TECHNICAL REPORT

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DEPARTMENT OF EDUCATION

2017 PENNSYLVANIA SYSTEM OF SCHOOL ASSESSMENT TECHNICAL REPORT

MATHEMATICS, ENGLISH LANGUAGE ARTS, AND SCIENCE

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TABLE OF CONTENTS

GLOSSARY OF COMMON TERMS

The following table contains some terms used in this technical report 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. A glossary of accommodation terms as applied to the PSSA is provided in Chapter Ten.

TABLE G–1. GLOSSARY OF TERMS

Term	Common Definition
Ability	In Rasch scaling, ability is a generic term indicating the level of an individual on the construct measured by an exam. As an example for the PSSA, a student's reading ability is measured by how the student performed on the PSSA Reading test. A student who answered more items correctly has a higher ability than a student who answered fewer items correctly.
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 (see also Differential Item Functioning).
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.
Writing Prompt	A type of constructed-response item found in the ELA assessment that requires the test taker to compose a mode-specific (opinion (Grades 3–5)/argumentative (Grades 6–8), informative/explanatory, or narrative) essay that is scored on a holistic, mode-specific scoring guideline on a 1–4 point scale.
Constructed-Response Item	A constructed-response (CR) item is an item that requires examinees to create their own responses, which can be expressed in various forms (e.g., written essay, 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 answer options (e.g., multiple-choice (MC) items 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.
Content Validity Evidence	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).
Core-Linking Item	Items that are utilized during the linking process (see also Linking). They are a subset of the PSSA operational items and so they 1) are the same on all test forms for any grade/subject-area test and 2) contribute to student total raw scores and scaled scores.
Criterion- Referenced Interpretation	When a score is interpreted as a measure of a student's performance 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 with respect to a given content area.

Term	Common Definition
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 (e.g., 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 that results in dividing the score range into various proficiency level ranges. Methods for establishing cut scores vary. For the PSSA, three cut scores are used to place students into one of four performance levels (see also Performance Level Setting).
Decision Consistency	The extent to which classifications based on test scores would match the decisions based on scores from a second, parallel form of the same test. It is often expressed as the proportion of examinees who are classified the same way from the two test administrations.
Differential Item Functioning (DIF)	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. In other words, students with the same ability level but different group memberships do not have the same probability of answering the item correctly (see also Bias).
Distractor	An 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).
Equating Block (EB) Items	The PSSA uses multiple test forms for each grade/subject-area test. Each form is composed of operational (OP) items, equating block (EB) items, and field-test (FT) items. EB items are utilized during the linking process (see also Linking). Each test form includes a set of EB items. EB items are not part of any student scores.
Error of Measurement	The amount by which the score actually received (an observed score) differs from a hypothetical true score (see also Standard Error of Measurement).
Evidence-Based Selected-Response Item	A type of item that has two parts and requires the test taker to select a response from a group of possible answer choices in Part One, one of which is the correct answer (or key) to the question posed, and to then select one or two responses from a group of possible answer choices in Part Two, which provide evidence to support the correct answer in Part One.
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).
Field-Test (FT) Items	The PSSA uses multiple test forms for each grade/subject-area test. Each form is composed of operational (OP) items, equating block (EB) items, and field-test (FT) items. An FT item is a newly developed item that is ready to be tried out to determine its statistical properties (see also *P*-value and Point-Biserial Correlation). Each test form includes a set of FT items. FT items are not part of any student scores.
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).
Item Difficulty	For the Rasch model, the dichotomous item difficulty represents the point along the latent trait continuum where an examinee has a 0.50 probability of making a correct response. For a polytomous item, the difficulty is the average of the item's step difficulties (see also Step Difficulty).
Key	The correct response option or answer to a test item.
Linking	A generic term referring to one of a number of processes by which scores from one or more tests are made comparable to some degree. 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 (see also Equating).

Term	Common Definition
Logit	In Rasch scaling, logits are units used to express both examinee ability and item difficulty. When expressing examinee ability, a student who answers more items correctly has a higher logit than a student who answers fewer items correctly. Logits are transformed into Scaled Scores through a linear transformation. When expressing item difficulty, logits are transformed *p*-value (see also *P*-value). The logit difficulty scale is inversely related to *p*-values. A higher logit value would represent a relatively harder item, while a lower 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, 97} is 81. The value of a mean can be influenced by extreme values in a score distribution.
Measure	In Rasch scaling, measure generally refers to a specific estimate of an examinee's ability (often expressed as logits) or an item's difficulty (again, often expressed as logits). As an example for the PSSA, a student's reading measure might be equal to 0.525 logits. Or, a PSSA Reading test item might have logit equal to -0.905.
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 percent 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 that 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 (see also Constructed-Response Item).
N-count	Sometimes designated as *N* or *n*, it is the number of 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	A type of constructed-response item found in the mathematics and science assessments that requires examinees to create their own responses, which can be expressed in various forms (e.g., written description, 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, 3, and 4). This format is in contrast to when students make a choice from a supplied set of answer options (e.g., multiple-choice (MC) items 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.
Operational Item	The PSSA uses multiple test forms for each grade/subject-area test. Each form is composed of operational (OP) items, equating block (EB) items, and field-test (FT) items. OP items are the same on all forms for any grade/subject-area test. Student total raw scores and scaled scores are based exclusively on the OP items.
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. Underfit 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 overfit can occur when nearly all low-ability students miss an item while nearly all high-ability students get the item correct.
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 possible points and multiplying the result by 100. Percent Correct scores are 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.

Term	Common Definition
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 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.
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.
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.
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 (see also Logit).
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, are 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 (see also 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
Short-Answer Item	A type of constructed-response item found in the grade 3 ELA assessment that requires the test taker to compose an answer based on a passage or passage set the student has read. Each short-answer (SA) item is scored using an item-specific scoring guideline based on a 0–3 point general scoring guideline.
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, and 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 (SEM)	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.
Step Difficulty	Step difficulty is a parameter estimate in Master's partial credit model (PCM) that represents the relative difficulty of each score step (e.g., going from a score of 1 to a score of 2). The higher the value of a particular step difficulty, the more difficult a particular step is relative to other score steps (e.g., is it harder to go from a 1 to a 2, or to go from a 2 to a 3).
Strand	On score reports, a strand 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 strand score (sometimes called "subscale" score).
Technical Advisory Committee (TAC)	A group of individuals, most often professionals in the field of testing, who are either appointed or selected to make recommendations for and to guide the technical development of a given testing program.
Text-Dependent Analysis Item	A type of constructed-response item found in the ELA assessment in Grades 4–8 that requires the test taker to compose an essay based on a passage or passage set that the student has read during the test event. Test takers must draw on basic writing skills while inferring and synthesizing information from the passage in order to develop the response. The text-dependent analysis (TDA) item is scored on a holistic scoring guideline on a 1–4 point scale.
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.
Writing Prompt	A type of constructed-response item found in the ELA assessment that requires the test taker to compose a mode-specific (opinion (Grades 3–5)/argumentative (Grades 6–8), informative/explanatory, or narrative) essay that is scored on a holistic, mode-specific scoring guideline on a 1–4 point scale.

PREFACE: AN OVERVIEW OF ASSESSMENTS FROM 2003 TO THE PRESENT

The period from 2003 through 2006 brought significant structural changes to 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 of the operational assessment. Included in this process was the development and implementation of assessments at additional grade levels.

For mathematics and reading, 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 including a 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 *2007 PSSA Technical Report for Reading and Mathematics*, along with the remaining grades.

Changes implemented in the writing assessment of spring 2006 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 2006 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*. Subsequently, the first operational science assessment took place in the spring of 2008, along with standard setting and reporting of results.

With the exception of some shifting of test windows, the spring assessments of 2009, 2010, 2011, and 2012 were conducted without change in content structure of the PSSA test instruments.

A transition to begin measuring the Pennsylvania Core Standards (PCS) in Mathematics and English Language Arts was initiated with standalone and embedded field test events in 2013 for Grades 3, 4, and 5. The transition continued in 2014 with standalone field tests in Grades 6, 7, and 8 and embedded field tests in Grades 3 through 8. As a part of this transition, starting in spring 2013, the Grade 11 PSSA and the Grade 12 PSSA Retest were dropped in favor of the Keystone Exams in Algebra I, Biology, and Literature. The 2015 administration of the PSSA marked the completion of the transition to the PCS in Mathematics and English Language Arts. Mathematics and ELA were administered in separate testing windows as separate test and answer booklets (in contrast to the combined Mathematics and Reading test and answer booklets used previously) and students in all grades participated in both the Writing and Reading portions of the ELA assessment.

The following pages provide an overview of the year-to-year changes to the PSSA. Tables and descriptions show 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) for each year.

To access any of the PSSA technical reports referenced in the Preface, please go to the Pennsylvania Department of Education website, www.education.pa.gov. Hover over K-12 in the blue banner at the top of the page and select "Assessment and Accountability." Then select "Pennsylvania System of School Assessment (PSSA)" followed by "PSSA Technical Reports" in the column on the right under "PSSA and AYP Results."

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 Grades 6 and 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
5	Standalone field test in mathematics and reading	April/May 2004
6	Operational writing	October 2004
8	Operational mathematics and reading	April 2004
8	Standalone field test in mathematics and reading	April/May 2004
9	Operational writing	October 2004
11	Operational mathematics and reading	April 2004
11	Standalone field test in mathematics and reading	April/May 2004
11	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 3–8, 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 reevaluated 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. In addition, the writing assessment 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
5	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
8	Standalone field test in writing	February 2005
11	Operational mathematics and reading with embedded field test	April 2005
11	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 in Grades 3–8 and 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 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 in the 2005–06 school year, while the Grade 11 writing assessment continued in the same February testing window. 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
5	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
8	Operational writing with embedded field test	February 2006
11	Operational mathematics and reading with embedded field test	March 2006
11	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 in Grades 3–8 and 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 adequate yearly progress (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 complete. 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 testing 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, reading, and mathematics, a separate, standalone field test in science was administered 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
4	Standalone field test in science	April/May 2007
5	Operational mathematics and reading with embedded field test	March 2007
5	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
8	Operational writing with embedded field test	February 2007
8	Standalone field test in science	April/May 2007
11	Operational mathematics and reading with embedded field test	March 2007
11	Operational writing with embedded field test	February 2007
11	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 in Grades 3–8 and 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 testing window featuring the mode-specific scoring guidelines, stimulus-based multiple-choice items, and a grade-specific emphasis in writing modes assessed, which was 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, reading, and mathematics was science at Grades 4, 8, and 11. See the *2008 PSSA Technical Report for Science: Grades 4, 8, and 11* for further information about the new science assessments

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
4	Operational science with embedded field test	April/May 2008
5	Operational mathematics and reading with embedded field test	March/April 2008
5	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
8	Operational writing with embedded field test	February 2008
8	Operational science with embedded field test	April/May 2008
11	Operational mathematics and reading with embedded field test	March/April 2008
11	Operational writing with embedded field test	February 2008
11	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 OCCURRING IN THE 2008–09 SCHOOL YEAR

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

The operational assessment for writing at Grades 5, 8, and 11 continued with a February testing 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 was incorporated in the 2009 assessment along with a set of embedded field test multiple-choice items.

The second operational assessment in science took place in April/May. Similar to the other operational assessments, field testing for science was 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

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
4	Operational science with embedded field test	April/May 2009
5	Operational mathematics and reading with embedded field test	March 2009
5	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
8	Operational writing with embedded field test	February 2009
8	Operational science with embedded field test	April/May 2009
11	Operational mathematics and reading with embedded field test	March 2009
11	Operational writing with embedded field test	February 2009
11	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

ASSESSMENT ACTIVITIES OCCURRING IN THE 2009–10 SCHOOL YEAR

Table P–7 shows the assessment plan for the 2009–10 school year. A notable change from previous years was that all assessments and make-ups were completed during the testing window from April through the first week of May.

The mathematics and reading assessments continued to be operational for Grades 3–8 and Grade 11. Field testing for mathematics and reading continued to be embedded as part of the operational assessments at each grade level. As in previous years, the fall retest opportunity at Grade 12 continued.

The operational assessment for writing at Grades 5, 8, and 11 continued to feature 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 was included in the 2010 assessment along with a set of embedded field test multiple-choice items.

The operational assessment for science at Grades 4, 8, and 11 included multiple-choice and open-ended questions. Students responded to standalone multiple-choice and open-ended questions (all grades) as well as scenario-based multiple-choice (Grades 8 and 11) and open-ended (Grade 11 only) questions. Field testing was embedded as part of the operational assessments at each grade level.

Table P–7. Operational Assessment and Field Testing During the 2009–10 School Year

Grade	Assessment Activity	Date
3	Operational mathematics and reading with embedded field test	April/May 2010
4	Operational mathematics and reading with embedded field test	April/May 2010
4	Operational science with embedded field test	April/May 2010
5	Operational mathematics and reading with embedded field test	April/May 2010
5	Operational writing with embedded field test	April/May 2010
6	Operational mathematics and reading with embedded field test	April/May 2010
7	Operational mathematics and reading with embedded field test	April/May 2010
8	Operational mathematics and reading with embedded field test	April/May 2010
8	Operational writing with embedded field test	April/May 2010
8	Operational science with embedded field test	April/May 2010
11	Operational mathematics and reading with embedded field test	April/May 2010
11	Operational writing with embedded field test	April/May 2010
11	Operational science with embedded field test	April/May 2010
12	Retest opportunity for students who as Grade 11 students in the spring of 2009 failed to reach at least the Proficient level in mathematics, reading, science, or writing	October/ November 2009

ASSESSMENT ACTIVITIES OCCURRING IN THE 2010–11 SCHOOL YEAR

Table P–8 shows the assessment plan for the 2010–11 school year. A change from the previous year is an earlier testing window, beginning in mid-March for mathematics and reading, late-March to April for writing, and early April for science. A make-up period extended into mid-April for all assessments.

The mathematics and reading assessments continued to be operational for Grades 3–8 and Grade 11. Field testing for mathematics and reading continued to be embedded as part of the operational assessments at each grade level. As in previous years, the fall retest opportunity at Grade 12 continued.

The operational assessment for writing at Grades 5, 8, and 11 continued to feature 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 was included in the 2011 assessment along with a set of embedded field test multiple-choice items.

The operational assessment for science at Grades 4, 8, and 11 included multiple-choice and open-ended questions. Students responded to standalone multiple-choice and open-ended questions (all grades) as well as scenario-based multiple-choice (Grades 8 and 11) and open-ended (Grade 11 only) questions. Field testing was embedded as part of the operational assessments at each grade level.

Table P–8. Operational Assessment and Field Testing During the 2010–11 School Year

Grade	Assessment Activity	Date
3	Operational mathematics and reading with embedded field test	March/April 2011
4	Operational mathematics and reading with embedded field test	March/April 2011
4	Operational science with embedded field test	March/April 2011
5	Operational mathematics and reading with embedded field test	March/April 2011
5	Operational writing with embedded field test	March/April 2011
6	Operational mathematics and reading with embedded field test	March/April 2011
7	Operational mathematics and reading with embedded field test	March/April 2011
8	Operational mathematics and reading with embedded field test	March/April 2011
8	Operational writing with embedded field test	March/April 2011
8	Operational science with embedded field test	March/April 2011
11	Operational mathematics and reading with embedded field test	March/April 2011
11	Operational writing with embedded field test	March/April 2011
11	Operational science with embedded field test	March/April 2011
12	Retest opportunity for students who as Grade 11 students in the spring of 2010 failed to reach at least the Proficient level in mathematics, reading, science, or writing	October/ November 2010

ASSESSMENT ACTIVITIES OCCURRING IN THE 2011–12 SCHOOL YEAR

Table P–9 shows the assessment plan for the 2011–12 school year. The testing window for mathematics and reading began in mid-March, while writing and science began in mid to late April. The make-up period for mathematics and reading extended into late March, while writing and science extended into early May.

The mathematics and reading assessments continued to be operational for Grades 3–8 and Grade 11. Field testing for mathematics and reading continued to be embedded as part of the operational assessments at each grade level. As in previous years, the fall retest opportunity at Grade 12 continued.

The operational assessment for writing at Grades 5, 8, and 11 continued to feature 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 was included in the 2012 assessment along with a set of embedded field test multiple-choice items.

The operational assessment for science at Grades 4, 8, and 11 included multiple-choice and open-ended questions. Students responded to standalone multiple-choice and open-ended questions (all grades) as well as scenario-based multiple-choice (Grades 8 and 11) and open-ended (Grade 11 only) questions. Field testing was embedded as part of the operational assessments at each grade level.

Table P–9. Operational Assessment and Field Testing During the 2011–12 School Year

Grade	Assessment Activity	Date
3	Operational mathematics and reading with embedded field test	March 2012
4	Operational mathematics and reading with embedded field test	March 2012
4	Operational science with embedded field test	April 2012
5	Operational mathematics and reading with embedded field test	March 2012
5	Operational writing with embedded field test	April 2012
6	Operational mathematics and reading with embedded field test	March 2012
7	Operational mathematics and reading with embedded field test	March 2012
8	Operational mathematics and reading with embedded field test	March 2012
8	Operational writing with embedded field test	April 2012
8	Operational science with embedded field test	April 2012
11	Operational mathematics and reading with embedded field test	March 2012
11	Operational writing with embedded field test	April 2012
11	Operational science with embedded field test	April 2012
12	Retest opportunity for students who as Grade 11 students in the spring of 2011 failed to reach at least the Proficient level in mathematics, reading, science, or writing	October/ November 2011

TRANSITION TO THE PENNSYLVANIA CORE STANDARDS

The 2012–13 school year began the initial transition for the PSSA Mathematics, Reading, and Writing tests to align to the newly-developed Pennsylvania Assessment Anchors and Eligible Content aligned to the Pennsylvania Core Standards (PCS). The two-stage transition from the Legacy PSSA Mathematics, Reading, and Writing tests to the new PCS-based PSSA tests was proposed to occur during the operational 2013–14 and 2014–15 administrations, with Grades 3, 4, and 5 part of the first phase, and Grades 6, 7, and 8 part of the second phase. (The final decision was made for a single operational transition, to occur during the operational 2014–15 administration.)

As a part of the PCS transition, the Legacy PSSA Reading test and the Legacy PSSA Writing test were phased out and were replaced with an English Language Arts test aligned to the PCS. As part of this transition, there was a standalone field test for the Writing component of the English Language Arts test. This standalone field test included standalone multiple-choice items (as opposed to stimulus-based multiple-choice items on the Legacy Writing test) and writing prompts at each grade. In addition, at Grade 3 there were open-ended items on the standalone ELA Writing test. For Grades 3, 4, and 5, this standalone field test took place during a two-week testing window in early to mid-February 2013. A similar standalone field test took place in February 2014 for Grades 6, 7, and 8. The Reading component of the new PCS ELA test was embedded in the 2013 Reading field test in Grades 3 through 5; additional items for the Reading component of the new PCS ELA test were embedded in the 2014 Reading field test in Grades 3 through 5. The Reading component of the new PCS ELA test in Grades 6 through 8 was embedded in the 2014 Reading field test.

ASSESSMENT ACTIVITIES OCCURRING IN THE 2012–13 SCHOOL YEAR

Table P–10 shows the assessment plan for the 2012–13 school year. PDE modified the order of the testing windows for writing, reading and mathematics, and science. Writing took place earlier than reading and mathematics instead of at the same time as science. The testing window for writing began mid-March; mathematics and reading began early to mid-April, while science began mid to late April. The make-up period for writing extended into mid to late March, while mathematics, reading, and science extended into early May. These operational assessments were all offered in an online format in addition to the paper/pencil format used in previous assessments.

An additional change from previous years was the removal of Grade 11 from the Mathematics, Reading, Science, and Writing. As Grade 11 was no longer a part of the assessments, the fall retest opportunity at Grade 12 was no longer available. Operational tests continued to be available for Mathematics and Reading at Grades 3–8, Science at grades 4 and 8, and Writing at grades 5 and 8.

Field testing for mathematics and reading continued to be embedded as part of the operational assessments at each grade level. The embedded field test items for Grades 3, 4, and 5 were aligned to the Pennsylvania Assessment Anchors and Eligible Content aligned to the Pennsylvania Core Standards, while the embedded field test items for Grades 6, 7, and 8 continued to be aligned to the previous Assessment Anchor Content Standards.

The operational assessment for Science at Grades 4 and 8 included multiple-choice and open-ended questions. Students responded to standalone multiple-choice and open-ended questions (all grades) as well as scenario-based multiple-choice questions (Grades 8 only). Field testing was embedded as part of the operational assessments at each grade level.

The operational assessment for Writing at Grades 5 and 8 continued to feature 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 along with a set of embedded field test multiple-choice items was included in the 2013 assessment at Grade 8. The operational assessment at Grade 5 included placeholder multiple-choice items for consistency in the length of the multiple-choice section of the assessment; however, students responded to only two writing prompts at Grade 5, as a field-test writing prompt was not needed due to the standalone field test at that grade.

Table P–10. Operational Assessment and Field Testing During the 2012–13 School Year

Grade	Assessment Activity	Date
3	Operational mathematics and reading with embedded field test (field test aligned to the PCS)	April 2013
3	Standalone field test in ELA: writing (aligned to the PCS)	February 2013
4	Operational mathematics and reading with embedded field test (field test aligned to the PCS)	April 2013
4	Operational science with embedded field test	April 2013
4	Standalone field test in ELA: writing (aligned to the PCS)	February 2013
5	Operational mathematics and reading with embedded field test (field test aligned to the PCS)	April 2013
5	Operational writing	March 2013
5	Standalone field test in ELA: writing (aligned to the PCS)	February 2013
6	Operational mathematics and reading with embedded field test	April 2013
7	Operational mathematics and reading with embedded field test	April 2013
8	Operational mathematics and reading with embedded field test	April 2013
8	Operational writing with embedded field test	March 2013
8	Operational science with embedded field test	April 2013

ASSESSMENT ACTIVITIES OCCURRING IN THE 2013–14 SCHOOL YEAR

Table P–11 shows the assessment plan for the 2013–14 school year. The 2013–14 school year continued the transition for the PSSA Mathematics, Reading, and Writing tests to align to the newly-developed Pennsylvania Assessment Anchors and Eligible Content aligned to the Pennsylvania Core Standards (PCS), as field-test items were aligned to the PCS-aligned Assessment Anchors and Eligible Content. The operational assessments in Mathematics, Reading, and Writing were comprised of items that align to both the PCS and the existing Assessment Anchors and Eligible Content. Reporting in 2013–14 continued to use the previous content structure. The transition from the Legacy PSSA Mathematics, Reading, and Writing tests to the new PCS-based PSSA tests was planned to occur during the operational 2014–15 administration.

As a part of the PCS transition, the Legacy PSSA Reading test and the Legacy PSSA Writing test were phased out and were replaced with an English Language Arts test aligned to the PCS. As part of this transition, there was a standalone field test at Grades 6, 7, and 8 for the Writing component of the English Language Arts test. This standalone field test included standalone multiple-choice items (as opposed to stimulus-based multiple-choice items on the Legacy Writing test) and writing prompts at Grades 6, 7, and 8. This standalone field test took place during a two-week testing window in early to mid-February. The Reading component of the new PCS ELA test was embedded in the 2014 Reading field test for Grades 6, 7, and 8 and in the 2013 and 2014 Reading field test for

Grades 3, 4, and 5.

Writing took place after reading and mathematics but before science. The testing window for mathematics and reading began mid-March; writing began late March to early April; and science began late April. The make-up period for mathematics and reading extended into early April, while the make-up period for writing extended into early to mid-April and science extended into early May. These operational assessments continued to be offered in an online format in addition to the paper/pencil format used in previous assessments.

Field testing for mathematics and reading continued to be embedded as part of the operational assessments at each grade level. The embedded field test items were aligned to the Pennsylvania Assessment Anchors and Eligible Content aligned to the Pennsylvania Core Standards.

The operational assessment for science at Grades 4 and 8 included multiple-choice and open-ended questions. Students responded to standalone multiple-choice and open-ended questions (all grades) as well as scenario-based multiple-choice questions (Grades 8 only). Field testing was embedded as part of the operational assessments at each grade level.

The operational assessment for writing at Grades 5 and 8 continued to feature mode-specific scoring guidelines, stimulus-based multiple-choice items, and a grade-specific emphasis in writing modes assessed. Students responded to only two writing prompts, as a field-test writing prompt was not needed due to the upcoming transition to the ELA assessments.

Table P–11. Operational Assessment and Field Testing During the 2013–14 School Year

Grade	Assessment Activity	Date
3	Operational mathematics and reading with embedded field test	March 2014
4	Operational mathematics and reading with embedded field test	March 2014
4	Operational science with embedded field test	April-May 2014
5	Operational mathematics and reading with embedded field test	March 2014
5	Operational writing	March-April 2014
6	Operational mathematics and reading with embedded field test	March 2014
6	Standalone field test in ELA: writing	February 2014
7	Operational mathematics and reading with embedded field test	March 2014
7	Standalone field test in ELA: writing	February 2014
8	Operational mathematics and reading with embedded field test	March 2014
8	Operational writing with embedded field test	March-April 2014
8	Operational science with embedded field test	April-May 2014
8	Standalone field test in ELA: writing	February 2014

ASSESSMENT ACTIVITIES OCCURRING IN THE 2014–15 SCHOOL YEAR

Table P–12 shows the assessment plan for the 2014–15 school year. The 2014–15 school year completes the transition for the PSSA Mathematics, Reading, and Writing tests to align to the newly-developed Pennsylvania Assessment Anchors and Eligible Content aligned to the Pennsylvania Core Standards (PCS), as both operational and field-test items were aligned only to the PCS-aligned Assessment Anchors and Eligible Content. Reporting in 2014–15 also transitioned to the new content structure. The transition from the Legacy PSSA Mathematics, Reading, and Writing tests to the new PCS-based PSSA Mathematics and ELA tests occurred during the operational 2014–15 administration.

The testing window for English Language Arts began in mid-April followed by the testing windows for Mathematics in mid to late April and then Science in late April to early May. These operational assessments continued to be offered in an online format in addition to the paper/pencil format used in previous assessments. The online assessment became available for students to take on iPads and Chromebooks beginning with the 2015 administration.

Field testing for mathematics and reading continued to be embedded as part of the operational assessments at each grade level. The embedded field test items continued to be aligned to the Pennsylvania Assessment Anchors and Eligible Content aligned to the Pennsylvania Core Standards.

The operational assessment for science at Grades 4 and 8 included multiple-choice and open-ended questions. Students responded to standalone multiple-choice and open-ended questions (both grades) as well as scenario-based multiple-choice questions (Grades 8 only). Field testing was embedded as part of the operational assessments at each grade level.

Table P–12. Operational Assessment and Field Testing During the 2014–15 School Year

Grade	Assessment Activity	Date
3	Operational mathematics with embedded field test	April 2015
3	Operational ELA with embedded field test	April 2015
4	Operational mathematics with embedded field test	April 2015
4	Operational ELA with embedded field test	April 2015
4	Operational science with embedded field test	April-May 2015
5	Operational mathematics embedded field test	April 2015
5	Operational ELA with embedded field test	April 2015
6	Operational mathematics with embedded field test	April 2015
6	Operational ELA with embedded field test	April 2015
7	Operational mathematics with embedded field test	April 2015
7	Operational ELA with embedded field test	April 2015
8	Operational mathematics with embedded field test	April 2015
8	Operational ELA with embedded field test	April 2015
8	Operational science with embedded field test	April-May 2015

ASSESSMENT ACTIVITIES OCCURRING IN THE 2015–16 SCHOOL YEAR

Table P–13 shows the assessment plan for the 2015–16 school year. The PSSA tests administered in the 2015–16 school year will continue to be aligned to the Assessment Anchors and Eligible Content aligned to the Pennsylvania Core Standards.

The testing window for English Language Arts began early to mid-April followed by the testing windows for Mathematics in mid-April and then Science in late April. Makeup assessments were available through early May. These operational assessments continued to be offered in an online format in addition to the paper/pencil format used in previous assessments. The online assessment were available for students to take on iPads and Chromebooks.

Field testing for mathematics and English language arts continued to be embedded as part of the operational assessments at each grade level. The embedded field test items continued to be aligned to the Pennsylvania Assessment Anchors and Eligible Content aligned to the Pennsylvania Core Standards.

The operational assessment for science at Grades 4 and 8 included multiple-choice and open-ended questions. Students responded to standalone multiple-choice and open-ended questions (both grades) as well as scenario-based multiple-choice questions (Grades 8 only). Field testing was embedded as part of the operational assessments at each grade level.

Table P–13. Operational Assessment and Field Testing During the 2015–16 School Year

Grade	Assessment Activity	Date
3	Operational mathematics with embedded field test	April 2016
3	Operational ELA with embedded field test	April 2016
4	Operational mathematics with embedded field test	April 2016
4	Operational ELA with embedded field test	April 2016
4	Operational science with embedded field test	April 2016
5	Operational mathematics embedded field test	April 2016
5	Operational ELA with embedded field test	April 2016
6	Operational mathematics with embedded field test	April 2016
6	Operational ELA with embedded field test	April 2016
7	Operational mathematics with embedded field test	April 2016
7	Operational ELA with embedded field test	April 2016
8	Operational mathematics with embedded field test	April 2016
8	Operational ELA with embedded field test	April 2016
8	Operational science with embedded field test	April 2016

ASSESSMENT ACTIVITIES OCCURRING IN THE 2016–17 SCHOOL YEAR

Table P–14 shows the assessment plan for the 2016–17 school year. The PSSA tests administered in the 2016–17 school year will continue to be aligned to the Assessment Anchors and Eligible Content aligned to the Pennsylvania Core Standards.

The testing window for English Language Arts began early April followed by the testing windows for Mathematics in mid-April and then Science in early May. Makeup assessments were available through early to mid-May. These operational assessments continued to be offered in an online format in addition to the paper/pencil format used in previous assessments. The online assessment were available for students to take on PCs, iPads, and Chromebooks.

Field testing for mathematics and English language arts continued to be embedded as part of the operational assessments at each grade level. The embedded field test items continued to be aligned to the Pennsylvania Assessment Anchors and Eligible Content aligned to the Pennsylvania Core Standards.

The operational assessment for science at Grades 4 and 8 included multiple-choice and open-ended questions. Students responded to standalone multiple-choice and open-ended questions (both grades) as well as scenario-based multiple-choice questions (Grades 8 only). Field testing was embedded as part of the operational assessments at each grade level.

Table P–14. Operational Assessment and Field Testing During the 2016–17 School Year

Grade	Assessment Activity	Date
3	Operational mathematics with embedded field test	April 2017
3	Operational ELA with embedded field test	April 2017
4	Operational mathematics with embedded field test	April 2017
4	Operational ELA with embedded field test	April 2017
4	Operational science with embedded field test	May 2017
5	Operational mathematics embedded field test	April 2017
5	Operational ELA with embedded field test	April 2017
6	Operational mathematics with embedded field test	April 2017
6	Operational ELA with embedded field test	April 2017
7	Operational mathematics with embedded field test	April 2017
7	Operational ELA with embedded field test	April 2017
8	Operational mathematics with embedded field test	April 2017
8	Operational ELA with embedded field test	April 2017
8	Operational science with embedded field test	May 2017

ASSESSMENT ACTIVITIES PLANNED FOR THE 2017–18 SCHOOL YEAR

Table P–15 shows the assessment plan for the 2017–18 school year. The PSSA tests administered in the 2017–18 school year will continue to be aligned to the Assessment Anchors and Eligible Content aligned to the Pennsylvania Core Standards.

The testing window for English Language Arts will be in early to mid-April followed by the testing windows for Mathematics in mid-April and then Science in late-April into early May. The makeup assessments will be available through early May. These operational assessments will continue to be offered in an online format in addition to the paper/pencil format.

Field testing for mathematics and English language arts will continue to be embedded as part of the operational assessments at each grade level. The embedded field test items will continue to be aligned to the Pennsylvania Assessment Anchors and Eligible Content aligned to the Pennsylvania Core Standards.

The operational assessment for science at Grades 4 and 8 will continue to include multiple-choice and open-ended questions. Students will respond to standalone multiple-choice and open-ended questions (both grades) as well as scenario-based multiple-choice questions (Grades 8 only). Field testing will be embedded as part of the operational assessments at each grade level.

Table P–15. Operational Assessment and Field Testing During the 2017–18 School Year (Planned)

Grade	Assessment Activity	Date
3	Operational mathematics with embedded field test	April 2018
3	Operational ELA with embedded field test	April 2018
4	Operational mathematics with embedded field test	April 2018
4	Operational ELA with embedded field test	April 2018
4	Operational science with embedded field test	April 2018
5	Operational mathematics embedded field test	April 2018
5	Operational ELA with embedded field test	April 2018
6	Operational mathematics with embedded field test	April 2018
6	Operational ELA with embedded field test	April 2018
7	Operational mathematics with embedded field test	April 2018
7	Operational ELA with embedded field test	April 2018
8	Operational mathematics with embedded field test	April 2018
8	Operational ELA with embedded field test	April 2018
8	Operational science with embedded field test	April 2018

CHAPTER ONE: BACKGROUND, PURPOSE, AND INTENDED USES OF THE PENNSYLVANIA SYSTEM OF SCHOOL ASSESSMENT (PSSA)

This brief overview of the Pennsylvania System of School Assessment (PSSA) summarizes 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. Pennsylvania's involvement in state-wide assessment actually began in the 1969–70 school year with a purely school-based assessment known as *Educational Quality Assessment* (EQA), which continued through the 1987–88 school year. A state mandated student competency testing program called *Testing for Essential Learning and Literacy Skills* (TELLS) also operated from the school years of 1984–85 through 1990–91.

THE PENNSYLVANIA SYSTEM OF SCHOOL ASSESSMENT

The Pennsylvania System of School Assessment program was instituted in 1992 as 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. Mathematics and reading were assessed at Grades 5, 8, and 11; districts could choose to participate in the writing assessment at Grades 6 and 9. The State Board of Education's revisions to Chapter 5 in November 1994 brought major changes to the PSSA, beginning with the spring 1995 assessment. These changes included the following:

- All districts were required to participate in the mathematics and reading assessment each year.
- Student-level reports were generated in addition to school reports.
- The Grades 6 and 9 writing assessments became mandatory on a three-year cycle corresponding with the district's strategic planning cycle.

Yearly administration of the PSSA in 1996, 1997, and 1998 continued at the assessed grades for mathematics and reading, utilizing essentially the same test structure, reporting practices, and testing window. Writing assessment continued on the established mandatory cycle; however, an increasing number of districts chose to participate every year on a voluntary basis.

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). These new, more rigorous standards aimed to better prepare students for the 21st century work force. 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. Mathematics and reading 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. The regulations also stipulated that appropriate results be broadly disseminated to an array of audiences including students, parents, educators, citizens, and state policymakers, including the State Senate, the General Assembly, and the State Board. School reporting was to include the aggregate performance of all students and for relevant subgroups, such as those students with an Individualized Education Plan (IEP). Finally, the data was intended to inform educators regarding school program strengths and weaknesses in order to guide the improvement of curricula and instructional strategies. The data was also intended to be used in the development of strategic plans.

The mathematics and reading assessments from 2001 through 2004 underwent various content enhancements to improve alignment to the Academic Standards. For example, the reading assessment transitioned to utilizing more passages of shorter length and fewer items to improve the range of topics to which students responded. Various reporting modifications were introduced to more effectively communicate results.

ASSESSMENT ANCHOR CONTENT STANDARDS, CONTENT STRUCTURE, AND NEW GRADE LEVELS FOR MATHEMATICS AND READING

Assessment in 2005 was marked by major structural changes to 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 adequate 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 mathematics and reading assessment incorporated Grades 4, 6, and 7 for the first time. The assessed grade levels for 2006 included Grades 3–8 and 11. The fourth year of calculations for AYP were conducted and reported for Grades 5, 8, and 11 and, for the first time, Grade 3.

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

The operational mathematics and reading assessments of 2008, 2009, 2010, 2011, and 2012 continued in Grades 3–8 and 11, utilizing the same content structure. AYP calculations continued for all grades. The operational mathematics and reading assessments continued for Grades 3–8 in 2013 utilizing the same content structure.

TRANSITION TO PENNSYLVANIA CORE STANDARDS-ALIGNED ASSESSMENTS IN ENGLISH LANGUAGE ARTS AND MATHEMATICS

As a part of the transition to align to the Pennsylvania Core Standards, the operational mathematics and reading assessments for Grades 3–8 in 2014 aligned to both the previous Assessment Anchors (those aligned to the Pennsylvania Academic Standards) and the newly developed Assessment Anchors aligned to the Pennsylvania Core Standards. The operational assessments of 2015 in Grades 3–8 marked the completion of the transition to alignment with the Pennsylvania Core Standards in mathematics and English language arts. The 2017 PSSA had nine field test forms per grade in Grades 3–8, each with core items as well as placeholder items to ensure consistency in the length of the assessment in future years when equating block items are again included in the test design. More information about the operational layout for mathematics and English language arts can be found in Chapter Three.

Preliminary performance level descriptors were developed for mathematics and English language arts in the spring of 2012. These descriptions of the expectations of students at each performance level (Basic, Proficient, and Advanced) were used to guide development of items aligned to the PCS-aligned Assessment Anchors and Eligible Content that were field tested in 2013 (Grades 3, 4, and 5) and in 2014 (Grades 3–8). These performance level descriptors were validated by committees of Pennsylvania educators in February 2015 prior to standard setting in June 2015.

More information regarding the 2017 mathematics and reading tests may be found in Chapter Two and in the following Pennsylvania Department of Education publications available on the PDE website: *PSSA Assessment Handbook*, *PSSA English Language Arts Preliminary Item and Scoring Sampler* (one per assessed grade level), and *PSSA Mathematics Preliminary Item and Scoring Sampler* (one per assessed grade level). These materials can be accessed by going to the PDE website, www.education.pa.gov. Hover over K-12 in the blue banner at the top of the page and select “Assessment and Accountability.” Then select “Pennsylvania System of School Assessment (PSSA).”

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 first occurred in April–May 2008. The 2009 PSSA operational science assessment continued with the same content structure and testing window as in 2008.

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

- The 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 the *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:

- The Nature of Science
- Biological Sciences
- Physical Sciences
- Earth and Space Sciences

Students use their content knowledge and science process skills to answer a set of multiple-choice items and open-ended questions that are standalone or related to a scenario. A science scenario consists of a description of a class project, an experiment, or other research and typically contains text, graphs, charts, and/or tables. Science test questions at Grade 4 consist of standalone multiple-choice and 0–2-point short answer open-ended items. At Grade 8, multiple-choice questions consist of both standalone and scenario-based items. All open-ended items at Grade 8 are standalone 0–2-point questions. More information may be found in Chapter Two and in the following Pennsylvania Department of Education publications available on the PDE website: *PSSA Assessment Handbook* and *PSSA Science Item and Scoring Sampler Supplement* (one per assessed grade level). These handbooks can be accessed by going to www.education.pa.gov. Hover over K-12 in the blue banner at the top of the page and select "Assessment and Accountability," then select "Pennsylvania System of School Assessment (PSSA)." The item and scoring sampler for science is found under "Science Resources." The establishment of performance levels for science, utilizing the Bookmark method, took place during the summer of 2008. See Chapter Thirteen of this technical report for a brief summary.

PURPOSE AND INTENDED USES OF THE PSSA

The preceding discussion provides some important background and rationale for the development of the PSSA. Although the topic of test validity is covered in detail in Chapter 19 of this report, some introductory remarks to frame how a validity argument is linked to test purpose and use is appropriate here. Validity is often defined as, the degree to which theory and evidence support the intended purpose and use of test scores. As such, the beginning of any validation process is to clearly articulate test purpose and intended uses. The purpose of the PSSA is to measure how well students acquire the knowledge and skills described in the *Pennsylvania Assessment Anchor Content Standards* (Assessment Anchors) as defined by the Eligible Content for mathematics, ELA, and Science. The intended uses of the PSSA are to:

1. Provide information for use in school and district accountability systems
2. Improve curricular and instructional practices in order to help students reach proficiency in the Pennsylvania Core Standards (ELA and Mathematics) or the Pennsylvania Academic Standards (Science)

It follows, then, that a validity argument must be developed to support claims that PSSA test scores are appropriate for these uses. The *Standards for Educational and Psychological Testing* (AERA, APA, & NCME, 2014) links the concept of validity, test purpose, and test use to this need for evidence that test scores are appropriate for their intended purpose and uses. Briefly, a validity argument is characterized as an accumulation of five sources, or types, of evidence that test scores are appropriate for their intended use, including evidence related to test content, its internal structure and relation to other variables, examinee response processes, and testing consequences. Complete definitions of these sources, and corresponding evidence that PSSA scores may be interpreted as intended is provided in Chapter 19.

CHAPTER TWO: OVERVIEW OF THE PSSA FRAMEWORK

PENNSYLVANIA CORE STANDARDS, PENNSYLVANIA ACADEMIC STANDARDS, ASSESSMENT ANCHOR CONTENT STANDARDS, AND ELIGIBLE CONTENT

PSSA ENGLISH LANGUAGE ARTS, MATHEMATICS, AND SCIENCE

The PSSA Assessment Anchor Content Standards and Eligible Content are based on the Pennsylvania Core Standards in English language arts and mathematics and the Pennsylvania Academic Standards in science. Although the Academic Standards indicated 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 were designed as a tool to improve the articulation of curricular, instructional, and assessment practices.

With Pennsylvania's decision to adopt the Pennsylvania Core Standards based on the Common Core State Standards, committees of Pennsylvania educators met in October 2011 to write, review, and approve the Assessment Anchors and Eligible Content statements. To provide initial focus, each content and grade span committee was presented with materials specific to the content and grade span in question, including a basic blueprint structure, the Pennsylvania Academic Standards, the Pennsylvania Assessment Anchors and Eligible Content aligned to the Pennsylvania Academic Standards, the Common Core State Standards, and draft Eligible Content statements. Committees then completed an iterative process of reviewing and revising the draft Eligible Content statements followed by discussions across grade-span committees to ensure vertical articulation across the grades. The results from the committee work were evaluated by national, state, and local subject experts, and following revisions, they were ultimately validated by another committee of Pennsylvania educators. Following committee approval, the Pennsylvania Core Standards-aligned Assessment Anchors and Eligible Content for English Language Arts and Mathematics were approved by the State Board of Education in September 2013.

The Assessment Anchors clarify what is expected across each grade span and focus the content of the standards into what is assessable on a large-scale test. The Assessment Anchor documents also serve to communicate Eligible Content, also called assessment limits, or the range of knowledge and skills from which the PSSA would be designed.

The Assessment Anchor's coding is read like an outline. The coding includes the content, grade level, Reporting Category, Assessment Anchor, descriptor (Sub-Assessment Anchor), and Eligible Content. Thus, S.4.A.1.3.1 would be Science, Grade 4, Reporting Category A, Assessment Anchor 1, descriptor (Sub-Assessment Anchor) 3, and Eligible Content 1.

Each of the Assessment Anchors has one or more descriptors (Sub-Assessment Anchors) and Eligible Content varying to reflect grade-level appropriateness. The Assessment Anchors form the basis of the test design. In turn, this hierarchy is the basis for organizing the total content scores (based on the core [common] sections).

Achieve, Inc., Washington, D.C., conducted a preliminary review of the science Assessment Anchors in 2003 to evaluate the alignment with the Academic Standards and produced a follow-up report on the anchors in 2005.

The complete set of Assessment Anchors and Eligible Content aligned to the Pennsylvania Academic Standards can be referenced at PDE's website: www.education.pa.gov. Hover over K-12 in the blue banner at the top of the page and select "Assessment and Accountability." Then select "Pennsylvania System of School Assessment (PSSA)" followed by "Assessment Anchors" in the column on the right under "Other Materials."

OVERVIEW OF THE 2017 PSSA

MATHEMATICS ASSESSMENT MEASURES

The Assessment Anchors are organized into four classifications, as listed below.

- A = Numbers and Operations
- B = Algebraic Concepts
- C = Geometry
- D = Data Analysis and Probability

These four classifications are used throughout the grade levels. In addition to these classifications, there are five Reporting Categories for each grade level. The first letter of each Reporting Category represents the classification, and the second letter represents the Domain as stated in the Pennsylvania Core Standards for Mathematics. These Reporting Categories are listed below.

- A = Numbers and Operations
    - A-T = Numbers and Operations in Base Ten (grades 3–5)
    - A-F = Numbers and Operations—Fractions (grades 3–5)
    - A-N = The Number System (grades 6–8)
    - A-R = Ratios and Proportional Relationships (grades 6, 7)
- B = Algebraic Concepts
    - B-O = Operations and Algebraic Thinking (grades 3–5)
    - B-E = Expressions and Equations (grades 6–8)
    - B-F = Functions (grade 8)
- C = Geometry
    - C-G = Geometry (grades 3–8)
- D = Data Analysis and Probability
    - D-M = Measurement and Data (grades 3–5)
    - D-S = Statistics and Probability (grades 6–8)

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 generally generate fewer scoreable points than multiple-choice items in the same amount of testing time; however, they provide tasks that are more realistic and are better at sampling higher-level thinking skills. 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. The design of the PSSA attempts to achieve a reasonable balance between the two item types.

Furthermore, the Standards for Mathematical Practice is included in the development and review process of each item. Some items may align to none of the practices while others may align to multiple practices. The Standards for Mathematical Practice originated in the Common Core State Standards for Mathematics and were adopted by Pennsylvania as part of the Academic Standards for Mathematics.

MATHEMATICS MULTIPLE-CHOICE ITEMS

The majority of the mathematics items included on the PSSA are multiple-choice (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 computational 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 item. Most of the open-ended items 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 mathematics 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 response space, 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 using an item-specific scoring guideline. The item-specific scoring guideline outlines the requirements for 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 A or the *Mathematics Item and Scoring Samplers* available on the PDE website.

ENGLISH LANGUAGE ARTS ASSESSMENT MEASURES

The content blueprints for the English language arts assessment are shown in the following tables. The blueprints are organized around three Reporting Clusters (Reading, Writing, and Text-Dependent Analysis) based on the expressed emphasis contained within the Pennsylvania Core Standards.

- Reading
  - A = Literature Text
  - B = Informational Text
  - A-K and B-K = Key Ideas and Details
  - A-C and B-C = Craft and Structure/Integration of Knowledge and Ideas
  - A-V and B-V = Vocabulary Acquisition and Use
- Writing
  - C = Writing
  - D = Language
- Text-Dependent Analysis
  - E = Text-Dependent Analysis (Grades 4–8 only)

Within the Reading Reporting Cluster, each Eligible Content aligns to a Genre Reporting Category (Literature Text or Informational Text) as well as a Core Competency Reporting Category (Key Ideas and Details; Craft and Structure/ Integration of Knowledge and Ideas; or Vocabulary Acquisition and Use) as shown in the table below.

Table 2–1. English Language Arts Eligible Content Blueprint

Genre	Key Ideas and Details (Key Ideas)	Craft and Structure/Integration of Knowledge and Ideas (CSI)	Vocabulary Acquisition and Use (Vocabulary)
Literature Text	A-K.1.1.1	A-C.2.1.1	A-V.4.1.1
Literature Text	A-K.1.1.2	A-C.3.1.1	A-V.4.1.2
Literature Text	A-K.1.1.3	NA	NA
Informational Text	B-K.1.1.1	B-C.2.1.1	B-V.4.1.1
Informational Text	B-K.1.1.2	B-C.2.1.2	B-V.4.1.2
Informational Text	B-K.1.1.3	B-C.3.1.1	NA
Informational Text	NA	B-C.3.1.2	NA
Informational Text	NA	B-C.3.1.3	NA

The English language arts assessment employs several types of test questions, including standalone and passage-based Multiple-Choice questions (MC), Evidence-Based Selected-Response (EBSR) questions, Short-Answer (SA) questions (Grade 3 only), Text-Dependent Analysis (TDA) questions (Grades 4–8) and mode-specific Writing Prompts (WP).

PASSAGE-BASED MULTIPLE-CHOICE ITEMS

Passage-based multiple-choice items measure 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 information from a story. Such information may include setting, central idea, or main events and their sequence. These multiple-choice items are aligned to Reporting Categories within the Reading Reporting Cluster.

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 of the item and/or stimuli.

STANDALONE MULTIPLE-CHOICE ITEMS

Standalone multiple-choice items require that a student demonstrate both passive (recognizing and identifying grammatical and mechanical errors in text, such as misspellings, errors in word choice, errors in verb tense, or pronoun usage) and active (choosing the appropriate correction of an embedded error, such as deleting an irrelevant detail, changing the sequence of details, or placing correct marks of punctuation) language skills related to conventions of standard English and knowledge of language. These multiple-choice items are aligned to the Language Reporting Category within the Writing Reporting Cluster.

All language multiple-choice items have four response options that include only one correct answer. The student is awarded one raw score point for choosing the correct response. Incorrect response choices, or distractors, typically represent some kind of misinterpretation or predisposition, unsound reasoning, or casual reading of the item and/or stimuli.

EVIDENCE-BASED SELECTED-RESPONSE ITEMS

Each two-part evidence-based selected-response (EBSR) question is designed to elicit an evidence-based response from a student who has read either a Literature or Informational Text passage. In Part One, which is similar to a multiple-choice question, the student analyzes a passage and chooses the best answer from four answer choices. In Part Two, the student elicits evidence from the passage to select one or more answers based on his/her response to Part One. Part Two is different from a multiple-choice question in that there may be more than four answer options and more than one correct answer. Each EBSR test question is worth either two or three points, and students can receive partial credit for providing a correct response to Part One or for providing one or more correct responses in Part Two. The student is awarded one raw score point for choosing each correct response. Incorrect response choices, or distractors, in both Part One and Part Two typically represent some kind of misinterpretation, predisposition, unsound reasoning, or casual reading of the item and/or stimuli.

SHORT-ANSWER ITEMS (GRADE 3)

Constructed response tasks such as the short-answer questions included on the assessment for Grade 3 require written responses. These items are designed to address comprehension of text in ways that multiple-choice items cannot. These short written responses require about five minutes per item and allow a student to prepare an answer using supporting details or examples derived from the text. Prior to 2013, these test questions were called "open-ended" items due to the many possible responses students could construct compared to the four static options available in a multiple-choice item. These items began to be labeled as short-answer items during the 2013 administration. The shift in labeling, from "open-ended" to "short-answer," was implemented to draw a greater contrast to the new "Text-Dependent Analysis" questions which require substantial student writing. By comparison, responses to the short-answer items are simpler and require less explication and almost no analysis.

The reading short-answer items are scored on a 0–3-point scale using 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 guideline reflecting the task requirements. All item-specific scoring guidelines are based on the "General Scoring Guidelines for Short-Answer Reading Items." The general guidelines describe a hierarchy of responses, which represent the four score levels. See Appendix A or the *English Language Arts Item and Scoring Samplers* available on the PDE website.

TEXT-DEPENDENT ANALYSIS ITEMS (GRADES 4–8)

Text-dependent analysis questions require students to draw on basic writing skills while inferring and synthesizing information from a passage or passage set they have read during the test event, in order to develop a comprehensive, holistic essay response. Both Literature and Informational Texts are addressed through this item type. The demand required of a student's reading and writing skills in response to a TDA coincides with the similar demands required for a student to be college and career ready. The essay responses developed for this item type require approximately thirty minutes. These items are reported under the Text-Dependent Analysis Reporting Category, which is found in the Reporting Cluster of the same name.

The text-dependent analysis items are scored on a 1–4-point scale using the holistic "PSSA Text-Dependent Analysis Scoring Guidelines." The TDA scoring guidelines describe a hierarchy of responses, which represent the four score levels, and include comprehension, writing, and analysis skills. See Appendix A or the *English Language Arts Item and Scoring Samplers* available on the PDE website.

WRITING PROMPTS

At each grade level, students respond to writing prompts developed to measure composition of writing as specified in the Pennsylvania Core Standards for Text Types and Purposes. A student response to a prompt requires approximately 30 minutes per prompt, though students are allowed more time to finish their responses if necessary.

The writing prompts were field tested in a standalone field test in February 2013 for Grades 3, 4, and 5 and in February 2014 for Grades 6, 7, and 8. Prompt modes and prompts were spiraled across the total number of available forms. Spiraling is accomplished by administering each student one of many available field test prompts in a sequential manner. For example, the first student received Prompt 1, the second student Prompt 2, and so

on until every prompt was administered. If there were more students than prompts, the sequence was repeated, starting with the first prompt until every student was assigned a prompt. This process ensured that each prompt was administered to approximately equal and representative student populations in regard to demographics like gender, ethnicity, school size, and location in the state.

With the transition to the Pennsylvania Core Standards, students are expected to receive instruction in all three modes of writing at all grade levels, and students may be assessed in any of the three modes at each grade level. These modes include Narrative, Informative/Explanatory, and Opinion (Grades 3–5) or Argumentative (Grades 6–8). Beginning with the operational assessment in 2015, students respond to one pre-selected operational prompt chosen from across the three modes. See Table 2–2 for more information about the modes selected for use during the 2015 administration.

The responses to writing prompts are scored on a 1–4-point scale using the mode-specific holistic scoring guidelines. These writing prompt scoring guidelines describe a hierarchy of responses, which represent the four score levels, and include mode-specific writing skills as well as language conventions. See Appendix A or the *English Language Arts Item and Scoring Samplers* available on the PDE website.

PASSAGE COMPLEXITY

The Pennsylvania Core Standards require students to read increasingly complex texts with greater independence and proficiency as they progress toward college- and career-readiness. DRC has worked with PDE to develop a process that measures (1) the quantitative evaluation of the text, and (2) the qualitative evaluation of the text that is reported out on a passage placemat. In addition, a third component, matching reader to text and task, is also taken into consideration during passage evaluation and teacher committee reviews.

QUANTITATIVE EVALUATION

Evaluating the complexity of a passage is essentially a judgmental process by individuals familiar with the classroom context and what is developmentally and linguistically appropriate for students at a given grade level. Although readability indices will be computed and made available on the passage placemat for each passage, we believe that these indices measure different aspects of readability and can result in various interpretations. Because no readability formula is perfect, qualitative measures have been implemented to help determine placement and appropriateness for passages used in the Pennsylvania assessments. These measures include: 1) rubric-based qualitative evaluations, and 2) teacher content review committees to provide expert opinions on grade-level appropriateness as part of matching the reader to text and task considerations.

QUALITATIVE EVALUATION

Rubrics provide the qualitative measures for literary and informational passages. As indicated on these placemats, the quantitative measures suggest the appropriate grade band of the text, while the qualitative rubrics pinpoint the specific grade level. These rubrics provide a powerful and comprehensive way of evaluating a range of stimulus materials that cover the literary and informational scope outlined in the Pennsylvania Core Standards. Passages selected for the Pennsylvania assessments should have evidence of their complexity determination and grade-level placement, based on both quantitative and qualitative measures as specified above.

SCIENCE ASSESSMENT MEASURES

The PSSA science assessment has four major reporting categories: The Nature of Science, Biological Sciences, Physical Sciences, and Earth and Space Sciences. These categories are similar to those used by the National Assessment of Educational Progress (NAEP) and The Third International Mathematics and Science Study (TIMSS). However, the PSSA organizes the categories differently. The science assessment anchors cover seventeen major categories from two sets of standards: Science and Technology Standards (3.1, 3.2, 3.3, 3.4, 3.5, 3.6, 3.7, and 3.8) and Environment and Ecology Standards (4.1, 4.2, 4.3, 4.4, 4.5, 4.6, 4.7, 4.8, and 4.9).

The Assessment Anchors are organized into four classifications, as listed below.

- A = Nature of Science
- B = Biological Sciences
- C = Physical Sciences
- D = Earth and Space Sciences

These four reporting categories are used in both grades four and eight. In addition to these reporting categories, there are additional Assessment Anchors for each grade level. The first letter of each Assessment Anchors represents the reporting category, and the second letter represents the Assessment Anchors. These Assessment Anchors are listed below.

- A. The Nature of Science
  - S.A.1. Reasoning and Analysis
  - S.A.2. Processes, Procedures, and Tools of Scientific
  - S.A.3. Systems, Models, and Patterns
- B. Biological Sciences
  - S.B.1. Structure and Function of Organisms
  - S.B.2. Continuity of Life
  - S.B.3. Ecological Behavior and Systems
- C. Physical Sciences
  - S.C.1. Structure, Properties and Interactions of Matter and Energy
  - S.C.2 Forms, Sources, Conversions, and Transfer of Energy
  - S.C.3 Principles of Force and Motion
- D. Earth and Space Sciences
  - S.D.1 Earth Features and Processes that Change Earth and Its Resources
  - S.D.2 Weather, Climate, and Atmospheric Processes
  - S.D.3 Composition and Structure of the Universe

The science 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 science achievement. The design of the operational 2017 PSSA for science achieves a reasonable balance between the two item types. Concepts include

SCIENCE MULTIPLE-CHOICE ITEMS

The majority of the science items included on the PSSA are multiple-choice (selected-response) items, either as standalone multiple-choice items or as scenario-based multiple-choice items. (Scenario-based multiple-choice items are found in Grade 8 only.) Multiple-choice items are especially efficient for measuring a broad range of content. In the PSSA science 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, or incorrect application of a scientific principle.

Multiple-choice items are used to assess a variety of skill levels, from short-term recall of facts to the application of science content. PSSA items involving application emphasize the requirement to utilize science content to find an answer rather than simply recalling information from memory.

OPEN-ENDED ITEMS FOR SCIENCE

At all grades, standalone open-ended science items require students to read a description of a scientific problem and to develop an appropriate solution. Standalone open-ended items require about five minutes per task.

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

The open-ended science items are scored on a 0–2-point scale with an item-specific scoring guideline, and each task is carefully constructed with a scoring guideline reflecting the task requirements. The general guidelines describe a hierarchy of responses, which represent the three score levels. Each item-specific scoring guideline outlines the requirements at each score point, and each item-specific scoring guideline is based on the "Science Scoring Guidelines for Open-Ended Items." See Appendix A or the *Science Item and Scoring Samplers* available on the PDE website.

SCIENCE SCENARIOS FOR GRADE 8

In addition to standalone multiple-choice and open-ended items, the science assessment includes scenarios at Grade 8. In consideration of the multidisciplinary and interdisciplinary nature of science content, science scenarios create stronger connections between The Nature of Science/Science Content and the multiple-choice items associated with a scenario. As a result, science scenarios allow the assessment to efficiently address and utilize the connections among the science content domains. A science scenario contains text, graphics, charts, and/or tables and uses these elements to describe the results of a class project, an experiment, or other similar research. Students use the information found in a science scenario as a platform from which to answer multiple-choice questions. Scenarios and questions reach beyond simple fact recollection; they are designed to challenge students to think and to apply the knowledge and skills learned in their classrooms. Scenarios are designed to reflect multi-dimensional classroom activities that incorporate higher cognitive levels of understanding. Science scenarios challenge students to interpret stimulus content and to apply existing knowledge to new data, while using science knowledge and process skills to arrive at their answers.

CHAPTER THREE: ITEM DEVELOPMENT PROCESS

The core portion of the 2017 PSSA operational administration is made up of items that were field tested primarily in the 2016 PSSA administration with the exception of mathematics and English language arts in Grades 3, 4, and 5, which also include items that were field tested in the 2015 PSSA administration. Therefore, the activities that led to the 2017 PSSA operational administration began with the development of the test items that appeared in the field test portion of the 2015 operational administration. In turn, items that appeared on the field test portion of the 2015 operational administration were developed during and prior to 2014. (See Table 3–1 for a graphic representation of the basic process flow and overlap of the development cycles.)

Table 3–1. General Development Timeline Pattern of the PSSA

Oper Admin Year	2011	2012	2013	2014	2015	2016	2017
2013	Initial Item Dev →	Field Test →	Oper Core Admin with embedded equating block items →	Core-to-Core Link			
2014		Initial Item Dev →	Field Test →	Oper Core Admin with embedded equating block items →	Core-to-Core Link		
2015			Initial Item Dev →	Field Test →	Oper Core Admin with embedded equating block items[1]	Core-to-Core Link	
2016				Initial Item Dev →	Field Test →	Oper Core Admin with embedded equating block items	
2017					Initial Item Dev →	Field Test →	Oper Core Admin with embedded equating block items

Table 3–2. General Timeline Associated with 2013 and 2014 Field Test and 2015-2017 Operational Assessment of ELA and Mathematics at Grades 3, 4, 5, 6, 7, and 8

Time Frame	Assessment	Activity
January 2012– July 2012	’13 FT for ’15 OP	Item development for items to embed in 2013 operational test (Grades 3–5 only)
July 2012	’13 FT for ’15 OP	Item review for the embedded field test in 2013 operational assessment (Grades 3–5 only)
September 2012– January 2013	’13 OP & ’13 FT for ’15 OP	Forms construction for 2013 operational assessment with embedded field test (Grades 3–5 only)
January 2013– June 2013	’14 FT for ’15 OP	Item development for items to embed on 2014 operational assessment
February 2013	’13 FT for ’15 OP	2013 standalone field test for ELA: Writing Grades 3–5
March 2013–May 2013	’13 FT for ’15 OP	2013 embedded field test in 2013 operational test (Grades 3–5 only)
June 2013	’14 FT for ’15 OP	Item review for the embedded field test in 2014 operational assessment
July 2013	’13 FT for ’15 OP	Statistical review of 2013 field tested items (Grades 3–5 only)
September 2013– January 2014	’14 OP & ’14 FT for ’15 OP	Forms construction for 2014 operational assessment
January 2014– July 2014	’15 FT for ’16 OP	Item development for items to embed in 2015 operational test
February 2014	’14 FT for ’15 OP	2014 standalone field test for ELA: Writing Grades 6–8
April 2014–May 2014	’14 OP & ’14 FT for ’15 OP	2014 embedded field test in 2014 operational assessment
June 2014	’15 FT for ’16 OP	Item review for the embedded field test in 2015 operational assessment
July 2014	’14 FT for ’15 OP	Statistical review of 2014 field tested items
September 2014– January 2015	’15 OP & ’15 FT for ’16 OP	Forms construction for 2015 operational assessment
April 2015–May 2015	’15 OP & ’15 FT for ’16 OP	2015 operational assessment
January 2015– July 2015	’15 FT for ’16 OP	Item development for items to embed in 2016 operational test
April 2015–May 2015	’14 OP & ’14 FT for ’15 OP	2015 embedded field test in 2015 operational assessment
June 2015	’15 FT for ’16 OP	Item review for the embedded field test in 2015 operational assessment
July 2015	’14 FT for ’15 OP	Statistical review of 2015 field tested items
September 2015– January 2016	’16 OP & ’16 FT for ’17 OP	Forms construction for 2016 operational assessment
April 2016–May 2016	’16 OP & ’16 FT for ’17 OP	2016 operational assessment
September 2016– January 2017	’17 OP & ’17 FT for ’18 OP	Forms construction for 2017 operational assessment
April 2017–May 2017	’17 OP & ’17 FT for ’18 OP	2017 operational assessment

Table 3–3. Participating Districts by Region

Region of Commonwealth	School District
Western	Athens Area, Grove City Area, Penn Hills, Pittsburgh Public Schools
Central	Manheim Township, Newport, State College Area, West Shore, Wilkes-Barre Area
Eastern	Haverford Township, Lower Merion, Mid-Valley, Philadelphia City SD, Upper Merion

PROCESS AND PROCEDURES FOR THE 2006 ITEM PILOT

Two parallel forms of the science assessment were designed for each grade level, with a designated administration time of thirty minutes. No attempt was made to replicate the design of a PSSA science operational test for the cognitive lab or pilot test because of testing-time limitations and the objectives of this study. The items were representative of items from each of the proposed PSSA's four reporting catagories (i.e., The Nature of Science, Biological Sciences, Physical Sciences, and Earth and Space Sciences). All test items were approved by PDE before inclusion in the PSSA Science Item Tryout Project.

In Grade 4, each form of the test consisted of ten multiple-choice items, 70 percent of which included graphs, graphics, charts, or tables with relevant information associated with the item. All four reporting strands were assessed in each Grade 4 test form. In Grades 8 and 11, age/grade-appropriate science scenarios were developed. The scenarios included graphics, charts, tables, graphs, and diagrams to support the scenario text. A set of test items associated with each science scenario was developed. In Grade 8, each test form included items from all four reporting strands. In Grade 11, scenarios in test Form A assessed the biological, earth and space, and nature of science reporting strands, while test Form B assessed the physical, earth and space, and nature of science reporting strands.

Scenarios and questions reached beyond simple fact recollection; they were designed to challenge students to think and to apply knowledge and skills learned in their classrooms. The science scenarios were based on Pennsylvania Assessment Anchors and Eligible Content. Scenarios were designed to reflect multi-dimensional classroom activities that incorporate higher cognitive levels of understanding. Each scenario was stimulus-based and included passages with graphics, charts, graphs, or a combination of all three media. Science scenarios challenged students to interpret passage content while using science knowledge and process skills to determine their answers.

IMPLEMENTATION AND TEST ADMINISTRATION FOR 2006 ITEM PILOT

Two classrooms within one geographic region participated in the project each day. At least two test development specialists were present at all but one school district during the pilot study project sessions; in addition, representatives from PDE attended most sessions. The PSSA Science Item Tryout Project field work occurred during a three-week window, beginning on February 27 and concluding on March 16.

TEST DEVELOPMENT CONSIDERATIONS: ALL ASSESSMENTS

The major considerations in the item development process were the alignment to the Pennsylvania Core Standards-aligned Assessment Anchors and Eligible Content (mathematics and ELA), alignment to the Pennsylvania Academic Standards-aligned Assessment Anchors and Eligible Content (science only), 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. The *Standards for Educational and Psychological Testing* (AERA, APA, NCME, 2014) and the *Principles of Universal Design* (Thompson, Johnstone, & Thurlow, 2002) guided the development process. In addition, DRC's manual, *Fairness in Testing: Guidelines for Training on Bias, Fairness, and Sensitivity Issues* was used for developing items. 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). In addition, the items were reviewed for 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: ALL ASSESSMENTS

At every stage of the item and test development process, DRC employs procedures that are designed to ensure that items and tests met Standard 7.4 of the Standards for Educational and Psychological Testing (AERA, APA, NCME, 2014).

> *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.*

To meet Standard 7.4, DRC employs a series of internal quality steps. DRC provides specific training for 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). 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 include 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, and biases against a particular age group (ageism) or 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: ALL ASSESSMENTS

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 other formats, 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 the Principles of Universal Design is described in Chapter Four.

DEPTH OF KNOWLEDGE: ALL ASSESSMENTS

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 of which deals with content. Within the content category is a useful set of levels for evaluating depth of knowledge (DOK). According to Webb (1999), "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" (p. 7–8). The four levels of cognitive complexity (i.e., depths of knowledge) are as follows:

- Level 1: Recall
- Level 2: Application of 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. Generally, multiple-choice items are written to DOK levels 1 and 2, evidence-based selected-response items are written to DOK levels 2 and 3, and constructed-response items are written to DOK level 3.

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 section on reading passage selection later in this chapter. 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: ALL ASSESSMENTS

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. Subject areas such as mathematics or science contain many content-specific vocabulary terms. As a result, readability formulas were not used. However, wherever it was practicable and reasonable, every effort was made to keep the vocabulary one grade level below the tested grade level for non-reading tests. There was a conscious consideration made to ensure that each test question was evaluating a student's ability to build toward mastery of the mathematics standards or the science standards versus the student's reading ability. Resources used to verify the vocabulary level were the *EDL Core Vocabularies* and the *Children's Writer's Word Book.*

In addition, every test question is brought before several different committees comprised of grade-level experts in the field of mathematics education and science education. They review each question from the perspective of the students they teach, and they determine the validity of the vocabulary used and work to minimize the level of reading required.

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 issue of fairness or sensitivity.

TEST DEVELOPMENT PROCESS: ALL ASSESSMENTS

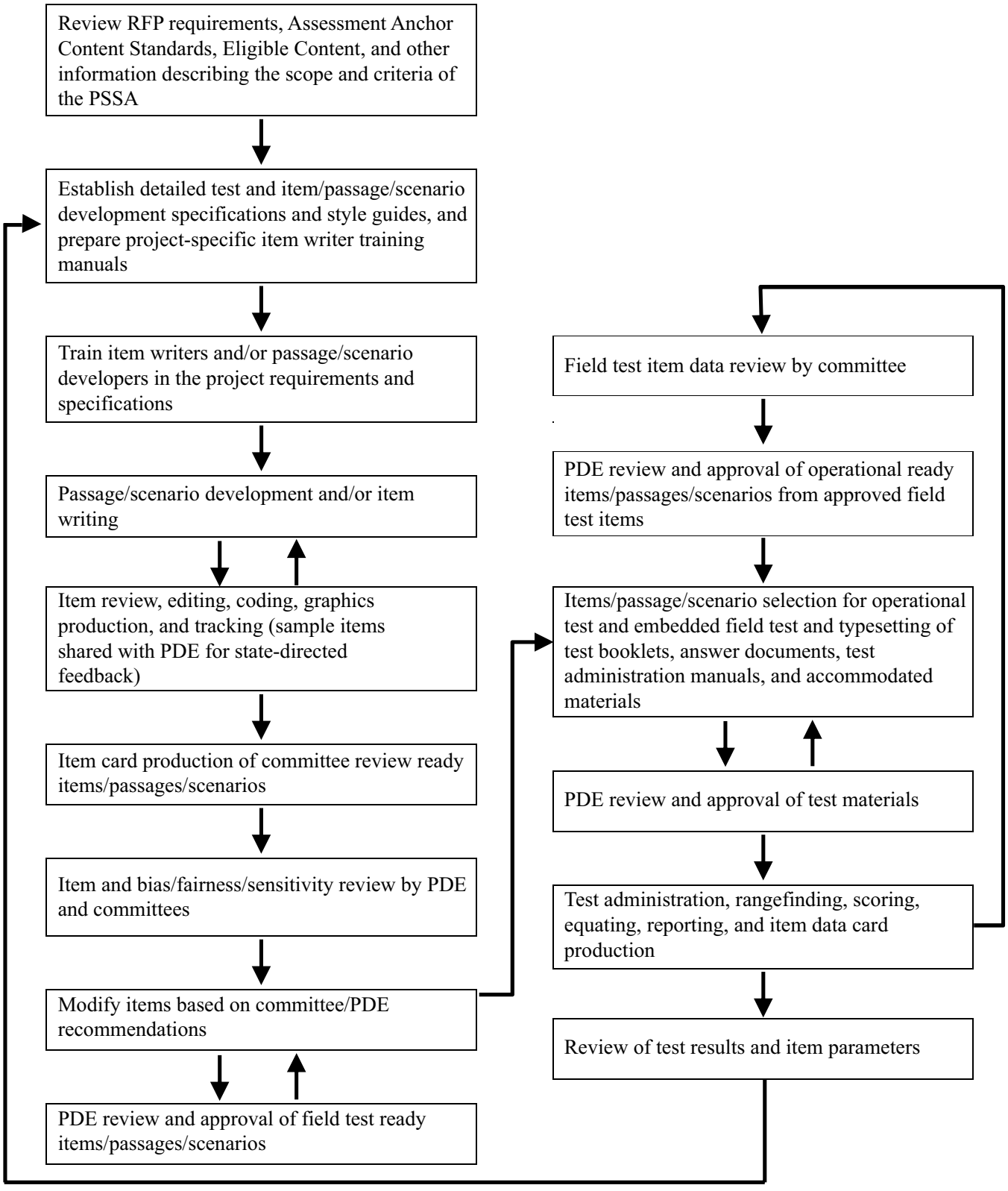
The test development process for passages, scenarios, and items followed a logical timeline, which is outlined below in Figure 3–1. On the front end of the schedule, tasks were generally completed with the goal of presenting field test candidate items to committees of Pennsylvania educators. On the back-end of the schedule, all tasks lead to the field test data review.

Figure 3–1. Item and Test Development Cycle and Timeline

Steps in Development Cycle	Timeline Before/After New Item Review		
Development planning	Fall	⇩	-12 to -9 months
Reading passage selection	Fall	⇩	-12 to -9 months
Item writer training	Fall/Winter	⇩	-9 months
Initial item authoring	Winter/Spring	⇩	-9 to -4 months
Internal reviews and PDE reviews	Spring/Summer	⇳	-8 to -1 month
Bias, Fairness, and Sensitivity Review	Summer/Fall	⇩	+/- 0 months
New Item Content Review	Summer/Fall	⇨	+/- 0 months
Post-review resolution and clean-up	Summer/Fall	⇩	+1 to +2 months
Build test forms	Fall	⇩	+2 to +4 months
Internal form reviews and PDE reviews	Fall/Winter	⇳	+3 to +4 months
Form printing, packaging, and shipping	Winter/Spring	⇩	+4 to +8 months
Test administration	Spring	⇩	+9 months
Material/data processing, rangefinding, and scoring	Spring/Summer	⇩	+10 to +12 months
Field Test Item Data Review	Summer	⇨	+12 months
Select operational items	Summer/Fall	⇩	+13 to +15 months

The process flowchart in Figure 3–2 illustrates the interrelationship among the steps in the process that occur in a normal year of development (i.e., when the items for field testing are primarily from new development, as opposed to being selected from an existing item bank). In addition, a detailed process table describing the item and test development processes also appears in Appendix C.

Figure 3–2. DRC Item and Test Development Process



The following paragraphs describe the processes which lead up to the operational test in a normal round of development. These processes were used to develop all the 2013 field test items used as operational items in the 2014 administration.

ITEM DEVELOPMENT PLANNING MEETING: ALL ASSESSMENTS

Prior to the start of any item development work, DRC's test development staff meets with PDE's assessment office to discuss the test development plans for the next PSSA administration, including the test blueprint, the field test plan (including development counts), procedures, timelines, etc. With a complete development cycle lasting several years (from item authoring through field test, data review, and operational usage), the initial planning begins well in advance of the anticipated administration. For the 2017 operational administration, the initial planning meeting for the item authoring process for the 2017 field test occurred in fall 2015. Item authoring began early in 2016, with the item review meetings occurring in June 2016. See Table 3–2.

ITEM WRITER TRAINING: ALL ASSESSMENTS

Item writers were selected and trained for the content areas of mathematics, English language arts, and science. 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 selected-response and constructed-response items. Prior to developing items for the PSSA, the cadre of item writers was trained with regard to the following:

- Pennsylvania Core Standards, Assessment Anchors, and Eligible Content (mathematics and ELA)
- Pennsylvania Academic Standards, Assessment Anchors, and Eligible Content (science)
- 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 Guidelines
- 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. These professionals also underwent 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, that is, 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 2017 field test were authentic in that they were culled from published materials. Approval to reprint was secured from the publishers as necessary. 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 text complexity, 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 are able to stand the test of time.
- Passages are sufficiently rich to generate a variety of SR and CR items.

- Passages are complete with all necessary permissions documentation.
- Passages avoid dated subject matter unless a relevant historical context is provided.
- Passages should not require students to have extensive background knowledge in a certain discipline or area to understand a text.

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

ITEM AUTHORING AND TRACKING: ALL ASSESSMENTS

Initially, items are generated with software-prepared PSSA Item Cards, which allows for preliminary sorting and reviewing. Although very similar, the PSSA Item Card for Multiple-Choice Items differs from the PSSA Item Card for Evidence-Based Selected-Response Items and the PSSA Item Card for Constructed-Response Items in that the former has a location at the bottom of the card for comments regarding the distractors. Examples of these three cards are shown in Appendix D. In both instances a column against the right margin includes codes to identify the subject area, grade level, content categories, passage information (in the case of reading), item type, depth of knowledge (cognitive complexity), estimated difficulty, answer key (for MC items), and calculator use (for mathematics items).

All items undergoing field testing in 2017 were entered into the DRC Item Development and Educational Assessment System (IDEAS), which is a comprehensive, secure, online item banking system. It accommodates item writing, item viewing and reviewing, and item tracking and versioning. IDEAS 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 IDEAS Data Card is presented in Appendix D.

INTERNAL REVIEWS AND PDE REVIEWS: ALL ASSESSMENTS

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 level and content). 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 for the intended grade and that it provided and cued only one correct answer (MC items only). In addition, the difficulty level, depth of knowledge, graphics, language demand, and distractors were also evaluated. Other elements considered in this process included, but were not limited to, Universal Design, bias, source of challenge, grammar/punctuation, and PSSA style.

Following this internal process, items were reviewed by content specialists at the Pennsylvania Department of Education. PDE staff then consulted with DRC about any general issues or concerns (e.g., style, format, interpretation of Assessment Anchors and Eligible Content) and about edits to specific items. Following PDE's review, the items were prepared for the content review meetings conducted with Pennsylvania educators.

ITEM CONTENT REVIEW IN SUMMER 2017: ALL ASSESSMENTS

Prior to the 2014 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, items are identified

where the cognitive demand is focused on an unintended content, concept, or skill (Webb, 2002). 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 a student who has mastered the intended content or skill answering the item incorrectly or a student who has not mastered the intended content or skill answering the item correctly. 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 June 13–15, 2016, for science, June 13–15, 2016, for ELA, and June 13–16, 2016, for mathematics. Committee members were approved by PDE, and PDE-approved invitations were sent to them by DRC. PDE also selected internal 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 content assessment specialists 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:

- Assessment Anchor Alignment (classified as Full, Partial, or No)
- Content Limits (classified as Yes or No)
- Grade-Level Appropriateness (classified as At Grade Level, Below Grade Level, 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) in regards to appropriateness
- Appropriate Language Demand (classified as Yes or No)
- Freedom from Bias (classified as Yes or No)

The members then came to a 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 Rating Sheet. A sample form and rating criteria may be found in Appendix E.

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 the contents shredded.

BIAS, FAIRNESS, AND SENSITIVITY REVIEWS IN AUGUST 2016: ALL ASSESSMENTS

Prior to 2017 field testing, all newly-developed test items for English language arts, mathematics, and science were also submitted to a Bias, Fairness, and Sensitivity Committee for review. This took place from August 1–5, 2016. The committee's primary responsibility was to evaluate items with regard to bias, fairness, and sensitivity issues. They also made recommendations for changes to 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 lead to review items for bias, fairness, and sensitivity issues. Training materials included a manual developed by DRC (DRC,

2003–2016). Members of the committee also had expertise with students with special needs and English Language Learners. PDE staff members were also trained and participated in the review. All mathematics, English language arts, and science 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. Committee members individually categorized any concerns as related to ageism, disability, ethnicity/culture, gender, region, religion, socioeconomic status, or stereotyping. These categories were then the framework through which recommendations for modification or rejection of items occurred during the subsequent committee consensus process. The committee then discussed each of the issues as a group and came to a consensus as to which issues should represent the view of the committee. All consensus comments were then compiled, and the suggested actions 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. Table 3–4 shows the gender and race/ethnicity composition of the members of the bias committee who reviewed the PSSA items and passages.

Table 3–4. Demographic Composition of the 2017 Bias, Fairness, and Sensitivity Committee

Member #	Gender	Race/Ethnicity	Background
1.	Female	Asian American	Educator/Diversity and Inclusion Specialist
2.	Female	Asian American	School Administrator/Principal (ELL expertise)
3.	Male	Asian American	National Consultant/Retired Educator
4.	Female	Native American	Title II & V Coordinator (Bilingual)
5.	Female	Caucasian American	Retired Educator
6.	Female	Caucasian American	Educator (Special Education)
7.	Male	Caucasian American	University Professor
8.	Male	Caucasian American	High School Educator
9.	Male	African American	Charter School Administrator/Principal
10.	Female	African American	District Librarian
11.	Female	African American	SPED background (PDE)
12.	Female	Hispanic American	Migrant education student support specialist
Totals	8 Females, 4 Males	1 Hispanic American, 3 Asian Americans, 4 Caucasian Americans, 1 Native American, 3 African Americans	

The results from the Bias, Fairness, and Sensitivity Committee review of mathematics are summarized in Table 3–5.

Table 3–5. Number of Items—2017 Bias, Fairness, and Sensitivity Committee Review for Mathematics

Grade	Total items reviewed per grade	Accepted As Is	Accepted With Revision	Rejected
3	106	100	6	0
4	108	101	7	0
5	109	101	8	0
6	108	105	3	0
7	106	102	4	0
8	105	104	1	0
Total	642	613	29	0

The results from the Bias, Fairness, and Sensitivity Committee review of science are summarized in Table 3–6.

Table 3–6. Number of Items—2017 Bias, Fairness, and Sensitivity Committee Review for Science

Grade	Total scenarios reviewed per grade	Total items reviewed per grade	Accepted As Is	Accepted With Revision	Rejected
4	n/a	135	135	0	0
8	7	159	159	0	0
Total	7	294	294	0	0

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

Table 3–7. Number of Items—2017 Bias, Fairness, and Sensitivity Committee Review for ELA: Reading

Grade	Total passages reviewed per grade	Total items or prompts reviewed per grade	Accepted As Is	Accepted With Revision	Rejected
3	12	148	140	1	7
4	12	125	125	0	0
5	12	136	136	0	0
6	12	127	127	0	0
7	12	133	132	1	0
8	12	141	141	0	0
Total	72	810	801	2	7

CHAPTER FOUR: UNIVERSAL DESIGN PROCEDURES APPLIED IN THE PSSA 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 2014 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 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 all students except those who will participate in accountability through an alternate assessment.

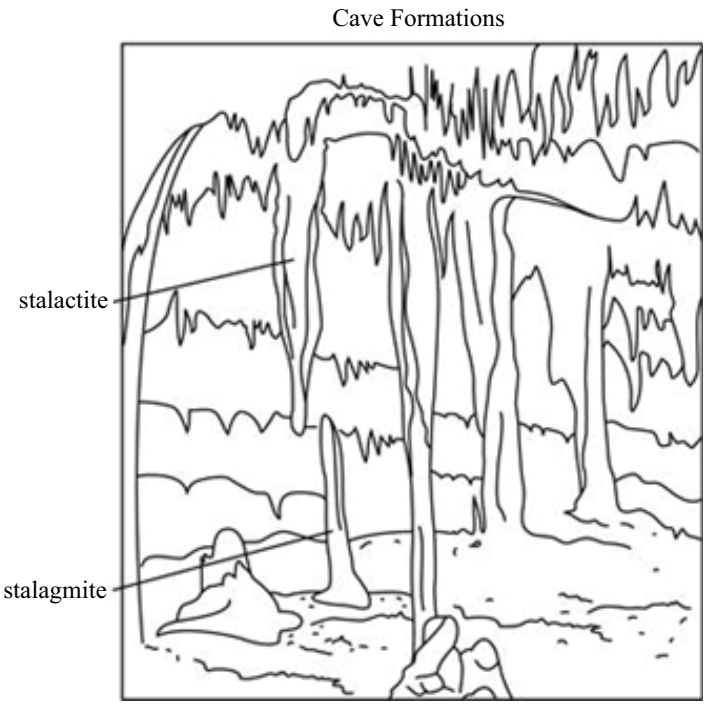
- **Precisely Defined Constructs**

  An important function of well-designed assessments is that they actually measure what they are intended to measure. The Pennsylvania Assessment Anchors and Eligible Content 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.

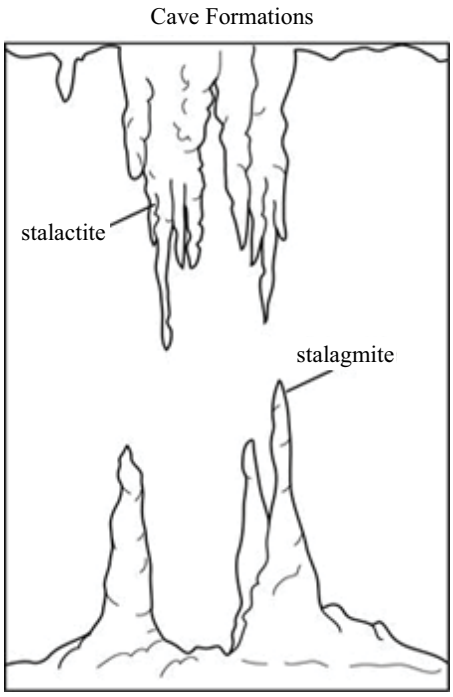
- **Accessible, Non-biased Items**

  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 accessibility was woven into the fabric of the test rather than added after the fact. The following examples show two graphics with the same construct, example 1 being less accessible and example 2 being more accessible.

Example 1 – Less Accessible:



Example 2 – More Accessible:



- **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 a 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. Questions that are posed using 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 the maximum readability and comprehensibility of a test. These features go beyond what is measured by readability formulas. Readability and comprehensibility are affected by many factors, 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 can result 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, 2004–2013) was utilized, with PDE approval, which 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. For more information on the checklist, see the Universal Design: All Assessments section in Chapter Three of this report.

1. **Items measure what they are intended to measure.** Item writing training included ensuring that writers and reviewers had a clear understanding of Pennsylvania's Core Standards (ELA and mathematics) or Academic Standards (science) 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.[1] 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 impairments. 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 being assessed.
   - Technical terms and abbreviations were used only if they were related to the content being measured.

[1] While font size follows specific requirements during online setup of an assessment, the screen resolution used at the local level can impact whether the effective font size is visible to the student.

- 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. Spanish versions of the PSSA mathematics and PSSA science tests were available for use by English Language Learners who would benefit from this accommodation. In the online format, permitted accommodations included text-to-speech audio, a color overlay, contrasting text options, and American Sign Language videos.
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 left-right, top-bottom format.

ITEM DEVELOPMENT

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

Test directions were carefully worded to allow for alternate responses to constructed-response (e.g., open-ended or short-answer) questions.

- During item and bias reviews, test committee members were made aware of the Principles of Universal Design and of issues that might adversely affect students with disabilities, with the goal of ensuring that PSSA tests were 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 instructed DRC to limit item types that were difficult to format in Braille and that might become distorted when published in large print. DRC was instructed to limit the following on the PSSA.
    - Mathematics: Complicated tessellations; charts or graphs that extended beyond one page
    - Reading: Graphics and illustrations that were not germane to the content presented
    - All content areas: Unnecessary boxes and framing of text, unless enclosing the text provided necessary context for the student; use of italics (limited to only when it was absolutely necessary, such as with variables)

ITEM FORMATTING

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

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

- High contrast and clarity was used to convey detailed information.
- Typically, shading was avoided; when necessary for content purposes, 10 percent screens were used as the standard.
- Overlaid print on diagrams, charts, and graphs was avoided.
- Charts, graphs, diagrams, and tables were clearly labeled with titles and with short descriptions where applicable.
- Only relevant information was included in diagrams, pictures, and graphics.
- Symbols used in keys and legends were meaningful and provided reasonable representations of the topics they depicted.
- Pictures that required physical measurement were 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. Accommodations manuals, *Accommodations Guidelines* and *Accommodations Guidelines for English Language Learners*, were developed for use with the 2017 PSSA.

The manuals can be accessed by going to www.education.pa.gov. Hover over K-12 in the blue banner at the top of the page and select “Assessment and Accountability.” Then select “Pennsylvania System of School Assessment (PSSA).” The manuals can be found under the heading “Testing Accommodations.”

In addition, Spanish-language versions, translated from the original English versions, were made available for both the mathematics and science PSSAs. The Spanish-translation versions are discussed in Chapter Six.

CHAPTER FIVE: FIELD TEST LEADING TO THE 2017 CORE

Generally, all non-linking core items appearing on the 2017 assessments came from the 2016 embedded field test positions. PSSA test forms contained common items that were identical on all forms along with embedded field test items and equating block items. The common items consisted of a set of core items taken by all students. The field test items and equating block items were embedded and were unique, in most instances, to a form; however, there were instances in which an embedded field test or equating block item appeared on more than one form. More information on the field test designs for all contents can be found in the content-specific portions of Chapter Three.

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 2016 PSSA were selected for use as common or equating block items in the 2017 PSSA.

STATISTICAL ANALYSIS OF ITEM DATA

All field tested items were analyzed statistically following conventional item analysis methods. For SR items (including multiple-choice and evidence-based selected-response 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 constructed-response (CR) items (including open-ended questions, short-answer questions, text-dependent analysis questions, and writing prompts), 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-scoreable 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 (EBSR and CR) 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 CR 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 an MC item to be flagged, the criteria included any of the following:

- Percent correct less than 0.3 or greater than 0.9
- Point-biserial correlation for the correct response of less than 0.25
- Point-biserial correlation for any incorrect response greater than 0.0
- Percent responding to any incorrect responses greater than the percent correct
- Gender DIF code of either C- or C+
- Any ethnic DIF code of C- or C+

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

- P-value less than 0.3 or greater than 0.9
- Part One point-biserial correlation for the correct response of less than 0.25
- Part One point-biserial correlation for any incorrect response greater than 0.0
- Part One percent responding to any incorrect responses greater than the percent correct

- Gender DIF code of either C- or C+
- Any ethnic DIF code of C- or C+
- Score proportion < 0.05

For a CR item to be flagged, the criteria included any of the following:

- P-value less than 0.3 or greater than 0.9
- Score Proportion < 0.05
- Gender DIF code of C- or C+
- Any ethnic DIF code of C- or C+

Item analysis results for field test items are presented in Appendix F.

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 2016 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—that 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 over 50 Pennsylvania educators (teachers and PDE staff) broken out into subject-area and/or grade level or span committees. Additional information, including gender, ethnicity (when available), and Instructional Unit (geographic location within Pennsylvania), about the participants is provided in Tables 5–1 through 5–5. The review for mathematics Grades 3–8 took place July 26–28, 2016. The review for ELA Grades 3–8 took place July 26–28, 2016. The review for science took place on July 26, 2016. In these sessions, 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. Each committee reviewed the pool of field tested items and made recommendations on each item and/or scenario/passage. Further discussion on how this information was used is covered in Chapter Six.

Table 5–1. Demographic Composition of the 2016 Mathematics Grades 3–5 Data Review Committee

Member #	Gender	Race/Ethnicity	Instructional Unit Represented
1.	Female	White	27
2.	Female	White	17
3.	Female	White	7
4.	Male	White	15
5.	Female	White	20
6.	Female	White	5
7.	Female	White	23
8.	Female	White	21
9.	Female	White	3
10.	Female	White	18
Totals	9 Female, 1 Male	10 White	N/A

Table 5–2. Demographic Composition of the 2016 Mathematics Grades 6–8 Data Review Committee

Member #	Gender	Race/Ethnicity	Instructional Unit Represented
1.	Female	White	23
2.	Female	White	3
3.	Male	White	25
4.	Female	White	24
5.	Male	White	8
6.	Male	White	15
7.	Female	White	7
8.	Female	White	26
9.	Female	White	26
10.	Female	White	20
11.	Female	White	25
12.	Female	White	13
Totals	9 Female, 3 Male	12 White	N/A

Table 5–3. Demographic Composition of the 2016 English Language Arts Grades 3–5 Data Review Committee

Member #	Gender	Race/Ethnicity	Instructional Unit Represented
1.	Female	White	21
2.	Female	White	24
3.	Female	White	13
4.	Female	White	25
5.	Female	White	15
6.	Female	White	23
7.	Female	White	21
8.	Female	Two or more races (not Hispanic)	26
Totals	8 Female	1 Two or more races (not Hispanic), 7 White	N/A

Table 5–4. Demographic Composition of the 2016 English Language Arts Grades 6–8 Data Review Committee

Member #	Gender	Race/Ethnicity	Instructional Unit Represented
1.	Male	White	26
2.	Female	White	1
3.	Female	Black or African American (not Hispanic)	26
4.	Female	Black or African American (not Hispanic)	26
5.	Female	White	14
6.	Male	White	3
7.	Female	White	13
8.	Female	Black or African American (not Hispanic)	12
Totals	6 Female, 2 Male	3 Black or African American (not Hispanic), 5 White	N/A

Table 5–5. Demographic Composition of the 2016 Science Data Review Committee

Member #	Gender	Race/Ethnicity	Instructional Unit Represented
1.	Female	White	23
2.	Male	White	16
3.	Female	White	14
4.	Male	White	24
5.	Male	White	28
6.	Male	White	10
7.	Female	White	20
8.	Female	White	25
9.	Female	White	7
10.	Female	Two or more races (not Hispanic)	24
11.	Male	White	20
Totals	7 Female, 5 Male	1 Multiracial, 11 White	N/A

Table 5–6. 2016 Data Review Committee Results

Test	Gr	No. of Items in 2016 FT	SR*†	CR*	DIF only *	Total*	% Total *	No. of Items Rejected**	% of Items Rejected**	No. of Items Classified as Rejected ***	% of Item Classified as Rejected ***
ELA	3	108	15	2	1	23	23%	3	3%	4	4%
ELA	4	108	18	9	3	23	23%	1	1%	1	1%
ELA	5	108	20	9	0	30	30%	4	4%	5	5%
ELA	6	108	34	9	3	53	54%	5	5%	10	9%
ELA	7	108	38	9	0	56	57%	5	5%	7	6%
ELA	8	108	36	9	2	48	48%	4	4%	11	10%
Math	3	99	18	5	0	23	23%	9	9%	9	9%
Math	4	99	17	6	0	23	23%	8	8%	9	9%
Math	5	99	24	6	0	30	30%	6	6%	6	6%
Math	6	99	46	7	0	53	54%	15	15%	16	16%
Math	7	99	50	6	0	56	57%	12	12%	12	12%
Math	8	99	43	5	1	48	48%	19	19%	21	21%
Science	4	108	21	4	1	25	23%	19	18%	22	20%
Science	8	132	43	7	2	50	38%	20	15%	20	15%
Totals	N/A	1482	423	93	13	516	35%	130	9%	153	10%

† SR includes multiple-choice items and EBSR items.

*Flagged Items in 2016 Field Test Examined at 2016 Data Review Committee

**Flagged Items in 2016 Field Test Rejected by 2016 Data Review Committee

***Items Classified as "Rejected" from 2016 Field Test (all sources: Data Review Committee, PDE, and DRC)

DIFFERENTIAL ITEM FUNCTIONING

Differential item functioning (DIF) occurs when examinees with the same ability level but different group memberships do not have the same probability of answering an item correctly. When the probability differs, it is important for content experts to review such items for any potential *item bias*. It is important to note that, as a statistical concept, DIF is different from item bias. DIF detects a difference in performance after controlling for student ability, whereas bias is a content issue that can arise in situations where something other than the intended construct of measurement affects the probability of a correct response for a particular group. For example, bias is likely present when an item presents negative group stereotypes that draw the attention of the examinee, uses non-construct relevant language that is more familiar to one subpopulation than to another, or is presented in a non-construct relevant format that disadvantages certain learning styles. While the source of item bias can be plain to trained judges, DIF may have no clear cause. In such cases, something other than bias, including construct relevant content, may be explaining the differential performance on the item. Flagging DIF then, provides the opportunity for reviewers to assess and correct potential bias, but DIF does not necessarily mean that bias is present.

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 organize the review so the effort is concentrated on the most problematic cases. Further, 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 also not an exact science. There have been a variety of methods proposed for detecting DIF, but no single statistic can be considered either necessary or sufficient. Different methods are more or less successful, but can also detect DIF at different rates. No analysis can guarantee that a test is free of bias, but thoughtful item development and post field test analysis can prevent most bias situations with the potential to unfairly impact student scores.

A fundamental shortcoming of all 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 can identify DIF. However, because all current methods use total test performance as the measure on which to control for group abilities, a test with all DIF items will not be able to separate DIF effects from differences in achievement on the test.

MANTEL-HAENSZEL PROCEDURE FOR DIFFERENTIAL ITEM FUNCTIONING

For multiple-choice (MC) items, the *Mantel-Haenszel* procedure (Mantel & Haenszel, 1959) 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 a test's 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 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 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), which is 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 DIF. Items classified as B+ or B- have some indication of DIF but may be judged to be acceptable for future use. Items classified as C+ or C- have strong evidence of DIF and should be reviewed and possibly rejected from the eligible item pool. The plus sign indicates that the item favors the focal group and a minus sign indicates that the item favors the reference group.

RESULTS AND OBSERVATIONS

Counts of the number of items from each grade and subject area that were assigned to each severity code are shown below in Table 5–7A (MC items), 5–7B (OE items), 5–7C (EBSR items), and 5–7D (TDA items). DIF analyses were conducted on the 2016 PSSA field test items and may be compared to the 2015 results.

Moderate (B) DIF for MC item results show that slightly more items favored males in lower ELA grades and females in upper ELA grades in 2016 compared with 2015, and slightly more items favored White students compared with Black students in all content areas and grades. For OE items, DIF results are similar between 2015 and 2016, except for science where slightly more items are showing B and C DIF that favors White students over Black students.

For male/female DIF, results for EBSR items show very few items with B or C DIF year-to-year, and no discernable pattern favoring males over females or females over males is noted. Moderate (B) DIF, however, is noted to generally to favor females over males across years for TDA items, and White students over Black students for both EBSR and TDA items.

Table 5–7A1. DIF Summary for Male/Female—MC Items

Subject	Grade	A+ 2015	A- 2015	B+ 2015	B- 2015	C+ 2015	C- 2015	Tot 2015	A+ 2016	A+ 2016	B+ 2016	B- 2016	C+ 2016	C- 2016	Tot (2016)
Math	3	45	45	0	0	0	0	90	36	53	1	0	0	0	90
Math	4	45	43	1	1	0	0	90	35	55	0	0	0	0	90
Math	5	39	49	2	0	0	0	90	38	50	0	1	1	0	90
Math	6	40	48	0	2	0	0	90	37	52	0	1	0	0	90
Math	7	30	58	0	2	0	0	90	33	54	1	2	0	0	90
Math	8	39	50	0	1	0	0	90	44	43	1	1	0	1	90
ELA	3	30	50	0	1	0	0	81	43	38	0	0	0	0	81
ELA	4	38	43	0	0	0	0	81	45	33	0	2	0	1	81
ELA	5	46	35	0	0	0	0	81	38	38	0	5	0	0	81
ELA	6	40	40	0	0	0	1	81	30	48	1	2	0	0	81
ELA	7	50	29	2	0	0	0	81	58	20	3	0	0	0	81
ELA	8	31	47	0	2	0	1	81	42	31	4	3	0	1	81
Science	4	47	48	0	1	0	0	96	68	25	1	2	0	0	96
Science	8	60	58	2	0	0	0	120	75	39	3	1	0	0	118

Table 5–7A2. DIF Summary for Whites/Black—MC Items

Subject	Grade	A+ 2015	A- 2015	B+ 2015	B- 2015	C+ 2015	C- 2015	Tot 2015	A+ 2016	A+ 2016	B+ 2016	B- 2016	C+ 2016	C- 2016	Tot (2016)
Math	3	12	71	0	7	0	0	90	18	66	0	6	0	0	90
Math	4	18	67	0	5	0	0	90	19	68	0	3	0	0	90
Math	5	19	67	0	4	0	0	90	24	64	0	2	0	0	90
Math	6	29	61	0	0	0	0	90	22	67	0	1	0	0	90
Math	7	39	50	0	1	0	0	90	25	64	0	1	0	0	90
Math	8	24	66	0	0	0	0	90	25	64	0	1	0	0	90
ELA	3	13	62	0	6	0	0	81	9	71	0	1	0	0	81
ELA	4	10	66	0	2	0	3	81	14	64	0	3	0	0	81
ELA	5	21	59	0	1	0	0	81	14	63	0	4	0	0	81
ELA	6	19	58	0	2	0	2	81	13	61	0	7	0	0	81
ELA	7	44	36	0	1	0	0	81	26	50	1	3	0	1	81
ELA	8	18	60	0	2	0	1	81	30	47	0	3	0	1	81
Science	4	12	80	0	4	0	0	96	17	74	0	5	0	0	96
Science	8	41	78	0	1	0	0	120	27	90	0	1	0	0	118

Table 5–7B1. DIF Summary Male/Female—OE Items

Subject	Grade	A+ 2015	A- 2015	B+ 2015	B- 2015	C+ 2015	C- 2015	Tot 2015	A+ 2016	A+ 2016	B+ 2016	B- 2016	C+ 2016	C- 2016	Tot (2016)
Math	3	5	4	0	0	0	0	9	5	3	0	0	0	0	8
Math	4	7	1	0	0	0	0	8	8	1	0	0	0	0	9
Math	5	5	4	0	0	0	0	9	8	0	1	0	0	0	9
Math	6	7	1	0	1	0	0	9	5	4	0	0	0	0	9
Math	7	7	1	1	0	0	0	9	6	2	1	0	0	0	9
Math	8	7	1	0	0	0	0	8	7	2	0	0	0	0	9
ELA	3	8	0	1	0	0	0	9	3	3	3	0	0	0	9
ELA	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ELA	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ELA	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ELA	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ELA	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Science	4	8	3	1	0	0	0	12	8	4	0	0	0	0	12
Science	8	5	5	2	0	0	0	12	7	3	2	0	0	0	12

Table 5–7B2. DIF Summary White/Black—OE Items

Subject	Grade	A+ 2015	A- 2015	B+ 2015	B- 2015	C+ 2015	C- 2015	Tot 2015	A+ 2016	A+ 2016	B+ 2016	B- 2016	C+ 2016	C- 2016	Tot (2016)
Math	3	0	4	0	5	0	0	9	0	2	0	4	0	2	8
Math	4	1	5	0	2	0	0	8	1	6	0	1	0	1	9
Math	5	1	7	0	1	0	0	9	0	5	0	1	0	3	9
Math	6	0	9	0	0	0	0	9	0	8	0	1	0	0	9
Math	7	0	7	0	2	0	0	9	2	6	0	1	0	0	9
Math	8	0	6	0	1	0	1	8	0	8	0	0	0	1	9
ELA	3	2	5	0	1	0	1	9	1	6	0	2	0	0	9
ELA	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ELA	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ELA	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ELA	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ELA	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Science	4	2	8	0	1	0	1	12	1	2	0	5	0	4	12
Science	8	0	9	0	1	0	2	12	2	6	0	4	0	0	12

Table 5–7C1. DIF Summary Male/Female—EBSR Items

Subject	Grade	A+ 2015	A- 2015	B+ 2015	B- 2015	C+ 2015	C- 2015	Tot 2015	A+ 2016	A+ 2016	B+ 2016	B- 2016	C+ 2016	C- 2016	Tot (2016)
ELA	3	6	12	0	0	0	0	18	9	9	0	0	0	0	18
ELA	4	6	12	0	0	0	0	18	13	5	0	0	0	0	18
ELA	5	10	8	0	0	0	0	18	12	6	0	0	0	0	18
ELA	6	12	5	0	1	0	0	18	12	6	0	0	0	0	18
ELA	7	10	7	1	0	0	0	18	14	2	2	0	0	0	18
ELA	8	5	13	0	0	0	0	18	12	6	0	0	0	0	18

Table 5–7C2. DIF Summary White/Black—EBSR Items

Subject	Grade	A+ 2015	A- 2015	B+ 2015	B- 2015	C+ 2015	C- 2015	Tot 2015	A+ 2016	A+ 2016	B+ 2016	B- 2016	C+ 2016	C- 2016	Tot (2016)
ELA	3	1	16	0	0	0	1	18	0	15	0	3	0	0	18
ELA	4	0	16	0	2	0	0	18	3	15	0	0	0	0	18
ELA	5	2	16	0	0	0	0	18	3	15	0	0	0	0	18
ELA	6	2	14	0	2	0	0	18	4	13	0	1	0	0	18
ELA	7	2	15	0	1	0	0	18	4	12	0	2	0	0	18
ELA	8	4	9	0	4	0	1	18	2	15	0	1	0	0	18

Table 5–7D1. DIF Summary Male/Female—TDA Items

Subject	Grade	A+ 2015	A- 2015	B+ 2015	B- 2015	C+ 2015	C- 2015	Tot 2015	A+ 2016	A+ 2016	B+ 2016	B- 2016	C+ 2016	C- 2016	Tot (2016)
ELA	3	0	0	0	0	0	0	0	5	0	3	0	1	0	9
ELA	4	5	0	4	0	0	0	9	4	0	3	0	2	0	9
ELA	5	5	0	3	0	1	0	9	2	0	5	0	2	0	9
ELA	6	1	0	4	0	4	0	9	0	0	4	0	5	0	9
ELA	7	0	0	5	0	4	0	9	1	0	2	0	6	0	9
ELA	8	1	0	7	0	1	0	9	5	0	3	0	1	0	9

Table 5–7D2. DIF Summary White/Black—TDA Items

Subject	Grade	A+ 2015	A- 2015	B+ 2015	B- 2015	C+ 2015	C- 2015	Tot 2015	A+ 2016	A+ 2016	B+ 2016	B- 2016	C+ 2016	C- 2016	Tot (2016)
ELA	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ELA	4	0	4	0	5	0	0	9	0	6	0	3	0	0	9
ELA	5	0	7	0	2	0	0	9	0	6	0	2	0	1	9
ELA	6	0	8	0	1	0	0	9	0	7	0	2	0	0	9
ELA	7	0	8	0	1	0	0	9	0	5	0	4	0	0	9
ELA	8	0	6	0	2	0	1	9	0	5	0	3	0	1	9

CHAPTER SIX: OPERATIONAL FORMS CONSTRUCTION FOR 2017

FINAL SELECTION OF ITEMS AND 2017 PSSA FORMS CONSTRUCTION

When the final selection of items for the operational 2017 test was ready to begin, the candidate items that emerged, including those from the spring 2016 field test, had undergone multiple reviews, including:

- Reviews by DRC content-area test development specialists and curriculum specialists to ensure that all items were properly aligned with content standards
- Formal bias, fairness, and sensitivity review by the Bias, Fairness, and Sensitivity Committee consisting of a multi-ethnic group of men and women having expertise with students with special needs 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 item and bias reviews are detailed in Chapter Three. The results of the data review are summarized in Chapter Five.

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 2017 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 ethnicity)
- Acceptable in terms of psychometric standards, including a special review of flagged items

Next, all relevant information regarding the acceptable items, including associated graphics, was entered into the item banking system known as IDEAS (Item Development and Education Assessment System). From IDEAS and other database sources, Microsoft Excel files were created for each content area at each grade. These files contained all relevant content codes and statistical characteristics. IDEAS also created an item card displaying each acceptable 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 equating block positions according to test blueprint requirements and psychometric guidelines. Changes to items were not encouraged since alterations could affect how an item might perform on subsequent testing.

