.1002	0.6219	1592	77	2522	2.0	124474	98.5	97
44	3.5606	0.7460	1649	92	1294	1.0	125768	99.5	99
45	4.3123	1.0298	1742	127	526	0.4	126294	99.9	99
46	5.5598	1.8432	1896	228	108	0.1	126402	100.0	99

Table P-9. Grade 4 Reading Raw-to-Scale Score Table

Raw Score	Meas.	Meas. SE	Scaled Score	Scaled Score SE	Freq.	Freq. %	Cum. Freq.	Cum. Freq. %	Pctile
0	-5.4836	1.8392	700	368	0	0.0	0	0.0	0
1	-4.2455	1.0238	700	205	0	0.0	0	0.0	0
2	-3.5048	0.7396	700	148	0	0.0	0	0.0	0
3	-3.0529	0.6159	700	123	10	0.0	10	0.0	1
4	-2.7195	0.5434	700	109	18	0.0	28	0.0	1
5	-2.4514	0.4946	700	99	64	0.1	92	0.1	1
6	-2.2247	0.4592	711	92	95	0.1	187	0.1	1
7	-2.0265	0.4321	751	86	195	0.2	382	0.3	1
8	-1.8492	0.4107	786	82	281	0.2	663	0.5	1
9	-1.6878	0.3933	819	79	409	0.3	1072	0.8	1
10	-1.5389	0.3789	849	76	565	0.4	1637	1.3	1
11	-1.3999	0.3668	876	73	739	0.6	2376	1.9	2
12	-1.2692	0.3566	902	71	916	0.7	3292	2.6	2
13	-1.1452	0.3479	927	70	1103	0.9	4395	3.5	3
14	-1.0268	0.3404	951	68	1202	1.0	5597	4.4	4
15	-0.9132	0.3339	974	67	1339	1.1	6936	5.5	5
16	-0.8036	0.3283	996	66	1413	1.1	8349	6.6	6
17	-0.6974	0.3235	1017	65	1616	1.3	9965	7.9	7
18	-0.5941	0.3194	1037	64	1652	1.3	11617	9.2	9
19	-0.4932	0.3159	1058	63	1786	1.4	13403	10.6	10
20	-0.3944	0.3130	1077	63	1807	1.4	15210	12.0	11
21	-0.2972	0.3105	1097	62	1939	1.5	17149	13.6	13
22	-0.2014	0.3085	1116	62	2096	1.7	19245	15.2	14
23	-0.1067	0.3070	1135	61	2110	1.7	21355	16.9	16
24	-0.0129	0.3058	1154	61	2328	1.8	23683	18.8	18
25	0.0804	0.3051	1172	61	2474	2.0	26157	20.7	20
26	0.1734	0.3048	1191	61	2628	2.1	28785	22.8	22
27	0.2662	0.3048	1210	61	2748	2.2	31533	25.0	24
28	0.3593	0.3053	1228	61	2919	2.3	34452	27.3	26
29	0.4528	0.3062	1247	61	3263	2.6	37715	29.9	29
30	0.5469	0.3075	1266	62	3358	2.7	41073	32.5	31
31	0.6420	0.3093	1285	62	3657	2.9	44730	35.4	34
32	0.7384	0.3116	1304	62	3856	3.1	48586	38.5	37
33	0.8363	0.3143	1324	63	4166	3.3	52752	41.8	40
34	0.9361	0.3177	1344	64	4496	3.6	57248	45.3	44
35	1.0383	0.3217	1364	64	4680	3.7	61928	49.0	47
36	1.1432	0.3263	1385	65	4980	3.9	66908	53.0	51
37	1.2514	0.3318	1407	66	5188	4.1	72096	57.1	55
38	1.3636	0.3382	1429	68	5368	4.3	77464	61.3	59
39	1.4804	0.3456	1452	69	5453	4.3	82917	65.7	64
40	1.6028	0.3543	1477	71	5631	4.5	88548	70.1	68
41	1.7319	0.3645	1503	73	5541	4.4	94089	74.5	72