For the common items, this meant that the combination of SR and CR 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., mathematics 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 percent of correct answers appeared in each of the four possible positions (A, B, C, or D). Selected items that were deemed psychometrically less advantageous in contrast to the overall psychometric characteristics of the core 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.

In the case of the core-to-core 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.

The process for selecting equating block items was slightly different. The chief consideration was that items in equating block positions of the various forms mirrored the psychometric considerations of the core. In some cases, the selection of equating block items also required multiple rounds of selection and evaluation until the best possible balance of content and statistical properties was obtained. The content-area test development specialist's task was to distribute these items in equating block positions across the forms so that the 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.

Once the recommendations were finalized for the core items, core-to-core linking items, and equating block 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 was given. Once final PDE approval of the forms was given, PDE also participated in the construction and review of scrambled forms.

SPECIAL FORMS USED IN THE 2017 PSSA

SPANISH TRANSLATION OF THE MATHEMATICS AND SCIENCE ASSESSMENTS

Starting with the 2005 assessment, school personnel had the option of allowing Spanish-speaking students who had been enrolled in schools in the United States for less than three years to respond to a Spanish version of the PSSA for mathematics. In 2009, a Spanish version was also added for the science component of the PSSA. The original translation of the items and the *Directions for Administration Manual* was completed by Second Language Testing, Incorporated (SLTI). SLTI used translators with varying cultural and regional backgrounds to create the Spanish versions of the mathematics and science assessments. The translations were then reviewed and verified by DRC's internal Spanish group. As part of the internal review, a Spanish style guide is maintained to document Spanish word choice from administration to administration and across grades within an administration. After discussions with PDE and SLTI, the mathematics assessment for Grades 4–8 and the science assessment for Grades 4 and 8 were designed with a side-by-side format, that is, the English text and Spanish-translated text were printed on facing pages. The Spanish-translated text was on the left-hand side of the page and the original English text on the right-hand (facing) side.

The mathematics answer booklets for Grades 4–8 and the science answer booklets for Grades 4 and 8 were also presented in Spanish and English. In the case of mathematics, each open-ended item covered a total of four pages in the answer booklet. In the case of science, each open-ended item covered either two or four pages in the answer booklet, depending on the length of the original English-language item. In the case of four-page open-ended items, 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, and the highest possible scores from those combinations recorded for the students.

The mathematics scannable booklets for Grade 3 were 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 also write their answers in English, Spanish, or a combination of both Spanish and English, with the highest possible scores from those combinations recorded for the students.

For the current Spanish forms, DRC utilized an outside vendor (Victory Productions) for translations of PSSA mathematics and science items by using the style guide setup and continuously used since 2005. Once Victory Productions has completed the initial translation of the entire set of materials, all translated material and the original English version are then sent to Language Services Consultants (LSC) for a third-party verification of the translation. LSC's review helps to ensure the equivalence of the original and translated assessments. When completed, the verified materials, along with any recommendations or questions, are passed back to DRC for processing.

Once Language Services Consultants (LSC) has adjudicated the initial translation completed by Victory Productions, the translated text is returned to DRC for final processing and typesetting. DRC has a Spanish translation team comprised of native Spanish-speaking translators and native English-speakers with formal education in Spanish. DRC's Spanish Team is supported by all content areas and their respective content leads in order to maintain the integrity of each translated item or passage. DRC conducts a minimum of five separate reads during the final preparation of the translated material. These reads include editorial reviews of items and forms and are used to polish language and eliminate any typographical errors.

An initial reading of items and passages is conducted individually by each member of the team. The team then reads, discusses, and edits the items as a group before sending the material to be entered into the item bank that houses Pennsylvania's test items (IDEAS). As part of the discussion and editing process, DRC's Spanish Team may also conduct an informational investigation, validating concepts within the translation related to specialized topics. Once the data entry is completed, DRC's Spanish Team confirms that the correct edits have been made and the items are read once again. After all newly-translated items have been edited and approved in this round of review, a PDF of the entire test form is produced. The Spanish Team then conducts a group review of the complete test form, coinciding with an independent review outside the team, making any edits that are necessary. Within each review, checks are performed to ensure accuracy of semantics, lexicon, syntax, and grammar.

Internal reviewers are instructed to address a number of issues when reviewing a translation, including the following:

- Are the stimulus and the item translated correctly?
- Are there inappropriate omissions in the translation?
- Are there inappropriate additions in the translation?
- Is there any wording that may not be comprehensible to speakers of a particular dialect? If so, the reviewer will enter an alternate wording in parentheses.
- Are standard item writing guidelines followed in the translated version?
- Are any options less or more attractive than in the English version? If so, the reviewer will suggest an alternate wording.
- Is the content of any item culturally insensitive or offensive? Is a substitute item required? Why?
- Is the wording of any item culturally insensitive or offensive?
- Is the language of the translation at the same register as the original?
- Is the language of the translation at an appropriate register for the grade level of the examinee?

Instructions for the appropriate use of these special forms are detailed in accommodation manuals titled *2017 Accommodations Guidelines* and *Accommodations Guidelines for English Language Learners.*

AUDIO

For students requiring an auditory presentation accommodation, a text-to-speech synthesizer is available to students taking the online mode of test delivery. For each operational exam, one form was selected for the creation of the audio version. Special scripts are crafted, writing out each item, distractor, graphic, and directions to utilize the rich, synthesized voice features while accounting for specific nuances of the intended sounds. The resulting audio information is provided to students receiving the accommodation. Since additional software is required to generate the vocalization from the scripted text and since headphones are required to minimize disruptions within a computer lab setting, local school personnel generally must preplan to use the audio version in order to ensure that the student has a properly equipped computer and a proper setting.

BRAILLE, LARGE PRINT, AND VIDEO SIGN LANGUAGE

Students were able to respond to test materials that were available in Braille, large print, or Video Sign Language. At each grade level assessed, one form was selected for the creation of these accommodations.

The large print edition is a replication of the standard print form; 8.5X11 standard form is enlarged to an 11×17 page format to achieve a font size of approximately 18-point. A side-by-side verification is completed between the standard print and large print forms to ensure that the integrity of all formatting and graphics is maintained on the large print forms.

For Braille production, the final selected form is delivered to American Printing House for the Blind (APH) via APH's secure website. APH ensures that all tests are translated correctly and accurately by using a translator and a validator. After all Braille booklets are printed, APH conducts a quality assurance step to ensure all items are bound in order and directions are included. All Braille booklets are shipped from APH to DRC via UPS.

DRC applies a security barcode to each large print and Braille booklet for purposes of shipping, distributing, and collecting the materials. This security barcode is used with DRC's Operations Materials Management System (Ops MMS).

School personnel were directed to transcribe all student answers (SR and CR) into scannable answer documents exactly as the student responded. No alterations or corrections of student work were permitted, and the transcribed answer document had to have the same form designation as the Braille and large print version.

DRC utilizes Victory Productions for the production of Sign Language Videos. The items are passed to Victory Productions via a secure ftp site. Two to three different interpreters are used to interpret and validate the translations during video recording. After the interpretations are recorded and returned to DRC via a secure ftp site, DRC loads these videos in the online test engine. When school personnel assign the specific sign language accommodation, the student will be able to play each video next to the item.

SUMMARY OF THE TRANSLATION VERIFICATION STUDY BY SLTI OF THE 2009 PSSA SCIENCE ASSESSMENTS

From November 2009 through January 2010 SLTI conducted a translation verification study of the 2009 PSSA Science Assessments titled "Translation Verification Study of the 2009 Pennsylvania System of School Assessment (PSSA) of Science for Grades 4, 8, and 11." In this study, the appropriateness of the transadaptation of the PSSA Science Assessments into Spanish was investigated. Three independent reviewers, specialists in bilingual science education and science translation, determined the appropriateness of each translated or adapted item. The purpose of the report was to conduct qualitative research on the comparability of the Spanish and English versions of the PSSA Science Assessments.

The report of this study by Second Language Testing, Incorporated described the assessments, the purpose of the translation verification study, the reviewers, the translation verification process, and the translation verification results. A total of 185 items covering tests at Grades 4 (63 items), 8 (63 items), and 11 (59 items) were reviewed. The study showed that none of the 185 reviewed items were judged by the reviewers to be inappropriately translated or adapted into Spanish. The study did provide suggestions for nine items that were judged appropriate but whose translation could still be improved in the event the items were used again.

Overall, the report concluded that the transadaptation of the 2009 PSSA Science Assessments was clearly appropriate. Since both the English and Spanish versions are comparable in the sense that both versions assess the same content, use the same format, have equal numbers of items, follow the same test administration and scoring procedures, and are used and interpreted in the same way, the study concluded that the English and Spanish versions of the science assessments measured the same content in two different languages. Thus, the study indicated that both language versions showed the same degree of alignment and the same depth-of-knowledge described in the Assessment Anchors alignment study. As a result, the report concluded that there was no need to conduct a separate alignment study of the Spanish version of the PSSA Science Assessments.

Beyond the findings presented in the study, the report recommended that appropriate quantitative analyses be carried out on construct equivalence. Unless such analyses clearly demonstrate a lack of equivalence, it is appropriate to assume that there is no need to conduct a separate linking study or a separate standard setting study for the Spanish versions of the tests. Both versions can be scored on the same scale, and scores on each version have the same meaning in terms of student mastery of the Science Assessment Anchors as defined by the Eligible Content.

The full report can be obtained by request from the Pennsylvania Department of Education.

SUMMARY OF COMPARABILITY REPORT FROM SIRECI PSYCHOMETRIC SERVICES

In addition to the study conducted by Second Language Testing, Incorporated, a second comparability study of the 2009 PSSA Spanish translations for science was completed in February 2010 by Sireci Psychometric Services. The report of the study is titled “Evaluating the Comparability of English and English-Spanish Science Tests from the Pennsylvania System of School Assessment.”

In this study, the data from the English language and English-Spanish dual-language Pennsylvania science tests for Grades 4, 8, and 11 were analyzed. These analyses were designed to evaluate the consistency of the structure of the data and the consistency of item functioning across the English and Spanish versions of these assessments using various psychometrics methods.

The full report can be obtained by request from the Pennsylvania Department of Education.

CHAPTER SEVEN: TEST ADMINISTRATION PROCEDURES

TEST SESSIONS, TEST SECTIONS, TEST TIMING, AND TEST LAYOUT

Some assessments utilized separate test booklets and answer booklets. An answer booklet was used to respond to the selected-response items (i.e., multiple-choice items and evidence-based selected-response items) and constructed-response items (i.e., open-ended items, short-answer items, text-dependent analysis items, and writing prompts) and to collect demographic information. The selected-response items and all stimulus-text were placed within the test booklet. Other assessments used a single consumable booklet. When a single scannable answer booklet was utilized, the contents of the answer booklet and the test booklet were combined into one integrated booklet.

Table 7–1. Booklet Type by Administration

Assessment	Grade	Booklet Type
ELA	3	Single Consumable Booklet
ELA	4	Test Booklet and Answer Document
ELA	5	Test Booklet and Answer Document
ELA	6	Test Booklet and Answer Document
ELA	7	Test Booklet and Answer Document
ELA	8	Test Booklet and Answer Document
Mathematics	3	Single Consumable Booklet
Mathematics	4	Test Booklet and Answer Document
Mathematics	5	Test Booklet and Answer Document
Mathematics	6	Test Booklet and Answer Document
Mathematics	7	Test Booklet and Answer Document
Mathematics	8	Test Booklet and Answer Document
Science	4	Test Booklet and Answer Document
Science	8	Test Booklet and Answer Document

Generally, a separate test booklet and answer booklet were used to separate the selected-response items and constructed-response items. For the Grade 3 mathematics and ELA assessments, a single booklet was used for each assessment to accommodate the younger age of the students.

The number of sections for the 2017 operational assessment varied based on the content area of the assessment. The ELA assessments consisted of four sections. The mathematics assessments consisted of three sections. The science assessments consisted of two sections. See also Appendix G.

Table 7–2. PSSA Test Section Information

Content Area	No. of Sections per Form
ELA	4
Mathematics	3
Science	2

Table 7–3. PSSA Testing Load and Duration by Subject by Grade

Assessment	Grade	Total No. of SR Items per Form per Administration	Total No. of CR Items per Form per Administration	Total Estimated Administration Time per Form (in Minutes)
ELA	3	60	4	240 to 300
ELA	4	65	3	295 to 355
ELA	5	65	3	295 to 355
ELA	6	65	3	295 to 355
ELA	7	65	3	295 to 355
ELA	8	65	3	295 to 355
Mathematics	3	72	4	200 to 245
Mathematics	4	72	4	200 to 245
Mathematics	5	72	4	200 to 245
Mathematics	6	72	4	200 to 245
Mathematics	7	72	4	200 to 245
Mathematics	8	72	4	200 to 245
Science	4	68	6	120 to 150
Science	8	70	6	130 to 160

Table 7–4. PSSA Testing Load and Duration by Grade by Subject

Grade	Content	Total No. of Items per Form per Administration	Total Estimated Administration Time per Form (in Minutes)	Total No. of Items per Student	Total Estimated Administration Time per Student (in Minutes)
3	ELA	64	240 to 300	140	440 to 545
3	Mathematics	76	200 to 245	140	440 to 545
4	ELA	68	295 to 355	218	615 to 750
4	Mathematics	76	200 to 245	218	615 to 750
4	Science	74	120 to 150	218	615 to 750
5	ELA	68	295 to 355	144	495 to 600
5	Mathematics	76	200 to 245	144	495 to 600
6	ELA	68	295 to 355	144	495 to 600
6	Mathematics	68	200 to 245	144	495 to 600
7	ELA	68	295 to 355	144	495 to 600
7	Mathematics	76	200 to 245	144	495 to 600
8	ELA	68	295 to 355	220	625 to 760
8	Mathematics	76	200 to 245	220	625 to 760
8	Science	76	130 to 160	220	625 to 760

In general, the estimated testing times allowed 1–3 minutes per multiple-choice item, depending on the content area. The evidence-based selected-response items were estimated to take approximately 3–5 minutes per item, depending on the number of responses required by the item. The open-ended or short-answer items were estimated to take approximately 5–10 minutes per item, also depending on the content area. Writing prompts and text-dependent analysis questions were estimated to take approximately 55–65 minutes per item.

Test administrators were instructed that each section in a form should be scheduled as one assessment session. However, they were allowed to combine multiple sections into a single session, as long as the sections were administered in the sequence in which they are printed in the test booklets (or shown on the screen). In all cases, individual assessment sections had to be completed within one school day.

Since not all students finished the assessment sections at the same time, test administrators were advised to use the flexibility of the time limits to the students' advantage. For example, test administrators managed the testing time so that students did not feel rushed while they were taking any assessment section, and no student was penalized because he or she worked slowly. It was equally stressed to test administrators that a student should not be given an opportunity to waste time. Students were told to close their booklets when they had finished the section of the assessment in which they had been working. Students who finished early were allowed to sit quietly or read for pleasure until all students had finished. Students with special requirements and/or abilities (i.e., physical, visual, auditory, or learning disabilities as defined by their IEP or service contracts) and students who just worked slowly may have required extended time. Special assessment situations were arranged for these students. When all students in a testing session indicated that they had finished an assessment section, test administrators ended the section and began the next section or allowed the students to return to regular activities.

Scheduled extended time was provided by a test administrator, and students were allowed to request extended time if they indicated that they had not completed the task. Such requests were granted if the test administrator found the request to be educationally valid. Test administrators were advised that not permitting ample time for students to complete the assessment might impact the students' and school's performance.

As a general guideline, however, when all students indicated that they had finished a section, that section was closed. Students requiring time beyond the majority of the student population were allowed to continue immediately following the regularly scheduled session in another setting. When such accommodations were made, school personnel ensured that students were monitored at all times to prevent sharing of information. Students were not permitted to continue a section of the assessment after a significant lapse of time from the original session.

Additional information concerning testing time and test layouts can be found in Chapter Three.

TESTING WINDOW

The testing windows for the 2017 operational assessments were as follows:

- English Language Arts – April 3 through April 7, 2017
- Mathematics – April 24 through April 28, 2017
- Science – May 1 through May 5, 2017
- Make-ups for ELA, Mathematics, and Science– May 8 through May 12, 2017

Additional information concerning testing time and test layouts can be found in Chapter Three.

SHIPPING, PACKAGING, AND DELIVERY OF MATERIALS

DRC sent two shipments for the 2017 PSSA operational assessment:

- Shipment one contained the *Handbook for Assessment Coordinators* and the *Directions for Administration Manual*s for each grade tested at a school participating in the English Language Arts, Mathematics, and Science assessments. Shipment one was delivered by March 6, 2017.
- Shipment two contained the administrative materials (e.g., Return Shipping labels, District/School labels, Do Not Score labels, and Student Precode labels) and secure materials (e.g., consumable test/answer booklets) for each grade tested at a school participating in the English Language Arts, Mathematics, and Science assessments. Shipment two was delivered by March 20, 2017.

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 school 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 sealing the box for shipping 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 materials 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.

DRC packed 4,116,746 assessment booklets and 191,928 *Directions for Administration Manual*s for 2,623 testing sites. DRC used United Parcel Service (UPS) and Advanced Shipping Technologies to deliver the secure materials to the testing sites.

ONLINE TESTING

Online administration is managed through the DRC eDIRECT client portal that provides tiered, secure access to all required administrative functions. Within eDIRECT, users manage student information and create test sessions.

Student information from the Pennsylvania Information Management System (PIMS) is imported into eDIRECT via file transfer or LEAs upload student directly into eDIRECT. From here, LEAs are able to view all of the demographic information associated with the students from PIMS before placing them in test sessions for test tickets.

Once the student data is loaded into Test Setup, users organize students into test sessions. Test sessions can be created by class, grade, or school. Through Test Setup, users can also update student accommodation information, print test tickets, and monitor student testing status.

The student login ticket contains unique login credentials used by the student to access the testing software. For a selected test session, users can download and print a PDF document containing instructions, a roster of student tickets being printed, and the actual test tickets. Student test tickets are considered secure materials and LEAs are required to keep printed tickets in a predetermined, locked, secure stoarge area.

The web-based test engine, DRC INSIGHT Online Learning System, is downloaded onto computers that students will access during the assessment. Test items and forms can only be accessed using a valid test ticket. During testing, responses are sent to a DRC server each time the student navigates away from an item or clicks the *Next* button to submit an answer. The system is configured to allow students to review answers before submitting their test.

MATERIALS RETURNED

DRC used UPS for all returns. The return windows for the PSSA materials were as follows:

- English Language Arts primary return window – April 5 through April 28, 2017
- Mathematics primary return window – April 26 through May 12, 2017
- Science primary return window – May 3 through May 12, 2017
- Make-ups for ELA, Mathematics, and Science primary return window – May 9 through 12, 2017

TEST SECURITY MEASURES

Test security is essential to obtaining reliable and valid scores for accountability purposes. Test Security Certifications were required to be signed by each building Principal, School Assessment Coordinator, District Assessment Coordinator, Test Administrator, and Proctor after to the assessment being administered. All signed Certifications were returned to the Chief School Administrator who must retain the Certifications for three years. The purpose of the Certifications 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 Certifications attested that all security measures were followed concerning the handling of secure materials. Additional details can be found in the *PSSA Handbook for Assessment Coordinators*. A screen shot of the Test Administrator Certificate is provided in Figure 7-1.

Figure 7-1. Test Administrator and Proctor PSSA Test Security Certification

2017 PSSA Test Security Certification

(Test Administrator and Proctor)

District: _____

School: _____

AUN: _____

Maintaining the security and integrity of all assessment materials, preventing any dishonest or fraudulent behavior in the administration and handling of the assessment, and promoting a fair and equitable testing environment are essential in order to obtain reliable and valid student scores. In that regard, I certify the following:

Prior to the administration of the assessment, I completed the Pennsylvania State Test Administration Training, and I understand that the assessment materials are secure, confidential, and proprietary documents owned by the Pennsylvania Department of Education.

I have not reviewed, discussed, disseminated, described, or otherwise revealed the contents of the assessment to anyone. I have not removed any assessment materials from the school building unless I was specifically authorized to administer the assessment to a student on homebound instruction. I have not kept, copied, reproduced, released, or used any assessment, assessment question, specific assessment content, or examinee response to any item or any section of the secure assessment in any manner that is inconsistent with the instructions provided by or through the Pennsylvania Department of Education. I have not provided any examinee with an answer to an assessment question or in any way influenced an examinee's response to any assessment question. I have not in any manner altered or caused the alteration of any examinee response, assessment booklet, or papers used by examinees.

I understand that any breach in assessment security could result in the invalidation of assessment results, professional discipline, and/or criminal prosecution.

I understand that false statements herein are made subject to the penalties of 18 Pa.C.S. § 4904.

_____	_____	_____
Administrator/Proctor Name	Administrator/Proctor Signature	Date of Signature

SAMPLE MANUALS

Copies of the *Handbook for Assessment Coordinators* and the *Directions for Administration Manual*s can be found on the PDE website at www.education.pa.gov.

TESTING WINDOW ASSESSMENT ACCOMMODATIONS

The *Accommodations Guidelines* was developed by PDE for use with the PSSA. This manual can be found on the PDE website at www.education.pa.gov. 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 10, 2017, and concluded with all make-up tests on May 19, 2017. DRC's Operations Materials Management System (Ops MMS) was utilized to receive assessment materials securely, accurately, and efficiently. This system features innovative automation and advanced 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 printed on the return label and identified the district and school. The number of boxes was immediately compared to what was picked up at the district. 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.

Once the box receipt process was completed, the materials separation phase began. Warehouse personnel opened the boxes and sorted materials by grade, subject, and status (used or unused booklets) into scanning boxes. Every booklets' security barcode and precode barcode were hand-scanned to link each document to the original box. As the booklets were sorted, the Ops MMS system guided the floor operator to which box to place the document. The Ops MMS system kept count and record of the materials placed in each box. This count remained correlated to the box as an essential quality-control step throughout the secure booklet processing and provided a target number for all steps of the check-in process. Once a box was closed, an MMS Processing Label was placed on that box.

Once labeled, the sorted and counted boxes proceeded to the Quality Assurance process, where a secure booklet check-in operator used a hand scanner to scan the MMS Processing Label. This procedure identified the material type and quantity parameters for what the Ops MMS should expect within a box. The box contents were then loaded into the streamfeeder.

The documents were fed past oscillating scanners that captured both the security code and precode from the booklets. A human operator monitored an Ops MMS screen that displayed scan errors, an ordered accounting of what was successfully scanned, and the document count for each box. The system ensured that each material within the box matched the information obtained from the original hand-scanning process.

When all materials were scanned and the correct document count was confirmed, the box was sealed and placed on a pallet. If the correct document count was not confirmed, 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 feedback to districts and schools regarding any missing materials based on actual receipt versus expected receipt. Sites that had 100 percent of their materials missing after the date they were due to DRC were contacted, and any issues were resolved.

Throughout the process of secure booklet check-in, DRC project management ran a daily missing materials report. Every site that was missing any number of booklets was contacted by DRC. Results of these correspondences were recorded for inclusion in the final Missing Materials Report if the missing booklets were not returned by the testing site. DRC produced the Missing Materials Report for PDE upon completion of secure booklet check-in. The report listed all schools in each participating district along with security barcodes for any booklets not returned to DRC.

After scannable materials (used answer booklets) were processed through booklet check-in, the materials became available to the DRC Document Processing log-in staff for document log-in. The booklets were logged-in using the following process:

- A DRC scannable barcode batch header was scanned, and a batch number was assigned to each box of booklets.

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

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

After a quality check-in at 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

Customized scanning programs for all scannable documents were prepared to read the booklets and to format the scanned information electronically. 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 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 standards. 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.

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 booklets.

The scannable documents were automatically fed into the image scanners where predefined processing criteria determined which fields were to be captured electronically. Open-ended 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 booklets.

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 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 predefined portions of the booklets were represented in their entirety in the image files. If a page was missing, the entire booklet was flagged for resolution.

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

Experienced DRC Document Processing editing staff reviewed all potential errors detected during scanning and made necessary corrections to the data files. 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 booklets 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 booklets assigned to the box during book receipt. Count discrepancies between book receipt and booklets scanned were resolved at this time.

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

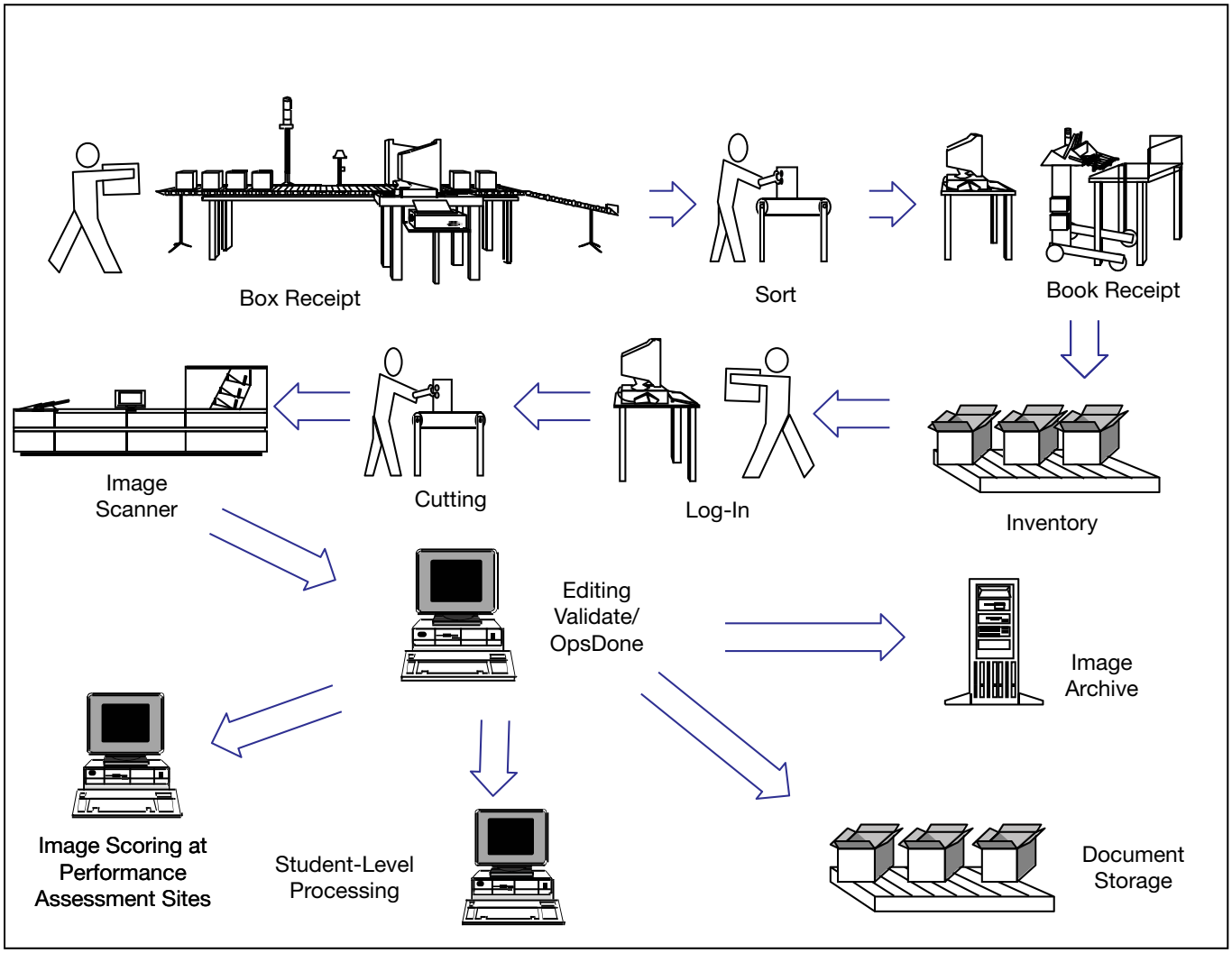
Table 8–1 shows the number of answer booklets received through booklet check-in, the number of booklets that contained student responses that were scanned and scored, the number of test booklets received, and the total number of booklets received for the English Language Arts assessment (ELA), the Mathematics assessment, and the Science assessment.

Table 8–1. Counts of 2017 PSSA Materials Received: Grades 3–8

Grade/Subject	Answer Booklets Received	Used Answer Booklets Received	Test Booklets Received	Total Booklets Received	Total Booklets Shipped
Grade 3 ELA	161,972	129,782	NA	161,972	161,996
Grade 4 ELA	162,351	129,987	162,342	324,693	324,728
Grade 5 ELA	159,554	127,964	159,548	319,102	319,130
Grade 6 ELA	155,437	125,687	155,435	310,872	310,892
Grade 7 ELA	156,802	127,318	156,791	313,593	313,618
Grade 8 ELA	155,360	126,028	155,355	310,715	310,764
Grade 3 Math	163,612	129,378	NA	163,612	163,624
Grade 4 Math	162,215	129,562	162,216	324,431	324,466
Grade 5 Math	159,083	126,963	159,085	318,168	318,194
Grade 6 Math	155,363	125,254	155,382	310,745	310,796
Grade 7 Math	156,777	127,060	156,781	313,558	313,618
Grade 8 Math	155,722	125,790	155,726	311,448	311,486
Grade 4 Science	161,200	128,083	161,180	322,380	322,450
Grade 8 Science	155,469	125,191	155,471	310,940	310,984

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 response documents were boxed for security purposes and final storage:

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

ONLINE TESTING

The DRC INSIGHT test engine runs on a custom web browser that is designed to ensure a fully secure environment during testing. The secure browser "locks down" the student's testing device, preventing the student from accessing the desktop, the Internet, and other external programs. For non-secure testing such as practice and training sessions, students can use the Online Tools Training (OTT) environment, which runs on a standard web browser.

The custom browser software is downloaded from eDIRECT and installed onto student testing devices. The secure browser can be installed on computers individually, or it can be downloaded to a central location, copied, and distributed to multiple computers simultaneously using common network distribution tools. Everything needed for testing is found within the secure browser, eliminating the need for districts to coordinate updates to third-party software.

Prior to operational use, DRC's quality assurance staff will perform full system-level tests in an independent test environment that simulates the production configuration. Tests are run on all supported computer platforms and browsers and include comprehensive review of system functionality, usability, reliability, security, and overall performance. Test content is also validated during this process.

Multiple methods are used to ensure secure data transfer, including encryption technologies and Secure Sockets Layer (SSL) protocol through Hypertext Transfer Protocol Secure (HTTPS). Test content is encrypted at the host server, and remains encrypted throughout all network transmissions; content is decrypted only once the student login is validated. Decrypted test content on the student workstation is stored only in memory during each test session. Once the session is ended (the test is completed or the student logs out), computer memory is purged to ensure security of test content is maintained.

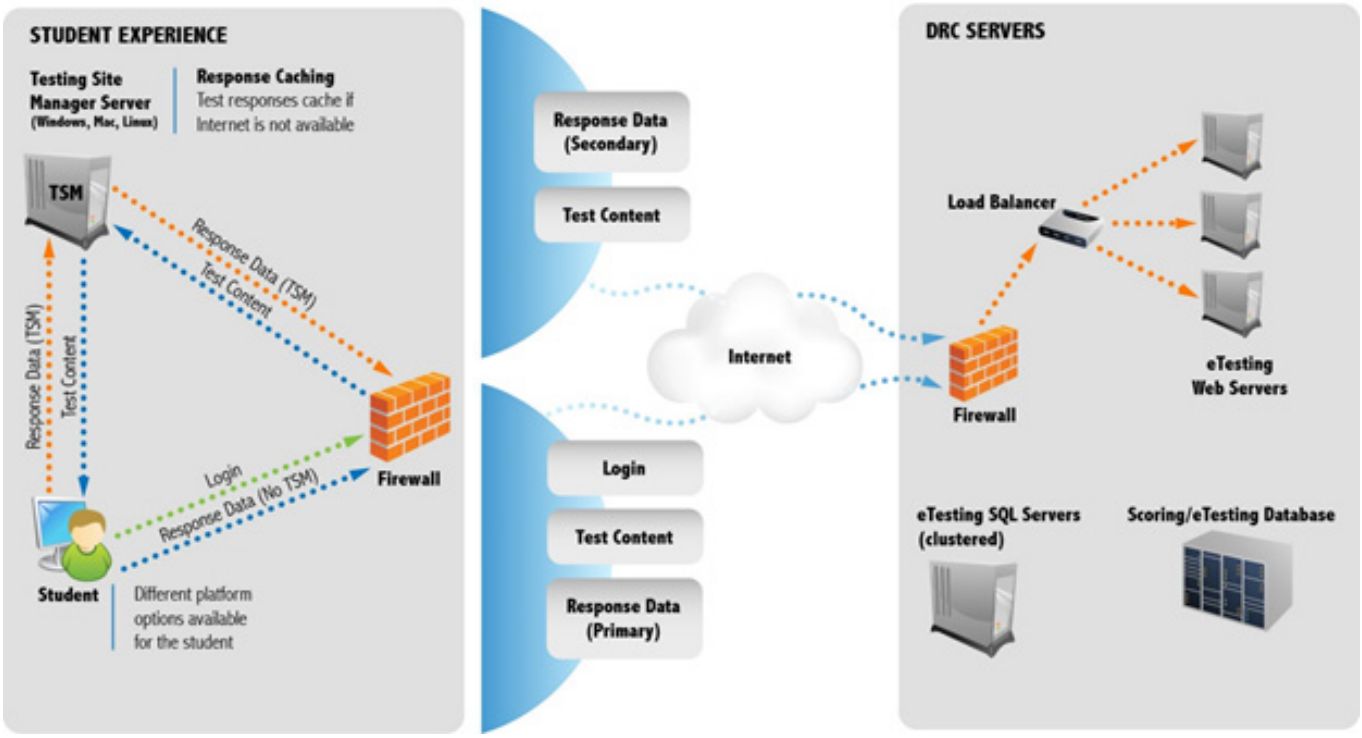
Responses are saved automatically every 45 seconds during testing, or when the student navigates away from an item or answers a selected-response item (whichever comes first). If a particular question takes the student longer than 45 seconds to answer, then the partial, incomplete responses are submitted at 45-second intervals until the student completes the item. This auto-save helps safeguard against students losing their work on longer items, such as constructed-response items. When the student returns to the test after a break or interruption, the student is returned to the point that they left off without having to navigate through all previously answered questions.

Table 8–2. Counts of 2017 PSSA Online Assessments: Grades 3–8

Grade/Subject	Total Online Assessments Completed
Grade 3 ELA	1,566
Grade 4 ELA	1,650
Grade 5 ELA	2,352
Grade 6 ELA	3,733
Grade 7 ELA	5,081
Grade 8 ELA	5,514
Grade 3 Math	1,592
Grade 4 Math	1,675
Grade 5 Math	2,820
Grade 6 Math	3,549
Grade 7 Math	4,694
Grade 8 Math	5,033
Grade 4 Science	2,940
Grade 8 Science	5,289

Figure 8–2 illustrates the secure transfer of online test responses between the student and DRC.

Figure 8–2. Architecture of the Student Testing Experience



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 open-ended 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 final 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 for each subject. The score point ranges were represented by the following scoring guidelines:

- 0–3 item-specific scoring guidelines for ELA: reading (short answer)
- 1–4 holistic scoring guideline for ELA: text-dependent analysis
- 0–4 item-specific scoring guidelines for math
- 0–2 item-specific scoring guidelines for science

  Note: For English language arts and mathematics at all grade levels (3–8), Pennsylvania Core Standards (PCS) items were rangefound and field tested. ELA and Mathematics rangefound/field tested 9 forms per subject, per grade. Science rangefound/field tested 12 forms per subject, per grade level tested (4 and 8). All items were embedded in the 2017 operational PSSA. All grades of PCS writing prompts (WPs) were rangefound and field tested as part of separate standalone field tests not addressed in this technical report.

Responses were pulled from the embedded field test portion of the PSSA for each subject. Once examples covering the range of score points were selected for each item, sets were assembled for rangefinding. Copies were made for each rangefinding participant. Rangefinding committees consisted of Pennsylvania educators, PDE staff members, DRC Test Development staff, and DRC Performance Assessment Services staff. The rangefinding meetings were as follows:

- ELA: Text-Dependent Analysis (TDA) Field Test Rangefinding (grades 4–8), June 5–9, The Penn Stater Hotel & Conference Center, State College, PA
- Reading Field Test Rangefinding (grade 3), June 5–7, The Penn Stater Hotel & Conference Center, State College, PA
- Math Field Test Rangefinding (grades 3–8), June 6–8, The Penn Stater Hotel & Conference Center, State College, PA
- Science Field Test Rangefinding (grades 4 and 8), June 6–7, The Penn Stater Hotel & Conference Center, State College, PA

Each rangefinding meeting began in a joint session with a review of the history of the assessment as well as discussing the purpose of the rangefinding meeting and the role rangefinding plays within the item development process. The session then broke into subject/grade-specific committees. Sets of student responses were presented to the committees, one item at a time. Each committee initially reviewed and scored student responses as a group to ensure that everyone was interpreting the scoring guidelines consistently. Committee members then went on to score responses independently. For each student response, committee members' scores were discussed until a consensus was reached. Only those responses for which there was strong agreement among committee members were chosen for inclusion in training materials for DRC raters.

Discussions of student responses included the mandatory use of scoring guideline language. This ensured that committee members remained focused on the specific requirements of each score level. DRC PAS staff took notes addressing how and why the committees arrived at score point decisions, and this information was used by the scoring directors in rater training.

DRC and PDE discussed scoring guideline edits suggested by the rangefinding committees. Changes approved by PDE were then incorporated into the scoring guidelines by DRC Test Development staff. The edited scoring guidelines were used in the preparation of materials and the training of raters.

RATER RECRUITMENT/QUALIFICATIONS

DRC retains a number of raters from year to year; the overall return rate in 2017 was 50%. This pool of experienced raters was drawn from to staff the scoring of the 2017 PSSA. To complete the rater staffing, recruiting events were held and applications for rater positions were screened by DRC's recruiting staff. Candidates were personally interviewed by DRC staff. In addition, each candidate was required to provide an on-demand writing sample, an on-demand math sample, 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 degrees emphasizing expertise in mathematics, English language arts, or science. In some locations, staffing partners were used to augment hiring using the same practices as those employed by DRC. The rater pool consisted of educators and other professionals with content-specific backgrounds. These individuals were valued for their content-specific knowledge, but they were required to set aside their own biases about student performance and accept the scoring standards outlined in the PSSA.

LEADERSHIP RECRUITMENT/QUALIFICATIONS

Scoring directors and team leaders were selected from a pool of employees who displayed expertise as raters and leaders on previous DRC projects. These individuals had strong backgrounds in mathematics, English language arts, or science and demonstrated organizational, leadership, communication, and management skills. All scoring directors had previous leadership experience working on large scale assessments. All scoring directors, team leaders, and raters were required to sign confidentiality agreements before handling secure materials.

Each room of raters was assigned a scoring director. All handscoring activities were led by a scoring director for the duration of the project. Scoring directors assisted in rangefinding, worked with supervisors to create training materials, conducted team leader training, and were responsible for training the raters. The scoring director made sure that reports were available and interpreted those reports for the raters. The scoring director also supervised the team leaders. Scoring directors were monitored by the project managers.

Team leaders assisted the scoring director with rater training by answering individual questions that raters may not have felt comfortable asking in a large group. Once raters were qualified, team leaders were responsible for monitoring and maintaining the accuracy and workload of each team member. Ongoing monitoring identified those individuals having difficulty scoring accurately. These raters received one-on-one retraining from the team leader or scoring director. Any rater who could not be successfully retrained had his/her scores purged and was released from the project.

TRAINING

As part of preparation for the 2017 ELA, mathematics, and science assessments, DRC's PAS staff assembled the PDE-approved scoring guidelines and scored student responses approved by rangefinding committees into sets used for training raters. The item-specific scoring guidelines for mathematics, science and ELA: reading (short answer), as well as the focused holistic scoring guidelines for TDAs and WPs served as the raters' constant reference. Responses that were relevant in terms of the scoring concepts they illustrated were annotated and included in an anchor set. The full range of each score point was clearly represented and annotated in the anchor set, which was used for reference by raters throughout the project.

Training sets and qualifying sets contained student responses consensus-scored by rangefinding committee members. Raters were instructed on how to apply the scoring guidelines and were required to demonstrate a clear comprehension of each anchor set by performing well on the associated training materials. Responses were selected for training to show raters the range of each score point (e.g., high, mid, and low 2s). Examples of 0s were also included for all mathematics, reading, and science items. This process helped raters recognize the various ways that a student could respond in order to earn each score point outlined and defined in the scoring guidelines.

The scoring director conducted a team leader training session before training the raters. This session followed the same procedures as rater training, but standards were more stringent due to the extra responsibilities required of team leaders. During team leader training, all PSSA materials were reviewed and discussed. Team leaders were required to annotate all of their training materials with committee justifications from the rangefinding meetings. To facilitate scoring consistency, it was imperative that all team leaders imparted the same rationale for each response. Once the team leaders were qualified, leadership responsibilities were reviewed and team assignments were given. A ratio of one team leader per 7–10 raters ensured sufficient monitoring rates for team members.

Rater training began with the scoring director providing an intensive review of the scoring guidelines and anchor papers. Next, raters practiced by independently scoring the responses in the training sets. After each training set was taken, the scoring director led a thorough discussion of the responses.

Once the scoring guidelines, anchor sets, and training sets were thoroughly discussed, each rater was required to demonstrate understanding of the scoring criteria by qualifying (i.e., scoring with acceptable agreement to the true scores) on at least one of the qualifying sets. Raters who failed to achieve at least 70 percent exact agreement on the first qualifying set were given additional, individual training. Raters who did not perform at the required level of agreement by the end of the qualifying process were not allowed to score any student responses. These individuals were removed from the pool of potential raters in DRC's imaging system and released from the project.

The 2017 assessment included the opportunity for students to respond in Spanish to mathematics and science items. Training for the raters for the Spanish language responses was conducted at Tri-Lin Integrated Services and overseen by a DRC scoring director, who is a Spanish language speaker with a strong mathematics and science background, and has worked closely with the PSSA in this capacity for eight years. All Spanish raters were bilingual and hired specifically to score the Spanish portion of the assessment and were required to meet the same standards set for raters of the English language version of the assessment.

Table 8–3. Qualification Rates for 2017 PSSA Open-Ended Response Items

Subject	% Qualifying On First Attempt	% Qualifying On Second Attempt	% That Did Not Qualify
ELA	94	5	1
Math	92	7	1
Science	98	2	0

HANDSCORING PROCESS

Student responses were scored independently. All responses were scored once, and ten percent of the responses were scored a second time. The data collected from the ten-percent double-read portion was used to calculate the exact and adjacent agreement rates in the Scoring Summary Reports. The responses that were used for the ten percent read behind were randomly chosen by the imaging system at the item level. Additional read behinds by the team leaders and scoring directors were done to further ensure reliability.

Raters scored the imaged student responses on PC monitors at scoring locations in Sharonville, Ohio; Columbus, Ohio; Plymouth, Minnesota; Woodbury, Minnesota; Madison, Wisconsin; King of Prussia, Pennsylvania; Indianapolis, Indiana; Atlanta, Georgia; Jacksonville, Florida; Lake Mary, Florida; and San Antonio, Texas.

In all locations, raters were seated at tables with individual imaging stations. Image distribution was controlled, ensuring that student images were sent only to designated groups of raters qualified to score those items. Imaged student responses were electronically separated for routing to individual raters by item. Raters were only provided with student responses for items that they were qualified to score. Scores were keyed into DRC's imaging system.

To handle possible alerts (i.e., student responses indicating potential issues related to students' safety and well-being that sometimes require attention at the state or local level), DRC's imaging system allows raters to forward responses needing attention to the scoring director. These alerts are reviewed by project management, who then notifies the students' schools and PDE of the occurrences. PDE does not receive any identifying information about the students. At no time in the alerts process do raters, or other DRC handscoring staff, acquire any knowledge concerning a student's personal identity.

HANDSCORING VALIDITY PROCESS

One of the training tools PAS utilized to ensure rater accuracy was the validity process. The goal of the validity process is to ensure that scoring standards are maintained. Specifically, the objective is to make sure that raters score student responses in a manner consistent with statewide standards both within a single administration of the PSSA and across consecutive administrations. During the scoring of the 2017 PSSA, scoring consistency was maintained, in part, through the validity process.

The validity process began with the selection of scored responses. Forty validity papers were selected for each core open-ended (OE) item. These 40 papers were drawn from a pool of exemplars (responses that are representative of a particular score point and have been verified by the scoring director). The scores on validity papers are considered true scores.

The validity papers were then implemented to test rater accuracy. The responses were selected within the imaging system and dispersed intermittently to the raters. By the end of the project, raters had scored all 40 validity papers for any items they were qualified to score. Raters were unaware when they were being dealt pre-scored validity responses and assumed that they were scoring live student responses. This helped bolster the internal validity of the process. All raters who received validity papers had already successfully completed the training/qualifying process.

The scores that the raters assigned to the validity papers were compared to the true scores in order to determine the validity of the raters' scores. For each item, the percentage of exact agreement as well as the percentage of high and low scores was computed. This data was accessed through the Validity Item Detail Report. The same sort of data was also computed for each specific rater. This data was accessed through the Validity Reader Detail Report. Both of these may be run as daily or cumulative reports.

The Validity Reader Detail Report was used to identify particular raters for retraining. If a rater on a certain day generated a lower rate of agreement on a group of validity papers, it was immediately apparent in the Validity Reader Detail Report. A lower rate of agreement was defined as anything below 70 percent exact agreement with the true scores. Any time a rater's validity agreement rate fell below 70 percent, the scoring director was cued to examine that rater's scoring. First, the scoring director attempted to ascertain what kind of validity papers the rater was scoring incorrectly. This was done to determine whether there was any sort of a trend (e.g., trending low on the 1–2 line). Once the source of the low agreement rate was determined, the rater was retrained. If it was determined that the rater had been scoring live papers inaccurately, then his/her scores were purged for that day, and the responses were re-circulated and scored by other raters.

The cumulative Validity Item Detail Report was utilized to identify potential room-wide trends in need of correction. For instance, if a particular validity response with a true score of 3 was given a score of 2 by a significant number of raters within the room, that trend would be revealed in the Validity Item Detail Report. To correct a trend of this sort, the scoring director would look for student responses similar to the validity paper being scored incorrectly. Once located, these responses would be used in room-wide re-training, usually in the form of an annotated handout or a short set of papers without printed scores given to raters as a recalibration test.

Validity was employed on all operational mathematics, ELA: reading, and science OE items, as well as on all operational WPs and TDAs. Each 40-paper validity set was formulated to mirror the score point distribution that the item generated during its previous administration. Each validity set included at least five examples of each score point. Examples of different types of responses were included to ensure that raters were tested on the full spectrum of response types.

The exact rater agreement rate generated during the validity process was often higher than the inter-rater agreement rate for the same item. The reason for this discrepancy has to do with how validity sets are formulated. The 40 validity papers for each item are intended to cover the full breadth of each score point. For example, each validity set contains examples of high, mid, and low 2s. This scope ensures that the validity process is truly valid in terms of addressing the complete spectrum of response types. However, certain types of responses are generally not included in validity sets. These include line papers (i.e., examples of score points that are so close to the adjacent score point that raters are instructed to consult with a supervisor before assigning a score) and responses that, because of poor word choice/writing, are difficult to understand. The reason for these exclusions is that confusing/line/illegible papers often do not impart a teachable lesson. Since these types of papers are usually unique, any potential lesson the response might teach would apply only to that particular paper. Conversely, the papers in validity sets are chosen because they represent common response-types and teach lessons that can be applied to other similar papers. Due to this distinction, validity sets often generate a slightly higher agreement rate than is typically generated during operational scoring.

QUALITY CONTROL

Rater accuracy was monitored throughout the scoring session by means of daily and on-demand reports. These reports ensured that an acceptable level of scoring accuracy was maintained throughout the project. Interrater reliability was tracked and monitored with multiple quality control reports that were reviewed by quality assurance analysts. These reports and other quality control documents were generated at the scoring centers, where they were reviewed by the scoring directors, team leaders, and project managers. The following reports and documents were used during the scoring of the open-ended items:

The Scoring Summary Report (includes two related reports)

1. The Reader Monitor Report monitored how often raters were in exact agreement with one another and ensured that an acceptable agreement rate was maintained. This report provided daily and cumulative exact and adjacent inter-rater agreement on the ten percent that was double read.
2. The Score Point Distribution Report monitored the percentage of responses given each of the score points. For example, the mathematics daily and cumulative reports showed what percentage of 0s, 1s, 2s, 3s, and 4s a rater had given to all the responses scored at the time the report was produced. It also indicated the number of responses read by each rater 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., not read, complete, awaiting supervisor review, etc.). This report ensured that all responses were scored by the end of the project.

The Reader Score Report identified all responses scored by an individual rater. This report was useful if any responses needed rescoring because of possible rater drift.

The Validity Reports (addressed in detail on previous pages) tracked how raters performed by comparing pre-scored responses to raters' scores for the same responses. If a rater's scoring fell below the 70 percent determined agreement rate, remediation occurred. Raters who did not retrain to the required level of agreement were released from the project.

The Read-Behind Log was used by the team leader/scoring director to monitor individual rater reliability. Team leaders read randomly-selected, scored items from each team member. If the team leader disagreed with a rater'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 rater.

Recalibration Sets were used throughout the scoring sessions to ensure accuracy by comparing each rater's scores with the true scores on a pre-selected set of responses. Recalibration sets helped to refocus raters on Pennsylvania scoring standards. This check made sure there was no change in the scoring pattern as the project progressed. Raters failing to achieve 70 percent agreement with the recalibration true scores were given additional training to achieve the highest degree of accuracy possible. Raters who were unable to recalibrate were released from the project. The process for creating and administering recalibration sets was similar to the one used for training sets.

Table 8–4. Inter-rater Agreement for 2017 PSSA Mathematics Grades 3–8 Open-Ended Response Items and Validity

Mathematics	Common Item	% Exact Agreement	% Adjacent Agreement	% Exact + Adjacent Agreement	% Exact Validity Agreement
Grade 3	1	95	5	100	96
Grade 3	2	79	20	99	89
Grade 3	3	78	21	99	79
Grade 4	1	95	5	100	94
Grade 4	2	96	4	100	98
Grade 4	3	94	6	100	95
Grade 5	1	88	12	100	87
Grade 5	2	85	15	100	93
Grade 5	3	92	8	100	90
Grade 6	1	90	10	100	91
Grade 6	2	93	7	100	95
Grade 6	3	88	12	100	90
Grade 7	1	91	9	100	97
Grade 7	2	93	7	100	95
Grade 7	3	84	16	100	89
Grade 8	1	90	10	100	93
Grade 8	2	85	15	100	78
Grade 8	3	82	18	100	84

Note. 0–4 possible score points

Table 8–5. Percentages Awarded for Each Possible Score Point 2017 PSSA Mathematics Grades 3–8

Mathematics	Common Item	%0	%1	%2	%3	%4	%B/NS*
Grade 3	1	15	30	30	15	8	2
Grade 3	2	7	40	19	21	9	4
Grade 3	3	10	29	29	21	8	3
Grade 4	1	59	17	9	7	3	4
Grade 4	2	8	12	18	29	24	8
Grade 4	3	25	27	31	7	8	3
Grade 5	1	34	29	12	24	6	5
Grade 5	2	27	22	18	15	8	10
Grade 5	3	16	20	45	5	11	3
Grade 6	1	32	35	22	4	3	4
Grade 6	2	42	21	11	8	6	12
Grade 6	3	40	21	17	11	8	4
Grade 7	1	37	35	13	8	3	5
Grade 7	2	38	30	13	4	3	12
Grade 7	3	29	39	16	9	3	5
Grade 8	1	23	52	12	6	2	6
Grade 8	2	15	39	24	11	1	11
Grade 8	3	31	26	16	13	8	7

*B=blank and NS=non-scoreable

Table 8–6. Inter-rater Agreement for 2017 PSSA Reading Grade 3 Open-Ended Response Items and Validity

Reading	Common Item	% Exact Agreement	% Adjacent Agreement	% Exact + Adjacent Agreement	% Exact Validity Agreement
Grade 3	1	80	20	100	84
Grade 3	2	79	20	99	90

Note. 0–3 possible score points

Table 8–7. Percentages Awarded for Each Possible Score Point 2017 PSSA Reading Grade 3

Reading	Common Item	%0	%1	%2	%3	%B/NS*
Grade 3	1	12	44	31	7	6
Grade 3	2	20	39	32	4	5

*B=blank and NS=non-scoreable

Table 8–8. Inter-rater Agreement for 2017 PSSA ELA Grades 4–8 Text-Dependent Analysis Items and Validity

TDA	Common Item	% Exact Agreement	% Adjacent Agreement	% Exact + Adjacent Agreement	% Exact Validity Agreement
Grade 4	1	84	16	100	86
Grade 5	1	83	17	100	76
Grade 6	1	85	15	100	86
Grade 7	1	85	15	100	74
Grade 8	1	82	17	99	82

Note. 1–4 possible score points

Table 8–9. Percentages Awarded for Each Possible Score Point 2017 PSSA TDA items Grades 4–8

TDA	Common Item	%1	%2	%3	%4	%B/NS*
Grade 4	1	31	48	10	1	11
Grade 5	1	35	43	10	1	11
Grade 6	1	32	41	16	2	10
Grade 7	1	39	36	11	1	12
Grade 8	1	27	40	22	2	8

*B=blank and NS=non-scoreable

Table 8–10. Inter-rater Agreement for 2017 PSSA Writing Grades 3-8 Open-Ended Response Items and Validity

Writing	Common Item	% Exact Agreement	% Adjacent Agreement	% Exact + Adjacent Agreement	% Exact Validity Agreement
Grade 3	1	82	18	100	87
Grade 4	1	81	19	100	83
Grade 5	1	77	23	100	84
Grade 6	1	83	17	100	83
Grade 7	1	83	17	100	89
Grade 8	1	75	24	99	83

Note. 1–4 possible score points

Table 8–11. Percentages Awarded for Each Possible Score Point 2017 PSSA Writing Grades 3-8

Writing	Common Item	%1	%2	%3	%4	%B/NS*
Grade 3	1	19	57	17	1	6
Grade 4	1	10	42	32	9	7
Grade 5	1	13	55	25	4	4
Grade 6	1	10	42	43	2	3
Grade 7	1	7	40	44	5	4
Grade 8	1	13	35	40	8	4

*B=blank and NS=non-scoreable

Table 8–12. Inter-rater Agreement for 2017 PSSA Science Grades 4 and 8 Open-Ended Response Items and Validity

Science	Common Item	% Exact Agreement	% Adjacent Agreement	% Exact + Adjacent Agreement	% Exact Validity Agreement
Grade 4	1	90	10	100	95
Grade 4	2	87	13	100	95
Grade 4	3	92	8	100	97
Grade 4	4	95	5	100	99
Grade 4	5	98	2	100	99
Grade 8	1	93	7	100	95
Grade 8	2	81	19	100	87
Grade 8	3	84	15	99	85
Grade 8	4	98	2	100	96
Grade 8	5	87	13	100	94

Note. 0–2 possible score points

Table 8–13. Percentages Awarded for Each Possible Score Point 2017 PSSA Science Grades 4 and 8

Science	Common Item	%0	%1	%2	%B/NS*
Grade 4	1	18	30	50	3
Grade 4	2	19	47	31	3
Grade 4	3	31	25	39	4
Grade 4	4	11	25	61	4
Grade 4	5	14	49	31	4
Grade 8	1	50	29	13	6
Grade 8	2	11	35	48	6
Grade 8	3	46	31	15	9
Grade 8	4	28	63	3	6
Grade 8	5	35	35	22	8

*B=blank and NS=non-scoreable

CHAPTER NINE: DESCRIPTION OF DATA SOURCES AND SAMPLING ADEQUACY

This chapter describes the data sources (e.g., *n*-counts, characteristics of students) used for the various analysis procedures discussed in the remaining chapters of this technical report. Psychometric analyses are conducted at several points for the PSSA: 1) early analyses for quality control purposes; 2) analyses associated with the calibration, scaling, and linking processes; 3) analyses used for item banking; and 4) analyses for the technical report. Detailed information regarding the attributes of students is provided in Chapter Ten.

PRIMARY STUDENT FILTERING CRITERIA

For many data files, the primary means of filtering students for inclusion/exclusion from any data analysis are based on the state reporting criteria which are outlined below. Within the state reporting rules are separate attempt criteria for individual subject areas. The attempt criteria are discussed more fully below.

STATE REPORTING CRITERIA

The state reporting criteria are as follows:

- The student must be enrolled for the full academic year.
- The student must be attributed to a public district/school (state).
- The student must receive a score (i.e., met the subject attempt logic—see additional information below).
- The student is not a homeschool student.
- The student is not a foreign exchange student.
- The student is not a first year ELL student (mathematics/ELA only).

PSSA ATTEMPT CRITERIA

For all data sources, only students who meet the attempt criteria are included. For mathematics, ELA, and science, the attempt criteria required students to complete a minimum of five items (multiple-choice (MC) or open-ended (OE)) in each respective subject area section of the test booklets. All subjects' counts were based on operational and nonoperational items.

KEY VALIDATION DATA

These data are only mentioned for the sake of completeness, as no formal results from these data are provided in this technical document. An analysis on all operational MC items is conducted early in the scoring process to ensure that the items are performing as expected. This is an important quality check that is always done for the PSSA. This analysis is usually (but not always) done using all students from early-return schools. The sample does not need to be representative of the entire state for these quality checks. Available student data typically suffices as long as there is reasonable variability in the total test scores of students.

For 2017 this data included all public school students who 1) had their MC items scanned and scored by mid-May and 2) met preliminary attempt criteria (i.e., attempt was determined based on MC items only). Note that the full state reporting criteria were not in effect for this file (only attribution to a public school based on tested site and preliminary attempt criteria were used to filter students).

CALIBRATION DATA

Calibration data included students who met the preliminary state reporting criteria (including attempt criteria) by May 31st. The state reporting criteria were preliminary, meaning that attributions and final PIMS[1] information were not complete by this time. No sampling was undertaken in this data (i.e., it included all students who met the above criteria with operational test scores up to this point[2]). This data file was used to provide impact results to the Technical Advisory Committee (TAC) during the linking review process.

ITEM BANK DATA

The item bank data included students who met the state reporting criteria by July 13. No sampling was undertaken in this data (i.e., it included all students who met the above criteria with scored field test data up to this point). The data banked for field test items were based on this data file.

FINAL DATA

This file included all students who met state reporting criteria by August 15 for all subject areas. The final data reflects update by schools for correction of certain fields (e.g., student ethnicity). All other files contained preliminary data (item bank data). The majority of the results included in this technical report were derived using the final data file.

FINAL *N*-COUNTS FOR ALL DATA SOURCES

The *n*-counts for all data sources are provided in Table 9–1.The calibration count includes students who met the preliminary state reporting criteria, while the final count includes students who met the final state reporting criteria.[3] A computer-based test (CBT) was offered for all subjects. Calibration data shows the number of students in both modes. Calibration of item parameters was conducted with paper students only; however, other analyses conducted during the calibration period (see Chapter Twelve) used both paper and CBT students. The *n* counts of item bank data show only the number of students who took a paper test, because values for item banking (e.g., CTT statistics) were obtained with paper students. However, the *n* counts of paper students and total are not very different because the proportions of CBT students were small (see Table 9–2).

1 Pennsylvania Information Management System

2 Historically, PSSA has retained all students who met the stated criteria in the calibration data set, even those who had testing accommodations.

3 For this reason, the final count may be smaller than the calibration count in any given year.

Table 9–1. Data Source *N*-Counts

Subject	Grade	Key Validation (Paper)	Key Validation (CBT)	Calibration (Paper/CBT)	Item Bank (Paper)	Final (Paper/ CBT)
Mathematics	3	94920	1482	126172	124407	125205
Mathematics	4	92512	1545	126281	124609	125575
Mathematics	5	90402	2714	125052	122242	124405
Mathematics	6	85148	3410	123618	120261	123112
Mathematics	7	87991	4453	125769	121665	125584
Mathematics	8	84421	4751	123223	119142	123271
ELA	3	104003	1416	125874	124046	124923
ELA	4	103395	1503	125911	124266	125200
ELA	5	97395	2190	124758	122426	124183
ELA	6	99306	3521	123625	120128	123170
ELA	7	101059	4734	125921	121441	125744
ELA	8	96741	5111	123587	119014	123653
Science	4	124311	2811	126219	123254	125488
Science	8	118500	5027	122746	118314	122716

COMPUTER-BASED TEST (CBT)

Table 9–2 displays the count of students who took the 2017 PSSAs broken out by content, grade, and mode with the final data. In all grades, only approximately three percent or less of students were enrolled to take the PSSAs online in the spring. Lower grades had fewer students who took CBT and grade 8 had highest CBT proportion of students in all subjects. Almost three percent of grade 8 students took CBT with mathematics and ELA, and slightly over three percent of grade 8 students took science CBT.

TABLE 9–2. FINAL *N*-COUNTS AND PROPORTION BY MODE

Subject	Grade	*N*-Counts Paper	*N*-Counts CBT	Proportion (%) Paper	Proportion (%) CBT
Mathematics	3	123705	1500	98.80	1.20
Mathematics	4	124011	1564	98.75	1.25
Mathematics	5	121689	2716	97.82	2.18
Mathematics	6	119728	3384	97.25	2.75
Mathematics	7	121143	4441	96.46	3.54
Mathematics	8	118509	4762	96.14	3.86
ELA	3	123451	1472	98.82	1.18
ELA	4	123653	1547	98.76	1.24
ELA	5	121940	2243	98.19	1.81
ELA	6	119617	3553	97.12	2.88
ELA	7	120922	4822	96.17	3.83
ELA	8	118434	5219	95.78	4.22
Science	4	122666	2822	97.75	2.25
Science	8	117690	5026	95.90	4.10

SPIRALING OF FORMS

PSSA forms were scrambled and spiraled for all grades and subjects. Appendix H provides summary statistics for all test forms for each grade and subject-area test. The tables provide the form number (Form), the number of students (N), test length in items (L), total points (Pts.), the minimum score (Min), the maximum score (Max), the mean score (Mean), the median score (Med), and the standard deviation (SD). The mean raw scores across forms are similar, indicating the student populations taking each form are of approximately equal ability and item scrambling are appropriate. This equivalence of ability distributions across forms is the desired outcome of spiraling and allows for optimum analysis of the embedded field-test items.

SCRAMBLING OF FORMS

In response to test security issues raised in prior PSSA administrations, multiple scrambled patterns of operational forms were constructed for each mathematics, ELA, and science assessment. The core form was constructed following the past test construction and equating guidelines and will be referred to as the Master Core throughout the remainder of this document. Based on previous TAC recommendation, the Master Core is the pattern of the test that would have been administered to all students in the absence of scrambling. More importantly, the data obtained from administration of the Master Core were used for operational MC item calibration.

Once the Master Core was constructed and approved, DRC and PDE content specialists built seven scrambled patterns of the Master Core for each content and grade. OE items were not scrambled so each OE item appeared in the same position on every form. Some MC items also appear in the same position on multiple forms due to content constraints. In some content areas and grades the number of field-test forms was greater than the number of scrambled patterns. In these instances the Master Core and scrambled patterns were repeated with no specific pattern appearing more than two times. Due to the limited enrollment for the PSSA CBT, only three forms were offered for CBT. These forms included the accommodation form, a Master Core form, and one additional scrambled form; therefore, these forms have slightly higher participation than other forms when paper and CBT counts are combined.

When the Master Core was built, the linking position rules were observed for all core-linking and equating block items. The Master Core was used at least as often, or more often, than any scrambled version of the core form. Since form 1 was used for all accommodated forms (e.g., Braille, Large Print, Audio, and Spanish) it was never designated as a Master Core. The specific forms presenting the Master Core vary across grades within each content area. Given that all forms were spiraled at the student level, the distribution of forms is reasonably uniform. The exception is Form 1, which had higher participation due to the fact that it is the only form used for accommodations.

Based on TAC recommendations to minimize possible item position effects, each section of the Master Core was divided into blocks of non-overlapping MC items. Recall that the OE items were not part of the scrambling. The blocks generally contained six to seven MC items (or one passage), but the block sizes varied depending on the content and test session. Within each block, MC items were scrambled following general psychometric and content guidelines to create up to five versions of the block in addition to the Master Core sequencing. The blocks were assembled to create seven scrambled versions of the Master Core. Table 9–3 shows the mathematics Grade 8 scrambled form structure. The core was divided into nine blocks (labeled “1”–“9”) and each block was scrambled in five different permutations (labeled I, II, III, IV, and M). So, for example, Form 1 was constructed with scrambled block version “I” for all nine blocks. Seven scrambled variations (labeled A, B, C, D, E, F, and G in the “Pattern” column) of the Master Core were used in addition to the Master Core across the twenty field-test forms. The Master Core was used on Forms 2, and 9.

Table 9–3. Mathematics Grade 8 Scrambling

Form	1	2	3	4	5	6	7	8	9	Pattern
1	M	IV	III	IV	III	II	II	III	III	A
2	M	M	M	M	M	M	M	M	M	Master
3	IV	M	IV	III	III	I	IV	I	IV	B
4	II	II	M	II	II	III	II	II	IV	C
5	IV	IV	II	I	IV	IV	I	II	II	D
6	III	I	I	II	I	II	I	I	M	E
7	M	M	M	M	M	M	M	M	M	Master
8	II	III	I	IV	IV	I	M	IV	I	F
9	I	I	IV	M	II	IV	III	IV	III	G

Prior to scrambling the Master Core, DRC and PDE content specialists developed the following general psychometric and content guidelines:

- Items cannot move between blocks.
- DRC and PDE content specialists will work to ensure that the scrambling does not result in making content more difficult than the Master Core item sequence. For example, items of similar cognitive complexity will be swapped rather than random scrambling.
- A block scramble pattern is only valid if it does not contain an invalid key distribution within the block. Additional checks for an invalid key distribution across blocks must be made when combining block scramble patterns to create forms. For example, scrambling must not create more than three (3) of the same key positions in a row.
- A block scramble pattern is only valid if it does not contain an invalid standard (AA/EC) distribution within a block. Additional checks for standard distribution across blocks must be made when combining block scramble patterns to create forms. An exception was made for one mathematics scramble for each grade which ordered items within block by eligible content per PDE request.
- Scrambling should not place a difficult item as the first item in a section. The first item in a block that does NOT begin a section may be a difficult item since blocks are invisible to the student.
- For passage-based items, a block scramble pattern is only valid if it does not create dissonance between the items and passage(s).
- Scrambling should not place a difficult item as the first item in a passage set.
- Within a set of items connected to a paired set of passages, an item associated with both passages can be swapped only with another item associated with both passages. (These items must remain at the end of the set of items associated with the passage set.)

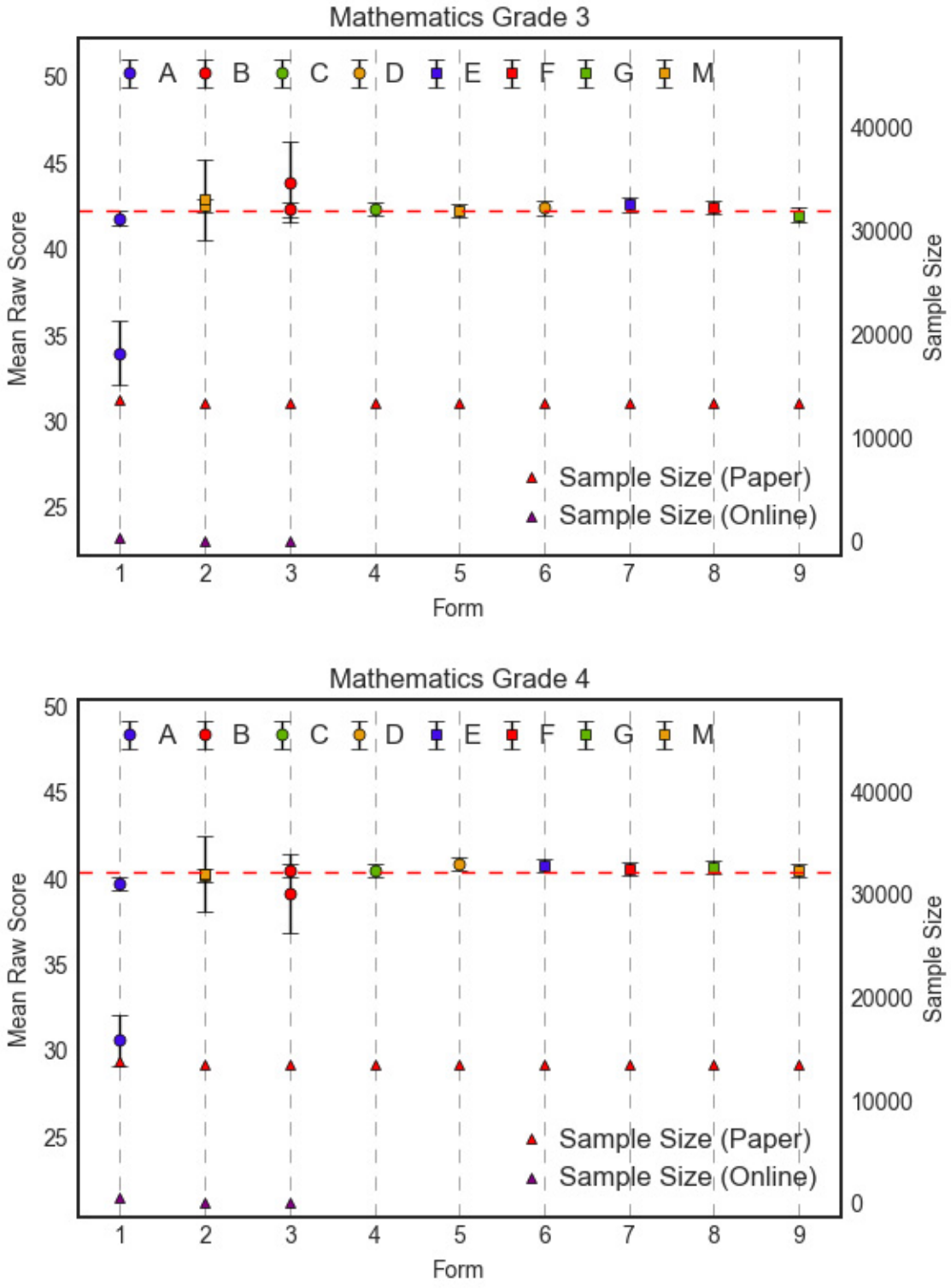
Table 9–4 shows a summary of the scrambling strategy employed for the 2017 PSSAs. Each content and grade used a total of eight different patterns of the core including the Master Core.

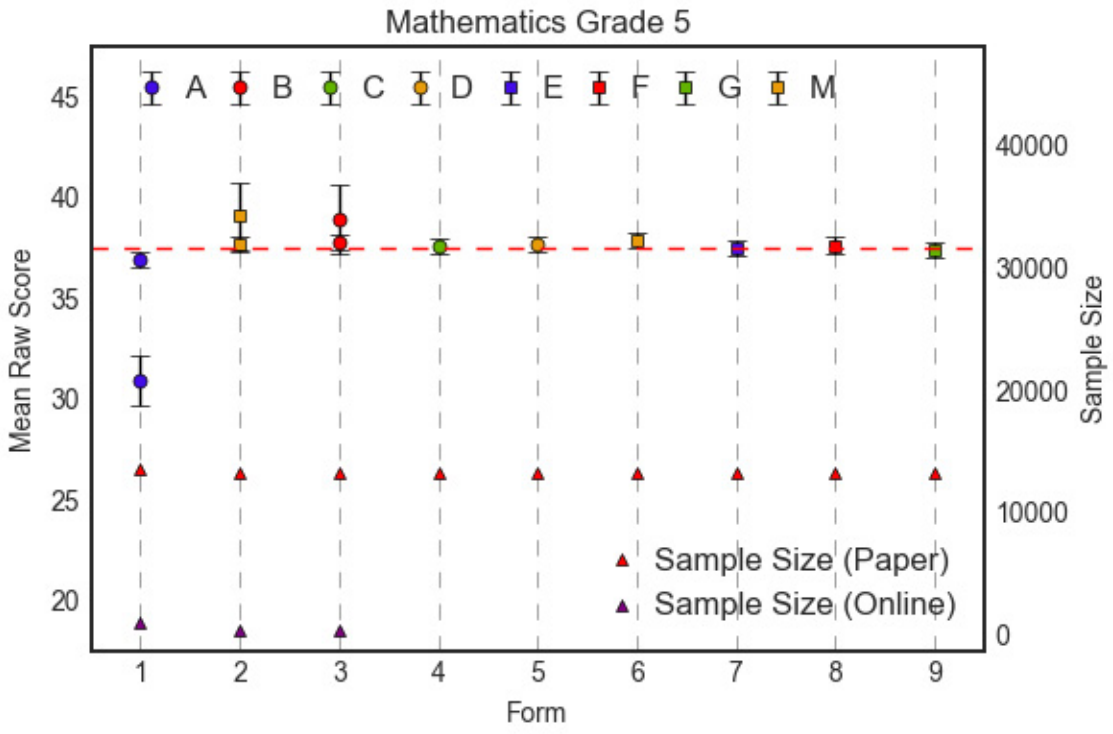
Table 9–4. Form Scrambling

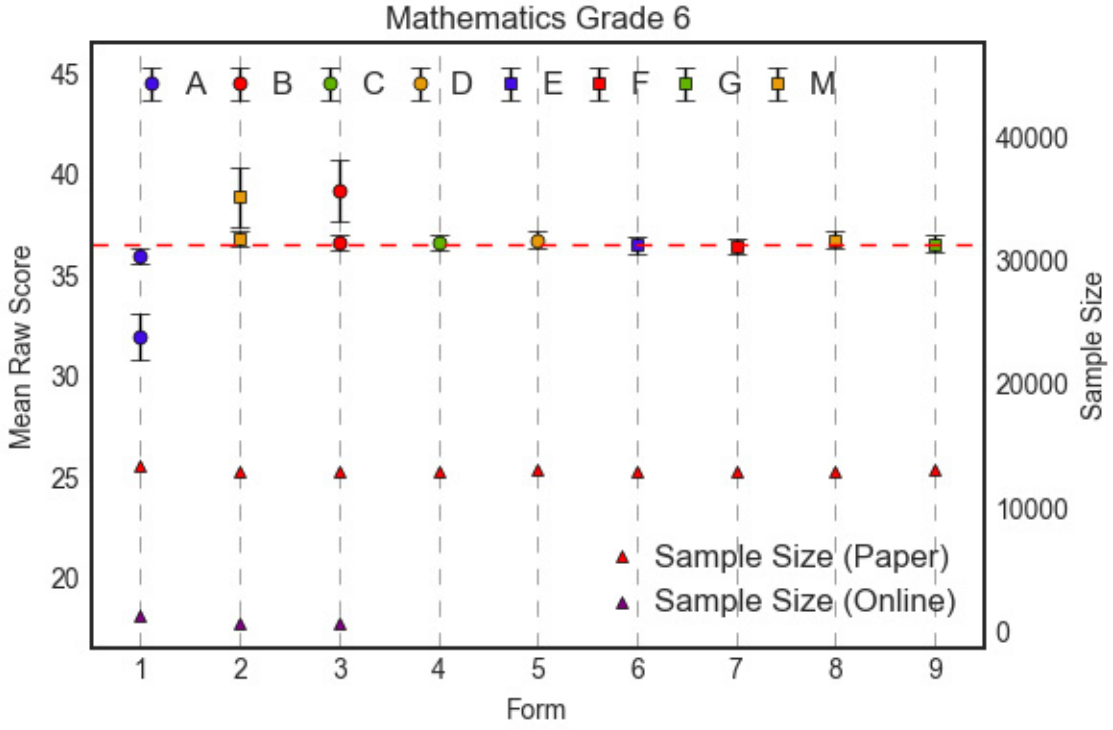
Content	Grade	Forms	Total Patterns	Master Cores
Mathematics	3	9	8	2
Mathematics	4	9	8	2
Mathematics	5	9	8	2
Mathematics	6	9	8	2
Mathematics	7	9	8	2
Mathematics	8	9	8	2
ELA	3	9	8	2
ELA	4	9	8	2
ELA	5	9	8	2
ELA	6	9	8	2
ELA	7	9	8	2
ELA	8	9	8	2
Science	4	12	8	2
Science	8	12	8	2

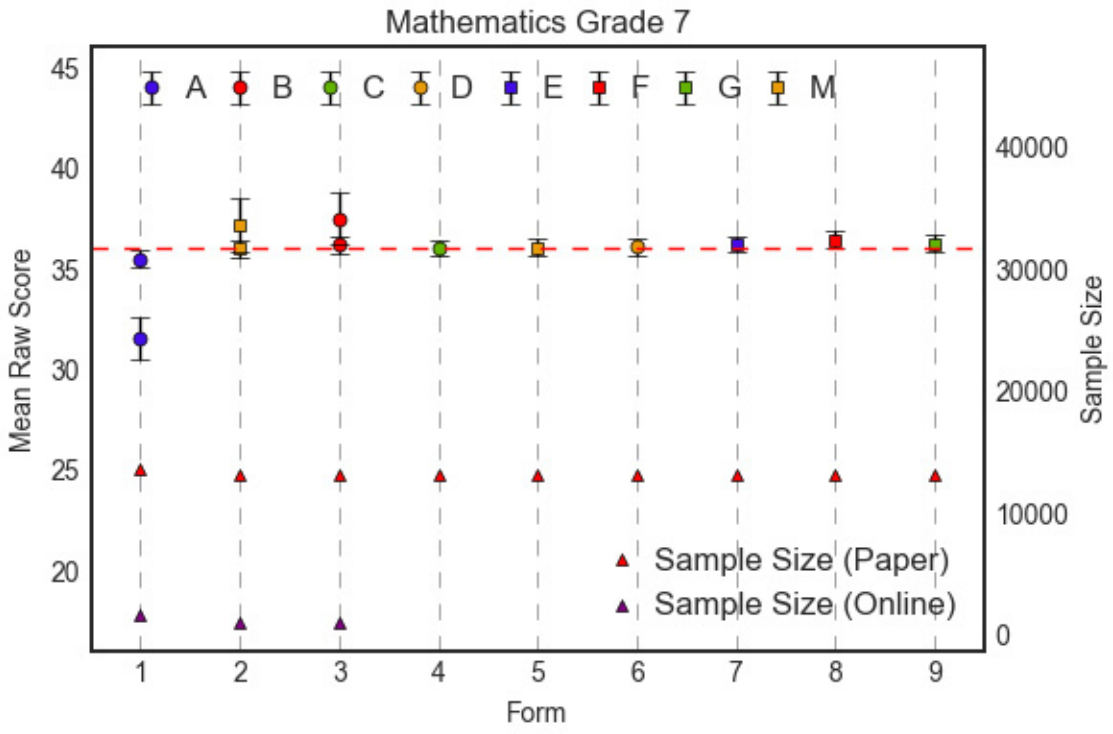
An important assumption for effectively collapsing forms into pattern groups is that the form spiraling yielded randomly equivalent groups. Figure 9–1 displays the raw score mean, a 3 standard error band, and the scramble pattern for each form by mode. Online is shown in light purple for both mean and sample size. The standard error bands we have plotted here are equivalent to approximately 99 percent confidence interval for the form means. When the error bands for a form overlapped the overall mean (the red line), the form means were not statistically different from the overall mean regardless of the type of scrambling. As can be seen, the spiraling essentially produced randomly equivalent groups. Please note that Form 1 is used for all accommodated administrations and as such appears different from the remaining forms in these plots.

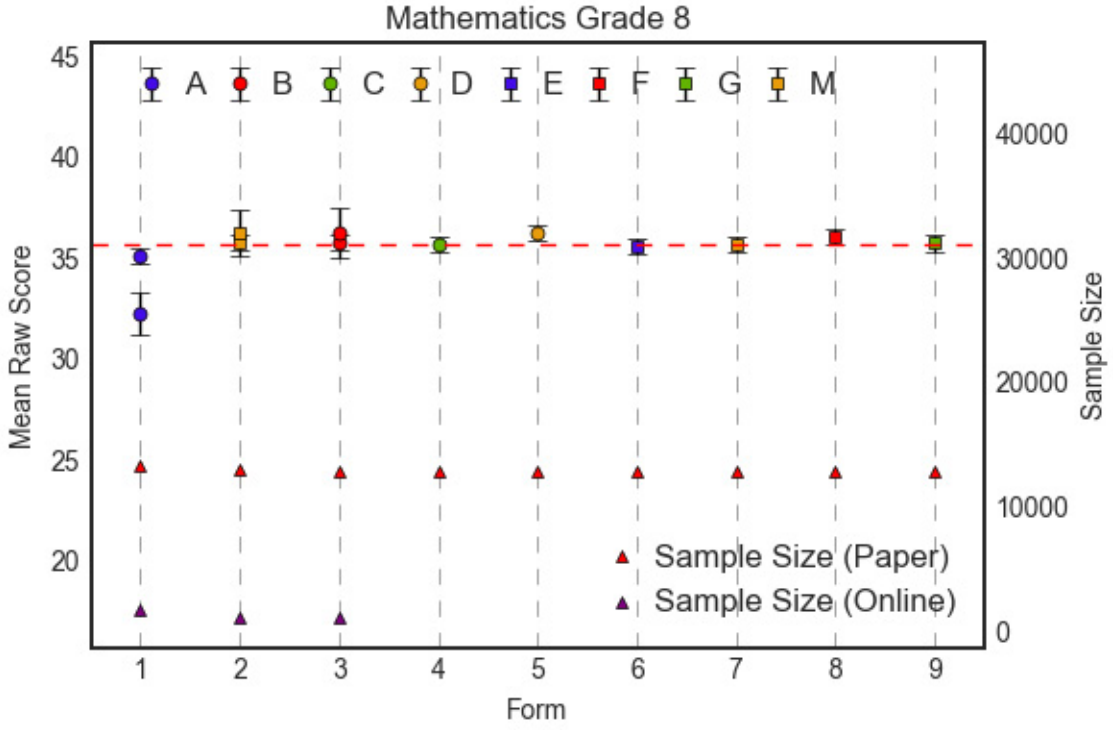
Figure 9–1. Form Mean Scores with +/- Three Standard Error (SE) Bands

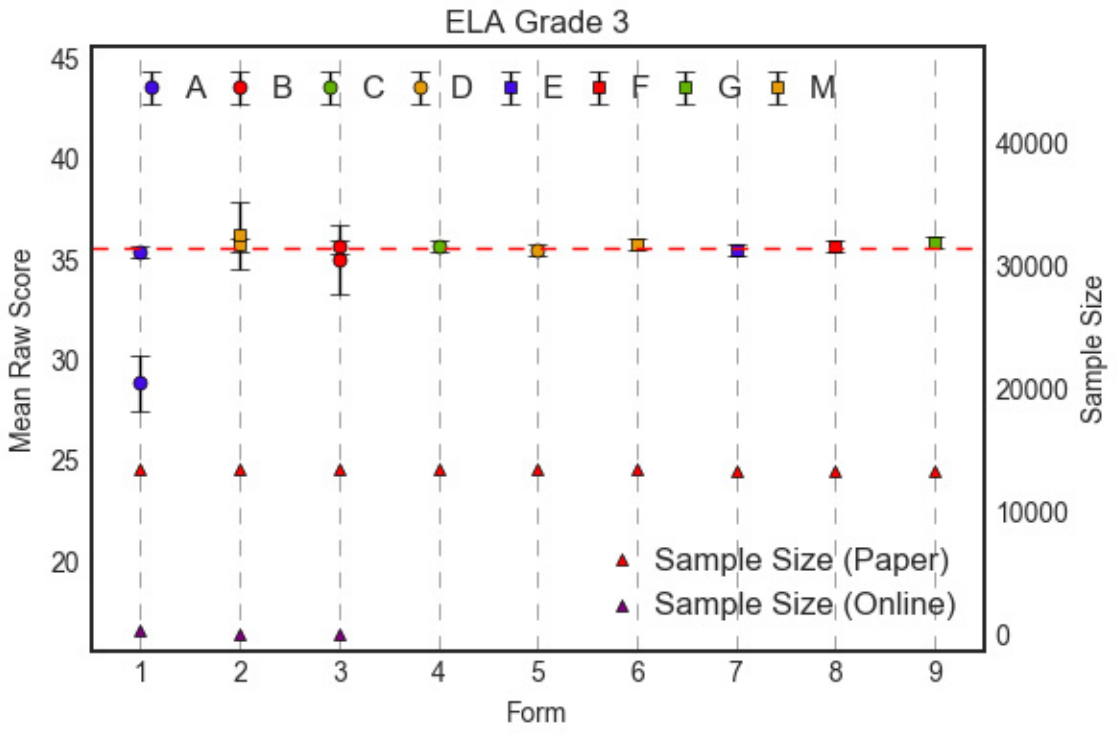


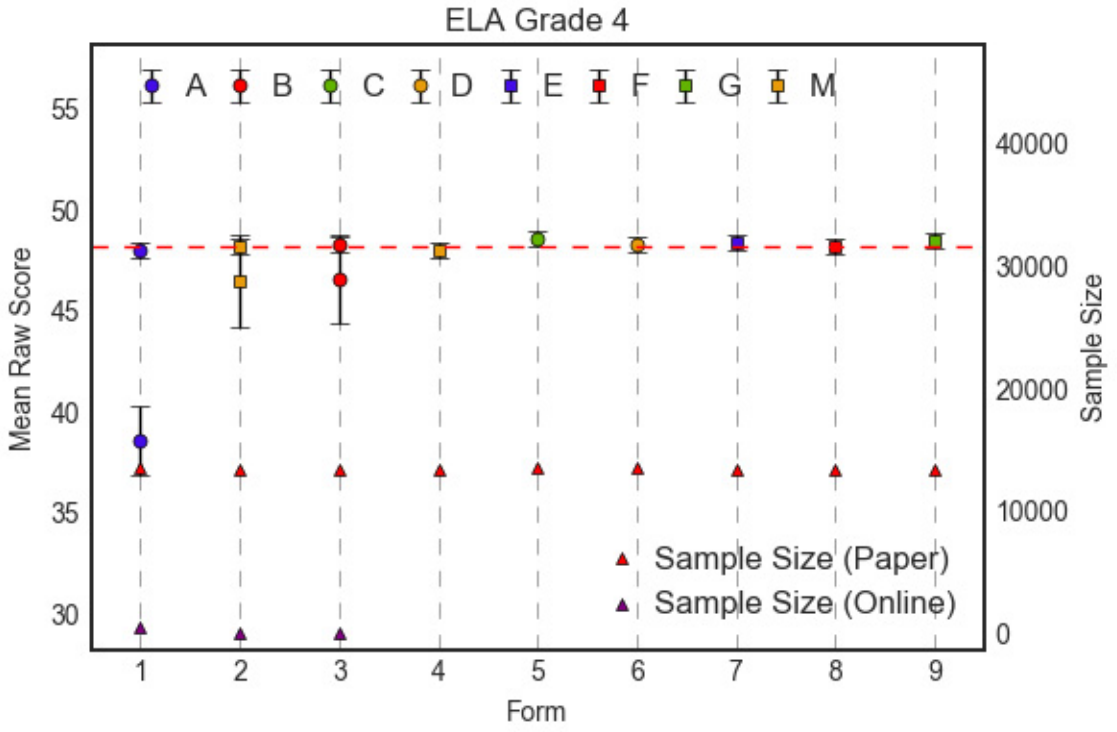

Mathematics Grade 5
A
B
C
D
E
F
G
M
Mean Raw Score
Sample Size
Form
Sample Size (Paper)
Sample Size (Online)

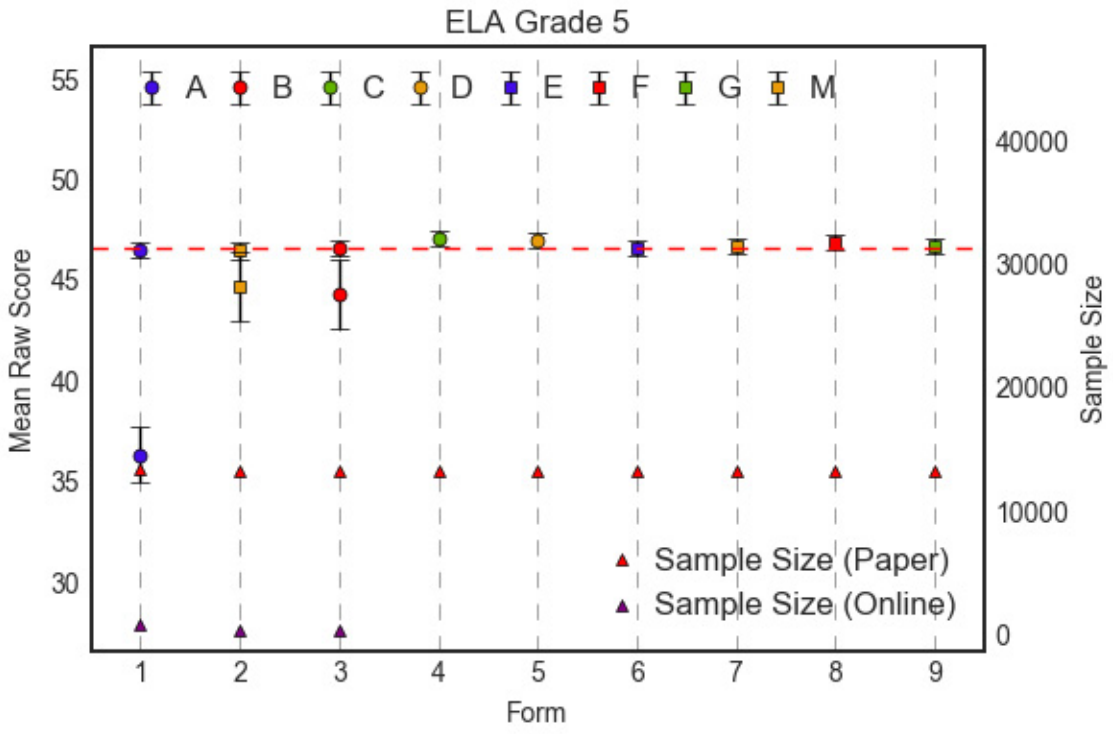

Mathematics Grade 6
A
B
C
D
E
F
G
M
Mean Raw Score
Sample Size
Form
Sample Size (Paper)
Sample Size (Online)

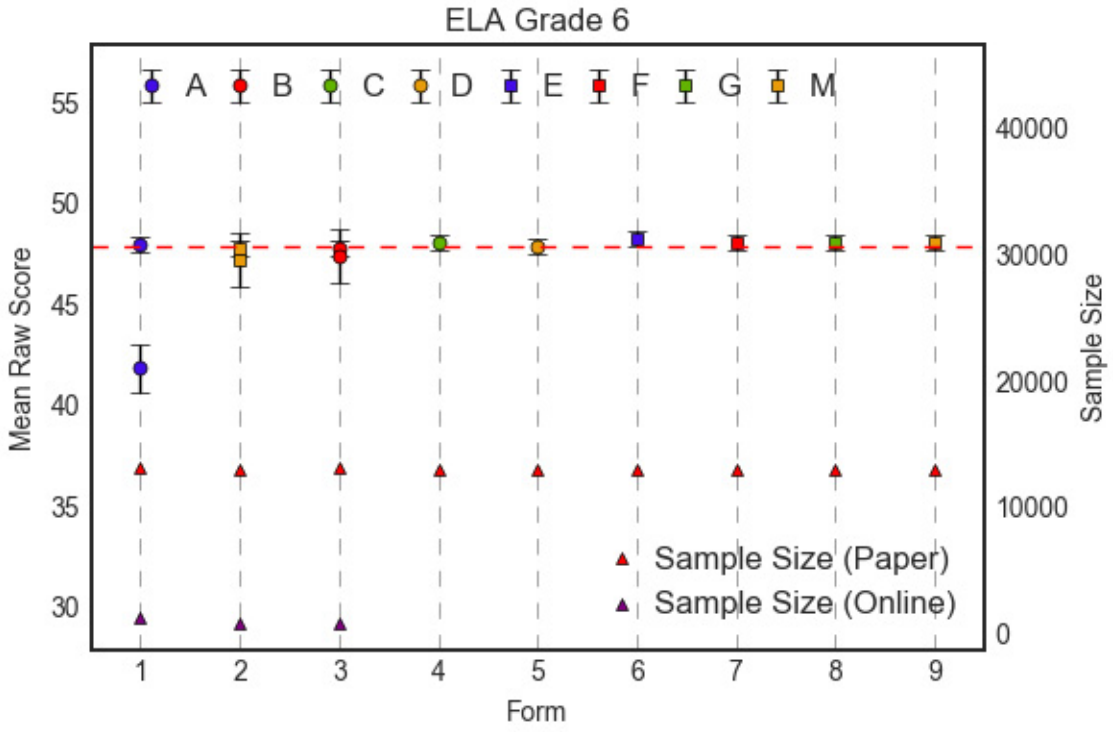

Mathematics Grade 7
A
B
C
D
E
F
G
M
Mean Raw Score
Sample Size
Form
Sample Size (Paper)
Sample Size (Online)

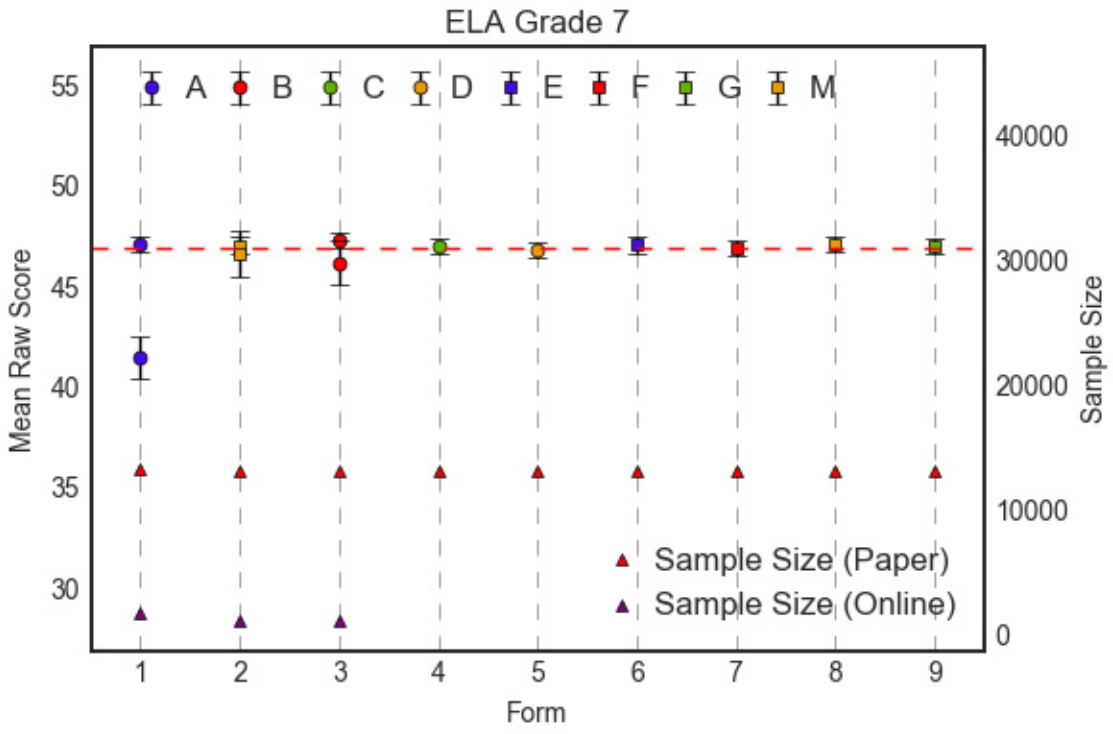

Mathematics Grade 8
A
B
C
D
E
F
G
M
Mean Raw Score
Sample Size
Form
Sample Size (Paper)
Sample Size (Online)

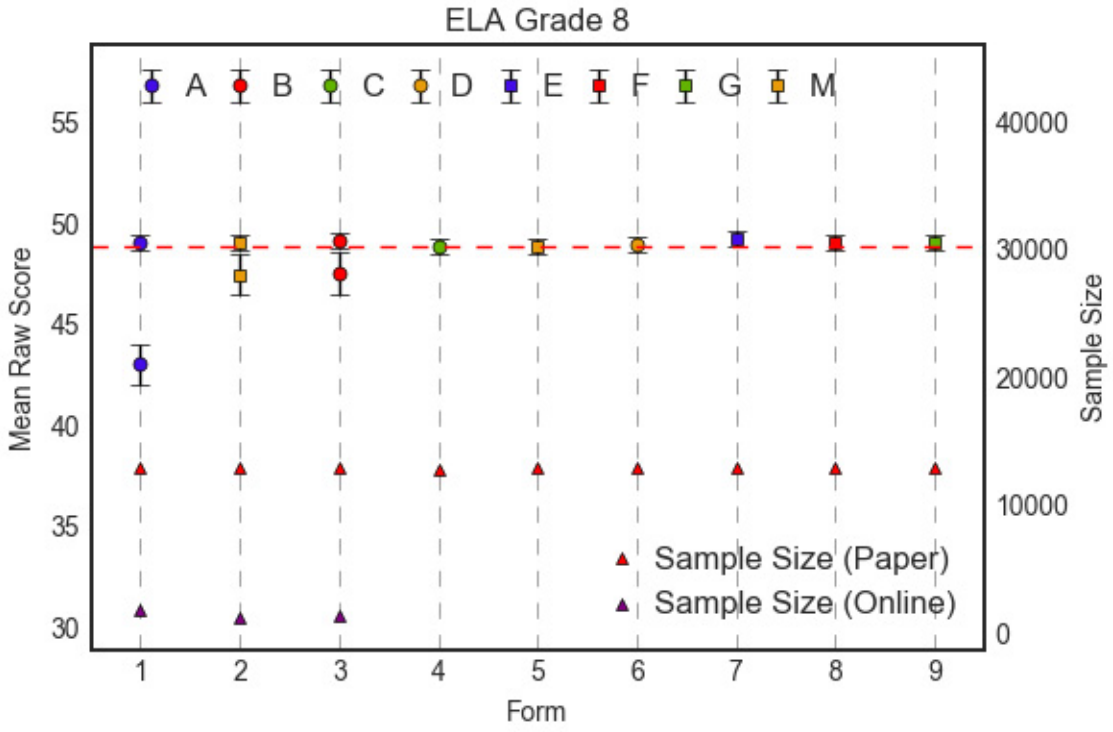

ELA Grade 3
A
B
C
D
E
F
G
M
Mean Raw Score
Sample Size
Form
Sample Size (Paper)
Sample Size (Online)

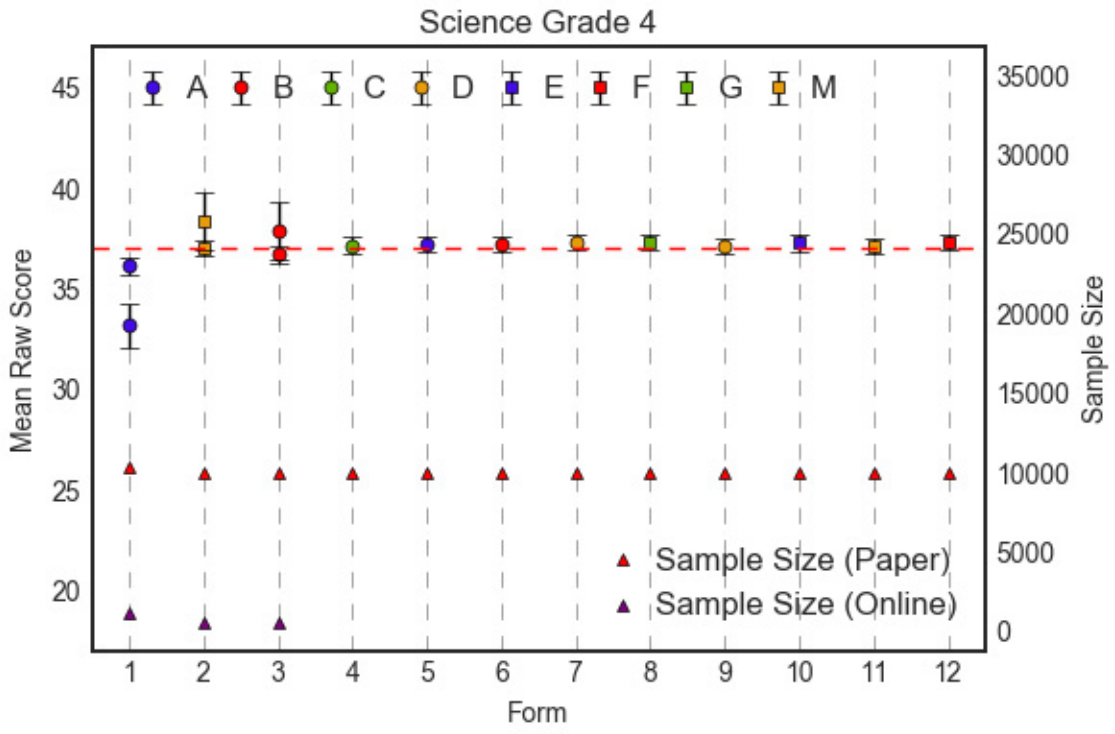

ELA Grade 4
A
B
C
D
E
F
G
M
Mean Raw Score
Sample Size
Form
Sample Size (Paper)
Sample Size (Online)


ELA Grade 5
A
B
C
D
E
F
G
M
Mean Raw Score
Sample Size
Form
Sample Size (Paper)
Sample Size (Online)


ELA Grade 6
A
B
C
D
E
F
G
M
Mean Raw Score
Sample Size
Form
Sample Size (Paper)
Sample Size (Online)


ELA Grade 7
A
B
C
D
E
F
G
M
Mean Raw Score
Sample Size
Form
Sample Size (Paper)
Sample Size (Online)


ELA Grade 8
A
B
C
D
E
F
G
M
Mean Raw Score
Sample Size
Form
Sample Size (Paper)
Sample Size (Online)


Science Grade 4
A
B
C
D
E
F
G
M
Mean Raw Score
Sample Size
Form
Sample Size (Paper)
Sample Size (Online)

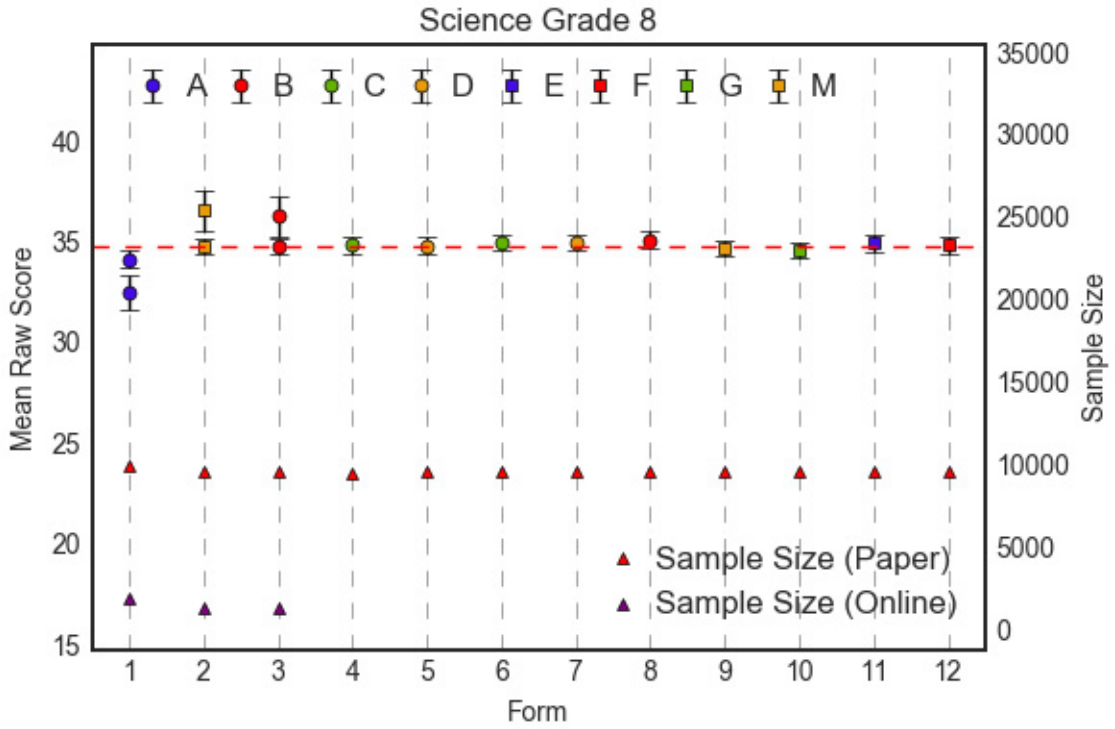

Science Grade 8
A
B
C
D
E
F
G
M
Mean Raw Score
Sample Size
Form
Sample Size (Paper)
Sample Size (Online)

Table 9–5 shows the number of students who took each form pattern (recall that pattern M is the Master Core version), and Table 9–6 gives the form to scramble pattern conversion.