42	1.8692	0.3767	1530	75	5444	4.3	99533	78.8	77
43	2.0164	0.3911	1560	78	5326	4.2	104859	83.0	81
44	2.1761	0.4087	1592	82	4868	3.9	109727	86.9	85
45	2.3518	0.4303	1627	86	4434	3.5	114161	90.4	89
46	2.5484	0.4577	1666	92	3891	3.1	118052	93.5	92
47	2.7739	0.4935	1711	99	3108	2.5	121160	96.0	95
48	3.0410	0.5427	1765	109	2313	1.8	123473	97.8	97
49	3.3737	0.6157	1831	123	1510	1.2	124983	99.0	98
50	3.8257	0.7398	1921	148	836	0.7	125819	99.6	99
51	4.5672	1.0243	2070	205	358	0.3	126177	99.9	99
52	5.8061	1.8395	2318	368	89	0.1	126266	100.0	99

Table P-10. Grade 5 Reading Raw-to-Scale Score Table

Raw Score	Meas.	Meas. SE	Scaled Score	Scaled Score SE	Freq.	Freq. %	Cum. Freq.	Cum. Freq. %	Pctile
0	-5.3193	1.8361	700	365	0	0.0	0	0.0	0
1	-4.0889	1.0187	700	203	0	0.0	0	0.0	0
2	-3.3579	0.7334	700	146	2	0.0	2	0.0	1
3	-2.9144	0.6094	700	121	7	0.0	9	0.0	1
4	-2.5886	0.5369	700	107	16	0.0	25	0.0	1
5	-2.3271	0.4883	700	97	37	0.0	62	0.0	1
6	-2.1063	0.4531	700	90	87	0.1	149	0.1	1
7	-1.9134	0.4263	714	85	190	0.1	339	0.3	1
8	-1.7409	0.4052	749	81	289	0.2	628	0.5	1
9	-1.5838	0.3881	780	77	450	0.4	1078	0.8	1
10	-1.4388	0.3739	809	74	595	0.5	1673	1.3	1
11	-1.3035	0.3621	835	72	789	0.6	2462	1.9	2
12	-1.1760	0.3522	861	70	1008	0.8	3470	2.7	2
13	-1.0550	0.3436	885	68	1045	0.8	4515	3.5	3
14	-0.9395	0.3363	908	67	1218	1.0	5733	4.5	4
15	-0.8285	0.3301	930	66	1273	1.0	7006	5.5	5
16	-0.7213	0.3247	951	65	1371	1.1	8377	6.6	6
17	-0.6175	0.3201	972	64	1417	1.1	9794	7.7	7
18	-0.5163	0.3161	992	63	1432	1.1	11226	8.8	8
19	-0.4175	0.3128	1012	62	1550	1.2	12776	10.0	9
20	-0.3206	0.3100	1031	62	1605	1.3	14381	11.3	11
21	-0.2252	0.3077	1050	61	1758	1.4	16139	12.7	12
22	-0.1312	0.3058	1069	61	1794	1.4	17933	14.1	13
23	-0.0381	0.3044	1087	61	1872	1.5	19805	15.6	15
24	0.0543	0.3034	1105	60	2025	1.6	21830	17.2	16
25	0.1461	0.3029	1124	60	2161	1.7	23991	18.9	18
26	0.2378	0.3027	1142	60	2370	1.9	26361	20.7	20
27	0.3295	0.3029	1160	60	2551	2.0	28912	22.7	22
28	0.4214	0.3036	1178	60	2754	2.2	31666	24.9	24
29	0.5139	0.3046	1197	61	2939	2.3	34605	27.2	26
30	0.6071	0.3061	1215	61	3153	2.5	37758	29.7	28
31	0.7014	0.3080	1234	61	3602	2.8	41360	32.5	31
32	0.7970	0.3104	1253	62	3658	2.9	45018	35.4	34
33	0.8942	0.3133	1272	62	3903	3.1	48921	38.5	37
34	0.9934	0.3168	1292	63	4290	3.4	53211	41.8	40