Table 9–5. Form Pattern Counts

Content	Grade	A	B	C	D	E	F	G	M
Mathematics	3	14755	14101	13709	13686	13731	13693	13738	27792
Mathematics	4	14899	14132	13719	13761	13721	13776	13746	27821
Mathematics	5	15165	14155	13502	13456	13478	13508	13507	27634
Mathematics	6	15245	14168	13206	13305	13288	13224	13302	27374
Mathematics	7	15780	14661	13458	13399	13421	13416	13382	28067
Mathematics	8	15544	14471	13135	13098	13087	13077	13098	27761
ELA	3	14448	14111	13756	13716	13688	13688	13645	27871
ELA	4	14546	14128	13754	13812	13695	13740	13705	27820
ELA	5	14770	14055	13547	13535	13565	13517	13513	27681
ELA	6	14980	14344	13228	13249	13265	13284	13306	27514
ELA	7	15556	14808	13421	13425	13419	13422	13384	28309
ELA	8	15344	14732	13122	13142	13155	13170	13159	27829
Science	4	22162	21106	10195	20356	10190	10174	10184	21121
Science	8	12247	21029	19512	19568	9771	9742	9768	21079

Note. Final data was used

Table 9–6. Form to Pattern Conversion Table

Content	Grade	1	2	3	4	5	6	7	8	9	10	11	12
Mathematics	3	A*	M*	B*	C	M	D	E	F	G			
Mathematics	4	A*	M*	B*	C	D	E	F	G	M			
Mathematics	5	A*	M*	B*	C	D	M	E	F	G			
Mathematics	6	A*	M*	B*	C	D	E	F	M	G			
Mathematics	7	A*	M*	B*	C	M	D	E	F	G			
Mathematics	8	A*	M*	B*	C	D	E	M	F	G			
ELA	3	A*	M*	B*	C	D	M	E	F	G			
ELA	4	A*	M*	B*	M	C	D	E	F	G			
ELA	5	A*	M*	B*	C	D	E	M	F	G			
ELA	6	A*	M*	B*	C	D	E	F	G	M			
ELA	7	A*	M*	B*	C	D	E	F	M	G			
ELA	8	A*	M*	B*	C	M	D	E	F	G			
Science	4	A*	M*	B*	C	A	B	D	G	D	E	M	F
Science	8	A*	M*	B*	C	D	C	D	B	M	G	E	F

Note. * indicates the form was offered online

SCRAMBLING ANALYSIS

FORM LEVEL

The test-level and item-level effects of scrambling are presented in the following section. Table 9–7 shows the mean raw score difference from the Master Core for each scramble pattern (scramble pattern mean minus Master Core mean). The highlighted mean differences are statistically significant at family-wise Type I error rate (alpha) 0.01 with two-sample t-test. For example, with grade 3 math, seven two sample t-tests are conducted (Master Core vs. A, B, C, D, E, F, and G) and each test had Type I error rate (alpha) of 0.001428571 to keep the family-wise Type I error rate 0.01. Form 1, the form designated for use with accommodations was included in these analyses and as expected, a statistically significant difference was found wherever a pattern corresponds to Form 1. This difference, however, is likely attributable to the general pattern of lower item and test level scores for examinees using accommodations, and not to scrambling effects. Form 1 for all mathematics, ELA, and science grades followed pattern A. For science grade 4, form 5 followed pattern A as well.

Table 9–7 shows that, aside from results influenced by examinees receiving accommodations, 5 of 42, 3 of 42, and 0 of 14 scramble pattern raw score means showed a statistically significant difference from the Master Core in mathematics, ELA, and science, respectively.

Table 9–7. Mean Raw Score Differences From the Master Core

Content	Grade	A	B	C	D	E	F	G
Mathematics	3	-1.03	-0.03	-0.04	0.02	0.21	0.07	-0.38
Mathematics	4	-1.15	0.12	0.14	0.50	0.43	0.26	0.32
Mathematics	5	-1.41	0.00	-0.24	-0.16	-0.30	-0.18	-0.39
Mathematics	6	-1.28	-0.04	-0.19	-0.08	-0.36	-0.38	-0.28
Mathematics	7	-1.06	0.24	-0.06	0.01	0.15	0.37	0.18
Mathematics	8	-0.98	0.09	-0.06	0.49	-0.19	0.29	-0.01
ELA	3	-0.68	-0.15	-0.12	-0.28	-0.29	-0.10	0.09
ELA	4	-0.60	0.13	0.50	0.21	0.33	0.09	0.43
ELA	5	-0.80	-0.06	0.52	0.43	0.00	0.29	0.16
ELA	6	-0.50	-0.14	0.18	-0.03	0.42	0.16	0.19
ELA	7	-0.68	0.11	-0.06	-0.24	0.01	-0.14	-0.05
ELA	8	-0.64	0.10	0.02	0.07	0.37	0.22	0.18
Science	4	-0.69	-0.15	0.04	0.09	0.15	0.20	0.20
Science	8	-1.00	0.17	0.04	0.02	0.05	-0.03	-0.25

Note. Highlighted cells indicate the scramble patter is statistically significantly different from the Master Core form at family-wise α = 0.01 (corrected for 7 pairwise comparisons) for each subject and grade combination.

ITEM LEVEL

The item level scrambling was examined using differential item functioning (DIF) described in Chapter Five. The *Mantel-Haenszel* procedure (Mantel & Haenszel, 1959) for detecting differential item functioning is a commonly used technique for MC items in educational testing and contrasts a focal group with a reference group. With ELA, EBSR items were also scrambled. As with the MC items, DIF analysis was used for item level scrambling check for EBSR items. For EBSR items, a comparable statistic is computed based on the standardized mean difference (SMD) (Dorans, Schmitt, & Bleistein, 1992), which is computed as the differences in mean scores for the focal and reference groups if both groups had the same score distribution.

In this section, master core form is reference group and non-master core form was focal groups. The items are assigned a severity code based on the magnitude of the effect sizes. Items classified as A+ or A- have little or no statistical indication of DIF. Items classified as B+ or B- have some indication of DIF but may be judged to be acceptable for future use. Items classified as C+ or C- have strong evidence of DIF and should be reviewed. Table 9–8 shows the number of items with C DIF items. There were 4 items exhibiting C DIF across forms.

Table 9–8. The Number of Items with C DIF for Scrambling Effect

Content	Item Type	Grade	A	B	C	D	E	F	G
Mathematics	MC	3	-	0	0	0	0	0	0
Mathematics	MC	4	-	0	0	0	0	0	0
Mathematics	MC	5	-	0	0	0	0	0	0
Mathematics	MC	6	-	0	0	0	0	0	0
Mathematics	MC	7	-	0	0	0	0	0	0
Mathematics	MC	8	-	0	0	0	0	0	0
ELA	MC	3	-	0	0	0	0	0	0
ELA	MC	4	-	0	0	0	0	0	0
ELA	MC	5	-	0	0	0	0	0	0
ELA	MC	6	-	0	0	0	0	0	0
ELA	MC	7	-	1	0	0	1	1	0
ELA	MC	8	-	0	0	0	1	0	0
Science	MC	4	0	0	0	0	0	0	0
Science	MC	8	-	0	0	0	0	0	0

CHAPTER TEN: SUMMARY DEMOGRAPHIC, PROGRAM, AND ACCOMMODATION DATA FOR THE 2017 PSSA

ASSESSED STUDENTS

The PSSA assessed students include those from public schools who are required to participate as well as those from a small number of non-public schools (fewer than 500 students per grade level) that elected to participate. Also included were home-schooled students (fewer than 100 per grade) and a small number of foreign exchange students (generally fewer than 30 per grade through Grade 8). An exception was granted for those IEP students with quite significant cognitive impairments who met each of the following criteria, making them eligible to participate in the Pennsylvania Alternate System of Assessment (PASA) for mathematics, reading, and science: 1) was enrolled in the assessed grade level for the subject area, 2) had a very severe cognitive disability, 3) required very intensive instruction, 4) required very extensive adaptation and support to perform or participate meaningfully, 5) required very substantial modification of the general education curriculum, and 6) participated in the general education curriculum that differed markedly in form and substance from that of other students. (See the *2017 Pennsylvania System of School Assessment: Handbook for Assessment Coordinators*, p.8.)

Results for this chapter are presented in tables for the three PSSA subject areas (mathematics, ELA, and science). Accompanying each numbered table is a letter (M, E, or S) to designate the subject area. Mathematics results are indicated by "M," ELA results are indicated by "E," and science results are indicate by "S." Tables 10–1E through 10–1S provide a summary of the assessed students for each subject. The third line combines the number of paper and online tests that are processed. This number is typically less than the "Used Answer Booklets Received" 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) are removed from the initial batch of materials scanned. See Chapter Eight for more details on processing. Some processed booklets have student identifying information but will not receive a score. These results are presented within the 10-1 tables. Explanations for non-assessed students is provided later in this chapter.

Table 10–1E. Students Assessed on the 2017 PSSA: ELA

Description	Gr. 3	Gr. 4	Gr. 5	Gr. 6	Gr. 7	Gr. 8
Total number of PPT processed	128,431	128,825	126,909	124,655	126,215	124,831
Total number of CBT processed	1,566	1,650	2,352	3,733	5,081	5,514
Total number of tests processed	129,997	130,475	129,261	128,388	131,296	130,345
Total number of tests processed with a score	127,169	127,168	126,071	125,075	127,674	125,522
Total percent of tests processed with a score	97.8	97.5	97.5	97.4	97.2	96.3
Total number of tests processed without a score	2,828	3,307	3,190	3,313	3,622	4,823
Total percent of tests processed without a score	2.2	2.5	2.5	2.6	2.8	3.7
Students with an English Language Arts score used in state summaries	124,923	125,200	124,183	123,170	125,744	123,653

Note. PPT = Paper/Pencil Test
CBT = Computer-Based Test

Table 10–1M. Students Assessed on the 2017 PSSA: Mathematics

Description	Gr. 3	Gr. 4	Gr. 5	Gr. 6	Gr. 7	Gr. 8
Total number of PPT processed	128,591	129,011	126,580	124,922	126,684	125,328
Total number of CBT processed	1,592	1,675	2,820	3,549	4,694	5,033
Total number of tests processed	130,183	130,686	129,400	128,471	131,378	130,361
Total number of tests processed with a score	128,034	128,119	126,858	125,532	127,980	125,597
Total percent of tests processed with a score	98.3	98	98	97.7	97.4	96.3
Total number of tests processed without a score	2,149	2,567	2,542	2,939	3,398	4,764
Total percent of tests processed without a score	1.7	2	2	2.3	2.6	3.7
Students with a Mathematics score used in state summaries	125,205	125,575	124,405	123,112	125,584	123,271

Note. PPT = Paper/Pencil Test
CBT = Computer-Based Test

Table 10–1S. Students Assessed on the 2017 PSSA: Science

Description	Gr. 4	Gr. 8
Total number of PPT processed	127,643	124,747
Total number of CBT processed	2,940	5,289
Total number of tests processed	130,583	130,036
Total number of tests processed with a score	128,026	125,033
Total percent of tests processed with a score	98	96.2
Total number of tests processed without a score	2,557	5,003
Total percent of tests processed without a score	2	3.8
Students with a Science score used in state summaries	125,488	122,716

Note. PPT = Paper/Pencil Test
CBT = Computer-Based Test

NON-ASSESSED STUDENTS

As may be observed from Tables 10–1E through 10–1S, not all students were assessed. Although there are a variety of reasons for this, the major ones pertain to the following:

- Extended absence from school that continued beyond the assessment window
- Absence without make-up for at least one section of a subject-area test
- Failure to meet the attempt criteria on one or more subject-area test sections and no exclusion code was marked by school personnel. For mathematics, ELA, and science, the attempt criteria required a minimum of five items to be completed in each subject area section.
- ELL students in the first year in U.S. schools (ELA only)
- Medical emergency
- Other reasons (includes parental request, students who are court-agency placed, students with multiple reasons coded, and the category of other)

The numbers of students without test scores for these reasons are presented in Tables 10–2E through 10–2S.

Table 10–2E. Counts of Students without Scores on the 2017 PSSA: ELA

Reason for Non-Assessment	Gr. 3	Gr. 4	Gr. 5	Gr. 6	Gr. 7	Gr. 8
Extended absence from school (Number)	48	46	68	98	165	294
Extended absence from school (Percent)	1.7	1.4	2.1	3	4.6	6.1
Absent without make-up (Number)	27	24	23	41	71	100
Absent without make-up (Percent)	1	.7	.7	1.2	2	2.1
Non-attempt (Number)	626	872	632	519	632	649
Non-attempt (Percent)	22.1	26.4	19.8	15.7	17.4	13.5
ELL in first year in U.S. schools (Number)	381	356	339	302	277	267
ELL in first year in U.S. schools (Percent)	13.5	10.8	10.6	9.1	7.6	5.5
Medical emergency (Number)	86	134	137	205	273	374
Medical emergency (Percent)	3	4.1	4.3	6.2	7.5	7.8
Parental request - Chapter 4 (Number)	1,178	1,355	1,490	1,503	1,448	1,959
Parental request - Chapter 4 (Percent)	41.7	41	46.7	45.4	40	40.6
Parental request - Other reasons (Number)	358	416	406	486	561	922
Parental request - Other reasons (Percent)	12.7	12.6	12.7	14.7	15.5	19.1
Other reasons (Number)	124	104	95	159	195	258
Other reasons (Percent)	4.4	3.1	3	4.8	5.4	5.3
Total not assessed	2,828	3,307	3,190	3,313	3,622	4,823

Table 10–2M. Counts of Students without Scores on the 2017 PSSA: Mathematics

Reason for Non-Assessment	Gr. 3	Gr. 4	Gr. 5	Gr. 6	Gr. 7	Gr. 8
Extended absence from school (Number)	63	78	98	128	241	399
Extended absence from school (Percent)	2.9	3	3.9	4.4	7.1	8.4
Absent without make-up (Number)	30	25	25	46	88	122
Absent without make-up (Percent)	1.4	1	1	1.6	2.6	2.6
Non-attempt (Number)	329	373	285	327	473	494
Non-attempt (Percent)	15.3	14.5	11.2	11.1	13.9	10.4
Medical emergency (Number)	100	163	168	247	315	464
Medical emergency (Percent)	4.7	6.3	6.6	8.4	9.3	9.7
Parental request - Chapter 4 (Number)	1,178	1,389	1,458	1,500	1,454	2,040
Parental request - Chapter 4 (Percent)	54.8	54.1	57.4	51	42.8	42.8
Parental request - Other reasons (Number)	330	424	398	543	616	992
Parental request - Other reasons (Percent)	15.4	16.5	15.7	18.5	18.1	20.8
Other reasons (Number)	119	115	110	148	211	253
Other reasons (Percent)	5.5	4.5	4.3	5	6.2	5.3
Total not assessed	2,149	2,567	2,542	2,939	3,398	4,764

Table 10–2S. Counts of Students without Scores on the 2017 PSSA: Science

Reason for Non-Assessment	Gr. 4	Gr. 8
Extended absence from school (Number)	113	526
Extended absence from school (Percent)	4.4	10.5
Absent without make-up (Number)	29	127
Absent without make-up (Percent)	1.1	2.5
Non-attempt (Number)	304	544
Non-attempt (Percent)	11.9	10.9
Medical emergency (Number)	201	514
Medical emergency (Percent)	7.9	10.3
Parental request - Chapter 4 (Number)	1,375	2,041
Parental request - Chapter 4 (Percent)	53.8	40.8
Parental request - Other reasons (Number)	412	970
Parental request - Other reasons (Percent)	16.1	19.4
Other reasons (Number)	123	281
Other reasons (Percent)	4.8	5.6
Total not assessed	2,557	5,003

COMPOSITION OF SAMPLE USED IN SUBSEQUENT TABLES

Students included in the following demographic analyses were those who contributed to state summary statistics, using the final individual student data file provided to the Pennsylvania Department of Education in August, 2017. Students not included in the present state summary data were those who were 1) enrolled in a Pennsylvania school after October 1, 2016, 2) coded as ELL and enrolled after May 6, 2016, 3) foreign exchange students, 4) home schooled, 5) enrolled in a non-public school, or 6) without a subject-area test score.

Demographic data for students taking the PSSA is presented separately for each subject area in Appendix I. Results for accommodations received were collected separately by subject area and are presented in separate tables as well.

COLLECTION OF STUDENT DEMOGRAPHIC INFORMATION

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

PARTICIPATION BY ADMINISTRATION MODE

Online (CBT) testing was available for the PSSA. As anticipated the vast majority of students were assessed utilizing paper/pencil tests (PPT). The bottom row of the tables presented in Appendix I present the number of students involved in the PPT and CBT administrations as well as Table 9–2 in Chapter Nine. Overall, the percent of students responding by CBT was approximately one to three percent for mathematics and ELA, and science. There was an increase in the percent of students taking a CBT across grade levels. For mathematics and ELA the percent of CBT usage went from less than one percent to almost three percent from Grades 3 through 8. For science, CBT participation rate was 1.25 percent and 3.30 percent for grades 4 and 8, respectively.

DEMOGRAPHIC CHARACTERISTICS

Frequency data for each demographic category is presented in Appendix I. Percentages are based on students with scores in a subject area, which are shown at the bottom of the appropriate table. Included are students receiving education in a non-traditional setting, such as a court-agency placement.

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 to enable students to better manage disabilities that hinder their ability to learn and respond to assessments. An accommodations manual entitled, 2017 *Accommodations Guidelines: Keystone Exams and PSSA* guides the development and analysis of the PSSA. This manual may be found on the PDE website at www.education.pa.gov. A glossary of accommodation terms as applied to the PSSA is provided in Table 10–3 at the end of this chapter.

The frequency with which accommodations were utilized for PPT and CBT formats is summarized separately for each subject area in Appendix J. Tabled values are based on all students whose score contributed to state summary statistics in a given subject area. Because of the very small number of students utilizing CBT, combined with the fact that a number of accommodations are primarily accessed by only one of the two administration modes, meaningful comparisons with PPT are rather limited. In the tables an NA denotes those instances in which a particular accommodation does not apply to one of the testing modes.

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. The number of presentation accommodations provided in the 2017 PSSA varied by subject and testing mode and are presented in Appendix J.

As depicted in Appendix J, the actual frequencies were quite low, with all but the read-aloud accommodation being used by less than one percent of assessed students statewide. Among accommodations specific to CBT the use of audio was the most frequent. For CBT administration there were also four unique accommodations for mathematics and science and three for ELA. They include audio, color chooser, and contrasting text chooser for all content areas, plus video sign language for mathematics and science.

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. The number of response accommodations provided on the 2017 PSSA varied by subject and testing mode and are presented in Appendix J, which provides the frequency with which these accommodations were utilized, most of which are quite low. Very few response accommodations were coded as being utilized by students responding by CBT.

SETTING ACCOMMODATIONS RECEIVED

Setting Accommodations permit a change in location in which a student receives instruction or participates in an assessment. There were four categories of setting accommodations for mathematics, ELA, and science on the 2017 PSSA. As depicted in Appendix J, the most common accommodation across subject areas was small group setting. This was true for PPT and CBT modes of administration, although as a percentage of examinees within testing mode, higher percentages used a small group setting for CBT.

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 for mathematics, ELA, and science on the 2017 PSSA. As depicted in Appendix J, the most commonly used accommodation was extended time, followed by frequent breaks. One consistent finding for mathematics and ELA was that students responding by CBT had a slightly higher usage of frequent breaks across all six grade levels than observed for students taking a PPT. This was also true for the two grade levels assessed for science.

ACCOMMODATION RATE FOR NON-IEP AND IEP STUDENTS

A comparison between students without an IEP (non-IEP students) and those with an IEP (IEP students) with regard to having received an accommodation is provided in Appendix K. In this data, accommodated means that a student received one or more of the total number of accommodations available for a given subject area; however, this also varies with administration mode. The total number of available accommodations for students taking a PPT was as follows: mathematics and science, 31; and ELA, 27. The number of available accommodations for students taking a CBT was as follows: mathematics and science, 27; and ELA, 22. The category of non-accommodated indicates that a student did not receive any accommodation during testing.

The general pattern of findings reveals a consistent and substantially higher percentage of IEP students receiving an accommodation in contrast to non-IEP students. This same pattern holds true regardless of test administration mode and PSSA test.

THE INCIDENCE OF ACCOMMODATIONS AND IEP AND ELL STATUS

As noted in Appendix L, students with an IEP received an accommodation of some type far more often than non-IEP students, with the exception of the extended time accommodation. As the PSSA is designed as having no time limit, any student may opt for extended time. Certain accommodations with very low frequencies are specific to particular disabilities while others, such as extended time are far more common and may also apply to any student. Accommodations having the largest frequencies can potentially supply the most stable data when separated out for subgroup analysis. Listed below are the most commonly used accommodations, which were chosen for display.

- Some test items/questions read aloud (mathematics, science)
- All test items/questions read aloud (mathematics, science)
- Small group setting (mathematics, ELA, science)
- Extended time (mathematics, ELA, science)
- Frequent breaks (mathematics, ELA, science)
- Some language questions/writing prompts/text-dependent analysis questions read aloud (ELA)
- All language questions/writing prompts/text-dependent analysis questions read aloud (ELA)

Coding for IEP is dichotomous, as students are classified IEP and non-IEP. For purposes of this analysis, an English Language Learner (ELL) is a student classified ELL and enrolled in a U.S. school on or before May 6, 2016. All other assessed students, including those who have exited an ESL/bilingual program and are in the first or second year of monitoring, are regarded as non-ELL. Students coded as ELL and enrolled in a U.S. school after May 6, 2016, are excluded from state summary statistics as stated earlier in this chapter.

Customarily, a considerably larger percentage of IEP students receive a given accommodation than non-IEP students. Although less frequent, certain accommodations also have a high frequency rate for ELL students. To separate out the effect of being classified IEP or ELL, four possible combinations are presented in the Appendix L. These include general education students who are neither IEP nor ELL, students who are IEP but non-ELL, students who are ELL but non-IEP, and students who are both IEP and ELL. The bottom row for each grade provides the total number of assessed students in each of the four classifications.

GLOSSARY OF ACCOMMODATION TERMS

Table 10–3 provides a brief description of accommodation terms as used in the PSSA. Accommodation data was supplied by school personnel as noted in the left column of the table. The right column contains an explanation derived from the PDE publication, 2017 *Accommodations Guidelines: Keystone Exams and PSSA*. This manual may be found on the PDE website at www.education.pa.gov.

Table 10–3. Glossary of Accommodation Terms as Applied in the 2017 PSSA

Type of Testing Accommodation	Explanation
Student used the following Presentation Accommodations	
Braille format	Students may use a Braille format 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 format. 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.
Color overlay	Students with visual impairments may place a color overlay on a printed page of the test document to make text more readable.
Computer assistive technology (e.g., electronic screen reader) (PDE approval required)	Students with severe visual disabilities that prevent them from accessing instructional material or performing the skill may use computer assistive technology; however, PDE must approve the program and functions prior to the test window.
Test items/questions/prompt/ text-dependent analysis signed	Deaf/hearing impaired students may receive test directions from a qualified interpreter. Signing is also permitted for PSSA ELA writing section multiple choice items, essay prompts, and text-dependent analysis questions and all items in PSSA mathematics and science and for Keystone Algebra and Biology.
Test items/questions/prompt/ text-dependent analysis interpreted for ELL	A qualified interpreter may translate directions or clarify instructions for the assessments. The interpreter may translate but not define specific words or test questions on the PSSA mathematics, science, ELA writing section multiple choice items, essay prompts, and text-dependent analysis questions and Keystone Algebra and Biology exams.
Some or all test items/questions/prompt/ text-dependent analysis read aloud	Students unable to decode text visually may have items/questions read aloud for PSSA ELA writing section multiple choice items, essay prompts, and text-dependent analysis questions and all items in PSSA mathematics and science and for Keystone Algebra and Biology; however, words may not be defined.
Amplification device	In addition to using hearing aids, an amplification device to enhance clarity may be required.
Other (PDE approval required)	Other presentation accommodations indicated in the *Accommodation Guidelines* may be provided; however, PDE approval is required prior to the test window.
Spanish version for PSSA (Math and Science) and Keystone (Algebra and Biology)	Students whose first language is Spanish and who have been enrolled in U.S. schools for fewer than three years may take this version.

Table 10–3 (continued). Glossary of Accommodation Terms as Applied in the 2017 PSSA

Type of Testing Accommodation	Explanation
Student used the following Online Presentation Accommodations	
Audio	The online test form reads permissible test directions and items for a student unable to decode text. The accommodation must be marked within the test engine system. The accommodation is available on PSSA mathematics, science, ELA writing section multiple choice items, essay prompts, and text-dependent analysis questions and Keystone Algebra and Biology exams.
Video sign language (per accommodations guidelines)	Eligible students who use a sign language accommodation during instructional periods may use VSL on the PSSA mathematics and science and Keystone Algebra and Biology assessments.
Color chooser or contrasting text chooser	The use of this accommodation enables a visually impaired student to change the background color or text color to make text more readable.
Refreshable Braille	This accommodation allows students to use a screen reader to produce a Braille translation output.
Student used the following Response Accommodations	
Brailler/Note taker (per *Accommodations Guidelines*)	Students using this device as part of their regular instructional program may use it on the assessments; however, without thesaurus, spelling, or grammar checker.
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 test booklet. This includes MC and OE responses Keystone Algebra, Biology, and Literature tests and PSSA mathematics, ELA, and science.
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 an MC answer with the test administrator marking the response in the answer booklet).
Test administrator transcribed student responses (per **Accommodations Guidelines**)	A test administrator may transcribe (copy) a student's written, typed, or keyed response into a standard answer booklet.
Qualified Interpreter translated, transcribed, and/or scribed student's **signed** responses	A qualified interpreter may interpret a student's **signed** responses into written English for Keystone Algebra and Biology exams, and PSSA mathematics and science assessments. Interpreters are not permitted to make corrections or change the meaning of the response.
Qualified Interpreter translated, transcribed, and/or scribed ELL student responses	A qualified interpreter may interpret a student's non-English oral responses into written English for Keystone Algebra and Biology exams, and PSSA mathematics and science assessments. Interpreters are not permitted to make corrections or change the meaning of the response.
Mixed-mode test administration	Examinee taking the PSSA in computer-based mode provides handwritten responses to constructed response items in paper answer booklet.

Table 10–3 (continued). Glossary of Accommodation Terms as Applied in the 2017 PSSA

Type of Testing Accommodation	Explanation
Augmentative communication device	Students with severe communication difficulties may use a special device to convey responses, which must be transcribed into the answer booklet by the test administrator.
Keyboard, word processor, or computer (per *Accommodations Guidelines*)	This is an allowable accommodation as a typing function only for students with the 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.
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 Keystone Algebra and Biology exams, and PSSA mathematics and science tests.
Computer assistive technology e.g., electronic screen reader) (PDE approval required)	Students with blindness or extremely low vision may use dictate text into a computer. Responses must be transcribed verbatim into student's regular answer booklet.
Other (per *Accommodations Guidelines* 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.
Student used the following Setting Accommodations	
Hospital/home testing	A student who is confined to a hospital or to home during the testing window may be tested in that environment.
One-on-one setting	One-on-one settings are necessitated in certain instances, such as to reduce distraction or in the use of certain devices. A separate room may be used to reduce distraction.
Small group setting	Some students may require a test setting with fewer students or a setting apart from all other students to minimize distraction.
Other (per *Accommodations Guidelines* 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 10–3 (continued). Glossary of Accommodation Terms as Applied in the 2017 PSSA

Type of Testing Accommodation	Explanation
Student used the following Timing Accommodations	
Extended time	Extended time may be allotted for each section of the test as a planned accommodation to enable students to finish.
Frequent breaks	Frequent breaks (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 that enables test completion.
Other (per *Accommodations Guidelines* 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.

CHAPTER ELEVEN: CLASSICAL ITEM STATISTICS

This chapter provides an overview of the two most familiar item-level statistics obtained from any classical (traditional) item analysis: item difficulty and item discrimination. The following results pertain only to operational PSSA items (i.e., those items that contributed to a student's total test score). Rasch item statistics are discussed in Chapter Twelve, and test-level statistics are found in Chapter Seventeen.

ITEM-LEVEL STATISTICS

Appendix F provides classical item statistics for all PSSA items. Results are organized by subject and grade. These statistics represent the item characteristics most often used to determine whether an item functioned properly and/or how a group of students performed on a particular item. The item statistics in the appendices include *p*-values for multiple-choice (MC) items and item means for open-ended (OE)[1] items (indicators of item difficulty); point-biserial correlations for MC items and item-test correlations for OE items (indicators of item discrimination); and the proportion of students selecting each MC item option or earning each OE item score point.

ITEM DIFFICULTY

At the most general level, an item's difficulty is indicated by its mean score in some specified group (e.g., grade level).

$$\bar{x} = \frac{1}{n} \cdot \sum_{i=1}^{n} x_i$$

In the mean score formula above, the individual item scores (*x*i) are summed and then divided by the total number of students (*n*). For multiple-choice items, student scores are represented by 0s and 1s (0 = wrong, 1 = right). With 0–1 scoring, the equation above also represents the number of students correctly answering the item divided by the total number of students. Therefore, this is also the proportion correct for the item, or the *p*-value. In theory, *p*-values can range from 0.00[2] to 1.00 on the proportion-correct scale. For example, if an item has a *p*-value of 0.89, it means 89 percent of the students answered the item correctly. Additionally, this value might also suggest that the item was relatively easy and/or the students who attempted the item were relatively high achievers. In other words, item difficulty and student ability are somewhat confounded.

For OE items, mean scores can range from the minimum possible score (usually zero) to the maximum possible score (e.g., four points in the case of some mathematics, ELA, and science items). Sometimes a pseudo *p*-value is provided for an OE item. This is done by dividing the mean item score by the maximum possible item score.

The minimum and maximum extremes of the difficulty scale are typically not seen in applied practice. However, understanding the extremes helps illustrate that relatively lower values correspond to more difficult items, and that relatively higher values correspond to easier items. (As a result of this, some assert that this index would be more accurately referred to as the item's easiness.)

Item difficulty is an important consideration for the PSSA tests because of the ranging achievement levels of students in Pennsylvania (Below Basic, Basic, Proficient, and Advanced). Items that are either very hard or very easy provide little information about student differences in achievement. However, an item answered correctly by a high percentage of students would suggest that the knowledge or skill the item taps has been mastered by most students. Conversely, an item answered incorrectly by a low percentage of students would suggest few students have mastered the knowledge or skill the item taps. On a standards-referenced test like the PSSAs, a test development goal is to include a wide range of item difficulties.

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[1] OE items for ELA include Short Answer (SA), Evidence Based Selected Response (EBSR), Text Dependent Analysis (TDA), and Writing Prompt (WP) in this chapter.

[2] For MC items with four response options, pure random guessing would lead to an expected p-value of 0.25.

ITEM DISCRIMINATION

At the most general level, item discrimination[3] indicates an item's ability to differentiate between high and low achievers. It is expected that students with high ability (i.e., those who perform well on the PSSA overall) would be more likely to answer any given PSSA item correctly, while students with low ability (i.e., those who perform poorly on the PSSA overall) would be more likely to answer the same item incorrectly. For the PSSA tests, Pearson's product-moment correlation coefficient between item scores and test scores is used to indicate discrimination. (As commonly practiced, DRC removes the item score from the total score such that the resulting correlations will not be spuriously high.) The correlation coefficient can range from -1.0 to +1.0. If the aforementioned expectation is met (high-scoring students tend to get the item right while low-scoring students do not), the correlation between the item score and the total test score will be both positive and noticeably large in its magnitude (i.e., well above zero), meaning the item is a good discriminator between high and low ability students. This should be the case for all PSSA operational test items.

In summary, the correlation will be positive in value when the mean test score of the students answering the item correctly is higher than the mean test score of the students answering the item incorrectly.[4] In other words, this indicates that students who did well on the total test tended to do well on the item as well. However, an interaction can exist between item discrimination and item difficulty. Items answered correctly (or incorrectly) by a large proportion of examinees (i.e., the items have extreme *p*-values) can have reduced power to discriminate, and thus, can have lower correlations.

Discrimination is an important consideration for the PSSA because the use of more discriminating items on a test is associated with more reliable test scores. This in turn means that score estimates will be more precise (i.e., there will be smaller confidence intervals around the scores) and, perhaps more importantly, that more accurate performance level placements will be made. The issues of reliability, confidence intervals, and performance level classifications are further discussed in Chapter Eighteen.

DISCRIMINATION ON DIFFICULTY SCATTERPLOTS

Figure 11–1 contains a series of scatterplots showing item discrimination values (item-total correlation, *y*-axis) on the item difficulty (p-value, *x*-axis) for each grade and subject area test. Note that pseudo *p*-values (described above) are used for OE items in these plots. These plots provide maximum information about item discrimination and difficulty in a single visual image for each PSSA test. This is because the *x*- and *y*-axes also show histogram with following descriptive statistics:

- Minimum and maximum values
- Mean scores
- Median scores
- First and third quantile (Q1 and Q3).

The bivariate relationship between item discrimination (item-test *correlations*) and difficulty (item *mean* scores) is also presented through scatterplots in these figures. One does not usually expect any type of trend here. However, as noted earlier, it is often the case that items with extreme difficulties can have lower discrimination values, as this can be revealed in such plots.

[3] As noted earlier, the discrimination index for PSSA dichotomous MC items is typically referred to as the point-biserial correlation coefficient. For OE items, the term item-test correlation is sometimes used.

[4] It is legitimate to view the point-biserial correlation as a standardized mean difference. A positive value indicates students who chose that response had a higher mean score than the average student; a negative value indicates students who chose that response had a lower than average mean score.

OBSERVATIONS AND INTERPRETATIONS

To support the visuals, Table 11–1 provides break-out results for the MC and OE items. The mean *p*-values for the MC items ranged from about 0.54 to 0.62 for Mathematics and from 0.58 to 0.61 for ELA. Science MC items' *p*-values were 0.54 for grade 4 and 0.53 for grade 8. As test difficulties were intentionally increased during the construction of the 2017 tests to coincide with student performance, all mean MC *p*-values were slightly higher than the prior year. OE items' *p*-values ranged from 0.25 to 0.45 in mathematics, 0.52 to 0.63 in ELA, and were 0.62 and 0.41 for grades 4 and 8 respectively. These means also show slight increases in difficulty from 2016 to 2017 that reflect test construction that was designed to adjust test difficulty to better align with demonstrated examinee performance.

The mean item-test correlations ranged from roughly 0.37 to 0.46 and 0.47 to 0.70 for the MC and OE items, respectively. These were similar to historic trends. The OE correlations tended to be higher than the MC correlations, which is not surprising because the OE items include more score points. Based on the distribution of the discrimination (correlation) statistics, the overall item quality was quite good.

It is difficult to make global conclusions about overall test quality from these item statistics alone. With that caveat in mind, the results presented in this chapter indicate that the PSSA item difficulty and discrimination were in expected and acceptable ranges, and further evidence of the quality of the internal test structure is provided in the chapters that follow.

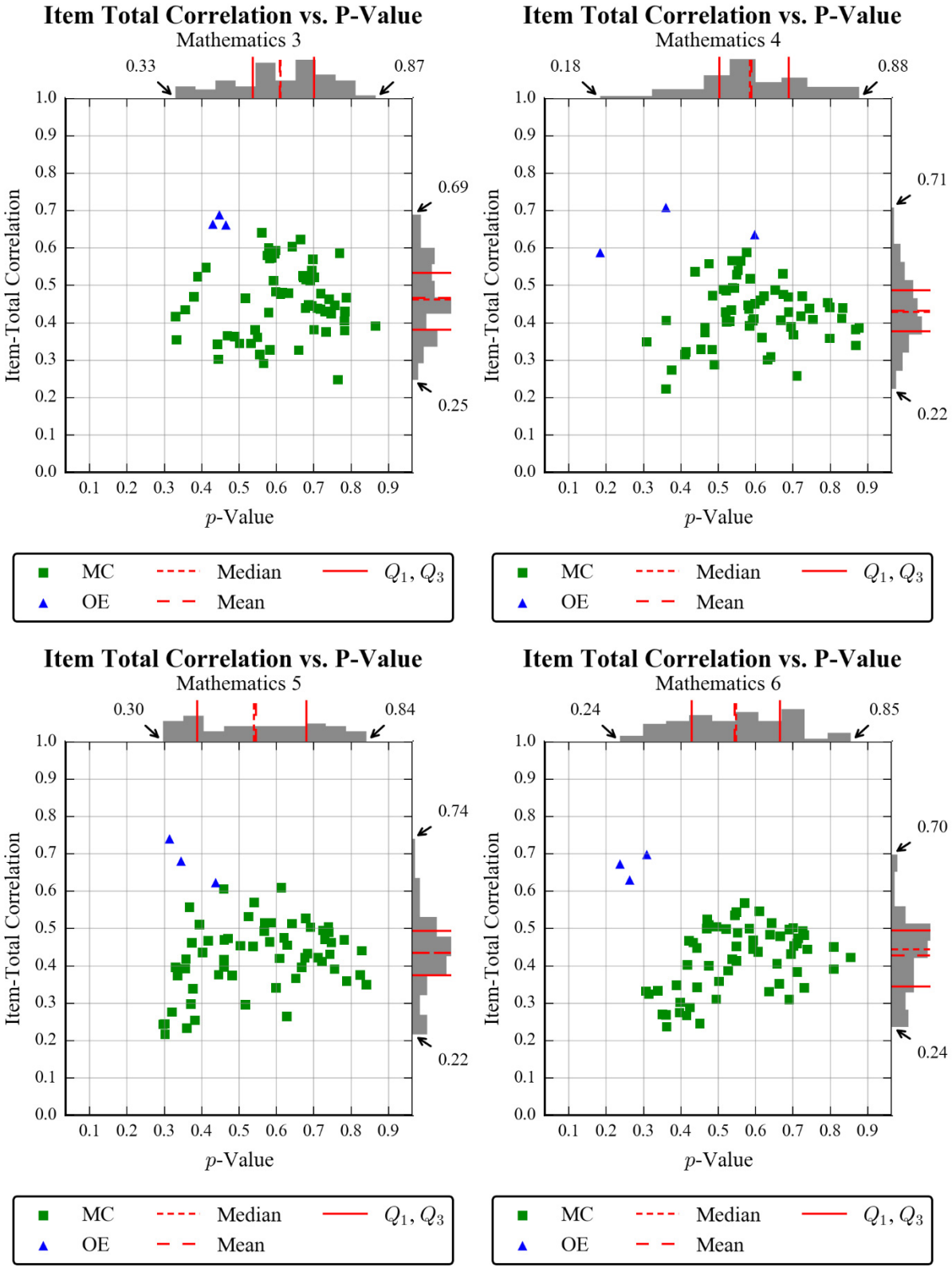
Figure 11–1 displays scatter plots for each content area and grade and displaying each item plotted by its p-value on the *x*-axis and its item-total correlation on the *y*-axis. Green squares indication MC items and blue triangles indicate OE items. From the difficulty distributions illustrated in Figure 11–1, a wide range of item difficulties appeared on each exam, which was one test development goal.

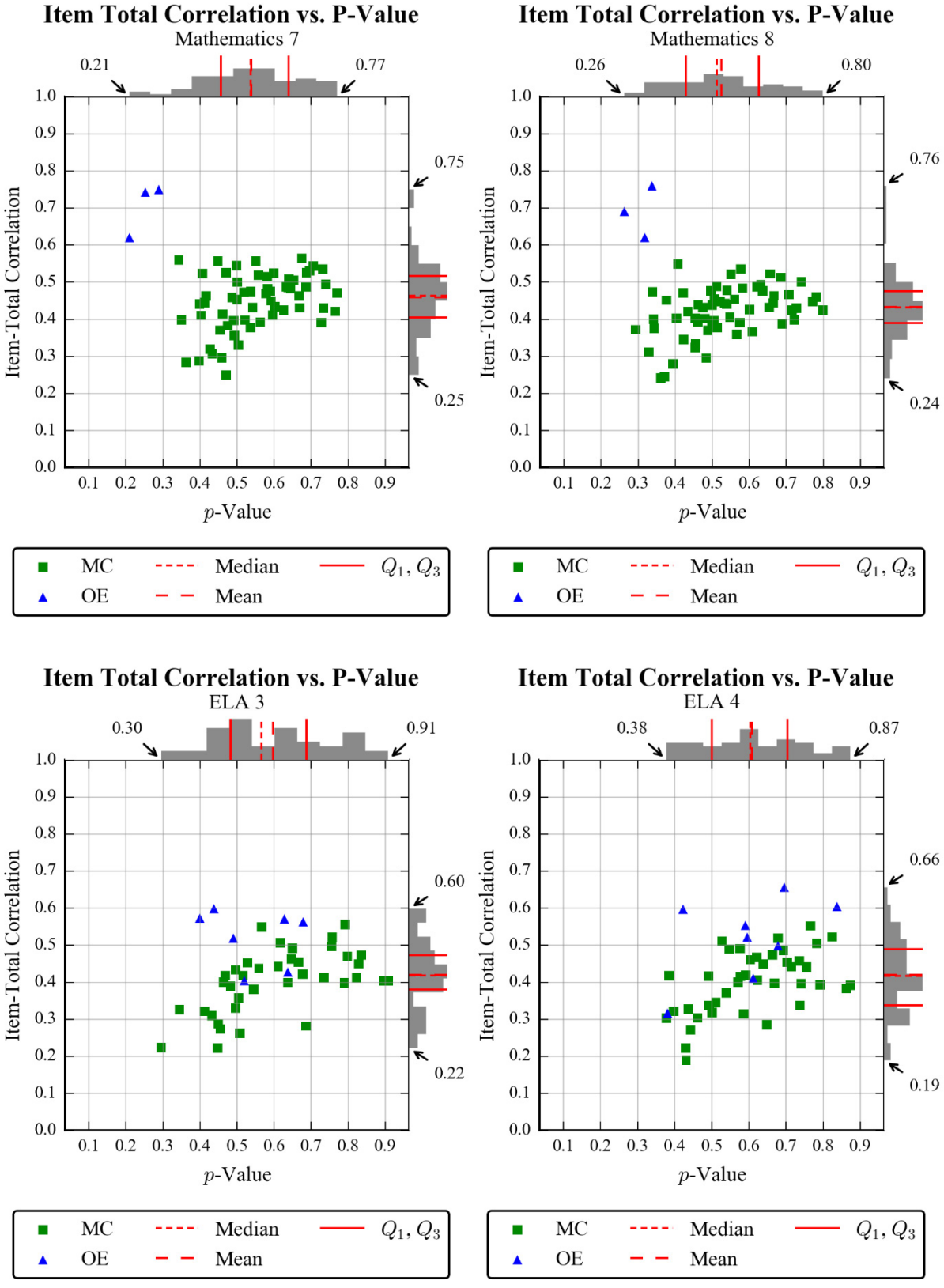
Table 11–1. Sum and Mean Statistics for MC and OE Items

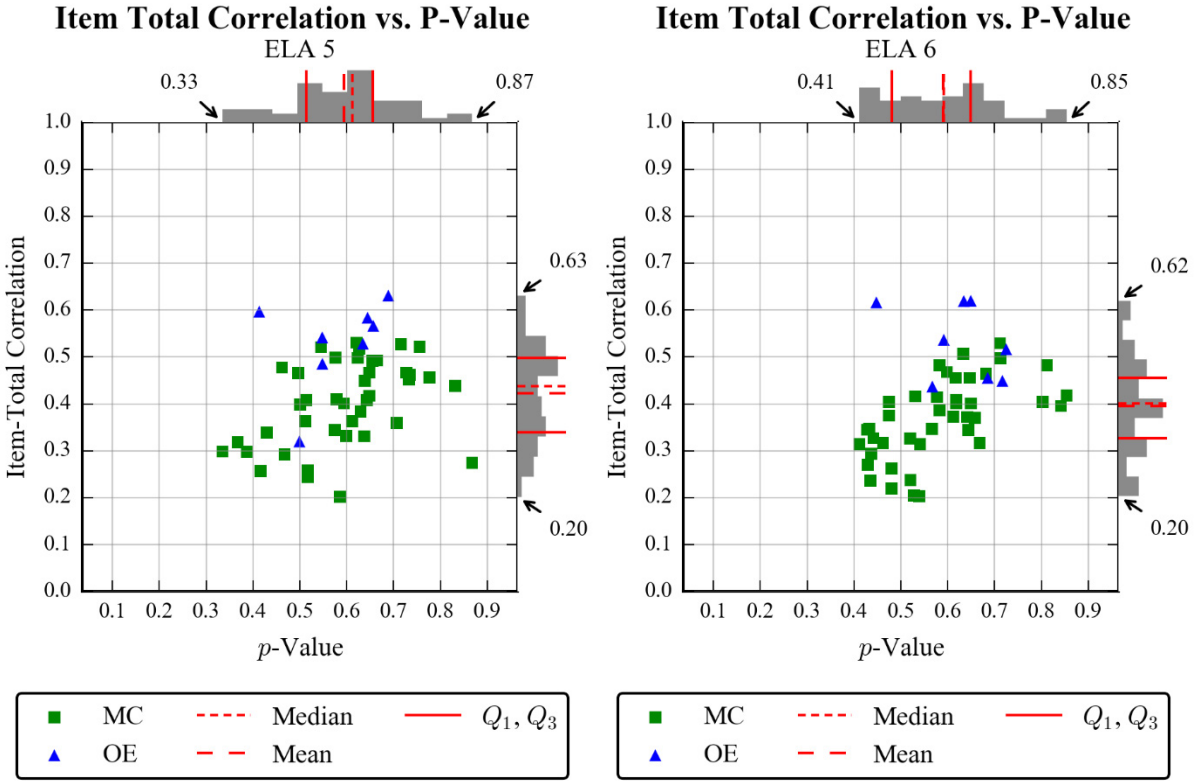
Subject	Grade	MC Points	MC Sum	MC Mean *P*-val.	MC Mean I-T Corr.	OE Points	OE Sum	OE Mean *P*-Val.	OE Mean I-T Corr.
Mathematics	3	60	37.02	0.62	0.46	12	5.37	0.45	0.67
Mathematics	4	60	35.99	0.60	0.42	12	4.56	0.38	0.64
Mathematics	5	60	33.27	0.55	0.42	12	4.38	0.37	0.68
Mathematics	6	60	33.45	0.56	0.42	12	3.23	0.27	0.67
Mathematics	7	60	33.19	0.55	0.45	12	3.00	0.25	0.70
Mathematics	8	60	32.15	0.54	0.42	12	3.67	0.31	0.69
ELA	3	38	23.07	0.61	0.40	20	10.70	0.54	0.52
ELA	4	41	24.99	0.61	0.40	23	13.61	0.60	0.52
ELA	5	41	24.47	0.60	0.40	23	13.01	0.58	0.53
ELA	6	41	23.89	0.58	0.37	23	14.08	0.63	0.53
ELA	7	41	25.21	0.61	0.40	23	12.20	0.52	0.52
ELA	8	41	25.20	0.61	0.37	23	13.21	0.58	0.50
Science	4	58	31.04	0.54	0.37	10	6.16	0.62	0.47
Science	8	58	30.72	0.53	0.37	10	4.14	0.41	0.48

Note. I-T Corr. is the item-test score correlation. OE items for ELA include SA, EBSR, TDA, and WP items.

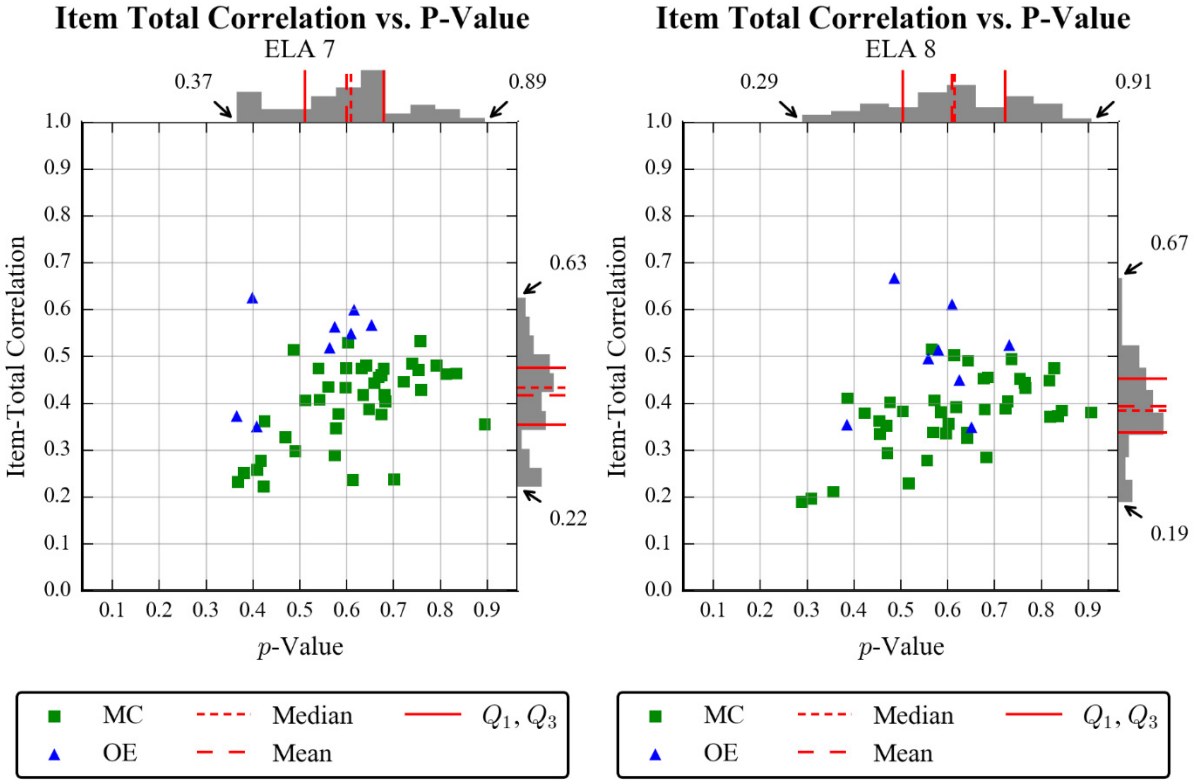
Figure 11–1. Discrimination on Difficulty Scatterplots



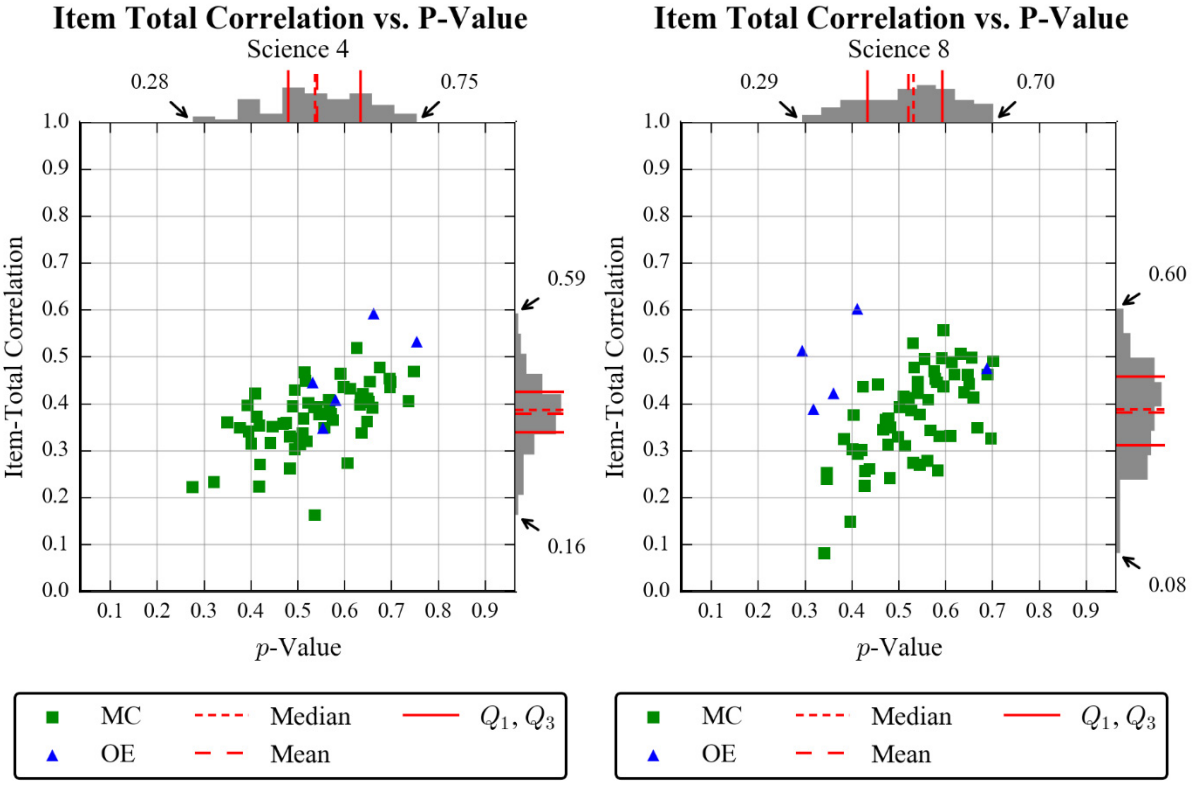

Item Total Correlation vs. P-Value
Mathematics 7
0.21
0.77
0.75
0.25
Item-Total Correlation
p-Value
MC
OE
Median
Mean
Q_1, Q_3
Item Total Correlation vs. P-Value
Mathematics 8
0.26
0.80
0.76
0.24
Item-Total Correlation
p-Value
MC
OE
Median
Mean
Q_1, Q_3
Item Total Correlation vs. P-Value
ELA 3
0.30
0.91
0.60
0.22
Item-Total Correlation
p-Value
MC
OE
Median
Mean
Q_1, Q_3
Item Total Correlation vs. P-Value
ELA 4
0.38
0.87
0.66
0.19
Item-Total Correlation
p-Value
MC
OE
Median
Mean
Q_1, Q_3


Item Total Correlation vs. P-Value
ELA 5
0.33
0.87
0.63
0.20
Item-Total Correlation
p-Value
MC
OE
Median
Mean
Q_1, Q_3

Item Total Correlation vs. P-Value
ELA 6
0.41
0.85
0.62
0.20
Item-Total Correlation
p-Value
MC
OE
Median
Mean
Q_1, Q_3


Item Total Correlation vs. P-Value
ELA 7
0.37
0.89
0.63
0.22
Item-Total Correlation
p-Value
MC
OE
Median
Mean
Q_1, Q_3

Item Total Correlation vs. P-Value
ELA 8
0.29
0.91
0.67
0.19
Item-Total Correlation
p-Value
MC
OE
Median
Mean
Q_1, Q_3


Item Total Correlation vs. P-Value
Science 4
0.28
0.75
0.59
0.16
Item-Total Correlation
p-Value
MC
OE
Median
Mean
Q_1, Q_3
Item Total Correlation vs. P-Value
Science 8
0.29
0.70
0.60
0.08
Item-Total Correlation
p-Value
MC
OE
Median
Mean
Q_1, Q_3

CHAPTER TWELVE: RASCH ITEM CALIBRATION

The item response theory (IRT) model used for the PSSA is based on the work of Georg Rasch. Rasch models have had a long-standing presence in applied testing programs and it has been the methodology continually used to calibrate PSSA items in recent history. IRT has several advantages over classical test theory, so it has become the standard procedure for analyzing item response data in large-scale assessments. However, IRT models make a number of strong assumptions related to dimensionality, local independence, model-data fit, and item parameter invariance. Resulting inferences derived from any application of IRT rests strongly on the degree to which the underlying assumptions are met.

This chapter outlines the procedures used for calibrating the operational PSSA items. Generally, item calibration is the process of assigning a difficulty-parameter estimate to each item on an assessment so that all items are placed onto a common scale. This chapter briefly introduces the Rasch model, reports the results from evaluations of the adequacy of the Rasch assumptions, and summarizes the Rasch item statistics for the PSSA mathematics, ELA, and science tests. Additional Rasch procedures are discussed with respect to scale linking in Chapter Fifteen.

DESCRIPTION OF THE RASCH MODEL

The Rasch partial credit model (RPCM; Wright and Masters, 1982) was used to calibrate PSSA items because both multiple-choice (MC) and open-ended (OE) items were part of the assessment. The RPCM extends the Rasch model (Rasch, 1960) for dichotomous (0, 1) items so that it accommodates the polytomous OE item data. Under the RPCM, for a given item *i* with *mi* score categories, the probability of person *n* scoring *x* (*x* = 0, 1, 2,... *mi*) is given by:

$$P_{ni}(X = x) = \frac{\exp\sum_{j=0}^{x}(\theta_n - D_{ij})}{\sum_{k=0}^{m_i}\exp\sum_{j=0}^{k}(\theta_n - D_{ij})},$$

where θ^n represents a student's proficiency (ability) level, and D^{ij} is the step difficulty of the j^{th} step on item i. For dichotomous MC items, the RPCM reduces to the standard Rasch model and the single step difficulty is referred to as the item's difficulty. The Rasch model predicts the probability of person n getting item i correct as follows:

$$P_{ni}(X = 1) = \frac{\exp(\theta_n - D_{ij})}{1 + \exp(\theta_n - D_{ij})}.$$

The Rasch model places both student ability and item difficulty (estimated in terms of log-odds or logits) on the same continuum. When the model assumptions are met, the Rasch model provides estimates of a person's ability which are independent of the items employed in the assessment, and conversely, estimates item difficulty independently of the sample of examinees. (As noted in Chapter Eleven, interpretation of item *p*-values confounds item difficulty and student ability.)

SOFTWARE AND ESTIMATION ALGORITHM

Item calibration was implemented via WINSTEPS 3.81.00 computer program (Wright and Linacre, 2014), which employs unconditional (UCON), joint-maximum-likelihood estimation (JMLE).

SAMPLE CHARACTERISTICS

The characteristics of calibration samples are reported in Chapter Nine. These samples only include the students who attempted the tests. All omits (no response) and multiple responses (more than one response selected) were scored as incorrect answers (coded as 0s) for calibration.

CHECKING RASCH ASSUMPTIONS

Since the Rasch model was the basis of all calibration, scoring, and scaling analyses associated with the PSSA, the validity of the inferences from these results depends on the degree to which the assumptions of the model were met and how well the model fits the test data. Therefore, it is important to check these assumptions. This section evaluates the dimensionality of the data, local item independence, item fit, and item parameter invariance. It should be noted that only operational items were analyzed since they are the basis of student scores.

UNIDIMENSIONALITY

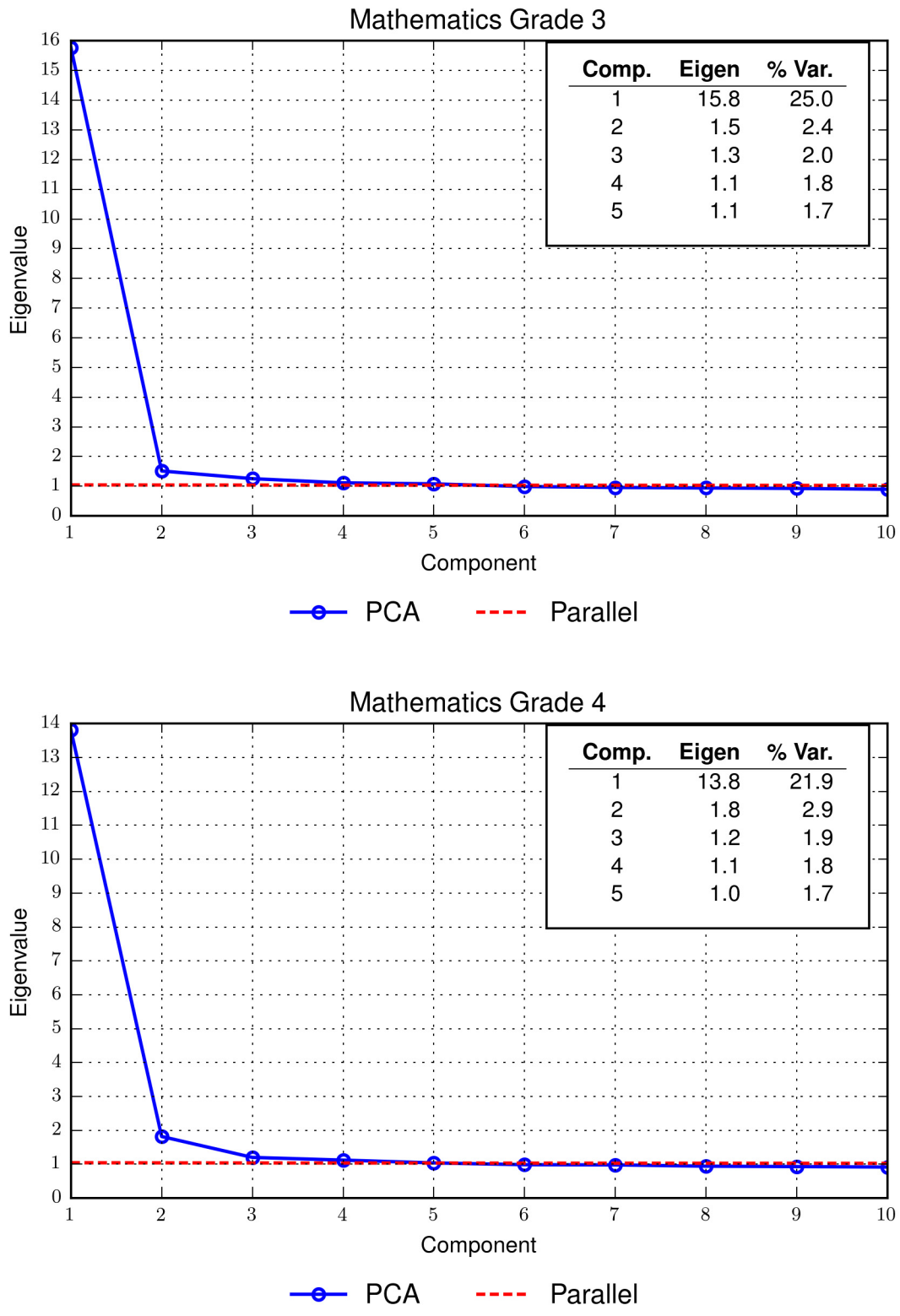
Rasch models assume that one dominant dimension determines the difference among students' performances. Principal Components Analysis (PCA) can be used to assess the unidimensionality assumption. The purpose of the analysis is to verify whether any other dominant component(s) exist among the items. If any other dimensions are found, the unidimensionality assumption would be violated.

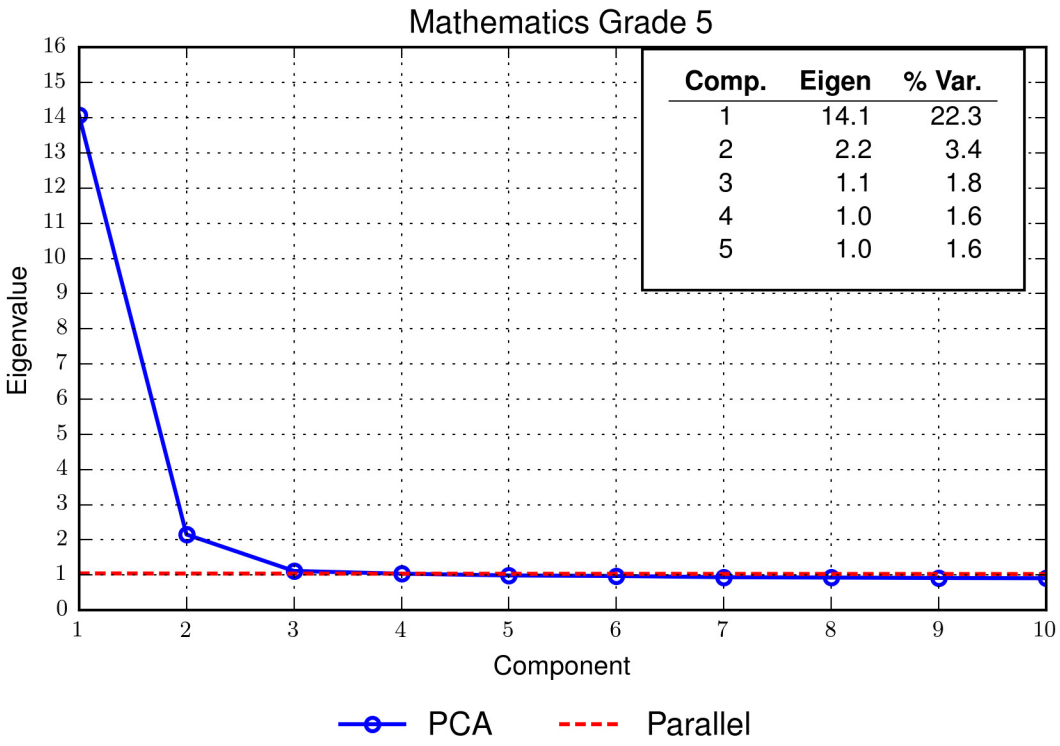
Figure 12–1 shows the PCA results for the mathematics, ELA, and science tests. The results include the eigenvalues and the percentage of variance explained for the first five components as well as the scree plots. The scree plots show the eigenvalues plotted by component number and the results from a parallel analysis. The total number of components in PCA is same as the total number of items in a test; however, Figure 12–1 shows only the first 10 components given that beyond 10th component the additional information would be negligible.

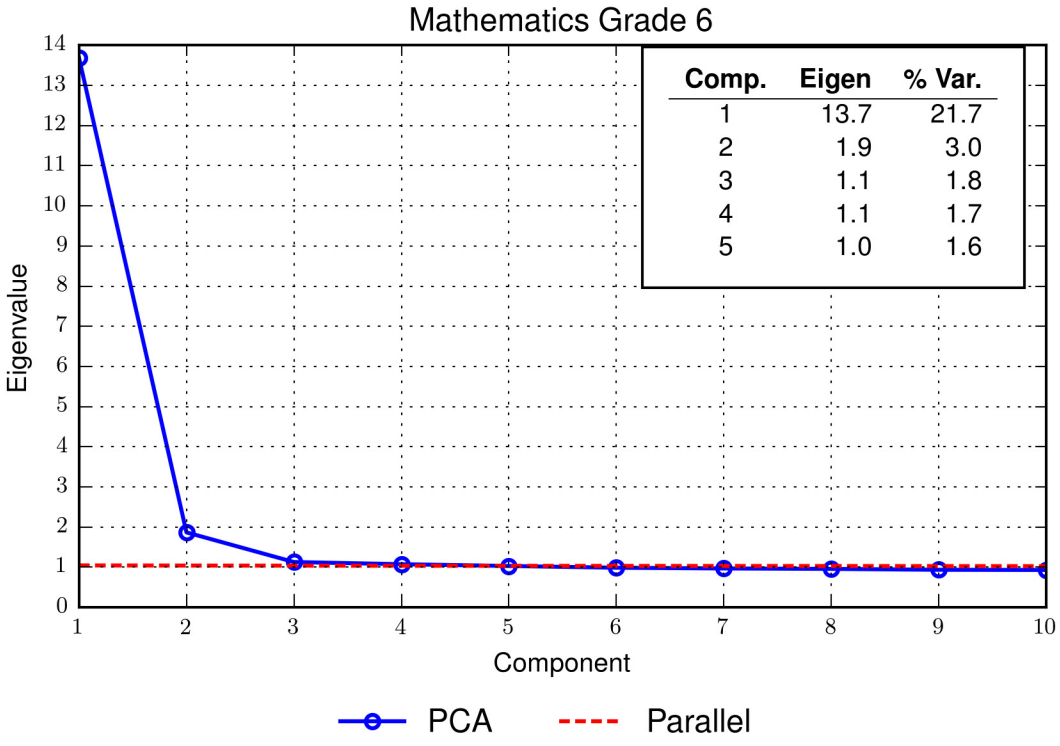
Parallel analysis (Horn, 1965) is a technique to decide how many factors exists in principal components. A parallel analysis (Horn, 1965) was also conducted to help distinguish components that are real from components that are random. For the parallel analysis, 100 random data sets were created of size equal to the original data. For each random data set, a PCA was performed and the resulting eigenvalues stored. Then for each component, the upper 95th percentile value of the distribution of the 100 eigenvalues from the random data sets was plotted. Given the size of the data generated for the parallel analysis, the reference line is essentially equivalent to plotting a reference line for an eigenvalue of 1.

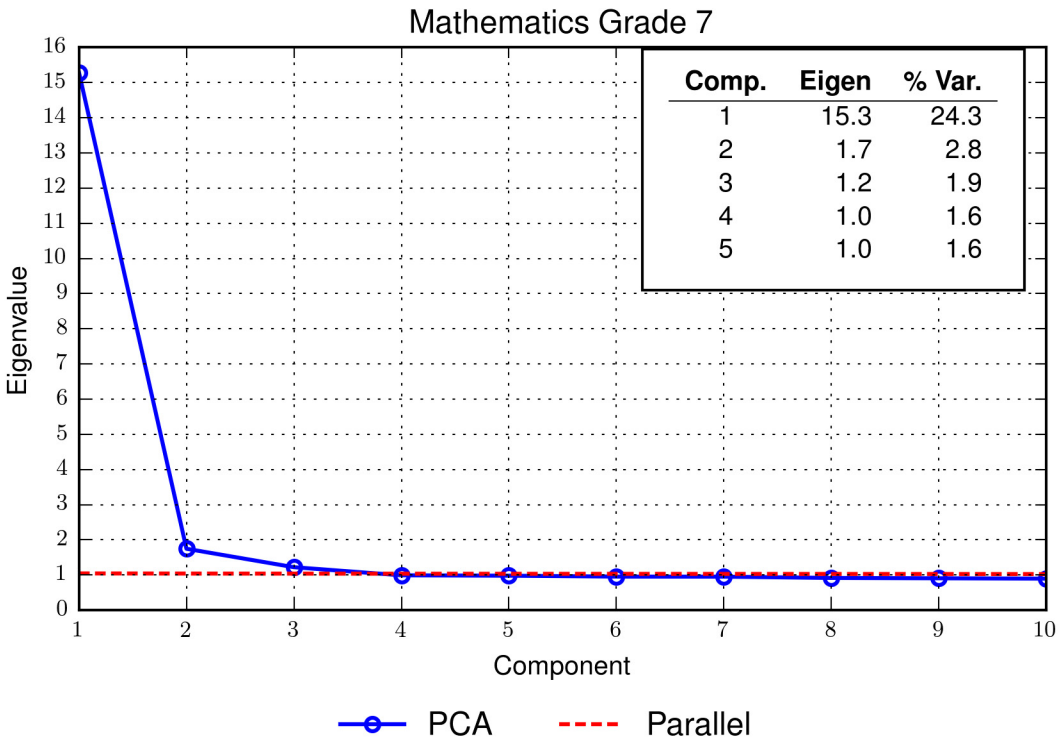
As can been seen in Figure 12–1, for PSSA mathematics the primary dimension explained about 17.5 percent to 25 percent of the total variance across Grades 3 through 8. The eigenvalues of the second dimensions ranged from 1.3 to 2.2. This indicates that the second dimension accounted for only 1.3 to 2.2 of total variance. Overall, the PCA suggests that there is one clearly dominant dimension for all mathematics tests.

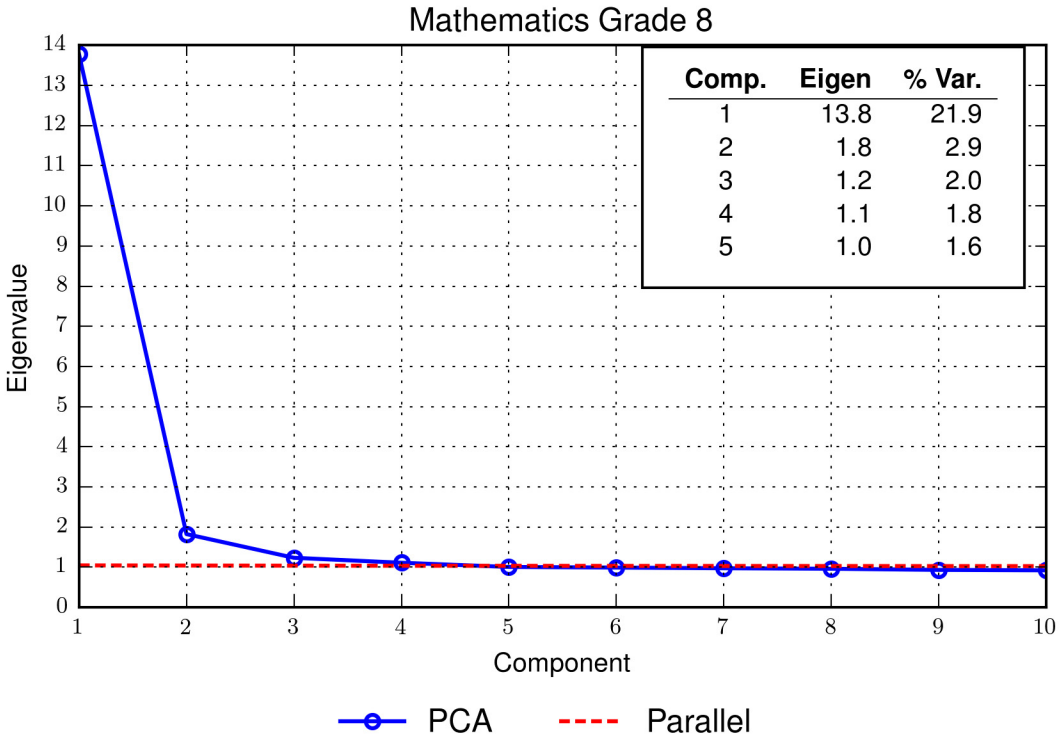
Figure 12–1. Scree Plots Local Independence

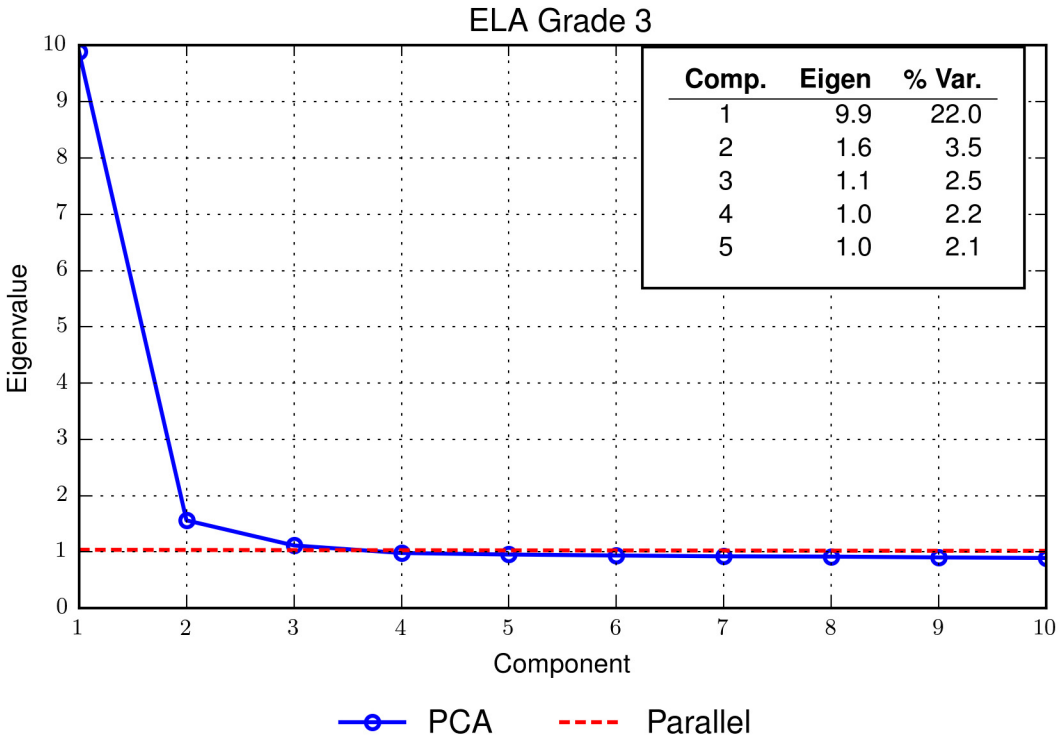



Mathematics Grade 5
Comp. Eigen % Var.
1 14.1 22.3
2 2.2 3.4
3 1.1 1.8
4 1.0 1.6
5 1.0 1.6
Eigenvalue
Component
PCA
Parallel


Mathematics Grade 6
Comp. Eigen % Var.
1 13.7 21.7
2 1.9 3.0
3 1.1 1.8
4 1.1 1.7
5 1.0 1.6
Eigenvalue
Component
PCA
Parallel


Mathematics Grade 7
Comp. Eigen % Var.
1 15.3 24.3
2 1.7 2.8
3 1.2 1.9
4 1.0 1.6
5 1.0 1.6
Eigenvalue
Component
PCA
Parallel


Mathematics Grade 8
Comp. Eigen % Var.
1 13.8 21.9
2 1.8 2.9
3 1.2 2.0
4 1.1 1.8
5 1.0 1.6
Eigenvalue
Component
PCA
Parallel


ELA Grade 3
Comp. Eigen % Var.
1 9.9 22.0
2 1.6 3.5
3 1.1 2.5
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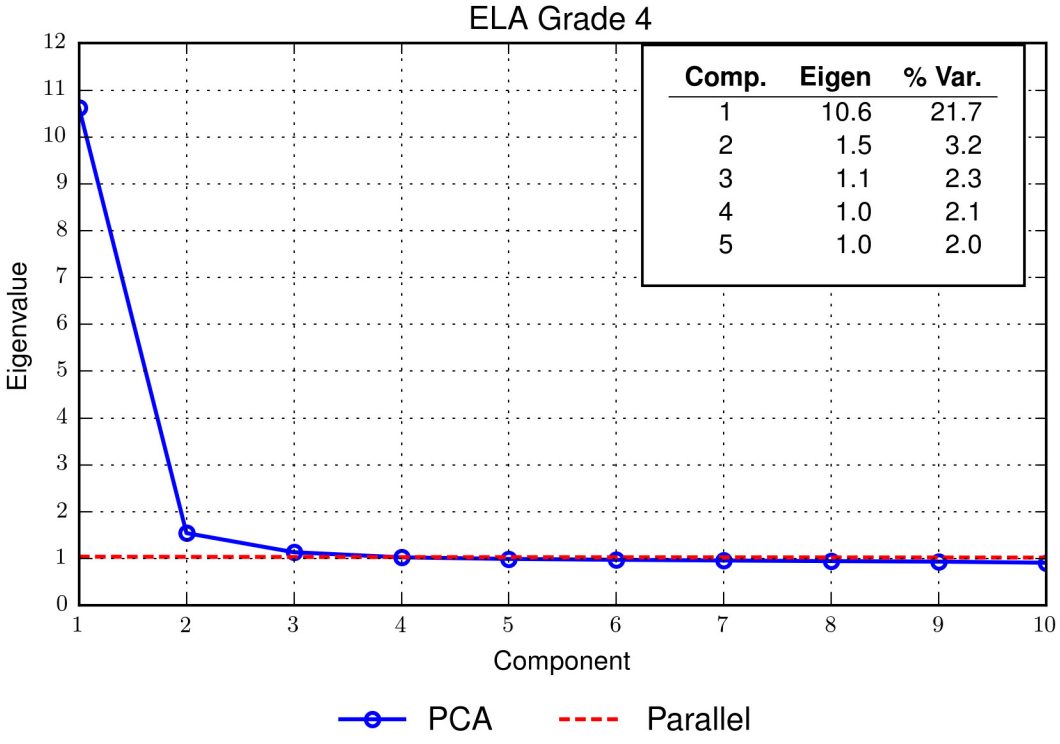
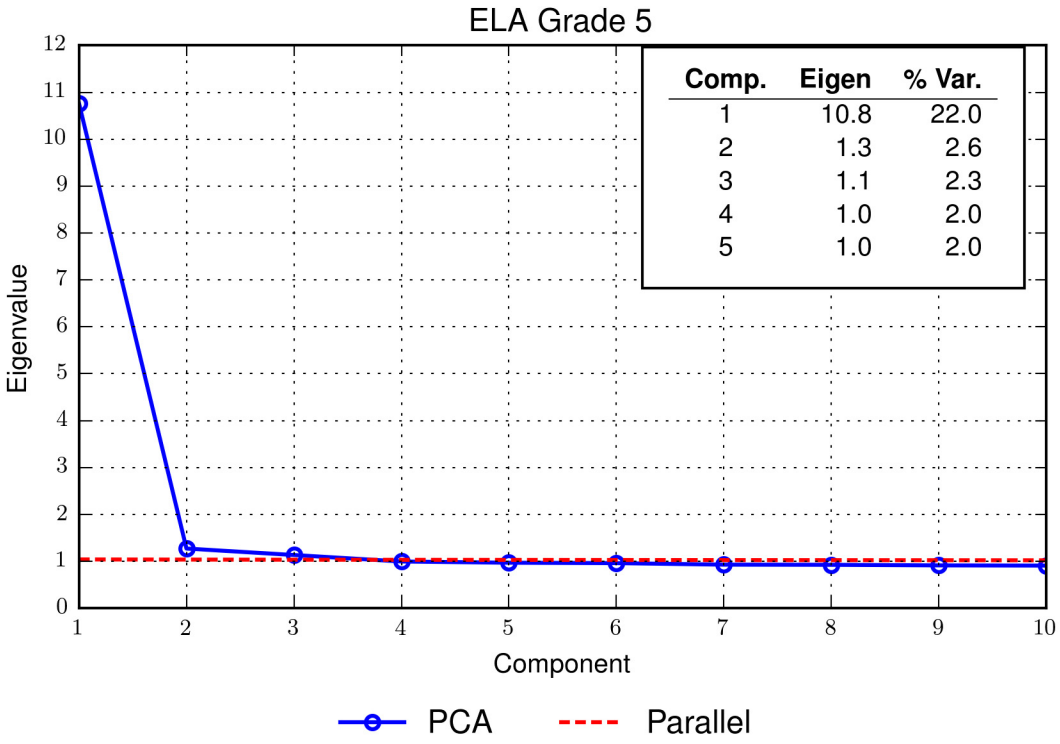
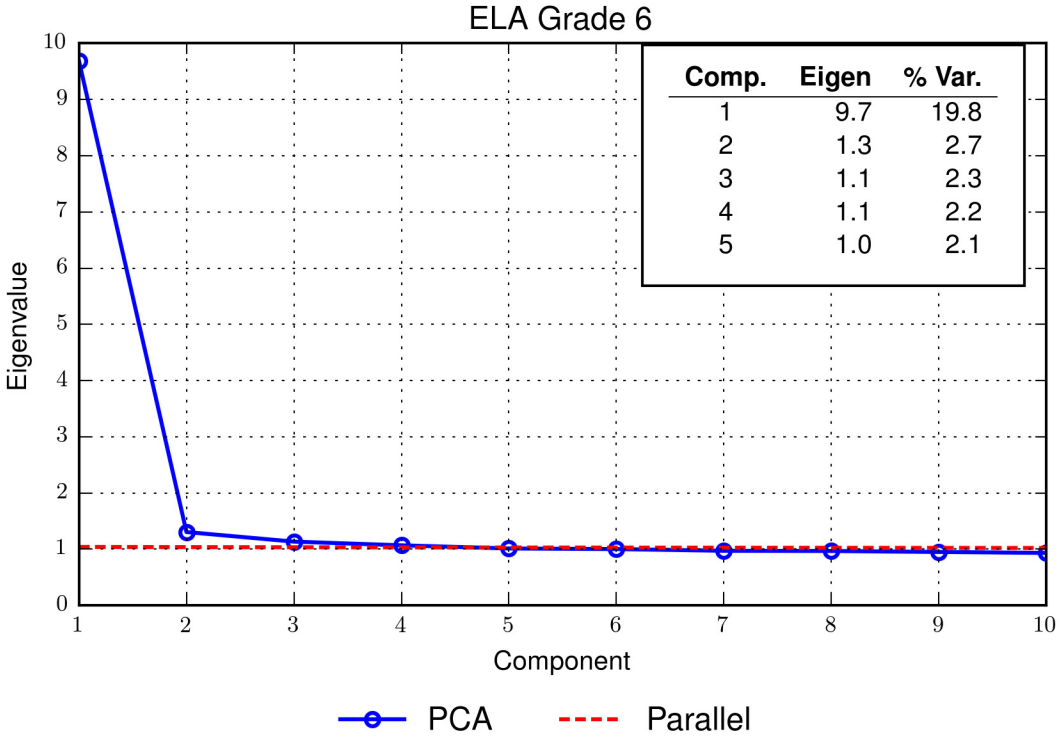
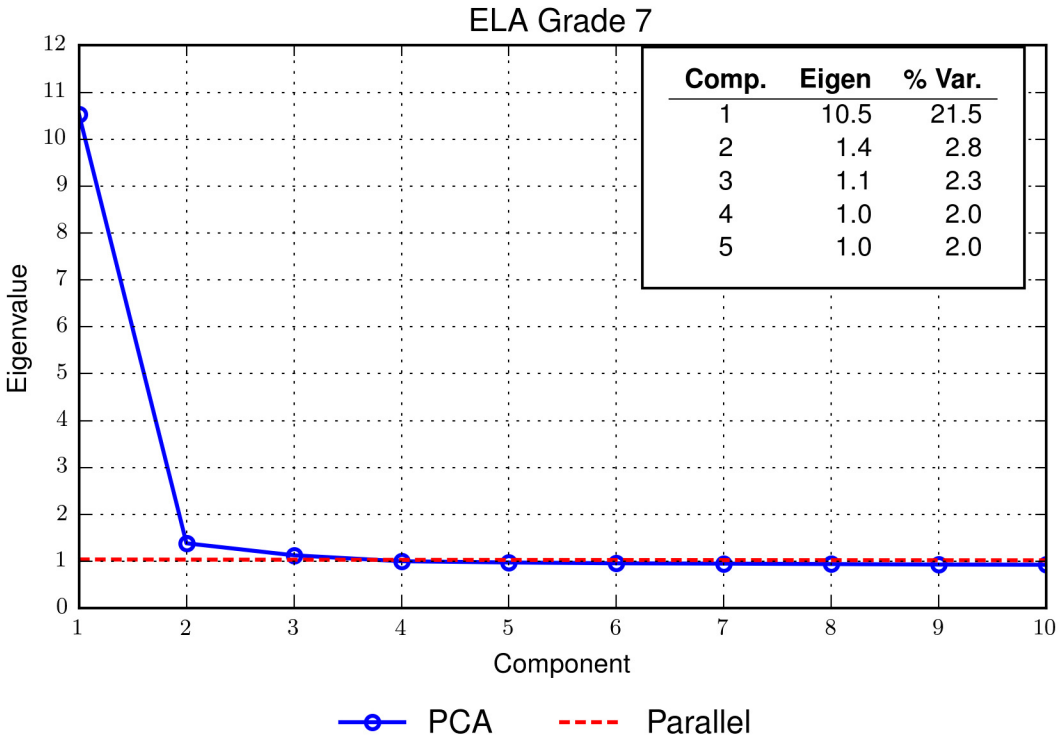
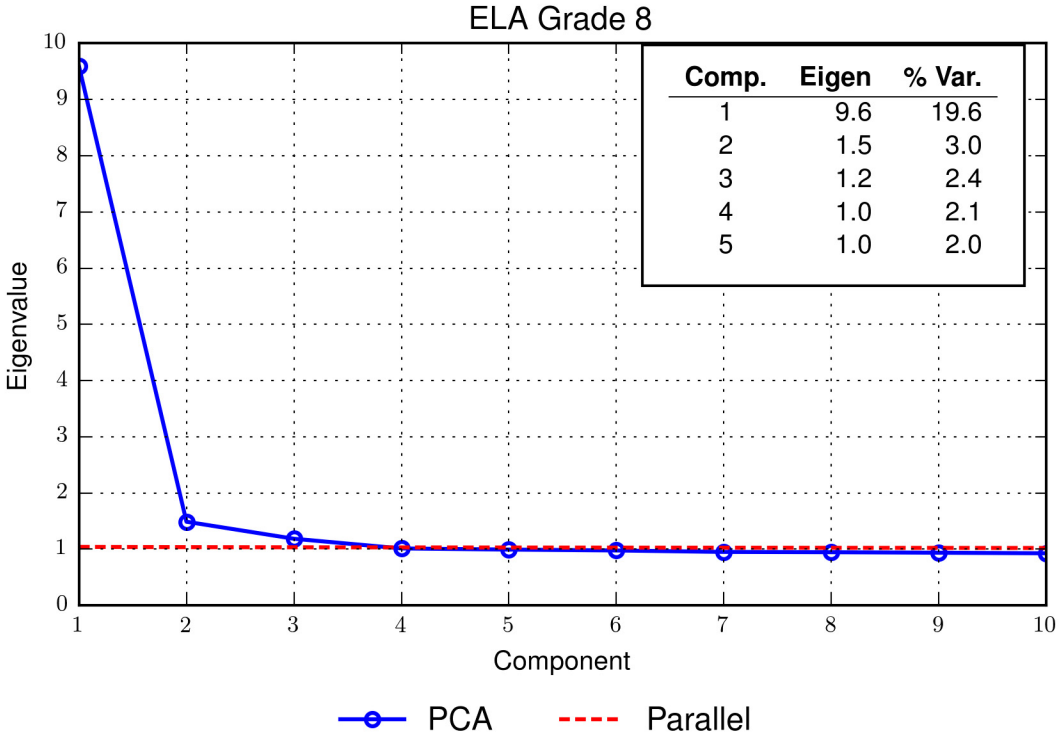
5 1.0 2.1
Eigenvalue
Component
PCA
Parallel

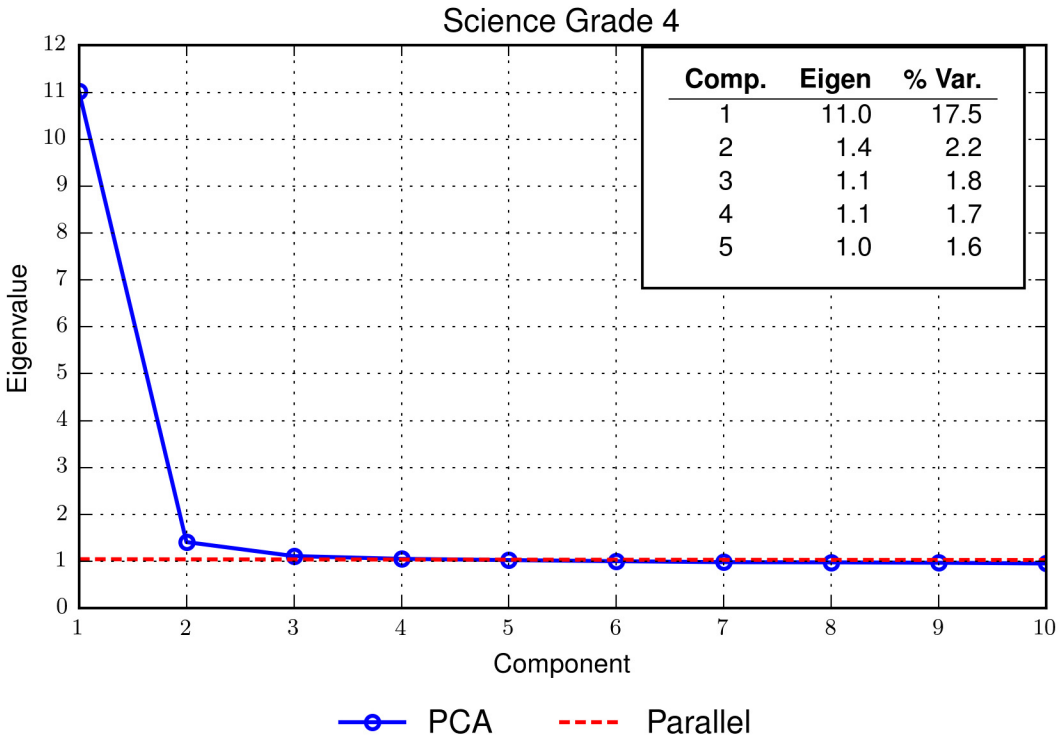

ELA Grade 4
Comp. Eigen % Var.
1 10.6 21.7
2 1.5 3.2
3 1.1 2.3
4 1.0 2.1
5 1.0 2.0
Eigenvalue
Component
PCA
Parallel

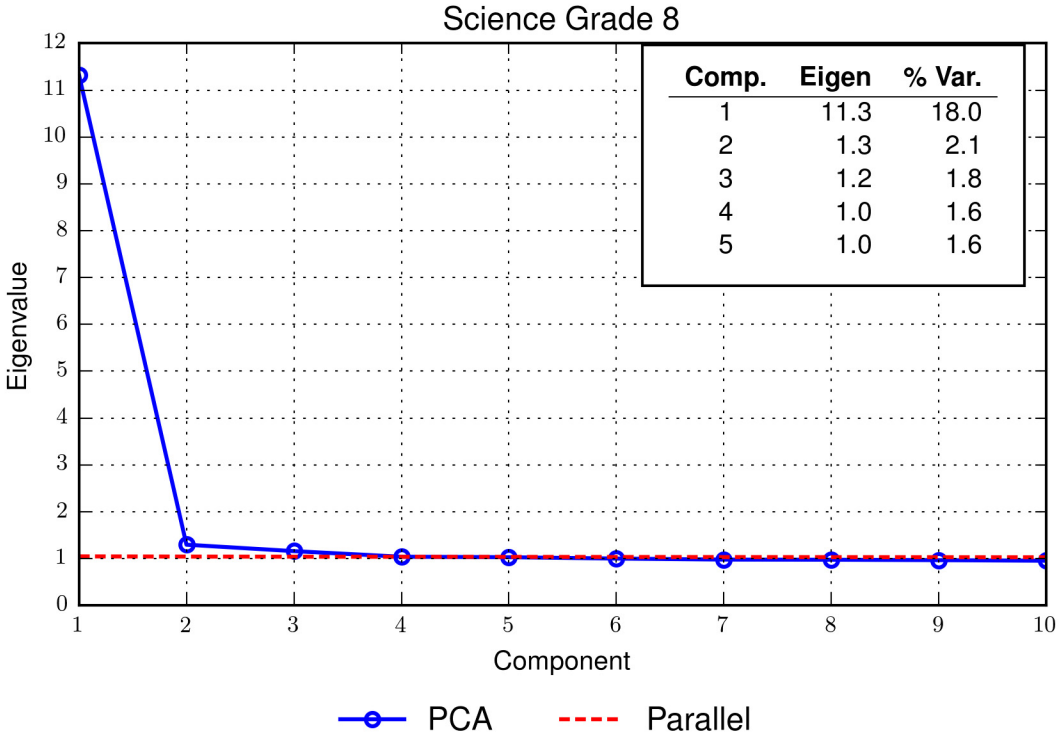

ELA Grade 5
Comp. Eigen % Var.
1 10.8 22.0
2 1.3 2.6
3 1.1 2.3
4 1.0 2.0
5 1.0 2.0
Eigenvalue
Component
PCA
Parallel


ELA Grade 6
Comp. Eigen % Var.
1 9.7 19.8
2 1.3 2.7
3 1.1 2.3
4 1.1 2.2
5 1.0 2.1
Eigenvalue
Component
PCA
Parallel


ELA Grade 7
Comp. Eigen % Var.
1 10.5 21.5
2 1.4 2.8
3 1.1 2.3
4 1.0 2.0
5 1.0 2.0
Eigenvalue
Component
PCA
Parallel


ELA Grade 8
Comp. Eigen % Var.
1 9.6 19.6
2 1.5 3.0
3 1.2 2.4
4 1.0 2.1
5 1.0 2.0
Eigenvalue
Component
PCA
Parallel


Science Grade 4
Comp. Eigen % Var.
1 11.0 17.5
2 1.4 2.2
3 1.1 1.8
4 1.1 1.7
5 1.0 1.6
Eigenvalue
Component
PCA
Parallel


Science Grade 8
Comp. Eigen % Var.
1 11.3 18.0
2 1.3 2.1
3 1.2 1.8
4 1.0 1.6
5 1.0 1.6
Eigenvalue
Component
PCA
Parallel

Local independence (LI) is a fundamental assumption of IRT. No relationship should exist between examinees' responses to different items after accounting for the abilities measured by a test. In formal statistical terms, a test X that is comprised of items $X_1, X_2,\ldots X_n$ is locally independent with respect to the latent variable θ if, for all $x = (x_1, x_2,\ldots x_n)$ and θ,

$$P\left(\mathbf{X} = \mathbf{x} \mid \theta\right) = \prod_{i=1}^{I} P\left(X_i = x_i \mid \theta\right).$$

This formula essentially states that the probability of any pattern of responses across all items ($\mathbf{x}$), after conditioning on the abilities (θ) measured by the test, should be equal to the product of the conditional probabilities across each item (cf. the multiplication rule for independent events where the joint probabilities are equal to the product of the associated marginal probabilities).

The equation above shows the condition after satisfying the strong form of local independence. A weak form of local independence (WLI) was proposed by McDonald (1979). The distinction is important as many indicators of local dependency are actually framed by WLI. The requirement would be for the conditional covariances of all pairs of item responses, conditioned on the abilities, to be equal to zero. When this assumption is met, the joint probability of responses to an item pair, conditioned on abilities, is the product of the probabilities of responses to these two items, as shown below. (This is a weaker form because higher-order dependencies among items are allowed.) Based on the WLI, the following expression can be derived:

$$P\left(X_i = x_i, X_j = x_j \mid \theta\right) = P\left(X_i = x_i \mid \theta\right) P\left(X_j = x_j \mid \theta\right).$$

Marais and Andrich (2008) pointed out that local item dependence in the Rasch model can occur in two ways that some may not distinguish. The first way occurs when the assumption of unidimensionality is violated. Here, other nuisance dimensions besides a dominant dimension determine student performance (this can be called "trait dependence"). The second violation occurs when responses to an item depend on responses to another. This is a violation of statistical independence and can be called response dependence. Many people treat the assumptions of unidimensionality and local independence as one phenomenon and believe that once unidimensionality holds, that local independence also holds. By distinguishing the two sources of local dependence, one can see that while local independence can be related to unidimensionality, the two are different assumptions and therefore, require different tests.

Residual item correlations provided in WINSTEPS for each item pair were used to assess the local dependence among the PSSA items. In general, these residuals are computed as follows. First, expected item performance based on the Rasch model is determined using ability and item parameter estimates. Next, deviations (residuals) between the examinees' expected and observed performance is determined for each item. Finally, for each item pair, a correlation between the respective deviations is computed.

Three types of residual correlations are available in WINSTEPS: raw, standardized, and logit. It should be noted that the raw score residual correlation essentially corresponds to Yen's Q_3 index, a popular LI statistic. The expected value for the Q_3 statistic is approximately -1/(k-1) when no local dependence exists, where k is test length (Yen, 1993). Thus, the expected Q_3 values should be approximately -0.02 for the PSSA tests (since most of the PSSA tests had more than 50 core items). Index values that are greater than 0.20 indicate a degree of local dependence that probably should be examined by test developers (Chen & Thissen, 1997).

Since the three residual correlations are very similar, the default "standardized residual correlation" in WINSTEPS was used for these analyses. Table 12–1 shows the summary statistics—mean, SD, minimum, maximum, and several percentiles (P_{10}, P_{25}, P_{50}, P_{75}, P_{90}) — for all the residual correlations for each test. The total number of item pairs (N) and the number of pairs with the residual correlations greater than 0.20 are also reported in this table. The mean residual correlations were close to 0.00. Only 6 item pairs (3 in mathematics and 3 in ELA) showed residual correlations greater than 0.2, and all were less than 0.3, suggesting local item independence holds very well for the 2017 PSSA ELA, mathematics, and science tests. Refer to Table 12–1 and 12–2 for details.

Table 12–1M. Summary of Item Residual Correlations for PSSA Mathematics

Statistic	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8
N	1953	1953	1953	1953	1953	1953
Mean	-0.01	-0.01	-0.01	-0.01	-0.02	-0.02
SD	0.03	0.02	0.03	0.03	0.02	0.02
Minimum	-0.11	-0.07	-0.13	-0.09	-0.11	-0.13
P_{10}	-0.04	-0.04	-0.05	-0.04	-0.04	-0.04
P_{25}	-0.03	-0.03	-0.03	-0.03	-0.03	-0.03
P_{50}	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02
P_{75}	0.00	0.00	0.00	0.00	0.00	0.00
P_{90}	0.01	0.01	0.02	0.02	0.01	0.01
Maximum	0.21	0.15	0.12	0.19	0.11	0.29
$>\lvert 0.20 \rvert$	1	0	0	0	0	2

Table 12–1E. Summary of Item Residual Correlations for PSSA English Language Arts

Statistic	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8
N	990	1176	1176	1176	1176	1176
Mean	-0.02	-0.01	-0.01	-0.01	-0.01	-0.01
SD	0.03	0.03	0.03	0.03	0.03	0.04
Minimum	-0.12	-0.18	-0.19	-0.18	-0.19	-0.24
P_{10}	-0.05	-0.04	-0.04	-0.04	-0.04	-0.04
P_{25}	-0.03	-0.02	-0.02	-0.02	-0.02	-0.02
P_{50}	-0.02	-0.01	-0.01	-0.01	-0.01	-0.01
P_{75}	-0.01	0.01	0.01	0.01	0.01	0.01
P_{90}	0.01	0.02	0.02	0.02	0.02	0.02
Maximum	0.11	0.20	0.09	0.25	0.10	0.14
$>\lvert 0.20 \rvert$	0	0	0	1	0	2

Table 12–1S. Summary of Item Residual Correlations for PSSA Science

Statistic	Grade 4	Grade 8
N	1953	1953
Mean	-0.02	-0.02
SD	0.02	0.02
Minimum	-0.11	-0.10
P_{10}	-0.03	-0.04
P_{25}	-0.02	-0.03
P_{50}	-0.02	-0.02
P_{75}	-0.01	0.00
P_{90}	0.00	0.01
Maximum	0.11	0.07
$>\lvert 0.20 \rvert$	0	0

Table 12–2 lists all item pairs with residual correlations greater than 0.20 with the added information of session, sequence, and Eligible Content. Item sequence in the table is the master core form's item sequence, but the MC items are scrambled across forms.

The pattern that is evident is that these correlated items share identical Eligible Content and are testing the same skills when the correlations are positive, so some small dependence is noted beyond the main ELA construct's explanation of item performance for these pairs. Negative residual correlations were observed with Evidence Based Select Response (EBSR) items and Text Dependent Analysis (TDA) items showing that, after the relationship between the items and the ELA construct is accounted for, there may be small, but different factors that are contributing to examinee performance on the item pairs. Test blueprints determine what Assessment Anchors, as defined by the Eligible Content, will be assessed. PDE and DRC make every effort to avoid one item cueing another through careful item selection and sequencing, so this is an unlikely source of local item dependence for the PSSA tests.

Table 12–2. Item Pairs With Large Residual Correlations

Subject	Grade	Item 1 Seq.	Item 1 Type	Item 1 Eligible Content	Item 2 Seq.	Item 2 Type	Item 2 Eligible Content	Resid. Corr.
Mathematics	3	55	MC	A-T.1.1.3	71	MC	A-T.1.1.3	0.21
Mathematics	8	12	MC	B-F.1.1.1	57	MC	B-F.1.1.1	0.29
Mathematics	8	31	MC	A-N.1.1.5	52	MC	A-N.1.1.1	0.23
ELA	6	17	MC	D.2.1.5	20	MC	D.2.1.5	0.25
ELA	8	25	ESR	B-C.2.1.1	68	TDA	E.1.1	-0.24
ELA	8	40	ESR	B-V.4.1.2	68	TDA	E.1.1	-0.21

ITEM FIT

WINSTEPS provides two item fit statistics (infit and outfit) for evaluating the degree to which the Rasch model predicts the observed item responses. Each fit statistic can be expressed as a mean square (MnSq) statistic or on a standardized metric (Zstd with mean = 0 and variance = 1). MnSq values are more oriented toward practical significance, while Zstd values are more oriented toward statistical significance. Though both are informative, the Zstd values are very likely too sensitive to the large sample sizes observed on the PSSA. In this situation it is recommended that the Zstd values be ignored if the MnSq values are acceptable (Linacre, 2014).

Both infit and outfit MnSq are the average of standardized residual variance (the difference between the observed score and the Rasch estimated score divided by the square root of the Rasch model variance). The difference is that the outfit statistic gives all examinees equal weight in computing the fit and tends to be affected more by unexpected responses far from the person, item, or rating scale category measure (i.e., it is more sensitive to outlying, off-target, low-information responses). The infit statistic is weighted by the examinee locations relative to item difficulty and tends to be affected more by unexpected responses close to the person, item, or rating scale category measure (i.e., informative, on-target responses). Some feel that extreme infit values are a greater threat to the measurement process than extreme outfit since most tests intend to measure the on-target population rather than extreme outliers.

The expected MnSq value is 1.0 and can range from 0 to infinity. Deviation in excess of the expected value can be interpreted as noise or lack of fit between the items and the model. Values lower than the expected value can be interpreted as item redundancy or overfitting items (too predictable, too much redundancy), and values greater than the expected value indicate underfitting items (too unpredictable, too much noise). Rules of thumb regarding "practically significant" MnSq values vary. More conservative users might prefer items with MnSq values that range from 0.8 to 1.2. Others believe reasonable test results can be achieved with values from 0.5 to 1.5. In the results below, values outside of 0.7 to 1.3 are given practical importance.

Table 12–3 presents the summary statistics of infit and outfit mean square statistics for the PSSA ELA, mathematics, and science tests, including the mean, SD, and minimum and maximum values. The number of items within the range of [0.7, 1.3] is also reported in Table 12–3. The mean values for both fit statistics were very close to 1.00 for all subjects. Almost all the items had infit values falling in the range of [0.7, 1.3], suggesting reasonable model infit. More outfit values fell either below 0.7 or above the 1.3 threshold. Values above 1.3 can sometimes suggest higher than normal guessing or careless mistake patterns, and values below 0.7 can suggest an item is over fit. The maximum outfit values noted are fairly close to the 1.3 threshold, and the minimum values noted are very close to 0.7, which could also suggest well discriminating items.

Table 12–3. Summary of Infit and Outfit Mean Square Statistics for PSSA Mathematics, ELA, and Science

Subject	Grade	Mean*	SD*	Min*	Max*	[0.7,1.3]*	Mean†	SD†	Min†	Max†	[0.7,1.3] †
Mathematics	3	1.00	0.12	0.74	1.26	63/63	1.00	0.19	0.61	1.41	56/63
Mathematics	4	1.00	0.10	0.82	1.25	63/63	1.00	0.17	0.72	1.47	60/63
Mathematics	5	0.99	0.12	0.79	1.27	63/63	1.00	0.21	0.66	1.53	53/63
Mathematics	6	1.00	0.11	0.84	1.24	63/63	1.00	0.18	0.67	1.37	56/63
Mathematics	7	1.00	0.12	0.80	1.30	62/63	0.99	0.18	0.69	1.39	58/63
Mathematics	8	0.99	0.10	0.83	1.24	63/63	1.00	0.15	0.73	1.39	60/63
ELA	3	1.00	0.11	0.81	1.26	45/45	0.99	0.20	0.60	1.44	38/45
ELA	4	1.01	0.13	0.72	1.40	48/49	1.05	0.24	0.65	1.99	41/49
ELA	5	1.02	0.14	0.71	1.47	47/49	1.05	0.22	0.71	1.74	44/49
ELA	6	1.02	0.12	0.66	1.21	48/49	1.05	0.18	0.66	1.38	43/49
ELA	7	1.02	0.14	0.67	1.40	47/49	1.05	0.24	0.67	1.65	38/49
ELA	8	1.02	0.15	0.61	1.40	46/49	1.07	0.26	0.62	2.03	39/49
Science	4	1.00	0.08	0.83	1.21	63/63	1.00	0.11	0.75	1.26	63/63
Science	8	1.00	0.10	0.82	1.24	63/63	1.00	0.13	0.77	1.34	62/63

*Infit Mean Square
†Outfit Mean Square

POPULATION INVARIANCE

The property of invariance is regarded as the cornerstone of IRT and is its major distinguishing attribute from classical test theory (Hambleton, Swaminathan, & Rogers, 1991). It is this property that makes many IRT applications possible (e.g., equating, item banking, investigation of item bias, and adaptive testing) (Hambleton et al., 1991, p.25). Inferences from these IRT applications are valid to the extent that the property of invariance holds. Therefore, it is important to evaluate invariance whenever applying IRT.

Invariance should hold for both item and ability parameters. Item invariance implies that item parameter estimates do not depend on the particular sample of examinees used to derive them. Person (ability parameter) invariance means that examinees' ability estimates do not depend on which items are administered. For the Rasch item calibrations, it is more important to determine how well the item invariance assumption holds. Therefore, only item invariance is evaluated here. We call item invariance "population invariance" with the intention that item parameters do not depend on particular population.

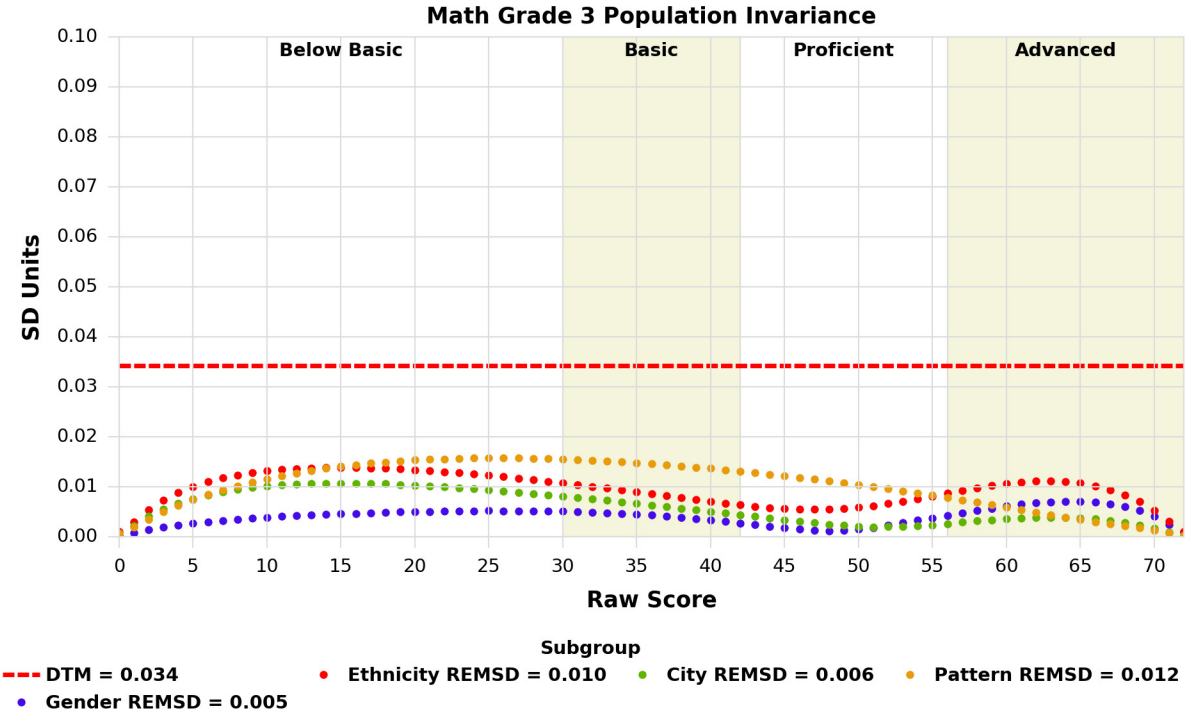
Population invariance was examined using the root mean squared difference (RMSD) and the root expected mean standardized difference (REMSD) statistics (Dorans and Holland, 2000; von Davier & Wilson, 2008). The RMSD statistic quantifies the difference in the equating relationship at a given observed raw score point in terms of the subgroup relationship and the full group (population) equating relationship. The RMSD statistic is given as follows:

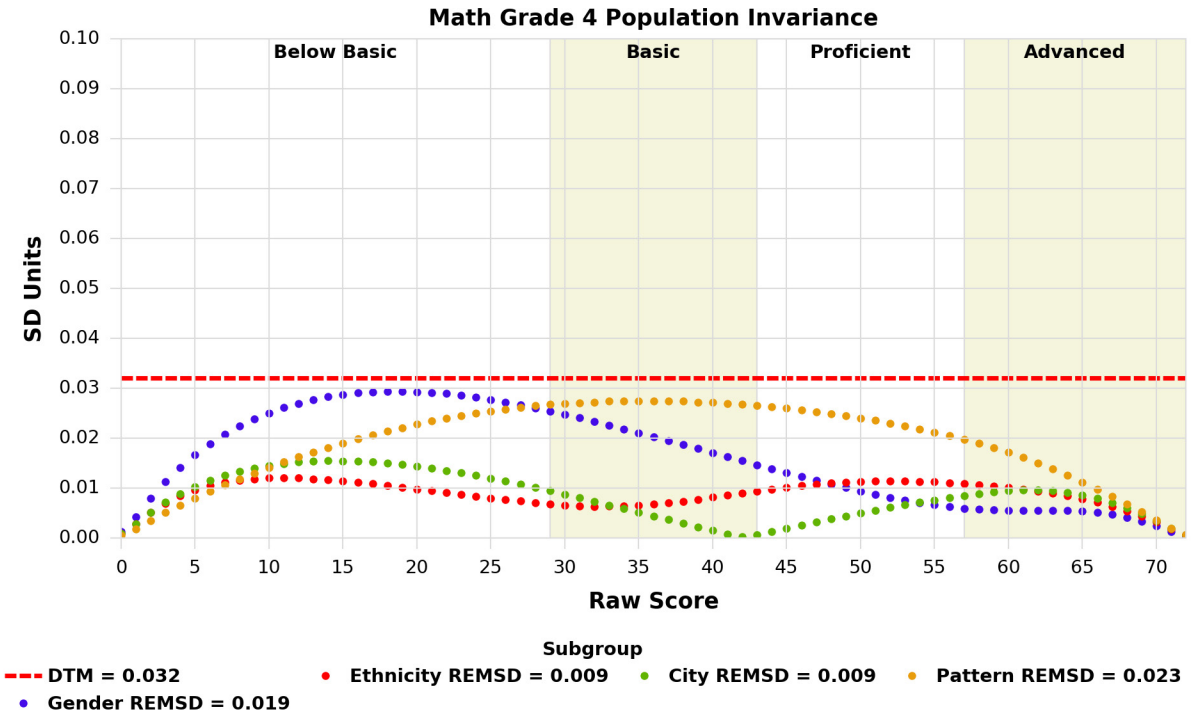
$$RMSD_x = \frac{\sqrt{\sum_{j=1}^{J} w_j [\hat{y}_{jx} - \hat{y}_{Px}]^2}}{\sigma_Y},$$

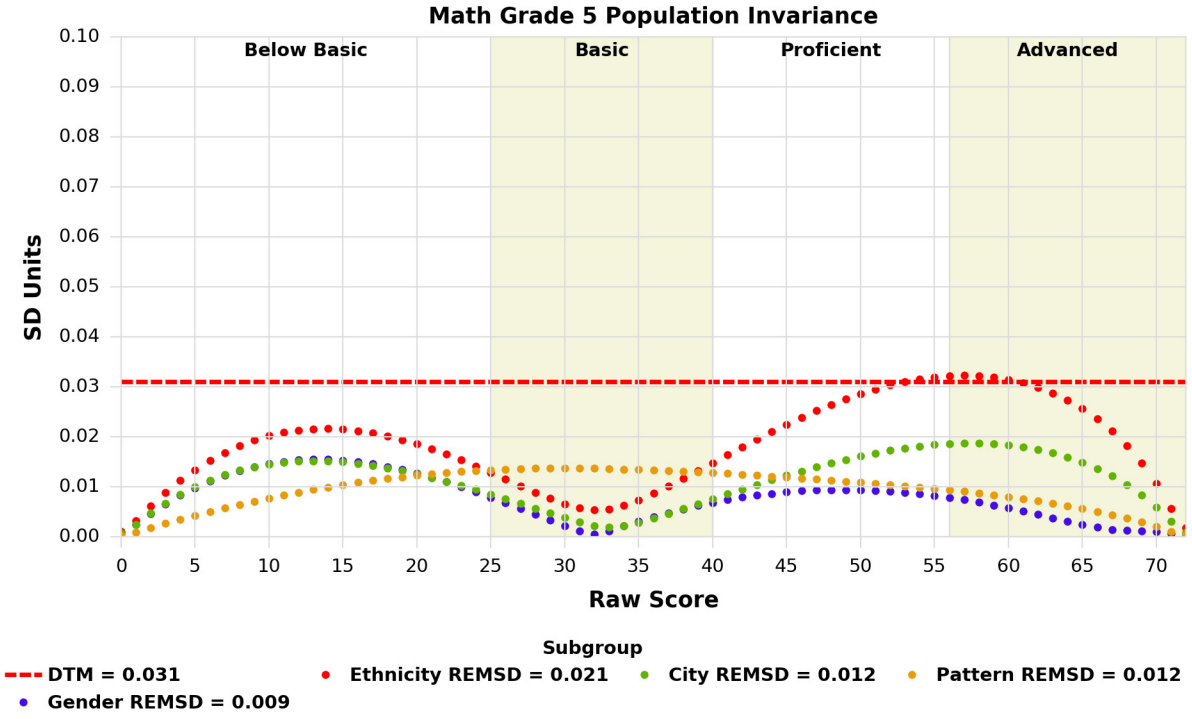
where x is an observed current year (scale of X) raw score, $\hat{y}_{jx}$ is the expected previous year's raw score for subgroup j (based on the subgroup calibration/equating) given current year's raw score x, $\hat{y}_{Px}$ is the expected previous year raw score for population (*P*, based on calibration/equating with all students) given current year's raw score, the weight, w_j, is the proportion for the subgroup, and is the standard deviation of the previous year raw scores with all students. A related index, REMSD, summarizes the average difference between the equating across all observed score points. Dorans, Holland, Thayer and Tatenkeni (2003) used the notion of a "difference that matters" (DTM) to provide further context for interpreting the population invariance results. The DTM for a particular assessment depends on the reporting scale. For the PSSAs, one raw score point translates to different scaled scores and potentially different performance level classifications. Differences in equating functions greater than half a raw score point could result in different scores reported. For this reason, a DTM of a half a point is used for our evaluation of population invariance. RMSD and REMSD are compared relative to the standardized DTM which is obtained by dividing 0.5 by the standard deviation in the denominator of the RMSD and REMSD.

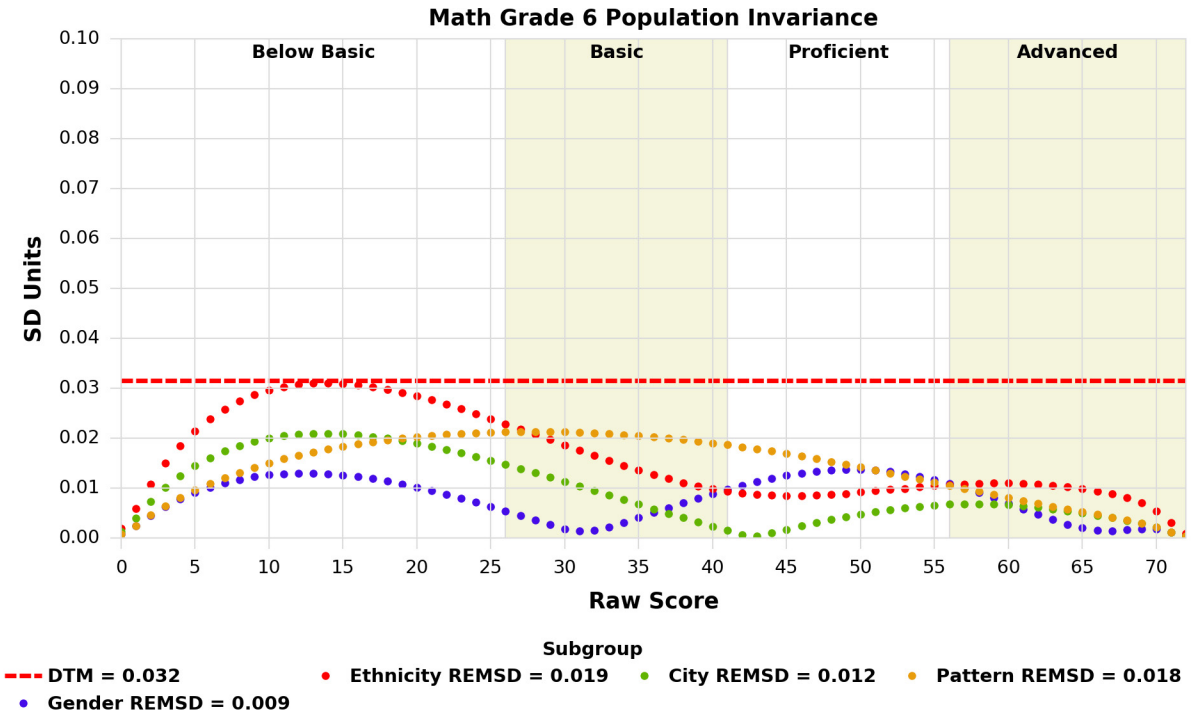
The subgroups considered within the population invariance analyses are gender (male, female), ethnicity (White, Black, and Hispanic), city (City or Not City), and scrambling pattern (A, B, C, D, E, F, G, M). The REMSD statistics, which provide a summary of the differences across all observed score points, were generally lower than the DTM for mathematics and for ELA grades 3-5. ELA grades 6-8 show some differences that matter between males and females across most of the score range, and smaller differences for ethnicity at the lower end of the score range. Differences that matter for science appear at lower score points for ethnicity. Small DTMs are noted for scramble patterns in grade 8 for both mathematics and science. Population invariance of the equating will continue to be monitored in subsequent PSSA administrations. Figure 12–2 presents the RMSDs (y-axis) for gender, ethnicity, city, and scramble pattern group and includes REMSD estimates for each equating set.

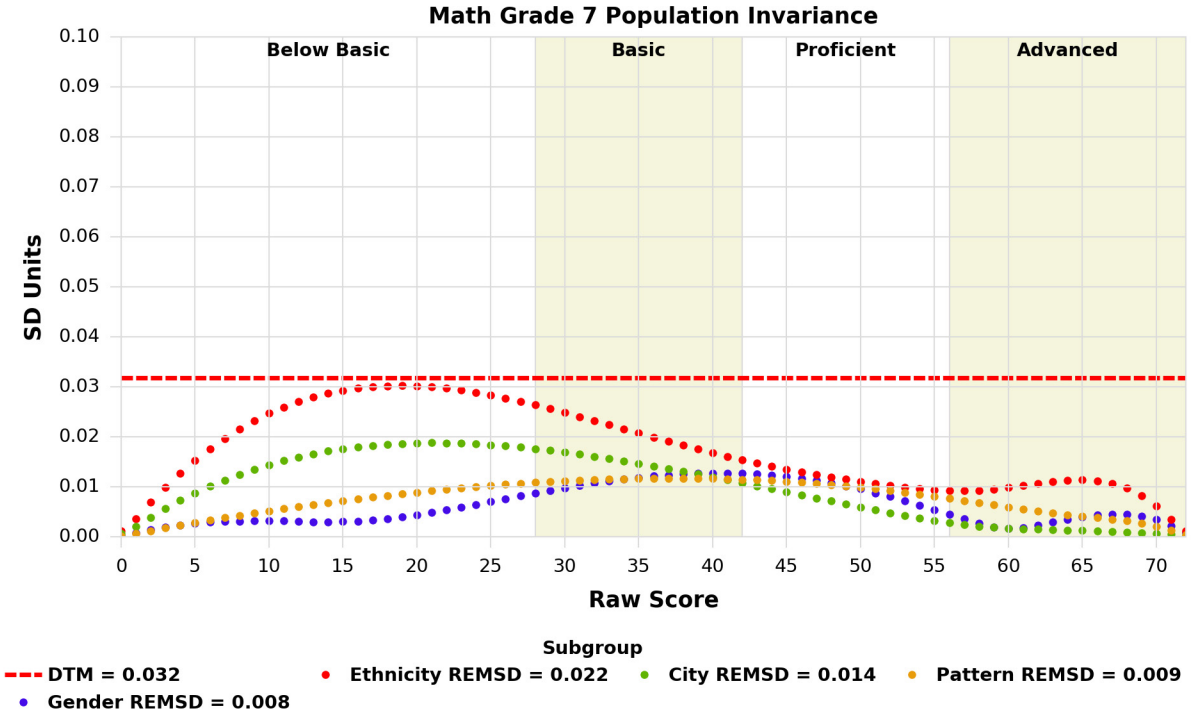
Figure 12–2. Population Invariance Plots

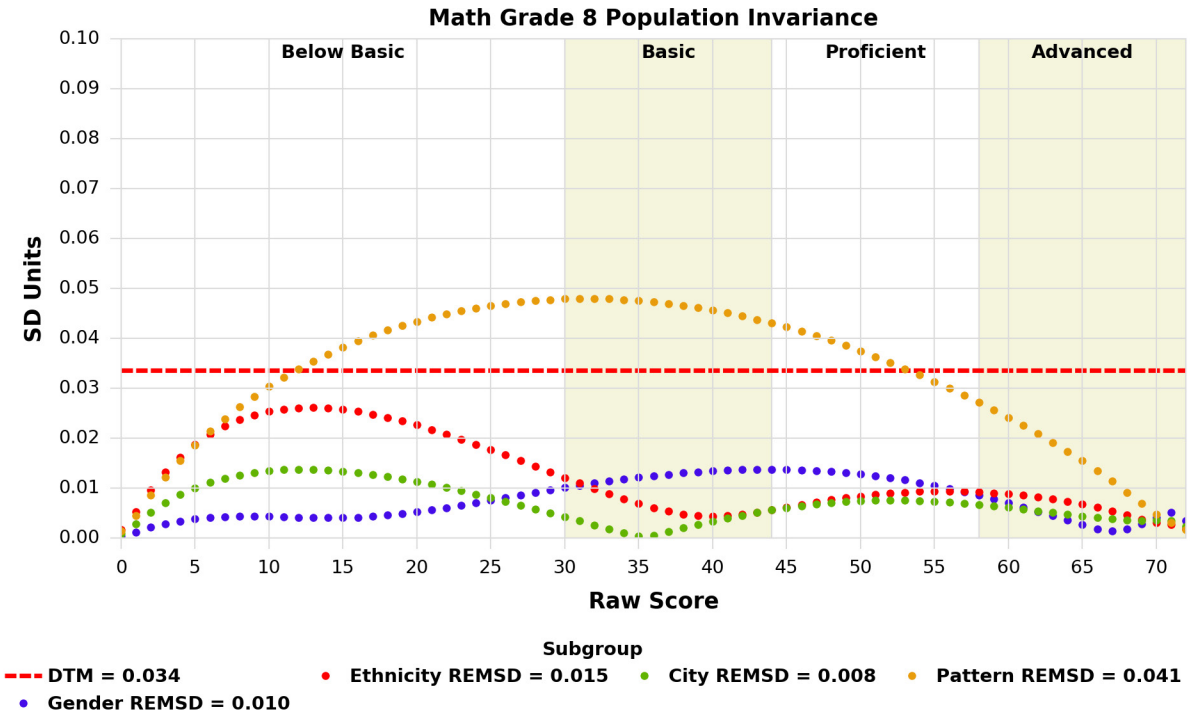


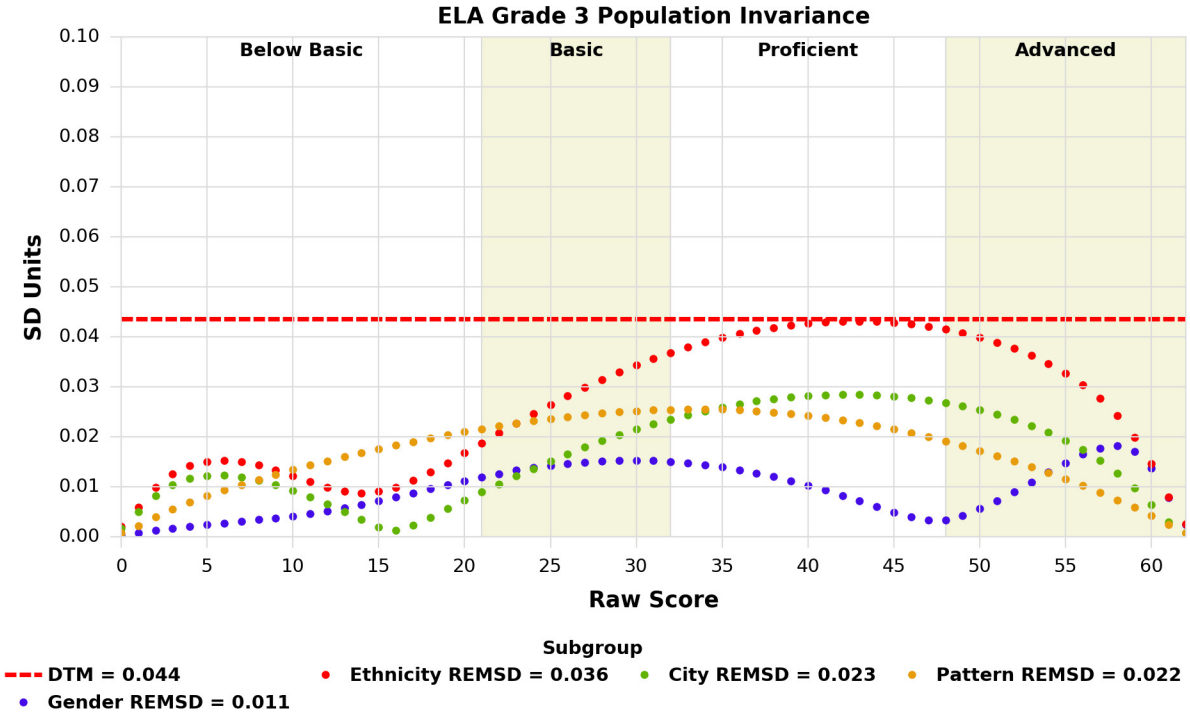

Math Grade 4 Population Invariance
Below Basic
Basic
Proficient
Advanced
SD Units
Raw Score
Subgroup
DTM = 0.032
Ethnicity REMSD = 0.009
City REMSD = 0.009
Pattern REMSD = 0.023
Gender REMSD = 0.019

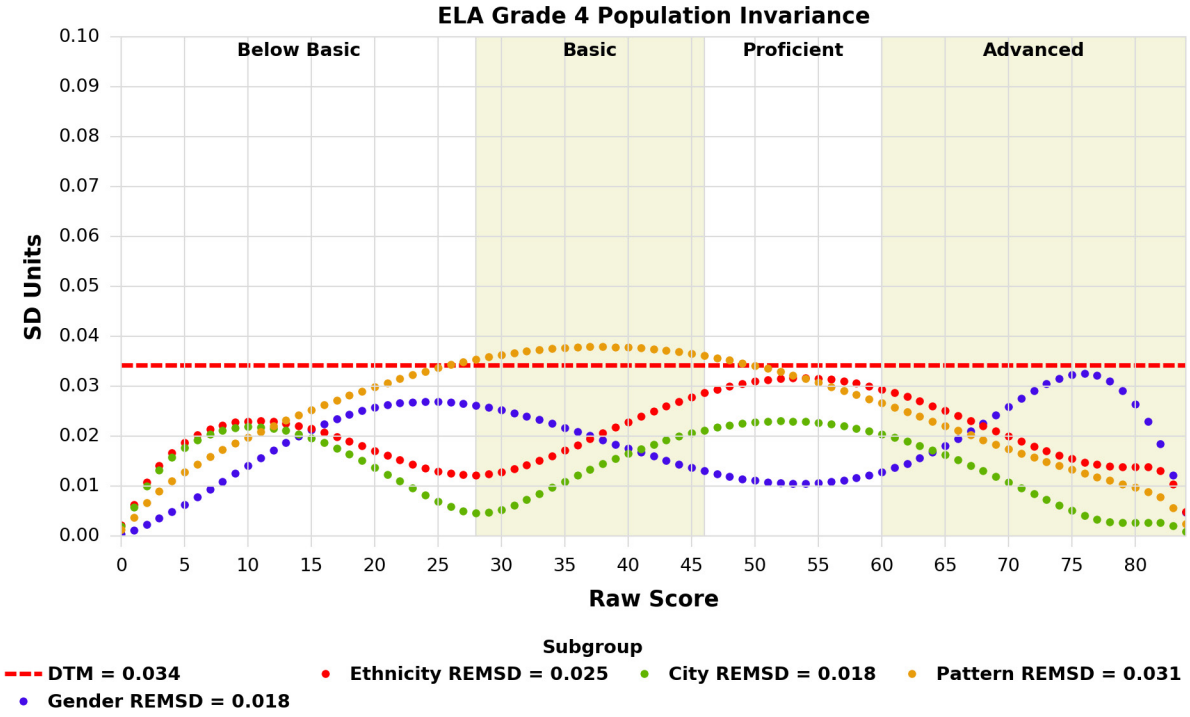

Math Grade 5 Population Invariance
Below Basic
Basic
Proficient
Advanced
SD Units
Raw Score
Subgroup
DTM = 0.031
Ethnicity REMSD = 0.021
City REMSD = 0.012
Pattern REMSD = 0.012
Gender REMSD = 0.009

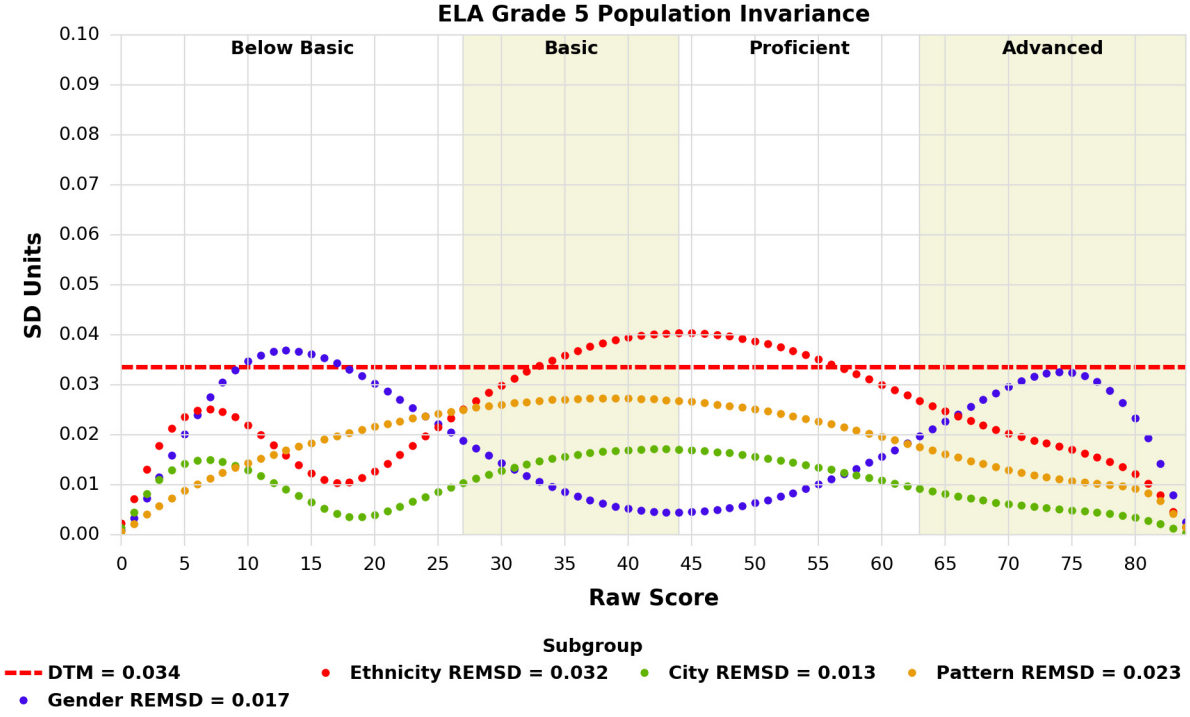

Math Grade 6 Population Invariance
Below Basic
Basic
Proficient
Advanced
SD Units
Raw Score
Subgroup
DTM = 0.032
Ethnicity REMSD = 0.019
City REMSD = 0.012
Pattern REMSD = 0.018
Gender REMSD = 0.009

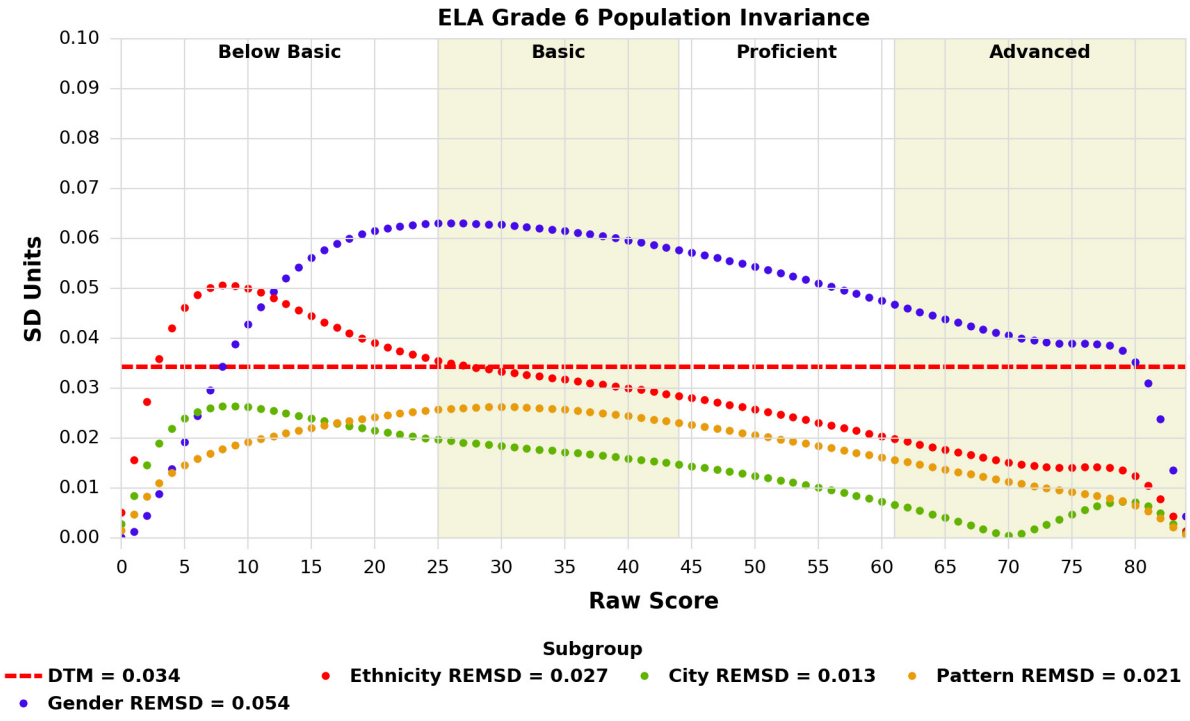

Math Grade 7 Population Invariance
Below Basic
Basic
Proficient
Advanced
SD Units
Raw Score
Subgroup
DTM = 0.032
Ethnicity REMSD = 0.022
City REMSD = 0.014
Pattern REMSD = 0.009
Gender REMSD = 0.008

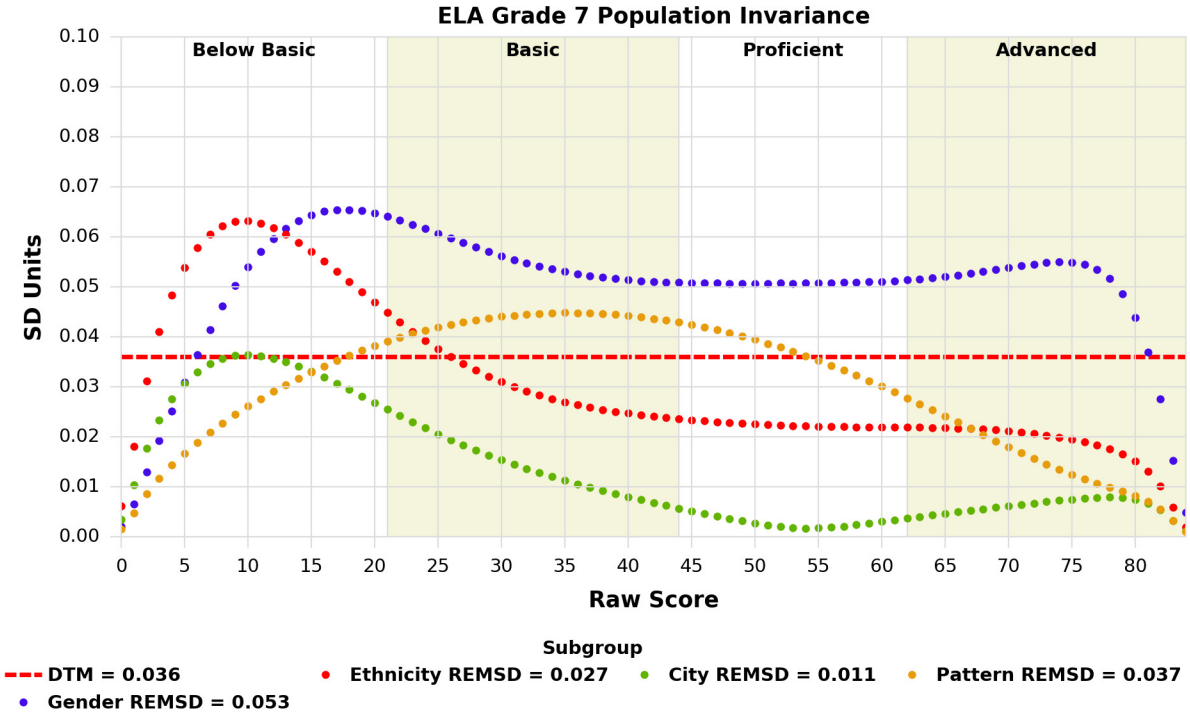

Math Grade 8 Population Invariance
Below Basic
Basic
Proficient
Advanced
SD Units
Raw Score
Subgroup
DTM = 0.034
Ethnicity REMSD = 0.015
City REMSD = 0.008
Pattern REMSD = 0.041
Gender REMSD = 0.010

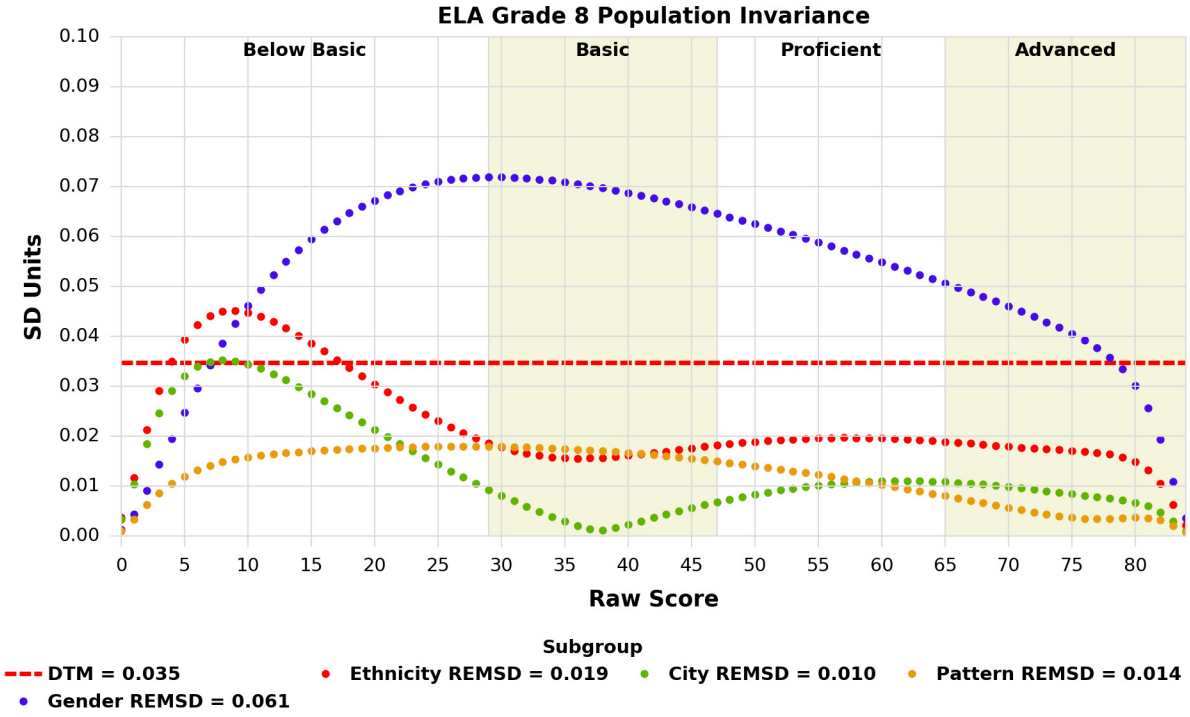

ELA Grade 3 Population Invariance
Below Basic
Basic
Proficient
Advanced
SD Units
Raw Score
Subgroup
DTM = 0.044
Ethnicity REMSD = 0.036
City REMSD = 0.023
Pattern REMSD = 0.022
Gender REMSD = 0.011

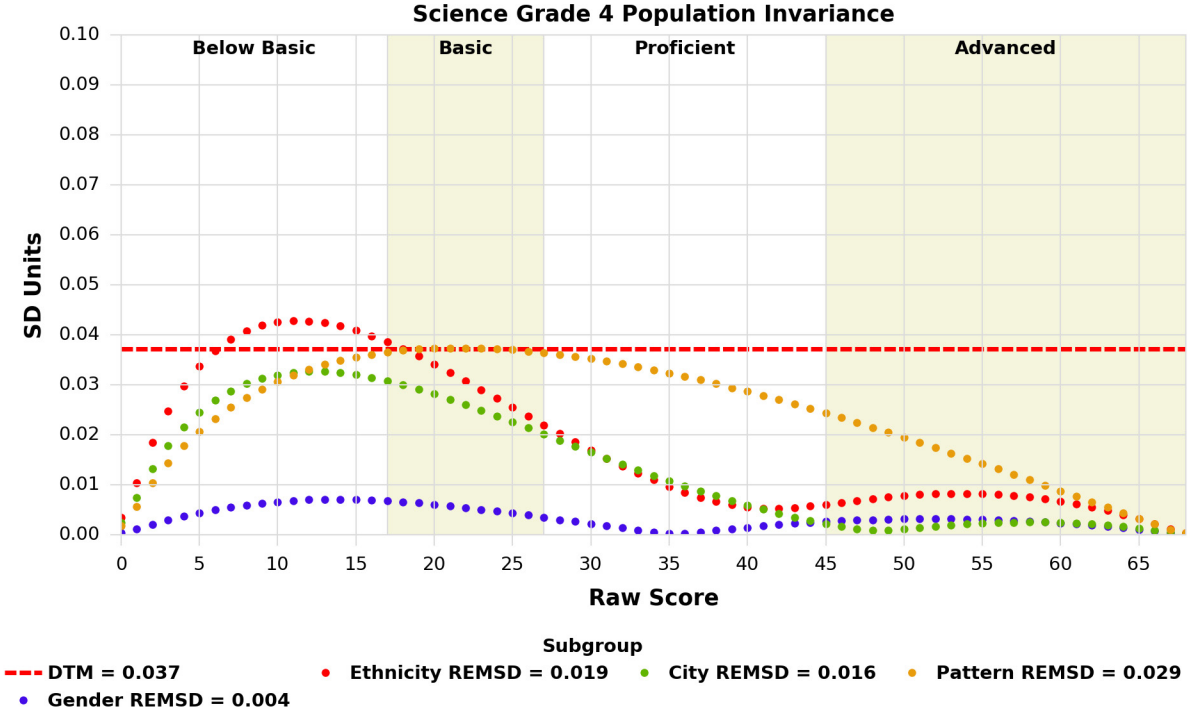

ELA Grade 4 Population Invariance
Below Basic
Basic
Proficient
Advanced
SD Units
Raw Score
Subgroup
DTM = 0.034
Ethnicity REMSD = 0.025
City REMSD = 0.018
Pattern REMSD = 0.031
Gender REMSD = 0.018

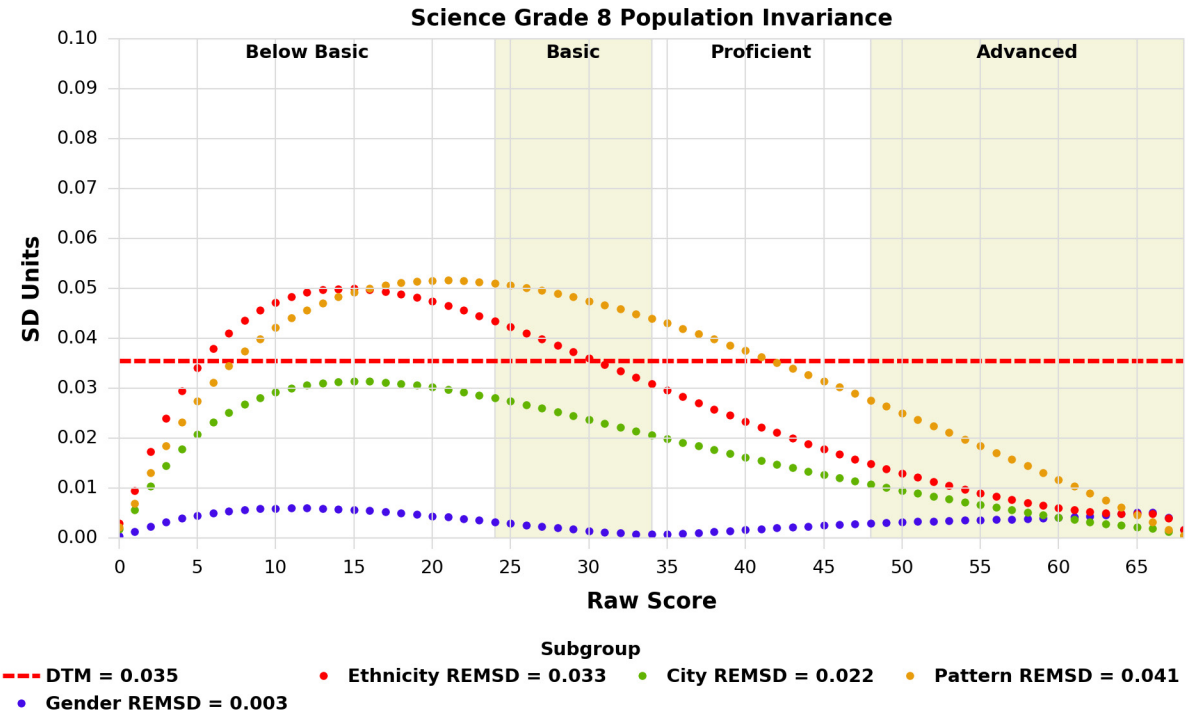

ELA Grade 5 Population Invariance
Below Basic
Basic
Proficient
Advanced
SD Units
Raw Score
Subgroup
DTM = 0.034
Ethnicity REMSD = 0.032
City REMSD = 0.013
Pattern REMSD = 0.023
Gender REMSD = 0.017


ELA Grade 6 Population Invariance
Below Basic
Basic
Proficient
Advanced
SD Units
Raw Score
Subgroup
DTM = 0.034
Ethnicity REMSD = 0.027
City REMSD = 0.013
Pattern REMSD = 0.021
Gender REMSD = 0.054


ELA Grade 7 Population Invariance
Below Basic
Basic
Proficient
Advanced
SD Units
Raw Score
Subgroup
DTM = 0.036
Ethnicity REMSD = 0.027
City REMSD = 0.011
Pattern REMSD = 0.037
Gender REMSD = 0.053


ELA Grade 8 Population Invariance
Below Basic
Basic
Proficient
Advanced
SD Units
Raw Score
Subgroup
DTM = 0.035
Ethnicity REMSD = 0.019
City REMSD = 0.010
Pattern REMSD = 0.014
Gender REMSD = 0.061


Science Grade 4 Population Invariance
Below Basic
Basic
Proficient
Advanced
SD Units
Raw Score
Subgroup
DTM = 0.037
Ethnicity REMSD = 0.019
City REMSD = 0.016
Pattern REMSD = 0.029
Gender REMSD = 0.004



RASCH ITEM STATISTICS

As noted earlier, the Rasch model expresses item difficulty (and student ability) in units referred to as logits, rather than on the percent-correct metric. The logit metric has several mathematical advantages. Logits have an interval scale, meaning that two items with logits of 0.0 and +1.0 (respectively) are the same distance apart as two items with logits of +3.0 and +4.0. Logits are not dependent on the ability level of the students. For example, a test form can have a mean logit of zero, whether the average item p-value for the student 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 the same 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 ELA test or a grade 8 science test, relate to an arbitrary origin defined by the center of items on that form. The average third-grade ELA item will have a logit of zero; the average grade 8 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 a 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 the same operational item set. All items on each form can then be easily adjusted to a single (but still arbitrary) origin by defining the origin as the mean of the operational 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. This is partly how PSSA items can be placed on the same logit difficulty scale across years. Chapter Fifteen has more detailed information about the PSSA scale linking procedures.

Appendix F reports the item statistics including classical and Rasch logit difficulties for all the operational items. Table 12–4 summarizes the Rasch logit difficulties of the operational items on each test. The minimum and maximum values and standard deviations suggest that the PSSA items covered a relatively wide range of difficulties. It is important to note that the logit difficulty values presented have not been linked to a common scale of measurement across grades and subjects. Therefore, the relative magnitude of the statistics across content areas and grades cannot be compared. The mean item difficulties are not exactly zero with mathematics and ELA although there was no equating was conducted. This is because the first round of calibration is only with a subset of all items (operational MC items only). Calibration of non-MC items are conducted anchoring the MC item. See Chapter Fifteen for more detailed information on mathematics and ELA calibration.

Table 12–4. Summary of Rasch Item Difficulties for PSSA Mathematics, ELA, and Science

Subject	Grade	N	Mean	SD	Min	Max
Mathematics	3	63	-0.01	0.74	-1.76	1.58
Mathematics	4	63	-0.41	0.84	-2.33	1.72
Mathematics	5	63	0.01	0.88	-1.75	1.39
Mathematics	6	63	0.17	0.80	-1.78	1.80
Mathematics	7	63	-0.14	0.71	-1.40	1.78
Mathematics	8	63	-0.15	0.74	-1.65	1.57
ELA	3	45	0.22	0.91	-1.99	1.89
ELA	4	49	0.14	0.76	-1.60	1.44
ELA	5	49	0.21	0.64	-1.58	1.53
ELA	6	49	0.48	0.60	-1.13	1.39
ELA	7	49	0.29	0.72	-1.70	1.60
ELA	8	49	0.04	0.82	-2.04	1.79
Science	4	63	0.80	0.53	-0.25	2.13
Science	8	63	0.43	0.52	-0.51	1.90

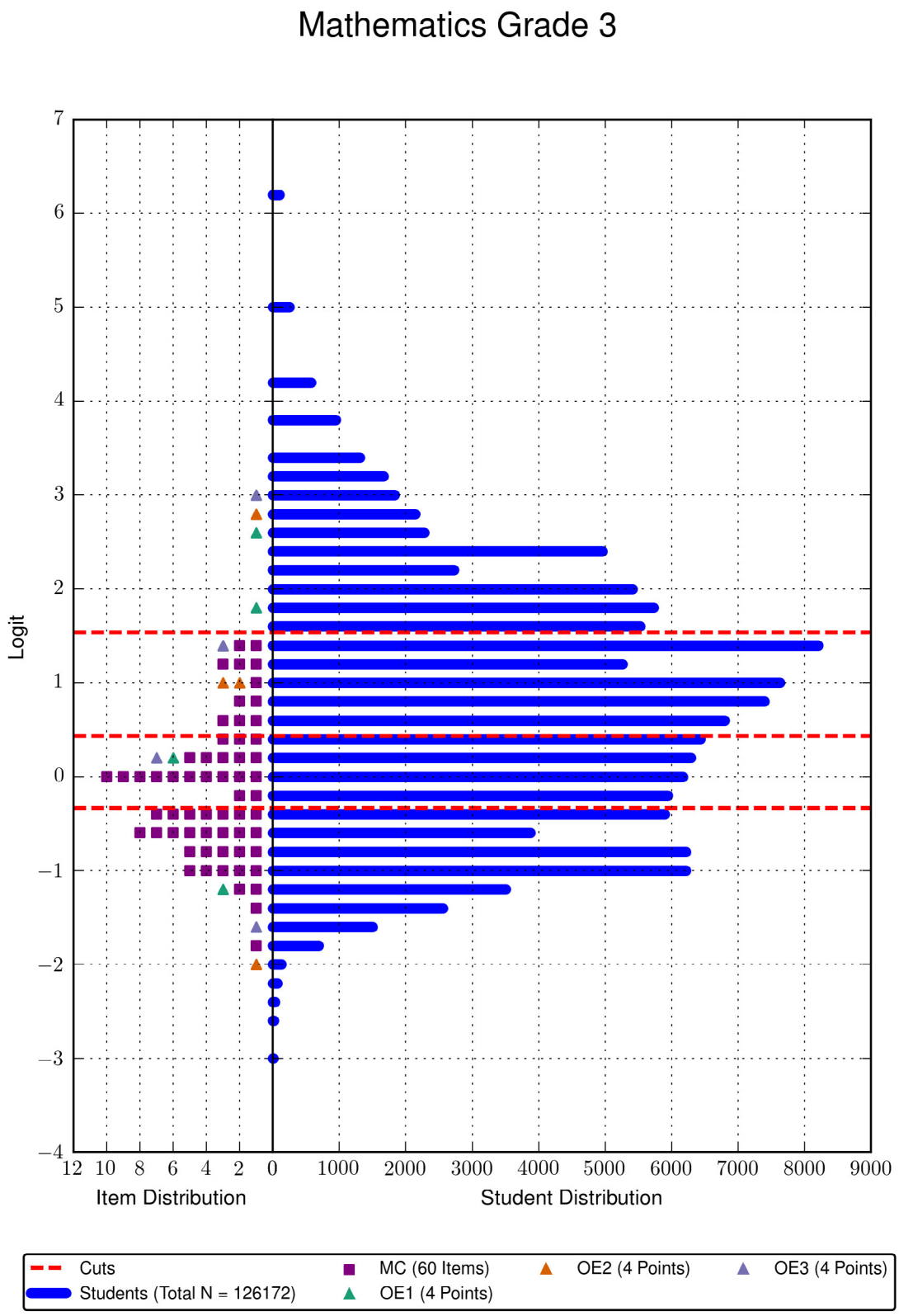
Note. The mean logit values not necessarily 0.0 because the items have been placed on a scale that was developed in prior years.

ITEM DIFFICULTY-STUDENT ABILITY WRIGHT MAPS

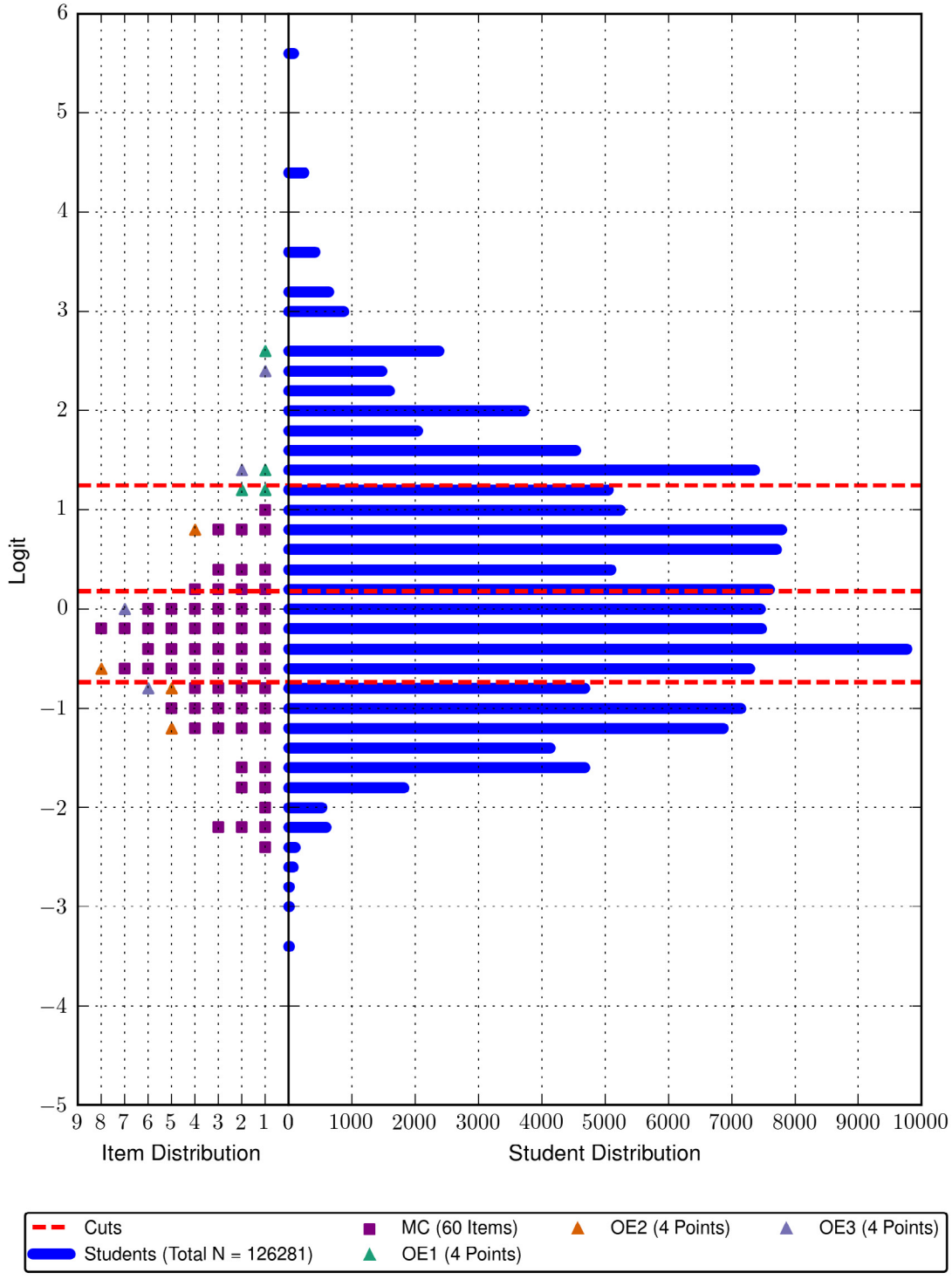
The distributions of the Rasch item logits (item difficulty estimates) are shown on the item difficulty-student ability maps presented in Figure 12–3. In each item-student map, markers on the left-hand side represent item difficulty parameter estimates, whereas markers on the right hand side represent person ability parameter estimates. One MC item is represented by one symbol on the left-hand side of the plots and one OE item has multiple symbols to present score points. As noted earlier, the Rasch model enables placement of both items and students on the same scale. Consequently, one can easily visualize information about how the difficulty of the test items related to the ability distribution of students who took the test. The students located in the upper right quadrant of any given plot have relatively higher ability. Items in the lower left quadrant are relatively easier. High ability students have higher probabilities of correctly answering easier items. Similarly, low ability students (in lower right quadrant of any given plot) have lower probabilities of answering harder items (in upper left quadrant).

In 2016 a pattern noted across the maps for many grades and content areas was for students to have relatively higher ability and for items to be relatively easier. Accordingly, test development for the 2017 PSSAs focused on centering the predicted test difficulties on the center of the 2016 examinee ability distribution to more closely align item difficulty with examinee performance. The Wright maps in Figure 12–3 reflect this adjustment to test difficulty.

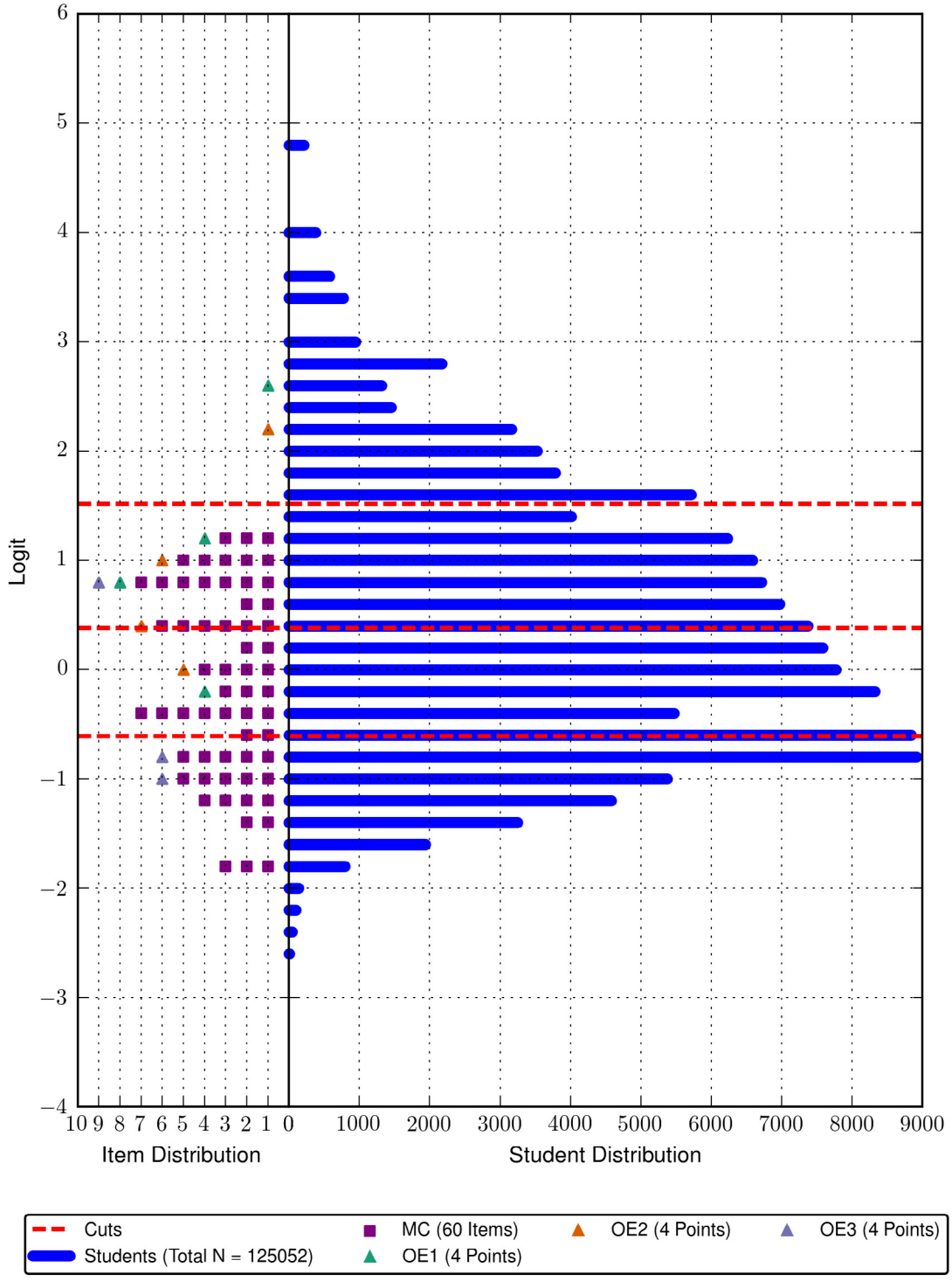
Figure 12–3. Item-Student Maps



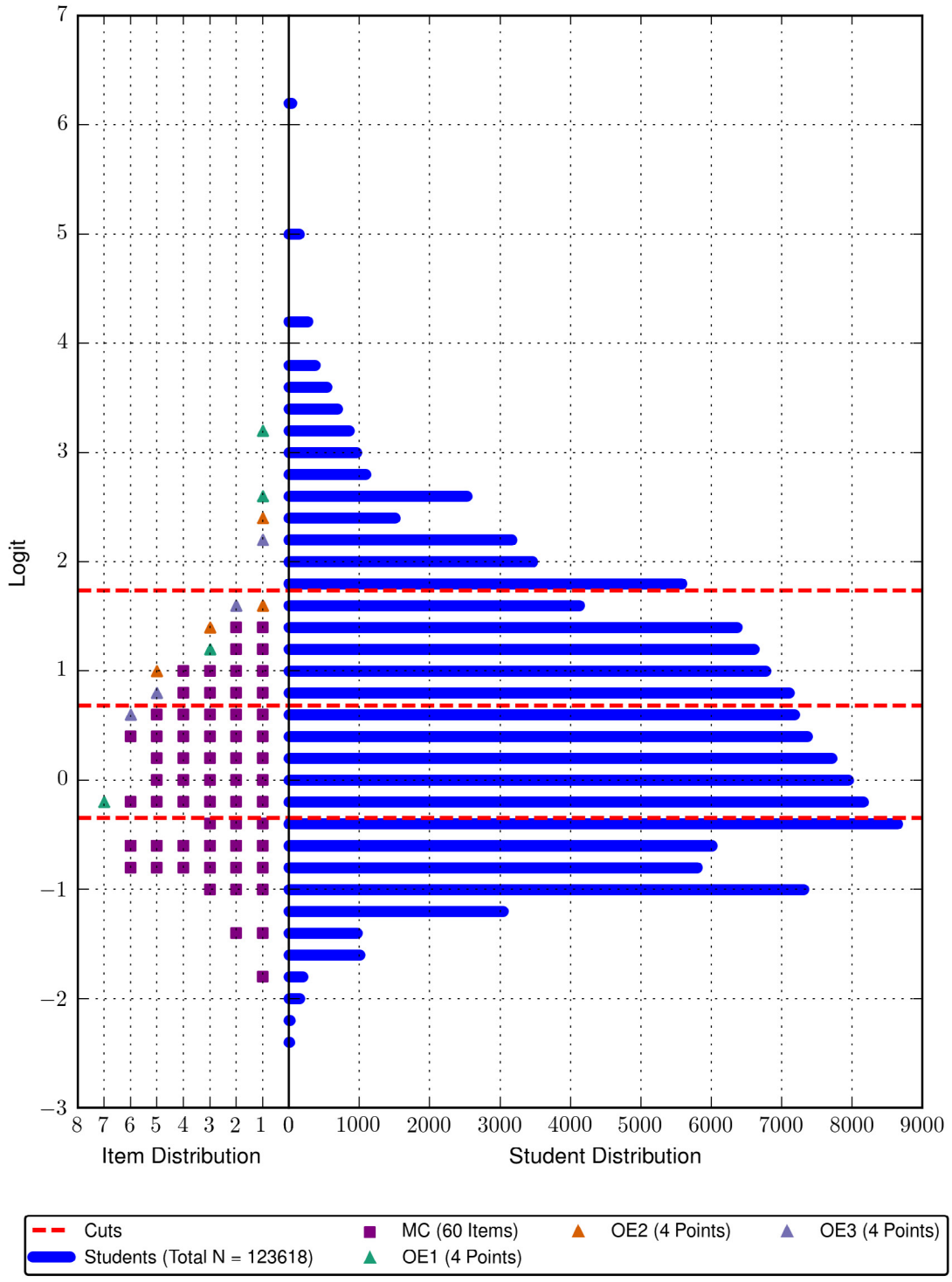
Mathematics Grade 4



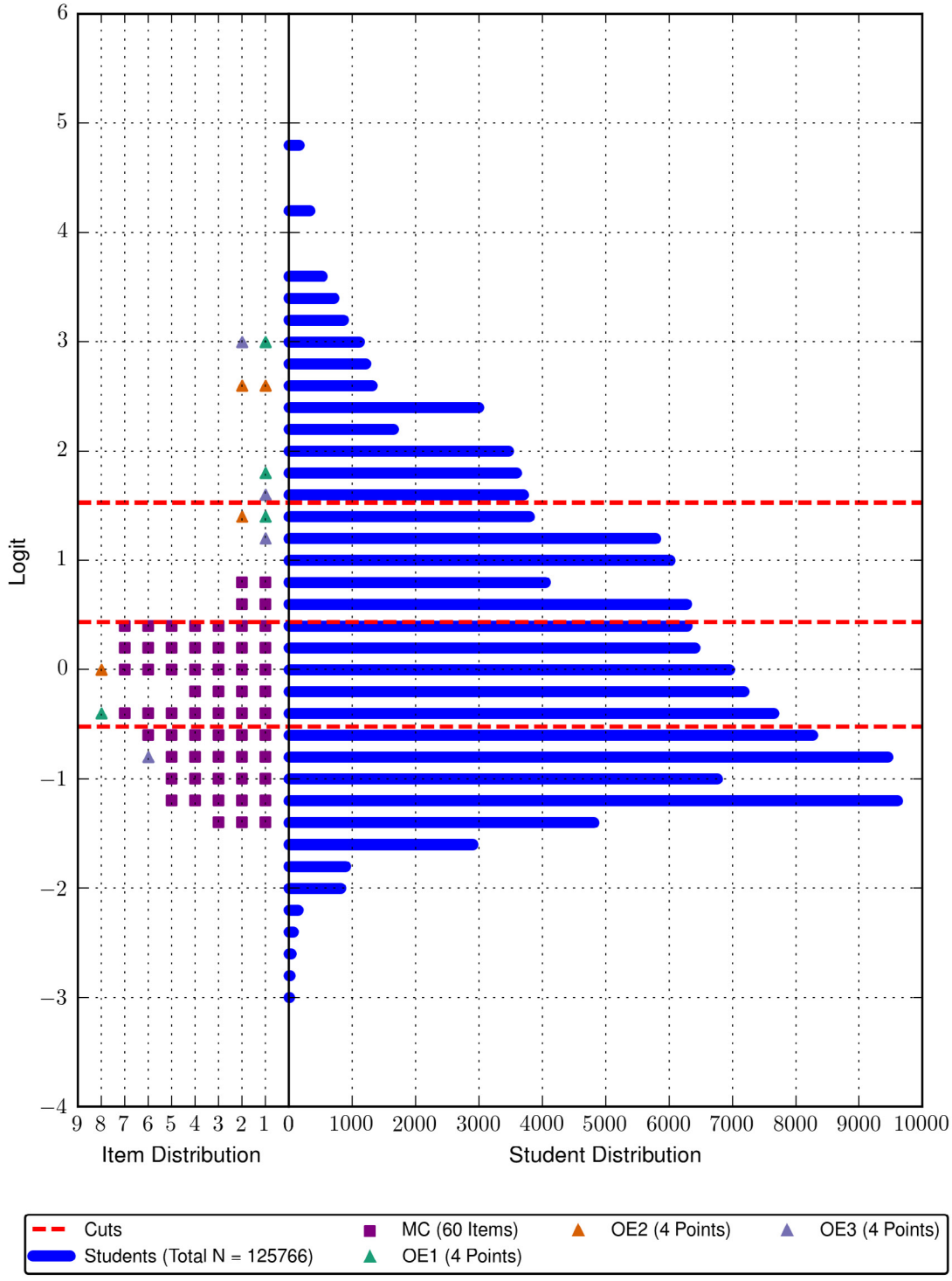
Mathematics Grade 5



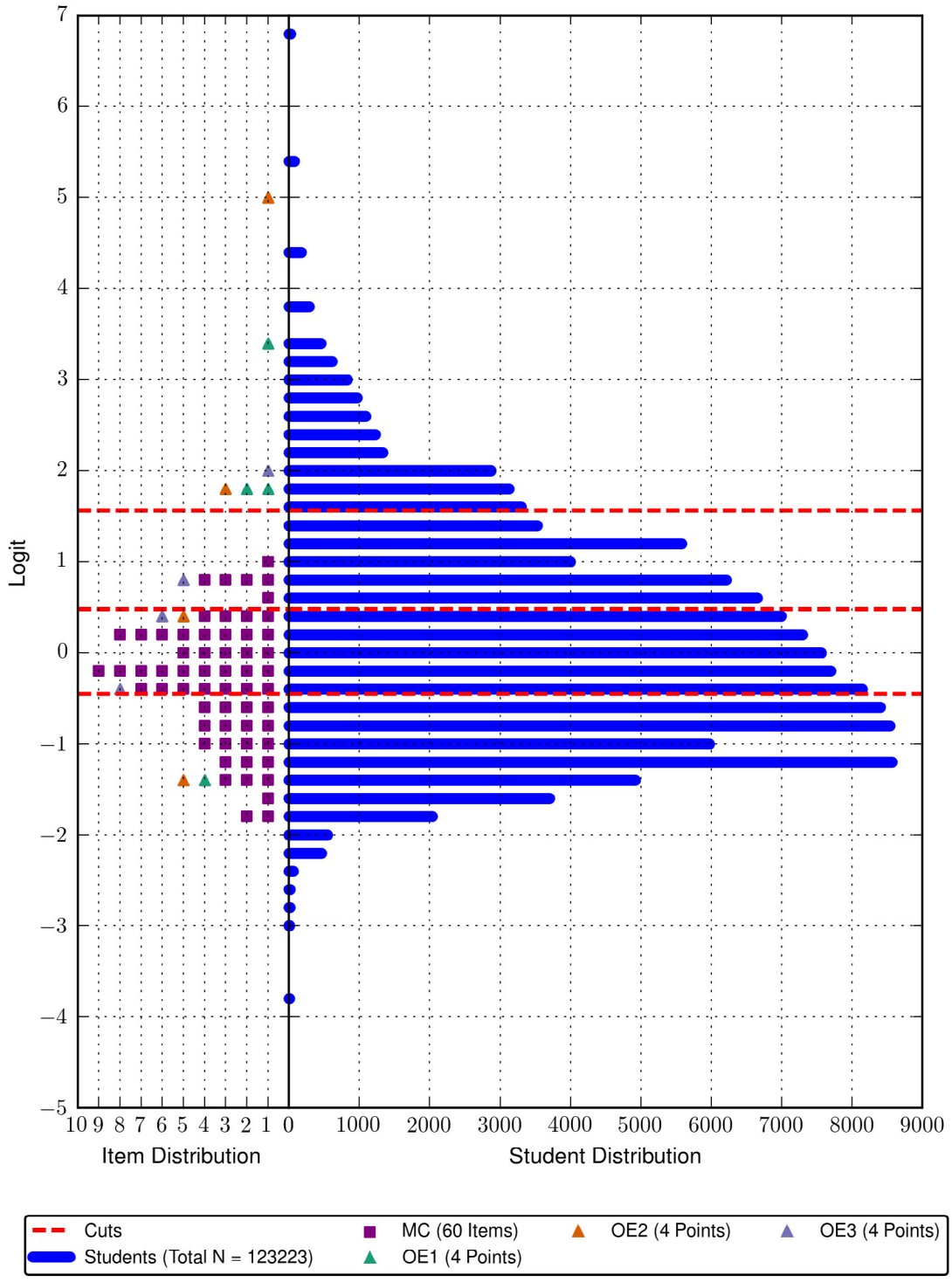
Mathematics Grade 6



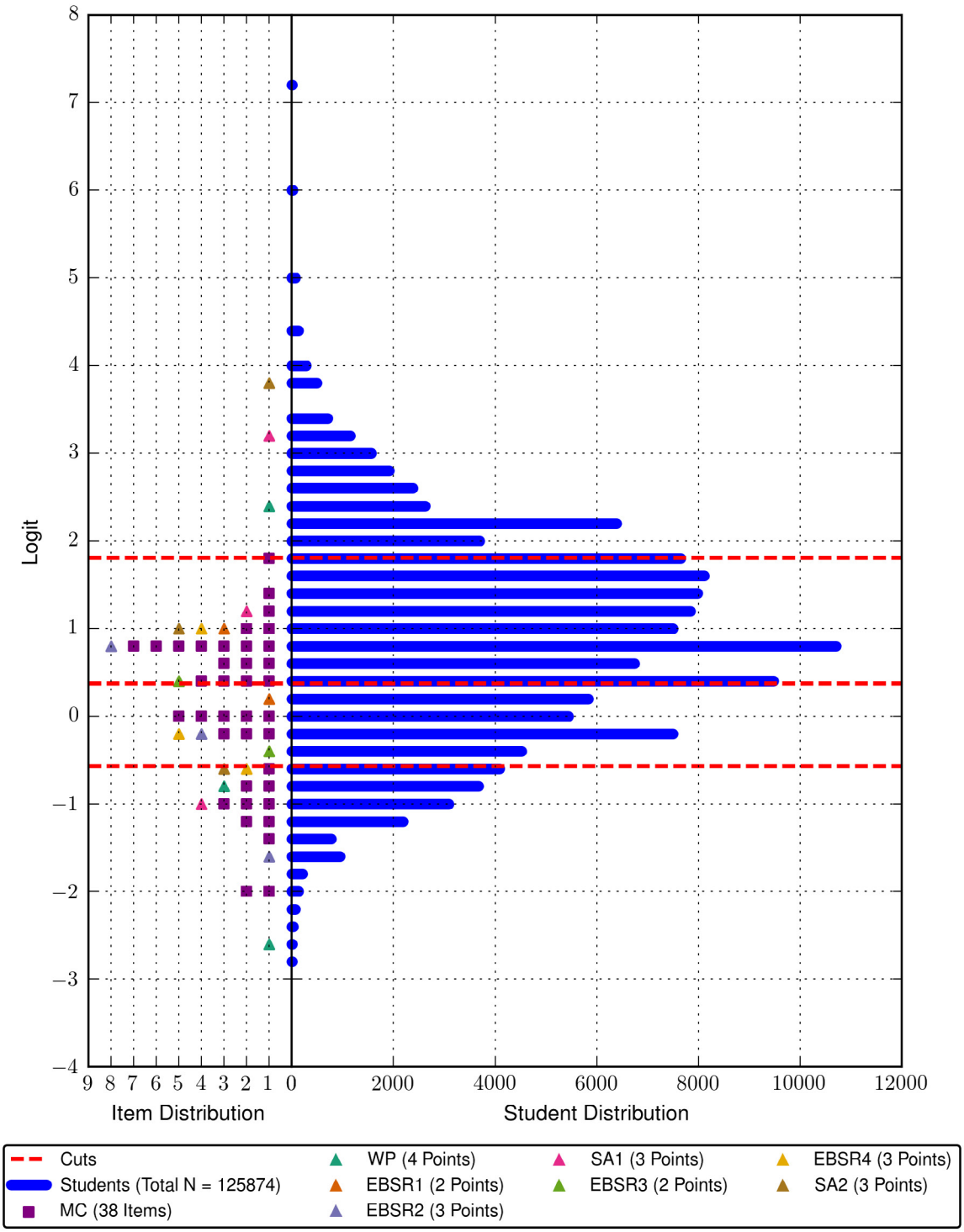
Mathematics Grade 7



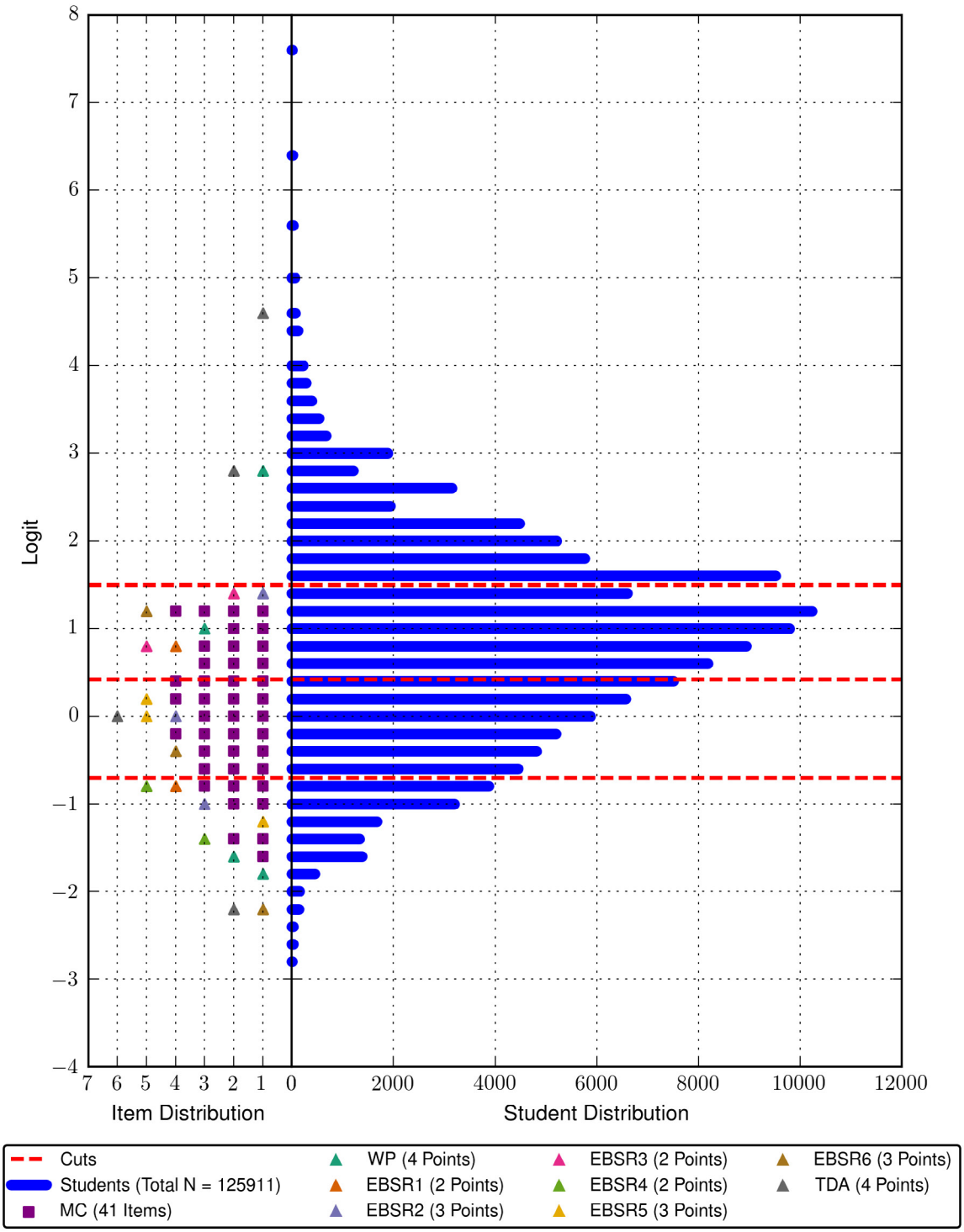
Mathematics Grade 8



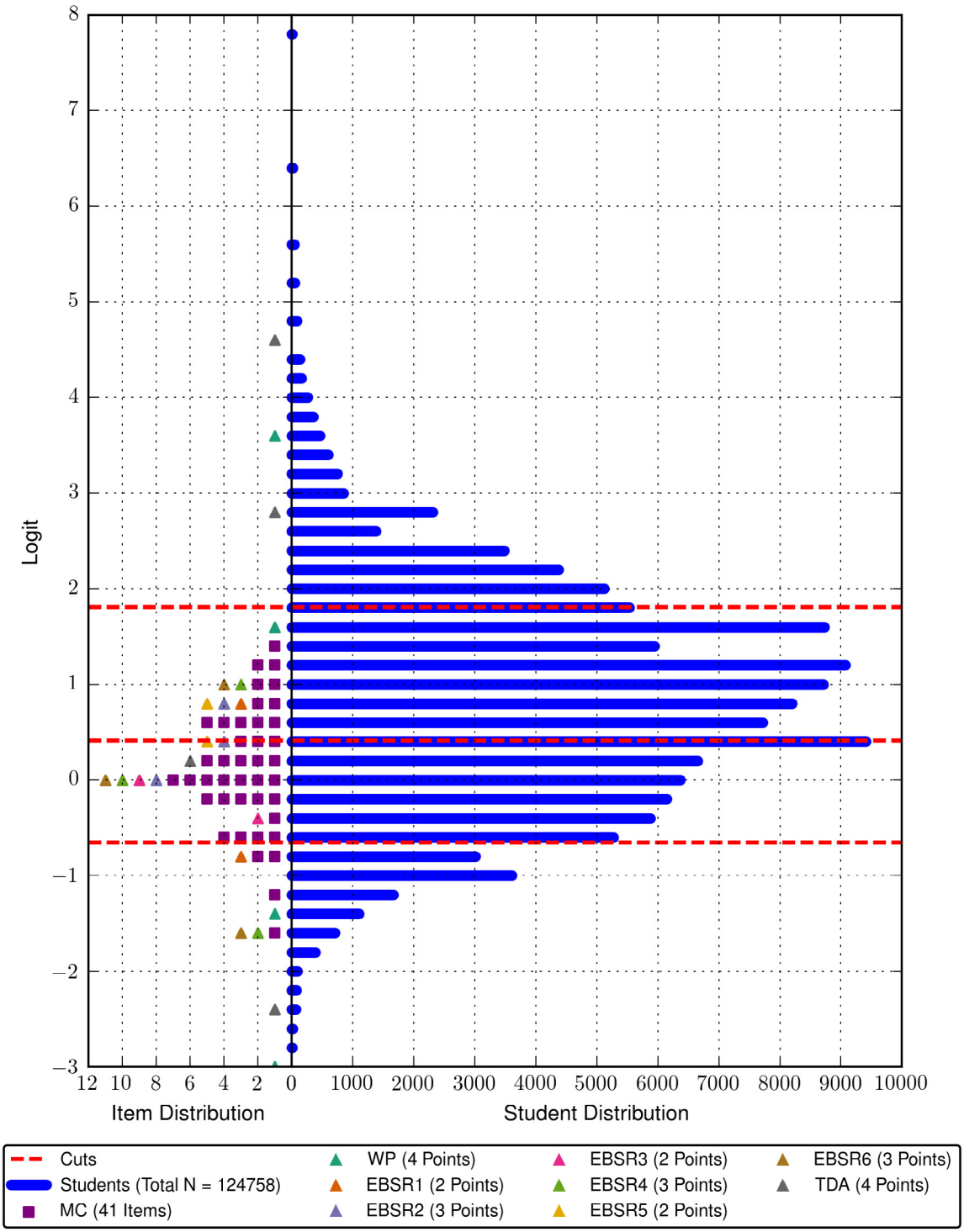
ELA Grade 3


Logit
8
7
6
5
4
3
2
1
0
−1
−2
−3
−4
9 8 7 6 5 4 3 2 1 0
2000
4000
6000
8000
10000
12000
Item Distribution
Student Distribution
Cuts
Students (Total N = 125874)
MC (38 Items)
WP (4 Points)
EBSR1 (2 Points)
EBSR2 (3 Points)
SA1 (3 Points)
EBSR3 (2 Points)
EBSR4 (3 Points)
SA2 (3 Points)

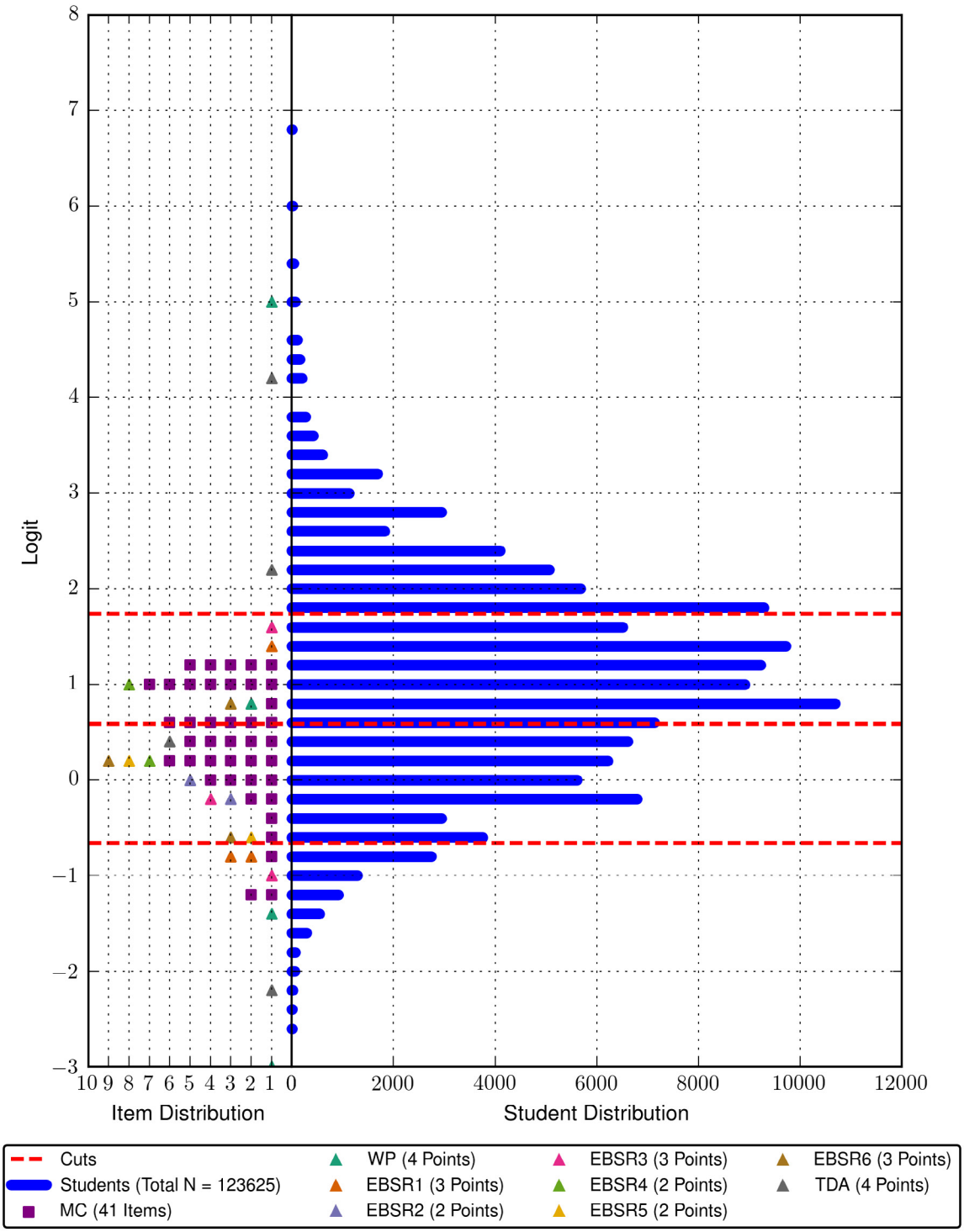
ELA Grade 4


Logit
8
7
6
5
4
3
2
1
0
−1
−2
−3
−4
7 6 5 4 3 2 1 0
2000
4000
6000
8000
10000
12000
Item Distribution
Student Distribution
Cuts
Students (Total N = 125911)
MC (41 Items)
WP (4 Points)
EBSR1 (2 Points)
EBSR2 (3 Points)
EBSR3 (2 Points)
EBSR4 (2 Points)
EBSR5 (3 Points)
EBSR6 (3 Points)
TDA (4 Points)

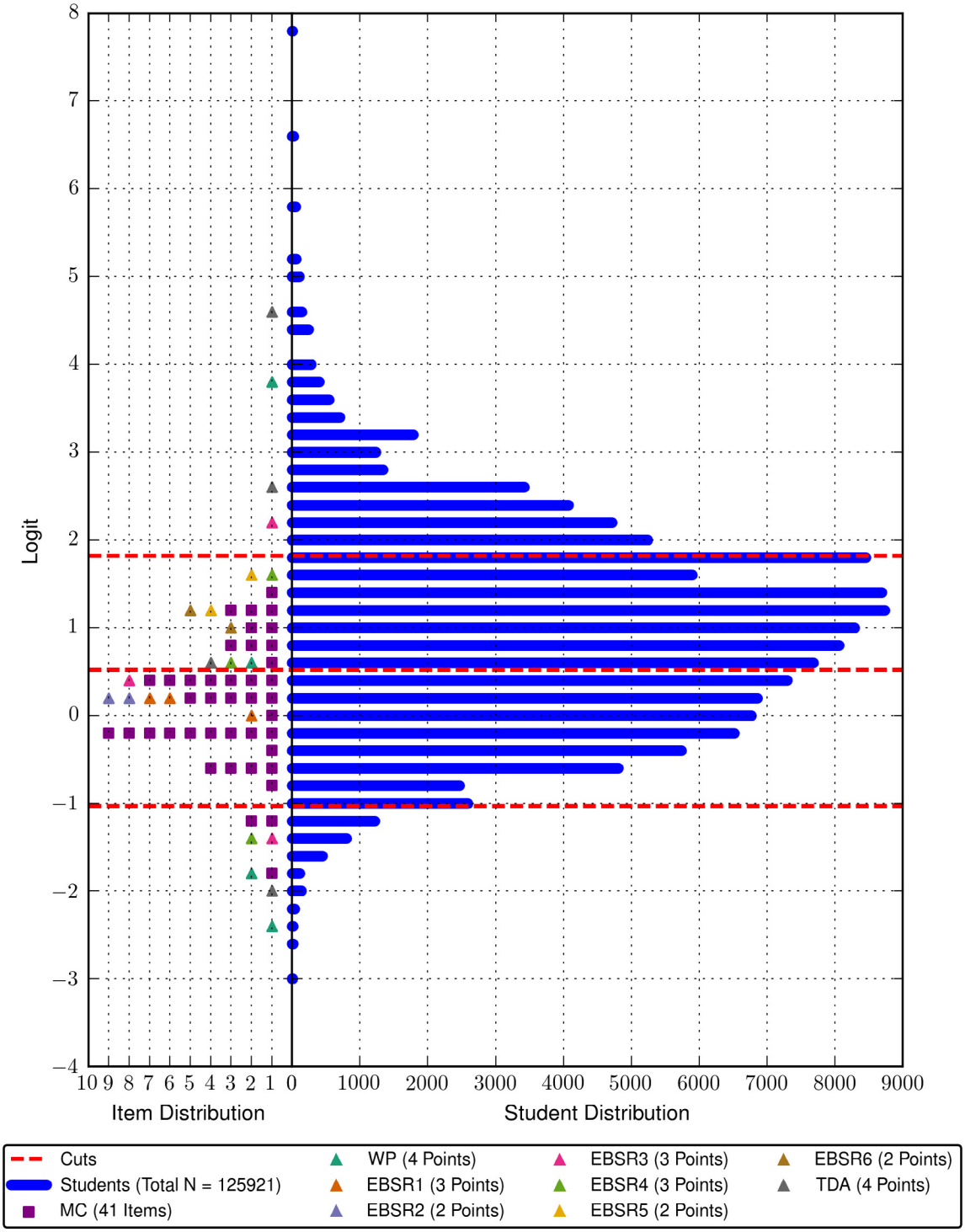
ELA Grade 5


Logit
8
7
6
5
4
3
2
1
0
−1
−2
−3
12 10 8 6 4 2 0
1000 2000 3000 4000 5000 6000 7000 8000 9000 10000
Item Distribution
Student Distribution
Cuts
Students (Total N = 124758)
MC (41 Items)
WP (4 Points)
EBSR1 (2 Points)
EBSR2 (3 Points)
EBSR3 (2 Points)
EBSR4 (3 Points)
EBSR5 (2 Points)
EBSR6 (3 Points)
TDA (4 Points)

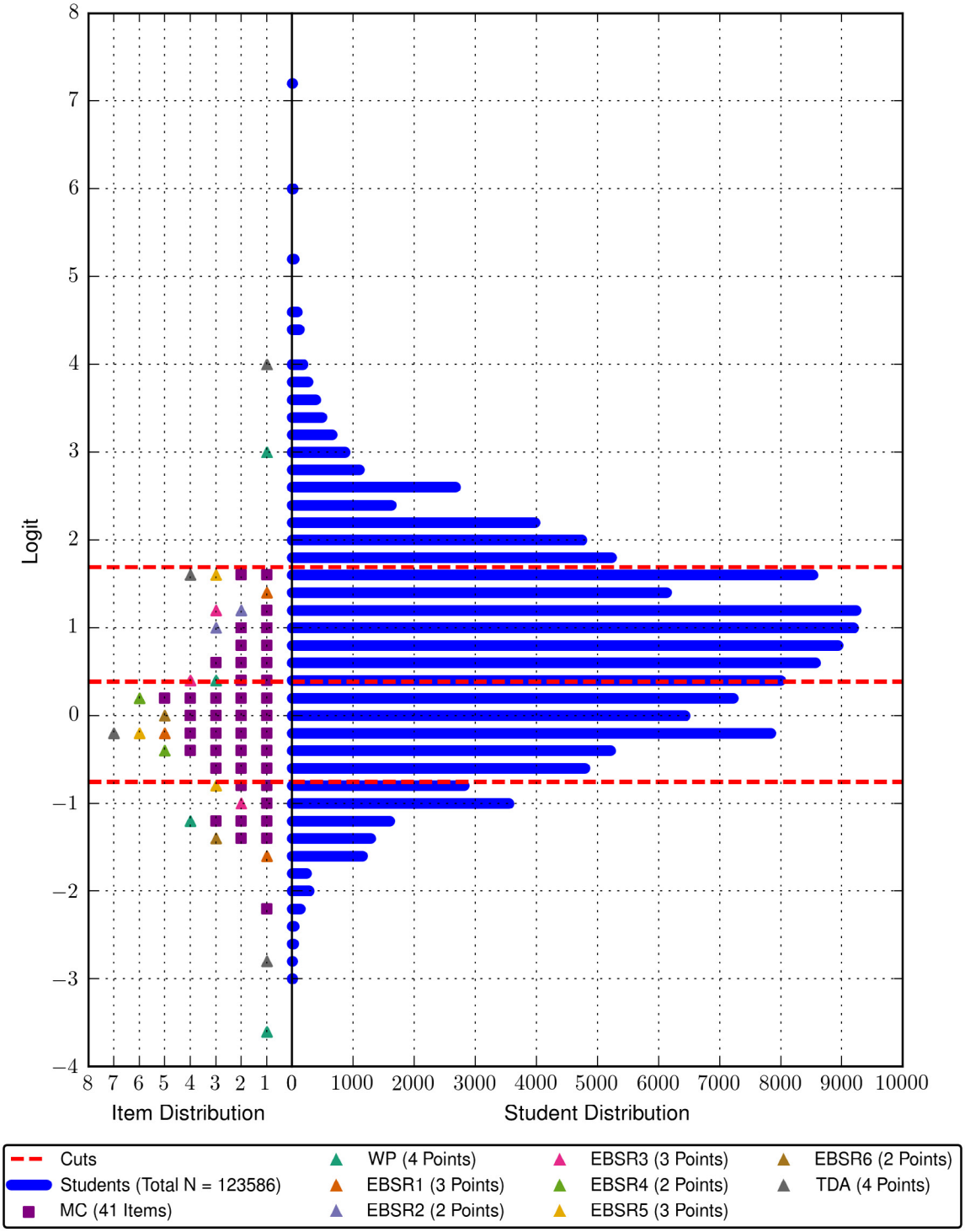
ELA Grade 6


Logit
8
7
6
5
4
3
2
1
0
−1
−2
−3
10 9 8 7 6 5 4 3 2 1 0
Item Distribution
2000
4000
6000
8000
10000
12000
Student Distribution
Cuts
Students (Total N = 123625)
MC (41 Items)
WP (4 Points)
EBSR1 (3 Points)
EBSR2 (2 Points)
EBSR3 (3 Points)
EBSR4 (2 Points)
EBSR5 (2 Points)
EBSR6 (3 Points)
TDA (4 Points)

ELA Grade 7


Logit
8
7
6
5
4
3
2
1
0
−1
−2
−3
−4
10 9 8 7 6 5 4 3 2 1 0
1000 2000 3000 4000 5000 6000 7000 8000 9000
Item Distribution
Student Distribution
Cuts
Students (Total N = 125921)
MC (41 Items)
WP (4 Points)
EBSR1 (3 Points)
EBSR2 (2 Points)
EBSR3 (3 Points)
EBSR4 (3 Points)
EBSR5 (2 Points)
EBSR6 (2 Points)
TDA (4 Points)

ELA Grade 8


Logit
8
7
6
5
4
3
2
1
0
−1
−2
−3
−4
8 7 6 5 4 3 2 1 0
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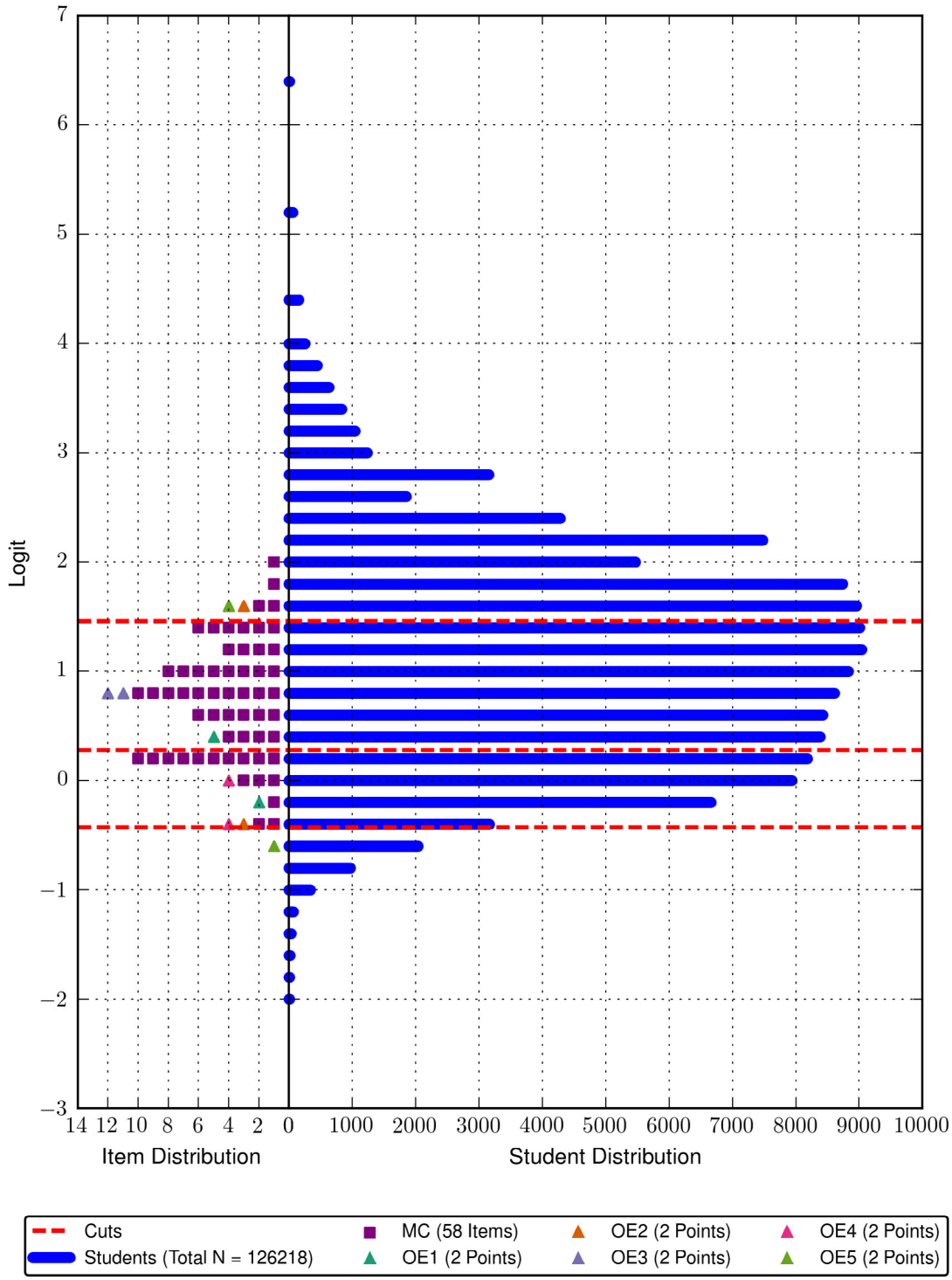
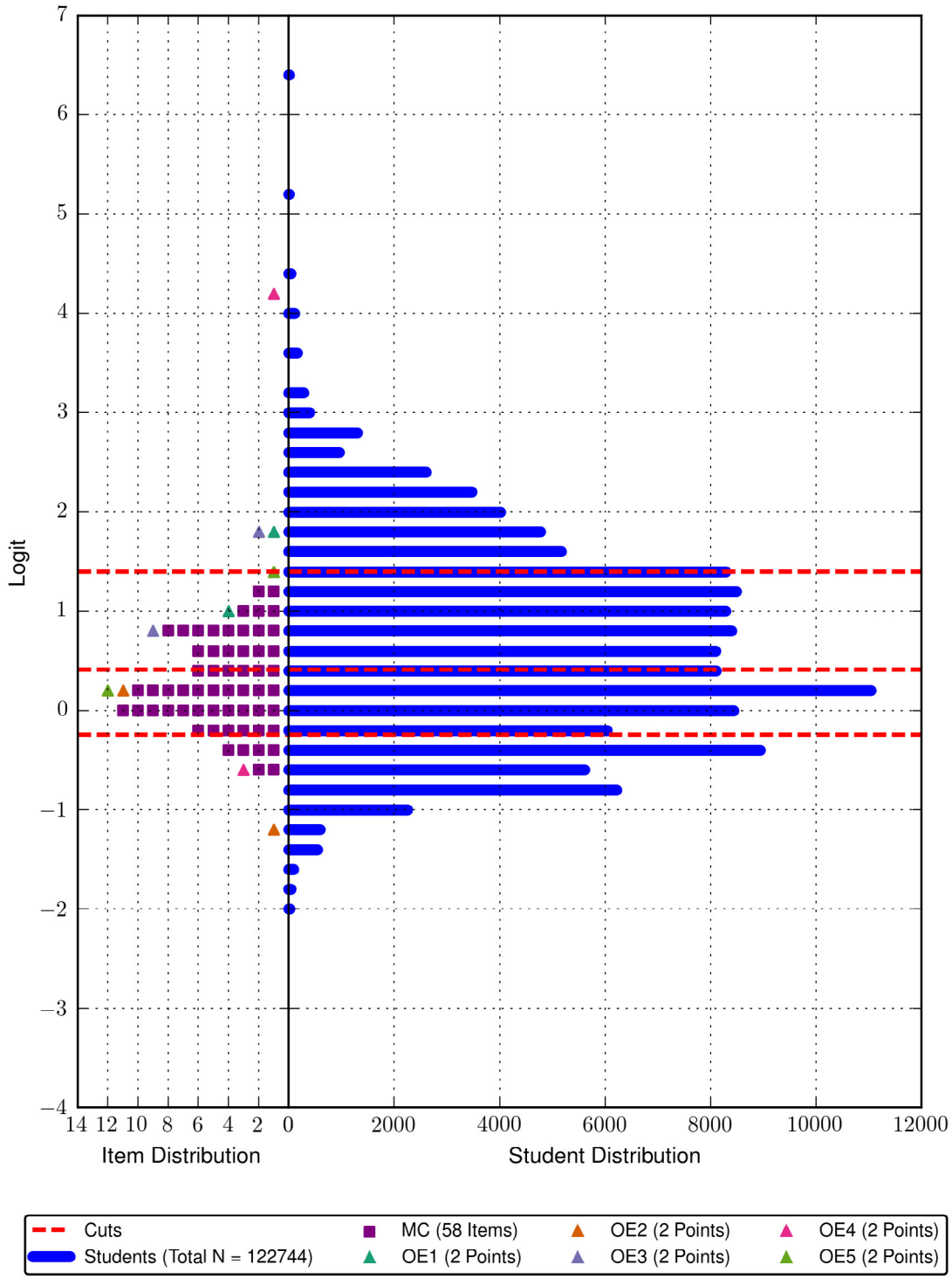
Item Distribution
Student Distribution
Cuts
Students (Total N = 123586)
MC (41 Items)
WP (4 Points)
EBSR1 (3 Points)
EBSR2 (2 Points)
EBSR3 (3 Points)
EBSR4 (2 Points)
EBSR5 (3 Points)
EBSR6 (2 Points)
TDA (4 Points)

Science Grade 4



Science Grade 8



CHAPTER THIRTEEN: PERFORMANCE LEVEL SETTING

Performance level setting events for grades 3 through 8 in mathematics and ELA took place June 9–12, 2015. No performance level setting occurred for science this year. A history (dates and methodology) of performance level setting events are provided in Table 13–1. The resulting cut scores from those events are provided in Table 13–2. For additional details about sciences standard setting event, refer to the PSSA science performance level setting technical report in 2008. For mathematics and ELA, please refer to the performance level setting report in 2015.