35	1.0950	0.3208	1312	64	4607	3.6	57818	45.5	44
36	1.1995	0.3256	1333	65	4917	3.9	62735	49.3	47
37	1.3072	0.3312	1354	66	5364	4.2	68099	53.5	51
38	1.4190	0.3376	1377	67	5520	4.3	73619	57.9	56
39	1.5355	0.3452	1400	69	5703	4.5	79322	62.4	60
40	1.6576	0.3540	1424	70	5969	4.7	85291	67.1	65
41	1.7865	0.3643	1450	72	5999	4.7	91290	71.8	69
42	1.9235	0.3765	1477	75	6064	4.8	97354	76.5	74
43	2.0706	0.3910	1506	78	5866	4.6	103220	81.2	79
44	2.2303	0.4087	1538	81	5685	4.5	108905	85.6	83
45	2.4061	0.4305	1573	86	5068	4.0	113973	89.6	88
46	2.6030	0.4581	1612	91	4253	3.3	118226	93.0	91
47	2.8289	0.4941	1657	98	3512	2.8	121738	95.7	94
48	3.0969	0.5437	1710	108	2588	2.0	124326	97.7	97
49	3.4312	0.6172	1777	123	1626	1.3	125952	99.0	98
50	3.8856	0.7419	1867	147	860	0.7	126812	99.7	99
51	4.6311	1.0269	2015	204	320	0.3	127132	100.0	99
52	5.8744	1.8415	2262	366	57	0.0	127189	100.0	99

Table P-11. Grade 6 Reading Raw-to-Scale Score Table

Raw Score	Meas.	Meas. SE	Scaled Score	Scaled Score SE	Freq.	Freq. %	Cum. Freq.	Cum. Freq. %	Pctile
0	-5.5996	1.8367	700	367	0	0.0	0	0.0	0
1	-4.3675	1.0200	700	204	0	0.0	0	0.0	0
2	-3.6340	0.7351	700	147	3	0.0	3	0.0	1
3	-3.1881	0.6114	700	122	3	0.0	6	0.0	1
4	-2.8599	0.5390	700	108	14	0.0	20	0.0	1
5	-2.5962	0.4906	700	98	32	0.0	52	0.0	1
6	-2.3732	0.4554	700	91	52	0.0	104	0.1	1
7	-2.1782	0.4287	733	86	131	0.1	235	0.2	1
8	-2.0037	0.4075	768	82	200	0.2	435	0.3	1
9	-1.8447	0.3904	800	78	356	0.3	791	0.6	1
10	-1.6980	0.3762	829	75	460	0.4	1251	1.0	1
11	-1.5610	0.3643	857	73	643	0.5	1894	1.4	1
12	-1.4320	0.3542	883	71	792	0.6	2686	2.1	2
13	-1.3097	0.3456	907	69	949	0.7	3635	2.8	2
14	-1.1928	0.3382	930	68	1104	0.8	4739	3.6	3
15	-1.0806	0.3318	953	66	1318	1.0	6057	4.6	4
16	-0.9723	0.3264	975	65	1437	1.1	7494	5.7	5
17	-0.8674	0.3216	995	64	1449	1.1	8943	6.8	6
18	-0.7653	0.3176	1016	64	1561	1.2	10504	8.0	7
19	-0.6655	0.3142	1036	63	1686	1.3	12190	9.3	9
20	-0.5677	0.3113	1055	62	1780	1.4	13970	10.7	10
21	-0.4716	0.3089	1075	62	1866	1.4	15836	12.1	11
22	-0.3768	0.3071	1094	61	2009	1.5	17845	13.7	13
23	-0.2829	0.3056	1112	61	2182	1.7	20027	15.3	14
24	-0.1898	0.3046	1131	61	2287	1.7	22314	17.1	16
25	-0.0973	0.3040	1150	61	2295	1.8	24609	18.8	18
26	-0.0049	0.3039	1168	61	2609	2.0	27218	20.8	20
27	0.0875	0.3041	1186	61	2825	2.2	30043	23.0	22
28	0.1802	0.3048	1205	61	2949	2.3	32992	25.2	24
29	0.2734	0.3058	1224	61	3154	2.4	36146	27.7	26
30	0.3673	0.3073	1242	61	3385	2.6	39531	30.2	29
31	0.4623	0.3093	1261	62	3682	2.8	43213	33.1	32
32	0.5587	0.3117	1281	62	3953	3.0	47166	36.1	35
33	0.6567	0.3146	1300	63	4133	3.2	51299	39.3	38
34	0.7568	0.3181	1320	64	4550	3.5	55849	42.7	41
35	0.8592	0.3222	1341	64	4942	3.8	60791	46.5	45
36	0.9645	0.3269	1362	65	5284	4.0	66075	50.6	49
37	1.0731	0.3324	1384	66	5308	4.1	71383	54.6	53
38	1.1857	0.3388	1406	68	5674	4.3	77057	59.0	57
39	1.3030	0.3463	1430	69	5804	4.4	82861	63.4	61
40	1.4259	0.3549	1454	71	5989	4.6	88850	68.0	66
41	1.5553	0.3650	1480	73	6038	4.6	94888	72.6	70
42	1.6929	0.3770	1508	75	5934	4.5	100822	77.1	75
43	1.8402	0.3912	1537	78	5862	4.5	106684	81.6	79
44	1.9999	0.4084	1569	82	5566	4.3	112250	85.9	84
45	2.1751	0.4296	1604	86	4967	3.8	117217	89.7	88
46	2.3710	0.4565	1643	91	4305	3.3	121522	93.0	91
47	2.5951	0.4917	1688	98	3465	2.7	124987	95.6	94
48	2.8602	0.5403	1741	108	2571	2.0	127558	97.6	97
49	3.1899	0.6128	1807	123	1655	1.3	129213	98.9	98
50	3.6376	0.7365	1896	147	967	0.7	130180	99.6	99
51	4.3735	1.0213	2044	204	408	0.3	130588	99.9	99
52	5.6076	1.8376	2290	368	104	0.1	130692	100.0	99

Table P-12. Grade 7 Reading Raw-to-Scale Score Table

Raw Score	Meas.	Meas. SE	Scaled Score	Scaled Score SE	Freq.	Freq. %	Cum. Freq.	Cum. Freq. %	Pctile
0	-5.3592	1.8342	700	367	0	0.0	0	0.0	0
1	-4.1334	1.0155	700	203	0	0.0	0	0.0	0
2	-3.4088	0.7291	700	146	3	0.0	3	0.0	1
3	-2.9716	0.6043	700	121	9	0.0	12	0.0	1
4	-2.6519	0.5312	700	106	17	0.0	29	0.0	1
5	-2.3964	0.4822	715	96	40	0.0	69	0.1	1
6	-2.1814	0.4467	758	89	125	0.1	194	0.1	1
7	-1.9941	0.4197	796	84	178	0.1	372	0.3	1
8	-1.8271	0.3984	829	80	326	0.2	698	0.5	1
9	-1.6754	0.3811	859	76	443	0.3	1141	0.8	1
10	-1.5357	0.3669	887	73	605	0.4	1746	1.3	1
11	-1.4055	0.3551	913	71	866	0.6	2612	1.9	2
12	-1.2830	0.3451	938	69	1083	0.8	3695	2.7	2
13	-1.1669	0.3366	961	67	1204	0.9	4899	3.6	3
14	-1.0561	0.3293	983	66	1391	1.0	6290	4.6	4
15	-0.9497	0.3231	1004	65	1494	1.1	7784	5.7	5
16	-0.8471	0.3178	1025	64	1593	1.2	9377	6.9	6
17	-0.7476	0.3133	1045	63	1638	1.2	11015	8.1	8
18	-0.6506	0.3095	1064	62	1671	1.2	12686	9.4	9
19	-0.5558	0.3063	1083	61	1873	1.4	14559	10.7	10
20	-0.4628	0.3037	1102	61	2012	1.5	16571	12.2	11