Table 13–1. Performance Level Setting/Validation Event Dates and Methodology

Subject	Grade	Methodology	Validation?	Event Date
Mathematics	3,4,5,6,7,8	Bookmark	No	Summer 2015
ELA	3,4,5,6,7,8	Bookmark	No	Summer 2015
Science	4, 8, 11	Bookmark	No	Summer 2008

PSSA CUT SCORES

Appendix M provides the Rasch ability and scaled score cuts for each PSSA test. For reader convenience, these are documented next in a different format. Table 13–2 documents the cut scores on the scaled-score metric. PSSA scaling procedures are discussed further in Chapter Fourteen.

Table 13–2. PSSA Scaled-Score Metric Cut Scores by Grade and Subject Area

Subject	Grade	BB/B	B/P	P/A
Mathematics	3	923	1000	1110
Mathematics	4	908	1000	1107
Mathematics	5	901	1000	1113
Mathematics	6	897	1000	1105
Mathematics	7	904	1000	1109
Mathematics	8	906	1000	1108
ELA	3	905	1000	1143
ELA	4	887	1000	1107
ELA	5	893	1000	1139
ELA	6	875	1000	1115
ELA	7	845	1000	1130
ELA	8	886	1000	1130
Science	4	1150	1275	1483
Science	8	1150	1275	1464

Note. BB = Below Basic; B = Basic; P = Proficient; and A = Advanced.

CHAPTER FOURTEEN: SCALING

The purpose of a scaling analysis is to create a score scale. Scaling is used to transform test score values onto a scale more easily interpreted by users. For the PSSA, the resulting scaled scores will be used for score reporting and performance level classification. The PSSA classifies students into four achievement levels: Below Basic, Basic, Proficient, and Advanced.

The adoption of the Pennsylvania Core Standards in 2013 brought a number of changes to the PSSA in mathematics and ELA. In mathematics, content changed grades levels, items involved more problem solving for deeper understanding, rulers were provided in grade 3 only, protractors were provided in grade 4, and formula sheets were provided in grades 4 through 8. In ELA, the new PSSA replaces PSSA Reading and PSSA Writing. Additional changes in ELA include reading passages that reflect the increased expectations of text complexity and new item types to reflect the emphasis on text-based answers and evidence to support claims. PSSA science continues to be aligned to the Pennsylvania Academic Standards for Science, Technology, Environment and Ecology.

The changes to mathematics and ELA necessitated performance level setting and the establishment of new score scales in 2015. Therefore, mathematics and ELA scaled scores for 2017 are not comparable to years prior to 2015. Science score scales were established in 2008 and no changes were made to science cutpoints or score scales since that time. Therefore, science scaled scores are comparable to previous years back to the 2008 scores. Table 14–1 shows the scale score cutpoints.

SCALED SCORES

Individual student scores are reported as scaled scores. However, they are initially estimated as Rasch abilities (more information on the Rasch model is given in Chapter Twelve). Generally, scaled scores are preferred over Rasch ability values for reporting purposes. One issue is that Rasch ability values are on a scale that includes negative and decimal values. By transforming the Rasch ability values to scaled scores, all reported values can become positive integers. Scaled scores are usually obtained through some linear transformation of the Rasch ability values. The linear transformations used for the PSSA produce numeric values with three or four digits that are unit interval scaled scores. Each grade and subject has its own unique PSSA scaled score. Positive scores with no decimals make more sense to parents and students. Since Rasch ability values are comparative after linking to the base year, the transformed scaled scores have a common scale across years, even though the corresponding raw scores may differ. (Linking is discussed further in Chapter Fifteen.)

Essentially, PSSA scaled scores are derived through a two-step process. First, there is a nonlinear transformation that converts number correct scores to Rasch ability logits. Second, a linear transformation is used to convert logits to scaled scores. These and some additional considerations (e.g., rounding rules), are discussed further below.

DEFINITION OF SCOREABILITY

Answer documents are considered scoreable if they meet the attempt logic criterion for inclusion in the data files (see Chapter Nine).

At the item level, responses that were considered non-attempted or non-scoreable were assigned a score of zero. Details by item type are provided below.

- Multiple-choice (MC) items: All omit (no response) and multiple marks (more than one response selected without machine-discernible erasures) were scored as zeroes.
- Open-ended (OE) items: All blank, copied, non-scorable, foreign language, off-task, refusal, or unreadable responses were scored as zeroes.
- Evidence-based selected response (EBSR) items: Blank response for both parts OR part one marked with multiple marks and part two marked for all responses were scored as zeroes.

WINSTEPS SCALING

Parameter estimates are derived using the WINSTEPS 3.81.00 computer program (Linacre & Wright, 2014), which employs unconditional (UCON), joint-maximum-likelihood estimation (JMLE). WINSTEPS provides a conversion table that maps raw scores to logits (Rasch ability estimates). The logits are transformed to scaled scores as discussed below. Every year each test is scaled separately and then linked (see Chapter Fifteen).

ZERO AND PERFECT SCORES

WINSTEPS does not provide a direct ability estimate for zero (no points earned) or perfect (all points earned) raw scores. However, WINSTEPS has a default procedure for estimating such extreme scores, and this was used for the PSSA. Essentially, a fractional raw score (a value less than one) is added to zero scores and subtracted from perfect scores to determine the corresponding logit values for these extreme scores.

LINEAR TRANSFORMATION FORMULAS

PSSA scaled scores are obtained through a linear transformation of the Rasch ability estimates ($\hat{\theta}$). Specifically,

$$SS = m\hat{\theta} + b,$$

where *m* is the slope and *b* is the intercept.

For mathematics and ELA, the slope and intercept for each grade were derived by anchoring the Proficient cutpoint to a scaled score of 1000 and fixing the slope at 100. For science, the slope and intercept for each grade were derived by anchoring the Basic cutpoint at 1150 and the Proficient cutpoint at 1275.[1]

The slopes and intercepts for deriving PSSA scaled scores are provided in Table 14–2.

ROUNDING

The linearly transformed scaled scores are generally rounded to the nearest integer value for reporting purposes. Values greater than or equal to 0.50 are rounded up. Values less than 0.50 are rounded down.[2]

LOWEST OBTAINABLE SCALED SCORES

PSSA mathematics and ELA tests have a lowest obtainable scaled score (LOSS) of 600. For PSSA science, the LOSS values have been set to 1050 at Grades 4 and 925 for Grade 8. The selection of a LOSS is mainly based on two considerations: 1) extreme low scaled scores may have an impact on the average of the scaled scores at school/district level and 2) score truncation makes sense from a score precision perspective given measurement errors at the extremes are large. The LOSS values are documented in Table 14–1. See tables in Appendix N for LOSS *n*-counts.

HIGHEST OBTAINABLE SCALED SCORES

A highest obtainable scaled score (HOSS) is not set for the PSSA. Thus, the maximum possible scaled score value is allowed to float for each subject and grade. The upper bound varies from year to year, depending on the difficulty of the test form. Table 14–1 shows the maximum possible observed score for the current year's test. (Note: It may be that no student actually earned the maximum possible.) See tables in Appendix N for HOSS *n*-counts.

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[1] Anchoring two cutpoints for mathematics and ELA was considered. However, this led to large variability in scaled scores across grades. Therefore, it was determined that one cutpoint would be anchored and the slope set at 100 for all grades.

[2] One exception to this rounding is in science where scores are rounded up (even if less than 0.50) if this action would put the rounded score into a higher performance level. This rounding rule has been in place for science since the establishment of the score scale and cutpoints in 2008.

RAW-SCORE-TO-SCALED-SCORE TABLES

Full raw-to-scaled score tables can be found in Appendix N.

Table 14–1. PSSA Scaled Score Cuts for Each Performance Level by Grade and Subject Area

Subject	Grade	Min	BB/B[1]	B/P[1]	P/A[1]	Max[2]
Mathematics	3	600	923	1000	1110	1561
Mathematics	4	600	908	1000	1107	1529
Mathematics	5	600	901	1000	1113	1550
Mathematics	6	600	897	1000	1105	1534
Mathematics	7	600	904	1000	1109	1551
Mathematics	8	600	906	1000	1108	1618
ELA	3	600	905	1000	1143	1680
ELA	4	600	887	1000	1107	1714
ELA	5	600	893	1000	1139	1723
ELA	6	600	875	1000	1115	1737
ELA	7	600	845	1000	1130	1724
ELA	8	600	886	1000	1130	1677
Science	4	1050	1150	1275	1483	2344
Science	8	925	1150	1275	1464	2416

Notes. 1. BB = Below Basic; B = Basic; P = Proficient; and A = Advanced.
2. Scaled Score Maximum Values are unique for the each year's test.

Table 14–2. PSSA Intercept and Slope by Grade and Subject Area

Subject	Grade	Intercept	Slope
Mathematics	3	956.31	100
Mathematics	4	981.92	100
Mathematics	5	961.69	100
Mathematics	6	931.41	100
Mathematics	7	956.16	100
Mathematics	8	951.76	100
ELA	3	962.47	100
ELA	4	957.49	100
ELA	5	958.32	100
ELA	6	940.78	100
ELA	7	947.65	100
ELA	8	961.11	100
Science	4	1225.65	176.75
Science	8	1196.64	191.54

Notes. Linear Transformation Intercepts and Slopes are used to derive the Scaled Scores.
BB = Below Basic; B = Basic; P = Proficient; and A = Advanced

STRAND (REPORTING CATEGORY) SCORE STRENGTH PROFILE

Strength profiles for strand (reporting category) scores have been provided since 2009. New mathematics and ELA continue to report the strength profile. The following process was followed to derive the profile:

- The items for each strand were identified.
- WINSTEPS runs were undertaken that anchored the logit values for each strand's items to get the raw-to-logit score table for each strand. This is sometimes referred to as fixed item parameter scaling.
- The appropriate linear transformations (based on content and grade from Table 14–2) were applied to the logit values to derive strand scaled scores.

The strand scaled scores were categorized as follows: L=Low; M=Medium; H=High. The maximum possible strand scaled score was converted to H in cases where no strand scaled score equaled or exceeded the Advanced scaled score cut. Note that these designations are provided as an indication of performance levels within a strand, but as standards have not been set that describe strand performance as has been done at the overall test level, performance level descriptions for the overall test should not be used to describe strand performance. See Chapter Sixteen for information regarding strength profiles are used in score reports.

CHAPTER FIFTEEN: LINKING

In large-scale testing programs it is a common practice to have different item sets appear in test forms within and/or across years. Linking operational scores from the different test forms to a common scale of measurement ensures that all forms for a given grade and subject area provide comparable scores. Consequently, students are not given an unfair advantage or disadvantage because the particular test form they took is easier or harder than a test form taken by other students.

In order to account for the differences between different test forms, an application of an item response theory (IRT) linking methodology is required to place the item parameters and student ability estimates on the same scale as other forms. (As cautioned earlier, the success of these methods depends on how well the IRT assumptions are met.) The IRT model used for the PSSA is the Rasch Partial Credit Model (RPCM; Masters, 1982). Further descriptions of the RPCM are given in Chapter Twelve. Without linking analyses, the Rasch item calibrations for the new test items and associated scores on these items would be unique to the new test administration.

A chained linking design is utilized for the mathematics, ELA, and science PSSA operational scores. With a chained linking design, scores from the new test form are linked to the scale of previous test forms. The chain originates from scale of measurement defined for each test's base form, which is used as the reference for calibrating all items in the item pool. The base form is usually the form upon which the cut scores were established (see Chapter Thirteen). In the case of the PSSA, scales and cut scores were established for Science in 2008, and 2015 for ELA and mathematics. Therefore, the 2017 mathematics and ELA test are chain linked to the scales set in 2015 and the science tests are chain linked to the scales set in 2008. When the item parameters from the new test are placed on the test scale, the resulting scaled scores for the new test form will be expressed on the same scales as defined by the base forms.

This chapter begins with an explanation of specific PSSA design elements and associated analysis procedures. This is followed by a summary of the entire PSSA linking procedure. Some summary results are also provided. The linking procedure described will be used for each year-to-year linking cycle to support the comparability of scores within grade and subject area over time for all PSSAs.

PSSA MATHEMATICS, ELA, AND SCIENCE

The test designs for the operational PSSA mathematics, ELA, and science assessments used multiple test forms that shared several common elements. The operational items are the same on all forms and for all students. Student total raw scores and scaled scores, as well as accountability reporting, are based exclusively on the operational items. In addition, each test form has a different set of nonoperational items (i.e., items that are not part of student scores). One such example is the embedded field test items that are tested for possible inclusion in the PSSA item pool. Equating block items were included to bolster the linking design (discussed further below). The forms containing the nonoperational items were spiraled to ensure the items would have randomly equivalent samples of students responding to them. In summary, each test form for 2017 mathematics, ELA, and science was composed of core operational, equating block, and field test sections.

DATA COLLECTION DESIGN

The item status codes used in the IDEAS item banking system are given in Table 15–1. For brevity, these codes are used for the remainder of this chapter.

The link between years was based on the core linking (LK) and equating block (EB) items. These items had been used in previous administrations (most often from the prior year). The LK and EB items were used in approximately the same context. That is, the items were not altered in any way, they appeared in about the same position in the booklet, and they were administered at about the same time of year.

The equivalence of student samples across years cannot be assumed. Further, the same item can have different properties in different years because of changes in the item's position or changes in the students' experiences. Consequently, between-year linking requires more scrutiny than within-year linking. This chapter focuses more on the linking between years.

The linking design employed for PSSA is often referred to as a common-item nonequivalent groups design. Test forms contain a set of common items, called core LK items or EB items, which served as anchors for linking test forms across years to a common scale. LK items were internal anchor items (i.e., they contribute to student test scores) and EB items were external anchor items (i.e., they did not contribute to student test scores). All EB items were MC items.

Since LK items were in the tests' operational sections, they were common across all test forms within a year. For the 2017 PSSA, all core MC LK items were from 2016 operational tests. The forms containing EB items were spiraled, and thus, randomly distributed across the student population. All EB items in the 2017 PSSA tests were previously administered in 2016. The number of the LK/EB items are summarized in Table 15–2, and the number of EB items shown in Table 15–2 is the total number of EB items across all forms.

There were 60 core MC items in mathematics, 38 core MC items in grade 3 ELA, 41 core MC items in grades 4 and higher ELA, and science had 58 MC items. There were three core OE with mathematics, seven core OE[1] items in grade 3 ELA, eight in grades 4 and higher ELA. A further break down of OE items is also presented in Table 16–1 in Chapter Sixteen. There were three core OE items in mathematics, and 5 in science.

Table 15–1. Item Status Codes in IDEAS

Item	Comments	Code in IDEAS
Core	Include core linking (i.e., anchor) items and unique core items	OP
Core linking	Linking items in the core section which include MC and OE items	LK
Equating Block	All items in the EB are MC linking items	EB
Field Test	Items in the embedded FT section	FT

Table 15–2. 2017 PSSA Linking Designs: Mathematics, ELA, and Science

Subject	Grade	Number Of Forms	Total Core MC	Total Core Non-MC	Core Links MC	Core Links Non MC	Equating Block (All MC)
Mathematics	3	9	60	3	16	2	18
Mathematics	4	9	60	3	16	2	18
Mathematics	5	9	60	3	16	2	18
Mathematics	6	9	60	3	16	2	18
Mathematics	7	9	60	3	16	2	18
Mathematics	8	9	60	3	16	2	18
ELA	3	9	38	7	8	2	21
ELA	4	9	41	8	9	2	21
ELA	5	9	41	8	12	1	21
ELA	6	9	41	8	9	1	21
ELA	7	9	41	8	10	2	21
ELA	8	9	41	8	9	2	21
Science	4	12	58	5	16	2	24
Science	8	12	58	5	16	2	24

[1] OE items in ELA include SA, EBSR, TDA, and WP in this chapter.

LINKING METHOD FOR PSSA

The first step in linking the 2017 PSSAs in mathematics, ELA, and Science to their base scales was to express all 2017 item parameters for each test on its same respective scale. This was accomplished by calibrating all OP (including LK) MC items based on examinees taking the paper-based, master core forms. Then the OP MC items were anchored to calibrate EB MC items based on examinees taking all forms in the paper-based mode. Next, the resulting MC item parameters were used as anchors in a final WINSTEPS calibration of all OE items in the operational section (including OP LKs) based on examinees taking all forms in the paper-based mode.[2] At this point all OP and EB item parameters were on a unique scale for 2017. Between-year linking was required to the 2017 tests on their base scale.

Between-year linking utilized the 2017 LK and EB item parameters and their previous item parameters. The scale transformation methodology used for PSSA is the mean-shift procedure. This has been the procedure employed by the PSSA program for some time. After evaluating the robustness of the link by identifying items that did not maintain their relative difficulty across years, the difference between the current year and previous Rasch item parameters was then determined. The mean of the differences was then used to statistically adjust the 2017 parameters to the PSSA scales. The final (linking) item parameters were then used to estimate student abilities, which were, in turn, transformed to scaled scores. (Transformation formulas are provided in Chapter Fourteen.)

RATER DRIFT

Before the final mean-shift value was determined, a rater-effect adjustment was applied to the OE LK items. All OE linking items were in the Core section (LK OE). Students' responses from the previous administration (n = 1,000 per item) for the OE linking items were selected for the rater drift study (DRC jointly stratified by point value and on ability). The selected responses were scored by 2017 raters. Thus, the selected students' responses had scores from 2016 and 2017 raters and the difference between them was used to adjust for the rater effect. See Tables 18–11 through 18–13 (see Chapter Eighteen) for the correlations between the old and new scores for these OE LK items.

SUMMARY OF THE PSSA LINKING PROCEDURE

The following steps outline the linking procedure. Mathematics and ELA item calibration in 2017 followed the first and third steps followed by the eighth and ninth steps to calibrate MC and OE operational items and produce raw to scale score tables.

1. Calibrate all operational (OP) multiple-choice (MC) items in an unanchored Winsteps run
    a. Include only the Master Core and paper students with completeness status "01" and "00" (all students with MC responses).
    b. Include all MC items in the core operational section (OP MC).
    c. Do not include any equating block (EB) items.
    d. Do not include any field test (FT) items.
2. Calibrate selected multiple-choice (MC) items in an anchored run:
    a. Include all forms, but only paper students with completeness status "01" and "00" (all students with MC responses).
    b. Include all MC items in the core operational section (OP MC).
    c. Include all equating block (EB) items.
    d. Do not include any field test (FT) items.
    e. Fix all OP MC items from Step 1.

[2] No field test items were included in any of these calibrations. FT items were calibrated after the operational linking by anchoring all OP and EB items. This placed all FT items on the bank scale.

3. Calibrate selected open-ended (OE) items in an anchored run by putting them on the MC item scale from Step 3:
    a. Include all forms, but only paper students.
    b. Include all OE items in the Core section (OP OE).
    c. Do not include any FT items.
    d. Fix all MC items from Step 2.
4. Compute the rater-effect constant for each OE-Link item:
    a. Pull sample responses from the previous year (N ~ 1,000 students)[3] and create a data file including the selected students' MC and OE response scores (from the previous year's raters).
    b. Have the current year's raters score the selected OE responses.
    c. Calibrate the difficulty parameters for OE items based on the previous year's scores. (This is done separately for each OE item.)
        i. Calibrate all MC items (from the previous year's test) in an unanchored run using the data file from Step 4.a.
        ii. Calibrate each OE item separately using an anchored run for each item.
    d. Compute the rater-effect constant for each OE-Link item based on OE parameters from Step 4.c.ii.
        i. Use current and previous year's rater raw score means as the true/expected raw scores.
        ii. Using expected score distribution conditional on ability (item characteristic curve) for the previous year's rater scores, determine the two ability values for the two expected raw scores (i.e., the current and previous year's rater score means).
        iii. The rater-effect constant is the difference between the two abilities.
5. For each OE linking item, adjust the item parameter estimate obtained in Step 3 by the Step 4 Value—remove the rater effect:
    a. Each OE linking item (LK OE) has a specific rater-effect adjustment value.
6. Evaluate the stability of the linking items using Robust *Z*:
    a. Include all core linking (LK) items—LK MC and LK OE.
    b. Include all EB items.
    c. LK OE item parameters should be obtained from Step 5.
    d. Calculate Robust *Z* for each item in the linking.

    Once the above calculations were made, the following guidelines were used in determining possible sets of linking items used for the equating:

    e. Items with an absolute value of Robust *Z* exceeding 1.645 may be considered for exclusion.
    f. No more than 20 percent of the pool of linking items may be considered for exclusion.
    g. The ratio of the standard deviations of previous year and current Rasch difficulties should be in the 90 to 110 percent range.
    h. The correlation of previous year and current year Rasch difficulties is greater 39 0.95.

[3] This sample is generally stratified on previous year's total test scores; however, a minimum of 100 responses are selected for each possible score point.

Final decisions about the linking items were made in the national technical advisory committee (TAC) meeting in collaboration with PDE and DRC staff following these rules:

i. Drop items that DRC identified as having a large Robust Z and were out of sequence because they were pulled from a separate FT form.

j. If an item has been changed in any way from the previous year, it may no longer be used for linking.

Scatterplots of the linking item difficulties (logits) were constructed (i.e., the current year values were plotted against those from the prior year). Ideally, these plots should have a strong linear trend. Items straying from the trend line did not perform in the same way in both years. As noted above, items that departed significantly from this were further evaluated. The scatterplots with final LK/EB item sets are shown in Figure 15–1.

7. Calculate the mean shift over MC and OE linking items using global item difficulties (weighted by number of score points) for OE items:
   a. Include all core linking (LK) items—LK MC and LK OE.
   b. Include all EB items.
   c. Weight LK OE items by maximum possible score.
8. Apply the mean shift to the item parameters calibrated in Steps 2 and 3:
   a. All OP items (OP MC + OP OE).
   b. All EB items.
9. Scale the operational test by fixing all operational (OP) items obtained in Step 8:
   a. Include all students (all forms and all modes).
   b. The result from this step is a Raw-to-Logit (Rasch Ability) table.
10. Apply the appropriate linear transformation to the logit values to derive the scaled scores and SEMs:
    a. The result from this step is a Raw-to-Scaled Score table.

RESULTS SUMMARY

Table 15–3 shows the number of linking items and the shift parameters associated with those over the two years, and the correlation of item difficulties across years for each grade/content area. At first glance, some of the mean shift values may appear large. These shifts reflect an intentional adjustment in test difficulty to more accurately align it with the distribution of student performance. Also, the shift constants are being applied to parameter estimates from Step 1 in the equating process (where the mean of the unanchored MC items is fixed at zero). The adjustment needed to place the Step 1 estimates on the current scale can be large in magnitude as it must take into account multiple factors (e.g., weighting in the case of the writing test, rater drift, changes in student ability since the base-year administration, and differences in test difficulty as mentioned).

Table 15–3. Summary Data for Linking Items

Subject	Grade	Final Counts MC	Final Counts OE	2016 Shift	2017 Shift	2017 Correlation
Mathematics	3	34	2	-0.169	-0.054	0.992
Mathematics	4	34	2	0.019	-0.469	0.992
Mathematics	5	34	2	-0.026	-0.040	0.979
Mathematics	6	34	2	-0.003	0.102	0.991
Mathematics	7	34	2	-0.028	-0.221	0.991
Mathematics	8	34	2	0.015	-0.220	0.990
ELA	3	29	3	-0.033	0.147	0.990
ELA	4	32	2	-0.155	0.128	0.980
ELA	5	30	3	0.031	0.189	0.980
ELA	6	32	4	-0.021	0.502	0.980
ELA	7	31	3	-0.017	0.209	0.980
ELA	8	32	3	-0.054	0.009	0.990
Science	4	40	2	-0.076	0.829	0.972
Science	8	40	2	0.023	0.373	0.980

Note. No item was dropped during the linking procedures.

Appendix O provides the statistics for the linking items used. The previous and current values for item sequence, *p*-values, and logits are also provided. Appendix Q provides the mean raw and scaled score points across years. Together, these appendices provide a summary of how the items and test changed across years.

VISUALIZATION SUPPLEMENT

Linking analyses require considerable scrutiny given their critical role in reporting student performance. Items repeated over administrations can behave differently because of contextual changes or changes in the students' experiences. In addition to evaluating the linking items using Robust Z analyses, the graphs in Figure 15–1 provide a visualization to help identify extreme differences over different test administrations. The calibration data file described in Chapter Nine was used to construct these plots.

GRAPHS

This technical report uses figures to help one visualize the across-year differences in linking items at each grade. This section presents four types of figures, three of which illustrate the stability between the old (2016) and new (2017) item data:

1. Scatterplot of new-year *p*-values (2017) on old-year *p*-values (2016).
2. Scatterplot of new-year logits (2017) on old-year logits (2016).
3. Scatterplot of old and new *p*-values on new logits.
4. Test Characteristic Curves (TCCs) for the linked score distribution.

All four plots are presented for each grade and subject-area test. Each plot is described further below and Grade 4 science results are considered as an example of each.

NEW-YEAR *P*-VALUES ON OLD-YEAR *P*-VALUES

The top left-hand plot in Figure 15–1 describes the relationship between the item *p*-values for the two years. This type of scatter plot assists in a visualization of the year to year trends in item difficulty for items used in the linking procedure. The data points in these plots should have a clear trend where the vertical axis values rise as the horizontal axis values increases (i.e., as one moves from left to right). If the *p*-values for both years were correlated at 1.0, the relationship would be expected to fall on a straight line. Generally, linking items are not perfectly stable across years, so some scatter is expected. The extent to which the trend does not pass through the origin indicates a change in student performance.

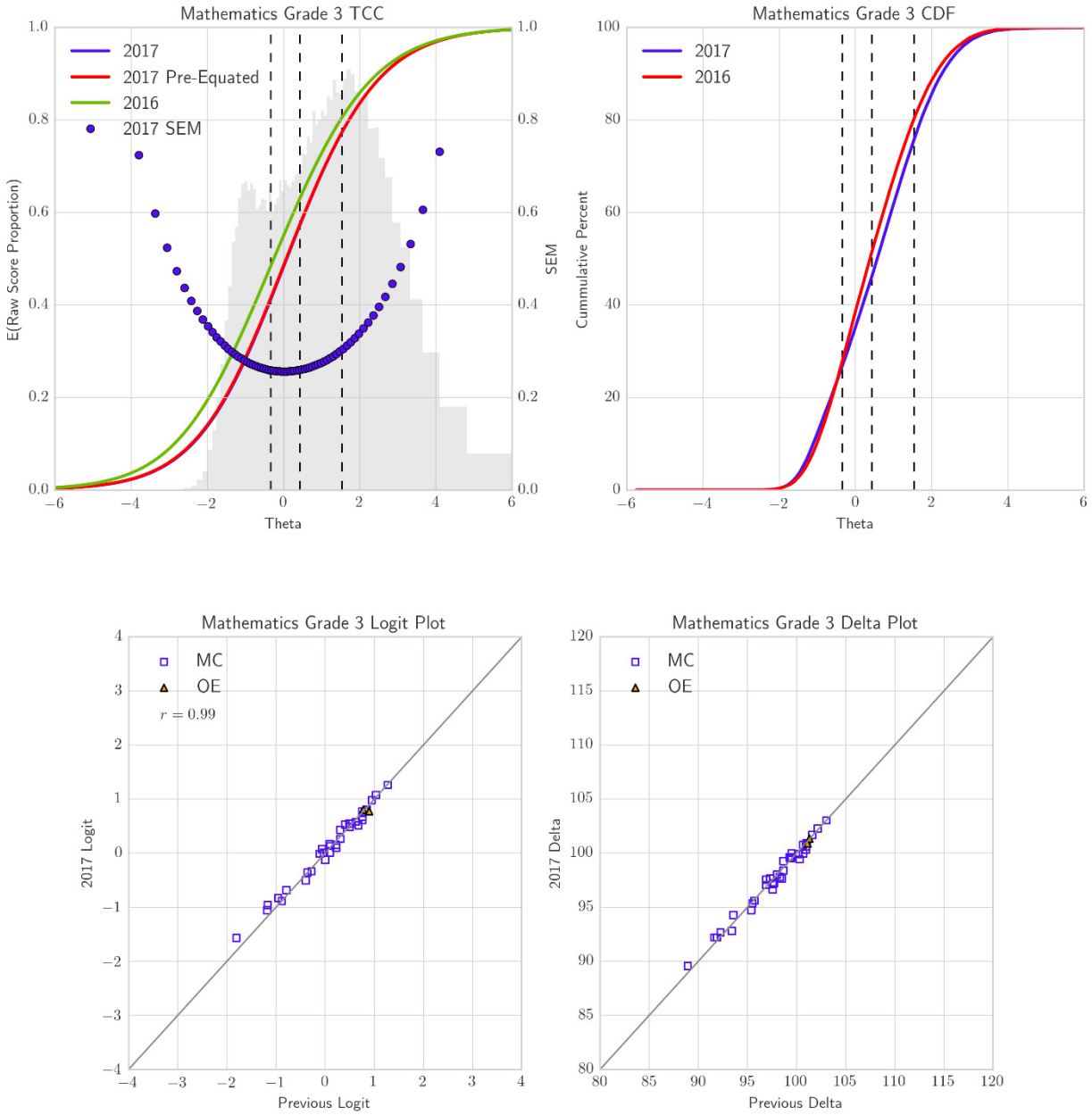
NEW-YEAR LOGITS ON OLD-YEAR LOGITS

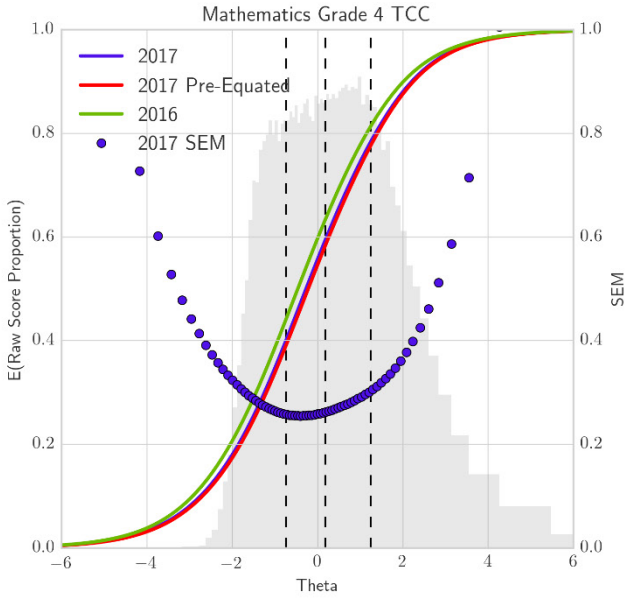
The top right-hand plot in Figure 15–1 focuses on the logit difficulties. It shows more clearly the relationship between new- and old-year item difficulties. Logit plots often provide more defined trends, but still can present varying degrees of scatter and in some instances reveal outlier data points. As with the associated *p*-value plots, these figures suggest good across-year stability of item difficulty based on both difficulty values.

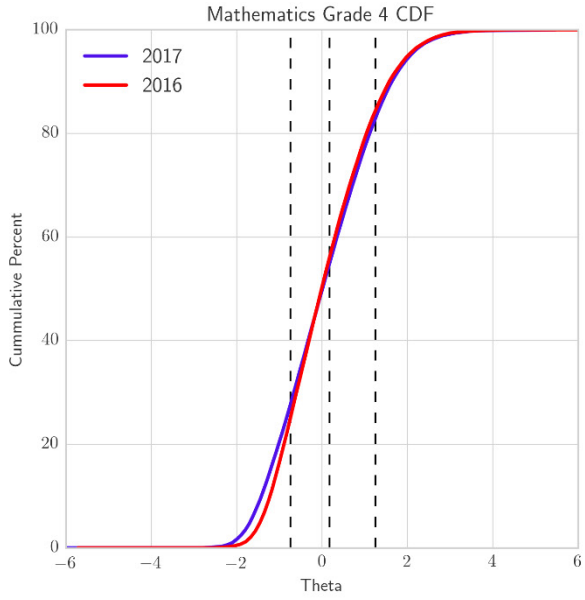
TEST CHARACTERISTIC CURVES

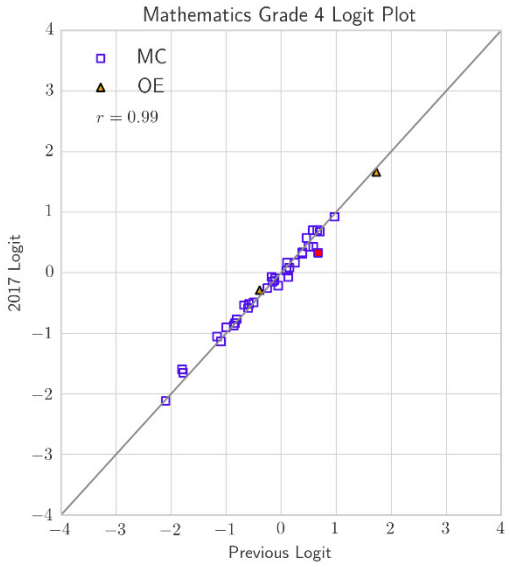
The old and new-year Test Characteristic Curves (TCCs) by grade and subject are shown in the bottom right-hand plot figures. The TCCs show the similarity between the new- and old-year tests in terms of difficulty in the logit metric (new-year results are for the final, linked values). Regarding the prior and current year TCCs, curves that are close to being coincident will translate into similar raw-score cut points (and smaller equating constants) across years. In some grade and content areas very small year-to-year differences in TCCs are noted. In mathematics grades 3, 4, 6, and 8, in ELA grades 6, 7, and 8, and in both grades 4 and 8 for science, however, the differences are larger due to the intentional adjustment to test difficulty to better align test difficulty and student performance. Examinee performance distributions are include in the TCC plots to illustrate their 2017 alignment with test difficulty.

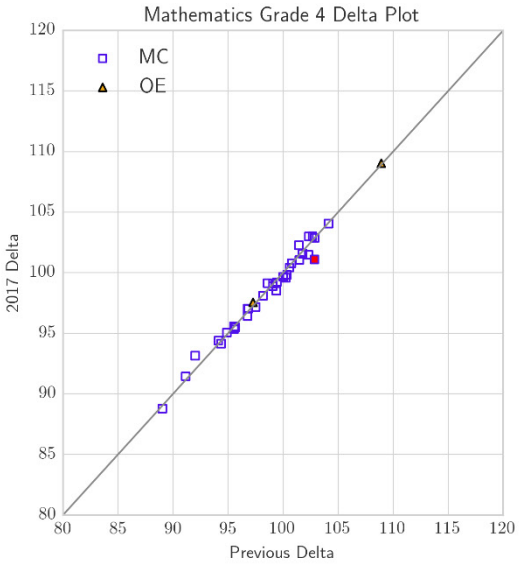
Figure 15–1. Item Stability Plots and Test Characteristic Curves

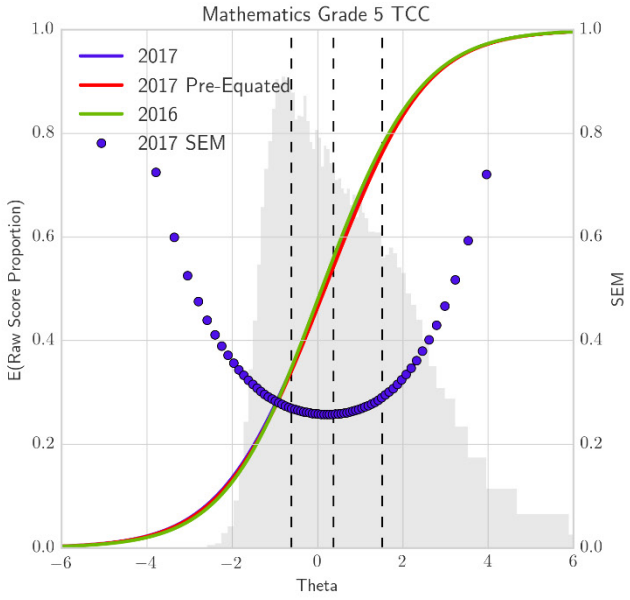


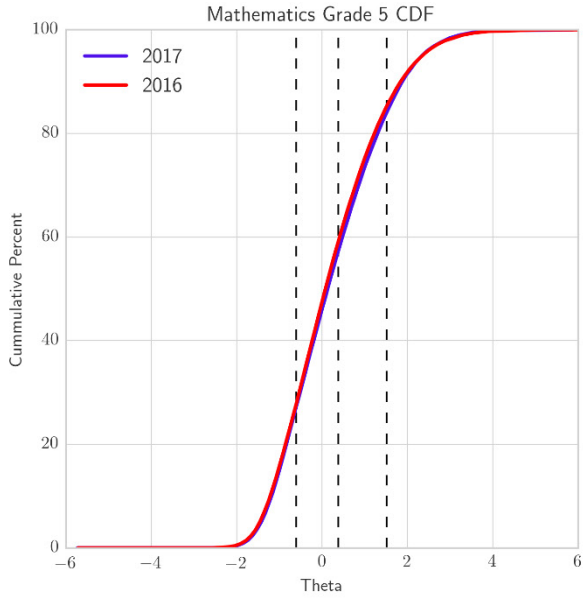

Mathematics Grade 4 TCC
2017
2017 Pre-Equated
2016
2017 SEM
E(Raw Score Proportion)
SEM
Theta

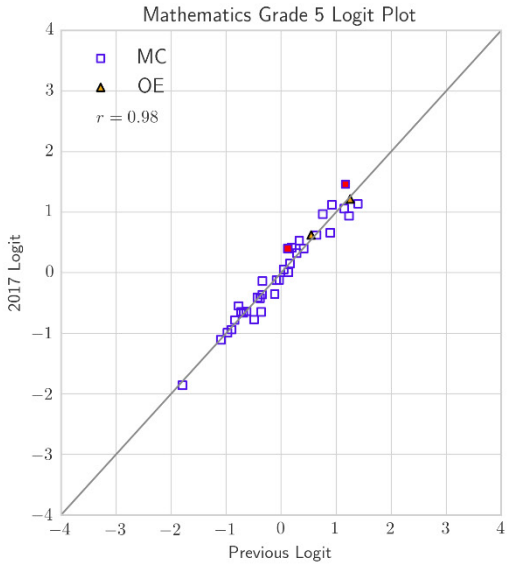

Mathematics Grade 4 CDF
2017
2016
Cummulative Percent
Theta

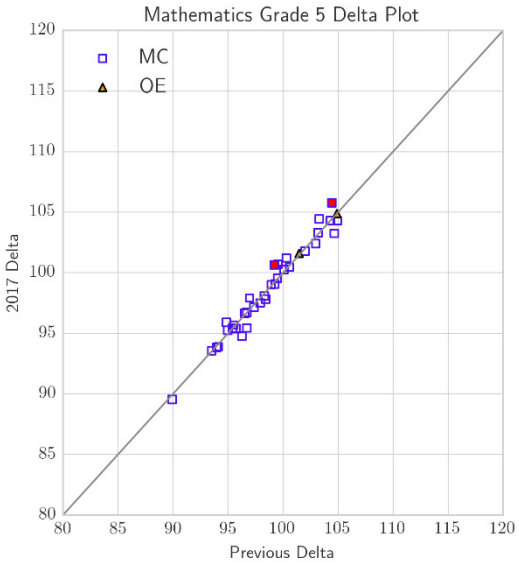

Mathematics Grade 4 Logit Plot
MC
OE
r = 0.99
2017 Logit
Previous Logit

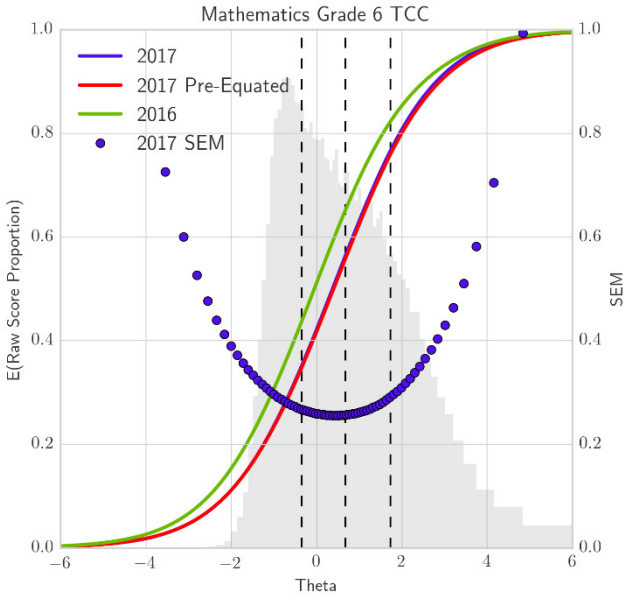

Mathematics Grade 4 Delta Plot
MC
OE
2017 Delta
Previous Delta

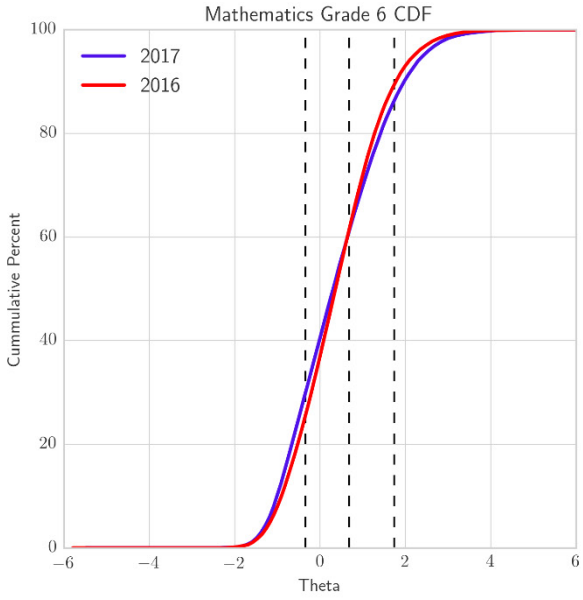

Mathematics Grade 5 TCC
2017
2017 Pre-Equated
2016
2017 SEM
E(Raw Score Proportion)
SEM
Theta

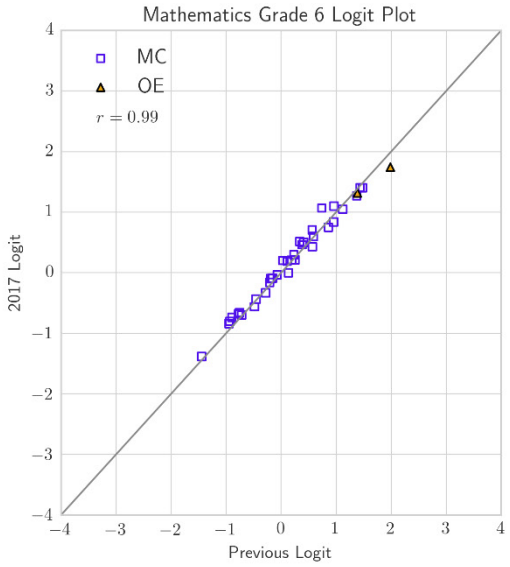

Mathematics Grade 5 CDF
2017
2016
Cummulative Percent
Theta

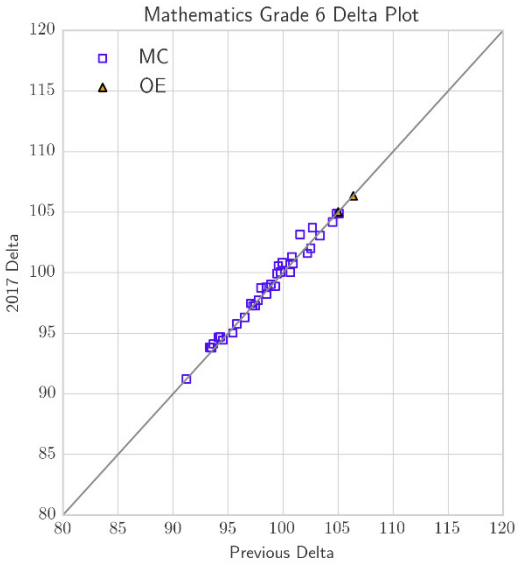

Mathematics Grade 5 Logit Plot
MC
OE
r = 0.98
2017 Logit
Previous Logit

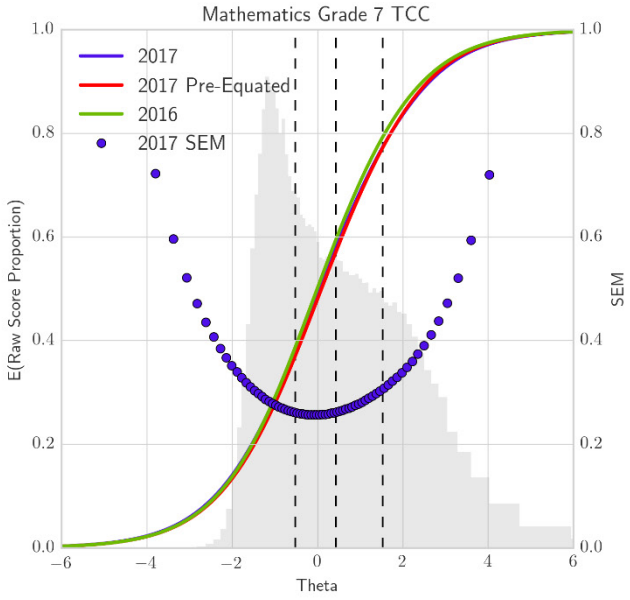

Mathematics Grade 5 Delta Plot
MC
OE
2017 Delta
Previous Delta

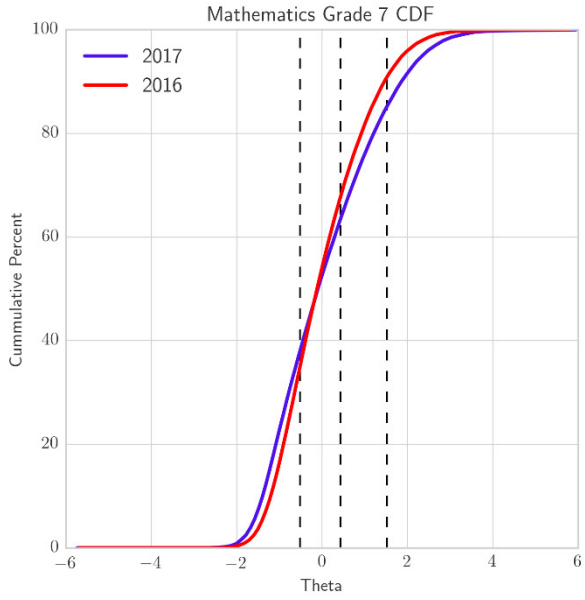

Mathematics Grade 6 TCC
2017
2017 Pre-Equated
2016
2017 SEM
E(Raw Score Proportion)
SEM
Theta

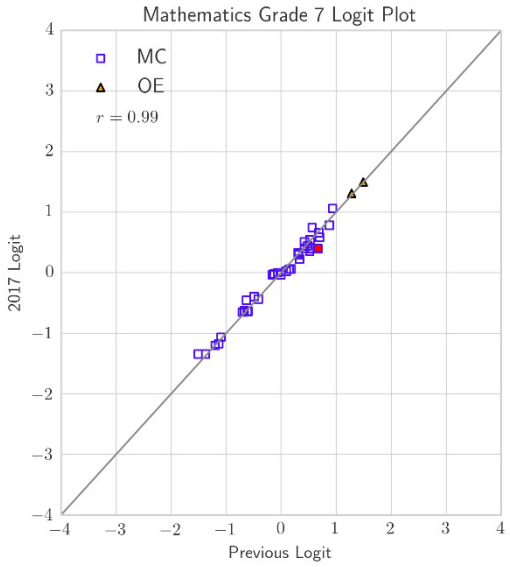

Mathematics Grade 6 CDF
2017
2016
Cummulative Percent
Theta

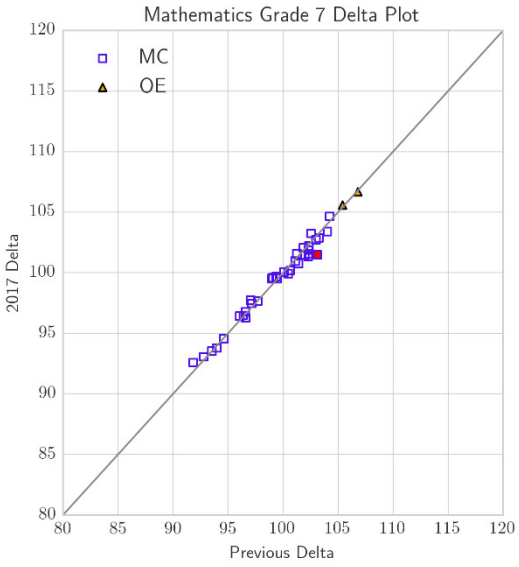

Mathematics Grade 6 Logit Plot
MC
OE
r = 0.99
2017 Logit
Previous Logit

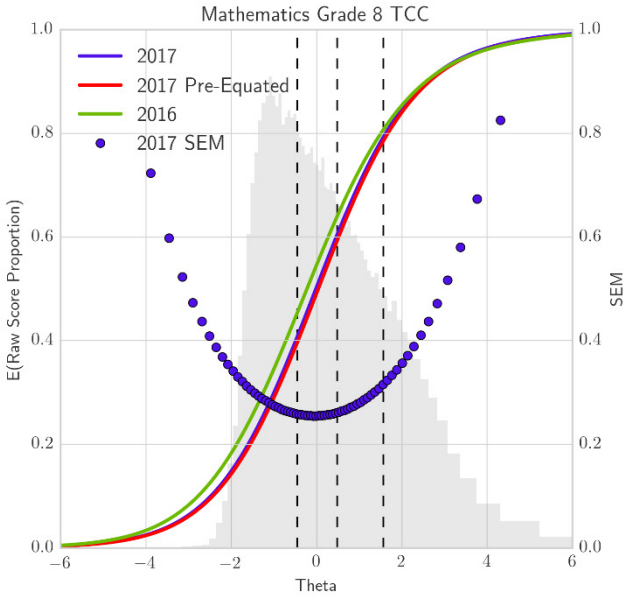

Mathematics Grade 6 Delta Plot
MC
OE
2017 Delta
Previous Delta


Mathematics Grade 7 TCC
2017
2017 Pre-Equated
2016
2017 SEM
E(Raw Score Proportion)
SEM
Theta


Mathematics Grade 7 CDF
2017
2016
Cummulative Percent
Theta


Mathematics Grade 7 Logit Plot
MC
OE
r = 0.99
2017 Logit
Previous Logit


Mathematics Grade 7 Delta Plot
MC
OE
2017 Delta
Previous Delta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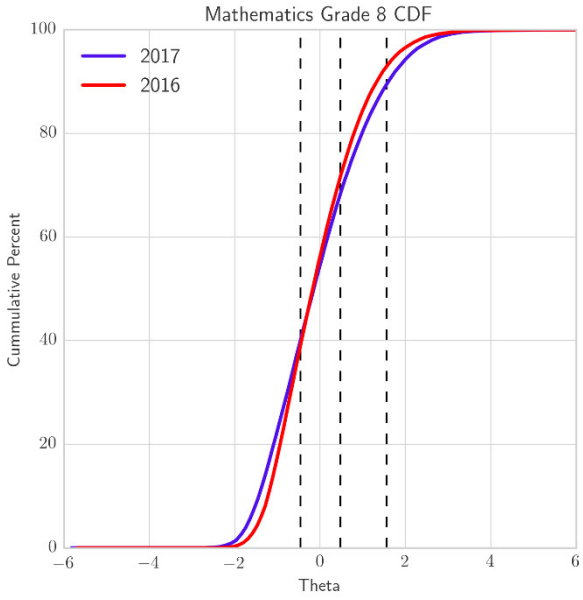
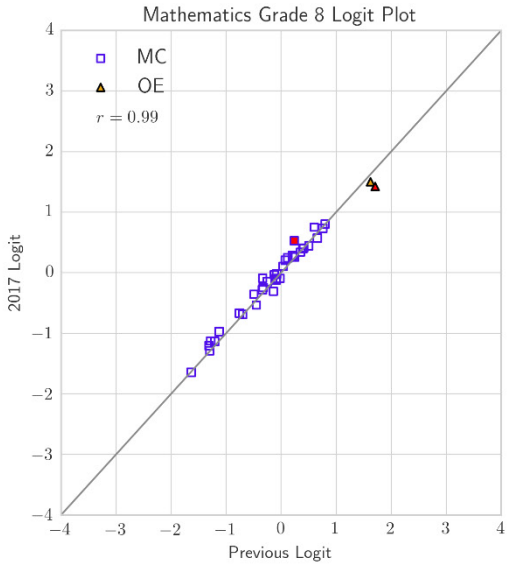
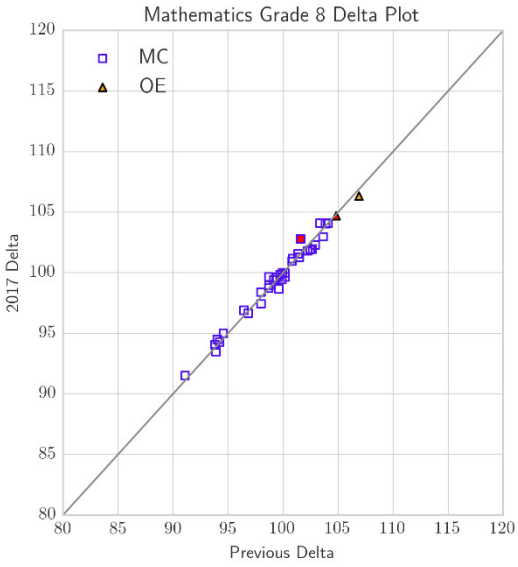
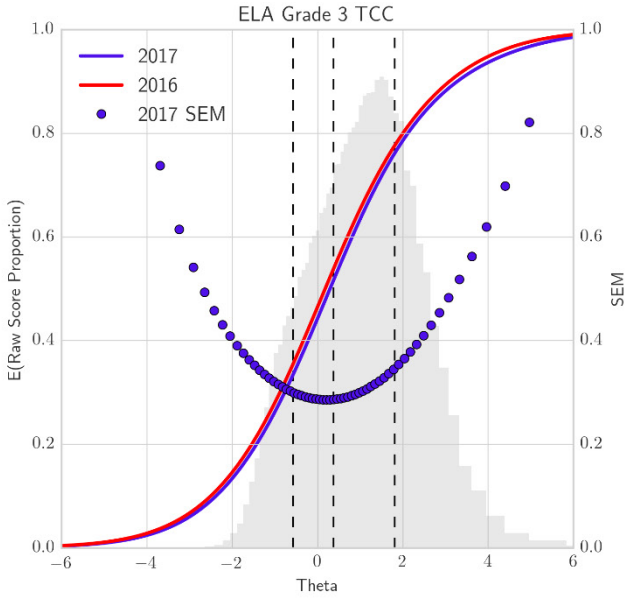
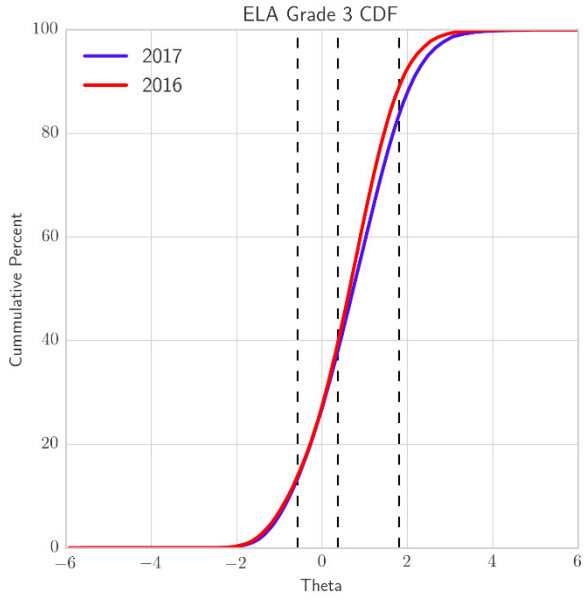
2017
2017 Pre-Equated
2016
2017 SEM
E(Raw Score Proportion)
SEM
Theta

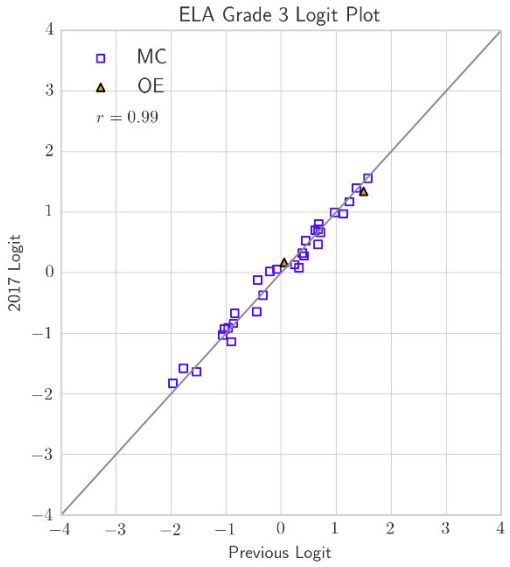

Mathematics Grade 8 CDF
2017
2016
Cummulative Percent
Theta


Mathematics Grade 8 Logit Plot
MC
OE
r = 0.99
2017 Logit
Previous Logit


Mathematics Grade 8 Delta Plot
MC
OE
2017 Delta
Previous Delta


ELA Grade 3 TCC
2017
2016
2017 SEM
E(Raw Score Proportion)
SEM
Theta


ELA Grade 3 CDF
2017
2016
Cummulative Percent
Theta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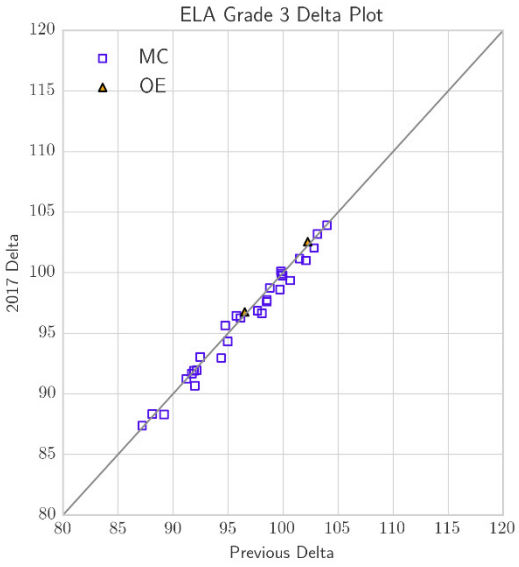
MC
OE
r = 0.99
2017 Logit
Previous Logit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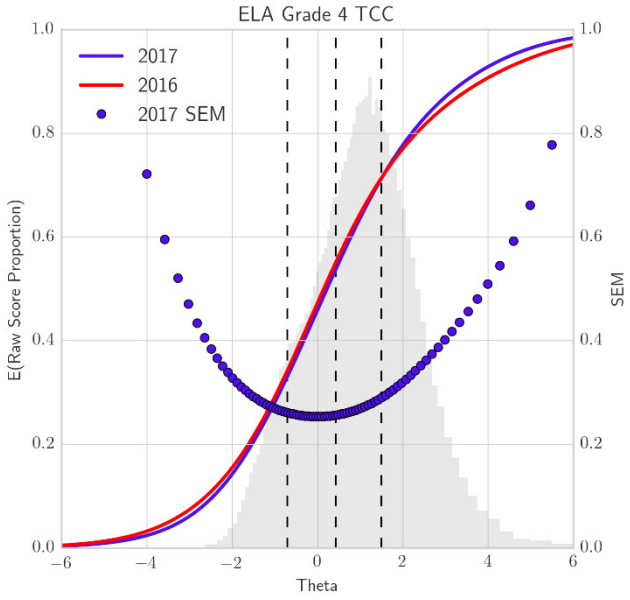
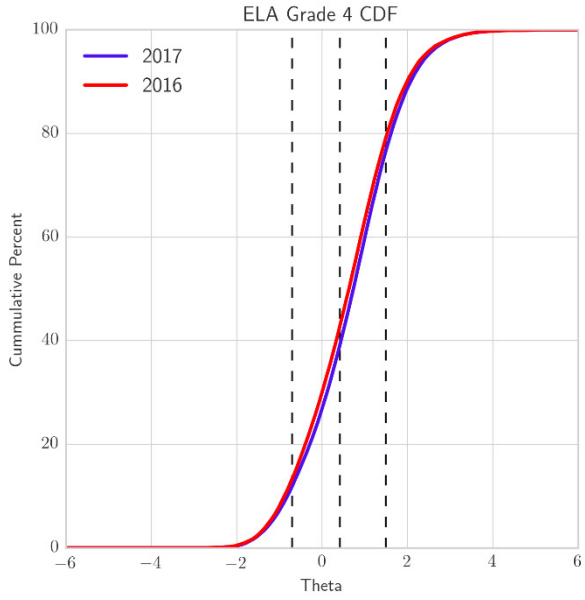
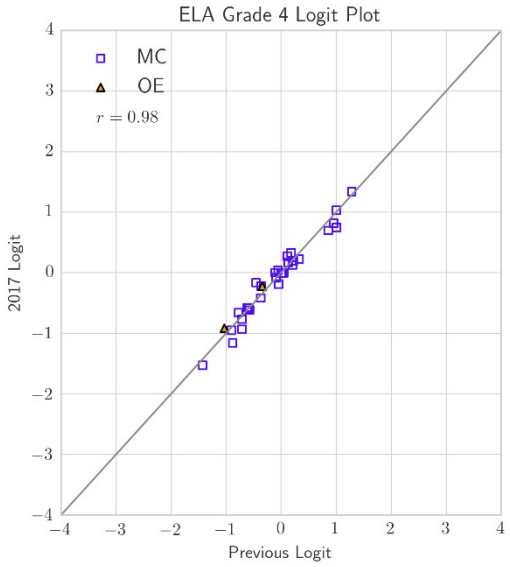
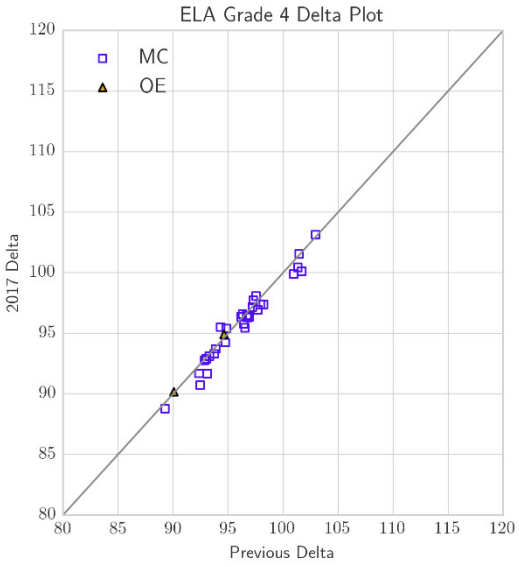
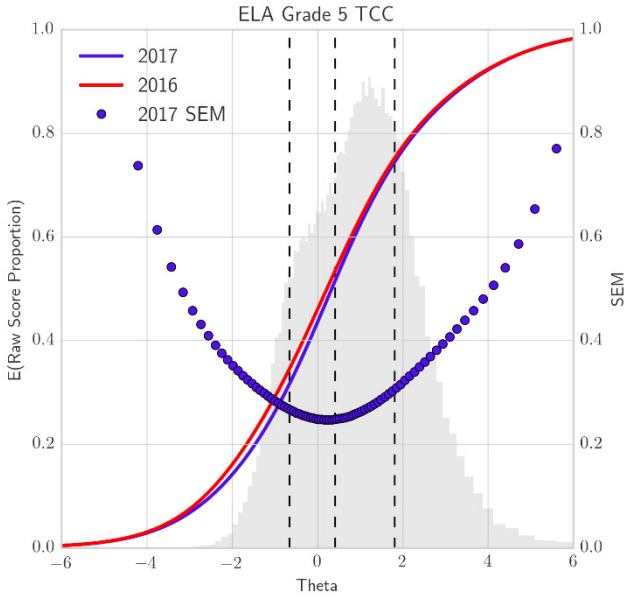
MC
OE
2017 Delta
Previous Delta

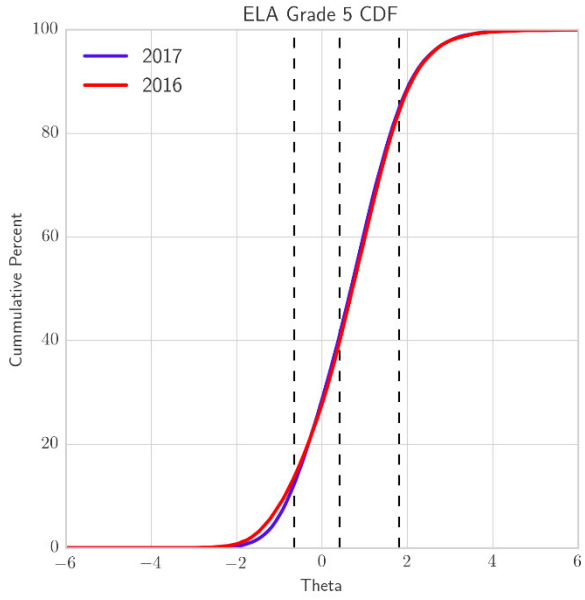

ELA Grade 4 TCC
2017
2016
2017 SEM
E(Raw Score Proportion)
SEM
Theta

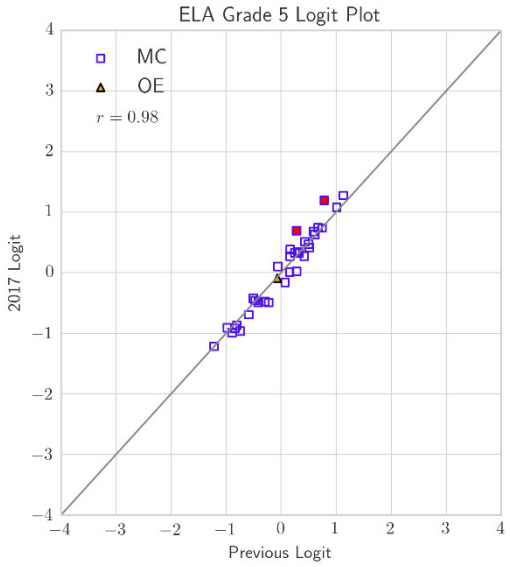

ELA Grade 4 CDF
2017
2016
Cummulative Percent
Theta

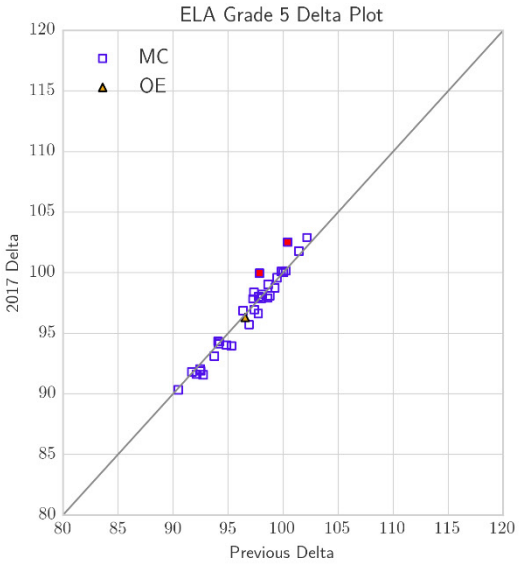

ELA Grade 4 Logit Plot
MC
OE
$r = 0.98$
2017 Logit
Previous Logit

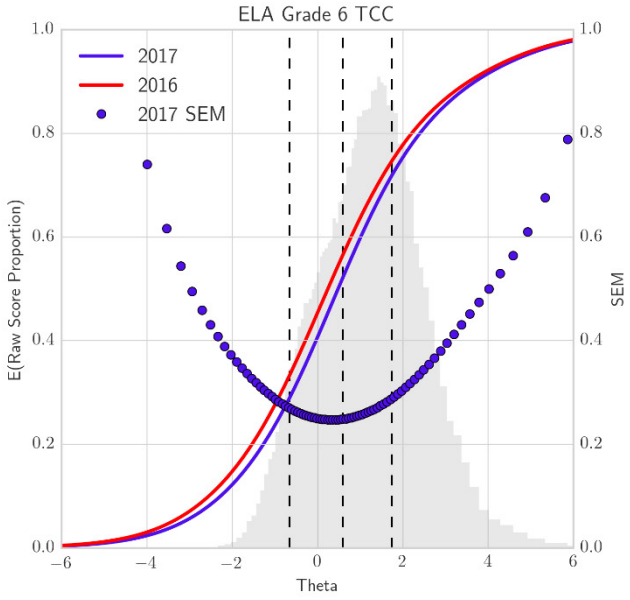

ELA Grade 4 Delta Plot
MC
OE
2017 Delta
Previous Delta

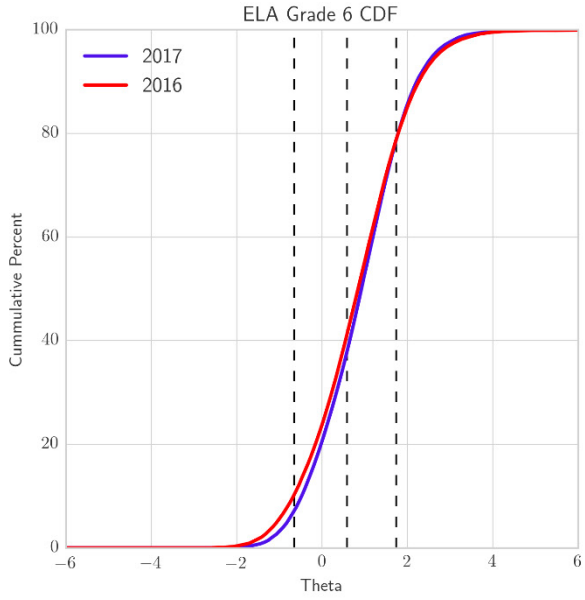

ELA Grade 5 TCC
2017
2016
2017 SEM
E(Raw Score Proportion)
SEM
Theta

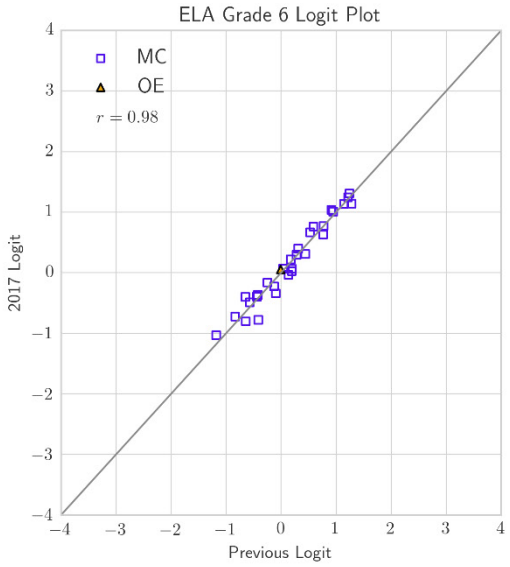

ELA Grade 5 CDF
2017
2016
Cummulative Percent
Theta

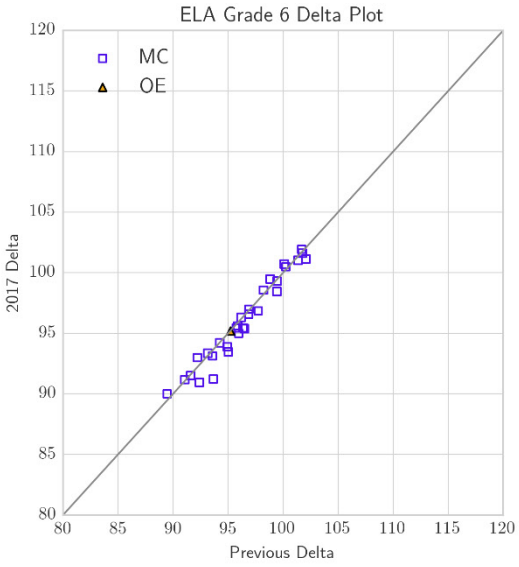

ELA Grade 5 Logit Plot
MC
OE
$r = 0.98$
2017 Logit
Previous Logit

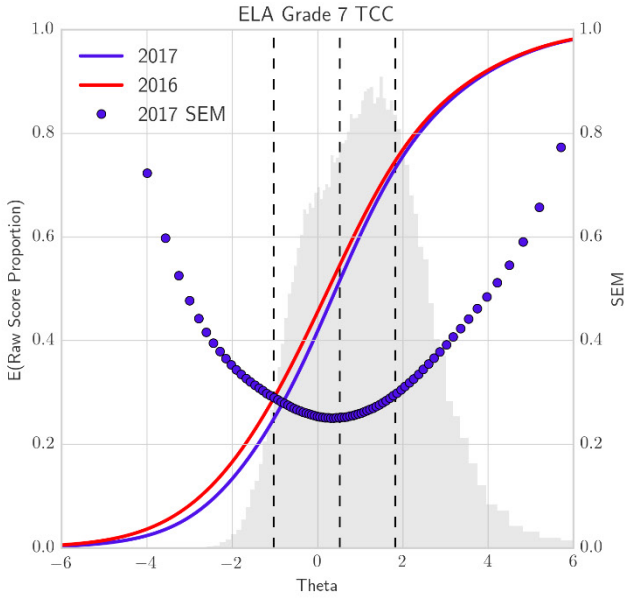

ELA Grade 5 Delta Plot
MC
OE
2017 Delta
Previous Delta

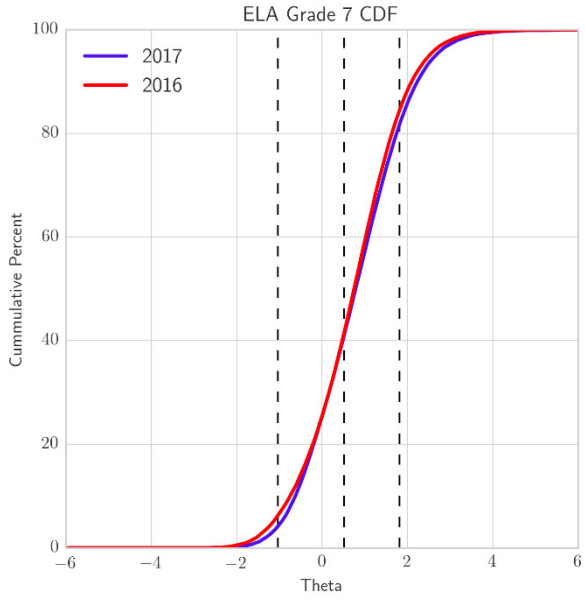

ELA Grade 6 TCC
2017
2016
2017 SEM
E(Raw Score Proportion)
SEM
Theta

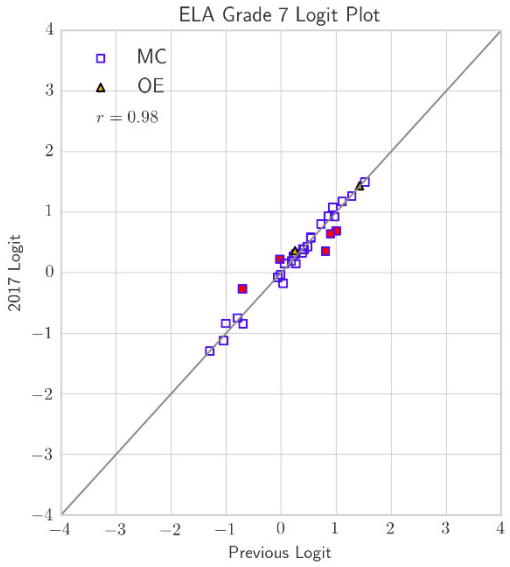

ELA Grade 6 CDF
2017
2016
Cummulative Percent
Theta

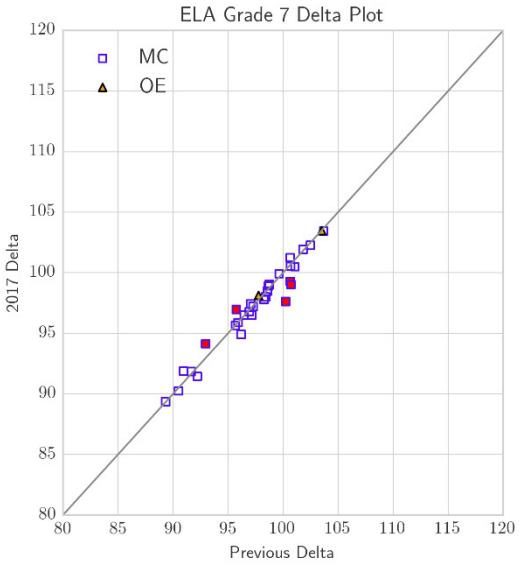

ELA Grade 6 Logit Plot
MC
OE
$r = 0.98$
2017 Logit
Previous Logit

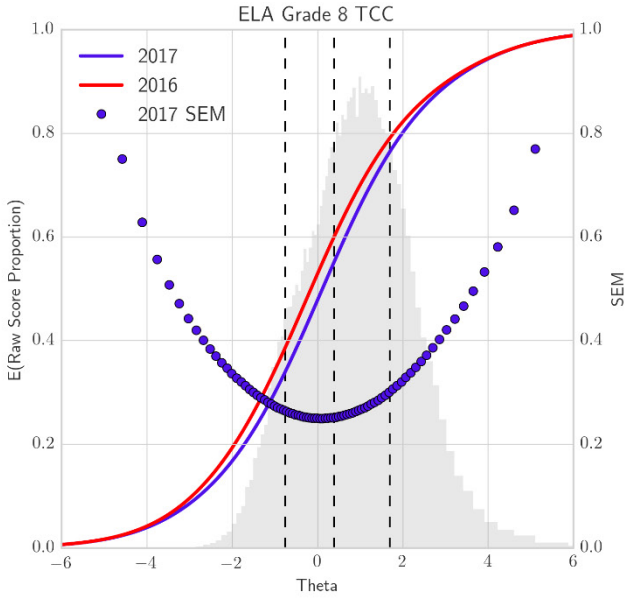

ELA Grade 6 Delta Plot
MC
OE
2017 Delta
Previous Delta

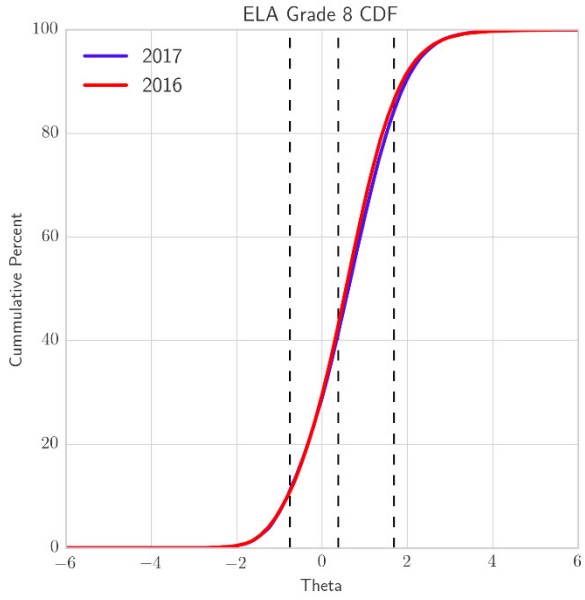

ELA Grade 7 TCC
2017
2016
2017 SEM
E(Raw Score Proportion)
SEM
Theta

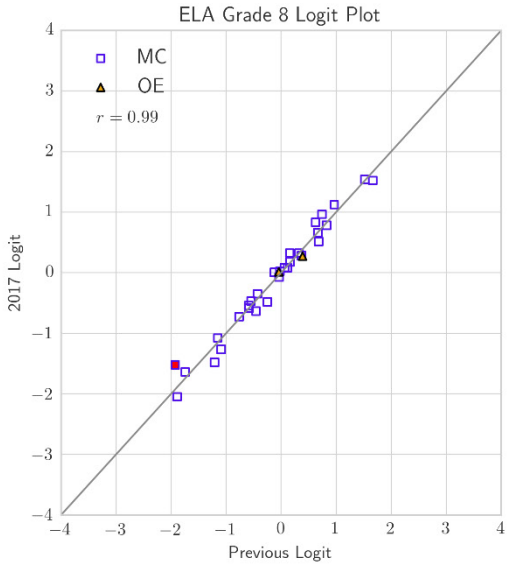

ELA Grade 7 CDF
2017
2016
Cummulative Percent
Theta

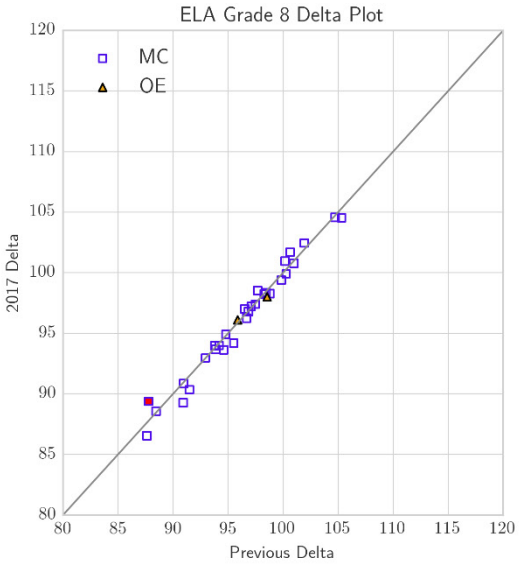

ELA Grade 7 Logit Plot
MC
OE
$r = 0.98$
2017 Logit
Previous Logit

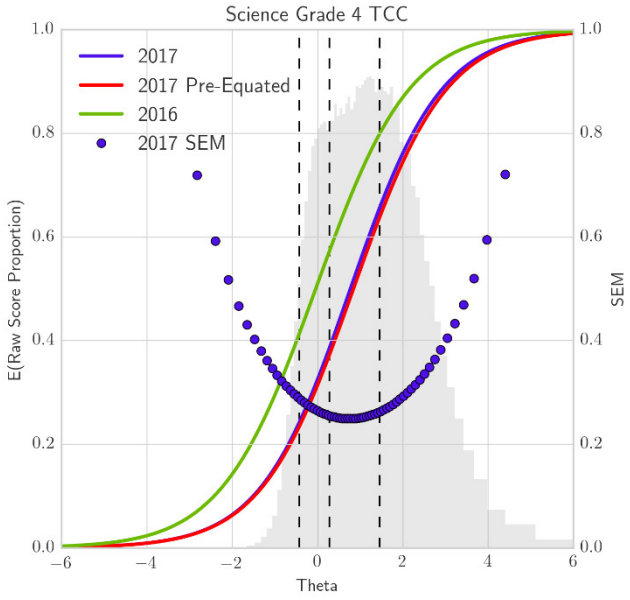

ELA Grade 7 Delta Plot
MC
OE
2017 Delta
Previous Delta

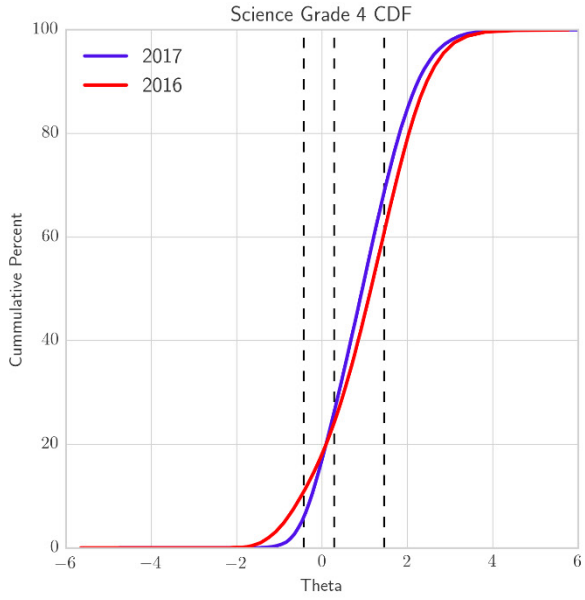

ELA Grade 8 TCC
2017
2016
2017 SEM
E(Raw Score Proportion)
SEM
Theta

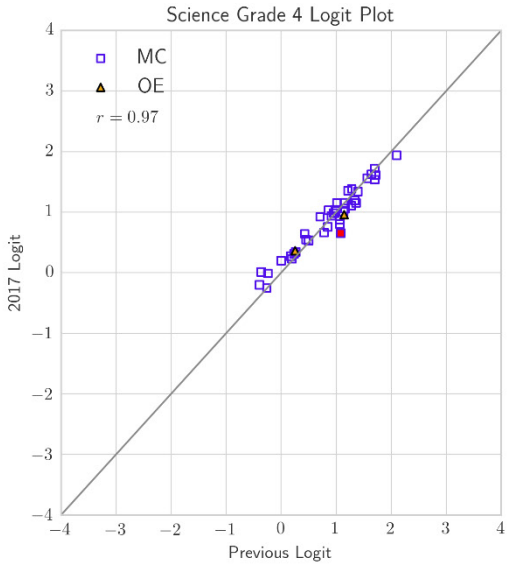

ELA Grade 8 CDF
2017
2016
Cummulative Percent
Theta

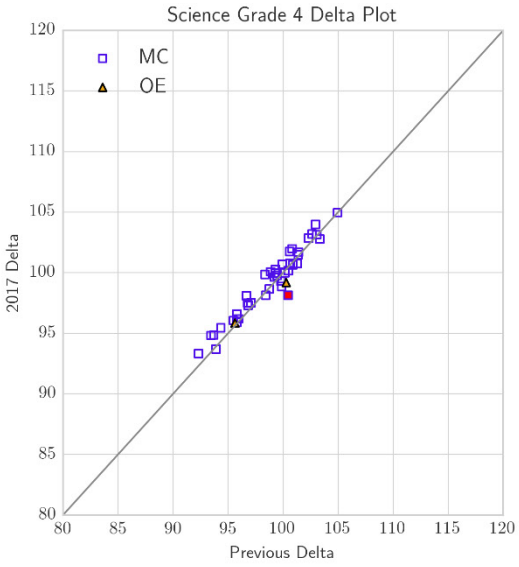

ELA Grade 8 Logit Plot
MC
OE
$r = 0.99$
2017 Logit
Previous Logit

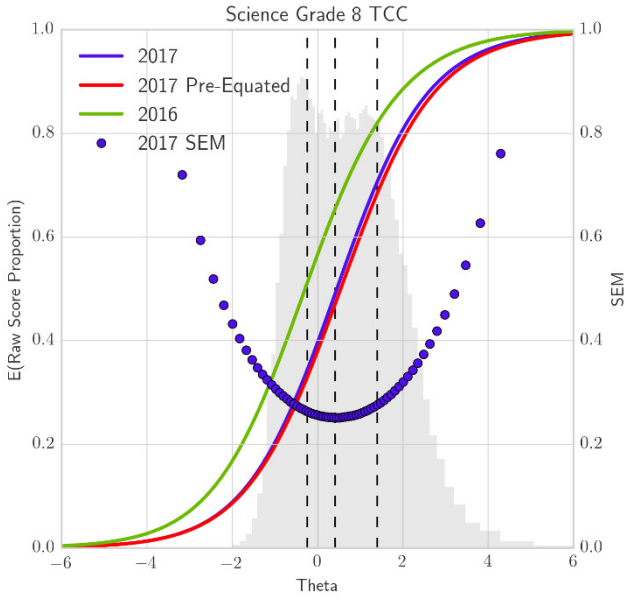

ELA Grade 8 Delta Plot
MC
OE
2017 Delta
Previous Delta

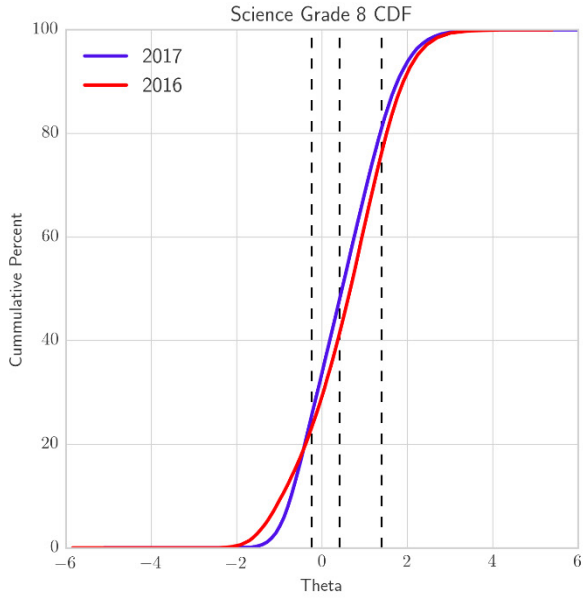

Science Grade 4 TCC
2017
2017 Pre-Equated
2016
2017 SEM
E(Raw Score Proportion)
SEM
Theta

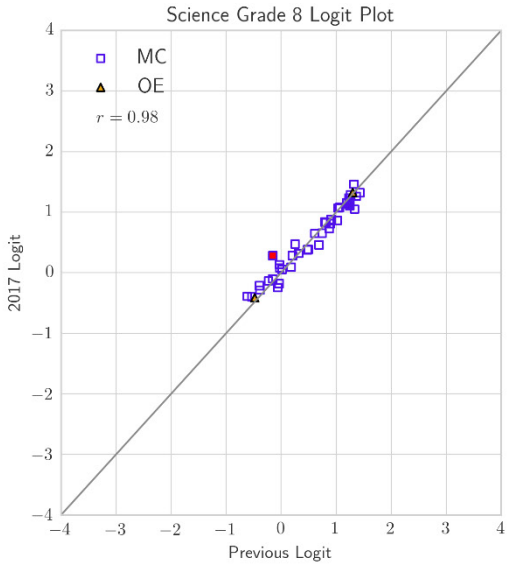

Science Grade 4 CDF
2017
2016
Cummulative Percent
Theta

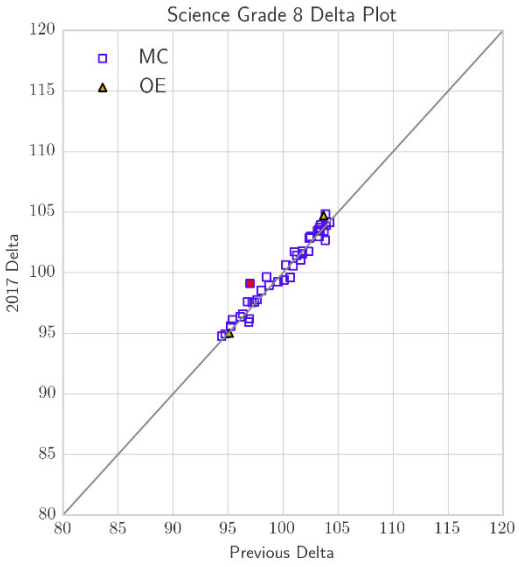

Science Grade 4 Logit Plot
MC
OE
$r = 0.97$
2017 Logit
Previous Logit


Science Grade 4 Delta Plot
MC
OE
2017 Delta
Previous Delta


Science Grade 8 TCC
2017
2017 Pre-Equated
2016
2017 SEM
E(Raw Score Proportion)
SEM
Theta


Science Grade 8 CDF
2017
2016
Cummulative Percent
Theta


Science Grade 8 Logit Plot
MC
OE
r = 0.98
2017 Logit
Previous Logit


Science Grade 8 Delta Plot
MC
OE
2017 Delta
Previous Delta

CHAPTER SIXTEEN: SCORES AND SCORE REPORTS

This chapter provides information about the scores provided for the PSSA (e.g., scaled scores, performance levels, and strand scores), how they are presented on score reports, and appropriate and inappropriate uses of the scores.

SCORING THE PSSA

PSSA items are composed of multiple-choice (MC) and open-ended (OE) items. Each correct response to an MC item receives a score of 1. Incorrect responses receive a score of zero. Scores on OE items range from zero to four, depending on the grade and subject area. Table 16–1 summarizes the types of items used on each subject-area test. More detailed information about the various item types is provided in Chapter Three.

Table 16–1. Item Types Used by Subject Area

Item Type	Mathematics	ELA	Science
Multiple-Choice	1 point	1 point	1 point
Open-Ended	4 points	N/A	2 points
Short Answer	N/A	3 points	N/A
Evidence Based Select Response	N/A	2 or 3 points	N/A
Text Dependent Analysis	N/A	4 points	N/A
Writing Prompt	N/A	4 points	N/A

Note. Text-dependent analysis item and writing prompt are weighted as described in Chapter Three.

DESCRIPTION OF TOTAL TEST SCORES

Different types of scores have been developed for PSSA reporting. Since the underlying properties of these scores are not necessarily the same, the particular scores used depend on the purposes for which the test has been given. The following types of scores are provided for reporting a student's overall performance on each PSSA subject-area test:

- Raw scores
- Scaled scores
- Performance levels

RAW SCORES

A raw score is the number of points a student earned over the operational MC and OE items. By itself, the raw score has some limited utility. One limitation is that it can only be interpreted with reference to the total number of items on a subject-area test (e.g., a raw score of 15 on a 20-item test is different than a raw score of 15 on a 30-item test). In addition, raw scores depend on the difficulty of test items across test forms (e.g., a raw score of 15 on a test with 20 easy items is different than a raw score of 15 on a test with 20 difficult items). Because the difficulty of the items on a test can change from year to year, raw scores should not be compared across tests or administrations.

SCALED SCORES

Scaled scores are introduced in Chapter Fourteen. In the simplest sense, a scaled score is a transformed number-correct score. The specifics of the transformation processes for the PSSA are also discussed in Chapter Fourteen. When all students take the same items, as with the operational items on the PSSA, the more points the student earns, the higher the associated scaled score will be.

The value of using the methods described in Chapters 14 and 16 to to produce a scaled score metric is that it produces more general, interpretable, and equitable results across year-to-year test scores. As noted above, a raw score of 30 is meaningless unless the maximum raw score is known. The difficulty of the test items was also mentioned as an additional challenge with interpreting raw scores. Number-correct scores are transformed to scaled scores to remove the effects of test length and item difficulty. (Strictly speaking, transformation of number-correct scores to percent-correct scores would also remove the effect of test length, but it would do nothing to adjust for the difficulty of the items to support year-to-year equivalence of scores.)

Another advantage of scaled scores is that they lend themselves to interpretations of what is referred to as an interval level, while raw scores do not. Interval-level scales allow an interpretation of a scaled score difference of 5 points to be the same whether the scores are 1095 vs. 1100 or 1245 vs. 1250. Raw score differences, in this context, cannot be interpreted in this manner and are thus neither generalizable nor equitable.

When test scores are properly linked across years, a scaled score of 1300—or any other value for a particular grade and content area test, should have the same absolute meaning in the current year as it had in previous years. More importantly, an increase in the scaled score for a test from last year to the current year means that student performance improved;[1] it does not say anything about whether this year's test is easier or harder than last year's test. 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.

There is considerable auxiliary information presented in this report that might aid the reader in further contextualizing PSSA scaled scores. The reader is specifically referred to the following information:

- Chapter Fourteen provides information on the development of the PSSA scaled score system, including transformation formulas, rounding rules, and general scale characteristics (e.g., minimum values).
- Chapter Seventeen provides total test score statistics. In particular, Table 17–2 lists the scaled score means and standard deviations for this year's test results.

PERFORMANCE LEVELS

PSSA results are also reported using four Performance Levels: Below Basic, Basic, Proficient, and Advanced. The cut scores on the scaled score metric (i.e., the lowest possible scaled score to enter the Basic, Proficient, and Advanced levels) were presented earlier in this report. However, the information is repeated below (Table 16–2) for convenience.

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

Table 16–2. PSSA Scaled Score Cuts for Each Performance Level by Grade and Subject Area

Subject	Grade	Min	BB/B[1]	B/P[1]	P/A[1]	Max[2]
Mathematics	3	600	923	1000	1110	1561
Mathematics	4	600	908	1000	1107	1529
Mathematics	5	600	901	1000	1113	1550
Mathematics	6	600	897	1000	1105	1534
Mathematics	7	600	904	1000	1109	1551
Mathematics	8	600	906	1000	1108	1618
ELA	3	600	905	1000	1143	1680
ELA	4	600	887	1000	1107	1714
ELA	5	600	893	1000	1139	1723
ELA	6	600	875	1000	1115	1737
ELA	7	600	845	1000	1130	1724
ELA	8	600	886	1000	1130	1677
Science	4	1050	1150	1275	1483	2344
Science	8	925	1150	1275	1464	2416

Notes. [1] BB = Below Basic; B = Basic; P = Proficient; and A = Advanced.
[2] Scaled Score Maximum Values are unique for the current year's test.

Performance levels descriptors (PLDs) are another way to attach meaning to the scaled score metric. PLDs 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. These are also included on student score reports.

- Advanced: The Advanced Level reflects superior academic performance, and work at this level demonstrates a thorough command of, and ability to apply the knowledge, skills, and practices represented in the Pennsylvania standards. Consistent performance at this level indicates advanced academic preparation for engaging successfully in further studies in this content area.
- Proficient: The Proficient Level reflects satisfactory academic performance, and work at this level demonstrates an adequate command of and ability to apply the knowledge, skills, and practices represented in the Pennsylvania standards. Consistent performance at this level indicates academic preparation for engaging successfully in further studies in this content area.
- Basic: The Basic Level reflects marginal academic performance, and work at this level demonstrates a partial command of and ability to apply the knowledge, skills, and practices represented in the Pennsylvania standards. Consistent performance at this level indicates additional academic support may be needed for engaging successfully in further studies in this content area.
- Below Basic: The Below Basic Level reflects inadequate academic performance, and work at this level demonstrates a minimal command of and ability to apply the knowledge, skills, and practices represented in the Pennsylvania standards. Consistent performance at this level indicates extensive additional academic support may be needed for engaging successfully in further studies in this content area.

DESCRIPTION OF STRAND (REPORTING CATEGORY) SCORES

The following types of scores are provided for PSSA strand scores:

- Strand (Reporting Category) Scores
- Strength Profile

STRAND (REPORTING CATEGORY) SCORES

A strand (reporting category) score describes performance of a student, school, or district on a particular strand (content standard defined in the test). For the PSSA, strand scores are raw scores, indicating the points a student or a school/district earned for that strand. Attributes of raw scores are described earlier in this chapter and should be interpreted with caution. This is particularly true with respect to year-to-year comparisons where item difficulties may vary. Strand scores cannot be compared across years because they are not statistically linked nor are they interval scores. Also, it is not advisable to compare strand raw scores even within the same form because some strands may contain items that are easier or more difficult than other strands (the strength profile, discussed below, mitigates this problem to some degree). Another concern is the low reliability of many of these scores, especially for strand scores based on a small number of possible points. Chapter Eighteen provides more information about strand-score reliability.

When compared to other results from the same year, strand scores can be somewhat helpful in identifying a group's strengths and weaknesses as measured by the test. For example, it can be informative to compare average strand scores of a school against the scores of another reference group (e.g., the state average). Hence, strand scores can suggest group strengths and weaknesses relative to another reference group. (Challenges pertaining to interpreting results for individual students are discussed below.)

STRENGTH PROFILE

The strength profile provides another indication of a student's performance within each of the strands. This profile can be used to identify areas in which a student needs to improve and areas in which a student has performed more successfully. Unlike strand scores that are reported as raw scores, strength profile scores categorize students into one of three levels: Low, Medium, and High. These categories take into account the difficulty of the items and are based on the same scaling techniques used to derive the PSSA scaled scores (See Chapter Fourteen for a description of how strength profiles are produced). Scaled scores, however, are not printed on score reports. High, medium, and low designations are provided as an indication of performance within a strand, but as standards have been set at the test level only, performance level descriptions for the overall test should not be used as validated descriptions of strand performance.

APPROPRIATE SCORE USES

INDIVIDUAL STUDENTS

Scaled scores on the PSSA indicate a student's achievement of the PSSA Assessment Anchors and Eligible Content. Scaled scores are primarily used to determine student performance level classifications (i.e., a criterion-referenced inference). Scaled scores that are based on Item Response Theory (IRT) models are typically assumed to be of the interval type; so comparisons may be made on differences in scaled scores. If this assumption holds, then it would be safe to infer for Grade 4 ELA that the ability difference between 1110 and 1120 represents the same ability difference that separates 1250 and 1260. Scaled scores can also be used to compare the performance of an individual student to the performance of a similar demographic or subgroup at a school or district. However, when comparing performance of an individual student, test score standard errors (discussed in Chapter Eighteen) should be considered because scaled scores are estimate of students' achievement which comes with estimation error.

GROUPS OF STUDENTS

Test results can be used to evaluate performance over time. Mean scaled scores can be compared across administrations within the same grade and subject area to indicate whether student performance is improving across years. Generally, such trend analyses benefit from using mean results from as many test administration years as possible. Different cohorts of students are used (i.e., the same student or students are not tracked across grade levels). All scores can be analyzed within the same subject and grade for any single administration to determine which demographic or program group had, for example, the highest average performance or the highest percentage of students at or above the Proficient standard.

Strand scores can help evaluate academic areas for relative strengths or weaknesses. These category scores provide information to identify areas where further diagnosis is warranted. Generalizations from test results may be made to the specific content domain represented by the academic standards measured in the PSSA. However, all instruction and program evaluations should include as much information from other sources as possible to provide a more complete picture of performance.

CAUTIONS FOR SCORE USES

EXTREME ERROR FOR EXTREME SCORES

Student scores toward the minimum or maximum ends of the score range will have very large standard errors of measurement and, therefore, such scores should be viewed very cautiously. The maximum scaled score only provides a very rough estimate of a student's ability. For instance, if the maximum score for the PSSA Grade 6 mathematics test were 1550[2] and a student achieved this score, it could not be determined whether the student could have achieved an even higher scaled score. If the test were 10 items longer, a different estimate might have been obtained. Similarly, if the items in a new test were more difficult than the items on a previous administration, the maximum scaled score would likely be higher on the new test because it would take a greater level of achievement to answer the items correctly. In this manner, extreme scaled scores may vary from one administration to the next even if the number of test items does not change. The fluctuation of extreme scaled scores complicates the comparisons of students with scaled scores at the extreme ends of the score distribution. To minimize confusion and potential misinterpretation, the minimum scaled scores possible on the PSSA tests have been fixed (see Table 16–2) so they do not change between administrations. However, the maximum scaled score values have not been fixed. Therefore, caution must be taken when comparing scores at the maximum end of the scale.

EACH TEST HAS A UNIQUE SCALE

Scaling was conducted for each grade and subject area test separately. Therefore, PSSA scaled scores should be interpreted only within each grade and content area. PSSA scaled scores are not status indicators in the same sense as percentile ranks (or scales that are essentially transformations of percentile ranks) and, therefore, cannot be used to profile relative strengths and weaknesses across subject areas. As an example, student scaled scores of 1250 in Grade 4 ELA and 1200 in Grade 4 mathematics do not necessarily imply that the student performed better in ELA than in mathematics. Neither do the PSSA scaled scores represent a developmental or vertical scale. This means that, although the content is articulated across grades to reflect the grade-to-grade articulations in the Pennsylvania Standards, no across-grade statistical comparisons or growth statements for a student are appropriate. For example, a 1200 in Grade 4 ELA and a 1200 in Grade 5 ELA does not mean a student had no achievement growth in ELA from Grade 4 to Grade 5.

STRENGTH PROFILE CAVEATS

The category labels of Low, Medium, and High are deliberately used instead of the PSSA performance level names—Below Basic, Basic, Proficient, and Advanced—to acknowledge that the PSSA cut scores were established on the basis of the total test score and standards were set on this total test score. Therefore, the categories should not be interpreted in the same way as PSSA performance levels because they likely do not carry the same meaning.

While the strength profile might facilitate comparisons of a student's strengths and weaknesses across strands in

[2] It is not, at least for this year

some cases, several factors merit caution. As noted earlier, strand scores are often not fully reliable. The scaling underlying the strength profile does not mitigate this problem.

Additionally, the categories reflect more absolute comparisons. Relative comparisons are more difficult to make. As an example, if one scored High in both strand A and B, we know the student did very well in both strands compared to overall performance in the state (i.e., absolute status). However, we do not know whether the student's performance in strand A was better or worse relative to the performance in strand B (relative status).

Finally, some seemingly unusual results might occur that may be difficult for users to understand. As one example, it may be possible for a student to earn Medium in all strands but have an Advanced performance level. This can happen because the strand scores are correlated, meaning the distributional properties of the total score depends not only on the variances of the strand scores, but also on the covariances among the strand scores. (An analogy would be when a school track team places first overall in a competition although they did not win a single event.)

USING PSSA RESULTS FOR OTHER PURPOSES

Scaled scores and performance level classificaitons are used primarily to measure well students acquire the knowledge and skills described in the *Pennsylvania Assessment Anchor Content Standards* (Assessment Anchors) as defined by the Eligible Content for mathematics, ELA, and Science. They are also used to provide information on school and district accountability. These same results, plus strand scores and strength profiles are also appropriate for use in improving curricular and instructional practices. Evidence supporting the validity of such interpretations is framed in Chapter 19 and provided throughout this technical report.

Other uses or inferences based on PSSA results may or may not be valid as the validity evidence and arguments provided in Chapter Nineteen may not necessarily support other score uses and interpretations. According to the AERA/APA/NCME *Standards* (2014) (i.e., Standard 1.4), if a test is used in a way that has not been validated, it is incumbent on the user to justify the new use, collecting new evidence if necessary. Finally, a universal caveat for any test's result is that it not be used for placement and educational planning alone. Instead, other information about the student (e.g., other test performance data) should be considered.

REPORTS

The following score reports are provided to students, parents, schools, and districts for the PSSA tests in mathematics, ELA, and science:

- Individual Student Report
- School Summary Report
- District Summary Report
- Interpretive Guide

PARENT LETTER

Parent letters were delivered to Pennsylvania districts on June 22, 2017. This score report

provided parents and students with their first glimpse of performance on the spring 2017 PSSA tests. This report provides results at the student level. A sample of the report is provided in Figure 16–1.