21	-0.3713	0.3016	1120	60	2151	1.6	18722	13.8	13
22	-0.2808	0.3000	1138	60	2215	1.6	20937	15.4	15
23	-0.1912	0.2989	1156	60	2378	1.8	23315	17.2	16
24	-0.1020	0.2982	1174	60	2499	1.8	25814	19.0	18
25	-0.0132	0.2980	1192	60	2617	1.9	28431	21.0	20
26	0.0757	0.2982	1210	60	2832	2.1	31263	23.0	22
27	0.1647	0.2988	1227	60	2977	2.2	34240	25.2	24
28	0.2543	0.2999	1245	60	3087	2.3	37327	27.5	26
29	0.3447	0.3014	1263	60	3319	2.4	40646	30.0	29
30	0.4361	0.3034	1282	61	3519	2.6	44165	32.6	31
31	0.5289	0.3059	1300	61	3686	2.7	47851	35.3	34
32	0.6235	0.3089	1319	62	4061	3.0	51912	38.3	37
33	0.7199	0.3125	1338	63	4261	3.1	56173	41.4	40
34	0.8189	0.3167	1358	63	4473	3.3	60646	44.7	43
35	0.9207	0.3216	1379	64	4791	3.5	65437	48.2	46
36	1.0259	0.3272	1400	65	5136	3.8	70573	52.0	50
37	1.1350	0.3337	1421	67	5292	3.9	75865	55.9	54
38	1.2488	0.3412	1444	68	5376	4.0	81241	59.9	58
39	1.3681	0.3498	1468	70	5532	4.1	86773	64.0	62
40	1.4939	0.3597	1493	72	5745	4.2	92518	68.2	66
41	1.6273	0.3712	1520	74	5747	4.2	98265	72.4	70
42	1.7701	0.3847	1548	77	5923	4.4	104188	76.8	75
43	1.9241	0.4006	1579	80	5722	4.2	109910	81.0	79
44	2.0921	0.4197	1613	84	5425	4.0	115335	85.0	83
45	2.2778	0.4428	1650	89	5110	3.8	120445	88.8	87
46	2.4864	0.4716	1692	94	4490	3.3	124935	92.1	90
47	2.7258	0.5086	1740	102	3709	2.7	128644	94.8	93
48	3.0094	0.5587	1796	112	2944	2.2	131588	97.0	96
49	3.3611	0.6320	1867	126	1986	1.5	133574	98.5	98
50	3.8347	0.7552	1961	151	1299	1.0	134873	99.4	99
51	4.6004	1.0367	2114	207	584	0.4	135457	99.9	99
52	5.8577	1.8469	2366	369	184	0.1	135641	100.0	99

Table P-13. Grade 8 Reading Raw-to-Scale Score Table

Raw Score	Meas.	Meas. SE	Scaled Score	Scaled Score SE	Freq.	Freq. %	Cum. Freq.	Cum. Freq. %	Pctile
0	-4.8166	1.8358	700	431	0	0.0	0	0.0	0
1	-3.5869	1.0182	700	239	1	0.0	1	0.0	1
2	-2.8570	0.7326	700	172	5	0.0	6	0.0	1
3	-2.4149	0.6083	700	143	9	0.0	15	0.0	1
4	-2.0906	0.5354	700	126	29	0.0	44	0.0	1
5	-1.8308	0.4866	700	114	81	0.1	125	0.1	1
6	-1.6115	0.4512	735	106	163	0.1	288	0.2	1
7	-1.4204	0.4242	780	100	278	0.2	566	0.4	1
8	-1.2496	0.4030	820	95	470	0.3	1036	0.7	1
9	-1.0943	0.3857	857	91	698	0.5	1734	1.3	1
10	-0.9511	0.3715	890	87	918	0.7	2652	1.9	2
11	-0.8176	0.3597	922	84	1096	0.8	3748	2.7	2
12	-0.6919	0.3496	951	82	1364	1.0	5112	3.7	3