Fgure 16–1. Parent Letter

Pennsylvania System of School Assessment (PSSA) — **Parent Letter**

Test Date:
Student Name:
PA Student ID:
Grade:
School:
District:

pennsylvania DEPARTMENT OF EDUCATION

ENGLISH LANGUAGE ARTS

How did Student A perform overall?

Performance Level: Proficient | **Score:** 1005

Below Basic | Basic | Proficient | Advanced

600 | 887 | 1000 | 1107 | 1798

Student's test scale score is indicated by the ↑. If this student were to test again under similar circumstances, his or her score would likely remain in the following range: **979-1031**.

Score Reporting Category	Student's Points	Total Points Possible
Reading**		
Key Ideas and Details	16	22
Craft and Structure/Integration of Knowledge and Ideas	6	8
Vocabulary Acquisition and Use	6	8
Writing		
Types of Writing	3	12
Language	12	18
Text-Dependent Analysis		
Text-Dependent Analysis	4	16

** Each reading question connects to a Reading reporting category in the table above as well as to a Text Type reporting category in the table below. However, each reading question counts only one time in the student's score.

Score Reporting Category	Student's Points	Total Points Possible
Text Types		
Literature Text	15	19
Informational Text	13	19

Note that the performance level line graphs are not drawn to scale because some performance levels have more scaled score points than others. Additionally, the graphs do not display the actual percentage of students in each performance level.

MATHEMATICS

How did Student A perform overall?

Performance Level: Proficient | **Score:** 1032

Below Basic | Basic | Proficient | Advanced

600 | 908 | 1000 | 1107 | 1518

Student's test scale score is indicated by the ↑. If this student were to test again under similar circumstances, his or her score would likely remain in the following range: **1004-1060**.

Score Reporting Category	Student's Points	Total Points Possible
Numbers and Operations in Base Ten	10	14
Numbers and Operations-Fractions	11	17
Operations and Algebraic Thinking	16	18
Geometry	7	10
Measurement and Data	6	13

SCIENCE

How did Student A perform overall?

Performance Level: Advanced | **Score:** 1512

Below Basic | Basic | Proficient | Advanced

1050 | 1150 | 1275 | 1483 | 2208

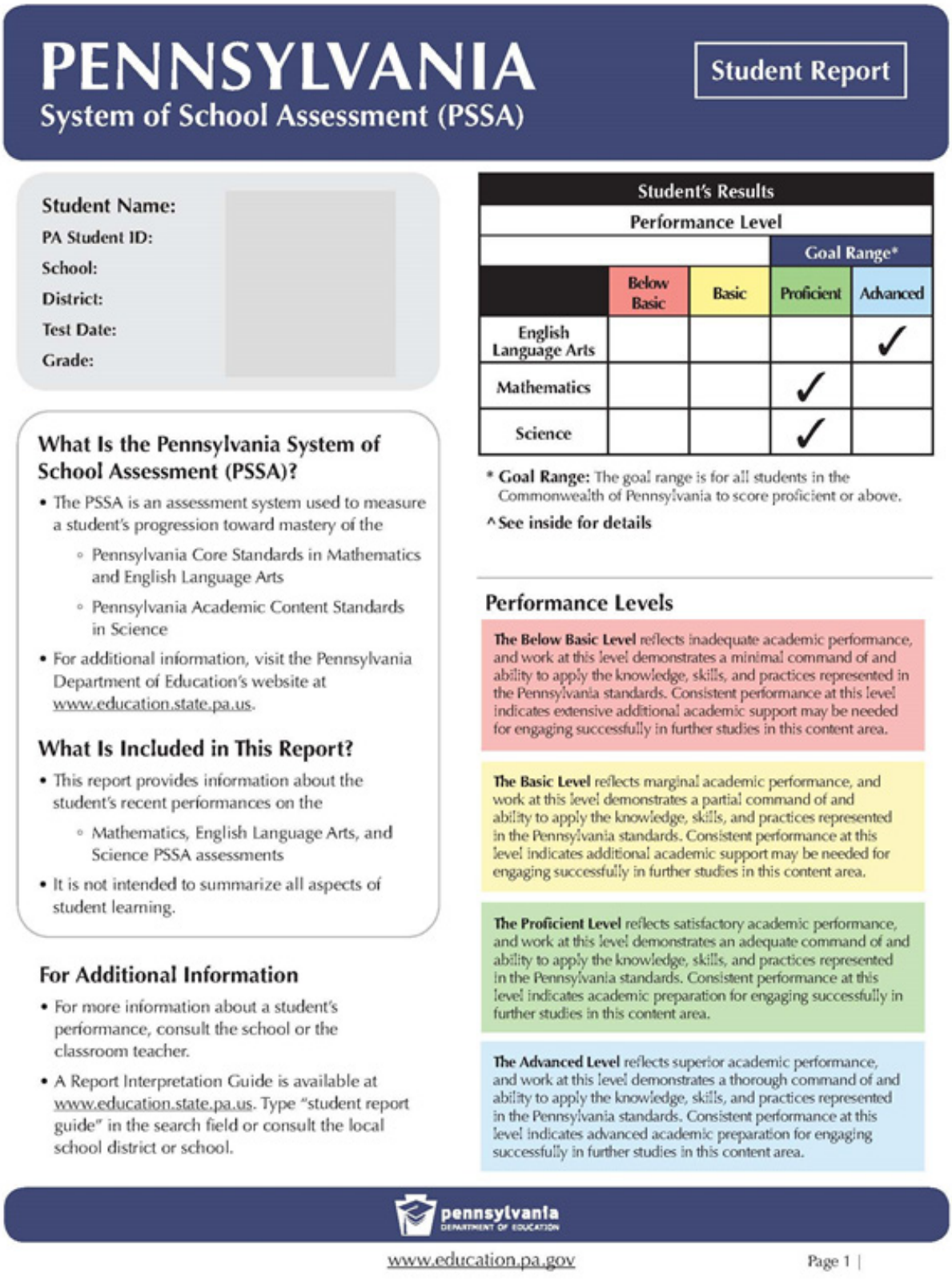
Student's test scale score is indicated by the ↑. If this student were to test again under similar circumstances, his or her score would likely remain in the following range: **1454-1570**.

Score Reporting Category	Student's Points	Total Points Possible
The Nature of Science	30	33
Biological Sciences	8	13
Physical Sciences	10	12
Earth and Space Sciences	8	10

INDIVIDUAL STUDENT REPORT

An individual student report is provided for all students who took the PSSA. This report was delivered to Pennsylvania school districts in September 2017. Districts are responsible for sending the reports home to individual students. This report is a four-page color document that provides the types of scores explained earlier in this chapter. Appendix R contains detailed information about the development of the 2017 Individual Student Reports. Screen shots of the four pages from a sample individual student report are provided in Figures 16–2.

Figure 16–2A. Page 1 of the Individual Student Report



PENNSYLVANIA
System of School Assessment (PSSA)

Student Report

Student Name:
PA Student ID:
School:
District:
Test Date:
Grade:

What Is the Pennsylvania System of School Assessment (PSSA)?

- The PSSA is an assessment system used to measure a student's progression toward mastery of the
  - Pennsylvania Core Standards in Mathematics and English Language Arts
  - Pennsylvania Academic Content Standards in Science
- For additional information, visit the Pennsylvania Department of Education's website at www.education.state.pa.us.

What Is Included in This Report?

- This report provides information about the student's recent performances on the
  - Mathematics, English Language Arts, and Science PSSA assessments
- It is not intended to summarize all aspects of student learning.

For Additional Information

- For more information about a student's performance, consult the school or the classroom teacher.
- A Report Interpretation Guide is available at www.education.state.pa.us. Type "student report guide" in the search field or consult the local school district or school.

Student's Results

Performance Level				
			Goal Range*	
	Below Basic	Basic	Proficient	Advanced
English Language Arts				✓
Mathematics			✓	
Science			✓	

* **Goal Range:** The goal range is for all students in the Commonwealth of Pennsylvania to score proficient or above.

^ **See inside for details**

Performance Levels

The Below Basic Level reflects inadequate academic performance, and work at this level demonstrates a minimal command of and ability to apply the knowledge, skills, and practices represented in the Pennsylvania standards. Consistent performance at this level indicates extensive additional academic support may be needed for engaging successfully in further studies in this content area.

The Basic Level reflects marginal academic performance, and work at this level demonstrates a partial command of and ability to apply the knowledge, skills, and practices represented in the Pennsylvania standards. Consistent performance at this level indicates additional academic support may be needed for engaging successfully in further studies in this content area.

The Proficient Level reflects satisfactory academic performance, and work at this level demonstrates an adequate command of and ability to apply the knowledge, skills, and practices represented in the Pennsylvania standards. Consistent performance at this level indicates academic preparation for engaging successfully in further studies in this content area.

The Advanced Level reflects superior academic performance, and work at this level demonstrates a thorough command of and ability to apply the knowledge, skills, and practices represented in the Pennsylvania standards. Consistent performance at this level indicates advanced academic preparation for engaging successfully in further studies in this content area.

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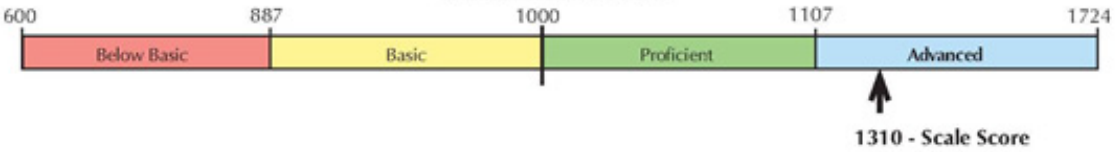
Page 1 |

Figure 16–2B. Page 2 of the Individual Student Report

English Language Arts

Performance Level



Student's test scale score is indicated by the (▲). If this student were to test again under similar circumstances, the student's score would likely remain in the following range: **1266–1354**.

Score Reporting Category	Student's Points	Total Points Possible	Strength Profile*
Reading**			
Key Ideas and Details	16	17	High
Craft and Structure/Integration of Knowledge and Ideas	9	12	Medium
Vocabulary Acquisition and Use	7	9	Medium
Writing			
Types of Writing	8	12	Medium
Language	14	18	Medium
Text-Dependent Analysis			
Text-Dependent Analysis	16	16	High

**Each reading question connects to a Reading reporting category in the table above as well as to a Text Type reporting category in the table below. However, each reading question counts only one time in the student's score.

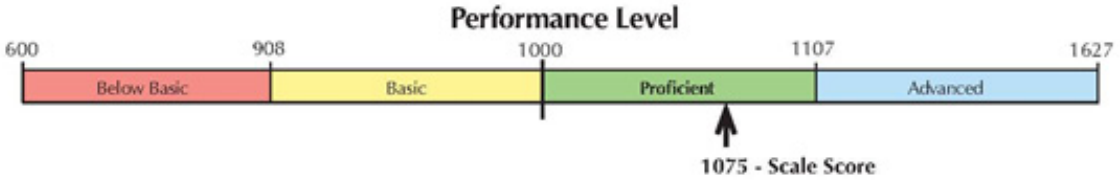
Score Reporting Category	Student's Points	Total Points Possible	Strength Profile*
Text Types			
Literature Text	14	19	Medium
Informational Text	18	19	High

To learn more about the Score Reporting Categories, see page 4.

* **The Strength Profile (Low, Medium, High):** The strength profile provides an indication of this student's performance within each of the reporting categories. The Strength Profile takes into account the difficulty of the assessment questions and can be used to help identify the student's strengths and/or areas of need.

Figure 16–2C. Page 3 of the Individual Student Report

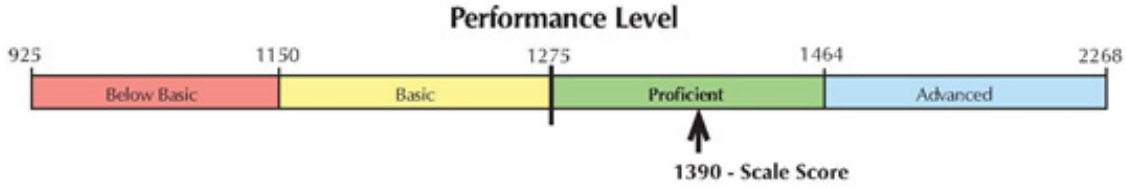
Mathematics



Student's test scale score is indicated by the (▲). If this student were to test again under similar circumstances, the student's score would likely remain in the following range: **1048–1102**.

Score Reporting Category	Student's Points	Total Points Possible	Strength Profile*
Numbers and Operations in Base Ten	5	14	Low
Numbers and Operations—Fractions	10	15	Medium
Operations and Algebraic Thinking	16	19	High
Geometry	10	11	High
Measurement and Data	9	13	Medium

Science



Student's test scale score is indicated by the (▲). If this student were to test again under similar circumstances, the student's score would likely remain in the following range: **1341–1439**.

Score Reporting Category	Student's Points	Total Points Possible	Strength Profile*
The Nature of Science	25	34	Medium
Biological Sciences	9	12	Medium
Physical Sciences	4	10	Low
Earth and Space Sciences	8	12	Medium

Page 3 |

Figure 16–2D. Page 4 of the Individual Student Report

Score Reporting Category Descriptions

English Language Arts

- **Key Ideas and Details**
  Students refer to key ideas and details in passages to summarize important ideas/events, determine a theme or main idea, and draw on evidence from text to support overall inferences and understanding.
- **Craft and Structure/Integration of Knowledge and Ideas**
  Students demonstrate understanding of passages by comparing points of view and first-hand/second-hand accounts of similar events; making connections within and between texts; referring to text features to support information; and analyzing use of evidence to support overall integration of ideas/key aspects of text.
- **Vocabulary Acquisition and Use**
  Students demonstrate understanding of vocabulary and figurative language in literature and informational texts.

- **Types of Writing**
  Students write opinion, informative, or narrative essays demonstrating effective techniques as appropriate for type and purpose.
- **Language**
  Students demonstrate command of the conventions of standard English grammar and usage, capitalization, punctuation, and spelling and use knowledge of language and its conventions for effect.

- **Text-Dependent Analysis**
  Students write a response to literature or informational passages, drawing on the evidence presented in the text to support analysis, reflection, and/or research.

- **Literature Text**
  Students read and respond to literature passages, focusing on narrative, poetic, and/or dramatic techniques and drawing on evidence in the text to support comprehension and understanding.
- **Informational Text**
  Students read and respond to informational passages, focusing on the information and evidence presented on topics, ideas, or procedures and drawing on evidence in the text to support comprehension and interpretation.

Mathematics

- **Numbers and Operations in Base Ten**
  Students develop number skills by understanding place value, relative sizes of numbers in each place, and properties of operations. They practice estimating, doing mental calculations, and developing fluency in multiplying whole numbers.
- **Numbers and Operations—Fractions**
  Students learn the meaning of fractions by exploring relationships between fractions and division, creating fractions by counting and partitioning, and using unit fractions to represent whole numbers.
- **Operations and Algebraic Thinking**
  Students solve problems using all four arithmetic operations with whole numbers. They use drawings, equations, and symbols to represent quantities and analyze patterns. They also learn how factors and multiples relate to multiplication and division.
- **Geometry**
  Students compare and classify two-dimensional shapes to better understand two-dimensional objects. They explore problems involving symmetry, visual and spatial reasoning, and how to select tools to answer questions about size and relationships.
- **Measurement and Data**
  Students use arithmetic operations to solve problems involving measurements and conversions with customary and metric units. They represent and interpret data using line plots, and they use fractions to interpret and calculate intervals.

Science

- **The Nature of Science**
  Students use reasoning skills to develop possible solutions for everyday problems. They plan and conduct fair and valid scientific investigations. They identify patterns and use models to help explain natural and human-made systems.
- **Biological Sciences**
  Students evaluate structures and functions of organisms, describe ecological behaviors within living systems, and recognize the interdependencies between humans and the natural world.
- **Physical Sciences**
  Students demonstrate understanding of physical properties of matter and basic energy types and sources. They describe how energy can change form and apply the scientific principles of force and motion.
- **Earth and Space Sciences**
  Students identify and describe Earth features and processes that change the environment. They recognize processes and changes associated with weather, climate, the atmosphere, and the Earth-Moon-Sun system.

Page 4 |

SCHOOL AND DISTRICT SUMMARY REPORTS

Summary reports are provided at the school and district level. These reports contain summary information about the percentage of students in each of the four performance levels. Raw scores are also provided by assessment anchor to allow schools or districts to identify strengths or weaknesses at the content strand level.

INTERPRETATIVE GUIDE

An interpretative guide is provided to help parents and other PSSA stakeholders better understand test result information presented in the individual student report. The interpretative guide can be found on the PDE website.

CHAPTER SEVENTEEN: OPERATIONAL TEST STATISTICS

This chapter presents various summary statistics for the PSSA total test scores based on the final data file described in Chapter Nine. Related information covered elsewhere in this report includes the item-level statistics presented in Chapter Eleven (classical item statistics) and Chapter Twelve (Rasch item statistics). These chapters provide additional consideration as item difficulty distributions can affect total score distributions.

PERFORMANCE LEVEL STATISTICS

Table 17–1 presents performance level percentages by grade and content. Appendix Q provides performance level percentages for prior years.

Table 17–1. Performance Level Percentages for 2017 PSSA

Subject	Grade	Below Basic	Basic	Proficient	Advanced
Mathematics	3	25.86	19.69	28.42	26.04
ELA	3	12.09	23.29	47.56	17.06
Mathematics	4	26.11	27.32	28.47	18.10
ELA	4	10.92	28.16	35.26	25.65
Science	4	5.28	20.17	41.57	32.98
Mathematics	5	24.81	31.43	27.51	16.24
ELA	5	11.48	28.94	43.18	16.40
Mathematics	6	29.07	30.65	26.13	14.15
ELA	6	6.90	29.52	41.43	22.16
Mathematics	7	36.95	25.23	22.10	15.72
ELA	7	3.65	36.90	40.14	19.31
Mathematics	8	39.72	27.82	21.89	10.57
ELA	8	10.50	30.63	42.93	15.94
Science	8	24.96	22.36	31.50	21.18

SCALED SCORES

SUMMARY STATISTICS

Table 17–2 provides the scaled score means and standard deviations. See the section Every Test has a Unique Scale in Chapter Sixteen for caveats regarding interpretation of scale scores.

Table 17–2. Means and Standard Deviations for the 2017 PSSA Scaled Scores

Subject	Grade	Mean	SD
Mathematics	3	1019.85	129.66
Mathematics	4	993.58	118.67
Mathematics	5	991.82	119.70
Mathematics	6	976.25	115.64
Mathematics	7	968.65	126.69
Mathematics	8	953.46	118.27
ELA	3	1039.30	111.21
ELA	4	1030.55	112.72
ELA	5	1029.58	112.26
ELA	6	1035.08	106.23
ELA	7	1031.71	113.46
ELA	8	1025.03	108.86
Science	4	1406.07	170.94
Science	8	1299.33	183.99

SCALED-SCORE DISTRIBUTIONS

Scaled scores are based on a linear transformation of the Rasch ability estimates. Distributions of the Rasch abilities are provided at the end of Chapter Twelve.

RAW SCORES

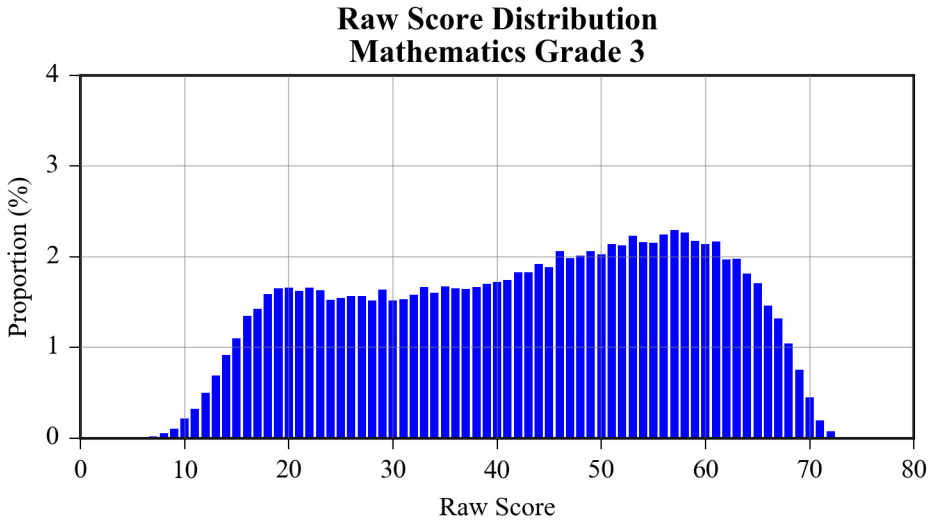
SUMMARY STATISTICS

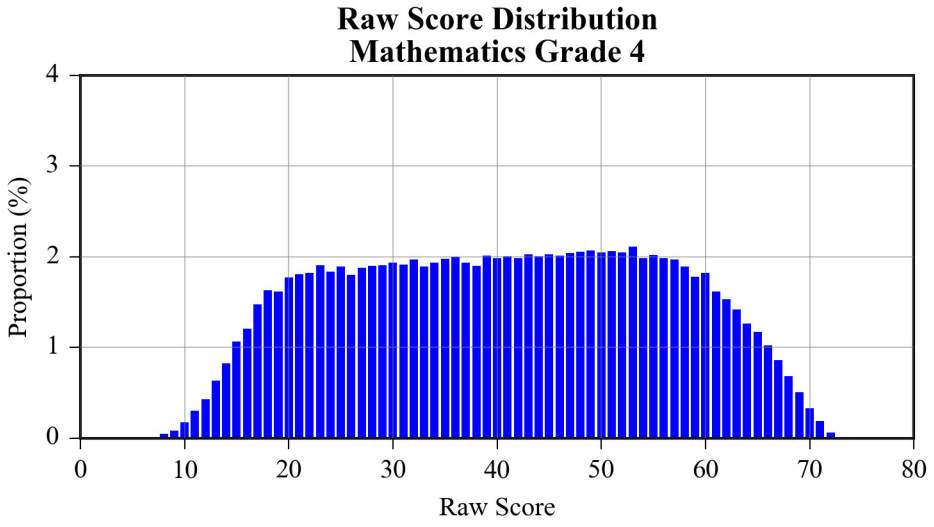
Appendix P provides summary statistics for the operational raw scores. The statistics reported include the number of points possible (Pts.), number of items (Len.), number of students tested (N), mean number of score points received (Mean), standard deviation of test scores (SD), reliability (r), traditional standard error of measurement (SEM), and item types (Items) used to determine each score. These statistics are based on the total test using both MC and OE items for the operational sections of each form. For ELA, OE items are further disaggregated by short-answer (grade 3 only), EBSR, text dependent analysis (TDA, grade 4 and higher) and writing prompt (WP). (For information disaggregated by item type, Chapter Eleven provides breakout statistics for MC and OE items.)

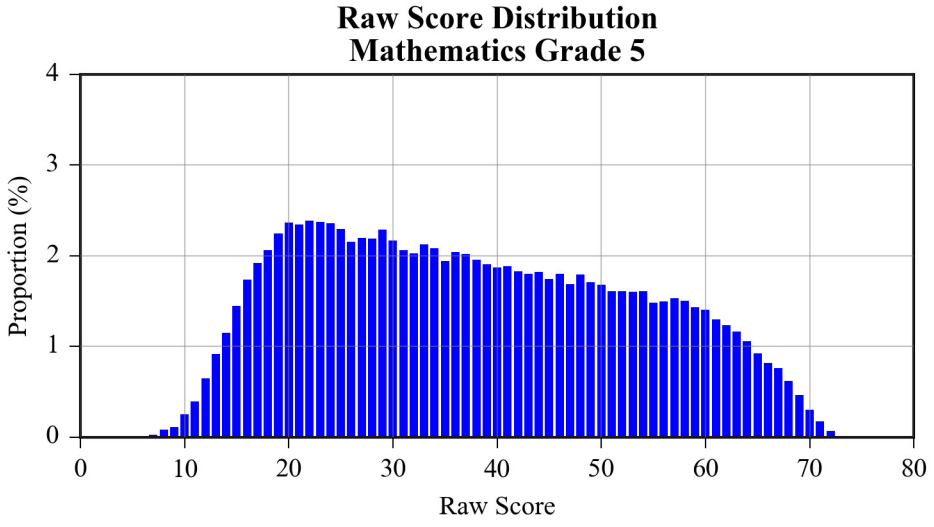
SCORE DISTRIBUTIONS

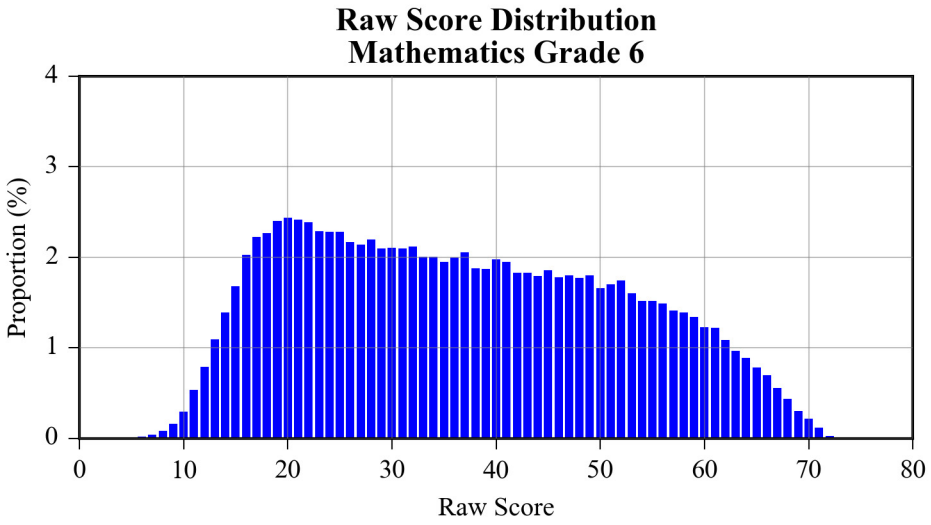
Raw score relative-frequency (rf) distributions are provided in Figure 17–1. The distributions for ELA slightly negatively skewed.Mathematics grades 5-8 distributions are slightly positively skewed and grades 3-4, and Science are somewhat flat.

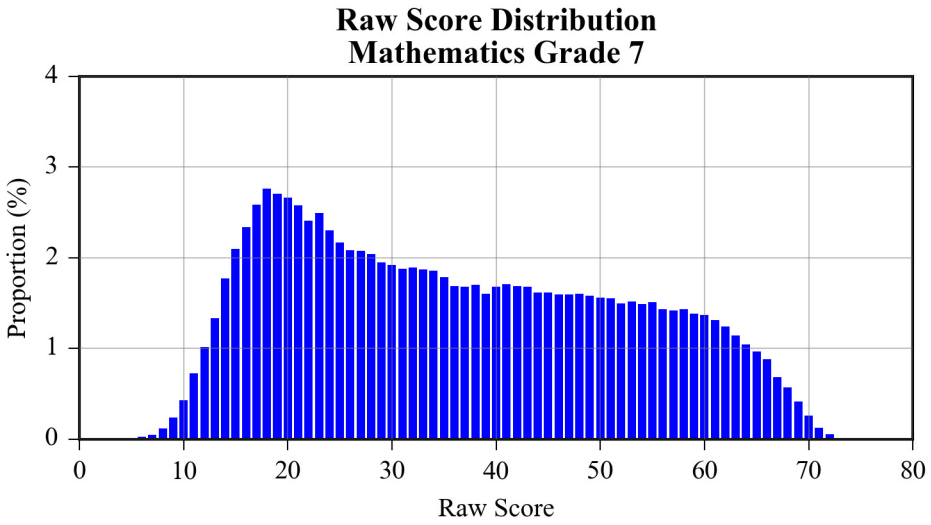
Figure 17–1. 2017 PSSA Raw Score Distributions

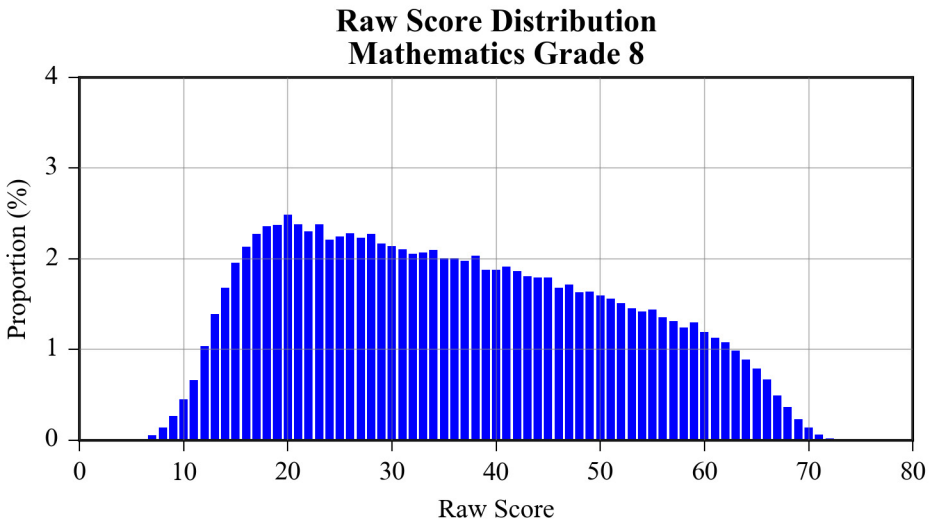


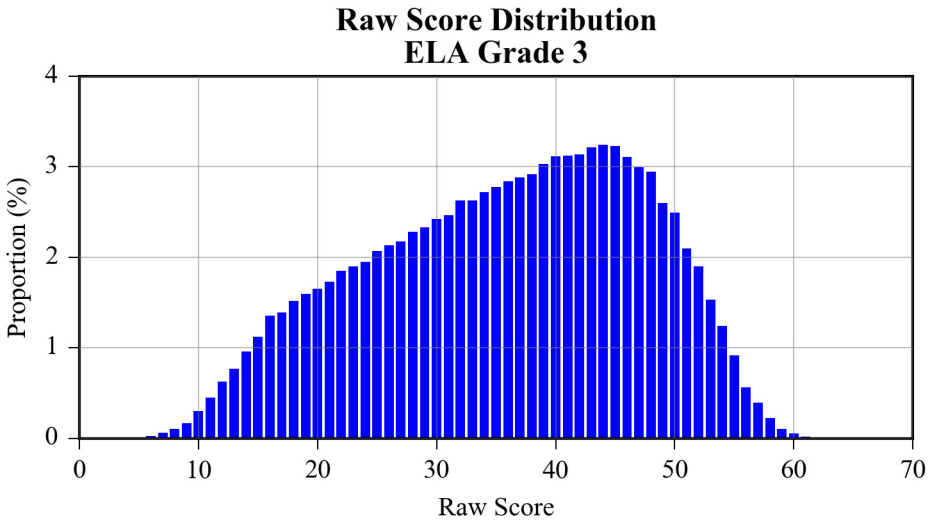


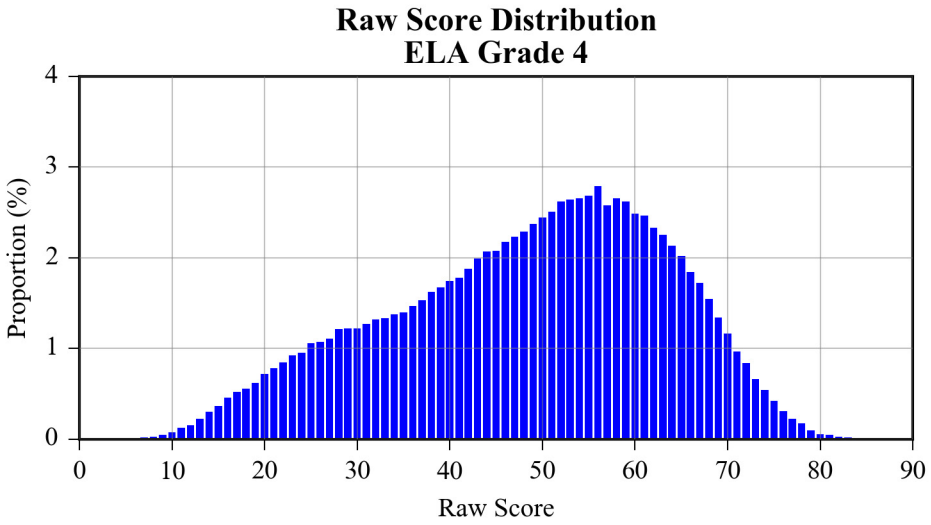


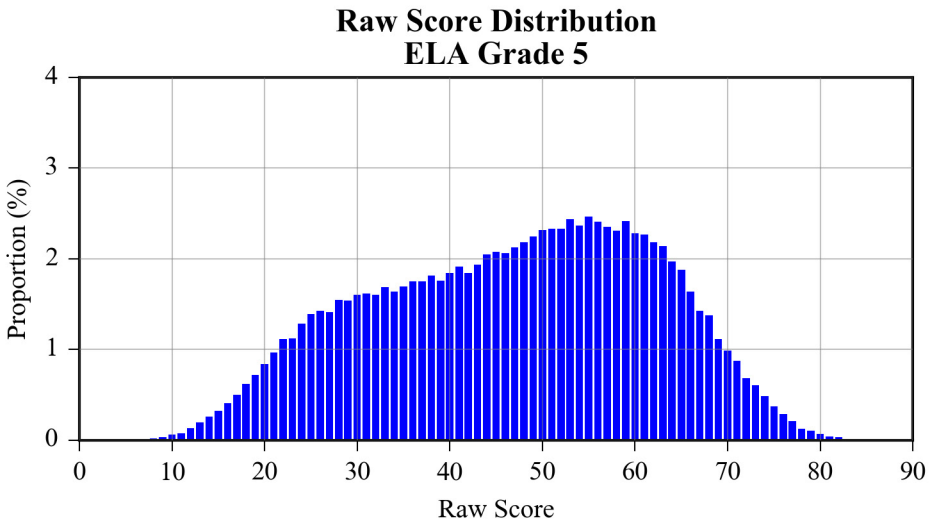

Raw Score Distribution
Mathematics Grade 6
Proportion (%)
Raw Score
0
1
2
3
4
0
10
20
30
40
50
60
70
80

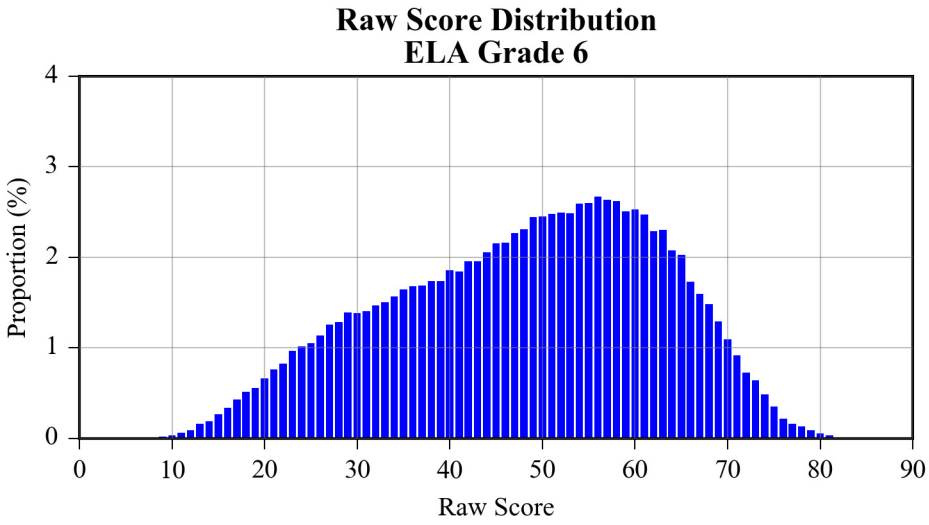

Raw Score Distribution
Mathematics Grade 7
Proportion (%)
Raw Score
0
1
2
3
4
0
10
20
30
40
50
60
70
80


Raw Score Distribution
Mathematics Grade 8
Proportion (%)
Raw Score
0
1
2
3
4
0
10
20
30
40
50
60
70
80


Raw Score Distribution
ELA Grade 3
Proportion (%)
Raw Score
0
1
2
3
4
0
10
20
30
40
50
60
70


Raw Score Distribution
ELA Grade 4
Proportion (%)
Raw Score
0
1
2
3
4
0
10
20
30
40
50
60
70
80
90


Raw Score Distribution
ELA Grade 5
Proportion (%)
Raw Score
0
1
2
3
4
0
10
20
30
40
50
60
70
80
90


Raw Score Distribution
ELA Grade 6
Proportion (%)
Raw Score
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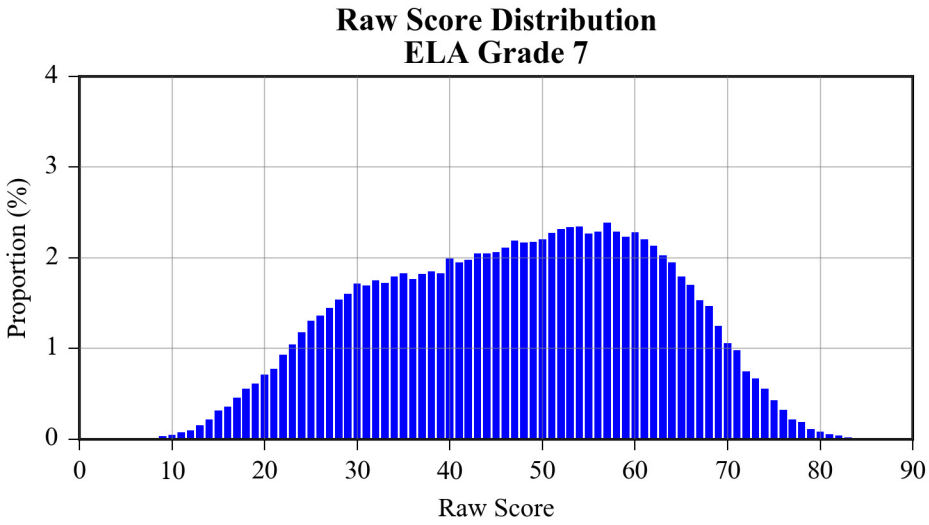
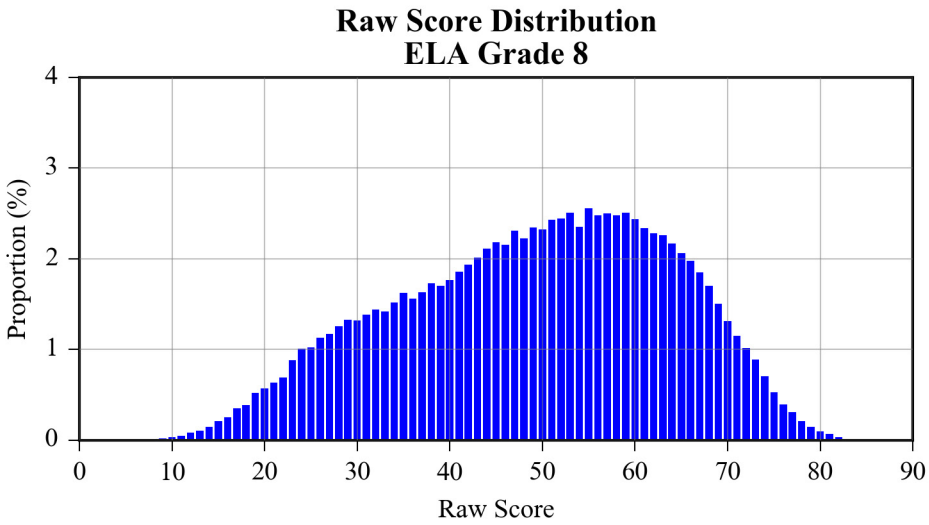
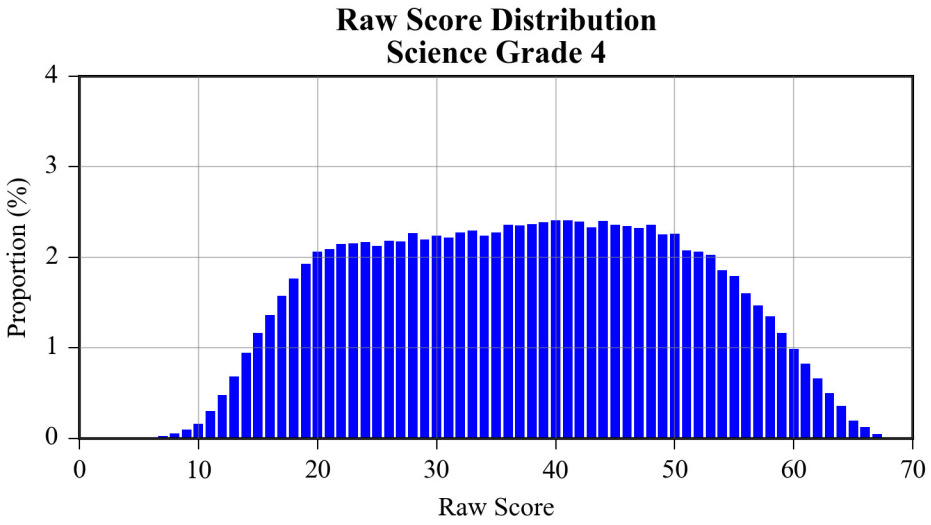
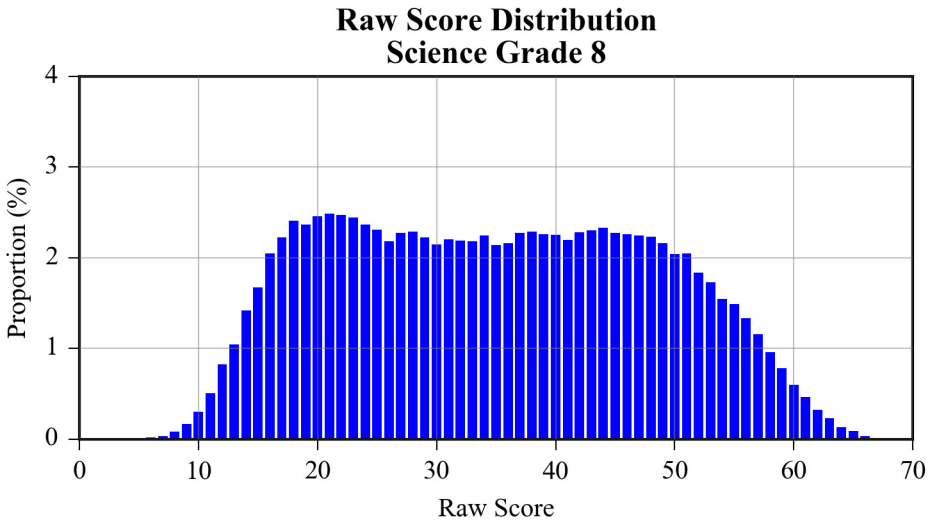
1
2
3
4
0
10
20
30
40
50
60
70
80
90


Raw Score Distribution
ELA Grade 7
Proportion (%)
Raw Score
0
1
2
3
4
0
10
20
30
40
50
60
70
80
90


Raw Score Distribution
ELA Grade 8
Proportion (%)
Raw Score
0
1
2
3
4
0
10
20
30
40
50
60
70
80
90


Raw Score Distribution
Science Grade 4
Proportion (%)
0
1
2
3
4
0
10
20
30
40
50
60
70
Raw Score


Raw Score Distribution
Science Grade 8
Proportion (%)
0
1
2
3
4
0
10
20
30
40
50
60
70
Raw Score

CHAPTER EIGHTEEN: RELIABILITY

This chapter addresses the reliability of PSSA test scores. According to the *Standards for Educational and Psychological Testing (*AERA, APA, & NCME, 2014), the general notion of reliability/precision refers to:

> the consistency of scores across replications of a testing procedure, regardless of how this consistency is estimated or reported (p.33).

This chapter will use the term reliability.

Frisbie (2005) highlighted several elements of reliability. First, reliability is a property of test scores, not a test itself. Many may appreciate this distinction, but in casual usage, individuals frequently make reference to a reliable test. While reliability concerns test scores (and not the test specifically), it is important to appreciate the fact that test scores can be affected by characteristics of the instrument. For example, all other things being equal, tests with more items/points tend to be more reliable than tests with fewer items/points. Second, reliability coefficients are group specific. Reliabilities tend to be higher in populations that are more heterogeneous and lower in populations that are more homogeneous. Consequently, both test length and population heterogeneity should be considered when evaluating reliability.

There is a reliability consideration that may be less evident from the *Standard's* definition, yet still important for test users to understand. While freedom from measurement error is very important, reliability is specifically concerned with random sources of error. Indeed, the degree of inconsistency due to random error sources is what determines reliability: less consistency is associated with lower reliability and more consistency is associated with higher reliability. Of course, systematic error sources also exist. These can artificially increase reliability and decrease validity. (Validity is further discussed in Chapter Nineteen.)

Another noteworthy issue is that multiple sources of error exist (e.g., the day of testing, the items used, the raters who score the items). However, most widely used reliability indices only reflect a single type of error. Consequently, it is important for test users to understand what specific type of error is being considered in a reliability study, and equally, if not more important, what types are not.

Understanding the distinction between relative error and absolute error is also important as many reliability indices only reflect relative error. Relative error is of interest whenever the relative ordering of individuals respective to their test performance is of interest. Understanding examinee rank-order stability is important; however, such stability might be well achieved even when the specific score values are considerably different. When specific score values are considered important (e.g., if cuts cores are used), then absolute error is too. Generally, there is more error variance when considering the absolute scores of examinees, which in turn suggests lower reliability.

As suggested, reliability is a complex, nonunitary notion that cannot be adequately represented by a single number. There are several reliability indices available, and these may not provide the same results (Frisbie, 2005). The remainder of this chapter covers the following:

- Reliability coefficients and their interpretation
- Unconditional and conditional standard errors of measurement (SEMs and CSEMs)
- Decision consistency
- Rater agreement

RELIABILITY INDICES

As shown below, the reliability coefficient expresses the consistency of test scores as the ratio of true score variance to total score variance. The total variance contains two components: 1) the variance in true scores and 2) the variance due to the imperfections in the measurement process. Put differently, total variance equals true score variance plus error variance.[1]

$$\rho_X^2 = \frac{\sigma_T^2}{\sigma_X^2} = \frac{\sigma_T^2}{\sigma_T^2 + \sigma_E^2}$$

Reliability coefficients indicate the degree to which differences in test scores reflect true differences in the attribute being tested rather than random fluctuations. Total test score variance (i.e., individual differences) is partly due to real differences in the attribute (true variance) and partly due to random error in the measurement process (error variance).

Reliability coefficients range from 0.0 to 1.0. If all test score variances were true, the index would equal 1.0. The index will be 0.0 if none of the test score variances were true. Such scores would be pure random noise (i.e., all measurement error). If the index achieved a value of 1.0, scores would be perfectly consistent (i.e., contain no measurement error). Although values of 1.0 are never achieved in practice, it is clear that larger coefficients are more desirable because they indicate that test scores are less influenced by random error. (How big is big enough and how small is too small are issues considered in a later section.)

As noted in the introduction, there are several different indices that can be used to estimate this ratio. One approach is referred to as internal consistency, which is derived from analyzing the performance consistency of individuals over the items within a test. As discussed below, these internal consistency indices do not take into account other sources of error, for example, variations due to random errors associated with the linking process, day-to-day variations (student health, testing environment, etc.), and rater inconsistency.

COEFFICIENT ALPHA

Although a number of reliability indices exist, perhaps the one most frequently reported 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, academic achievement in subject areas such as mathematics, ELA, and science.

Alpha is an internal consistency index. It can be conceptualized as the extent to which an exchangeable set of items from the same domain would result in a similar rank ordering of students. Note that relative error is reflected in this index. Variation in student performance from one sample of items to the next should be of particular concern for any achievement test user. Consider two hypothetical vocabulary tests intended for the same group of students. Each test contains different sets of unique words that are believed to be randomly equivalent, perhaps like the ones shown below.

Table 18–1. Two Hypothetical Vocabulary Tests

Test One	Test Two
Abase	Abate
Boon	Bilk
Capricious	Circuitous
Deface	Debase
....	....
Zealous	Zenith

[1] A covariance term is not required as true scores and error are assumed to be uncorrelated in classical test theory.

If a representative group of students could take both of these tests, and the correlation between the scores could be obtained, then that result would represent the parallel forms reliability of the test scores. However, such data-collection designs are impractical in large-scale settings and experimental confounds like fatigue and practice effects are likely to affect the results. Internal-consistency reliability indices arose in part to provide reliability measures using the data from just a single test administration. So, if students only took Test One and the Coefficient Alpha index for those test scores was high, then this would suggest that Test Two would provide a very similar rank ordering of the students if they had taken it instead. If Coefficient Alpha were low, dissimilar rank orderings would likely be observed—again, relative-error variance is reflected in Alpha. (It should also be noted that Coefficient Alpha is algebraically identical to a *Person* × *Item* design under Generalizability Theory when relative error variance is assumed.)

FORMULA

Consider the data matrix in Table 18-2 representing the scores of persons (p) in rows, and items (i) in columns. Each cell is the score of person "p" on item i, and Y represents each item raw score for each person.

Table 18–2. Person × Item Score (X_{pi}) Infinite (Population-Universe) Matrix

Person	Item 1	Item 2	Item i
1	*Y*11	*Y*12	. . . Y1i
2…	*Y*21	*Y*22	. . . Y2i
p	*Yp*1	*Yp*2	. . . Ypi

The general computational formula for Alpha is as follows:

$$\alpha = \frac{N}{N-1}\left(1 - \frac{\sum_{i=1}^{N}\sigma_{Yi}^2}{\sigma_X^2}\right),$$

where *N* is the number of parts (items or testlets), *Y*, as noted, is the item score, σ_X^2 is the total test score, is the variance of the observed total test scores, and σ_{Yi}^2 is the variance of part i.

FURTHER INTERPRETATIONS

RULES OF THUMB

What reliability value is considered high enough? What values are considered too low? Although frequently asked for, any rules of thumb for interpreting the magnitude of reliability indices are mostly arbitrary. Another approach is to research the reliabilities from similar testing instruments to see what values are commonly observed. For the PSSA, comparisons to tests of similar lengths that were administered to similar student populations from other large-scale assessment programs would be relevant. For many other state assessment programs, reliabilities in the low 0.90s are usually the highest ever observed and reliabilities in the high 0.80s are very common.

The lower a given reliability coefficient, the greater the potential for over-interpretation of the associated results. As suggested above, there is no firm guideline regarding how low is too low. However, as an informative 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.

IS ALPHA A LOWER LIMIT TO RELIABILITY?

According to Brennan (1998), "the conventional wisdom that Coefficient Alpha is a lower limit to reliability is based largely on a misunderstanding." In reflecting on the 50th anniversary of his seminal 1951 article, Cronbach—in Cronbach and Shavelson (2004)—expressed similar misgivings about this conventional wisdom:

> one could argue that alpha was almost an unbiased estimate of the desired reliability….the almost in the preceding sentence refers to a small mathematical detail that causes the alpha coefficient to run a trifle lower than the desired value. This detail is of no consequence and does not support the statement made frequently

in textbooks or in articles that alpha is a lower value to the reliability coefficient. That statement is justified by reasoning that starts with the definition of the desired coefficient as the expected consistency among measurements that had a higher degree of parallelism than the random parallel concept implied.

The assumptions for three common parallelism models are presented in Table 18–3. Alpha's assumptions come from the Essentially-Tau Equivalent model, which does not require equal means or equal variances across test parts. Based on this, Brennan (1998) asserts that the lower-limit issue, as conceptualized by many, provides an answer to a question that is of minimal importance. Reframed differently, the goal of selecting a reliability coefficient is not to find the one that provides the highest coefficient, but the one that most accurately reflects the test data under study.

It is important to note that there are factors encountered in practice that may legitimately make Coefficient Alpha an underestimate of reliability. However, there are also factors that might make Coefficient Alpha an overestimate of reliability. Both possibilities are discussed further below and generally arise when the Essentially-Tau Equivalent assumptions are strained.

Table 18–3. Summary of Expectations/Observable Relationships for Different Parallelism Models

Relationship	Classically Parallel	Essentially-Tau Equivalent	Congeneric
Content Similarity	Yes	Yes	Yes
Equal Means across Parts	Yes	No	No
Equal Variances across Parts	Yes	No	No
Equal Covariances across Parts	Yes	Yes	No
Equal Covariances with Other Variables	Yes	Yes	No

* Other models exist, but are not considered here due to their limited application in practice.

BIASES THAT MIGHT MAKE ALPHA AN UNDERESTIMATE OF RELIABILITY

There are factors that might negatively bias Coefficent Alpha, making the apparent reliability lower than it may actually be. Two situations frequently encountered in practice that might cause this include tests that are composed of mixed item types (e.g., multiple-choice (MC) and open-ended (OE) items) and tests that include a planned stratification of the test items according to topics or subdomains.

Although both situations strictly violate the assumptions on which Coefficient Alpha is derived (i.e., the tests are not based on equal part lengths in the former case and are not randomly parallel in the latter case), neither necessarily guarantees that the reliability will be markedly lower. In the latter case, reliability will be underestimated only when strand items are homogeneous enough for the average covariance within strata to exceed the average covariance between strata. Although both are potential influences for the PSSAs, most of the total test score reliabilities reported in Appendix P are all close to or above 0.90, indicating highly consistent test scores for these instruments.

BIASES THAT MIGHT MAKE ALPHA AN OVERESTIMATE OF RELIABILITY

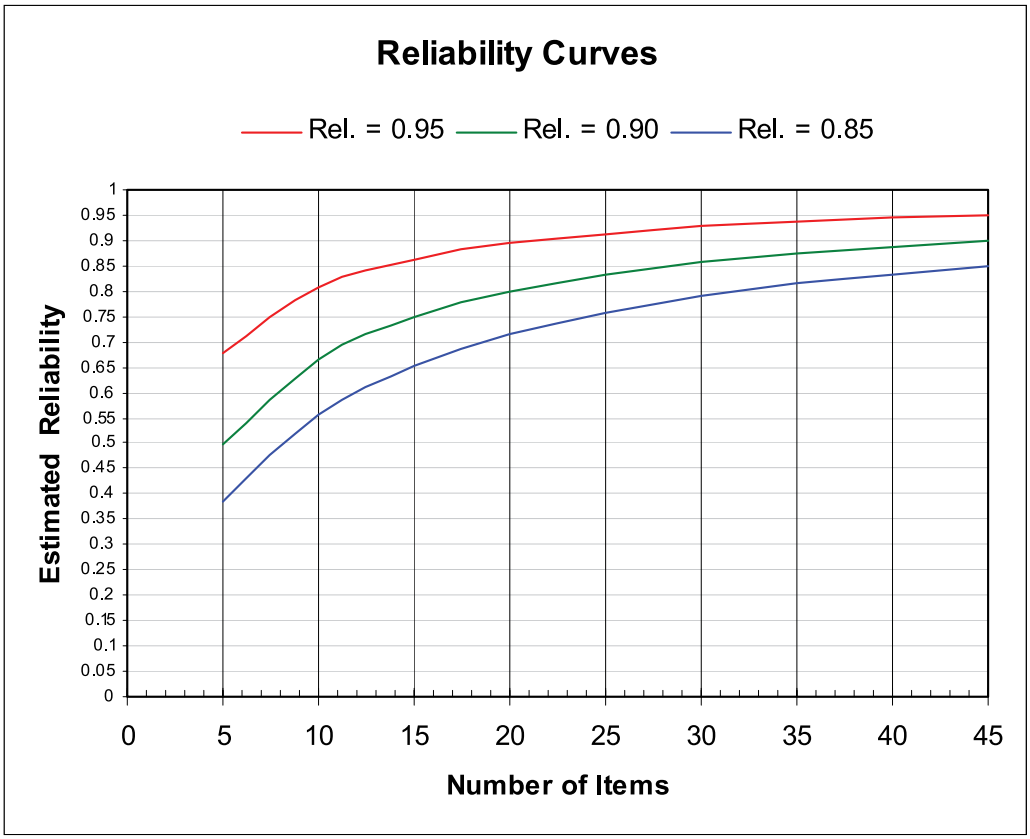
As emphasized in earlier sections, Coefficient Alpha only takes into account measurement error that arises from the selection of items used on a particular test form. There are other sources of random inaccuracy. One is due to the occasion of testing. Other various random conditions that might affect students on any particular testing occasions include illness, fatigue, and anxiety. Also, when a test includes OE items, as the PSSA does, another source that can cause random fluctuation is the OE item scorers. In a sense, Alpha may be positively biased because it does not take into account these other important sources of random error. Any internal consistency reliability index could understate the overall problem of measurement error because it ignores such sources or random error.

Another positive bias can occur when items are associated (clustered) with a common stimulus. Item bundles and testlets are other frequently used terms for this situation. One concrete example is when multiple reading comprehension items are associated with a common passage selection. Again, such a situation does not guarantee that the reliability estimate will be markedly affected, but the potential exists.

STRAND SCORES

As noted in the introduction, reliabilities tend to go up in value with an increase in test length and go down in value with a decrease in test length. Figure 18–1 illustrates this relationship for a hypothetical 45-point test with three total score reliabilities: 0.95, 0.90, and 0.85. As an example, the curve for reliability equal to 0.90 suggests that a 10-item strand would be expected to have a score reliability of just over 0.65. The use of the Spearman-Brown prophecy formula assumes all items are exchangeable, which in practice they may not be. While such a chart may not perfectly model actual strand correlations, the intent is only to illustrate the substantial impact that limited numbers of strand items can have on strand-score reliability. One should not be surprised that strand scores with more points tend to show higher reliability coefficients and those with fewer points tend to show lower reliability coefficients. Further, what is most important for PSSA users to note is that some strand score reliabilities may be too low to warrant interpretation at the individual student level.

Figure 18–1. Example of the Relationship between Test Length and Reliability



Note. Tabled values derived using the Spearman-Brown formula.

INDIVIDUAL-LEVEL VERSUS GROUP-LEVEL SCORES

The results presented in this chapter pertain to the reliability of individual scores. Group results (e.g., is state and district levels) are also provided on PSSA score reports, but the reliability of those scores is not specifically calculated here. However, as a general rule, the reliabilities of group mean scores are almost always higher (sometimes substantially) than the corresponding reliabilities for individual scores. This is especially important to remember for strand scores because those scores can be quite reliable at the group level, even though their individual reliabilities may be too low. Because the reliability of group mean scores (e.g., school or district means) tends to be higher than that of individual scores, the interpretation of strand scores at these aggregate levels is likely very reasonable in most instances. Even though the reliability for means scores based on only a few items might be adequate, the validity of those same scores might be suspect because use of only a few items may not adequately cover the construct of interest. Validity is further discussed in Chapter Nineteen.

RELIABILITY OF WRITING SCORES

An extension of Coefficient Alpha that was derived to specifically fit stratified parallel tests (sometimes called stratified alpha; Cronbach, Schonemann, & McKie, 1965) was used to compute the PSSA ELA score reliabilities. This approach is often used when it is believed that Alpha may be yielding a lower coefficient than it should for the reasons noted above. Although originally developed for content-stratified tests, Qualls (1995) demonstrated its utility for mixed-format tests as well when the stratification is based on item type. It may be computed as

$$_{strat\alpha}\rho_{xx'} = 1 - \frac{\Sigma\sigma^2 x_h (1 - {}_{\alpha}\rho_{x_h x_{h'}})}{\sigma^2 x},$$

where *h* indexes the individual strata.

The reliability of ELA assessments (and many other performance-based tests) with mixed-format tends to be lower than reliabilities for other tests. Part of the reason for this is that there tends to be large student-by-task interactions on such assessments. In the case of ELA, individual student performance may fluctuate significantly across writing prompt (WP), text-dependent analysis (TDA) and evidence-based selected response (EBSR) item types on the same test. In principle, adding more prompts and items can improve reliability to a more acceptable level. However, this is challenging in practice because of costs, testing time, and student fatigue. In sum, the large student-by-task interaction combined with the limited number of tasks often results in a relatively low reliability for ELA assessments.

STANDARD ERROR OF MEASUREMENT

The reliability coefficient is a unit-free indicator that reflects the degree to which scores are free of measurement error. It always ranges between 0.0 and 1.0 regardless of the test's scale. Reliability coefficients best reflect the extent to which measurement inconsistencies may be present or absent in a group. However, they are not that useful for helping users interpret test scores. The standard error of measurement (SEM) is another indicator of degree of consistency for the scores obtained by individual examinees. A relatively large SEM indicates relatively low reliability. The conditional SEMs (CSEM) discussed further below is SEM at that score level.

TRADITIONAL STANDARD ERROR OF MEASUREMENT

A precise, theoretical interpretation of the SEM is somewhat unwieldy. A beginning point for understanding the concept is as follows. If everyone being tested had the same true score,[2] there would still be some variation in observed scores due to imperfections in the measurement process, such as random differences in attention during instruction or concentration during testing and the sampling of test items. The standard error is defined as the standard deviation[3] 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 very important information for test score users.

The SEM formula is provided below.

$$SEM = SD\sqrt{1—reliability}$$

This formula indicates the value of the SEM depends on both the reliability coefficient and the standard deviation of test scores. If the reliability were equal to 0.00 (the lowest possible value) the SEM would be equal to the standard deviation of the test scores. If test reliability were equal to 1.00 (the highest possible value) the SEM would be 0.0. In other words, a perfectly reliable test has no measurement error (Harvill, 1991). Additionally, the value of the SEM takes the group variation (i.e., score standard deviation) into account. Consider that an SEM of 3 on a 10point test would be very different than an SEM of 3 on a 100-point test.

[2] True score is the score the person would receive if the measurement process were perfect.

[3] The standard deviation of a distribution is a measure of the dispersion of the observations. For the normal distribution, about 16 percent of the observations are more than one standard deviation above the mean.

TRADITIONAL STANDARD ERROR OF MEASUREMENT CONFIDENCE INTERVALS

The SEM is an index of the random variability in test scores in actual score units, which is why it has such great utility for test score users. SEMs allow statements regarding the precision of individual test scores. SEMs help place 'reasonable limits' (Gulliksen, 1950) around observed scores through construction of an approximate score band. Often referred to as confidence intervals, these bands are constructed by taking the observed scores, *X*, and adding and subtracting a multiplicative factor of the SEM. As an example, students with a given true score will have observed scores that fall between +/-1 SEM about two-thirds of the time.[4] For +/-2 SEM confidence intervals, this increases to about 95 percent.

FURTHER INTERPRETATIONS

ONE STANDARD ERROR OF MEASUREMENT FOR ALL TEST SCORES

The SEM approach described above only provides a single numerical estimate for constructing the confidence intervals for examinees regardless of their score level. In reality however, such confidence intervals vary according to a student's score. Consequently, care should be taken using the SEM for students with extreme scores. (In the next sections, an alternate approach is described that conditions the SEM on a student's score estimate.)

GROUP SPECIFIC

As noted in the introduction, reliabilities are group specific. The same is true for SEMs because both score reliabilities and score standard deviations vary across groups.

RAW-SCORE METRIC

The SEM approach is calculated using raw scores, and as such, the resulting confidence interval bands are on the raw score metric. Error bands on the scaled score metric are considered in the next section.

TYPE OF ERROR REFLECTED

The interpretation of the SEM should be driven by the type of score reliability that underpins it. So, the PSSA SEMs involve the same source of error relevant to internal consistency indices. As noted earlier, a precise technical explanation of the SEM (and resulting confidence intervals) can be unwieldy. Because of this, score users are often provided less complex interpretations.

One simpler description is that a confidence interval represents the possible score range one would observe if a student could be tested twice with the same instrument. Taking the same test on a different day implies the only source of random error being considered is related to the occasion of testing, such as a student might be sleepier one day than another, or may be sick, or did not get a good breakfast. There is a reliability index that captures this source of random error, and it is referred to as the test-retest reliability coefficient. This is not the type of reliability computed for the PSSAs. When internal consistency reliability estimates are used, such an explanation blurs the fact that random error based on the occasion of testing is not considered.

When SEMs are derived from internal consistency reliability estimates, a better approach is to describe the confidence interval as providing reasonable bounds for the range of scores that a student might receive if he or she took an equivalent version of the test; that is, the student took a test that covered exactly the same content but included a different set of items (if an infinite number of tests with equivalent content were taken, the student's true score will lie within the constructed confidence intervals 68 percent of the time). As an example, if the PSSA score was 1150 and the SEM band was 1100 to 1200, then a student would be likely to receive a score somewhere between 1100 and 1200 if a different version of the test had been taken.

[4] Some prefer the following interpretation: if a student were tested an infinite number of times, the +/-1 SEM confidence intervals constructed for each score would capture the student's true score 68 percent of the time.

RESULTS AND OBSERVATIONS

Coefficient Alpha results and associated (traditional) SEMs for various PSSA scores are documented in Table 18–4 and Appendix P. Values were derived using the PSSA final data file (see Chapter Nine). The results are organized by subject area and grade. Each table in Appendix P also breaks out the various reporting strands and groups of interest (i.e., the total student population, gender and ethnic groups, English language learners (ELL), students with individualized education plan (IEP), and the economically disadvantaged (ED)). The statistics reported in Appendix P include number of points possible (Pts.), number of items (Len.), number of students tested (N), mean number of score points received (Mean), standard deviation of test scores (SD), reliability (r), traditional standard error of measurement (SEM), and item types (Items) used to determine each score.

Table 18–4. Reliabilities and Standard Errors of Measurement

Subject	Grade	Reliability	*SEM*
Mathematics	3	0.95	3.65
Mathematics	4	0.94	3.79
Mathematics	5	0.94	3.81
Mathematics	6	0.94	3.81
Mathematics	7	0.95	3.69
Mathematics	8	0.94	3.73
ELA	3	0.92	3.30
ELA	4	0.92	4.15
ELA	5	0.92	4.16
ELA	6	0.92	4.21
ELA	7	0.92	4.21
ELA	8	0.91	4.33
Science	4	0.92	3.74
Science	8	0.92	3.71

Note. Raw scores are not weighted

Note that these tables in Appendix P report 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

$$\hat{\sigma}_T = \sqrt{\hat{\sigma}_x^2 - \hat{\sigma}_x^2(1-\hat{\rho}_{xx})}\,.$$

The results are historically consistent with past PSSA reliability results. The overall test score reliability values are excellent, with all in the low to mid 0.90s. It was also generally noted that reliabilities tend to go up in value with an increase in test length and population heterogeneity and go down in value with a decrease in test length and more homogeneous populations. Across the grades and subjects tabled in Appendix P, 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. Perhaps the most significant result pertains to an earlier caution (i.e., that some strand score reliabilities may be too low to warrant interpretation at the individual student level). Once again, 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, suggesting interpretation of strand scores at these aggregate levels is likely reasonable.

RASCH CONDITIONAL STANDARD ERROR OF MEASUREMENT

The CSEM also indicates the degree of measurement error but does so in scaled-score units and varies as a function of a student's actual scaled 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.

Technically, when a Rasch model is applied, the CSEM at any given point on the ability continuum is defined as the reciprocal of the square root of the test information function derived from the Rasch scaling model.

$$CSEM(\hat{\theta}) = \frac{1}{\sqrt{I(\hat{\theta})}}$$

where $CSEM(\hat{\theta})$ is the conditional standard error of measurement and $I(\hat{\theta})$ is the test information function. Test information depends on the sum of the corresponding information functions for the test items. Item information depends on each item's difficulty and conditional item score variance. The formula above utilizes the Rasch ability (θ) metric. The conditional standard error on the scaled score (SS) metric is determined by simply multiplying the $CSEM(\hat{\theta})$ by the slope (multiplicative constant, *m*) of the linear transformation equation used to convert the Rasch ability estimates to scaled scores.

$$\text{CSEM(SS)} = CSEM(\hat{\theta}) * m$$

Chapter Fourteen provides the linear transformation formulas for each PSSA test.

RASCH CONDITIONAL STANDARD ERROR OF MEASUREMENT CONFIDENCE INTERVALS

CSEMs also allow statements regarding the precision of individual tests scores. And like SEMs, they help place reasonable limits around observed scaled scores through construction of an approximate score band. The confidence intervals are constructed by adding and subtracting a multiplicative factor of the CSEM and may be interpreted as described in the earlier section.

FURTHER INTERPRETATIONS

DIFFERENT CONDITIONAL STANDARD ERROR OF MEASUREMENT FOR DIFFERENT TEST SCORES

The CSEM approach provides different numerical estimates for constructing the confidence intervals for examinees depending on their specific score level. The magnitude of the CSEM values is U-shaped with larger CSEM values associated with lower and higher scores.

GROUP SPECIFIC

Assuming reasonable model-data fit—as explored in Chapter Twelve—the Rasch based CSEMs (conditioned on score level) should not vary across groups.

SCALED-SCORE METRIC

The CSEM and associated confidence interval bands are on the scaled score metric.

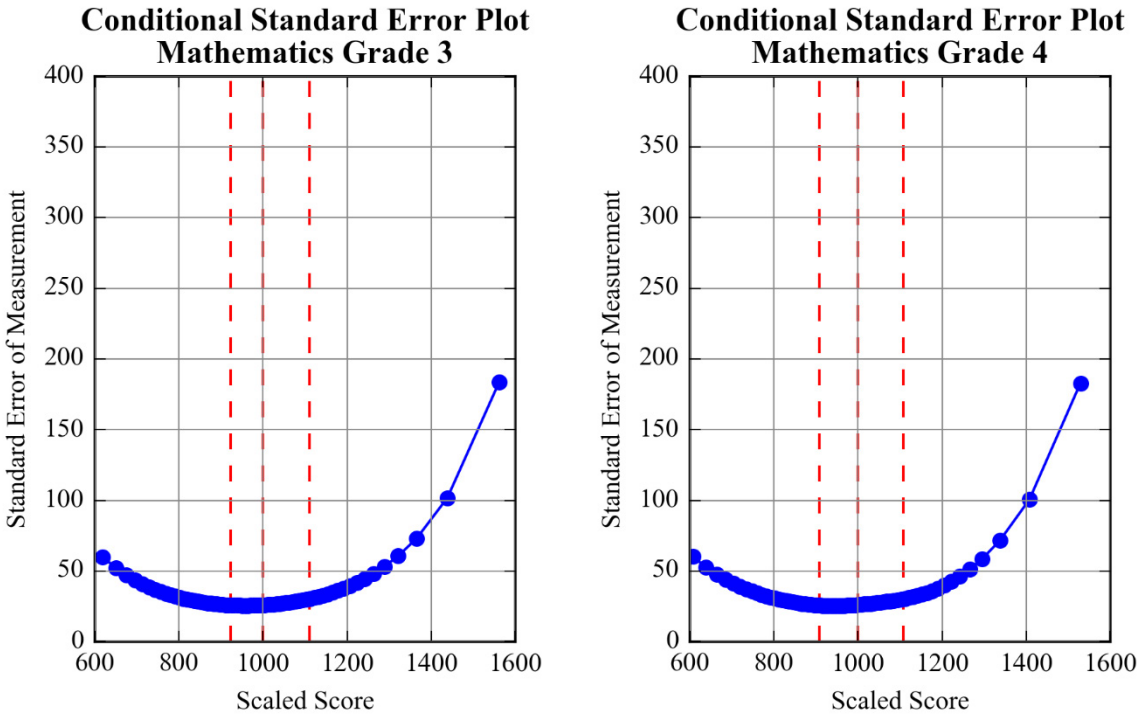
TYPE OF ERROR REFLECTED

The SEMs documented on the PSSA score reports are the Rasch-based conditional standard errors of measurement described above. These are provided by the WINSTEPS scaling program described in Chapter Twelve. As noted earlier, these CSEMs are based on the concept of statistical information. For the purpose of providing a simpler explanation of SEMs to test score users, the earlier description of SEMs framed using the idea of internal consistency reliability was provided in the PSSA score report interpretive documents.[5] Score report content is considered in greater detail in Chapter Sixteen.

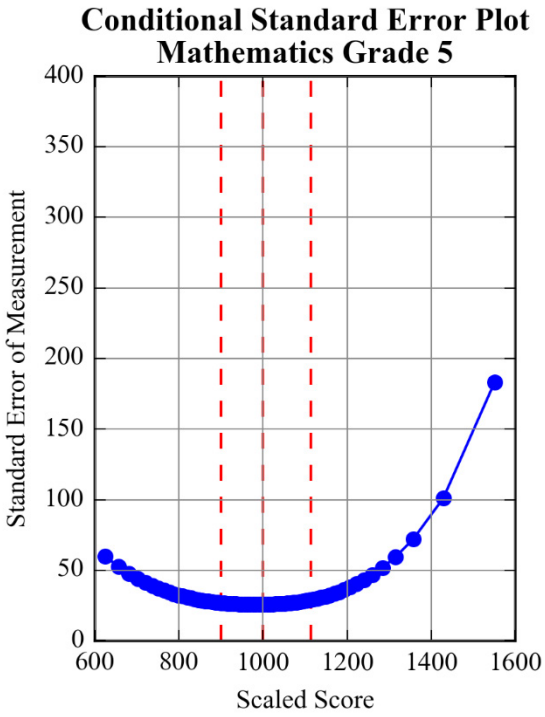
RESULTS AND OBSERVATIONS

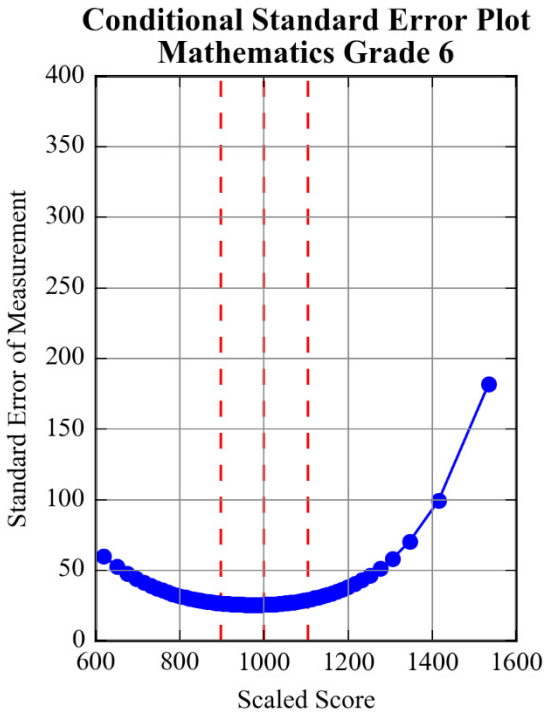
Figure 18–2 shows the Rasch CSEMs associated with each scaled score level. (This information is also provided in tabular form in Appendix N.) Values were derived using the calibration data file described in Chapter Nine. The values are fairly consistent across a large range of the scaled scores, as demonstrated by the relatively flat bottoms of most plots. The values increase at both extremes (i.e., at smaller and larger scaled scores) giving these figures their typical U-shaped pattern. (Only the SEMs for scores greater than the lowest observable scaled scores [LOSS] are shown in the figures; consequently, the complete U-shape does not appear in most plots.) The three red-dashed lines represent the Basic, Proficient, and Advanced scaled score cuts, respectively, moving from lower to higher scaled score values. CSEM values at the cut score lines were generally associated with smaller CSEM values, indicating more precise measurement occurs at these points on the scales.

Figure 18–2. Conditional Standard Error Plots for Each Grade and Subject



[5] Because IRT CSEMs are based on statistical information, it is questionable whether they account for error variance due to items. However, it seems difficult to construct a simple explanation of IRT CSEMs for the general public.


Conditional Standard Error Plot
Mathematics Grade 5
Standard Error of Measurement
Scaled Score
0
50
100
150
200
250
300
350
400
600
800
1000
1200
1400
1600


Conditional Standard Error Plot
Mathematics Grade 6
Standard Error of Measurement
Scaled Score
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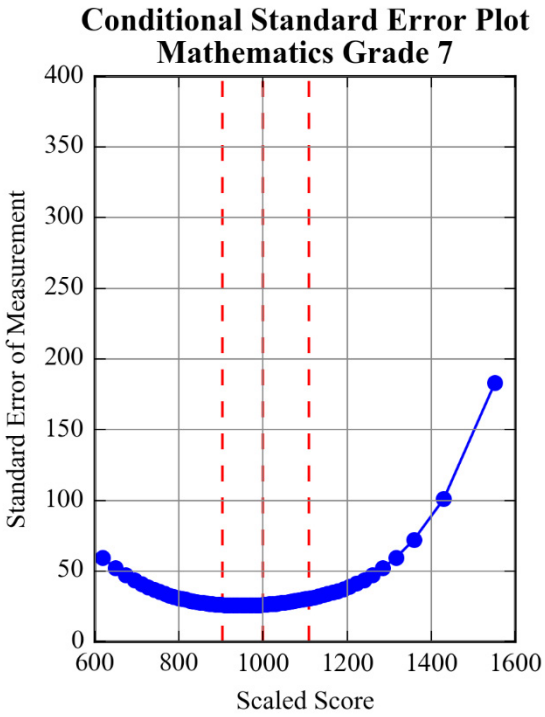
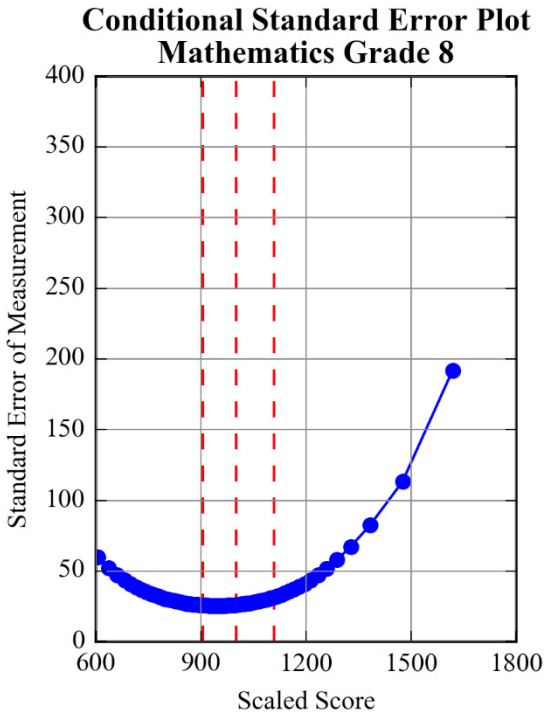
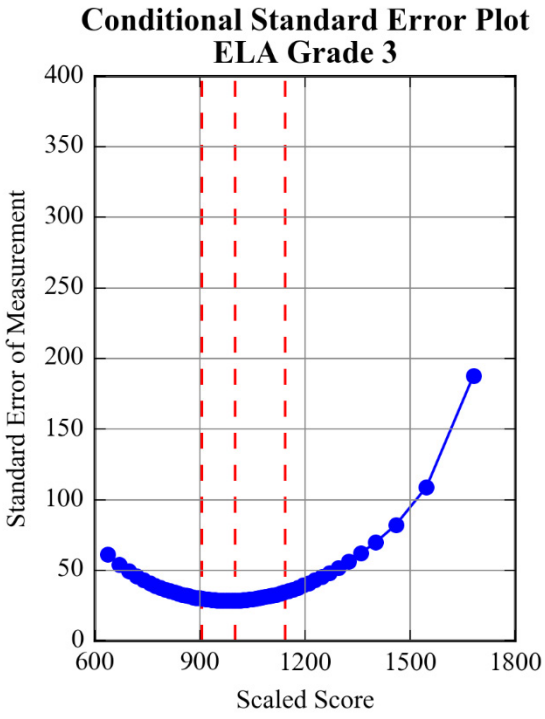
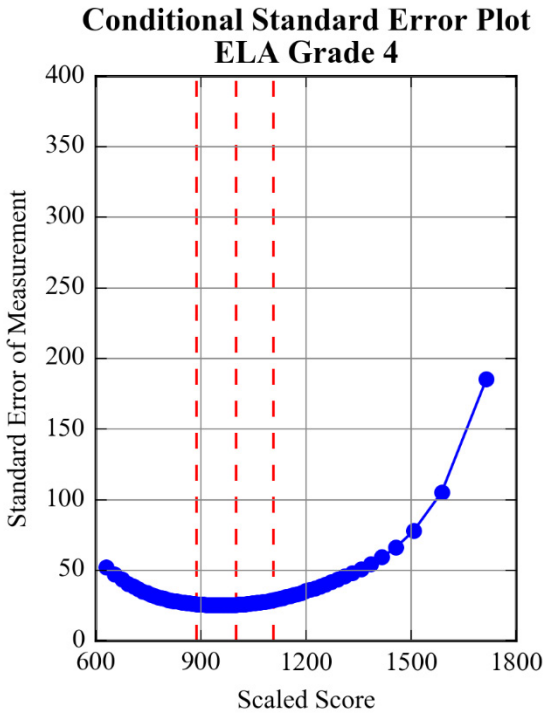
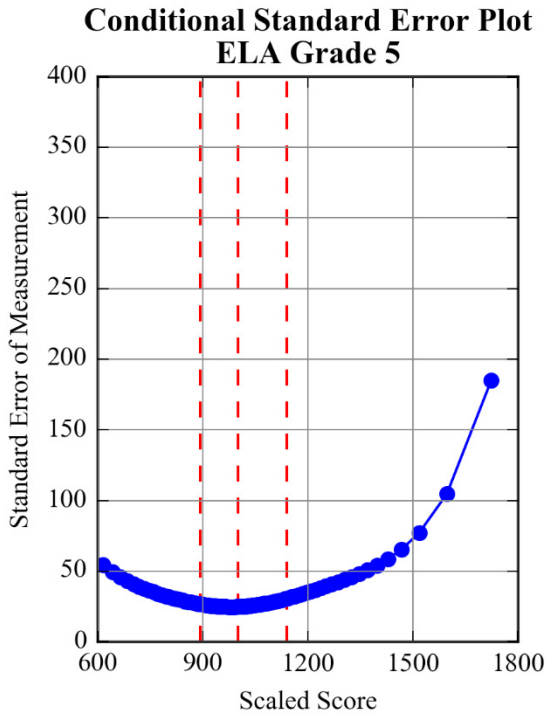
50
100
150
200
250
300
350
400
600
800
1000
1200
1400
1600

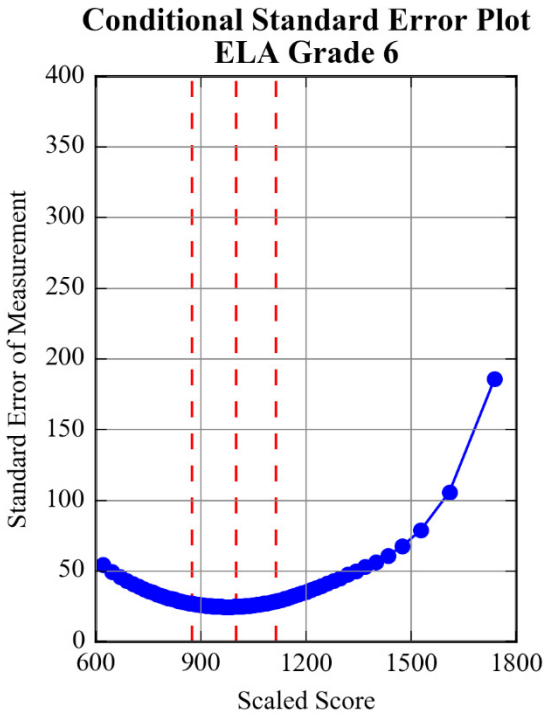

Conditional Standard Error Plot
Mathematics Grade 7
Standard Error of Measurement
Scaled Score
0
50
100
150
200
250
300
350
400
600
800
1000
1200
1400
1600

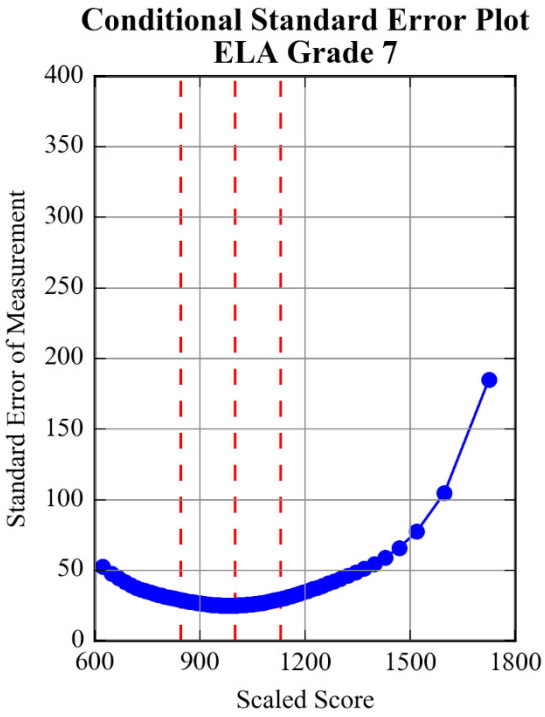

Conditional Standard Error Plot
Mathematics Grade 8
Standard Error of Measurement
Scaled Score
0
50
100
150
200
250
300
350
400
600
900
1200
1500
1800

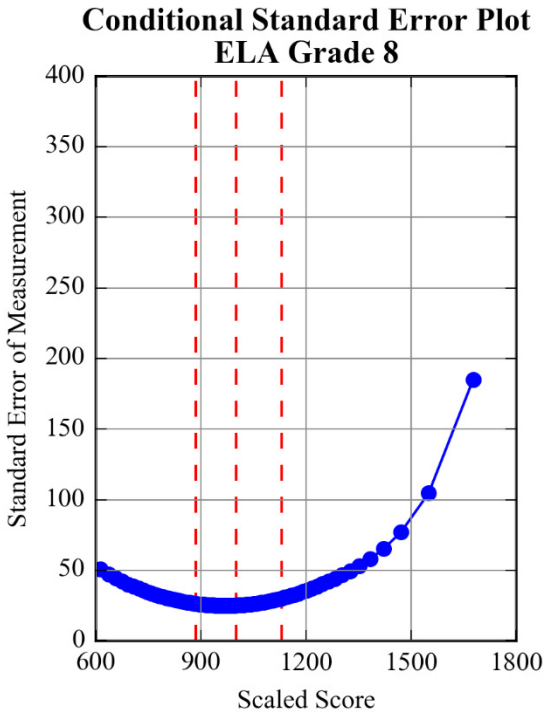

Conditional Standard Error Plot
ELA Grade 3
Standard Error of Measurement
Scaled Score
0
50
100
150
200
250
300
350
400
600
900
1200
1500
1800

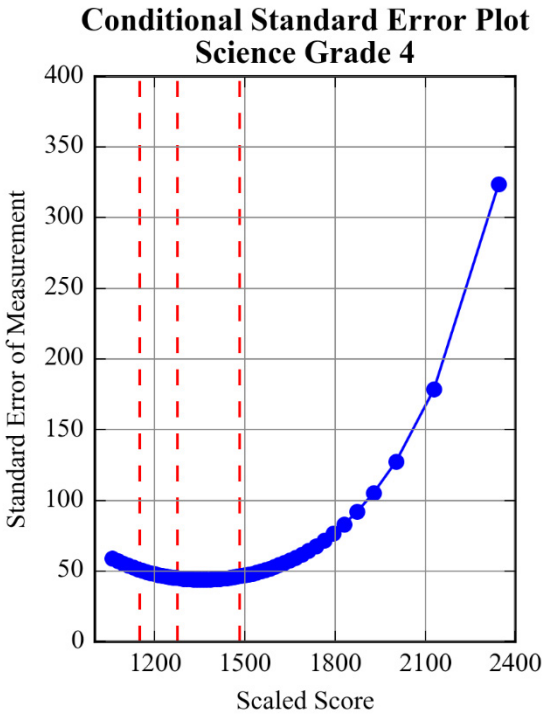

Conditional Standard Error Plot
ELA Grade 4
Standard Error of Measurement
Scaled Score
0
50
100
150
200
250
300
350
400
600
900
1200
1500
1800

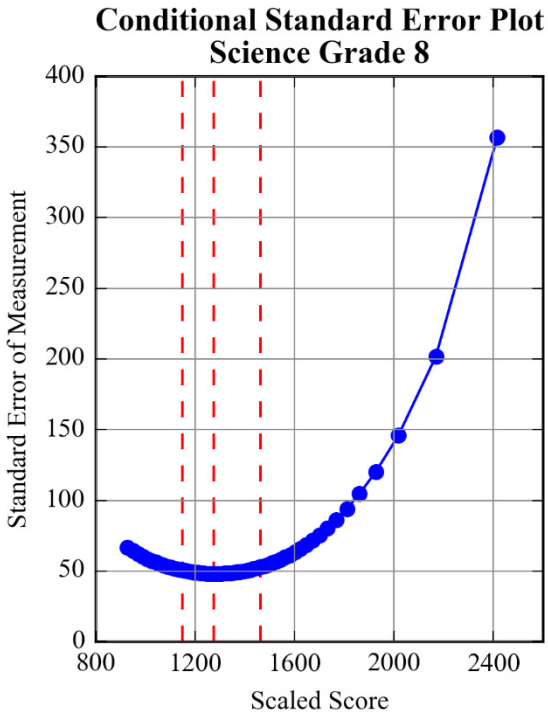

Conditional Standard Error Plot
ELA Grade 5
Standard Error of Measurement
Scaled Score
0
50
100
150
200
250
300
350
400
600
900
1200
1500
1800


Conditional Standard Error Plot
ELA Grade 6
Standard Error of Measurement
Scaled Score
0
50
100
150
200
250
300
350
400
600
900
1200
1500
1800


Conditional Standard Error Plot
ELA Grade 7
Standard Error of Measurement
Scaled Score
0
50
100
150
200
250
300
350
400
600
900
1200
1500
1800


Conditional Standard Error Plot
ELA Grade 8
Standard Error of Measurement
Scaled Score
0
50
100
150
200
250
300
350
400
600
900
1200
1500
1800


Conditional Standard Error Plot
Science Grade 4
Standard Error of Measurement
Scaled Score
0
50
100
150
200
250
300
350
400
1200
1500
1800
2100
2400


Conditional Standard Error Plot
Science Grade 8
Standard Error of Measurement
Scaled Score
0
50
100
150
200
250
300
350
400
800
1200
1600
2000
2400

DECISION CONSISTENCY AND ACCURACY

In a standards-based testing program there should be great interest in knowing how accurately students are classified into performance categories. In contrast to Coefficient Alpha that is concerned with the relative rank-ordering of students, it is the absolute values of student scores that are important in decision consistency and accuracy.

Classification consistency refers to the degree to which the achievement level for each student can be replicated upon retesting using an equivalent form (Huynh, 1976). Decision consistency answers the question: What is the agreement between the classifications based on two non-overlapping, equally difficult forms of the test. If two parallel forms of the test were given to the same students, the consistency of the measure would be reflected by the extent that the classification decisions made from the first set of test scores matched the decisions based on the second set of test scores. Consider Tables 18–5 and 18–6 below.

Table 18–5. Pseudo-Decision Table for Two Hypothetical Categories

Tests One And Two	Test One Level I	Test One Level II	Test One Marginal
Test Two Level I	φ11	φ12	φ1●
Test Two Level II	φ21	φ22	φ2●
Test Two Marginal	φ●1	φ●2	1

Table 18–6. Pseudo-Decision Table for Four Hypothetical Categories

Tests One And Two	Test One Level I	Test One Level II	Test One Level III	Test One Level IV	Test One Marginal
Test Two Level I	φ11	φ12	φ13	φ14	φ1●
Test Two Level II	φ21	φ22	φ23	φ24	φ2●
Test Two Level III	φ31	φ32	φ33	φ34	φ3●
Test Two Level IV	φ41	φ42	φ43	φ44	φ4●
Test Two Marginal	φ●1	φ●2	φ●3	φ●4	1

If a student is classified as being in one category based on Test One's score, how probable would it be that the student would be reclassified as being in the same category if he or she took Test Two (a non-overlapping, equally difficult form of the test)?

The proportions of correct decisions, φ, for two and four categories are computed by the following two formulas, respectively:

$$\varphi = \varphi_{11} + \varphi_{22}$$
$$\varphi = \varphi_{11} + \varphi_{22} + \varphi_{33} + \varphi_{44}$$

It is the sum of the diagonal entries—that is, the proportion of students classified by the two forms into exactly the same achievement level—that signifies the overall consistency.

Classification accuracy refers to the agreement of the observed classifications of students with the classifications made on the basis of their true scores. An observed score contains measurement error while a true score is free of measurement error. A student's observed score can be formulated by the sum of his or her true score plus measurement error, or . Decision accuracy is an index to determine the extent to which measurement error causes a classification different than expected from the true score.

Since true scores are unobserved and 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 to estimate the true scores and to project the consistency and accuracy of classifications solely using data from the available administration (Hambleton & Novick, 1973). Although a number of procedures are available, one well-known method was developed by Livingston and Lewis (1995) utilizing a specific True Score Model. This approach is fairly complex, and the cited source contains details regarding the statistical model used to calculate decision consistency and accuracy from the single PSSA administration.

FURTHER INTERPRETATIONS

Several factors might affect decision consistency and accuracy. One important factor is the reliability of the scores. All other things being equal, more reliable test scores tend to result in more similar reclassifications and less measurement error. Another factor is the location of the cut score in the score distribution. More consistent and accurate classifications are observed when the cut scores are located away from the mass of the score distribution. For example, when scores are close to being normally distributed, the mass is concentrated in the middle of the distribution, and, thus classifications tend to become more consistent when cut scores go up from 70 percent to 80 percent to 90 percent or, alternatively, go down from 30 percent to 20 percent to 10 percent. The number of performance levels is also a consideration. Consistency and accuracy indices for four performance levels should be lower than those based on two categories. This is not surprising since classification and accuracy using four levels would allow more opportunity to change achievement levels. Hence, there would be more classification errors and less accuracy with four achievement levels, resulting in lower consistency indices.

RESULTS AND OBSERVATIONS

The results for the overall consistency across all four performance levels as well as for the dichotomies created by the three cut scores are presented in Table 18–7. The tabled values, derived using the program *BB-Class* (Brennan, 2004) which applies the Livingston and Lewis (1995) method. Across all subject areas, the overall decision consistency ranged from the 0.71 to 0.78 while the decision accuracy ranged from 0.79 to 0.84. It should be noted that consistency and accuracy indices for the four performance levels should be lower than those based on two categories (discussed above). Dichotomous decisions between each adjacent pair of performance level classifications have consistency values that range from 0.88 to 0.95 and accuracy values that range from 0.92 to 0.98.

Table 18–7. Decision Consistency and Accuracy Results

Subject	Grade	Statistic	Overall	BBas/Bas	Bas/Prof	Prof/Adv
Mathematics	3	accuracy	0.83	0.95	0.94	0.94
Mathematics	3	consistency	0.76	0.92	0.92	0.92
Mathematics	4	accuracy	0.82	0.94	0.93	0.95
Mathematics	4	consistency	0.74	0.91	0.91	0.93
Mathematics	5	accuracy	0.82	0.93	0.94	0.96
Mathematics	5	consistency	0.75	0.90	0.91	0.94
Mathematics	6	accuracy	0.82	0.93	0.94	0.96
Mathematics	6	consistency	0.75	0.90	0.91	0.94
Mathematics	7	accuracy	0.84	0.94	0.95	0.96
Mathematics	7	consistency	0.78	0.91	0.92	0.94
Mathematics	8	accuracy	0.84	0.93	0.94	0.97
Mathematics	8	consistency	0.77	0.90	0.92	0.95
ELA	3	accuracy	0.81	0.95	0.92	0.93
ELA	3	consistency	0.73	0.93	0.89	0.90
ELA	4	accuracy	0.80	0.96	0.92	0.92
ELA	4	consistency	0.72	0.95	0.89	0.89
ELA	5	accuracy	0.82	0.96	0.92	0.94
ELA	5	consistency	0.74	0.94	0.89	0.91
ELA	6	accuracy	0.81	0.97	0.92	0.92
ELA	6	consistency	0.74	0.95	0.89	0.89
ELA	7	accuracy	0.83	0.98	0.92	0.94
ELA	7	consistency	0.76	0.96	0.89	0.91
ELA	8	accuracy	0.81	0.96	0.92	0.93
ELA	8	consistency	0.73	0.94	0.88	0.91
SCIENCE	4	accuracy	0.82	0.96	0.93	0.93
SCIENCE	4	consistency	0.74	0.94	0.90	0.90
SCIENCE	8	accuracy	0.79	0.93	0.93	0.94
SCIENCE	8	consistency	0.71	0.90	0.90	0.91

Note. Results derived using PSSA final data file (see Chapter Nine).

RATER AGREEMENT

Because open-ended items are included on the PSSAs, another source of random error is related to the scorers of those items. Frisbie (2005) noted that "test score reliability differs from scorer reliability" and that "the need for one kind of estimate cannot be satisfied by the other." Additionally, the data most easily obtainable that captures this information comes from the "10 percent read behinds" collected during the scoring process (see Chapter Eight for a description). Partly because of the way that this data is obtained and reported (i.e., it is not a ratio of true score variance over observed score variance), the term rater agreement is used here, not rater reliability or inter-rater reliability as these terms are somewhat misleading as explained above.

FURTHER INTERPRETATIONS

For the PSSAs, both within-year and across-year rater consistency are available. As noted earlier, the linking process adjusts for across-year changes (see Chapter Sixteen). As part of the data collected for that process, additional across-year rater consistency data is available for consideration.

RESULTS AND OBSERVATIONS

Within-year rater agreement information is provided in Chapter Eight. This information is reformatted in Tables 18–8 through 18–10 for PSSA mathematics, ELA, and science OE items, respectively. In addition, the percentages awarded to each score point are also presented in these tables. As seen from these tables, the inter-rater exact agreement percentages range from 78 percent to 96 percent for mathematics, 77 percent to 85 percent for ELA, and 81 percent to 98 percent for science. Mathematics had validity ranging from 78 percent to 98 percent; ELA had validity ranging from 82 percent to 90 percent; and science had validity ranging from 85 percent to 99 percent. (Validity is discussed further in Chapter Eight.)

Across-year mean raw scores are presented in Table 18–11. Note that data are only available for the designated OE core anchor items. The number of responses (N), the 2016 and 2017 means, and the Pearson correlations *r* are tabled. Mathematics correlations range from 0.88 to 0.98. The year-to-year correlation for the one grade 3 item used in linking was 0.76. Science correlations range from the 0.67 to 0.91. The correlation ranges are similar to prior results for the PSSAs.

Table 18–8a. Inter-Rater Agreement for OE Items—Mathematics

Grade	Item	Percent Exact	Percent Adjacent	Validity
3	1	95	5	96
3	2	79	20	89
3	3	78	21	79
4	1	95	5	94
4	2	96	4	98
4	3	94	6	95
5	1	88	12	87
5	2	85	15	93
5	3	92	8	90
6	1	90	10	91
6	2	93	7	95
6	3	88	12	90
7	1	91	9	97
7	2	93	7	95
7	3	84	16	89
8	1	90	10	93
8	2	85	15	78
8	3	82	18	84

Note. For more information regarding validity, see the section on Handscoring Validity Process in Chapter Eight.

Table 18–8b. Percentage Awarded for Each Score Point for OE Items—Mathematics

Grade	Item	0	1	2	3	4	Blank or non-scoreable
3	1	15	30	30	15	8	2
3	2	7	40	19	21	9	4
3	3	10	29	29	21	8	3
4	1	59	17	9	7	3	4
4	2	8	12	18	29	24	8
4	3	25	27	31	7	8	3
5	1	34	29	12	14	6	5
5	2	27	22	18	15	8	10
5	3	16	20	45	5	11	3
6	1	32	35	22	4	3	4
6	2	42	21	11	8	6	12
6	3	40	21	17	11	8	4
7	1	37	35	13	8	3	5
7	2	38	30	13	4	3	12
7	3	29	39	16	9	3	5
8	1	23	52	12	6	2	6
8	2	15	39	24	11	1	11
8	3	31	26	16	13	8	7

Table 18–9a. Inter-Rater Agreement for OE Items—ELA

Grade	Item	Item Type	Exact	Adjacent	Validity
3	1	WP	82	18	87
3	2	SA	80	20	84
3	3	SA	79	20	90
4	1	WP	81	19	83
4	2	TDA	84	16	86
5	1	WP	77	23	84
5	2	TDA	83	17	76
6	1	WP	83	17	83
6	2	TDA	85	15	86
7	1	WP	83	17	89
7	2	TDA	85	15	74
8	1	WP	75	24	83
8	2	TDA	82	17	82

Note. EBSR items are machine scored because they are two-part MC like items and not shown in this table. For more information regarding validity, see the section on Handscoring Validity Process in Chapter Eight.

Table 18–9b. Percentage Awarded for Each Score Point for OE Items—ELA

Grade	Item	Item Type	0	1	2	3	4	Blank or non-scoreable
3	1	WP	-	19	57	17	1	6
3	2	SA	12	44	31	7	-	6
3	3	SA	20	39	32	4	-	5
4	1	WP	-	10	42	32	9	7
4	2	TDA	-	31	48	10	1	11
5	1	WP	-	13	55	25	4	4
5	2	TDA	-	35	43	10	1	11
6	1	WP	-	10	42	43	2	3
6	2	TDA	-	32	41	16	2	10
7	1	WP	-	7	40	44	5	4
7	2	TDA	-	39	36	11	1	12
8	1	WP	-	13	35	40	8	4
8	2	TDA	-	27	40	22	2	8

Note. EBSR items are machine scored because they are two-part MC like items and not shown in this table.

Table 18–10a. Inter-Rater Agreement for OE Items—Science

Grade	Item	Exact	Adjacent	Validity
4	1	90	10	95
4	2	87	13	95
4	3	92	8	97
4	4	95	5	99
4	5	98	2	99
8	1	93	7	95
8	2	81	19	87
8	3	84	15	85
8	4	98	2	96
8	5	87	13	94

Note. For more information regarding validity, see the section on Handscoring Validity Process in Chapter Eight.

Table 18–10b. Percentage Awarded for Each Score Point for OE Items—Science

Grade	Item	0	1	2	Blank or non-scoreable
4	1	18	30	50	3
4	2	19	47	31	3
4	3	31	25	39	4
4	4	11	25	61	4
4	5	14	49	31	4
8	1	50	29	13	6
8	2	11	35	48	6
8	3	46	31	15	9
8	4	28	63	3	6
8	5	35	35	22	8

Table 18–11. Science Mean Scores and Correlations

Content	Grade	Item ID	N	2016 Mean	2017 Mean	r
Mathematics	3	188359	999	1.79	1.78	0.88
Mathematics	3	603020	999	1.89	1.85	0.89
Mathematics	4	793958	991	2.42	2.47	0.98
Mathematics	4	898098	999	1.04	0.96	0.96
Mathematics	5	762770	999	1.32	1.32	0.94
Mathematics	5	419921	999	1.81	1.84	0.90
Mathematics	6	626268	999	1.36	1.31	0.93
Mathematics	6	982723	998	1.27	1.26	0.94
Mathematics	7	918273	999	1.22	1.17	0.95
Mathematics	7	917448	1000	1.35	1.31	0.93
Mathematics	8	974596	996	1.50	1.39	0.86
Mathematics	8	741453	1000	1.34	1.33	0.92
ELA	3	163205	996	1.33	1.23	0.76
Science	4	152602	997	0.99	1.05	0.91
Science	4	400901	1000	1.35	1.38	0.83
Science	8	345270	998	0.72	0.71	0.76
Science	8	568226	1000	1.38	1.38	0.67

CHAPTER NINETEEN: VALIDITY

As defined in the *Standards for Educational and Psychological Testing* (AERA, APA, & NCME, 2014), validity refers to "the degree to which evidence and theory support the interpretation of test scores entailed by proposed uses of tests" (p. 11). The *Standards* provides a framework for describing the sources of evidence that should be considered when evaluating validity. These sources include evidence based on 1) test content, 2) response processes, 3) the internal structure of the test, 4) the relationships between test scores and other variables, and 5) the consequences of testing. In addition, when Item Response Theory (IRT) models are used to analyze assessment data, validity considerations related to those processes should also be explored.

The validity process involves the collection of a variety of evidence to support the proposed test score interpretations and uses. This technical report describes throughout, the technical aspects of the PSSA tests in support of their score interpretations and uses. Each of the previous chapters contributes important evidence components that pertain to score validation: test development, test administration, test scoring, item analysis, Rasch calibration, scaling, linking, score reporting, and reliability. This chapter summarizes and synthesizes the evidence based on the *Standards'* framework. The purposes and intended uses of PSSA test scores are reviewed first, then each type of validity evidence is addressed in turn.

PURPOSES AND INTENDED USES OF THE PSSA

The *Standards* emphasize that validity pertains to how test scores are used. To help contextualize the evidence that will be presented below, the purposes of the PSSA will be reviewed first. As stated in Chapter One, the purpose of the PSSA is to measure how well students acquire the knowledge and skills described in the *Pennsylvania Assessment Anchor Content Standards* (Assessment Anchors) as defined by the Eligible Content for mathematics, ELA, and Science. The intended uses of the PSSA are to:

1. Provide information for use in school and district accountability systems
2. Improve curricular and instructional practices in order to help students reach proficiency in the Pennsylvania Core Standards (ELA and Mathematics) or the Pennsylvania Academic Standards (Science)

EVIDENCE BASED ON TEST CONTENT

Test content validity evidence for the PSSA rests greatly on establishing a link between each component of the assessment (i.e., the items) and what the students should know and be able to do as required by the Assessment Anchors, Eligible Content, and/or the Academic Content Standards (refer to Chapter Two for a description of each of these elements). The PSSA tests are intended to measure students' knowledge and skills described in the Assessment Anchors as defined by the Eligible Content for mathematics, ELA, and science. Thus the evidence supporting the alignment among the PSSA tasks, the Assessment Anchors as defined by the Eligible Content and the Academic Content Standards should be provided.