13	-0.5727	0.3411	979	80	1480	1.1	6592	4.8	4
14	-0.4589	0.3338	1006	78	1581	1.1	8173	5.9	5
15	-0.3497	0.3275	1032	77	1654	1.2	9827	7.1	7
16	-0.2442	0.3222	1056	76	1622	1.2	11449	8.3	8
17	-0.1419	0.3176	1080	75	1709	1.2	13158	9.5	9
18	-0.0423	0.3138	1104	74	1807	1.3	14965	10.8	10
19	0.0551	0.3105	1127	73	1776	1.3	16741	12.1	11
20	0.1507	0.3079	1149	72	1940	1.4	18681	13.5	13
21	0.2448	0.3058	1171	72	1980	1.4	20661	14.9	14
22	0.3378	0.3042	1193	71	2138	1.5	22799	16.5	16
23	0.4300	0.3030	1215	71	2278	1.6	25077	18.1	17
24	0.5216	0.3024	1236	71	2379	1.7	27456	19.8	19
25	0.6129	0.3021	1258	71	2612	1.9	30068	21.7	21
26	0.7042	0.3023	1280	71	2748	2.0	32816	23.7	23
27	0.7957	0.3029	1301	71	2906	2.1	35722	25.8	25
28	0.8878	0.3040	1322	71	3148	2.3	38870	28.1	27
29	0.9806	0.3054	1344	72	3391	2.5	42261	30.5	29
30	1.0744	0.3073	1366	72	3662	2.6	45923	33.2	32
31	1.1696	0.3097	1388	73	4011	2.9	49934	36.1	35
32	1.2664	0.3126	1411	73	4165	3.0	54099	39.1	38
33	1.3651	0.3160	1434	74	4560	3.3	58659	42.4	41
34	1.4662	0.3199	1458	75	4863	3.5	63522	45.9	44
35	1.5700	0.3245	1482	76	5115	3.7	68637	49.6	48
36	1.6769	0.3297	1507	77	5465	4.0	74102	53.6	52
37	1.7875	0.3357	1533	79	5788	4.2	79890	57.7	56
38	1.9026	0.3427	1560	80	5986	4.3	85876	62.1	60
39	2.0227	0.3506	1589	82	5955	4.3	91831	66.4	64
40	2.1488	0.3599	1618	85	6057	4.4	97888	70.8	69
41	2.2821	0.3706	1650	87	6160	4.5	104048	75.2	73
42	2.4240	0.3832	1683	90	5861	4.2	109909	79.4	77
43	2.5765	0.3982	1719	94	5695	4.1	115604	83.6	82
44	2.7420	0.4162	1758	98	5354	3.9	120958	87.4	86
45	2.9242	0.4382	1800	103	4820	3.5	125778	90.9	89
46	3.1282	0.4660	1848	109	4001	2.9	129779	93.8	92
47	3.3618	0.5021	1903	118	3263	2.4	133042	96.2	95
48	3.6381	0.5516	1968	130	2362	1.7	135404	97.9	97
49	3.9812	0.6246	2049	147	1587	1.1	136991	99.0	98
50	4.4449	0.7482	2157	176	876	0.6	137867	99.7	99
51	5.1996	1.0312	2335	242	376	0.3	138243	99.9	99
52	6.4489	1.8438	2628	433	96	0.1	138339	100.0	99

Table P-14. Grade 11 Reading Raw-to-Scale Score Table

Raw Score	Meas.	Meas. SE	Scaled Score	Scaled Score SE	Freq.	Freq. %	Cum. Freq.	Cum. Freq. %	Pctile
0	-5.5540	1.8348	700	450	0	0.0	0	0.0	0
1	-4.3268	1.0164	700	249	3	0.0	3	0.0	1
2	-3.6004	0.7303	700	179	3	0.0	6	0.0	1
3	-3.1615	0.6057	700	149	5	0.0	11	0.0	1
4	-2.8400	0.5328	700	131	17	0.0	28	0.0	1