Lane (1999) suggests taking the following steps to support the content validity of the PSSA:

- Evaluate the degree to which the PSSA test specifications represent and align with the knowledge and skills described in the Assessment Anchors as defined by the Eligible Content for mathematics, ELA, and science.
- Evaluate the alignment between the PSSA items and test specifications to ensure representativeness.
- Evaluate the extent to which the curriculum aligns with the Assessment Anchors. If some contents are not included in the curriculum, then low scores on PSSA should not be interpreted as meaning that instruction was ineffective.
- Conduct content reviews of the PSSA items using a panel of content experts to see whether they measure the intended construct or are the sources of construct-irrelevant variance.

- Conduct fairness reviews of the items to avoid issues related to a specific subpopulation.
- Evaluate procedures for administration and scoring, such as the appropriateness of instructions to examinees, time limit for the assessment, and training of raters.
- Submit operational tests to third-party, independent reviews.

Chapters Two through Eight of this report present evidence related to test content. As described in these chapters, all PSSA test blueprints (specifications) and items were developed and aligned with the PSSA Assessment Anchors and Eligible Content for mathematics, ELA, and science, consistently following these well-established procedures. After the items were developed, they underwent multiple rounds of content and bias reviews. After they were field tested, they were reviewed with respect to their statistical properties. Items selected for the operational assessment had to pass content, psychometric, and PDE reviews. Tests were administered according to standardized procedures with allowable accommodations. The following summarizes the efforts described in in greater detail in Chapters Two through Eight:

- DRC used Webb's (1999) Depth of Knowledge (DOK) model to ensure the PSSA items aligned with the Assessment Anchors as defined by the Eligible Content and the Academic Content Standards in terms of both content and cognitive levels.
- DRC established detailed test and item/passage development specifications and ensured the items were sufficient in number and adequately distributed across content and levels of cognitive complexity and difficulty.
- DRC and WestEd selected qualified item writers and provided training to help ensure they wrote high-quality items.
- Each newly-developed item was first reviewed by content specialists and editors at DRC and/or WestEd to make sure that all items measured the intended Assessment Anchors, as defined by the Eligible Content for Mathematics, ELA, and Science. Appropriateness for the intended grade was also considered, as well as depth of knowledge, graphics, grammar/punctuation, language demand, and distractor reasonableness.
- Before field testing, the test items were submitted to content committees (composed of Pennsylvania educators) for review using, but not limited to, the following categories:
    - Overall quality and clarity
    - Anchor, eligible content, and/or standard alignment
    - Grade-level appropriateness
    - Difficulty level
    - Depth of knowledge
    - Appropriate sources of challenge (e.g., unintended content and skills)
    - Correct answer
    - Quality of distractors
    - Graphics
    - Appropriate language demand
    - Freedom from bias
- The items were also submitted to a Bias, Fairness, and Sensitivity Committee for review. This committee reviewed items for issues related to diversity, gender, and other pertinent factors.
- Items passing all the prior hurdles were tried out in a field test event. Several statistical analyses were conducted on the field test data, including classical item analyses, distractor analyses, and differential item functioning (DIF). Items were once again carefully reviewed by DRC staff and a committee of Pennsylvania teachers with respect to their statistical characteristics. DIF was used to detect test items that might bias test scores for particular groups. Empirical investigation of DIF strengthens the validity evidence related to score interpretations for students in particular groups by eliminating potential

sources of construct-irrelevant variance as such, DIF results might be better considered as internal structure validity evidence.

- The PSSA tests were administered according to standardized procedures with allowable accommodations and recommended testing times.
- As shown in Chapter Eight, the raters for open-ended (OE) items were carefully recruited and well trained. Their scoring was monitored throughout the scoring session to ensure that an acceptable level of scoring accuracy was maintained.

In addition to the foundational and routine procedures described above and in Chapters Two through Five, and summarized in Appendix C, two external studies were conducted to assess the alignment of the PSSA tests to the PSSA Assessment Anchors and Eligible Content. Achieve, Inc., Washington, D.C., conducted a preliminary review of the science Assessment Anchors in 2003 to evaluate the alignment with the Academic Standards and produced a follow-up report on the anchors in 2005.

EVIDENCE BASED ON RESPONSE PROCESSES

Response-process evidence is used to examine the extent to which the cognitive skills and processes employed by students match that identified in the test developer's defined construct domains for all students and for each subgroup. Think-aloud procedures or cognitive labs can be used to collect this type of evidence. In addition, when an assessment includes OE items, an examination of the extent to which the raters interpret and apply the scoring criteria accurately when assigning scores to students' responses on OE items also provides validity of the response-processes evidence.

For the PSSA science tests, DRC conducted a science cognitive lab study to gather relative information about the thinking processes students used to solve science scenario items. The use of the cognitive lab helped ensure that the intended response processes were employed by students.

For all the PSSA tests, well-organized scorer training and subsequent monitoring of rating accuracy helped ensure that raters strictly followed the scoring criteria to minimize rater biases that may significantly affected their scoring. Refer to Chapter Eight for a detailed description of all hand-scoring procedures, and to Chapter Eighteen for statistical information regarding inter-rater reliability.

EVIDENCE BASED ON INTERNAL STRUCTURE

As described in the *Standards* (2014), internal-structure evidence refers to the degree to which the relationships between test items and test components conform to the construct on which the proposed test interpretations are based. For each PSSA test, one total test score as well as strand scores are reported (see Chapter Sixteen for more information about PSSA scores). Additionally, principle component and parallel analyses were conducted and provide strong internal-structure evidence of the unidimensionality of the PSSAs.

ITEM DIFFICULTY RANGES AND DISCRIMINATION

Multiple sources of evidence are provided that address the appropriateness of the range of difficulty and discrimination of the items on the PSSA tests. Plots of item p-values by point biserial correlations are provided in Chapter 11, and summary statistics are provided for IRT item difficulty parameters in Chapter Twelve.

ITEM RESPONSE THEORY DIMENSIONALITY

Results from principle component and parallel analyses were presented in Chapter Twelve. The PSSA mathematics, ELA and science tests are shown to be strongly unidimensional, providing evidence supporting interpretations based on the total scores for the respective PSSA tests.

TEST RELIABILITY, ERRORS OF MEASUREMENT, AND DECISION CONSISTENCY AND ACCURACY

Reliablity estimates, SEM, and decision consistency and accuracy results are presented in Chapter Eighteen and provide important evidence that the PSSA tests have strong internal consistency, expected measurement errors, and that examinees are being appropriately classified into performance levels based on the test scores and standards set on those scores.

STRAND CORRELATIONS

Correlations and disattenuated correlations between strand scores within each subject area are presented below. Values were computed using the PSSA final data file (see Chapter Nine). This data can also provide information on score dimensionality that is part of internal-structure validity evidence. As noted in Chapter Three, the PSSA mathematics tests have four strands (denoted by M.A, M.B, M.C, and M.D). The PSSA ELA tests have five strands (denoted by E.A, E.B, E.C, E.D, and E.E), except grade 3 which has four strands (E.A, E.B, E.C and E.D). The PSSA science tests have four strands (denoted by S.A, S.B, S.C, and S.D).

For each grade, Pearson's correlation coefficients between these strands are reported in Tables 19–1a through 19–1f. The inter-correlations between the strands within the content areas are positive and generally range from moderate to high in value and correlations between strands across content areas are lower, providing contrasting evidence of convergent and discriminant validity. An exception to this pattern is noted for the ELA strands associated with writing and text dependent analysis (E.C. and E.B), which have lower intra content area correlations with the other strands.

Table 19–1a. Correlations between Mathematics and ELA Strands for Grade 3

	E.A	E.B	E.C	E.D	M.A	M.B	M.C	M.D
E.A	-							
E.B	0.78	-						
E.C	0.48	0.47	-					
E.D	0.73	0.73	0.47	-				
M.A	0.70	0.70	0.45	0.70	-			
M.B	0.70	0.69	0.46	0.69	0.84	-		
M.C	0.63	0.63	0.42	0.64	0.72	0.70	-	
M.D	0.68	0.68	0.45	0.68	0.84	0.82	0.71	-

Table 19–1b. Correlations between Mathematics, ELA, and Science Strands for Grade 4

	E.A	E.B	E.C	E.D	E.E	M.A	M.B	M.C	M.D	S.A	S.B	S.C	S.D
E.A	-												
E.B	0.75	-											
E.C	0.50	0.48	-										
E.D	0.73	0.73	0.51	-									
E.E	0.55	0.51	0.46	0.54	-								
M.A	0.68	0.69	0.46	0.71	0.50	-							
M.B	0.69	0.69	0.46	0.71	0.51	0.83	-						
M.C	0.58	0.59	0.40	0.62	0.42	0.71	0.67	-					
M.D	0.61	0.64	0.42	0.66	0.46	0.79	0.75	0.68	-				
S.A	0.74	0.76	0.48	0.74	0.51	0.77	0.76	0.67	0.72	-			
S.B	0.63	0.63	0.41	0.62	0.42	0.63	0.62	0.56	0.59	0.74	-		
S.C	0.62	0.65	0.40	0.63	0.41	0.67	0.65	0.59	0.63	0.76	0.64	-	
S.D	0.61	0.62	0.39	0.60	0.40	0.63	0.61	0.56	0.59	0.73	0.63	0.64	-

Table 19–1c. Correlations between Mathematics and ELA Strands for Grade 5

	E.A	E.B	E.C	E.D	E.E	M.A	M.B	M.C	M.D
E.A	-								
E.B	0.78	-							
E.C	0.48	0.49	-						
E.D	0.73	0.75	0.50	-					
E.E	0.54	0.54	0.50	0.53	-				
M.A	0.69	0.70	0.48	0.69	0.52	-			
M.B	0.64	0.65	0.43	0.64	0.47	0.78	-		
M.C	0.66	0.67	0.46	0.66	0.48	0.74	0.68	-	
M.D	0.64	0.66	0.43	0.65	0.47	0.84	0.74	0.69	-

Table 19–1d. Correlations between Mathematics and ELA Strands for Grade 6

	E.A	E.B	E.C	E.D	E.E	M.A	M.B	M.C	M.D
E.A	-								
E.B	0.75	-							
E.C	0.46	0.48	-						
E.D	0.71	0.72	0.47	-					
E.E	0.55	0.55	0.54	0.54	-				
M.A	0.68	0.68	0.46	0.69	0.54	-			
M.B	0.70	0.71	0.48	0.71	0.55	0.85	-		
M.C	0.57	0.58	0.39	0.58	0.46	0.75	0.74	-	
M.D	0.58	0.59	0.41	0.59	0.47	0.74	0.73	0.66	-

Table 19–1e. Correlations between Mathematics and ELA Strands for Grade 7

	E.A	E.B	E.C	E.D	E.E	M.A	M.B	M.C	M.D
E.A	-								
E.B	0.76	-							
E.C	0.51	0.54	-						
E.D	0.72	0.73	0.55	-					
E.E	0.54	0.57	0.54	0.56	-				
M.A	0.70	0.74	0.53	0.72	0.58	-			
M.B	0.67	0.69	0.48	0.68	0.54	0.85	-		
M.C	0.62	0.64	0.46	0.64	0.51	0.80	0.76	-	
M.D	0.66	0.67	0.47	0.67	0.51	0.80	0.78	0.72	-

Table 19–1f. Correlations between Mathematics, ELA, and Science Strands for Grade 8

	E.A	E.B	E.C	E.D	E.E	M.A	M.B	M.C	M.D	S.A	S.B	S.C	S.D
E.A	-												
E.B	0.73	-											
E.C	0.52	0.52	-										
E.D	0.70	0.71	0.56	-									
E.E	0.60	0.57	0.63	0.59	-								
M.A	0.60	0.63	0.52	0.64	0.56	-							
M.B	0.67	0.70	0.54	0.71	0.60	0.80	-						
M.C	0.57	0.61	0.46	0.62	0.51	0.70	0.80	-					
M.D	0.58	0.61	0.49	0.63	0.53	0.69	0.77	0.69	-				
S.A	0.72	0.75	0.52	0.73	0.58	0.70	0.80	0.71	0.70	-			
S.B	0.63	0.65	0.46	0.62	0.51	0.58	0.66	0.59	0.58	0.74	-		
S.C	0.61	0.64	0.45	0.62	0.49	0.61	0.69	0.61	0.60	0.75	0.63	-	
S.D	0.57	0.61	0.39	0.57	0.43	0.55	0.64	0.59	0.55	0.73	0.63	0.64	-

The correlations in Tables 19–1a through 19–1f are based on the observed strand scores. These observed-score correlations are weakened by existing measurement error, contained within each strand. As a result, disattenuating the observed correlations can provide an estimate of the relationships between strands if there were no measurement error. (An important caveat is provided further below.) The disattenuated correlation coefficients (R_{xy}) can be computed by using the formula (Spearman 1904, 1910) below:

$$R_{xy} = \frac{r_{xy}}{\sqrt{r_{xx}r_{yy}}},$$

where r_{xy} is the observed correlation, and r_{xx} and r_{yy} are the reliabilities for strand X and strand Y. Disattenuated correlations very near 1.00 might suggest that the same or very similar constructs are being measured. Values somewhat less than 1.00 might suggest that different strands are measuring slightly different aspects of the same construct. Values markedly less than 1.00 might suggest the strands reflect different constructs.

Tables 19–2a through 19–2f show the corresponding disattenuated correlations for the 2016 PSSA tests for each grade. Note that with ELA, text dependent analysis (TDA) and writing prompt (WP) items belongs to separate strands and they are the only item for the strand. Given that these strands (E.C and E.E) have only one item, reliability cannot be computed. Therefore, disattenuated correlation cannot be computed for any correlation with these strands. Where reliability can be computed, the disattenuated strand correlations are higher than their observed score counterparts, given that none of the strands has perfect reliabilities (see Chapter Eighteen).

Some within-subject correlations are very high (e.g., above 0.95), suggesting that the within-subject strands appear to be measuring essentially the same construct. This, in turn, suggests that some strand scores might not provide unique information about the strengths or weaknesses of students.

On the other hand, some within-subject strand correlations are somewhat lower than 1.00. For such strands, partial evidence is provided regarding the multidimensional structure of some tests and further supporting the validity of those specific strand scores.

On a fairly consistent basis, the correlations between the strands within each subject area were higher than the correlations between strands across different subject areas. This pattern is also observed for the within- and across-subject strand disattenuated correlations.

Table 19–2a. Disattenuated Strand Correlations for Mathematics and ELA: Grade 3

	E.A	E.B	E.C	E.D	M.A	M.B	M.C	M.D
E.A	-							
E.B	0.99	-						
E.C								
E.D	0.95	0.95		-				
M.A	0.85	0.86		0.87	-			
M.B	0.85	0.84		0.85	0.97	-		
M.C	0.87	0.88		0.90	0.96	0.92	-	
M.D	0.85	0.86		0.87	1.01	0.97	0.97	-

Table 19–2b. Disattenuated Strand Correlations for Mathematics and ELA: Grade 4

	E.A	E.B	E.C	E.D	E.E	M.A	M.B	M.C	M.D	S.A	S.B	S.C	S.D
E.A	-												
E.B	0.97	-											
E.C													
E.D	0.91	0.94		-									
E.E													
M.A	0.81	0.86		0.85		-							
M.B	0.86	0.90		0.89		1.00	-						
M.C	0.78	0.83		0.83		0.91	0.90	-					
M.D	0.81	0.88		0.88		1.01	1.00	0.96	-				
S.A	0.88	0.95		0.89		0.89	0.91	0.86	0.92	-			
S.B	0.88	0.93		0.87		0.86	0.88	0.85	0.89	1.00	-		
S.C	0.84	0.92		0.86		0.88	0.89	0.87	0.91	0.99	0.98	-	
S.D	0.86	0.91		0.84		0.85	0.87	0.85	0.88	0.98	1.00	0.99	-

Table 19–2c. Disattenuated Strand Correlations for Mathematics and ELA: Grade 5

	E.A	E.B	E.C	E.D	E.E	M.A	M.B	M.C	M.D
E.A	-								
E.B	1.00	-							
E.C									
E.D	0.95	0.95		-					
E.E									
M.A	0.84	0.84		0.84		-			
M.B	0.88	0.87		0.87		1.00	-		
M.C	0.88	0.87		0.87		0.92	0.94	-	
M.D	0.84	0.84		0.84		1.03	1.02	0.91	-

Table 19–2d. Disattenuated Strand Correlations for Mathematics and ELA: Grade 6

	E.A	E.B	E.C	E.D	E.E	M.A	M.B	M.C	M.D
E.A	-								
E.B	1.00	-							
E.C									
E.D	0.95	0.93		-					
E.E									
M.A	0.86	0.85		0.85		-			
M.B	0.89	0.88		0.88		1.01	-		
M.C	0.79	0.78		0.78		0.95	0.95	-	
M.D	0.83	0.82		0.82		0.98	0.98	0.95	-

Table19–2e. Disattenuated Strand Correlations for Mathematics and ELA: Grade 7

	E.A	E.B	E.C	E.D	E.E	M.A	M.B	M.C	M.D
E.A	-								
E.B	0.98	-							
E.C									
E.D	0.94	0.94		-					
E.E									
M.A	0.85	0.88		0.87		-			
M.B	0.86	0.87		0.86		1.00	-		
M.C	0.83	0.85		0.85		0.99	1.00	-	
M.D	0.86	0.87		0.87		0.98	1.00	0.97	-

Table 19–2f. Disattenuated Strand Correlations for Mathematics, ELA, and Science: Grade 8

	E.A	E.B	E.C	E.D	E.E	M.A	M.B	M.C	M.D	S.A	S.B	S.C	S.D
E.A	-												
E.B	0.99	-											
E.C													
E.D	0.93	0.94		-									
E.E													
M.A	0.81	0.84		0.85		-							
M.B	0.82	0.87		0.86		0.98	-						
M.C	0.74	0.80		0.80		0.92	0.95	-					
M.D	0.83	0.88		0.88		0.99	1.01	0.96	-				
S.A	0.89	0.94		0.89		0.88	0.92	0.86	0.92	-			
S.B	0.92	0.96		0.90		0.86	0.89	0.84	0.90	1.01	-		
S.C	0.88	0.92		0.87		0.87	0.90	0.84	0.91	0.99	0.99	-	
S.D	0.83	0.89		0.82		0.80	0.84	0.82	0.85	0.97	1.00	0.98	-

Some caution is needed in interpreting the disattenuated results because the reliabilities used to calculate the disattenuated correlations are subject to both upward and downward biases. (These are discussed in some detail in Chapter Eighteen.) Consequently, some of the values tabled above may be higher or lower than they should be, depending on which bias prevails for any given pair of strand scores. When the reliabilities are lower than they should be, the disattenuated correlations will be inflated (and in some instances can appear larger than the theoretical correlation maximum value of 1.00).

EVIDENCE BASED ON RELATIONSHIPS WITH OTHER VARIABLES

As described in the *Standards* (2014), "Evidence based on relationships with other variables provides evidence about the degree to which relationships are consistent with the construct underlying the proposed test score interpretations" (p. 16). This category of evidence is classified by three types—convergent, discriminant, and criterion-related evidence. Convergent evidence is provided by relationships between students' performance on different assessments intended to measure a similar construct. Discriminant evidence is provided by relationships between students' performance on different tests intended to measure different constructs. Criterion-related evidence, either predictive or concurrent, is provided by relationships between students' test scores and their performance on a criterion measure (Cronbach, 1971; Messick, 1989).

Evidence of the relationship of the PSSA with other variables for the previous PSSA mathematics and reading tests has been examined by HumRRO in a series of independent studies using 2001–2003 PSSA data (Koger, Thacker & Dickinson, 2004; Sinclair & Thacker, 2005; Thacker, Dickinson, & Koger, 2004).

As useful studies of convergent, discriminant, and predictive validity rely heavily on the technical quality of the critera measures, the Pennsylvania CDTs, which are well documented high quality assessment aligned to the same Assessment Anchors and Eligible Content as the PSSA tests, were used to assess convergent and discriminant validity. Table 19-5 shows the correlations between the PSSA and CDT assessments. The within subject correlations are strong, ranging from 0.749 to 0.840 across all three years. This illustrates a strong positive relationship between the PSSA and the CDT where the subjects are the same or similar. Conversely, the correlations between different content areas in 2017 are noticeable lower, ranging from 0.677 to 0.779, where most cross-subject correlations fall below 0.75. These patterns demonstrate reasonable convergent and discriminant validity of PSSA scores.

Table 19–3. Correlations among Students' Performance Between PSSA and CDT Tests

CDT	PSSA	Grade	N	*r*
Mathematics - Lower Grades	PSSA ELA Grade 3	3	22755	0.721
Mathematics - Lower Grades	PSSA ELA Grade 4	4	26002	0.732
Mathematics - Lower Grades	PSSA ELA Grade 5	5	28034	0.741
Mathematics	PSSA ELA Grade 6	6	35516	0.744
Mathematics	PSSA ELA Grade 7	7	34642	0.747
Mathematics	PSSA ELA Grade 8	8	29887	0.732
Reading - Lower Grades	PSSA ELA Grade 3	3	19668	0.808
Reading - Lower Grades	PSSA ELA Grade 4	4	21778	0.815
Reading - Lower Grades	PSSA ELA Grade 5	5	24070	0.819
Reading/Literature	PSSA ELA Grade 6	6	30280	0.808
Reading/Literature	PSSA ELA Grade 7	7	32426	0.799
Reading/Literature	PSSA ELA Grade 8	8	31568	0.783
Science - Lower Grades	PSSA ELA Grade 3	3	2457	0.774
Science - Lower Grades	PSSA ELA Grade 4	4	11830	0.755
Science - Lower Grades	PSSA ELA Grade 5	5	2312	0.737
Science	PSSA ELA Grade 6	6	10358	0.736
Science	PSSA ELA Grade 7	7	16817	0.724
Science	PSSA ELA Grade 8	8	26724	0.704
Writing - Lower Grades	PSSA ELA Grade 3	3	3193	0.789
Writing - Lower Grades	PSSA ELA Grade 4	4	3486	0.806
Writing - Lower Grades	PSSA ELA Grade 5	5	4788	0.802
Writing - English Comp	PSSA ELA Grade 6	6	7538	0.821
Writing - English Comp	PSSA ELA Grade 7	7	9531	0.796
Writing - English Comp	PSSA ELA Grade 8	8	9792	0.773
Mathematics - Lower Grades	PSSA Math Grade 3	3	22784	0.800
Mathematics - Lower Grades	PSSA Math Grade 4	4	26058	0.816
Mathematics - Lower Grades	PSSA Math Grade 5	5	28062	0.822
Mathematics	PSSA Math Grade 6	6	35481	0.836
Mathematics	PSSA Math Grade 7	7	34653	0.839
Mathematics	PSSA Math Grade 8	8	29835	0.815
Reading - Lower Grades	PSSA Math Grade 3	3	19693	0.712
Reading - Lower Grades	PSSA Math Grade 4	4	21824	0.724
Reading - Lower Grades	PSSA Math Grade 5	5	24109	0.719
Reading/Literature	PSSA Math Grade 6	6	30244	0.737
Reading/Literature	PSSA Math Grade 7	7	32417	0.719
Reading/Literature	PSSA Math Grade 8	8	31486	0.700
Science - Lower Grades	PSSA Math Grade 3	3	2462	0.700
Science - Lower Grades	PSSA Math Grade 4	4	11860	0.699

Table 19–3 (continued). Correlations among Students' Performance Between PSSA and CDT Tests

CDT	PSSA	Grade	N	*r*
Science - Lower Grades	PSSA Math Grade 5	5	2312	0.678
Science	PSSA Math Grade 6	6	10358	0.694
Science	PSSA Math Grade 7	7	16819	0.701
Science	PSSA Math Grade 8	8	26667	0.677
Writing - Lower Grades	PSSA Math Grade 3	3	3195	0.691
Writing - Lower Grades	PSSA Math Grade 4	4	3492	0.710
Writing - Lower Grades	PSSA Math Grade 5	5	4797	0.707
Writing - English Comp	PSSA Math Grade 6	6	7524	0.734
Writing - English Comp	PSSA Math Grade 7	7	9522	0.712
Writing - English Comp	PSSA Math Grade 8	8	9778	0.685
Mathematics - Lower Grades	PSSA Science	4	25984	0.738
Mathematics	PSSA Science	8	29763	0.751
Reading - Lower Grades	PSSA Science	4	21747	0.779
Reading/Literature	PSSA Science	8	31421	0.754
Science - Lower Grades	PSSA Science	4	11782	0.778
Science	PSSA Science	8	26591	0.779
Writing - Lower Grades	PSSA Science	4	3487	0.727
Writing - English Comp	PSSA Science	8	9753	0.724

To further assess discriminant validity for the 2017 PSSA tests, correlations between students' test scores on different PSSA tests, including mathematics, ELA, and science are shown in Table 19–5. In this table, both the observed and disattenuated correlations are reported.

Table 19–4. Correlations among Students' Performance on All PSSA Tests

Grade	Mathematics/ELA	Mathematics/Science	ELA/Science
3	0.81 (0.87)	-	-
4	0.79 (0.85)	0.82 (0.88)	0.81 (0.88)
5	0.80 (0.85)	-	-
6	0.79 (0.86)	-	-
7	0.81 (0.87)	-	-
8	0.79 (0.85)	0.82 (0.88)	0.81 (0.88)

Note. Numbers in the parenthesis are disattenuated correlations. The PSSA final data file was used for these calculations (see Chapter Nine). Case-wise elimination of missing data was used.

Each PSSA assessment measures a different construct, so the correlations between them were not expected to be extremely high. The values in this table are consistent with this expectation. As can be seen, the correlations between the PSSA tests range from 0.78 to 0.82.

As 2015 was the first year of new PSSA mathematics and ELA, several additional analyses were conducted in 2017 in support of the federal peer review process for the PSSA. These studies include 1) an analysis of how well the PSSA scores predict performance (predictive validity) on high school exams in Algebra I and Literature (Keystone exams), and 2) multiple comparisons of PSSA mathematics and ELA results with other external criteria. These studies provide additional evidence in support of arguments for the convergent and discriminant validity of the PSSA test results detailed in the 2015 and 2016 PSSA Technical Reports referenced above. This report provides a summary of these seven additional analyses and results:

- Keystone predictions
- PSSA relation to other variables:
    - PSSA mathematics and ELA relationship with NAEP
    - PSSA mathematics and ELA relationship with Classroom Diagnostic Tools (CDT)
    - PSSA ELA relationship with GRADE (Group Reading Assessment and Diagnostic Evaluation) literacy assessments
    - PSSA mathematics and ELA relationship with Terra Nova Complete Battery ELA and mathematics
    - PSSA mathematics and ELA relationship with teacher ratings of student proficiency
    - PSSA mathematics and ELA subscore correlations

The results of these analyses provide reasonably strong evidence of the convergent and discriminant validity of the PSSA, as well its predictive relationship with college and career readiness expectations. Results for this set of analyses are reported in Appendix T.

EVIDENCE BASED ON CONSEQUENCES OF TESTING

Based on the *Standards* (2014), evidence of the consequences of implementing an assessment program is an additional source of validity information. Both positive and negative (intended and unintended) consequences of score-based inferences must be investigated to fully evaluate the pool of validity evidence. It is important to note that the consequences of the assessment program themselves to do not serve as indicators of validity. That is, the investigation and evaluation of the consequences provides a richer context for establishing the validity of an assessment program.

As reported in Chapter Five and Appendix F, review and consideration of differential item functioning results with respect to gender and ethnicity offers some evidence that construct-irrelevant variance affecting these groups differentially is not present. The presence of construct-irrelevant variance is generally considered to be a serious a threat to the validity of inferences made from test scores, where those differences are due to content that is unrelated to the intended construct for one or more groups. 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.

Additionally, analyses were conducted to assess the comparability of scores across paper-based and computer-based modes of assessment (PBT and CBT) by evaluating differences in person fit. Results of these analyses indicate that the PSSA tests are functioning similarly across mode and mode by subgroups. Refer to Appendix S for a detailed discussion of the analyses and findings.

A comprehensive independent study of the invariance of scores across accommodations was also conducted by Sireci and Wells (2016) with results that support claims of measurement invariance across the PSSA tests for accommodated groups with sufficient cases for analysis.

As evidence of consequential validity is related to its uses, as well as to statistical measures of invariance, it is difficult to directly measure all aspects of consequential validity. Test data provide important evidence of the validity of PSSA scores for their intended uses. Generally, the results of the several statistical analyses discussed provide evidence that PSSA scores have the same meaning for all examinees, regardless of conditions of gender, ethnicity, test mode, and accommodations used. The invariance of the equating solution, however, will be monitored closely for any consistent patterns of possible violations of invariance over time.

Regarding the use of test scores, Chapter Sixteen includes several different types of scores and score reports used for the PSSA. This chapter also provides accurate and clear test score and report information to help users avoid unintended uses and interpretations of the PSSA results. The extent to which various groups of users (e.g., students, teachers, and parents) interpret these scores and reports appropriately affects the validity of subsequent uses of these results. PDE continues to gather evidence to improve or guide decisions pertaining to all aspects of intended and unintended consequences of the PSSA program.

EVIDENCE RELATED TO THE USE OF THE RASCH MODEL

Since the Rasch model is the basis of all calibration, scaling, and linking analyses associated with the PSSA, the validity of the inferences from these results depends on the degree to which the assumptions of the model are met as well as the fit between the model and test data. As discussed at length in Chapter Twelve, the underlying assumptions of Rasch models were essentially met for all the PSSA data, indicating the appropriateness of using the Rasch models to analyze the PSSA data.

In addition, the Rasch model was also used to link science operational PSSA tests across years. The accuracy of the linking also affects the accuracy of student scores and the validity of score uses. As described in Chapter Fifteen, DRC Psychometric Services staff follow linking procedures previously vetted by the Pennsylvania National TAC. Moreover, DRC internal replication and TAC review ensured the accuracy of the linking results.

VALIDITY EVIDENCE SUMMARY

Validity evidence related to test content was reviewed earlier in this chapter. 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. Details regarding how the PSSA operational assessments were assembled to reflect the state content standards and detailed information regarding educator reviews (including content, bias, data, and sensitivity reviews) are presented in Chapters Three and Five.

Evidence of the validity of score interpretations is also provided as it relates to response processes. Cognitive labs for Science scenario-based items showed that examinees were responding as intended and routine hand-scoring processes describe in Chapter Eight provide evidence that ratings show reasonable consistency and that rigorous scoring processes are in place to reduce rater bias and increase consistency.

Evidence of the validity related to internal test structure is provided through the results of multiple analyses including, high test score reliabilities, reasonable SEM and CSEM values, good decision consistency and accuracy, strongly unidimensional constructs, and selections of items that have appropriate difficulty ranges, and discriminate performance well.

Strand score inter-correlations are also presented in this chapter. In general, within-subject-area strands (e.g., mathematics) correlate more highly with themselves than they do with other subject-area strands (e.g., ELA). These results, as well as the additional analyses of the relationship between the PSSA ELA and Mathematics tests with other established measures and classroom performance provides evidence of their convergent, discriminant and predictive validity.

A study of the relationship of PSSA scores with CDT scores shows a strong relationship between similar content areas providing useful convergent validity evidence as the PSSA and CDT are aligned to the same Assessment Anchors and Eligible Content. Additional opportunities to correlate PSSA scores with other high quality assessments intended to measure the same or similar constructs are being investigated at the time of this report's publication.

Last, evidence that PSSA test scores are largely invariant across multiple subgroups of student is also provided through the results of DIF analyses and subsequent item selection processes, a multi-method study on the invariance of accommodated test scores, and a person fit analysis to investigate the comparability of scores from different modes of administration for different populations of students.

APPENDIX A: GENERAL SCORING GUIDELINES

GENERAL DESCRIPTION OF SCORING GUIDELINES FOR READING SHORT-ANSWER QUESTIONS

GENERAL DESCRIPTION OF SCORING GUIDELINES FOR READING SHORT-ANSWER QUESTIONS

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

OT .....Off task/topic

LOE.....Response in a language other than English

IL.....Illegible

TEXT-DEPENDENT ANALYSIS SCORING GUIDELINES

Score	Description
4	• Effectively addresses all parts of the task demonstrating in-depth analytic understanding of the text(s) • Effective introduction, development, and conclusion identifying an opinion, topic, or controlling idea related to the text(s) • Strong organizational structure that effectively supports the focus and ideas • Thorough analysis of explicit and implicit meanings from text(s) to effectively support claims, opinions, ideas, and inferences • Substantial, accurate, and direct reference to the text(s) using relevant key details, examples, quotes, facts, and/or definitions • Substantial reference to the main idea(s) and relevant key details of the text(s) to support the writer's purpose • Skillful use of transitions to link ideas • Effective use of precise language and domain-specific vocabulary drawn from the text(s) to explain the topic and/or to convey experiences/events • Few errors, if any, are present in sentence formation, grammar, usage, spelling, capitalization, and punctuation; errors present do not interfere with meaning
3	• Adequately addresses all parts of the task demonstrating sufficient analytic understanding of the text(s) • Clear introduction, development, and conclusion identifying an opinion, topic, or controlling idea related to the text(s) • Appropriate organizational structure that adequately supports the focus and ideas • Clear analysis of explicit and implicit meanings from text(s) to support claims, opinions, ideas, and inferences • Sufficient, accurate, and direct reference to the text(s) using relevant details, examples, quotes, facts, and/or definitions • Sufficient reference to the main idea(s) and relevant key details of the text(s) to support the writer's purpose • Appropriate use of transitions to link ideas • Appropriate use of precise language and domain-specific vocabulary drawn from the text(s) to explain the topic and/or to convey experiences/events • Some errors may be present in sentence formation, grammar, usage, spelling, capitalization, and punctuation; errors present seldom interfere with meaning

Score	Description
2	• Inconsistently addresses some parts of the task demonstrating partial analytic understanding of the text(s) • Weak introduction, development, and/or conclusion identifying an opinion, topic, or controlling idea somewhat related to the text(s) • Weak organizational structure that inconsistently supports the focus and ideas • Weak or inconsistent analysis of explicit and/or implicit meanings from text(s) that somewhat supports claims, opinions, ideas, and inferences • Vague reference to the text(s) using some details, examples, quotes, facts, and/or definitions • Weak reference to the main idea(s) and relevant details of the text(s) to support the writer's purpose • Inconsistent use of transitions to link ideas • Inconsistent use of precise language and domain-specific vocabulary drawn from the text(s) to explain the topic and/or to convey experiences/events • Errors may be present in sentence formation, grammar, usage, spelling, capitalization, and punctuation; errors present may interfere with meaning
1	• Minimally addresses part(s) of the task demonstrating inadequate analytic understanding of the text(s) • Minimal evidence of an introduction, development, and/or conclusion • Minimal evidence of an organizational structure • Insufficient or no analysis of the text(s); may or may not support claims, opinions, ideas, and inferences • Insufficient reference to the text(s) using few details, examples, quotes, facts, and/or definitions • Minimal reference to the main idea(s) and/or relevant details of the text(s) • Few, if any, transitions to link ideas • Little or no use of precise language or domain-specific vocabulary drawn from the text(s) • Many errors may be present in sentence formation, grammar, usage, spelling, capitalization, and punctuation; errors present often interfere with meaning

GENERAL DESCRIPTION OF SCORING GUIDELINES FOR MATHEMATICS OPEN-ENDED QUESTIONS

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" 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
OT.....Off task
LOE .....Response in a language other than English
IL .....Illegible

GENERAL 2-POINT SCORING GUIDELINES FOR SCIENCE

2 – The response demonstrates a *thorough* understanding of the scientific content, concepts, and procedures required by the task(s).

The response provides a clear, complete, and correct response as required by the task(s). The response may contain a minor blemish or omission in work or explanation that does not detract from demonstrating a *thorough* understanding.

1 – The response demonstrates a *partial* understanding of the scientific content, concepts, and procedures required by the task(s).

The response is somewhat correct with *partial* understanding of the required scientific content, concepts, and/or procedures demonstrated and/or explained. The response may contain some work that is incomplete or unclear.

0 – The response provides *insufficient* evidence to demonstrate any understanding of the scientific content, concepts, and procedures as required by the task(s) for that grade level.

The response may show only information copied or rephrased from the question or *insufficient* correct information to receive a score of 1.

Special categories within zero reported separately:

BLK (blank) – No response or written refusal to respond or too brief to determine response
OT – Off task/topic
LOE – Response in a language other than English
IL – Illegible

APPENDIX B: TALLY SHEETS

Grade 03 **Mathematics**

Reporting Category	Assessment Anchor	Descriptor (Sub-anchor)	Eligible Content	Focus	Points							Items						
					Student Scores (Core Points)		Equating Block (EB)		Total Points (Core & EB)			Number of Items				Total Number of Items (Core & EB)		
												Core		EB				
					MC	OE	MC	OE	MC	OE	Total	MC	OE	MC	OE	MC	OE	Total
A-T: Numbers and Operations in Base Ten	1			Use place-value understanding and properties of operations to perform multi-digit arithmetic.		4				4	4		1				1	1
	1	1		Apply place-value strategies to solve problems.														
	1	1	1	Round two- and three-digit whole numbers to the nearest ten or hundred, respectively.	1				1		1	1				1		1
	1	1	2	Add two- and three-digit whole numbers and/or subtract two- and three-digit numbers from three-digit whole numbers.	2				2		2	2				2		2
	1	1	3	Multiply one-digit whole numbers by two-digit multiples of ten.	3				3		3	3				3		3
	1	1	4	Order a set of whole numbers from least to greatest or greatest to least.	2				2		2	2				2		2
	Total for Assessment Anchor A-T.1 Use place-value understanding and properties of operations to perform multi-digit arithmetic.				8	4			8	4	12	8	1			8	1	9
Total For Reporting Category A-T					8	4			8	4	12	8	1			8	1	9

Grade 03 **Mathematics**

Reporting Category	Assessment Anchor	Descriptor (Sub-anchor)	Eligible Content	Focus	Points							Items						
					Student Scores (Core Points)		Equating Block (EB)		Total Points (Core & EB)			Number of Items				Total Number of Items (Core & EB)		
												Core		EB				
					MC	OE	MC	OE	MC	OE	Total	MC	OE	MC	OE	MC	OE	Total
A-F: Numbers and Operations—Fractions	1			Develop an understanding of fractions as numbers.														
	1	1		Develop and apply number theory concepts to compare quantities and magnitudes of fractions and whole numbers.	1				1		1	1				1		1
	1	1	1	Demonstrate that when a whole or set is partitioned into y equal parts, the fraction 1/y represents 1 part of the whole and/or the fraction x/y represents x equal parts of the whole.	3				3		3	3				3		3
	1	1	2	Represent fractions on a number line.	2				2		2	2				2		2
	1	1	3	Recognize and generate simple equivalent fractions.	2				2		2	2				2		2
	1	1	4	Express whole numbers as fractions, and/or generate fractions that are equivalent to whole numbers.														
	1	1	5	Compare two fractions with the same denominator, using the symbols >, =, or <, and/or justify the conclusions.	2				2		2	2				2		2
	Total for Assessment Anchor A-F.1 Develop an understanding of fractions as numbers.				10				10		10	10				10		10
Total For Reporting Category A-F					10				10		10	10				10		10

Grade 03 **Mathematics**

Reporting Category	Assessment Anchor	Descriptor (Sub-anchor)	Eligible Content	Focus	Points							Items						
					Student Scores (Core Points)		Equating Block (EB)		Total Points (Core & EB)			Number of Items				Total Number of Items (Core & EB)		
												Core		EB				
					MC	OE	MC	OE	MC	OE	Total	MC	OE	MC	OE	MC	OE	Total
B-O: Operations and Algebraic Thinking	1			Represent and solve problems involving multiplication and division.														
	1	1		Understand various meanings of multiplication and division.	1				1		1	1				1		1
	1	1	1	Interpret and/or describe products of whole numbers.														
	1	1	2	Interpret and/or describe whole-number quotients of whole numbers.	2				2		2	2				2		2
	1	2		Solve mathematical and real-world problems using multiplication and division, including determining a missing number in a multiplication and/or division equation.	1				1		1	1				1		1
	1	2	1	Use multiplication and/or division to solve word problems in situations involving equal groups, arrays, and/or measurement quantities.	1				1		1	1				1		1
	1	2	2	Determine the unknown whole number in a multiplication or division equation relating three whole numbers.	1				1		1	1				1		1
	Total For Assessment Anchor B-O.1 Represent and solve problems involving multiplication and division.				6				6		6	6				6		6
	2			Understand properties of multiplication and the relationship between multiplication and division.														
	2	1		Use properties to simplify and solve multiplication problems.	1		1		2		2	1		1		2		2
	2	1	1	Apply the commutative property of multiplication (not identification or definition of the property).	2				2		2	2				2		2
	2	1	2	Apply the associative property of multiplication (not identification or definition of the property).	1				1		1	1				1		1
	2	2		Relate division to a missing-number multiplication equation.														
	2	2	1	Interpret and/or model division as a multiplication equation with an unknown factor.	2				2		2	2				2		2
	Total For Assessment Anchor B-O.2 Understand properties of multiplication and the relationship between multiplication and division.				6		1		7		7	6		1		7		7

	3			Solve problems involving the four operations, and identify and explain patterns in arithmetic.	1				1		1	1				1		1
	3	1		Use operations, patterns, and estimation strategies to solve problems (may include word problems).														
	3	1	1	Solve two-step word problems using the four operations. Limit to problems with whole numbers and having whole-number answers.	2				2		2	2				2		2
	3	1	2	Represent two-step word problems using equations with a symbol standing for the unknown quantity. Limit to problems with whole numbers and having whole-number answers.	1				1		1	1				1		1
	3	1	3	Assess the reasonableness of answers. Limit problems posed with whole numbers and having whole-number answers.														
	3	1	4	Solve two-step equations using order of operations (equation is explicitly stated with no grouping symbols).	1				1		1	1				1		1
	3	1	5	Identify arithmetic patterns (including patterns in the addition table or multiplication table) and/or explain them using properties of operations.	1				1		1	1				1		1
	3	1	6	Create or match a story to a given combination of symbols and numbers.	1				1		1	1				1		1
	3	1	7	Identify the missing symbol that makes a number sentence true.	1				1		1	1				1		1
	Total For Assessment Anchor B-O.3 Solve problems involving the four operations, and identify and explain patterns in arithmetic.				8				8		8	8				8		8
Total For Reporting Category B-O					20		1		21		21	20		1		21		21

Grade 03 **Mathematics**

Reporting Category	Assessment Anchor	Descriptor (Sub-anchor)	Eligible Content	Focus	Points							Items						
					Student Scores (Core Points)		Equating Block (EB)		Total Points (Core & EB)			Number of Items				Total Number of Items (Core & EB)		
												Core		EB				
					MC	OE	MC	OE	MC	OE	Total	MC	OE	MC	OE	MC	OE	Total
C-G: Geometry	1			Reason with shapes and their attributes.		4				4	4		1				1	1
	1	1		Analyze characteristics of polygons.	1				1		1	1				1		1
	1	1	1	Explain that shapes in different categories may share attributes and that the shared attributes can define a larger category.	2				2		2	2				2		2
	1	1	2	Recognize rhombi, rectangles, and squares as examples of quadrilaterals and/or draw examples of quadrilaterals that do not belong to any of these subcategories.	2				2		2	2				2		2
	1	1	3	Partition shapes into parts with equal areas. Express the area of each part as a unit fraction of the whole.	1				1		1	1				1		1
	Total For Assessment Anchor C-G.1 Reason with shapes and their attributes.				6	4			6	4	10	6	1			6	1	7
Total For Reporting Category C-G					6	4			6	4	10	6	1			6	1	7

Grade 03 **Mathematics**

Reporting Category	Assessment Anchor	Descriptor (Sub-anchor)	Eligible Content	Focus	Points							Items						
					Student Scores (Core Points)		Equating Block (EB)		Total Points (Core & EB)			Number of Items				Total Number of Items (Core & EB)		
												Core		EB				
					MC	OE	MC	OE	MC	OE	Total	MC	OE	MC	OE	MC	OE	Total
	1			Solve problems involving measurement and estimation of intervals of time, money, liquid volumes, masses, and lengths of objects.	1				1		1	1				1		1
	1	1		Determine or calculate time and elapsed time.														
	1	1	1	Tell, show, and/or write time (analog) to the nearest minute.	1				1		1	1				1		1
	1	1	2	Calculate elapsed time to the minute in a given situation.	1				1		1	1				1		1
	1	2		Use the attributes of liquid volume, mass, and length of objects.														
	1	2	1	Measure and estimate liquid volumes and masses of objects using standard units and metric units.	1				1		1	1				1		1
	1	2	2	Add, subtract, multiply, and divide to solve one-step word problems involving masses or liquid volumes that are given in the same units.														
	1	2	3	Use a ruler to measure lengths to the nearest quarter inch or centimeter.	1				1		1	1				1		1
	1	3		Count, compare, and make change using a collection of coins and one-dollar bills.														
	1	3	1	Compare total values of combinations of coins and/or dollar bills less than $5.00.	1				1		1	1				1		1
	1	3	2	Make change for an amount up to $5.00 with no more than $2.00 change given.	1				1		1	1				1		1
	1	3	3	Round amounts of money to the nearest dollar.	1				1		1	1				1		1
	Total For Assessment Anchor D-M.1 Solve problems involving measurement and estimation of intervals of time, money, liquid volumes, masses, and lengths of objects.				8				8		8	8				8		8

D-M: Measurement and Data	2			Represent and interpret data.														
	2	1		Organize, display, and answer questions based on data.	1				1		1	1				1		1
	2	1	1	Complete a scaled pictograph and a scaled bar graph to represent a data set with several categories.														
	2	1	2	Solve one- and two-step problems using information to interpret data presented in scaled pictographs and scaled bar graphs.	2				2		2	2				2		2
	2	1	3	Generate measurement data by measuring lengths using rulers marked with halves and fourths of an inch. Display the data by making a line plot, where the horizontal scale is marked in appropriate units—whole numbers, halves, or quarters.	1				1		1	1				1		1
	2	1	4	Translate information from one type of display to another. Limit to pictographs, tally charts, bar graphs, and tables.	1				1		1	1				1		1
	Total For Assessment Anchor D-M.2 Represent and interpret data.				5				5		5	5				5		5
	3			Geometric measurement: understand concepts of area and relate area to multiplication and to addition.		4				4	4		1			1	1	1
	3	1		Find the areas of plane figures.														
	3	1	1	Measure areas by counting unit squares.														
	3	1	2	Multiply side lengths to find areas of rectangles with whole-number side lengths in the context of solving real-world and mathematical problems, and represent whole-number products as rectangular areas in mathematical reasoning.			1		1		1			1		1		1
	Total For Assessment Anchor D-M.3 Geometric measurement: understand concepts of area and relate area to multiplication and to addition.					4	1		1	4	5		1	1		1	1	2

4			Geometric measurement: recognize perimeter as an attribute of plane figures and distinguish between linear and area measures.															
4	1		Find and use the perimeters of plane figures.															
4	1	1	Solve real-world and mathematical problems involving perimeters of polygons, including finding the perimeter given the side lengths, finding an unknown side length, exhibiting rectangles with the same perimeter and different areas, and exhibiting rectangles with the same area and different perimeters. Use the same units throughout the problem.	3				3		3	3				3		3
Total For Assessment Anchor D-M.4 Geometric measurement: recognize perimeter as an attribute of plane figures and distinguish between linear and area measures.				3				3		3	3				3		3
Total For Reporting Category D-M				16	4	1		17	4	21	16	1	1		17	1	18

Grade 04 **Mathematics**

Reporting Category	Assessment Anchor	Descriptor (Sub-anchor)	Eligible Content	Focus	Points							Items						
					Student Scores (Core Points)		Equating Block (EB)		Total Points (Core & EB)			Number of Items				Total Number of Items (Core & EB)		
												Core		EB				
					MC	OE	MC	OE	MC	OE	Total	MC	OE	MC	OE	MC	OE	Total
A-T: Numbers and Operations in Base Ten	1			Generalize place-value understanding for multi-digit whole numbers.		4				4	4		1				1	1
	1	1		Apply place-value and numeration concepts to compare, find equivalencies, and round.														
	1	1	1	Demonstrate an understanding that in a multi-digit whole number, a digit in one place represents ten times what it represents in the place to its right.	1				1		1	1				1		1
	1	1	2	Read and write whole numbers in expanded, standard, and word form through 1,000,000.	1				1		1	1				1		1
	1	1	3	Compare two multi-digit numbers through 1,000,000 based on meanings of the digits in each place, using >, =, and < symbols.	1				1		1	1				1		1
	1	1	4	Round multi-digit whole numbers to any place.	2				2		2	2				2		2
	Total For Assessment Anchor A-T.1 Generalize place-value understanding for multi-digit whole numbers.				5	4			5	4	9	5	1			5	1	6
	2			Use place-value understanding and properties of operations to perform multi-digit arithmetic.														
	2	1		Use operations to solve problems.	1				1		1	1				1		1
	2	1	1	Add and subtract multi-digit whole numbers.	1				1		1	1				1		1
	2	1	2	Multiply a whole number of up to four digits by a one-digit whole number and multiply 2 two-digit numbers.	1				1		1	1				1		1
	2	1	3	Divide up to four-digit dividends by one-digit divisors with answers written as whole-number quotients and remainders.	2				2		2	2				2		2
	2	1	4	Estimate the answer to addition, subtraction, and multiplication problems using whole numbers through six digits.	1				1		1	1				1		1
	Total For Assessment Anchor A-T.2 Use place-value understanding and properties of operations to perform multi-digit arithmetic.				6				6		6	6				6		6
Total For Reporting Category A-T					11	4			11	4	15	11	1			11	1	12

Grade 04 **Mathematics**

Reporting Category	Assessment Anchor	Descriptor (Sub-anchor)	Eligible Content	Focus	Points							Items						
					Student Scores (Core Points)		Equating Block (EB)		Total Points (Core & EB)			Number of Items				Total Number of Items (Core & EB)		
												Core		EB				
					MC	OE	MC	OE	MC	OE	Total	MC	OE	MC	OE	MC	OE	Total
A-F: Numbers and Operations—Fractions	1			Extend understanding of fraction equivalence and ordering.														
	1	1		Find equivalencies and compare fractions.	1				1		1	1				1		1
	1	1	1	Recognize and generate equivalent fractions.	1				1		1	1				1		1
	1	1	2	Compare two fractions with different numerators and different denominators using the symbols >, =, or < and justify the conclusions.	1				1		1	1				1		1
	Total For Assessment Anchor A-F.1 Extend understanding of fraction equivalence and ordering.				3				3		3	3				3		3
	2			Build fractions from unit fractions by applying and extending previous understandings of operations on whole numbers.														
	2	1		Solve problems involving fractions and whole numbers (straight computation or word problems).	1				1		1	1				1		1
	2	1	1	Add and subtract fractions with a common denominator.	1				1		1	1				1		1
	2	1	2	Decompose a fraction or a mixed number into a sum of fractions with the same denominator.	1				1		1	1				1		1
	2	1	3	Add and subtract mixed numbers with a common denominator.	1				1		1	1				1		1
	2	1	4	Solve word problems involving addition and subtraction of fractions referring to the same whole or set and having like denominators.	1				1		1	1				1		1
	2	1	5	Multiply a whole number by a unit fraction.														
	2	1	6	Multiply a whole number by a non-unit fraction.	2				2		2	2				2		2
	2	1	7	Solve word problems involving multiplication of a whole number by a fraction.	1				1		1	1				1		1
	Total For Assessment Anchor A-F.2 Build fractions from unit fractions by applying and extending previous understandings of operations on whole numbers.				8				8		8	8				8		8
	3			Understand decimal notation for fractions and compare decimal fractions.														

	3	1		Use operations to solve problems involving decimals, including converting between fractions and decimals.	1				1		1	1				1		1
	3	1	1	Add two fractions with respective denominators 10 and 100.	1				1		1	1				1		1
	3	1	2	Use decimal notation for fractions with denominators of 10 or 100.	1				1		1	1				1		1
	3	1	3	Compare two decimals to hundredths using the symbols >, =, or <, and justify the conclusions.	1				1		1	1				1		1
	Total For Assessment Anchor A-F.3 Understand decimal notation for fractions and compare decimal fractions.				4				4		4	4				4		4
Total For Reporting Category A-F					15				15		15	15				15		15

Grade 04 **Mathematics**

Reporting Category	Assessment Anchor	Descriptor (Sub-anchor)	Eligible Content	Focus	Points							Items						
					Student Scores (Core Points)		Equating Block (EB)		Total Points (Core & EB)			Number of Items Core		Number of Items EB		Total Number of Items (Core & EB)		
					MC	OE	MC	OE	MC	OE	Total	MC	OE	MC	OE	MC	OE	Total
B-O: Operations and Algebraic Thinking	1			Use the four operations with whole numbers to solve problems.		4				4	4		1				1	1
	1	1		Use numbers and symbols to model the concepts of expressions and equations.	1				1		1	1				1		1
	1	1	1	Interpret a multiplication equation as a comparison. Represent verbal statements of multiplicative comparisons as multiplication equations.	1				1		1	1				1		1
	1	1	2	Multiply or divide to solve word problems involving multiplicative comparison, distinguishing multiplicative comparison from additive comparison.	1				1		1	1				1		1
	1	1	3	Solve multi-step word problems posed with whole numbers using the four operations. Answers will be either whole numbers or have remainders that must be interpreted yielding a final answer that is a whole number. Represent these problems using equations with a symbol or letter standing for the unknown quantity.	1				1		1	1				1		1
	1	1	4	Identify the missing symbol that makes a number sentence true.	1				1		1	1				1		1
	Total For Assessment Anchor B-O.1 Use the four operations with whole numbers to solve problems.				5	4			5	4	9	5	1			5	1	6
	2			Gain familiarity with factors and multiples.	1				1		1	1				1		1
	2	1		Develop and apply number theory concepts to represent numbers in various ways.														
	2	1	1	Find all factor pairs for a whole number in the interval 1 through 100. Recognize that a whole number is a multiple of each of its factors. Determine whether a given whole number in the interval 1 through 100 is a multiple of a given one-digit number. Determine whether a given whole number in the interval 1 through 100 is prime or composite.	2		1		3		3	2		1		3		3
	Total For Assessment Anchor B-O.2 Gain familiarity with factors and multiples.				3		1		4		4	3		1		4		4

	3			Generate and analyze patterns.	1				1		1	1				1		1
	3	1		Recognize, describe, extend, create, and replicate a variety of patterns.	2				2		2	2				2		2
	3	1	1	Generate a number or shape pattern that follows a given rule. Identify apparent features of the pattern that were not explicit in the rule itself.	1				1		1	1				1		1
	3	1	2	Determine the missing elements in a function table.	1				1		1	1				1		1
	3	1	3	Determine the rule for a function given a table.	2				2		2	2				2		2
	Total For Assessment Anchor B-O.3 Generate and analyze patterns.				7				7		7	7				7		7
Total For Reporting Category B-O					15	4	1		16	4	20	15	1	1		16	1	17

Grade 04 **Mathematics**

Reporting Category	Assessment Anchor	Descriptor (Sub-anchor)	Eligible Content	Focus	Points							Items						
					Student Scores (Core Points)		Equating Block (EB)		Total Points (Core & EB)			Number of Items				Total Number of Items (Core & EB)		
												Core		EB				
					MC	OE	MC	OE	MC	OE	Total	MC	OE	MC	OE	MC	OE	Total
C-G: Geometry	1			Draw and identify lines and angles, and classify shapes by properties of their lines and angles.														
	1	1		List properties, classify, draw, and identify geometric figures in two dimensions.	1				1		1	1				1		1
	1	1	1	Draw points, lines, line segments, rays, angles, and perpendicular and parallel lines. Identify these in two-dimensional figures.	3				3		3	3				3		3
	1	1	2	Classify two-dimensional figures based on the presence or absence of angles of a specified size. Recognize right triangles as a category, and identify right triangles.	3				3		3	3				3		3
	1	1	3	Recognize a line of symmetry for a two-dimensional figure as a line across the figure such that the figure can be folded along the line into mirroring parts. Identify line-symmetric figures and draw lines of symmetry.	3		1		4		4	3		1		4		4
	Total For Assessment Anchor C-G.1 Draw and identify lines and angles, and classify shapes by properties of their lines and angles.				10		1		11		11	10		1		11		11
Total For Reporting Category C-G					10		1		11		11	10		1		11		11

Grade 04 **Mathematics**

Reporting Category	Assessment Anchor	Descriptor (Sub-anchor)	Eligible Content	Focus	Points							Items						
					Student Scores (Core Points)		Equating Block (EB)		Total Points (Core & EB)			Number of Items				Total Number of Items (Core & EB)		
												Core		EB				
					MC	OE	MC	OE	MC	OE	Total	MC	OE	MC	OE	MC	OE	Total
D-M: Measurement and Data	1			Solve problems involving measurement and conversion of measurements from a larger unit to a smaller unit.		4				4	4		1				1	1
	1	1		Solve problems involving length, weight (mass), liquid volume, time, area, and perimeter.														
	1	1	1	Know relative sizes of measurement units within one system of units including standard units, metric units, and time. Within a single system of measurement, express measurements in a larger unit in terms of a smaller unit.	1				1		1	1				1		1
	1	1	2	Use the four operations to solve word problems involving distances, intervals of time, liquid volumes, masses of objects; money, including problems involving simple fractions or decimals; and problems that require expressing measurements given in a larger unit in terms of a smaller unit.	1				1		1	1				1		1
	1	1	3	Apply the area and perimeter formulas for rectangles in real-world and mathematical problems.	1				1		1	1				1		1
	1	1	4	Identify time (analog or digital) as the amount of minutes before or after the hour.	1				1		1	1				1		1
	Total For Assessment Anchor D-M.1 Solve problems involving measurement and conversion of measurements from a larger unit to a smaller unit.				4	4			4	4	8	4	1			4	1	5
	2			Represent and interpret data.														
	2	1		Organize, display, and answer questions based on data.														
	2	1	1	Make a line plot to display a data set of measurements in fractions of a unit.	1				1		1	1				1		1
	2	1	2	Solve problems involving addition and subtraction of fractions by using information presented in line plots.														
	2	1	3	Translate information from one type of display to another.	1				1		1	1				1		1
	Total For Assessment Anchor D-M.2 Represent and interpret data.				2				2		2	2				2		2

3			Geometric measurement: understand concepts of angle; measure and create angles.															
3	1		Use appropriate tools and units to sketch an angle and determine angle measurements.															
3	1	1	Measure angles in whole-number degrees using a protractor. With the aid of a protractor, sketch angles of a specified measure.	1				1		1	1				1		1
3	1	2	Solve addition and subtraction problems to find unknown angles on a diagram in real-world and mathematical problems.	2				2		2	2				2		2
Total For Assessment Anchor D-M.3 Geometric measurement: understand concepts of angle; measure and create angles.				3				3		3	3				3		3
Total For Reporting Category D-M				9	4			9	4	13	9	1			9	1	10

Grade 05 **Mathematics**

Reporting Category	Assessment Anchor	Descriptor (Sub-anchor)	Eligible Content	Focus	Points							Items						
					Student Scores (Core Points)		Equating Block (EB)		Total Points (Core & EB)			Number of Items				Total Number of Items (Core & EB)		
												Core		EB				
					MC	OE	MC	OE	MC	OE	Total	MC	OE	MC	OE	MC	OE	Total
A-T: Numbers and Operations in Base Ten	1			Understand the place-value system.	1				1		1	1				1		1
	1	1		Demonstrate understanding of place-value of whole numbers and decimals, and compare quantities or magnitudes of numbers.	1				1		1	1				1		1
	1	1	1	Demonstrate an understanding that in a multi-digit number, a digit in one place represents 1/10 of what it represents in the place to its left.	1				1		1	1				1		1
	1	1	2	Explain patterns in the number of zeros of the product when multiplying a number by powers of 10 and explain patterns in the placement of the decimal point when a decimal is multiplied or divided by a power of 10. Use whole-number exponents to denote powers of 10.	1				1		1	1				1		1
	1	1	3	Read and write decimals to thousandths using base-ten numerals, word form, and expanded form.	1	4	1		2	4	6	1	1	1		2	1	3
	1	1	4	Compare two decimals to thousandths based on meanings of the digits in each place using >, =, and < symbols.	1				1		1	1				1		1
	1	1	5	Round decimals to any place.	1				1		1	1				1		1
	Total For Assessment Anchor A-T.1 Understand the place-value system.				7	4	1		8	4	12	7	1	1		8	1	9
	2			Perform operations with multi-digit whole numbers and with decimals to hundredths.	2				2		2	2				2		2
	2	1		Use whole numbers and decimals to compute accurately.	1				1		1	1				1		1
	2	1	1	Multiply multi-digit whole numbers.	1				1		1	1				1		1
	2	1	2	Find whole-number quotients of whole numbers with up to four-digit dividends and two-digit divisors.	1				1		1	1				1		1
	2	1	3	Add, subtract, multiply, and divide decimals to hundredths.	2				2		2	2				2		2
	Total For Assessment Anchor A-T.2 Perform operations with multi-digit whole numbers and with decimals to hundredths.				7				7		7	7				7		7
Total For Reporting Category A-T					14	4	1		15	4	19	14	1	1		15	1	16

Grade 05 **Mathematics**

Reporting Category	Assessment Anchor	Descriptor (Sub-anchor)	Eligible Content	Focus	Points							Items						
					Student Scores (Core Points)		Equating Block (EB)		Total Points (Core & EB)			Number of Items Core		Number of Items EB		Total Number of Items (Core & EB)		
					MC	OE	MC	OE	MC	OE	Total	MC	OE	MC	OE	MC	OE	Total
A-F: Numbers and Operations—Fractions	1			Use equivalent fractions as a strategy to add and subtract fractions.	1	4			1	4	5	1	1			1	1	2
	1	1		Solve addition and subtraction problems involving fractions.	1				1		1	1				1		1
	1	1	1	Add and subtract fractions with unlike denominators.	2				2		2	2				2		2
	Total For Assessment Anchor A-F.1 Use equivalent fractions as a strategy to add and subtract fractions.				4	4			4	4	8	4	1			4	1	5
	2			Apply and extend previous understandings of multiplication and division to multiply and divide fractions.	1				1		1	1				1		1
	2	1		Solve multiplication and division problems involving fractions and whole numbers.	2				2		2	2				2		2
	2	1	1	Solve word problems involving division of whole numbers leading to answers in the form of fractions.	2				2		2	2				2		2
	2	1	2	Multiply a fraction by a fraction.	2		1		3		3	2		1		3		3
	2	1	3	Demonstrate an understanding of multiplication as scaling.	2				2		2	2				2		2
	2	1	4	Divide unit fractions by whole numbers and whole numbers by unit fractions.	2				2		2	2				2		2
	Total For Assessment Anchor A-F.2 Apply and extend previous understandings of multiplication and division to multiply and divide fractions.				11		1		12		12	11		1		12		12
Total For Reporting Category A-F					15	4	1		16	4	20	15	1	1		16	1	17

Grade 05 **Mathematics**

Reporting Category	Assessment Anchor	Descriptor (Sub-anchor)	Eligible Content	Focus	Points							Items						
					Student Scores (Core Points)		Equating Block (EB)		Total Points (Core & EB)			Number of Items Core		Number of Items EB		Total Number of Items (Core & EB)		
					MC	OE	MC	OE	MC	OE	Total	MC	OE	MC	OE	MC	OE	Total
B-O: Operations and Algebraic Thinking	1			Write and interpret numerical expressions.	1				1		1	1				1		1
	1	1		Analyze and complete calculations by applying the order of operations.														
	1	1	1	Use multiple grouping symbols in numerical expressions and evaluate expressions containing these symbols.	2				2		2	2				2		2
	1	1	2	Write simple expressions that model calculations with numbers and interpret numerical expressions without evaluating them.	2				2		2	2				2		2
	Total For Assessment Anchor B-O.1 Write and interpret numerical expressions.				5				5		5	5				5		5
	2			Analyze patterns and relationships.														
	2	1		Create, extend, and analyze patterns.	2				2		2	2				2		2
	2	1	1	Generate two numerical patterns using two given rules.	2				2		2	2				2		2
	2	1	2	Identify apparent relationships between corresponding terms of two patterns with the same starting numbers that follow different rules.	2				2		2	2				2		2
	Total For Assessment Anchor B-O.2 Analyze patterns and relationships.				6				6		6	6				6		6
Total For Reporting Category B-O					11				11		11	11				11		11

Grade 05 **Mathematics**

Reporting Category	Assessment Anchor	Descriptor (Sub-anchor)	Eligible Content	Focus	Points							Items						
					Student Scores (Core Points)		Equating Block (EB)		Total Points (Core & EB)			Number of Items				Total Number of Items (Core & EB)		
												Core		EB				
					MC	OE	MC	OE	MC	OE	Total	MC	OE	MC	OE	MC	OE	Total
C-G: Geometry	1			Graph points on the coordinate plane to solve real-world and mathematical problems.														
	1	1		Identify parts of a coordinate grid and describe or interpret points given an ordered pair.														
	1	1	1	Identify parts of the coordinate plane and the ordered pair. Limit the coordinate plane to quadrant I.	3				3		3	3				3		3
	1	1	2	Represent real-world and mathematical problems by plotting points in quadrant I of the coordinate plane and interpret coordinate values of points in the context of the situation.	3				3		3	3				3		3
	Total For Assessment Anchor C-G.1 Graph points on the coordinate plane to solve real-world and mathematical problems.				6				6		6	6				6		6
	2			Classify two-dimensional figures into categories based on their properties.														
	2	1		Use basic properties to classify two-dimensional figures.	2				2		2	2				2		2
	2	1	1	Classify two-dimensional figures in a hierarchy based on properties.	3				3		3	3				3		3
	Total For Assessment Anchor C-G.2 Classify two-dimensional figures into categories based on their properties.				5				5		5	5				5		5
Total For Reporting Category C-G					11				11		11	11				11		11

Grade 05 **Mathematics**

Reporting Category	Assessment Anchor	Descriptor (Sub-anchor)	Eligible Content	Focus	Points							Items						
					Student Scores (Core Points)		Equating Block (EB)		Total Points (Core & EB)			Number of Items				Total Number of Items (Core & EB)		
												Core		EB				
					MC	OE	MC	OE	MC	OE	Total	MC	OE	MC	OE	MC	OE	Total
D-M: Measurement and Data	1			Convert like measurement units within a given measurement system.														
	1	1		Solve problems using simple conversions.	1				1		1	1				1		1
	1	1	1	Convert between different-sized measurement units within a given measurement system.	3				3		3	3				3		3
	Total for Assessment Anchor D-M.1 Convert like measurement units within a given measurement system.				4				4		4	4				4		4
	2			Represent and interpret data.														
	2	1		Organize, display, and answer questions based on data.														
	2	1	1	Solve problems involving computation of fractions by using information presented in line plots.	1				1		1	1				1		1
	2	1	2	Display and interpret data shown in tallies, tables, charts, pictographs, bar graphs, and line graphs, and use a title, appropriate scale, and labels. A grid will be provided to display data on bar graphs or line graphs.	2				2		2	2				2		2
	Total For Assessment Anchor D-M.2 Represent and interpret data.				3				3		3	3				3		3
	3			Geometric measurement: understand concepts of volume and relate volume to mutliplication and to addition.		4				4	4		1				1	1
	3	1		Use, describe, and develop procedures to solve problems involving volume.	1				1		1	1				1		1
	3	1	1	Apply the formulas $V = l \times w \times h$ and $V = B \times h$ for rectangular prisms with whole-number edge lengths in the context of solving real-world and mathematical problems.	1				1		1	1				1		1
	3	1	2	Find volumes of solid figures composed of two non-overlapping right rectangular prisms.														
	Total For Assessment Anchor D-M.3 Geometric measurement: understand concepts of volume and relate volume to mutliplication and to addition.				2	4			2	4	6	2	1			2	1	3
Total For Reporting Category D-M					9	4			9	4	13	9	1			9	1	10
DO NOT INCLUDE THIS ROW IN TECH REPORT					60	12	2		62	12	74	60	3	2		62	3	65

Grade 06 **Mathematics**

Reporting Category	Assessment Anchor	Descriptor (Sub-anchor)	Eligible Content	Focus	Points							Items						
					Student Scores (Core Points)		Equating Block (EB)		Total Points (Core & EB)			Number of Items				Total Number of Items (Core & EB)		
												Core		EB				
					MC	OE	MC	OE	MC	OE	Total	MC	OE	MC	OE	MC	OE	Total
A-N: The Number System	1			Apply and extend previous understandings of multiplication and division to divide fractions by fractions.														
	1	1		Solve real-world and mathematical problems involving division of fractions.	1				1		1	1				1		1
	1	1	1	Interpret and compute quotients of fractions, and solve word problems involving division of fractions by fractions.	3				3		3	3				3		3
	Total For Assessment Anchor A-N.1 Apply and extend previous understandings of multiplication and division to divide fractions by fractions.				4				4		4	4				4		4
	2			Compute with multi-digit numbers and find common factors and multiples.														
	2	1		Compute with multi-digit numbers using the four arithmetic operations with or without a calculator.														
	2	1	1	Solve problems involving operations with whole numbers, decimals, straight computation, or word problems.	2				2		2	2				2		2
	2	2		Apply number theory concepts.														
	2	2	1	Find the greatest common factor of two whole numbers less than or equal to 100 and the least common multiple of two whole numbers less than or equal to 12.	3				3		3	3				3		3
	2	2	2	Apply the distributive property to express a sum of two whole numbers, 1 through 100, with a common factor as a multiple of a sum of two whole numbers with no common factor.	1				1		1	1				1		1
	Total For Assessment Anchor A-N.2 Compute with multi-digit numbers and find common factors and multiples.				6				6		6	6				6		6
	3			Apply and extend previous understandings of numbers to the system of rational numbers.														

	3	1		Understand that positive and negative numbers are used together to describe quantities having opposite directions or values and locations on the number line and coordinate plane.															
	3	1	1	Represent quantities in real-world contexts using positive and negative numbers, explaining the meaning of 0 in each situation.	1				1		1	1				1		1
	3	1	2	Determine the opposite of a number and recognize that the opposite of the opposite of a number is the number itself.	1				1		1	1				1		1
	3	1	3	Locate and plot integers and other rational numbers on a horizontal or vertical number line; locate and plot pairs of integers and other rational numbers on a coordinate plane.	1				1		1	1				1		1
	3	2		Understand ordering and absolute value of rational numbers.															
	3	2	1	Write, interpret, and explain statements of order for rational numbers in real-world contexts.	1				1		1	1				1		1
	3	2	2	Interpret the absolute value of a rational number as its distance from 0 on the number line and as a magnitude for a positive or negative quantity in a real-world situation.	1				1		1	1				1		1
	3	2	3	Solve real-world and mathematical problems by plotting points in all four quadrants of the coordinate plane. Include use of coordinates and absolute value to find distances between points with the same first coordinate or the same second coordinate.															
	Total For Assessment Anchor A-N.3 Apply and extend previous understandings of numbers to the system of rational numbers.				5				5		5	5				5		5
Total For Reporting Category A-N					15				15		15	15				15		15

Grade 06 **Mathematics**

Reporting Category	Assessment Anchor	Descriptor (Sub-anchor)	Eligible Content	Focus	Points							Items						
					Student Scores (Core Points)		Equating Block (EB)		Total Points (Core & EB)			Number of Items				Total Number of Items (Core & EB)		
												Core		EB				
					MC	OE	MC	OE	MC	OE	Total	MC	OE	MC	OE	MC	OE	Total
A-R: Ratios and Proportional Relationships	1			Understand ratio concepts and use ratio reasoning to solve problems.		4				4	4		1				1	1
	1	1		Represent and/or solve real-world and mathematical problems using rates, ratios, and/or percents.														
	1	1	1	Use ratio language and notation to describe a ratio relationship between two quantities.	3				3		3	3				3		3
	1	1	2	Find the unit rate a/b associated with a ratio a:b and use rate language in the context of a ratio relationship.	1				1		1	1				1		1
	1	1	3	Construct tables of equivalent ratios relating quantities with whole-number measurements, find missing values in the tables, and/or plot the pairs of values on the coordinate plane. Use tables to compare ratios.	3				3		3	3				3		3
	1	1	4	Solve unit rate problems including those involving unit pricing and constant speed.														
	1	1	5	Find a percent of a quantity as a rate per 100; solve problems involving finding the whole, given a part and the percentage.	1				1		1	1				1		1
	Total For Assessment Anchor A-R.1 Understand ratio concepts and use ratio reasoning to solve problems.				8	4			8	4	12	8	1			8	1	9
Total For Reporting Category A-R					8	4			8	4	12	8	1			8	1	9

Grade 06 **Mathematics**

Reporting Category	Assessment Anchor	Descriptor (Sub-anchor)	Eligible Content	Focus	Points							Items						
					Student Scores (Core Points)		Equating Block (EB)		Total Points (Core & EB)			Number of Items				Total Number of Items (Core & EB)		
												Core		EB				
					MC	OE	MC	OE	MC	OE	Total	MC	OE	MC	OE	MC	OE	Total
B-E: Expressions and Equations	1			Apply and extend previous understandings of arithmetic to numerical and algebraic expressions.														
	1	1		Identify, write, and evaluate numerical and algebraic expressions.	1				1		1	1				1		1
	1	1	1	Write and evaluate numerical expressions involving whole-number exponents.	1				1		1	1				1		1
	1	1	2	Write algebraic expressions from verbal descriptions.	1				1		1	1				1		1
	1	1	3	Identify parts of an expression using mathematical terms.	1				1		1	1				1		1
	1	1	4	Evaluate expressions at specific values of their variables, including expressions that arise from formulas used in real-world problems.	2				2		2	2				2		2
	1	1	5	Apply the properties of operations to generate equivalent expressions.														
	Total For Assessment Anchor B-E.1 Apply and extend previous understandings of arithmetic to numerical and algebraic expressions.				6				6		6	6				6		6
	2			Interpret and solve one-variable equations and inequalities.	1	4			1	4	5	1	1			1	1	2
	2	1		Create, solve, and interpret one-variable equations or inequalities in real-world and mathematical problems.			1		1		1			1		1		1
	2	1	1	Use substitution to determine whether a given number in a specified set makes an equation or inequality true.	2				2		2	2				2		2
	2	1	2	Write algebraic expressions to represent real-world or mathematical problems.														
	2	1	3	Solve real-world and mathematical problems by writing and solving equations of the form $x + p = q$ and $px = q$ for cases in which p, q, and x are all non-negative rational numbers.	2				2		2	2				2		2
	2	1	4	Write an inequality of the form $x > c$ or $x < c$ to represent a constraint or condition in a real-world or mathematical problem and/or represent solutions of such inequalities on number lines.	1				1		1	1				1		1

Total For Assessment Anchor B-E.2 Interpret and solve one-variable equations and inequalities.				6	4	1		7	4	11	6	1	1		7	1	8
3			Represent and analyze quantitative relationships between dependent and independent variables.	1				1		1	1				1		1
3	1		Use variables to represent two quantities in a real-world problem that change in relationship to one another.														
3	1	1	Write an equation to express the relationship between the dependent and independent variables.	2				2		2	2				2		2
3	1	2	Analyze the relationship between the dependent and independent variables using graphs and tables and/or relate these to an equation.	3				3		3	3				3		3
Total For Assessment Anchor B-E.3 Represent and analyze quantitative relationships between dependent and independent variables.				6				6		6	6				6		6
Total For Reporting Category B-E				18	4	1		19	4	23	18	1	1		19	1	20

Grade 06 **Mathematics**

Reporting Category	Assessment Anchor	Descriptor (Sub-anchor)	Eligible Content	Focus	Points							Items						
					Student Scores (Core Points)		Equating Block (EB)		Total Points (Core & EB)			Number of Items				Total Number of Items (Core & EB)		
												Core		EB				
					MC	OE	MC	OE	MC	OE	Total	MC	OE	MC	OE	MC	OE	Total
C-G: Geometry	1			Solve real-world and mathematical problems involving area, surface area, and volume.														
	1	1		Find area, surface area, and volume by applying formulas and using various strategies.	1				1		1	1				1		1
	1	1	1	Determine the area of triangles and special quadrilaterals.	2				2		2	2				2		2
	1	1	2	Determine the area of irregular or compound polygons.	3				3		3	3				3		3
	1	1	3	Determine the volume of right rectangular prisms with fractional edge lengths.	2				2		2	2				2		2
	1	1	4	Given coordinates for the vertices of a polygon in the plane, use the coordinates to find side lengths and area of the polygon.			1		1		1			1		1		1
	1	1	5	Represent three-dimensional figures using nets made of rectangles and triangles.	2				2		2	2				2		2
	1	1	6	Determine the surface area of triangular and rectangular prisms.														
	Total For Assessment Anchor C-G.1 Solve real-world and mathematical problems involving area, surface area, and volume.				10		1		11		11	10		1		11		11
Total For Reporting Category C-G					10		1		11		11	10		1		11		11

Grade 06 **Mathematics**

Reporting Category	Assessment Anchor	Descriptor (Sub-anchor)	Eligible Content	Focus	Points							Items						
					Student Scores (Core Points)		Equating Block (EB)		Total Points (Core & EB)			Number of Items				Total Number of Items (Core & EB)		
												Core		EB				
					MC	OE	MC	OE	MC	OE	Total	MC	OE	MC	OE	MC	OE	Total
D-S: Statistics and Probability	1			Demonstrate understanding of statistical variability by summarizing and describing distributions.	1	4			1	4	5	1	1			1	1	2
	1	1		Display, analyze, and summarize numerical data sets in relation to their context.	1				1		1	1				1		1
	1	1	1	Display numerical data in plots on a number line, including line plots, histograms, and box-and-whisker plots.	3				3		3	3				3		3
	1	1	2	Determine quantitative measures of center and variability.	3				3		3	3				3		3
	1	1	3	Describe any overall pattern and any deviations from the overall pattern with reference to the context in which the data were gathered.														
	1	1	4	Relate the choice of measures of center and variability to the shape of the data distribution and the context in which the data were gathered.	1				1		1	1				1		1
	Total For Assessment Anchor D-S.1 Demonstrate understanding of statistical variability by summarizing and describing distributions.				9	4			9	4	13	9	1			9	1	10
Total For Reporting Category D-S					9	4			9	4	13	9	1			9	1	10

Grade 07 **Mathematics**

Reporting Category	Assessment Anchor	Descriptor (Sub-anchor)	Eligible Content	Focus	Points							Items						
					Student Scores (Core Points)		Equating Block (EB)		Total Points (Core & EB)			Number of Items				Total Number of Items (Core & EB)		
												Core		EB				
					MC	OE	MC	OE	MC	OE	Total	MC	OE	MC	OE	MC	OE	Total
A-N: The Number System	1			Apply and extend previous understandings of operations to add, subtract, multiply, and divide rational numbers.	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1	1		Solve real-world and mathematical problems involving the four operations with rational numbers.	2	0	0	0	2	0	2	2	0	0	0	2	0	2
	1	1	1	Apply properties of operations to add and subtract rational numbers, including real-world contexts.	3	0	0	0	3	0	3	3	0	0	0	3	0	3
	1	1	2	Represent addition and subtraction on a horizontal or vertical number line.	2	0	0	0	2	0	2	2	0	0	0	2	0	2
	1	1	3	Apply properties of operations to multiply and divide rational numbers, including real-world contexts; demonstrate that the decimal form of a rational number terminates or eventually repeats.	4	0	0	0	4	0	4	4	0	0	0	4	0	4
	Total For Assessment Anchor A-N.1 Apply and extend previous understandings of operations to add, subtract, multiply, and divide rational numbers.				11	0	0	0	11	0	11	11	0	0	0	11	0	11
Total For Reporting Category A-N					11	0	0	0	11	0	11	11	0	0	0	11	0	11

Grade 07 **Mathematics**

Reporting Category	Assessment Anchor	Descriptor (Sub-anchor)	Eligible Content	Focus	Points							Items						
					Student Scores (Core Points)		Equating Block (EB)		Total Points (Core & EB)			Number of Items				Total Number of Items (Core & EB)		
												Core		EB				
					MC	OE	MC	OE	MC	OE	Total	MC	OE	MC	OE	MC	OE	Total
A-R: Ratios and Proportional Relationships	1			Demonstrate an understanding of proportional relationships.	0	4	0	0	0	4	4	0	1	0	0	0	1	1
	1	1		Analyze, recognize, and represent proportional relationships and use them to solve real-world and mathematical problems.	2	0	0	0	2	0	2	2	0	0	0	2	0	2
	1	1	1	Compute unit rates associated with ratios of fractions, including ratios of lengths, areas, and other quantities measured in like or different units.	2	0	0	0	2	0	2	2	0	0	0	2	0	2
	1	1	2	Determine whether two quantities are proportionally related.	2	0	0	0	2	0	2	2	0	0	0	2	0	2
	1	1	3	Identify the constant of proportionality in tables, graphs, equations, diagrams, and verbal descriptions of proportional relationships.	2	0	1	0	3	0	3	2	0	1	0	3	0	3
	1	1	4	Represent proportional relationships by equations.	2	0	0	0	2	0	2	2	0	0	0	2	0	2
	1	1	5	Explain what a point (x, y) on the graph of a proportional relationship means in terms of the situation, with special attention to the points (0, 0) and (1, r), where r is the unit rate.	3	0	0	0	3	0	3	3	0	0	0	3	0	3
	1	1	6	Use proportional relationships to solve multi-step ratio and percent problems.	2	0	0	0	2	0	2	2	0	0	0	2	0	2
	Total For Assessment Anchor A-R.1 Demonstrate an understanding of proportional relationships.				15	4	1	0	16	4	20	15	1	1	0	16	1	17
Total For Reporting Category A-R					15	4	1	0	16	4	20	15	1	1	0	16	1	17

Grade 07 **Mathematics**

Reporting Category	Assessment Anchor	Descriptor (Sub-anchor)	Eligible Content	Focus	Points							Items						
					Student Scores (Core Points)		Equating Block (EB)		Total Points (Core & EB)			Number of Items				Total Number of Items (Core & EB)		
												Core		EB				
					MC	OE	MC	OE	MC	OE	Total	MC	OE	MC	OE	MC	OE	Total
B-E: Expressions and Equations	1			Represent expressions in equivalent forms.	0	4	0	0	0	4	4	0	1	0	0	0	1	1
	1	1		Use properties of operations to generate equivalent expressions.	2	0	0	0	2	0	2	2	0	0	0	2	0	2
	1	1	1	Apply properties of operations to add, subtract, factor, and expand linear expressions with rational coefficients.	1	0	0	0	1	0	1	1	0	0	0	1	0	1
	Total For Assessment Anchor B-E.1 Represent expressions in equivalent forms.				3	4	0	0	3	4	7	3	1	0	0	3	1	4
	2			Solve real-world and mathematical problems using numerical and algebraic expressions, equations, and inequalities.	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2	1		Solve multi-step real-world and mathematical problems posed with positive and negative rational numbers.	1	0	0	0	1	0	1	1	0	0	0	1	0	1
	2	1	1	Apply properties of operations to calculate with numbers in any form; convert between forms as appropriate.	3	0	0	0	3	0	3	3	0	0	0	3	0	3
	2	2		Use variables to represent quantities in a real-world or mathematical problem and construct simple equations and inequalities to solve problems.	1	0	0	0	1	0	1	1	0	0	0	1	0	1
	2	2	1	Solve word problems leading to equations of the form $px + q = r$ and $p(x+q) = r$, where p, q, and r are specific rational numbers.	1	0	0	0	1	0	1	1	0	0	0	1	0	1
	2	2	2	Solve word problems leading to inequalities of the form $px + q > r$ or $px + q < r$, where p, q, and r are specific rational numbers, and graph the solution set of the inequality.	3	0	0	0	3	0	3	3	0	0	0	3	0	3
	2	3		Determine the reasonableness of the answer(s) in problem-solving situations.	1	0	0	0	1	0	1	1	0	0	0	1	0	1
	2	3	1	Determine the reasonableness of answer(s) or interpret the solution(s) in the context of the problem.	1	0	0	0	1	0	1	1	0	0	0	1	0	1
	Total For Assessment Anchor B-E.2 Solve real-world and mathematical problems using numerical and algebraic expressions, equations, and inequalities.				11	0	0	0	11	0	11	11	0	0	0	11	0	11
Total For Reporting Category B-E					14	4	0	0	14	4	18	14	1	0	0	14	1	15

Grade 07 **Mathematics**

Reporting Category	Assessment Anchor	Descriptor (Sub-anchor)	Eligible Content	Focus	Points							Items						
					Student Scores (Core Points)		Equating Block (EB)		Total Points (Core & EB)			Number of Items				Total Number of Items (Core & EB)		
												Core		EB				
					MC	OE	MC	OE	MC	OE	Total	MC	OE	MC	OE	MC	OE	Total
C-G: Geometry	1			Demonstrate an understanding of geometric figures and their properties.	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1	1		Demonstrate and apply properties of geometric figures.	1	4	0	0	1	4	5	1	1	0	0	1	1	2
	1	1	1	Solve problems involving scale drawings of geometric figures, including finding length and area.	1	0	0	0	1	0	1	1	0	0	0	1	0	1
	1	1	2	Identify or describe the properties of all types of triangles based on angle and side measures.	1	0	0	0	1	0	1	1	0	0	0	1	0	1
	1	1	3	Use and apply the triangle inequality theorem.	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1	1	4	Describe the two-dimensional figures that result from slicing three-dimensional figures.	2	0	0	0	2	0	2	2	0	0	0	2	0	2
	Total For Assessment Anchor C-G.1 Demonstrate an understanding of geometric figures and their properties.				5	4	0	0	5	4	9	5	1	0	0	5	1	6
	2			Solve real-world and mathematical problems involving angle measure, circumference, area, surface area, and volume.	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2	1		Identify, use, and describe properties of angles and their measures.	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2	1	1	Identify and use properties of supplementary, complementary, and adjacent angles in a multi-step problem to write and solve simple equations for an unknown angle in a figure.	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2	1	2	Identify and use properties of angles formed when two parallel lines are cut by a transversal.	1	0	1	0	2	0	2	1	0	1	0	2	0	2
	2	2		Determine circumference, area, surface area, and volume.	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2	2	1	Find the area and circumference of a circle. Solve problems involving area and circumference of a circle(s).	1	0	0	0	1	0	1	1	0	0	0	1	0	1

	2	2	2	Solve real-world and mathematical problems involving area, volume, and surface area of two- and three-dimensional objects composed of triangles, quadrilaterals, polygons, cubes, and right prisms.	2	0	0	0	2	0	2	2	0	0	0	2	0	2
	Total For Assessment Anchor C-G.2 Solve real-world and mathematical problems involving angle measure, circumference, area, surface area, and volume.				4	0	1	0	5	0	5	4	0	1	0	5	0	5
Total For Reporting Category C-G					9	4	1	0	10	4	14	9	1	1	0	10	1	11

Grade 07 **Mathematics**

Reporting Category	Assessment Anchor	Descriptor (Sub-anchor)	Eligible Content	Focus	Points							Items						
					Student Scores (Core Points)		Equating Block (EB)		Total Points (Core & EB)			Number of Items				Total Number of Items (Core & EB)		
												Core		EB				
					MC	OE	MC	OE	MC	OE	Total	MC	OE	MC	OE	MC	OE	Total
D-S: Statistics and Probability	1			Use random sampling to draw inferences about a population.	1	0	0	0	1	0	1	1	0	0	0	1	0	1
	1	1		Use random samples.	1	0	0	0	1	0	1	1	0	0	0	1	0	1
	1	1	1	Determine whether a sample is a random given a real-world situation.	1	0	0	0	1	0	1	1	0	0	0	1	0	1
	1	1	2	Use data from a random sample to draw inferences about a population with an unknown characteristic of interest.	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total For Assessment Anchor D-S.1 Use random sampling to draw inferences about a population.				3	0	0	0	3	0	3	3	0	0	0	3	0	3
	2			Draw comparative inferences about populations.	1	0	0	0	1	0	1	1	0	0	0	1	0	1
	2	1		Use statistical measures to compare two numerical data distributions.	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2	1	1	Compare two numerical data distributions using measures of center and variability.	1	0	0	0	1	0	1	1	0	0	0	1	0	1
	Total For Assessment Anchor D-S.2 Draw comparative inferences about populations.				2	0	0	0	2	0	2	2	0	0	0	2	0	2
	3			Investigate chance processes and develop, use, and evaluate probability models.	1	0	0	0	1	0	1	1	0	0	0	1	0	1
	3	1		Predict or determine the likelihood of outcomes.	1	0	0	0	1	0	1	1	0	0	0	1	0	1
	3	1	1	Predict or determine whether some outcomes are certain, more likely, less likely, equally likely, or impossible.	1	0	0	0	1	0	1	1	0	0	0	0	0	0
	3	2		Use probability to predict outcomes.	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3	2	1	Determine the probability of a chance event given relative frequency. Predict the approximate relative frequency given the probability.	1	0	0	0	1	0	1	1	0	0	0	1	0	1
	3	2	2	Find the probability of a simple event, including the probability of a simple event not occurring.	1	0	0	0	1	0	1	1	0	0	0	1	0	1
	3	2	3	Find probabilities of independent compound events using organized lists, tables, tree diagrams, and simulation.	1	0	0	0	1	0	1	1	0	0	0	1	0	1
	Total For Assessment Anchor D-S.3 Investigate chance processes and develop, use, and evaluate probability models.				6	0	0	0	6	0	6	6	0	0	0	5	0	5
Total For Reporting Category D-S					11	0	0	0	11	0	11	11	0	0	0	10	0	10

Grade 08 **Mathematics**

Reporting Category	Assessment Anchor	Descriptor (Sub-anchor)	Eligible Content	Focus	Points							Items						
					Student Scores (Core Points)		Equating Block (EB)		Total Points (Core & EB)			Number of Items				Total Number of Items (Core & EB)		
												Core		EB				
					MC	OE	MC	OE	MC	OE	Total	MC	OE	MC	OE	MC	OE	Total
A-N: The Number System	1			Demonstrate an understanding of rational and irrational numbers.	1	4			1	4	5	1	1			1	1	2
	1	1		Apply concepts of rational and irrational numbers.														
	1	1	1	Determine whether a number is rational or irrational. For rational numbers, show that the decimal expansion terminates or repeats.	1				1		1	1				1		1
	1	1	2	Convert a terminating or repeating decimal to a rational number.	1				1		1	1				1		1
	1	1	3	Estimate the value of irrational numbers without a calculator.	1				1		1	1				1		1
	1	1	4	Use rational approximations of irrational numbers to compare and order irrational numbers.	2				2		2	2				2		2
	1	1	5	Locate/identify rational and irrational numbers at their approximate locations on a number line.	2				2		2	2				2		2
	Total For Assessment Anchor A-N.1 Demonstrate an understanding of rational and irrational numbers.				8	4			8	4	12	8	1			8	1	9
Total For Reporting Category A-N					8	4			8	4	12	8	1			8	1	9

Grade 08 **Mathematics**

Reporting Category	Assessment Anchor	Descriptor (Sub-anchor)	Eligible Content	Focus	Points							Items						
					Student Scores (Core Points)		Equating Block (EB)		Total Points (Core & EB)			Number of Items				Total Number of Items (Core & EB)		
												Core		EB				
					MC	OE	MC	OE	MC	OE	Total	MC	OE	MC	OE	MC	OE	Total
	1			Demonstrate an understanding of expressions and equations with radicals and integer exponents.	1				1		1	1				1		1
	1	1		Represent and use expressions and equations to solve problems involving radicals and integer exponents.														
	1	1	1	Apply one or more properties of integer exponents to generate equivalent numerical expressions without a calculator.	1				1		1	1				1		1
	1	1	2	Use square root and cube root symbols to represent solutions to equations of the form x^2 = p and x^3 = p, where p is a positive rational number. Evaluate square roots of perfect squares and cube roots of perfect cubes without a calculator.	1				1		1	1				1		1
	1	1	3	Estimate very large or very small quantities by using numbers expressed in the form of a single digit times an integer power of 10 and express how many times larger or smaller one number is than another.	1				1		1	1				1		1
	1	1	4	Perform operations with numbers expressed in scientific notation, including problems where both decimal and scientific notation are used. Express answers in scientific notation and choose units of appropriate size for measurements of very large or very small quantities. Interpret scientific notation that has been generated by technology.	3				3		3	3				3		3
	Total For Assessment Anchor B-E.1 Demonstrate an understanding of expressions and equations with radicals and integer exponents.				7				7		7	7				7		7
	2			Understand the connections between proportional relationships, lines, and linear equations.		4				4	4		1				1	1

B-E: Expressions and Equations	2	1		Analyze and describe linear relationships between two variables, using slope.	1				1		1	1				1		1
	2	1	1	Graph proportional relationships, interpreting the unit rate as the slope of the graph. Compare two different proportional relationships represented in different ways.	2		1		3		3	2		1		3		3
	2	1	2	Use similar right triangles to show and explain why the slope m is the same between any two distinct points on a non-vertical line in the coordinate plane.														
	2	1	3	Derive the equation y = mx for a line through the origin and the equation y = mx + b for a line intercepting the vertical axis at b.	2				2		2	2				2		2
	Total For Assessment Anchor B-E.2 Understand the connections between proportional relationships, lines, and linear equations.				5	4	1		6	4	10	5	1	1		6	1	7
	3			Analyze and solve linear equations and pairs of simultaneous linear equations.														
	3	1		Write, solve, graph, and interpret linear equations in one or two variables, using various methods.														
	3	1	1	Write and identify linear equations in one variable with one solution, infinitely many solutions, or no solutions. Show which of these possibilities is the case by successively transforming the given equation into simpler forms until an equivalent equation of the form x = a, a = a, or a = b results.	1				1		1	1				1		1
	3	1	2	Solve linear equations that have rational number coefficients, including equations whose solutions require expanding expressions using the distributive property and collecting like terms.														
	3	1	3	Interpret solutions to a system of two linear equations in two variables as points of intersection of their graphs because points of intersection satisfy both equations simultaneously.	2				2		2	2				2		2
	3	1	4	Solve systems of two linear equations in two variables algebraically and estimate solutions by graphing the equations. Solve simple cases by inspection.	1				1		1	1				1		1

	3	1	5	Solve real-world and mathematical problems leading to two linear equations in two variables.	2				2		2	2				2		2
	Total For Assessment Anchor B-E.3 Analyze and solve linear equations and pairs of simultaneous linear equations.				6				6		6	6				6		6
Total For Reporting Category B-E					18	4	1		19	4	23	18	1	1		19	1	20

Grade 08 **Mathematics**

Reporting Category	Assessment Anchor	Descriptor (Sub-anchor)	Eligible Content	Focus	Points							Items						
					Student Scores (Core Points)		Equating Block (EB)		Total Points (Core & EB)			Number of Items				Total Number of Items (Core & EB)		
												Core		EB				
					MC	OE	MC	OE	MC	OE	Total	MC	OE	MC	OE	MC	OE	Total
B-F: Functions	1			Analyze and interpret functions.														
	1	1		Define, evaluate, and compare functions displayed algebraically, graphically, or numerically in tables or by verbal descriptions.	2				2		2	2				2		2
	1	1	1	Determine whether a relation is a function.	2				2		2	2				2		2
	1	1	2	Compare properties of two functions, each represented in a different way.	3				3		3	3				3		3
	1	1	3	Interpret the equation y = mx + b as defining a linear function whose graph is a straight line; give examples of functions that are not linear.	3				3		3	3				3		3
	Total For Assessment Anchor B-F.1 Analyze and interpret functions.				10				10		10	10				10		10
	2			Use functions to model relationships between quantities.														
	2	1		Represent or interpret functional relationships between quantities using tables, graphs, and descriptions.			1		1		1			1		1		1
	2	1	1	Construct a function to model a linear relationship between two quantities. Determine the rate of change and initial value of the function from a description of a relationship or from two values, including reading these from a table or from a graph. Interpret the rate of change and initial value of a linear function in terms of the situation it models and in terms of its graph or a table of values.	3				3		3	3				3		3
	2	1	2	Describe qualitatively the functional relationship between two quantities by analyzing a graph. Sketch or determine a graph that exhibits the qualitative features of a function that has been described verbally.	2				2		2	2				2		2
	Total For Assessment Anchor B-F.2 Use functions to model relationships between quantities.				5		1		6		6	5		1		6		6
Total For Reporting Category B-F					15		1		16		16	15		1		16		16

Grade 08 **Mathematics**

Reporting Category	Assessment Anchor	Descriptor (Sub-anchor)	Eligible Content	Focus	Points							Items						
					Student Scores (Core Points)		Equating Block (EB)		Total Points (Core & EB)			Number of Items Core		Number of Items EB		Total Number of Items (Core & EB)		
					MC	OE	MC	OE	MC	OE	Total	MC	OE	MC	OE	MC	OE	Total
C-G: Geometry	1			Demonstrate an understanding of geometric transformations.														
	1	1		Apply properties of geometric transformations to verify congruence or similarity.	1				1		1	1				1		1
	1	1	1	Identify and apply properties of rotations, reflections, and translations.	1				1		1	1				1		1
	1	1	2	Given two congruent figures, describe a sequence of transformations that exhibits the congruence between them.	1				1		1	1				1		1
	1	1	3	Describe the effect of dilations, translations, rotations, and reflections on two-dimensional figures using coordinates.	1				1		1	1				1		1
	1	1	4	Given two similar two-dimensional figures, describe a sequence of transformations that exhibits the similarity between them.														
	Total For Assessment Anchor C-G.1 Demonstrate an understanding of geometric transformations.				4				4		4	4				4		4
	2			Understand and apply the Pythagorean theorem.	1				1		1	1				1		1
	2	1		Solve problems involving right triangles by applying the Pythagorean theorem.														
	2	1	1	Apply the converse of the Pythagorean theorem to show a triangle is a right triangle.	1				1		1	1				1		1
	2	1	2	Apply the Pythagorean theorem to determine unknown side lengths in right triangles in real-world and mathematical problems in two and three dimensions.	2				2		2	2				2		2
	2	1	3	Apply the Pythagorean theorem to find the distance between two points in a coordinate system.	2				2		2	2				2		2
	Total For Assessment Anchor C-G.2 Understand and apply the Pythagorean theorem.				6				6		6	6				6		6
	3			Solve real-world and mathematical problems involving volume.														
	3	1		Apply volume formulas of cones, cylinders, and spheres.														