5	-2.5829	0.4840	700	119	48	0.0	76	0.1	1
6	-2.3661	0.4487	700	110	85	0.1	161	0.1	1
7	-2.1770	0.4220	700	104	135	0.1	296	0.2	1
8	-2.0080	0.4009	700	98	177	0.1	473	0.4	1
9	-1.8542	0.3840	700	94	318	0.2	791	0.6	1
10	-1.7121	0.3702	700	91	445	0.3	1236	0.9	1
11	-1.5794	0.3587	728	88	542	0.4	1778	1.3	1
12	-1.4543	0.3491	758	86	688	0.5	2466	1.8	2
13	-1.3353	0.3410	787	84	826	0.6	3292	2.4	2
14	-1.2214	0.3341	815	82	900	0.7	4192	3.1	3
15	-1.1118	0.3283	842	81	1025	0.8	5217	3.9	3
16	-1.0056	0.3234	868	79	1184	0.9	6401	4.7	4
17	-0.9024	0.3194	894	78	1319	1.0	7720	5.7	5
18	-0.8015	0.3160	918	78	1375	1.0	9095	6.7	6
19	-0.7026	0.3132	943	77	1549	1.1	10644	7.9	7
20	-0.6052	0.3109	967	76	1611	1.2	12255	9.1	8
21	-0.5091	0.3092	990	76	1771	1.3	14026	10.4	10
22	-0.4139	0.3080	1014	76	1974	1.5	16000	11.9	11
23	-0.3193	0.3072	1037	75	2220	1.6	18220	13.5	13
24	-0.2251	0.3069	1060	75	2219	1.6	20439	15.1	14
25	-0.1308	0.3069	1083	75	2484	1.8	22923	17.0	16
26	-0.0366	0.3074	1106	75	2763	2.0	25686	19.0	18
27	0.0582	0.3082	1129	76	2946	2.2	28632	21.2	20
28	0.1535	0.3095	1153	76	3255	2.4	31887	23.6	22
29	0.2498	0.3112	1177	76	3521	2.6	35408	26.2	25
30	0.3473	0.3133	1200	77	3771	2.8	39179	29.0	28
31	0.4462	0.3158	1225	78	4054	3.0	43233	32.0	31
32	0.5469	0.3189	1249	78	4346	3.2	47579	35.2	34
33	0.6497	0.3224	1275	79	4675	3.5	52254	38.7	37
34	0.7549	0.3265	1300	80	5069	3.8	57323	42.5	41
35	0.8630	0.3312	1327	81	5253	3.9	62576	46.4	44
36	0.9745	0.3366	1354	83	5443	4.0	68019	50.4	48
37	1.0899	0.3429	1383	84	5646	4.2	73665	54.6	52
38	1.2098	0.3499	1412	86	5958	4.4	79623	59.0	57
39	1.3351	0.3581	1443	88	6266	4.6	85889	63.6	61
40	1.4666	0.3675	1475	90	6125	4.5	92014	68.2	66
41	1.6056	0.3783	1509	93	6326	4.7	98340	72.9	71
42	1.7535	0.3910	1546	96	6131	4.5	104471	77.4	75
43	1.9121	0.4060	1585	100	5877	4.4	110348	81.7	80
44	2.0840	0.4238	1627	104	5602	4.2	115950	85.9	84
45	2.2727	0.4457	1673	109	5069	3.8	121019	89.7	88
46	2.4833	0.4730	1725	116	4365	3.2	125384	92.9	91
47	2.7233	0.5084	1784	125	3576	2.6	128960	95.5	94
48	3.0057	0.5568	1853	137	2626	1.9	131586	97.5	97
49	3.3543	0.6286	1939	154	1817	1.3	133403	98.8	98
50	3.8224	0.7507	2053	184	1056	0.8	134459	99.6	99
51	4.5800	1.0322	2239	253	418	0.3	134877	99.9	99
52	5.8302	1.8439	2546	453	107	0.1	134984	100.0	99