	3	1	1	Apply formulas for the volumes of cones, cylinders, and spheres to solve real-world and mathematical problems.	3				3		3	3				3		3
	Total For Assessment Anchor C-G.3 Solve real-world and mathematical problems involving volume.				3				3		3	3				3		3
Total For Reporting Category C-G					13				13		13	13				13		13

Grade 08 **Mathematics**

Reporting Category	Assessment Anchor	Descriptor (Sub-anchor)	Eligible Content	Focus	Points							Items						
					Student Scores (Core Points)		Equating Block (EB)		Total Points (Core & EB)			Number of Items				Total Number of Items (Core & EB)		
												Core		EB				
					MC	OE	MC	OE	MC	OE	Total	MC	OE	MC	OE	MC	OE	Total
D-S: Statistics and Probability	1			Investigate patterns of association in bivariate data.		4				4	4		1				1	1
	1	1		Analyze and interpret bivariate data displayed in multiple representations.														
	1	1	1	Construct and interpret scatter plots for bivariate measurement data to investigate patterns of association between two quantities. Describe patterns such as clustering, outliers, positive or negative correlation, linear association, and nonlinear association.	2				2		2	2				2		2
	1	1	2	For scatter plots that suggest a linear association, identify a line of best fit by judging the closeness of the data points to the line.	1				1		1	1				1		1
	1	1	3	Use the equation of a linear model to solve problems in the context of bivariate measurement data, interpeting the slope and intercept.	1				1		1	1				1		1
	1	2		Understand that patterns of association can be seen in bivariate categorical data by displaying frequencies and relative frequencies in a two-way table.														
	1	2	1	Construct and interpret a two-way table summarizing data on two categorical variables collected from the same subjects. Use relative frequencies calculated for rows or columns to describe possible associations between the two variables.	2				2		2	2				2		2
	Total For Assessment Anchor D-S.1 Investigate patterns of association in bivariate data.				6	4			6	4	10	6	1			6	1	7
Total For Reporting Category D-S					6	4			6	4	10	6	1			6	1	7

Grade 03 **English Language Arts**

Reporting Category		Assessment Anchor	DesOEiptor (Sub-anchor)	Eligible Content	Focus	Points										Items									
						Student Scores (Core Points)			Equating Block (EB)			Total Points (Core & EB)				Number of Items						Total Number of Items (Core & EB)			
																Core			EB						
						MC	ESR	OE	MC	ESR	OE	MC	ESR	OE	Total	MC	ESR	OE	MC	ESR	OE	MC	ESR	OE	Total
A: Literature Text	A-K	1	1	1	Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers.	3		3				3		3	6	3		1				3		1	4
		1	1	2	Recount poems, dramas, or stories, including fables, folktales, and myths from diverse cultures; determine the central message, lesson, or moral and explain how it is conveyed through key details in the text.																				
		1	1	3	DesOEibe characters in a story and explain how their actions contribute to the sequence of events.	1	5					1	5		6	1	2					1	2		3
		Total For Assessment Anchor A-K.1 Key Ideas and Details				4	5	3				4	5	3	12	4	2	1				4	2	1	7
	A-C	2	1	1	Explain the point of view from which a story is narrated, including the difference between first- and third-person narrations.	1						1			1	1						1			1
		Total For Assessment Anchor A-C.2 OEaft and Structure				1						1			1	1						1			1
	A-C	3	1	1	Compare and contrast the themes, settings, and plots of stories written by the same author about the same or similar characters.	1						1			1	1						1			1
		Total For Assessment Anchor A-C.3 Integration of Knowledge and Ideas				1						1			1	1						1			1
	A-V	4	1	1	Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 3 reading and content, choosing flexibly from a range of strategies.	2						2			2	2						2			2
		4	1	2	Demonstrate understanding of word relationships and nuances in word meanings.	2						2			2	2						2			2
		Total For Assessment Anchor A-V.4 Vocabulary Acquisition and Use				4						4			4	4						4			4
Total For Reporting Category A						10	5	3				10	5	3	18	10	2	1				10	2	1	13

Grade 03 **English Language Arts**

Reporting Category		Assessment Anchor	DesOEiptor (Sub-anchor)	Eligible Content	Focus	Points										Items									
						Student Scores (Core Points)			Equating Block (EB)			Total Points (Core & EB)				Number of Items						Total Number of Items (Core & EB)			
																Core			EB						
						MC	ESR	OE	MC	ESR	OE	MC	ESR	OE	Total	MC	ESR	OE	MC	ESR	OE	MC	ESR	OE	Total
B: Informational Text	B-K	1	1	1	Answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers.	3		2	1			4		2	6	3		1	1			4		1	5
		1	1	2	Determine the main idea of a text; recount the key details and explain how they support the main idea.		2						2		2		1						1		1
		1	1	3	DesOEibe the relationship between a series of historical events, scientific ideas or concepts, or steps in technical procedures in a text, using language that pertains to time, sequence, and cause/effect.	1			1			2			2	1			1			2			2
		Total For Assessment Anchor B-K.1 Key Ideas and Details				4	2	2	2			6	2	2	10	4	1	1	2			6	1	1	8
	B-C	2	1	1	Explain the point of view from which a text is written.	1						1			1	1						1			1
		2	1	2	Use text features and search tools to efficiently locate information relevant to a given topic.				1			1			1				1			1			1
		Total For Assessment Anchor B-C.2 OEaft and Structure				1			1			2			2	1			1			2			2
	B-C	3	1	1	DesOEibe the logical connection between particular sentences and paragraphs to support specific points in a text.	2			1			3			3	2			1			3			3
		3	1	2	Compare and contrast the most important points and key details presented in two texts on the same topic.																				
		3	1	3	Use information gained from illustrations, maps, photographs, and the words in a text to demonstrate understanding of the text.	1						1			1	1						1			1
		Total For Assessment Anchor B-C.3 Integration of Knowledge and Ideas				3			1			4			4	3			1			4			4
	B-V	4	1	1	Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 3 reading and content, choosing flexibly from a range of strategies.	1	3		1			2	3		5	1	1		1			2	1		3
		4	1	2	Demonstrate understanding of word relationships and nuances in word meanings.	1			1			2			2	1			1			2			2
		Total For Assessment Anchor B-V.4 Vocabulary Acquisition and Use				2	3		2			4	3		7	2	1		2			4	1		5
Total For Reporting Category B						10	5	2	6			16	5	2	23	10	2	1	6			16	2	1	19

Grade 03 **English Language Arts**

Reporting Category		Assessment Anchor	DesOEiptor (Sub-anchor)	Eligible Content	Focus	Points										Items									
						Student Scores (Core Points)			Equating Block (EB)			Total Points (Core & EB)				Number of Items						Total Number of Items (Core & EB)			
																Core			EB						
						MC	ESR	WP	MC	ESR	WP	MC	ESR	WP	Total	MC	ESR	WP	MC	ESR	WP	MC	ESR	WP	Total
C: Writing	C	1	1		Write opinion pieces on topics or texts, supporting a point of view with reasons.			2						2	2			1						1	1
		1	2		Write informative/explanatory texts to examine a topic and convey ideas and information clearly.																				
		1	3		Write narratives to develop real or imagined experiences or events using effective technique, desOEiptive details, and clear event sequences.																				
		Total For Assessment Anchor C.1 Text Types and Purposes						2						2	2			1						1	1
Total For Reporting Category C								2						2	2			1						1	1

Grade 03 **English Language Arts**

Reporting Category		Assessment Anchor	DesOEiptor (Sub-anchor)	Eligible Content	Focus	Points										Items									
						Student Scores (Core Points)			Equating Block (EB)			Total Points (Core & EB)				Number of Items						Total Number of Items (Core & EB)			
																Core			EB						
						MC	ESR	OE	MC	ESR	OE	MC	ESR	OE	Total	MC	ESR	OE	MC	ESR	OE	MC	ESR	OE	Total
D: Language	D	1	1	1	Explain the function of nouns, pronouns, verbs, adjectives, and adverbs in general and their functions in particular sentences.	1						1			1	1						1			1
		1	1	2	Form and use regular and irregular plural nouns.																				
		1	1	3	Use abstract nouns.	2						2			2	2						2			2
		1	1	4	Form and use regular and irregular verbs.				1			1			1				1			1			1
		1	1	5	Form and use the simple verb tenses.	2						2			2	2						2			2
		1	1	6	Ensure subject-verb and prounoun-antecedent agreement.																				
		1	1	7	Form and use comparative and superlative adjectives and adverbs, and choose between them depending on what is to be modified.	1						1			1	1						1			1
		1	1	8	Use coordinating and subordinating conjunctions.	1						1			1	1						1			1
		1	1	9	Produce simple, compound, and complex sentences.	1						1			1	1						1			1
		1	2	1	Capitalize appropriate words in titles.	1						1			1	1						1			1
		1	2	2	Use commas in addresses.	1						1			1	1						1			1
		1	2	3	Use commas and quotation marks in dialogue.	2						2			2	2						2			2
		1	2	4	Form and use possessives.	1						1			1	1						1			1
		1	2	5	Use conventional spelling for high-frequency and other studied words and for adding suffixes to base words.	1						1			1	1						1			1
		1	2	6	Use spelling patterns and generalizations in writing words.	2						2			2	2						2			2
		Total For Assessment Anchor D.1 Conventions of Standard English				16			1			17			17	16			1			17			17
		2	1	1	Choose words and phrases for effect.	2						2			2	2						2			2
		Total For Assessment Anchor D.2 Knowledge of Language				2						2			2	2						2			2
Total For Reporting Category D						18			1			19			19	18			1			19			19

Grade 04 **English Language Arts**

Reporting Category		Assessment Anchor	Descriptor (Sub-anchor)	Eligible Content	Focus	Points										Items									
						Student Scores (Core Points)			Equating Block (EB)			Total Points (Core & EB)				Number of Items						Total Number of Items (Core & EB)			
																Core			EB						
						MC	ESR	OE	MC	ESR	OE	MC	ESR	OE	Total	MC	ESR	OE	MC	ESR	OE	MC	ESR	OE	Total
A: Literature Text	A-K	1	1	1	Refer to details and examples in a text when explaining what the text explicitly says and when drawing inferences from the text.	2	0	0	0	0	0	2	0	0	2	2	0	0	0	0	0	2	0	0	2
		1	1	2	Determine a theme of a story, drama, or poem from details in the text; summarize the text.	2	0	0	0	0	0	2	0	0	2	2	0	0	0	0	0	2	0	0	2
		1	1	3	Describe in depth a character, setting, or event in a story, drama, or poem, drawing on specific details in the text.	2	2	0	0	0	0	2	2	0	4	2	1	0	0	0	0	2	1	0	3
		Total For Assessment Anchor A-K.1 Key Ideas and Details				6	2	0	0	0	0	6	2	0	8	6	1	0	0	0	0	6	1	0	7
	A-C	2	1	1	Compare and contrast the point of view from which different stories are narrated, including the difference between first- and third-person narrations.	2	0	0	0	0	0	2	0	0	2	2	0	0	0	0	0	2	0	0	2
		Total For Assessment Anchor A-C.2 Craft and Structure				2	0	0	0	0	0	2	0	0	2	2	0	0	0	0	0	2	0	0	2
		3	1	1	Compare and contrast the treatment of similar themes and topics and patterns of events in stories, myths, and traditional literature from different cultures.	0	6	0	0	0	0	0	6	0	6	0	2	0	0	0	0	0	2	0	2
		Total For Assessment Anchor A-C.3 Integration of Knowledge and Ideas				0	6	0	0	0	0	0	6	0	6	0	2	0	0	0	0	0	2	0	2
	A-V	4	1	1	Determine or clarify the meaning of unknown multiple-meaning words and phrases based on grade 4 reading and content, choosing flexibly from a range of strategies.	1	0	0	0	0	0	1	0	0	1	1	0	0	0	0	0	1	0	0	1
		4	1	2	Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.	1	0	0	0	0	0	1	0	0	1	1	0	0	0	0	0	1	0	0	1
		Total For Assessment Anchor A-V.4 Vocabulary Acquisition and Use				2	0	0	0	0	0	2	0	0	2	2	0	0	0	0	0	2	0	0	2
Total For Reporting Category A						10	8	0	0	0	0	10	8	0	18	10	3	0	0	0	0	10	3	0	13

Grade 04 **English Language Arts**

Reporting Category		Assessment Anchor	Descriptor (Sub-anchor)	Eligible Content	Focus	Points										Items									
						Student Scores (Core Points)			Equating Block (EB)			Total Points (Core & EB)				Number of Items						Total Number of Items (Core & EB)			
																Core			EB						
						MC	ESR	OE	MC	ESR	OE	MC	ESR	OE	Total	MC	ESR	OE	MC	ESR	OE	MC	ESR	OE	Total
B: Informational Text	B-K	1	1	1	Refer to details and examples in a text when explaining what the text says explicitly and when drawing inferences from the text.	1	3	0	1	0	0	2	3	0	5	1	1	0	1	0	0	2	1	0	3
		1	1	2	Determine the main idea of a text and explain how it is supported by key details; summarize the text.	1	0	0	0	0	0	1	0	0	1	1	0	0	0	0	0	1	0	0	1
		1	1	3	Explain events, procedures, ideas, steps, or concepts in a historical, scientific, or technical text, including what happened and why, based on specific information in the text.	2	0	0	1	0	0	3	0	0	3	2	0	0	1	0	0	3	0	0	3
		Total For Assessment Anchor B-K.1 Key Ideas and Details				4	3	0	2	0	0	6	3	0	9	4	1	0	2	0	0	6	1	0	7
	B-C	2	1	1	Compare and contrast a firsthand and secondhand account of the same event or topic; describe the differences in focus and the information provided.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		2	1	2	Describe the overall structure of events, ideas, concepts, or information and text features in a text or part of a text.	1	0	0	1	0	0	2	0	0	2	1	0	0	1	0	0	2	0	0	2
		Total For Assessment Anchor B-C.2 Craft and Structure				1	0	0	1	0	0	2	0	0	2	1	0	0	1	0	0	2	0	0	2
	B-C	3	1	1	Explain how an author uses reasons and evidence to support particular points in a text.	2	0	0	1	0	0	3	0	0	3	2	0	0	1	0	0	3	0	0	3
		3	1	2	Integrate information from two texts on the same topic in order to demonstrate subject knowledge.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		3	1	3	Interpret text features and/or make connections between text and the content of text features.	2	2	0	0	0	0	2	2	0	4	2	1	0	0	0	0	2	1	0	3
		Total For Assessment Anchor B-C.3 Integration of Knowledge and Ideas				4	2	0	1	0	0	5	2	0	7	4	1	0	1	0	0	5	1	0	6
	B-V	4	1	1	Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 4 reading and content, choosing flexibly from a range of strategies.	1	2	0	0	0	0	1	2	0	3	1	1	0	0	0	0	1	1	0	2
		4	1	2	Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.	3	0	0	2	0	0	5	0	0	5	3	0	0	2	0	0	5	0	0	5
		Total For Assessment Anchor B-V.4 Vocabulary Acquisition and Use				4	2	0	2	0	0	6	2	0	8	4	1	0	2	0	0	6	1	0	7
Total For Reporting Category B						13	7	0	6	0	0	19	7	0	26	13	3	0	6	0	0	19	3	0	22

Grade 04 **English Language Arts**

Reporting Category		Assessment Anchor	Descriptor (Sub-anchor)	Eligible Content	Focus	Points										Items									
						Student Scores (Core Points)			Equating Block (EB)			Total Points (Core & EB)				Number of Items						Total Number of Items (Core & EB)			
																Core			EB						
						MC	ESR	WP	MC	ESR	WP	MC	ESR	WP	Total	MC	ESR	WP	MC	ESR	WP	MC	ESR	WP	Total
C: Writing	C	1	1		Write opinion pieces on topics or texts, supporting a point of view with reasons and information.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		1	2		Write informative/explanatory texts to examine a topic and convey ideas and information clearly.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		1	3		Write narratives to develop real or imagined experiences or events using effective techniques, descriptive details, and clear event sequences.	0	0	12	0	0	0	0	0	12	12	0	0	1	0	0	0	0	0	1	1
		Total For Assessment Anchor C.1 Text Types and Purposes				0	0	12	0	0	0	0	0	12	12	0	0	1	0	0	0	0	0	1	1
Total For Reporting Category C						0	0	12	0	0	0	0	0	12	12	0	0	1	0	0	0	0	0	1	1

Grade 04 **English Language Arts**

Reporting Category		Assessment Anchor	Descriptor (Sub-anchor)	Eligible Content	Focus	Points										Items									
						Student Scores (Core Points)			Equating Block (EB)			Total Points (Core & EB)				Number of Items						Total Number of Items (Core & EB)			
																Core			EB						
						MC	ESR	OE	MC	ESR	OE	MC	ESR	OE	Total	MC	ESR	OE	MC	ESR	OE	MC	ESR	OE	Total
D: Language	D	1	1	1	Use relative pronouns and relative adverbs.	1	0	0	0	0	0	1	0	0	1	1	0	0	0	0	0	1	0	0	1
		1	1	2	Form and use the progressive verb tenses.	1	0	0	0	0	0	1	0	0	1	1	0	0	0	0	0	1	0	0	1
		1	1	3	Use modal auxiliaries to convey various conditions.	1	0	0	1	0	0	2	0	0	2	1	0	0	1	0	0	2	0	0	2
		1	1	4	Order adjectives within sentences according to conventional patterns.	1	0	0	0	0	0	1	0	0	1	1	0	0	0	0	0	1	0	0	1
		1	1	5	Form and use prepositional phrases.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		1	1	6	Produce complete sentences, recognizing and correcting inappropriate fragments and run-on sentences.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		1	1	7	Correctly use frequently confused words.	1	0	0	0	0	0	1	0	0	1	1	0	0	0	0	0	1	0	0	1
		1	1	8	Ensure subject-verb and pronoun-antecedent agreement.	1	0	0	0	0	0	1	0	0	1	1	0	0	0	0	0	1	0	0	1
		1	2	1	Use correct capitalization.	2	0	0	0	0	0	2	0	0	2	2	0	0	0	0	0	2	0	0	2
		1	2	2	Use commas and quotation marks to mark direct speech and quotations from a text.	2	0	0	0	0	0	2	0	0	2	2	0	0	0	0	0	2	0	0	2
		1	2	3	Use a comma before a coordinating conjunction in a compound sentence.	2	0	0	0	0	0	2	0	0	2	2	0	0	0	0	0	2	0	0	2
		1	2	4	Spell grade-appropriate words correctly.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Total For Assessment Anchor D.1 Conventions of Standard English				12	0	0	1	0	0	13	0	0	13	12	0	0	1	0	0	13	0	0	13
	D	2	1	1	Choose words and phrases to convey ideas precisely.	2	0	0	0	0	0	2	0	0	2	2	0	0	0	0	0	2	0	0	2
		2	1	2	Choose punctuation for effect.	2	0	0	0	0	0	2	0	0	2	2	0	0	0	0	0	2	0	0	2
		2	1	3	Choose words and phrases for effect.	2	0	0	0	0	0	2	0	0	2	2	0	0	0	0	0	2	0	0	2
		Total For Assessment Anchor D.2 Knowledge of Language				6	0	0	0	0	0	6	0	0	6	6	0	0	0	0	0	6	0	0	6
Total For Reporting Category D						18	0	0	1	0	0	19	0	0	19	18	0	0	1	0	0	19	0	0	19

Grade 04 **English Language Arts**

Reporting Category		Assessment Anchor	Descriptor (Sub-anchor)	Eligible Content	Focus	Points										Items									
						Student Scores (Core Points)			Equating Block (EB)			Total Points (Core & EB)				Number of Items						Total Number of Items (Core & EB)			
																Core			EB						
						MC	ESR	TDA	MC	ESR	TDA	MC	ESR	TDA	Total	MC	ESR	TDA	MC	ESR	TDA	MC	ESR	TDA	Total
E: Text-Dependent Analysis	E	1	1		Draw evidence from literary or informational texts to support analysis, reflection, and/or research.	0	0	16	0	0	0	0	0	16	16	0	0	1	0	0	0	0	0	1	1
		Total For Assessment Anchor E.1 Evidence-based Analysis of Text				0	0	16	0	0	0	0	0	16	16	0	0	1	0	0	0	0	0	1	1
Total For Reporting Category E						0	0	16	0	0	0	0	0	16	16	0	0	1	0	0	0	0	0	1	1

Grade 05 **English Language Arts**

Reporting Category		Assessment Anchor	DesOEiptor (Sub-anchor)	Eligible Content	Focus	Points										Items									
						Student Scores (Core Points)			Equating Block (EB)			Total Points (Core & EB)				Number of Items						Total Number of Items (Core & EB)			
																Core			EB						
						MC	ESR	TDA	MC	ESR	TDA	MC	ESR	TDA	Total	MC	ESR	TDA	MC	ESR	TDA	MC	ESR	TDA	Total
A: Literature Text	A-K	1	1	1	Quote accurately from a text when explaining what the text says explicitly and when drawing inferences and/or making generalizations from the text.	2						2			2	2						2			2
	A-K	1	1	2	Determine a theme of a story, drama, or poem from details in the text, including how characters in a story or drama respond to challenges or how the speaker in a poem reflects upon a topic; summarize the text.	1						1			1	1						1			1
	A-K	1	1	3	Compare and contrast two or more characters, settings, or events in a story, drama, or poem, drawing on specific details in the text.	2	3					2	3		5	2	1					2	1		3
		Total For Assessment Anchor A-K.1 Key Ideas and Details				5	3					5	3		8	5	1					5	1		6
	A-C	2	1	1	DesOEibe how a narrator's or speaker's point of view influences how events are desOEibed; desOEibe an author's purpose and explain how it is conveyed in the text.	1	5					1	5		6	1	2					1	2		3
		Total For Assessment Anchor A-C.2 OEaft and Structure				1	5					1	5		6	1	2					1	2		3
	A-C	3	1	1	Compare and contrast stories in the same genre on their approaches to similar themes and topics.	1						1			1	1						1			1
		Total For Assessment Anchor A-C.3 Integration of Knowledge and Ideas				1						1			1	1						1			1
	A-V	4	1	1	Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 5 reading and content, choosing flexibly from a range of strategies.	2						2			2	2						2			2
	A-V	4	1	2	Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.	2						2			2	2						2			2
		Total For Assessment Anchor A-V.4 Vocabulary Acquisition and Use				4						4			4	4						4			4
Total For Reporting Category A						11	8					11	8		19	11	3					11	3		14

Grade 05 **English Language Arts**

Reporting Category		Assessment Anchor	DesOEiptor (Sub-anchor)	Eligible Content	Focus	Points										Items									
						Student Scores (Core Points)			Equating Block (EB)			Total Points (Core & EB)				Number of Items						Total Number of Items (Core & EB)			
																Core			EB						
						MC	ESR	TDA	MC	ESR	TDA	MC	ESR	TDA	Total	MC	ESR	TDA	MC	ESR	TDA	MC	ESR	TDA	Total
B: Informational Text	B-K	1	1	1	Quote accurately from a text when explaining what the text says explicitly and when drawing inferences and/or making generalizations from the text.	2	2		1			3	2		5	2	1		1			3	1		4
		1	1	2	Determine two or more main ideas of a text and explain how they are supported by key details; summarize the text.	2						2			2	2						2			2
		1	1	3	Explain the relationships or interactions between two or more individuals, events, ideas, steps, or concepts in a historical, scientific, or technical text based on specific information in the text.		2		1			1	2		3		1		1			1	1		2
		Total For Assessment Anchor B-K.1 Key Ideas and Details				4	4		2			6	4		10	4	2		2			6	2		8
	B-C	2	1	1	Analyze multiple accounts of the same event or topic, noting important similarities and differences in the point of view they represent.																				
		2	1	2	Compare and contrast the overall structure of events, ideas, concepts, or information and text features in two or more texts.																				
		Total For Assessment Anchor B-C.2 OEaft and Structure																							
	B-C	3	1	1	Explain how an author uses reasons and evidence to support particular points in a text, identifying which reasons and evidence support which point(s).	2	3		1			3	3		6	2	1		1			3			3
		3	1	2	Integrate information from several texts on the same topic in order to demonstrate subject knowledge.																				
		3	1	3	Interpret text features and/or make connections between text and the content of text features.	2			1			3			3	2			1			3			3
		Total For Assessment Anchor B-C.3 Integration of Knowledge and Ideas				4	3		2			6	3		9	4	1		2			6			6
	B-V	4	1	1	Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 5 reading and content, choosing flexibly from a range of strategies.	1			1			2			2	1			1			2			2
		4	1	2	Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.	3			1			4			4	3			1			4			4
		Total For Assessment Anchor B-V.4 Vocabulary Acquisition and Use				4			2			6			6	4			2			6			6
Total For Reporting Category B						12	7		6			18	7		25	12	3		6			18	2		20

Grade 05 **English Language Arts**

Reporting Category		Assessment Anchor	DesOEiptor (Sub-anchor)	Eligible Content	Focus	Points										Items									
						Student Scores (Core Points)			Equating Block (EB)			Total Points (Core & EB)				Number of Items Core			Number of Items EB			Total Number of Items (Core & EB)			
						MC	ESR	WP	MC	ESR	WP	MC	ESR	WP	Total	MC	ESR	WP	MC	ESR	WP	MC	ESR	WP	Total
C: Writing	C	1	1		Write opinion pieces on topics or texts, supporting a point of view with reasons and information.																				
		1	2		Write informative/explanatory texts to examine a topic and convey ideas and information clearly.			12						12	12			1						1	1
		1	3		Write narratives to develop real or imagined experiences or events using effective technique, desOEiptive details, and clear event sequences.																			1	1
		Total For Assessment Anchor C.1 Text Types and Purposes						12						12	12			1						2	2
Total For Reporting Category C								12						12	12			1						2	2

Grade 05 **English Language Arts**

Reporting Category		Assessment	DesOEipt or	Eligible Content	Focus	Points										Items									
						Student (Core			Equating Block (EB)			Total Points (Core &				Number of Items Core			EB			Total Number (Core &			
						MC	ESR	WP	MC	ESR	WP	MC	ESR	WP	Total	MC	ESR	WP	MC	ESR	WP	MC	ESR	WP	Total
D: Language	D	1	1	1	Explain the function of conjunctions, prepositions, and interjections in general and their function in particular sentences.																				
		1	1	2	Form and use the perfect verb tenses.	1						1			1	1						1			1
		1	1	3	Use verb tense to convey various times, sequences, states, and conditions.	1						1			1	1						1			1
		1	1	4	Recognize and correct inappropriate shifts in verb tense.																				
		1	1	5	Use correlative conjunctions.																				
		1	1	6	Produce complete sentences, recognizing and correcting inappropriate fragments and run-on sentences.	2						2			2	2						2			2
		1	1	7	Correctly use frequently confused words.	1						1			1	1						1			1
		1	1	8	Ensure subject-verb and pronoun-antecedent agreement.	1						1			1	1						1			1
		1	2	1	Use punctuation to separate items in a series.	1						1			1	1						1			1
		1	2	2	Use a comma to separate an introductory element from the rest of the sentence.	2						2			2	2						2			2
		1	2	3	Use a comma to set off the words yes and no, to set off a tag question from the rest of the sentence, and to indicate direct address.	1			1			2			2	1			1			2			2
		1	2	4	Use underlining, quotation marks, or italics to indicate titles of works.	1						1			1	1						1			1
		1	2	5	Spell grade-appropriate words correctly.	1						1			1	1						1			1
		Total For Assessment Anchor D.1 Conventions of Standard English				12			1			13			13	12			1			13			13
		2	1	1	Expand, combine, and reduce sentences for meaning, reader/listener interest, and style.	2						2			2	2						2			2
		2	1	2	Choose words and phrases to convey ideas precisely.	1						2			2	1						1			2
		2	1	3	Choose punctuation for effect.	1						1			1	1						1			1
		2	1	4	Choose words and phrases for effect.	2						2			2	2						2			2
		Total For Assessment Anchor D.2 Knowledge of Language				6						7			7	6						6			7
Total For Reporting Category D						18			1			20			20	18			1			19			20

Grade 05 **English Language Arts**

Reporting Category		Assessment	DesOEipt or	Eligible Content	Focus	Points										Items									
						Student (Core			Equating Block (EB)			Total Points (Core &				Number of Items Core			EB			Total Number (Core &			
						MC	ESR	TDA	MC	ESR	TDA	MC	ESR	TDA	Total	MC	ESR	TDA	MC	ESR	TDA	MC	ESR	TDA	Total
E: Text-Dependent Analysis	E	1	1		Draw evidence from literary or informational texts to support analysis, reflection, and/or research.			16						16	16			1						1	1
		Total For Assessment Anchor E.1 Evidence-based Analysis of Text						16						16	16			1						1	1
Total For Reporting Category E								16						16	16			1						1	1

Grade 06 **English Language Arts**

Reporting Category		Assessment Anchor	DesOEiptor (Sub-anchor)	Eligible Content	Focus	Points										Items									
						Student Scores (Core Points)			Equating Block (EB)			Total Points (Core & EB)				Number of Items						Total Number of Items (Core & EB)			
																Core			EB						
						MC	ESR	OE	MC	ESR	OE	MC	ESR	OE	Total	MC	ESR	OE	MC	ESR	OE	MC	ESR	OE	Total
A: Literature Text	A-K	1	1	1	Cite textual evidence to support analysis of what the text says explicitly as well as inferences and/or generalizations drawn from the text.	2	7					2	7		9	2	3					2	3		5
		1	1	2	Determine a theme or central idea of a text and how it is conveyed through relevant details; provide a summary of the text distinct from personal opinions or judgments.																				
		1	1	3	DesOEibe how the plot of a particular story, drama, or poem unfolds; as well as how the characters respond or change as the plot moves toward a resolution.	1						1			1	1						1			1
		Total For Assessment Anchor A-K.1 Key Ideas and Details				3	7					3	7		10	3	3					3	3		6
	A-C	2	1	1	Determine an author's purpose in a text and explain how it is conveyed in the text; explain how an author develops the point of view of the narrator or speaker in a text; desOEibe the effectiveness of the point of view used by the author.	1						1			1	1						1			1
		2	1	2	Analyze how a particular sentence, chapter, scene, or stanza fits into the overall structure of a text and contributes to the development of the theme, setting, or plot.	2						2			2	2						2			2
		2	1	3	Determine how the author uses the meaning of words or phrases, including figurative and connotative meanings, in a text; analyze the impact of a specific word choice on meaning and tone.	2						2			2	2						2			2
		Total For Assessment Anchor A-C.2 Craft and Structure				5						5			5	5						5			5
		3	1	1	Compare and contrast texts in different forms or genres in terms of their approaches to similar themes and topics.																				
		Total For Assessment Anchor A-C.3 Integration of Knowledge and Ideas																							
	A-V	4	1	1	Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 6 reading and content, choosing flexibly from a range of strategies.	2						2			2	2						2			2
		4	1	2	Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.	1						1			1	1						1			1
		Total For Assessment Anchor A-V.4 Vocabulary Acquisition and Use				3						3			3	3						3			3
Total For Reporting Category A						11	7					11	7		18	11	3					11	3		14

Grade 06 **English Language Arts**

Reporting Category		Assessment Anchor	DesOEiptor (Sub-anchor)	Eligible Content	Focus	Points										Items									
						Student Scores (Core Points)			Equating Block (EB)			Total Points (Core & EB)				Number of Items						Total Number of Items (Core & EB)			
																Core			EB						
						MC	ESR	OE	MC	ESR	OE	MC	ESR	OE	Total	MC	ESR	OE	MC	ESR	OE	MC	ESR	OE	Total
B: Informational Text	B-K	1	1	1	Cite textual evidence to support analysis of what the text says explicitly as well as inferences and/or generalizations drawn from the text.		2		1			1	2		3		1		1			1	1		2
		1	1	2	Determine a central idea of a text and how it is conveyed through relevant details; provide a summary of the text distinct from personal opinions or judgments.	2						2			2	2						2			2
		1	1	3	Analyze in detail how a key individual, event, or idea is introduced, illustrated, or elaborated in a text.	1						1			1	1						1			1
		Total For Assessment Anchor B-K.1 Key Ideas and Details				3	2		1			4	2		6	3	1		1			4	1		5
	B-C	2	1	1	Determine an author's point of view or purpose in a text and explain how it is conveyed in the text.	2						2			2	2						2			2
		2	1	2	Analyze how a particular sentence, paragraph, chapter, section, or text feature fits into the overall development of the ideas.	1			1			2			2	1			1			1			1
		2	1	3	Determine how the author uses the meaning of words or phrases, including figurative, connotative, or technical meanings, in a text.	2			1			3			3	2			1			3			3
		Total For Assessment Anchor B-C.2 OEaft and Structure				5			2			7			7	5			2			6			6
		3	1	1	Trace and evaluate the argument and specific claims in a text, distinguishing claims that are supported by reasons and evidence from claims that are not.	1	6		1			2	6		8	1	2		1			2	2		4
		3	1	2	Compare and contrast one author's presentation of events with that of another.	1						1			1	1						1			1
		Total For Assessment Anchor B-C.3 Integration of Knowledge and Ideas				2	6		1			3	6		9	2	2		1			3	2		5
	B-V	4	1	1	Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 6 reading and content, choosing flexbily from a range of strategies.	1			1			2			2	1			1			2			2
		4	1	2	Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.	1			1			2			2	1			1			2			2
		Total For Assessment Anchor B-V.4 Vocabulary Acquisition and Use				2			2			4			4	2			2			4			4
Total For Reporting Category B						12	8		6			18	8		26	12	3		6			17	3		20

Grade 06 **English Language Arts**

Reporting Category		Assessment Anchor	DesOEiptor (Sub-anchor)	Eligible Content	Focus	Points										Items									
						Student Scores (Core Points)			Equating Block (EB)			Total Points (Core & EB)				Number of Items						Total Number of Items (Core & EB)			
																Core			EB						
						MC	ESR	WP	MC	ESR	WP	MC	ESR	WP	Total	MC	ESR	WP	MC	ESR	WP	MC	ESR	WP	Total
C: Writing	C	1	1		Write arguments to support claims with clear reasons and relevant evidence.																				
		1	2		Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content.			12						12	12			1						1	1
		1	3		Write narratives to develop real or imagined experiences or events using effective techniques, relevant desOEiptive details, and well-structured event sequences.																				
		Total For Assessment Anchor C.1 Text Types and Purposes						12						12	12			1						1	1
Total For Reporting Category C								12						12	12			1						1	1

Grade 06 **English Language Arts**

Reporting Category		Assessment Anchor	DesOEiptor (Sub-anchor)	Eligible Content	Focus	Points										Items									
						Student Scores (Core Points)			Equating Block (EB)			Total Points (Core & EB)				Number of Items						Total Number of Items (Core & EB)			
																Core			EB						
						MC	ESR	OE	MC	ESR	OE	MC	ESR	OE	Total	MC	ESR	OE	MC	ESR	OE	MC	ESR	OE	Total
D: Language	D	1	1	1	Ensure that pronouns are in the proper case.	1						1			1	1						1			1
		1	1	2	Use intensive pronouns.	1						1			1	1						1			1
		1	1	3	Recognize and correct inappropriate shifts in pronoun number and person.	1			1			2			2	1			1			2			2
		1	1	4	Recognize and correct vague pronouns.	1						1			1	1						1			1
		1	1	5	Recognize and correct inappropriate shifts in verb tense.																				
		1	1	6	Produce complete sentences, recognizing and correcting inappropriate fragments and run-on sentences.	1						1			1	1						1			1
		1	1	7	Correctly use frequently confused words.																				
		1	1	8	Ensure subject-verb and pronoun-antecedent agreement.	1						1			1	1						1			1
		1	2	1	Use punctuation to set of nonrestrictive/parenthetical elements.	2						2			2	2						2			2
		1	2	2	Spell correctly.	2						2			2	2						2			2
		1	2	3	Use punctuation to separate items in a series.	2						2			2	2						2			2
		Total For Assessment Anchor D.1 Conventions of Standard English				12			1			13			13	12			1			13			13
		2	1	1	Vary sentence patterns for meaning, reader/listener interest, and style.	1						1			1	1						1			1
		2	1	2	Maintain consistency in style and tone.	1						1			1	1						1			2
		2	1	3	Choose words and phrases to convey ideas precisely.																				2
		2	1	4	Choose punctuation for effect.	2						2			2	2						2			2
		2	1	5	Choose words and phrases for effect.	2						2			2	2						2			2
		Total For Assessment Anchor D.2 Knowledge of Language				6						6			6	6						6			9
Total For Reporting Category D						18			1			19			19	18			1			19			22

Grade 06 **English Language Arts**

Reporting Category		Assessment Anchor	DesOEiptor (Sub-anchor)	Eligible Content	Focus	Points									Items								
						Student Scores (Core Points)			Equating Block (EB)			Total Points (Core & EB)			Number of Items						Total Number of Items (Core & EB)			
															Core			EB					
						MC	ESR	TDA	MC	ESR	TDA	MC	ESR	TDA	Total	MC	ESR	TDA	MC	ESR	TDA	MC	ESR	TDA	Total
E: Text-Dependent Analysis	E	1	1		Draw evidence from literary or informational texts to support analysis, reflection, and/or research.			16						16	16			1						1	1
		Total For Assessment Anchor E.1 Evidence-based Analysis of Text						16						16	16			1						1	1
Total For Reporting Category E								16						16	16			1						1	1

Grade 07 **English Language Arts**

Reporting Category		Assessment Anchor	DesOEiptor (Sub-anchor)	Eligible Content	Focus	Points										Items									
						Student Scores (Core Points)			Equating Block (EB)			Total Points (Core & EB)				Number of Items						Total Number of Items (Core & EB)			
																Core			EB						
						MC	ESR	OE	MC	ESR	OE	MC	ESR	OE	Total	MC	ESR	OE	MC	ESR	OE	MC	ESR	OE	Total
A: Literature Text	A-K	1	1	1	Cite several pieces of textual evidence to support analysis of what the text says explicitly as well as inferences, conclusions, and/or generalizations drawn from the text.	1	3					1	3		4	1	1					1	1		2
		1	1	2	Determine a theme or central idea of a text and analyze its development over the course of the text; provide an objective summary of the text.	2						2			2	2						2			2
		1	1	3	Analyze how particular elements of a story, drama, or poem interact.	2	2					2	2		4	2	1					2	1		3
		Total For Assessment Anchor A-K.1 Key Ideas and Details				5	5					5	5		10	5	2					5	2		7
	A-C	2	1	1	Analyze how an author develops and contrasts the points of view of different characters or narrators in a text.		3						3		3		1						1		1
		2	1	2	Analyze how a drama's or poem's form or structure contributes to its meaning.																				
		2	1	3	Determine how the author uses the meaning of words or phrases, including figurative and connotative meanings, in a text; analyze the impact of rhymes and other repititions of sounds on a specific verse or stanza of a poem or section of a story or drama.	1						1			1	1						1			1
		Total For Assessment Anchor A-C.2 OEaft and Structure				1	3					1	3		4	1	1					1	1		2
	A-C	3	1	1	Compare and contrast a fictional portrayal of a time, place, or character and a historical account of the same period as a means of understanding how authors of fiction use or alter history.																				
		Total For Assessment Anchor A-C.3 Integration of Knowledge and Ideas																							
	A-V	4	1	1	Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 7 reading and content, choosing flexibly from a range of strategies.	3						3			3	3						3			3
		4	1	2	Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.	2						2			2	2						2			2
		Total For Assessment Anchor A-V.4 Vocabulary Acquisition and Use				5						5			5	5						5			5
Total For Reporting Category A						11	8					11	8		19	11	3					11	3		14

Grade 07 **English Language Arts**

Reporting Category		Assessment Anchor	DesOEiptor (Sub-anchor)	Eligible Content	Focus	Points										Items									
						Student Scores (Core Points)			Equating Block (EB)			Total Points (Core & EB)				Number of Items						Total Number of Items (Core & EB)			
																Core			EB						
						MC	ESR	OE	MC	ESR	OE	MC	ESR	OE	Total	MC	ESR	OE	MC	ESR	OE	MC	ESR	OE	Total
B: Informational Text	B-K	1	1	1	Cite several pieces of textual evidence to support analysis of what the text says explicitly as well as inferences, conclusions, and/or generalizations drawn from the text.	1			1			2			2	1			1			2			2
		1	1	2	Determine two or more central ideas in a text and analyze their development over the course of the text; provide an objective summary of the text.	1	3		1			2	3		5	1	1		1			2	1		3
		1	1	3	Analyze the interactions between individuals, events, and ideas in a text.	3			1			4			4	3			1			4			4
		Total For Assessment Anchor B-K.1 Key Ideas and Details				5	3		3			8	3		11	5	1		3			8	1		9
	B-C	2	1	1	Determine an author's point of view or purpose in a text and analyze how the author distinguishes his or her position from that of others.	1						1			1	1						1			1
		2	1	2	Analyze the structure an author uses to organize a text, including how major sections and text features contribute to the whole and to the development of the ideas.	1						1			1	1						1			1
		2	1	3	Determine how the author uses the meaning of words or phrases, including figurative, connotative, or technical meanings, in a text; analyze the impact of a specific word choice on meaning and tone.	1						1			1	1						1			1
		Total For Assessment Anchor B-C.2 OEaft and Structure				3						3			3	3						3			3
	B-C	3	1	1	Trace and evaluate the argument and specific claims in a text, assessing whether the reasoning is sound and the evidence is relevant and sufficient to support the claims.		4		1			1	4		5		2		1			1	2		3
		3	1	2	Analyze how two or more authors writing about the same topic shape their presentations of key information by emphasizing different evidence or advancing different interpretations of facts.																				
		Total For Assessment Anchor B-C.3 Integration of Knowledge and Ideas					4		1			1	4		5		2		1			1	2		3
	B-V	4	1	1	Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 7 reading and content, choosing flexibly from a range of strategies.	2			1			3			3	2			1			3			3
		4	1	2	Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.	2			1			3			3	2			1			3			3
		Total For Assessment Anchor B-V.4 Vocabulary Acquisition and Use				4			2			6			6	4			2			6			6
Total For Reporting Category B						12	7		6			18	7		25	12	3		6			18	3		21

Grade 07 **English Language Arts**

Reporting Category		Assessment Anchor	DesOEiptor (Sub-anchor)	Eligible Content	Focus	Points										Items									
						Student Scores (Core Points)			Equating Block (EB)			Total Points (Core & EB)				Number of Items						Total Number of Items (Core & EB)			
																Core			EB						
						MC	ESR	WP	MC	ESR	WP	MC	ESR	WP	Total	MC	ESR	WP	MC	ESR	WP	MC	ESR	WP	Total
C: Writing	C	1	1		Write arguments to support claims with clear reasons and relevant evidence.																				
		1	2		Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content.																			1	1
		1	3		Write narratives to develop real or imagined experiences or events using effective techniques, relevant desOEiptive details, and well-structured event sequences.			12						12	12			1						1	1
		Total For Assessment Anchor C.1 Text Types and Purposes						12						12	12			1						2	2
Total For Reporting Category C								12						12	12			1						2	2

Grade 07 **English Language Arts**

Reporting Category		Assessment Anchor	DesOEiptor (Sub-anchor)	Eligible Content	Focus	Points										Items									
						Student Scores (Core Points)			Equating Block (EB)			Total Points (Core & EB)				Number of Items						Total Number of Items (Core & EB)			
																Core			EB						
						MC	ESR	OE	MC	ESR	OE	MC	ESR	OE	Total	MC	ESR	OE	MC	ESR	OE	MC	ESR	OE	Total
D: Language	D	1	1	1	Explain the function of phrases and clauses in general and their function in specific sentences.																				
		1	1	2	Choose among simple, compound, complex, and compound-complex sentences to signal differing relationships among ideas.																				
		1	1	3	Place phrases and clauses within a sentence, recognizing and correcting misplaced and dangling modifiers.	1						1			1	1						1			1
		1	1	4	Recognize and correct inappropriate shifts in pronoun number and person.	1						1			1	1						1			1
		1	1	5	Recognize and correct vague pronouns.																				
		1	1	6	Recognize and correct inappropriate shifts in verb tense.	1						1			1	1						1			1
		1	1	7	Produce complete sentences, recognizing and correcting inappropriate fragments and run-on sentences.	1						1			1	1						1			1
		1	1	8	Correctly use frequently confused words.	1						1			1	1						1			1
		1	1	9	Ensure subject-verb and pronoun-antecedent agreement.	1						1			1	1						1			1
		1	2	1	Use a comma to separate coordinate adjectives.	2						2			2	2						2			2
		1	2	2	Spell correctly.	1						1			1	1						1			1
		1	2	3	Use punctuation to set of nonrestrictive/parenthetical elements.	2						2			2	2						2			2
		1	2	4	Use punctuation to separate items in a series.	1						1			1	1						1			1
		Total For Assessment Anchor D.1 Conventions of Standard English				12						12			12	12						12			12
		2	1	1	Choose language that expresses ideas precisely and concisely, recognizing and eliminating wordiness and redundancy.	1			1			2			2	1			1			2			2
		2	1	2	Vary sentence patterns for meaning, reader/listener interest, and style.	2						2			2	2						2			2
		2	1	3	Maintain consistency in style and tone.	1						1			1	1						1			1
		2	1	4	Choose punctuation for effect.	1						1			1	1						1			1
		2	1	5	Choose words and phrases for effect.	1						1			1	1						1			1
		Total For Assessment Anchor D.2 Knowledge of Language				6			1			7			7	6			1			7			7
Total For Reporting Category D						18			1			19			19	18			1			19			19

Grade 07 **English Language Arts**

Reporting Category		Assessment Anchor	DesOEiptor (Sub-anchor)	Eligible Content	Focus	Points										Items									
						Student Scores (Core Points)			Equating Block (EB)			Total Points (Core & EB)				Number of Items						Total Number of Items (Core & EB)			
																Core			EB						
						MC	ESR	TDA	MC	ESR	TDA	MC	ESR	TDA	Total	MC	ESR	TDA	MC	ESR	TDA	MC	ESR	TDA	Total
E: Text-Dependent Analysis	**E**	1	1		Draw evidence from literary or informational texts to support analysis, reflection, and/or research.			16						16	16			1						1	1
		Total For Assessment Anchor E.1 Evidence-based Analysis of Text						16						16	16			1						1	1
Total For Reporting Category E								16						16	16			1						1	1

Grade 08 **English Language Arts**

Reporting Category		Assessment Anchor	DesESRiptor (Sub-anchor)	Eligible Content	Focus	Points										Items									
						Student Scores (Core Points)			Equating Block (EB)			Total Points (Core & EB)				Number of Items						Total Number of Items (Core & EB)			
																Core			EB						
						MC	ESR	OE	MC	ESR	OE	MC	ESR	OE	Total	MC	ESR	OE	MC	ESR	OE	MC	ESR	OE	Total
A: Literature Text	A-K	1	1	1	Cite the textual evidence that most strongly supports an analysis of what the text says explicitly as well as inferences, conclusions, and/or generalizations drawn from the text.	2						2			2	2						2			2
	A-K	1	1	2	Determine a theme or central idea of a text and analyze its development over the course of the text, including its relationship to the characters, setting, and plot; provide an objective summary of the text.	1	2					1	2		3	1	1					1	1		2
	A-K	1	1	3	Analyze how particular lines of dialogue or incidents in a story, drama, or poem propel the action, reveal aspects of a character, or provoke a decision.	2	3					2	3		5	2	1					2	1		3
		Total For Assessment Anchor A-K.1 Key Ideas and Details				5	5					5	5		10	5	2					5	2		7
	A-C	2	1	1	Analyze how differences in the points of view of the characters and the audience or reader ESReate such effects as suspense or humor.	1						1			1	1						1			1
	A-C	2	1	2	Compare and contrast the structure of two or more texts, and analyze how the differing structure of each text contributes to its meaning and style.																				
	A-C	2	1	3	Determine how the author uses the meaning of words or phrases, including figurative and connotative meanings, in a text; analyze the impact of specific word choices on meaning and tone, including analogies or allusions to other texts.	1						1			1	1						1			1
		Total For Assessment Anchor A-C.2 ESRaft and Structure				2						2			2	2						2			2
	A-C	3	1	1	Analyze how a modern work of fiction draws on themes, patterns of events, or character types from myths and traditional stories, including desESRibing how the material is rendered new.	1						1			1	1						1			1
		Total For Assessment Anchor A-C.3 Integration of Knowledge and Ideas				1						1			1	1						1			1
	A-V	4	1	1	Determine or clarify the meaning of unknown and multiple-meaning words or phrases based on grade 8 reading and content, choosing flexibly from a range of strategies.	3						3			3	3						3			3
	A-V	4	1	2	Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.	2						2			2	2						2			2
		Total For Assessment Anchor A-V.4 Vocabulary Acquisition and Use				5						5			5	5						5			5
Total For Reporting Category A						13	5					13	5		18	13	2					13	2		15

Grade 08 **English Language Arts**

Reporting Category		Assessment Anchor	DesESRiptor (Sub-anchor)	Eligible Content	Focus	Points										Items									
						Student Scores (Core Points)			Equating Block (EB)			Total Points (Core & EB)				Number of Items						Total Number of Items (Core & EB)			
																Core			EB						
						MC	ESR	OE	MC	ESR	OE	MC	ESR	OE	Total	MC	ESR	OE	MC	ESR	OE	MC	ESR	OE	Total
B: Informational Text	B-K	1	1	1	Cite the textual evidence that most strongly supports an analysis of what the text says explicitly as well as inferences, conclusions and/or generalizations drawn from the text.																				
	B-K	1	1	2	Determine a central idea of a text and analyze its development over the course of the text, including its relationship to supporting ideas; provide an objective summary of the text.	2			1			3			3	2			1			3			3
	B-K	1	1	3	Analyze how a text makes connections among and distinctions between individuals, ideas, or events.		6		1			1	6		7		2		1			1	2		3
		Total For Assessment Anchor B-K.1 Key Ideas and Details				2	6		2			4	6		10	2	2		2			4	2		6
	B-C	2	1	1	Determine an author's point of view or purpose in a text and analyze how the author acknowledges and responds to conflicting evidence or viewpoints.	1	2					1	2		3	1	1					1	1		2
	B-C	2	1	2	Analyze in detail the structure of a specific paragraph in a text, including the role of particular sentences in developing and refining a key concept.	1			1			2			2	1			1			2			2
	B-C	2	1	3	Determine how the author uses the meaning of words or phrases, including figurative, connotative, or technical meanings, in a text; analyze the impact of specific word choices on meaning and tone, including analogies or allusions to other texts.	2			1			3			3	2			1			3			3
		Total For Assessment Anchor B-C.2 ESRaft and Structure				4	2		2			6	2		8	4	1		2			6	1		7
	B-C	3	1	1	Delineate and evaluate the argument and specific claims in a text, assessing whether the reasoning is sound and the evidence is relevant and sufficient; recognize when irrelevant evidence is introduced.				1			1			1				1			1			1
	B-C	3	1	2	Analyze a case in which two or more texts provide conflicting information on the same topic, and identify where the texts disagree on matters of fact or interpretation.	1						1			1	1						1			1
		Total For Assessment Anchor B-C.3 Integration of Knowledge and Ideas				1			1			2			2	1			1			2			2
	B-V	4	1	1	Determine or clarify the meaning of unknown and multiple-meaning words or phrases based on grade 8 reading and content, choosing flexibly from a range of strategies.	2						2			2	2						2			2
	B-V	4	1	2	Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.	1	2		1			2	2		4	1	1		1			2	1		3
		Total For Assessment Anchor B-V.4 Vocabulary Acquisition and Use				3	2		1			4	2		6	3	1		1			4	1		5
Total For Reporting Category B						10	10		6			16	10		26	10	4		6			16	4		20

Grade 08 **English Language Arts**

Reporting Category		Assessment Anchor	DesESRiptor (Sub-anchor)	Eligible Content	Focus	Points										Items									
						Student Scores (Core Points)			Equating Block (EB)			Total Points (Core & EB)				Number of Items						Total Number of Items (Core & EB)			
																Core			EB						
						MC	ESR	WP	MC	ESR	WP	MC	ESR	WP	Total	MC	ESR	WP	MC	ESR	WP	MC	ESR	WP	Total
C: Writing	C	1	1		Write arguments to support claims with clear reasons and relevant evidence.			12						12	12			1						1	1
	C	1	2		Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content.																				
	C	1	3		Write narratives to develop real or imagined experiences or events using effective techniques, relevant desESRiptive details, and well-structured event sequences.																				
		Total For Assessment Anchor C.1 Text Types and Purposes						12						12	12			1						1	1
Total For Reporting Category C								12						12	12			1						1	1

Grade 08 **English Language Arts**

Reporting Category		Assessment Anchor	DesESRiptor (Sub-anchor)	Eligible Content	Focus	Points									Items								
						Student Scores (Core Points)			Equating Block (EB)			Total Points (Core & EB)				Number of Items						Total Number of Items (Core & EB)			
																Core			EB						
						MC	ESR	OE	MC	ESR	OE	MC	ESR	OE	Total	MC	ESR	OE	MC	ESR	OE	MC	ESR	OE	Total
D: Language	D	1	1	1	Explain the function of verbals in general and their function in particular sentences.																				
	D	1	1	2	Form and use verbs in the active and passive voice.	1						1			1	1						1			1
	D	1	1	3	Form and use verbs in the indicative, imperative, interrogative, conditional, and subjunctive mood.	1						1			1	1						1			1
	D	1	1	4	Recognize and correct inappropriate shifts in verb voice and mood.	1						1			1	1						1			1
	D	1	1	5	Place phrases and clauses within a sentence, recognizing and correcting misplaced and dangling modifiers.	1						1			1	1						1			1
	D	1	1	6	Recognize and correct inappropriate shifts in pronoun number and person.																				
	D	1	1	7	Recognize and correct vague pronouns.																				
	D	1	1	8	Recognize and correct inappropriate shifts in verb tense.				1			1			1				1			1			1
	D	1	1	9	Produce complete sentences, recognizing and correcting inappropriate fragments and run-on sentences.																				
	D	1	1	10	Correctly use frequently confused words.	1						1			1	1						1			1
	D	1	1	11	Ensure subject-verb and pronoun-antecedent agreement.	1						1			1	1						1			1
	D	1	2	1	Use punctuation to indicate a pause or a break.	1						1			1	1						1			1
	D	1	2	2	Use an ellipsis to indicate an omission.	1						1			1	1						1			1
	D	1	2	3	Spell correctly.	1						1			1	1						1			1
	D	1	2	4	Use punctuation to set of nonrestrictive/parenthetical elements.	2						2			2	2						2			2
	D	1	2	5	Use punctuation to separate items in a series.	1						1			1	1						1			1
		Total For Assessment Anchor D.1 Conventions of Standard English				12			1			13			13	12			1			13			13
	D	2	1	1	Use verbs in the active and passive voice and in the conditional and subjunctive mood to achieve particular effects.	1						1			1	1						1			1
	D	2	1	2	Choose language that expresses ideas precisely and concisely, recognizing and eliminating wordiness and redundancy.	1						1			1	1						1			1
	D	2	1	3	Vary sentence patterns for meaning, reader/listener interest, and style.	1						1			1	1						1			1
	D	2	1	4	Maintain consistency in style and tone.	1						1			1	1						1			1
	D	2	1	5	Choose punctuation for effect.	1						1			1	1						1			1
	D	2	1	6	Choose words and phrases for effect.	1						1			1	1						1			1
		Total For Assessment Anchor D.2 Knowledge of Language				6						6			6	6						6			6
Total For Reporting Category D						18			1			19			19	18			1			19			19

Grade 08 **English Language Arts**

Reporting Category		Assessment Anchor	DesESRiptor (Sub-anchor)	Eligible Content	Focus	Points									Items								
						Student Scores (Core Points)			Equating Block (EB)			Total Points (Core & EB)			Number of Items						Total Number of Items (Core & EB)			
															Core			EB					
						MC	ESR	TDA	MC	ESR	TDA	MC	ESR	TDA	Total	MC	ESR	TDA	MC	ESR	TDA	MC	ESR	TDA	Total
E: Text-Dependent Analysis	E	1	1		Draw evidence from literary or informational texts to support analysis, reflection, and/or research.			16						16	16			1						1	1
		Total For Assessment Anchor E.1 Evidence-based Analysis of Text						16						16	16			1						1	1
Total For Reporting Category E								16						16	16			1						1	1

Grade 04 **Science**

Reporting Category	Assessment Anchor	Descriptor (Sub-anchor)	Eligible Content	Focus	Points							Items						
					Student Scores (Core Points)		Equating Block (EB)		Total Points (Core & EB)			Number of Items				Total Number of Items (Core & EB)		
												Core		EB				
					MC	SCR	MC	SCR	MC	SCR	Total	MC	SCR	MC	SCR	MC	SCR	Total
	1	1	1	Distinguish between a scientific fact and an opinion, providing clear explanations that connect observations and results (e.g., a scientific fact can be supported by making observations).														
	1	1	2	Identify and describe examples of common technological changes past to present in the community (e.g., energy production, transportation, communications.	2	2			2	2	4	2	1			2	1	3
	1	3	1	Observe and record change by using time and measurement.	2				2		2	2				2		2
	1	3	2	Describe relative size, distance, or motion.														
	1	3	3	Observe and describe the change to objects caused by temperature change or light.			1		1		1			1		1		1
	1	3	4	Explain what happens to a living organism when its food supply, access to water, shelter, or space is changed (e.g., it might die, migrate, change behavior, eat something else).	2				2		2	2				2		2
	1	3	5	Provide examples, predict, or describe how everyday human activities (e.g., solid waste production, food production and consumption, transportation, water consumption, energy production and use) may change the environment.	1				1		1	1				1		1
	Total For Assessment Anchor A.1 Reasoning and Analysis				7	2	1		8	2	10	7	1	1		8	1	9

	2	1	1	Generate questions about objects, organisms, or events that can be answered through scientific investigations.	1				1		1	1				1		1
	2	1	2	Design and describe an investigation (a fair test) to test one variable.	1				1		1	1				1		1
	2	1	3	Observe a natural phenomenon (e.g., weather changes, length of daylight/night, movement of shadows, animal migrations, growth of plants), record observations, and then make a prediction based on those observations.	2				2		2	2				2		2
	2	1	4	State a conclusion that is consistent with the information/data.	1				1		1	1				1		1
A	2	2	1	Identify appropriate tools or instruments for specific tasks and describe the information they can provide (e.g., measuring: length - ruler, mass - balance scale, volume - beaker, temperature - thermometer; making observations: hand lens, binoculars, telescope).	1	2			1	2	3	1	1			1	1	2
	Total For Assessment Anchor A.2 Processes, Procedures, and Tools of Scientific Investigations				6	2			6	2	8	6	1			6	1	7

3	1	1	Categorize systems as either natural or human-made (e.g., ballpoint pens, simple electrical circuits, plant anatomy, water cycle).	2				2		2	2				2		2
3	1	2	Explain a relationship between the living and nonliving components in a system (e.g., food web, terrarium).	2				2		2	2				2		2
3	1	3	Categorize the parts of an ecosystem as either living or nonliving and describe their roles in the system.	2				2		2	2				2		2
3	1	4	Identify the parts of the food and fiber systems as they relate to agricultural products from the source to the consumer.														
3	2	1	Identify what different models represent (e.g., maps show physical features, directions, distances; globes represent Earth; drawings of watersheds depict terrain; dioramas show ecosystems; concept maps show relationships of ideas).Identify what different models represent	1				1		1	1				1		1
3	2	2	Use models to make observations to explain how systems work (e.g., water cycle, Sun-Earth-Moon system).	2				2		2	2				2		2
3	2	3	Use appropriate, simple modeling tools and techniques to describe or illustrate a system (e.g., two cans and string to model a communications system, terrarium to model an ecosystem).	1				1		1	1				1		1
3	3	1	Identify and describe observable patterns (e.g., growth patterns in plants, weather, water cycle).	3				3		3	3				3		3
3	3	2	Predict future conditions/events based on observable patterns (e.g., day/night, seasons, sunrise/sunset, lunar phases).	2				2		2	2				2		2
Total For Assessment Anchor A.3 Systems, Models, and Patterns				15				15		15	15				15		15
Total For Reporting Category A: Nature of Science				28	4	1		29	4	33	28	2	1		29	2	31

Grade 04 **Science**

Reporting Category	Assessment Anchor	Descriptor (Sub-anchor)	Eligible Content	Focus	Points							Items						
					Student Scores (Core Points)		Equating Block (EB)		Total Points (Core & EB)			Number of Items				Total Number of Items (Core & EB)		
												Core		EB				
					MC	SCR	MC	SCR	MC	SCR	Total	MC	SCR	MC	SCR	MC	SCR	Total
	1	1	1	Identify life processes of living things (e.g., growth, digestion, respiration).														
	1	1	2	Compare similar functions of external characteristics of organisms (e.g., anatomical characteristics: appendages, type of covering, body segments).														
	1	1	3	Describe basic needs of plants and animals (e.g., air, water, food).														
	1	1	4	Describe how different parts of a living thing work together to provide what the organism needs (e.g., parts of plants: roots, stems, leaves).	1				1		1	1				1		1
	1	1	5	Describe the life cycles of different organisms (e.g., moth, grasshopper, frog, seed-producing plant).		2				2	2		1				1	1
	Total For Assessment Anchor B.1 Structures and Functions of Organisms				1	2			1	2	3	1	1			1	1	2
	2	1	1	Identify characteristics for plant and animal survival in different environments (e.g., wetland, tundra, desert, prairie, deep ocean, forest).														
	2	1	2	Explain how specific adaptations can help a living organism survive (e.g., protective coloration, mimicry, leaf sizes and shapes, ability to catch or retain water).														
	2	2	1	Identify physical characteristics (e.g., height, hair color, eye color, attached earlobes, ability to roll tongue) that appear in both parents and could be passed on to offspring.	2				2		2	2				2		2
	Total For Assessment Anchor B.2 Continuity of Life				2				2		2	2				2		2

B	3	1	1	Describe the living and nonliving components of a local ecosystem (e.g., lentic and lotic systems, forest, cornfield, grasslands, city park, playground).																
	3	1	2	Describe interactions between living and nonliving components (e.g. plants – water, soil, sunlight, carbon dioxide, temperature; animals – food, water, shelter, oxygen, temperature) of a local ecosystem.	2				2		2	2				2		2
	3	2	1	Describe what happens to a living thing when its habitat is changed.																
	3	2	2	Describe and predict how changes in the environment (e.g., fire, pollution, flood, building dams) can affect systems.																
	3	2	3	Explain and predict how changes in seasons affect plants, animals, or daily human life (e.g., food availability, shelter, mobility).	2				2		2	2				2		2
	3	3	1	Identify everyday human activities (e.g., driving, washing, eating, manufacturing, farming) within a community that depend on the natural environment.																
	3	3	2	Describe the human dependence on the food and fiber systems from production to consumption (e.g., food, clothing, shelter, products).	1				1		1	1				1		1
	3	3	3	Identify biological pests (e.g., fungi – molds, plants – foxtail, purple loosestrife, Eurasian water milfoil; animals – aphides, ticks, zebra mussels, starlings, mice) that compete with humans for resources.																
	3	3	4	Identify major land uses in the urban, suburban and rural communities (e.g., housing, commercial, recreation).	2				2		2	2				2		2
	3	3	5	Describe the effects of pollution (e.g., litter) in the community.																
	Total For Assessment Anchor B.3 Ecological Behavior and Systems				7				7		7	7				7		7
Total For Reporting Category B: Biology					10	2			10	2	12	10	1			10	1	11

Grade 04 **Science**

Reporting Category	Assessment Anchor	Descriptor (Sub-anchor)	Eligible Content	Focus	Points							Items						
					Student Scores (Core Points)		Equating Block (EB)		Total Points (Core & EB)			Number of Items				Total Number of Items (Core & EB)		
												Core		EB				
					MC	SCR	MC	SCR	MC	SCR	Total	MC	SCR	MC	SCR	MC	SCR	Total
C	1	1	1	Use physical properties [e.g., mass, shape, size, volume, color, texture, magnetism, state to describe matter.														
	1	1	2	Categorize/group objects using physical characteristics.														
	Total For Assessment Anchor C.1 Structures, Properties, and Interaction of Matter and Energy																	
	2	1	1	Identify energy forms, energy transfer, and energy examples (e.g., light, heat, electrical).														
	2	1	2	Describe the flow of energy through an object or system (e.g., feeling radiant heat from a light bulb, eating food to get energy, using a battery to light a bulb or run a fan).	2				2		2	2				2		2
	2	1	3	Recognize or illustrate simple direct current series and parallel circuits composed of batteries, light bulbs (or other common loads), wire, and on/off switches.	2				2		2	2				2		2
	2	1	4	Identify characteristics of sound (e.g., pitch, loudness, reflection).	2				2		2	2				2		2
	Total For Assessment Anchor C.2 Forms, Sources, Conversions, and Transer of Energy				6				6		6	6				6		6
	3	1	1	Describe changes in motion caused by forces (e.g., magnetic, pushes or pulls, gravity, friction).	2	2			2	2	4	2	1			2	1	3
	3	1	2	Compare the relative movement of objects or describe types of motion that are evident (e.g., bouncing ball, moving in a straight line, back and forth, merry-go-round).	2		1		3		3	2		1		3		3
	3	1	3	Describe the position of an object by locating it relative to another object or a stationary background (e.g., geographic direction, left, up).														
	Total For Assessment Anchor C.3 Principles of Motion and Force				4	2	1		5	2	7	4	1	1		5	1	6
Total For Reporting Category C: Physical Sciences					10	2	1		11	2	13	10	1	1		11	1	12

Grade 04 **Science**

Reporting Category	Assessment Anchor	Descriptor (Sub-anchor)	Eligible Content	Focus	Points							Items						
					Student Scores (Core Points)		Equating Block (EB)		Total Points (Core & EB)			Number of Items				Total Number of Items (Core & EB)		
												Core		EB				
					MC	SCR	MC	SCR	MC	SCR	Total	MC	SCR	MC	SCR	MC	SCR	Total
D	1	1	1	Describe how prominent Earth features in Pennsylvania (e.g., mountains, valleys, caves, sinkholes, lakes, rivers) were formed.														
	1	1	2	Identify various Earth structures (e.g., mountains, watersheds, peninsulas, lakes, rivers, valleys) through the use of models.	1				1		1	1				1		1
	1	1	3	Describe the composition of soil as weathered rock and decomposed organic remains.	1				1		1	1				1		1
	1	2	1	Identify products and by-products of plants and animals for human use (e.g., food, clothing, building materials, paper products).	1				1		1	1				1		1
	1	2	2	Identify the types and uses of Earth materials for renewable, nonrenewable, and reusable products (e.g., human-made products: concrete, paper, plastics, fabrics).		2				2	2		1				1	1
	1	2	3	Recognize ways that humans benefit from the use of water resources (e.g., agriculture, energy, recreation).	1				1		1	1				1		1
	1	3	1	Describe types of freshwater and saltwater bodies (e.g., lakes, rivers, wetlands, oceans).	1				1		1	1				1		1
	1	3	2	Explain how water goes through phase changes (i.e., evaporation, condensation, freezing, and melting).														
	1	3	3	Describe or compare lentic systems (i.e., ponds, lakes, and bays) and lotic systems (i.e., streams, creeks, and rivers).	2				2		2	2				2		2
	1	3	4	Explain the role and relationship of a watershed or a wetland on water sources (e.g., water storage, groundwater recharge, water filtration, water source, water cycle).														
	Total For Assessment Anchor D.1 Earth Features and Processes that Change Earth and its Resources				7	2			7	2	9	7	1			7	1	8

2	1	1	Identify basic cloud types (i.e., cirrus, cumulus, stratus, and cumulonimbus) and make connections to basic elements of weather (e.g., changes in temperature, precipitation).	1				1		1	1				1		1
2	1	2	Identify weather patterns from data charts or graphs of the data (e.g., temperature, wind direction, wind speed, cloud types, precipitation).	1				1		1	1				1		1
2	1	3	Identify appropriate instruments (i.e., thermometer, rain gauge, weather vane, anemometer, and barometer) to study weather and what they measure.	1				1		1	1				1		1
Total For Assessment Anchor D.2 Weather, Climate, and Atmospheric Processes				3				3		3	3				3		3
3	1	1	Describe motions of the Sun - Earth - Moon system.														
3	1	2	Explain how the motion of the Sun - Earth - Moon system relates to time (e.g., days, months, years).														
3	1	3	Describe the causes of seasonal change as they relate to the revolution of Earth and the tilt of Earth's axis.														
Total For Assessment Anchor D.3 Composition and Structure of the Universe																	
Total For Reporting Category D: Earth and Space Sciences				10	2			10	2	12	10	1			10	1	11

Grade 08 **Science**

Reporting Category	Assessment Anchor	Descriptor (Sub-anchor)	Eligible Content	Focus	Points							Items						
					Student Scores (Core Points)		Equating Block (EB)		Total Points (Core & EB)			Number of Items				Total Number of Items		
												Core		EB		(Core & EB)		
					MC	SCR	MC	SCR	MC	SCR	Total	MC	SCR	MC	SCR	MC	SCR	Total
	1	1	1	Distinguish between a scientific theory and an opinion, explaining how a theory is supported with evidence, or how new data/information may change existing theories and practices		2				2	2		1				1	1
	1	1	2	Explain how certain questions can be answered through scientific inquiry and/or technological design.														
	1	1	3	Use evidence, such as observations or experimental results, to support inferences about a relationship.	2				2		2	2				2		2
	1	1	4	Develop descriptions, explanations, predictions, and models using evidence.	1				1		1	1				1		1
	1	2	1	Describe the positive and negative, intended and unintended, effects of specific scientific results or technological developments (e.g., air/space travel, genetic engineering, nuclear fission/fusion, artificial intelligence, lasers, organ transplants).			1		1		1			1		1		1
	1	2	2	Identify environmental issues and explain their potential long-term health effects (e.g., pollution, pest controls, vaccinations).	1		1		2		2	1		1		2		2
	1	2	3	Describe fundamental scientific or technological concepts that could solve practical problems (e.g., Newton's laws of motion, Mendelian genetics).	2				2		2	2				2		2
	1	2	4	Explain society's standard of living in terms of technological advancements and how these advancements impact on agriculture (e.g., transportation, processing, production, storage).														
	1	3	1	Use ratio to describe change (e.g., percents, parts per million, grams per cubic centimeter, mechanical advantage).	1				1		1	1				1		1

1	3	2	Use evidence, observations, or explanations to make inferences about change in systems over time (e.g., carrying capacity, succession, population dynamics, loss of mass in chemical reactions, indicator fossils in geologic time scale) and the variables affecting these changes.	1		1		2		2	1		1		2		2
1	3	3	Examine systems changing over time, identifying the possible variables causing this change, and drawing inferences about how these variables affect this change.	2		1		3		3	2		1		3		3
1	3	4	Given a scenario, explain how a dynamically changing environment provides for the sustainability of living systems.	1				1		1	1				1		1
Total For Assessment Anchor A.1 Reasoning and Analysis				11	2	4		15	2	17	11	1	4		15	1	16
2	1	1	Use evidence, observations, or a variety of scales (e.g., mass, distance, volume, temperature) to describe relationships.	1				1		1	1				1		1
2	1	2	Use space/time relationships, define concepts operationally, raise testable questions, or formulate hypotheses.	1				1		1	1				1		1
2	1	3	Design a controlled experiment by specifying how the independent variables will be manipulated, how the dependent variable will be measured, and which variables will be held constant.	3				3		3	3				3		3
2	1	4	Interpret data/observations; develop relationships among variables based on data/observations to design models as solutions.	1				1		1	1				1		1
2	1	5	Use evidence from investigations to clearly communicate and support conclusions.	1	2			1	2	3	1	1			1	1	2
2	1	6	Identify a design flaw in a simple technological system and devise possible working solutions.	2				2		2	2				2		2
2	2	1	Describe the appropriate use of instruments and scales to accurately and safely measure time, mass, distance, volume, or temperature under a variety of conditions.														
2	2	2	Apply appropriate measurement systems (e.g., time, mass, distance, volume, temperature) to record and interpret observations under varying conditions.	2		1		3		3	2		1		3		3

A: Nature of Science

2	2	3	Describe ways technology (e.g., microscope, telescope, micrometer, hydraulics, barometer) extends and enhances human abilities for specific purposes.															
Total For Assessment Anchor A.2 Processes, Procedures, and Tools of Scientific Investigations				11	2	1		12	2	14	11	1	1		12	1	13	
3	1	1	Describe a system (e.g., watershed, circulatory system, heating system, agricultural system) as a group of related parts with specific roles that work together to achieve an observed result.	1				1		1	1				1		1	
3	1	2	Explain the concept of order in a system [e.g., (first to last: manufacturing steps, trophic levels); (simple to complex: cell, tissue, organ, organ system)].	2				2		2	2				2		2	
3	1	3	Distinguish between system inputs, system processes, system outputs, and feedback (e.g., physical, ecological, biological, informational).	1				1		1	1				1		1	
3	1	4	Distinguish between open loop (e.g., energy flow, food web) and closed loop (e.g., materials in the nitrogen and carbon cycles, closed-switch) systems.															
3	1	5	Explain how components of natural and human-made systems play different roles in a working system.															
3	2	1	Describe how scientists use models to explore relationships in natural systems (e.g., an ecosystem, river system, the solar system).	1				1		1	1				1		1	
3	2	2	Describe how engineers use models to develop new and improved technologies to solve problems.	1				1		1	1				1		1	
3	2	3	Given a model showing simple cause- and-effect relationships in a natural system, predict results that can be used to test the assumptions in the model (e.g., photosynthesis, water cycle, diffusion, infiltration).															

	3	3	1	Identify and describe patterns as repeated processes or recurring elements in human-made systems (e.g., trusses, hub-and-spoke system in communications and transportation systems, feedback controls in regulated systems).															
	3	3	2	Describe repeating structure patterns in nature(e.g., veins in a leaf, tree rings, crystals, water waves) or periodic patterns (e.g., daily, monthly, annually).	1				1		1	1				1		1	
	Total For Assessment Anchor A.3 Systems, Models, and Patterns				7				7		7	7				7		7	
Total For Reporting Category A					29	4	5		34	4	38	29	2	5		34	2	36	

Grade 08 **Science**

Reporting Category	Assessment Anchor	Descriptor (Sub-anchor)	Eligible Content	Focus	Points							Items						
					Student Scores (Core Points)		Equating Block (EB)		Total Points (Core & EB)			Number of Items				Total Number of Items (Core & EB)		
												Core		EB				
					MC	OE	MC	OE	MC	OE	Total	MC	OE	MC	OE	MC	OE	Total
	1	1	1	Describe the structures of living things that help them function effectively in specific ways (e.g., adaptations, characteristics).														
	1	1	2	Compare similarities and differences in internal structures of organisms (e.g., invertebrate/vertebrate, vascular/nonvascular, single-celled/multi-celled) and external structures (e.g., appendages, body segments, type of covering, size, shape).	1	2			1	2	3	1	1			1	1	2
	1	1	3	Apply knowledge of characteristic structures to identify or categorize organisms (i.e., plants, animals, fungi, bacteria, and protista).														
	1	1	4	Identify the levels of organization from cell to organism and describe how specific structures (parts), which underlie larger systems, enable the system to function as a whole.														
	Total For Assessment Anchor B.1 Structures and Functions of Organisms				1	2			1	2	3	1	1			1	1	2
	2	1	1	Explain how inherited structures or behaviors help organisms survive and reproduce in different environments.	1				1		1	1				1		1
	2	1	2	Explain how different adaptations in individuals of the same species may affect survivability or reproduction success.														
	2	1	3	Explain that mutations can alter a gene and are the original source of new variations.														
	2	1	4	Describe how selective breeding or biotechnology can change the genetic makeup of organisms.														
	2	1	5	Explain that adaptations are developed over long periods of time and are passed from one generation to another	1				1		1	1				1		1

B: Biological Sciences	2	2	1	Identify and explain differences between inherited and acquired traits.	1				1		1	1				1		1
	2	2	2	Recognize that the gene is the basic unit of inheritance, that there are dominant and recessive genes, and that traits are inherited.	1				1		1	1				1		1
	Total For Assessment Anchor B.2 Continuity of Life				4				4		4	4				4		4
	3	1	1	Explain the flow of energy through an ecosystem (e.g., food chains, food webs).	1				1		1	1				1		1
	3	1	2	Identify major biomes and describe abiotic and biotic components (e.g., abiotic: different soil types, air, water sunlight; biotic: soil microbes, decomposers).	1				1		1	1				1		1
	3	1	3	Explain relationships among organisms (e.g., producers/consumers, predator/prey) in an ecosystem.														
	3	2	1	Use evidence to explain factors that affect changes in populations (e.g., deforestation, disease, land use, natural disaster, invasive species).														
	3	2	2	Use evidence to explain how diversity affects the ecological integrity of natural systems	1				1		1	1				1		1
	3	2	3	Describe the response of organisms to environmental changes (e.g., changes in climate, hibernation, migration, coloration) and how those changes affect survival.														
	3	3	1	Explain how human activities may affect local, regional, and global environments.														
	3	3	2	Explain how renewable and nonrenewable resources provide for human needs (i.e., energy, food, water, clothing, and shelter).														
	3	3	3	Describe how waste management affects the environment (e.g., recycling, composting, landfills, incineration, sewage treatment).														
	3	3	4	Explain the long-term effects of using integrated pest management (e.g., herbicides, natural predators, biogenetics) on the environment.	1				1		1	1				1		1
	Total For Assessment Anchor B.3 Ecological Behavior and Systems				4				4		4	4				4		4
Total For Reporting Category B					9	2			9	2	11	9	1			9	1	10

Grade 08 **Science**

Reporting Category	Assessment Anchor	Descriptor (Sub-anchor)	Eligible Content	Focus	Points							Items						
					Student Scores (Core Points)		Equating Block (EB)		Total Points (Core & EB)			Number of Items				Total Number of Items (Core & EB)		
												Core		EB				
					MC	OE	MC	OE	MC	OE	Total	MC	OE	MC	OE	MC	OE	Total
C: Physical Sciences	1	1	1	Explain the differences among elements, compounds, and mixtures.														
	1	1	2	Use characteristic physical or chemical properties to distinguish one substance from another (e.g., density, thermal expansion/contraction, freezing/melting points, streak test).	2				2		2	2				2		2
	1	1	3	Identify and describe reactants and products of simple chemical reactions.	1				1		1	1				1		1
	Total For Assessment Anchor C.1 Structures, Properties, and Interaction of Matter and Energy				3				3		3	3				3		3
	2	1	1	Distinguish among forms of energy (e.g., electrical, mechanical, chemical, light, sound, nuclear) and sources of energy (i.e., renewable and nonrenewable energy)														
	2	1	2	Explain how energy is transferred from one place to another through convection, conduction, or radiation.	3				3		3	3				3		3
	2	1	3	Describe how one form of energy (e.g., electrical, mechanical, chemical, light, sound, nuclear) can be converted into a different form of energy.	1				1		1	1				1		1
	2	2	1	Describe the Sun as the major source of energy that impacts the environment.	1				1		1	1				1		1
	2	2	2	Compare the time span of renewability for fossil fuels and the time span of renewability for alternative fuels.	1				1		1	1				1		1
	2	2	3	Describe the waste (i.e., kind and quantity) derived from the use of renewable and nonrenewable resources and their potential impact on the environment.														
	Total For Assessment Anchor C.2 Forms, Sources, Conversions, and Transer of Energy				6				6		6	6				6		6
	3	1	1	Describe forces acting on objects (e.g., friction, gravity, balanced versus unbalanced).	1	2			1	2	3	1	1			1	1	2
	3	1	2	Distinguish between kinetic and potential energy.			1		1		1			1		1		1

	3	1	3	Explain that mechanical advantage helps to do work (physics) by either changing a force or changing the direction of the applied force (e.g., simple machines, hydraulic systems).															
	Total For Assessment Anchor C.3 Principles of Motion and Force				1	2	1		2	2	4	1	1	1		2	1	3	
Total For Reporting Category C					10	2	1		11	2	13	10	1	1		11	1	12	

Grade 08 **Science**

Reporting Category	Assessment Anchor	Descriptor (Sub-anchor)	Eligible Content	Focus	Points							Items						
					Student Scores (Core Points)		Equating Block (EB)		Total Points (Core & EB)			Number of Items				Total Number of Items (Core & EB)		
												Core		EB				
					MC	OE	MC	OE	MC	OE	Total	MC	OE	MC	OE	MC	OE	Total
	1	1	1	Explain the rock cycle as changes in the solid earth and rock types found in Pennsylvania (igneous – granite, basalt, pumice; sedimentary – limestone, sandstone, shale, coal; and metamorphic – slate, quartzite, marble, gneiss).	1				1		1	1				1		1
	1	1	2	Describe natural processes that change Earth's surface (e.g., landslides, volcanic eruptions, earthquakes, mountain building, new land being formed, weathering, erosion, sedimentation, soil formation).		2				2	2		1				1	1
	1	1	3	Identify soil types (i.e., humus, topsoil, subsoil, loam, loess, and parent material) and their characteristics (i.e., particle size, porosity, and permeability) found in different biomes and in Pennsylvania, and explain how they formed.	1				1		1	1				1		1
	1	1	4	Explain how fossils provide evidence about plants and animals that once lived throughout Pennsylvania's history (e.g., fossils provide evidence of different environments).	2				2		2	2				2		2
	1	2	1	Describe a product's transformation process from production to consumption (e.g., prospecting, propagating, growing, maintaining, adapting, treating, converting, distributing, disposing) and explain the process's potential impact on Earth's resources.														
	1	2	2	Describe potential impacts of human-made processes (e.g., manufacturing, agriculture, transportation, mining) on Earth's resources, both nonliving (i.e., air, water, or earth materials) and living (i.e., plants and animals).	2				2		2	2				2		2

D: Earth and Space Sciences	1	3	1	Describe the water cycle and the physical processes on which it depends (i.e., evaporation, condensation, precipitation, transpiration, runoff, infiltration, energy inputs, and phase changes).	1				1		1	1				1		1
	1	3	2	Compare and contrast characteristics of freshwater and saltwater systems on the basis of their physical characteristics (i.e., composition, density, and electrical conductivity) and their use as natural resources.														
	1	3	3	Distinguish among different water systems (e.g., wetland systems, ocean systems, river systems, watersheds) and describe their relationships to each other as well as to landforms.	1				1		1	1				1		1
	1	3	4	Identify the physical characteristics of a stream and how these characteristics determine the types of organisms found within the stream environment (e.g., biological diversity, water quality, flow rate, tributaries, surrounding watershed).	1				1		1	1				1		1
	Total For Assessment Anchor D.1 Earth Features and Processes that Change Earth and its Resources				9	2			9	2	11	9	1			9	1	10
	2	1	1	Explain the impact of water systems on the local weather or the climate of a region (e.g., lake effect snow, land/ocean breezes).														
	2	1	2	Identify how global patterns of atmospheric movement influence regional weather and climate.														
	2	1	3	Identify how cloud types, wind directions, and barometric pressure changes are associated with weather patterns in different regions of the country.	1				1		1	1				1		1
	Total For Assessment Anchor D.2 Weather, Climate, and Atmospheric Processes				1				1		1	1				1		1
	3	1	1	Describe patterns of Earth's movements (i.e., rotation and revolution) and the Moon's movements (i.e., phases, eclipses, and tides) in relation to the Sun.														
	3	1	2	Describe the role of gravity as the force that governs the movement of the solar system and universe.														

	3	1	3	Compare and contrast characteristics of celestial bodies found in the solar system (e.g., moons, asteroids, comets, meteors, inner and outer planets).														
	Total For Assessment Anchor D.3 Composition and Structure of the Universe																	
Total For Reporting Category D					10	2			10	2	12	10	1			10	1	11

APPENDIX C: ITEM AND TEST DEVELOPMENT PROCESS

ITEM AND TEST DEVELOPMENT PROCESS FOR PSSA

Step	Description
1. Review Guiding Documentation	Each year item and test development specialists meet internally to review all guiding documentation related to the PSSA. Documentation reviewed includes the test design blueprints, the Pennsylvania Assessment Anchors and Eligible Content, the test item specifications, the test style specifications (style guide), and all test content descriptions.
2. Meet with PDE to Confirm Understanding of Program	The goal of the meeting each year is to ensure that item and test development teams have a clear understanding of PDE's vision for test development. A successful development cycle requires a clear understanding of Pennsylvania's content-area test specifications and of any unique interpretations of the Pennsylvania Assessment Anchors (if any).
3. Create Preliminary Test Item Development Plan	Item and test development specialists generate a preliminary development plan which includes an overview of the program, the internal and external (PDE) review and approval processes, a projected schedule for development of test items—including the number of test items to be developed for review by PDE and subsequent review by the committees of Pennsylvania educators. Item and test development specialists also generate strategies for securing passages and developing science scenarios and passage-based items, etc.
4. Meet with PDE to Finalize Test Item Development Plan	Over the course of the meeting, item and test development specialists verify all steps in the development process including timelines and schedules for test item/test development.
5. Analyze Item Bank	Existing test items in the current PSSA Item Bank are reviewed for technical psychometric quality as well as for their match to the Assessment Anchors. During this phase, test development specialists also make a tally of the test items by Assessment Anchor—including test development specialists' best thinking regarding the number of usable test items in the existing item bank. A tally is also made of the number of usable passages, as well as other stimulus prompts in the bank, including science scenarios.
6. Refine Test Item Development Plan to Include Writers and Subcontractors	Item and test development specialists identify the writers who will write the test items (test development specialists or other professional item writers, subcontractors, etc.), the estimated number of writers needed, the qualifications of writers, and the approximate number of test items to be submitted by each source.
7. Train Item Writers	Item and test development specialists train item writers, as needed. Item writers who have written for the PSSA in the past receive updated information, as needed.
8. Write and Review Items	Test items are written by item writers after training is complete, and feedback is provided by the item and test development specialists to item writers on a regular basis. As test items are written, they are reviewed and edited in a series of internal reviews. Item and test development specialists review and edit items to include, but not limited to, the following: match to Assessment Anchor/Eligible Content, relevance to purpose, accuracy of content, item difficulty, interest level, grade appropriateness, depth of knowledge and cognitive complexity, adherence to the principles of Universal Design, and freedom from issues of bias/fairness/sensitivity. At the same time, the process of procuring permissions also begins, including securing permissions for passages, art, etc.
9. Enter Test Items into Database	Upon acceptance from item writers, test items are entered into the item management system, IDEAS (*Item Development and Educational Assessment System*). Item data stored in the system database includes, but is not limited to, the following: readability, cognitive level, estimated level of difficulty, alignment to Assessment Anchors, and correlation to stimulus prompts and passages.
10. Prepare Item Set for Sample Item Review by PDE	Item and test development specialists prepare a subset of the items for review by PDE.

Step	Description
11. PDE Conducts Sample Item Review	After a subset of the items is submitted to PDE for review, PDE reviews the items and provides feedback to item and test development teams via a conference call. Items are revised per PDE feedback.
12. Continue to Write and Review Items	The remaining items are written, and feedback is provided by the item and test development specialists to item writers on a regular basis. Items are entered into the item management system, IDEAS (*Item Development and Educational Assessment System*) (See step 8 and step 9).
13. Review Items Prior to Test Item Review and Validation Sessions	Prior to New Item Content Review, all items are submitted to PDE for review. Item and test development specialists incorporate all PDE feedback, and PDE-requested edits to items are made.
14. Prepare for Test Item Review Sessions (the New Item Content Review and the Bias, Fairness, and Sensitivity Review)	Item and test development specialists prepare all items and stimulus passages for review by the New Item Content Review Committee (consisting of Pennsylvania educators) and by the separate Bias, Fairness, and Sensitivity Committee (consisting of a panel of experts including Pennsylvania educators). Item and test development specialists also prepare training materials needed for training committee members to review items for content or for bias, fairness, and sensitivity issues. All training materials and other ancillary materials (e.g., agendas, presentations, etc.) are also developed and then submitted to PDE for review and approval. Invitations are sent to Pennsylvania educators and national experts from PDE-approved committee lists.
15. Conduct Test Item Review Sessions (the New Item Content Review and the Bias, Fairness, and Sensitivity Review)	Committees of Pennsylvania educators and national experts review items in two meetings: one addressing item content and quality, the other addressing bias, fairness, and sensitivity. PDE, with support from item and test development specialists, presents training on how to review new test items for content considerations or bias/fairness/sensitivity issues. At the New Item Content Review, suggested edits to test items are made and/or replacement test items are written during the actual item review so that both the committee and the PDE are able to observe changes to the test items and approve the test items during the committee review process. At the Bias, Fairness, and Sensitivity Review, experts in bias, fairness, and sensitivity review all test items and passages and come to a consensus about any issues that are noted. At both meetings the results are carefully documented.
16. Conduct Item Review Resolution and Cleanup	Following the conclusion of the New Item Content Review Committee meetings, PDE re-examines the consensus changes suggested by the committee members during the New Item Content Review Committee meetings. DRC item and test development specialists then record all of PDE's follow-up decisions and changes. During this cleanup process, PDE either accepts the changes as requested by the committee or rejects the decision of the committee. If a committee decision is rejected, PDE provides an alternate decision for DRC to implement. During this cleanup process, PDE also interprets the report from the Bias, Fairness, and Sensitivity Committee meetings and subsequently identifies changes to test items and passages. DRC item and test development specialists then apply the changes to the test items and passages per PDE's decisions.
17. Submit Field Test Items for Final Sign-Off	PDE-approved changes are applied to the items, scenarios, non-permissioned passages, prompts, etc. (Changes reflect PDE's arbitration of the committee decisions.) Once all revisions to the items, non-permissioned passage text, and/or the art used by test items and passages are completed, the test items are submitted to PDE for final review and sign-off. (Changes requested to permissioned passages are sought from the publisher of record, and, if approved by the copyright holders, changes are implemented.) [PDE's approval process for field test items generally occurs simultaneously with PDE's approval of the core test forms. See step 25.]
*To follow the path for new field test items, skip to **step 22**, or to follow the chronological test development path, continue with **step 18**.*	

Step	Description
18. Review Results of the Field Test	Following the administration of a field test form and the subsequent rangefinding and field test scoring processes for field test items, performance data for all field test items are analyzed by DRC psychometricians and test development specialists. Test item performance data that meet certain triggering criteria are flagged for additional reviews by test development specialists. Flagged field-test items with extreme performance data are considered psychometrically unusable and are removed from future operational consideration. Field-test items with marginal performance data are prepared for the Field Test Item Data Review meeting.
19. Prepare for Field Test Item Data Review	Test development specialists prepare the items and stimulus passages for review by the Field Test Item Data Review Committee (which consists of Pennsylvania educators). Psychometricians also prepare training materials needed for training committee members to review items for their performance. All training materials and other ancillary materials (e.g., agendas, presentations, etc.) are submitted to PDE for review and approval. Invitations are also sent to Pennsylvania educators from PDE-approved committee lists.
20. Conduct Field Test Item Data Review	Committees of Pennsylvania educators review the performance data of flagged field-test items. Psychometricians present training on how to review field-test items based on their performance data. At the Item Data Review, committee members examine the performance of the items and determine whether each field-test item is technically sound and appropriate for use on an operational PSSA test. Since test items cannot be modified at the Field Test Item Data Review, the committee can either accept an item as is, or the committee can reject the item.
21. Conduct Field Test Item Data Review Reconciliation	Following the conclusion of the Field Test Item Data Review Committee meetings, PDE re-examines the consensus decisions (accept or reject) suggested by the committee members during the Field Test Item Data Review Committee meetings. Test development specialists record all of PDE's follow-up decisions and changes. During this cleanup process, PDE either accepts the decisions of the data review committee, or PDE rejects the decisions of the data review committee. If a committee decision is not accepted, PDE provides an alternate decision for test development specialists to implement. All PDE-approved changes to the test items status (accepted or rejected) are incorporated into the *Item Development and Educational Assessment System*, IDEAS.
22. Select Items to Fill Core, Field Test, and Equating Block Positions in Core and Field Test Forms	After the PDE-approved changes to the new field-test items is completed AND the results of the prior field test have been finalized following data review, test development specialists collaborate with psychometricians to follow the Test Design Blueprints and build requirements to make the initial selection of items for core, field-test, and equating block positions for all test forms.
23. Review Core and Equating Block Selections	After test content and psychometric requirements have been achieved for core and equating block positions, the core and equating block items are provided to PDE for review and approval. Any changes to the content of the core or equating block requested by PDE are balanced with psychometric requirements until all core and equating block positions are approved by PDE, test development specialists, and psychometricians. Test development specialists work with psychometricians and PDE staff to create scrambled versions of the core items that will appear across forms.
24. Construct Test Forms	Items, passages, and test components are assembled into forms using the form construction and typesetting function of DRC's *Item Development and Educational Assessment System*, IDEAS. Forms are reviewed internally for style and formatting requirements.
25. Review Typeset Forms	After forms are constructed in IDEAS, draft hard copies of the forms are produced and presented to PDE for review and approval. Any changes to the content of the core or equating block requested by PDE are balanced with psychometric requirements until all core and equating block positions are approved by PDE, test development specialists, and psychometricians. PDE also re-reviews all field-test items appearing in the test forms. DRC applies changes to the field-test items as required.

Step	Description
26. Print Test Forms	Following PDE's approval of the test forms, DRC completes a series of final proofing of all test forms. Final forms (along with ancillary materials) are then approved for printing.
27. Assemble Documentation of Test Materials	Metadata for each test item and form is documented and proofed, including: grade, form, session/section, item sequence, reporting category, Assessment Anchor, descriptor (sub-anchor), Eligible Content, number of points, item type, number of answer options, item usage, stimulus ID, etc.
28. Prepare Online Forms	Following approval of the print forms, all online forms are prepared. Forms are rendered in form sets, and items and forms are compared for continuity with the print forms as well as to ensure that all tools and features are functioning as expected.
*To follow the path for new field test items, return to **step 18**.*	

APPENDIX D: ITEM AND DATA REVIEW CARD EXAMPLES

ITEM REVIEW CARD EXAMPLE

Standard: Use the four operations with whole numbers to solve problems.

1. [redacted]

A. [redacted]

B. [redacted]

PA - Item Card

Item ID	[redacted]
Content Area	Mathematics
Passage ID	
Passage Title	
Grade	4
CCAACS Standards	B-O.1
Item Type	Open Ended
Points	4
Depth of Knowledge	2
Bloom's Taxonomy	
Est Difficulty	Medium
Key	
Calculator	C

1. ***Continued.*** Please refer to the previous page for task explanation.

C.

Standard: Describe how prominent Earth features in Pennsylvania (e.g., mountains, valleys, caves, sinkholes, lakes, rivers) were formed.

1. [redacted]

PA - Data Card

Item ID	[redacted]
Content Area	Science
Passage ID	
Passage Title	
Grade	4
Standards	AACS: D.1.1.1
Item Type	Multiple Choice
Points	1
Depth of Knowledge	2
Est Difficulty	Medium
Key	A
Focus	

Data Recognition Corporation [redacted]

PA - Master Statistics Data Card

Administration(s)

Form Name	Use Function	Rptg Flag	Seq	Period	Year	Session	Calc	Model/Ext	Grade	N	P-Value	Item Total Corr
				Spring	2015		Yes	Rasch	4	1548	0.54	0.34

Traditional Statistics

N	P-Val	Mean	Item Total Corr
122762	0.54		0.34

Distractor/Step Specific

Label	Proportion	Corr	Avg Meas	Step Meas
A*	0.54	0.34		
B	0.20	-0.10		
C	0.14	-0.21		
D	0.12	-0.16		
MULTS	0.00			
OMITS	0.00			

DIF Analysis

Category	Bias Code	Num Value	N - Ref	N - Focal
MALEFEMALE	A-	-0.26	5349	5011
WHITEBLACK	A+	0.14	7285	1569
WHITEHISPANIC	A-	-0.40	7285	889

Data Recognition Corporation

Reviewer Signature: _____

Item Rating Sheet

Content Area: _____ Grade: _____

	Content Alignment	Rigor Level Alignment				Technical Design			Universal Design		STATUS
	Standards	Grade	Difficulty	Depth of Knowledge	Source of Challenge	Correct Answer	Distractors	Graphics	Language Demand	Bias	Acceptance Status
Unique ID number	—Higher —Lower —None	—Above —At —Below	—Hard —Medium —Easy	—Recall —Application —Strategic Thinking	—Yes —No	—Yes —No	—Yes —No	—Yes —No	—Yes —No	—Yes —No	— Approved as is — Accepted with suggested revisions — Dissenting View

Item Review Criteria Guidelines

The purpose of this form is to provide guidelines to the item review process in terms of item characteristics that are essential in building a fair and balanced assessment. Use these guidelines in conjunction with the Item Rating Sheet when recording your feedback on individual items.

Content Alignment		Options
Standards, Anchors, Eligible Content	Does the content of the item align with the Standard/Anchor/Eligible Content? Each item was written to assess a particular Standard/Anchor/ Eligible Content statement which is indicated on the individual Item Card. Consider the degree to which the item is, in fact, aligned with the indicated eligible content. In making this judgment, it is important to consider whether the **content** is aligned (e.g., do the eligible content and the item both deal with fractions) and whether the required **performance** is aligned (e.g., if the eligible content calls for a comparison to be made, is this reflected in the item).	**HIGHER**—Aligns to the higher level of the EC **LOWER**—Aligns to the lower level of the EC **NONE**—No alignment with EC

Rigor Level Alignment		Options
Grade	Is the item grade-level appropriate? Is the content consistent with the experiences of a student at the grade level assessed? Is the challenge level appropriate for the grade?	**ABOVE** Grade Level **AT** Grade Level **BELOW** Grade Level
Difficulty	Do you agree with the item's difficulty rating? Item Difficulty is indicated as Easy, Medium, and Hard? Is your rating in agreement with the difficulty rating on the Item Form?	**HARD** **MEDIUM** **EASY**
Depth of Knowledge	Depth of Knowledge is based on the alignment work of Norman Webb. Rate each item based on the cognitive demand, using the following levels: 1. Recall – ***Recall*** of a fact, information, or procedure. 2. Basic Application of Skill or Concept – ***Use*** of information, conceptual knowledge, procedures, two or more steps, etc. 3. Strategic Thinking – Requires reasoning, developing a plan or sequence of steps; has some complexity; more than one possible answer. 4. Extended Thinking – Requires an investigation, time to think and process multiple conditions of the problem or task, and more than 10 minutes to do non-routine manipulations. (This level is generally not assessed in on-demand assessments.)	**4** = Extended Thinking **3** = Strategic Thinking **2** = Basic Application **1** = Recall

Source of Challenge	Is the source of challenge appropriately targeted to the content? The hardest part of the item (i.e., source of challenge) should be the content that is targeted. For example, in mathematics, the mathematics should be the major source of challenge rather than the wording or graphic. Students should not give an incorrect answer to a mathematics item because the reading level is too high or a graphic is flawed. Conversely, students should not give correct answers for reasons such as prior knowledge that make the answer to the question obvious (e.g., if the question asks which country has the largest population and students are to read a graph that includes China, there is no need to read the graph to answer the question).	**Y** = Yes **N** = No

Technical Design		**Options**
Correct Answer	Is there one clear, correct answer? There should be no other answer that "could" be correct. CAUTION: This does not mean that "good" distractors are unfair.	**Y** = Yes **N** = No
Distractors	Are distractors fair and appropriate? Distractors that are appropriate offer students reasonable choices that can be arrived at by making common errors. There should be no distractors that make no sense at all. It should be possible to examine each option and to reason how a student with some deficiency in knowledge or skill could choose it. The distractors should be formatted according to acceptable standards of test construction (e.g., a phrase that is common to each distractor should be placed in the stem).	**Y** = Yes **N** = No
Graphics	Are the graphics clear and accurate?	**Y** = Yes **N** = No

Universal Design		**Options**
Language Demand	Is language clear, well-formatted, and precise? Does the item use correct terminology for the content area? In order for all students to enter into the questions of the assessment, they must be able to understand them. If the items are formatted poorly, use unnecessarily complex words or phrases, or use figures or layouts that are difficult to understand, some students will give incorrect answers due to these factors rather than the content that is being assessed.	**Y** = Yes **N** = No
Bias	Is the item free of bias? All students will not be able to enter into the assessment if bias considerations are not resolved. Does the item contain clear bias problems? *A thorough, independent bias review* (separate from this meeting) *will be completed for all items.*	**Y** = Yes **N** = No

Status		**Options**
Acceptance Status	This is an overall judgment about the item. Based on the consensus of the committee, indicate whether the item was approved without revision to the content of the item or whether the item was accepted by the committee after revision of the content of the item. If there is a dissenting view (opposed to the committee consensus), record a brief explanation of the dissenting view on the back of the Item Rating Sheet.	**—Approved** as is **—Accepted** with suggested revisions **—Dissenting View**

NOTES:

- If you leave a box blank on the Item Rating Sheet, it will be recorded to indicate that you did not have any specific feedback for that item or issue.
- If you object to the consensus of the committee, please note this on the item rating sheet and then record a brief explanation of the dissenting view on the back of the Item Rating Sheet.
- **Do NOT remove any items from the item binder at any time.**
- You must sign your Item Rating Sheet.

APPENDIX F: ITEM STATISTICS

Multiple-Choice Paper/Pencil Item Statistics

Column Heading	Definition
ContArea	Content
FormGrade	Grade
PublD	Form ID
FormNumber	Form
Standard1	Standard
Depth	Depth of Knowledge
N	N
PValue	P-Value
ProportionA	Proportion A
ProportionB	Proportion B
ProportionC	Proportion C
ProportionD	Proportion D
ProportionOMITS	Proportion Omits
PtBiserial	Point Biserial
CorrelationA	Correlation A
CorrelationB	Correlation B
CorrelationC	Correlation C
CorrelationD	Correlation D
FinalB	IRT Difficulty Estimate
FinalBErr	IRT Difficulty Error
Infit	Infit
InfitMnSq	Infit Mean Square
Outfit	Outfit
OutfitMnSq	Outfit Mean Square
BiasCodeMALEFEMALE	Male/Female DIF Code
BiasCodeWHITEBLACK	White/Black DIF Code
BiasCodeWHITEHISPANIC	White/Hispanic DIF Code

ContArea	FormGrade	ItemID	PubID	FormNumber	Standard1	Depth	N	PValue	ProportionA	ProportionB	ProportionC	ProportionD	ProportionOMITS	PtBiserial	CorrelationA	CorrelationB	CorrelationC	CorrelationD	FinalB	FinalBErr	Infit	InfitMnSq	Outfit	OutfitMnSq	BiasCodeMALEFEMALE	BiasCodeWHITEBLACK	BiasCodeWHITEHISPANIC
ELA	3	651825	696706	0	D	2	124046	0.45	0.45	0.44	0.05	0.04	0.01	0.22	0.22	-0.03	-0.23	-0.1983	0.9489	0.0064	9.9012	1.1955	9.9013	1.2633			
ELA	3	652248	618944	0	D	2	124046	0.73	0.07	0.05	0.13	0.73	0.01	0.41	-0.24	-0.20	-0.21	0.4124	-0.4360	0.0070	-9.8991	0.9428	-9.8991	0.9267			
ELA	3	652272	548618	0	D	1	124046	0.90	0.04	0.90	0.03	0.03	0.00	0.40	-0.24	0.40	-0.21	-0.2080	-1.8244	0.0099	-9.8991	0.8842	-9.8993	0.6526			
ELA	3	652477	931277	0	D	2	124046	0.64	0.22	0.03	0.10	0.64	0.00	0.40	-0.20	-0.19	-0.23	0.3991	0.0925	0.0065	-0.2090	0.9994	-6.1890	0.9732			
ELA	3	652822	614603	0	D	2	124046	0.80	0.06	0.12	0.02	0.80	0.00	0.47	-0.27	-0.30	-0.19	0.4704	-0.9313	0.0077	-9.8991	0.8824	-9.8992	0.7542			
ELA	3	653137	824795	0	D	2	124046	0.45	0.19	0.45	0.10	0.24	0.01	0.27	-0.11	0.27	-0.15	-0.0958	0.9954	0.0064	9.9011	1.1417	9.9012	1.2017			
ELA	3	654618	621046	0	D	2	124046	0.50	0.23	0.13	0.13	0.50	0.01	0.33	-0.10	-0.15	-0.20	0.3305	0.8057	0.0063	9.9011	1.0858	9.9011	1.1179			
ELA	3	655105	878116	0	D	2	124046	0.45	0.09	0.27	0.18	0.45	0.01	0.29	-0.25	-0.02	-0.15	0.2875	1.0557	0.0064	9.9011	1.1194	9.9012	1.1968			
ELA	3	655401	428715	0	D	2	124046	0.68	0.68	0.13	0.13	0.06	0.01	0.42	0.42	-0.26	-0.19	-0.1804	-0.1432	0.0067	-9.8390	0.9712	-9.8991	0.9208			
ELA	3	657272	918040	0	D	1	124046	0.69	0.12	0.69	0.09	0.09	0.01	0.28	-0.17	0.28	-0.11	-0.1311	-0.1658	0.0067	9.9011	1.0970	9.9012	1.211			
ELA	3	657280	297841	0	D	2	124046	0.82	0.82	0.04	0.10	0.03	0.01	0.41	0.41	-0.25	-0.22	-0.2472	-1.1017	0.0080	-9.8991	0.9122	-9.8991	0.8668			
ELA	3	657283	171457	0	D	2	124046	0.79	0.79	0.05	0.09	0.06	0.01	0.40	0.40	-0.23	-0.17	-0.2467	-0.8369	0.0075	-9.8991	0.9413	-9.8991	0.888			
ELA	3	674843	367882	0	A-C	3	124046	0.51	0.08	0.20	0.51	0.19	0.02	0.26	-0.24	-0.04	0.26	-0.0995	0.8033	0.0063	9.9012	1.1726	9.9013	1.2515			
ELA	3	674845	454412	0	A-K	2	124046	0.76	0.12	0.76	0.06	0.06	0.01	0.50	-0.26	0.50	-0.28	-0.2283	-0.6505	0.0072	-9.8991	0.8740	-9.8992	0.7929			
ELA	3	674984	568545	0	A-K	2	124046	0.65	0.65	0.14	0.15	0.05	0.01	0.46	0.46	-0.23	-0.22	-0.2491	0.0555	0.0066	-9.8991	0.9255	-9.8991	0.8798			
ELA	3	674985	666607	0	A-C	3	124046	0.50	0.15	0.50	0.20	0.13	0.01	0.36	-0.23	0.36	-0.07	-0.1793	0.6984	0.0063	9.9011	1.0547	9.9011	1.0787			
ELA	3	674988	358887	0	A-V	2	124046	0.79	0.08	0.08	0.79	0.04	0.01	0.56	-0.33	-0.31	0.56	-0.2432	-0.9106	0.0076	-9.8992	0.8115	-9.8994	0.6394			
ELA	3	674992	230708	0	A-V	2	124046	0.76	0.10	0.05	0.07	0.76	0.01	0.52	-0.30	-0.25	-0.27	0.5219	-0.6699	0.0073	-9.8991	0.8568	-9.8993	0.7223			
ELA	3	702680	467518	0	B-K	2	124046	0.34	0.39	0.16	0.34	0.09	0.01	0.33	-0.11	-0.13	0.33	-0.1522	1.5839	0.0066	9.9010	1.0434	9.9012	1.188			
ELA	3	702681	722429	0	B-V	2	124046	0.46	0.46	0.16	0.28	0.09	0.01	0.40	0.40	-0.22	-0.09	-0.2451	0.9766	0.0064	0.4710	1.0012	5.9910	1.0213			
ELA	3	702684	732100	0	B-C	3	124046	0.56	0.24	0.56	0.09	0.10	0.01	0.44	-0.15	0.44	-0.26	-0.2247	0.4814	0.0064	-9.8990	0.9676	-9.8990	0.9536			
ELA	3	702686	875005	0	B-K	3	124046	0.43	0.26	0.11	0.18	0.43	0.01	0.31	0.01	-0.27	-0.16	0.3096	1.1425	0.0064	9.9011	1.1103	9.9012	1.1685			
ELA	3	702709	157910	0	A-V	2	124046	0.83	0.83	0.08	0.04	0.04	0.01	0.45	0.45	-0.25	-0.22	-0.2550	-1.1918	0.0082	-9.8991	0.8994	-9.8992	0.7703			
ELA	3	702710	941540	0	A-V	1	124046	0.61	0.22	0.05	0.11	0.61	0.01	0.44	-0.20	-0.24	-0.24	0.4426	0.0390	0.0066	-0.5790	0.9984	-7.6290	0.9661			
ELA	3	702713	592549	0	A-K	2	124046	0.67	0.67	0.12	0.11	0.09	0.01	0.45	0.45	-0.20	-0.23	-0.2426	-0.1160	0.0067	-9.8991	0.9485	-9.8991	0.8817			
ELA	3	702716	389974	0	A-K	2	124046	0.62	0.12	0.08	0.62	0.18	0.01	0.51	-0.30	-0.27	0.51	-0.1785	0.1713	0.0065	-9.8991	0.8907	-9.8991	0.8621			
ELA	3	736661	444717	0	B-C	3	124046	0.48	0.20	0.11	0.48	0.20	0.01	0.39	-0.28	-0.18	0.39	-0.0618	0.8467	0.0063	8.5610	1.0213	9.8110	1.0344			
ELA	3	736662	707005	0	B-C	3	124046	0.52	0.16	0.52	0.09	0.22	0.01	0.42	-0.17	0.42	-0.31	-0.1259	0.7508	0.0063	-4.9090	0.9879	0.8010	1.0028			
ELA	3	736664	911560	0	B-C	2	124046	0.53	0.53	0.19	0.09	0.19	0.01	0.45	0.45	-0.18	-0.24	-0.2121	0.5624	0.0064	-9.8990	0.9546	-9.8991	0.947			
ELA	3	736665	681317	0	B-K	2	124046	0.50	0.19	0.18	0.50	0.12	0.01	0.43	-0.16	-0.23	0.43	-0.1858	0.7710	0.0063	-9.8990	0.9640	-8.2090	0.9718			
ELA	3	736669	166880	0	B-V	2	124046	0.84	0.06	0.84	0.06	0.03	0.01	0.47	-0.26	0.47	-0.25	-0.2741	-1.2228	0.0082	-9.8991	0.8577	-9.8993	0.6865			
ELA	3	740245	234304	0	D	2	124046	0.91	0.02	0.03	0.91	0.04	0.01	0.40	-0.20	-0.23	0.40	-0.2473	-1.9880	0.0104	-9.8991	0.8937	-9.8994	0.6153			
ELA	3	740255	173725	0	D	2	124046	0.41	0.14	0.18	0.41	0.26	0.01	0.32	-0.25	-0.10	0.32	-0.0647	1.2505	0.0064	9.9011	1.0859	9.9012	1.1569			
ELA	3	740257	512862	0	D	2	124046	0.30	0.24	0.30	0.28	0.18	0.01	0.22	-0.05	0.22	-0.07	-0.1079	1.8937	0.0069	9.9012	1.1508	9.9014	1.4143			
ELA	3	740273	660733	0	D	2	124046	0.65	0.13	0.10	0.65	0.12	0.00	0.49	-0.24	-0.28	0.49	-0.2128	0.0056	0.0066	-9.8991	0.9025	-9.8992	0.8314			
ELA	3	740274	233693	0	D	2	124046	0.54	0.08	0.12	0.54	0.24	0.01	0.38	-0.22	-0.19	0.38	-0.1431	0.5646	0.0064	9.9010	1.0333	9.9011	1.0558			
ELA	3	740275	981417	0	B-K	2	124046	0.57	0.19	0.17	0.06	0.57	0.01	0.55	-0.22	-0.30	-0.27	0.5491	0.4509	0.0064	-9.8992	0.8410	-9.8992	0.7983			
ELA	3	741264	620864	0	D	2	124046	0.47	0.20	0.14	0.47	0.18	0.01	0.42	-0.24	-0.17	0.42	-0.1245	0.8361	0.0063	-8.0290	0.9803	-1.2990	0.9955			
ELA	3	655398	792787	1	D	2	13823	0.64	0.64	0.07	0.23	0.05	0.01	0.36	0.36	-0.19	-0.19	-0.1560	0.0172	0.0197	7.5111	1.0645	4.7211	1.0671	A-	A+	A+
ELA	3	736496	890728	1	B-V	2	69082	0.83	0.83	0.04	0.06	0.08	0.01	0.49	0.49	-0.25	-0.27	-0.2745	-1.1406	0.0108	-9.8992	0.8442	-9.8993	0.6583	B+	B-	A-
ELA	3	736498	307312	1	B-C	2	69082	0.63	0.16	0.63	0.11	0.09	0.00	0.47	-0.29	0.47	-0.22	-0.1668	0.0810	0.0088	-9.8991	0.9291	-9.8991	0.8801	A+	A-	A-
ELA	3	736499	380716	1	B-C	2	69082	0.60	0.27	0.05	0.60	0.08	0.01	0.47	-0.24	-0.22	0.47	-0.2623	0.2774	0.0086	-9.8991	0.9340	-9.8991	0.9082	A+	A-	A-
ELA	3	736500	304552	1	B-V	2	69082	0.81	0.81	0.04	0.08	0.06	0.01	0.47	0.47	-0.28	-0.21	-0.2856	-1.0270	0.0105	-9.8991	0.8669	-9.8992	0.7832	A-	A-	A-
ELA	3	736501	748701	1	B-K	2	69082	0.46	0.16	0.17	0.19	0.46	0.01	0.33	-0.18	-0.20	-0.04	0.3294	0.9711	0.0085	9.9011	1.0788	9.9011	1.1236	A+	A-	A-
ELA	3	736502	533153	1	B-K	2	69082	0.62	0.12	0.04	0.21	0.62	0.01	0.36	-0.33	-0.22	-0.04	0.3557	0.1314	0.0087	9.9011	1.0520	9.7111	1.0575	A+	A-	A-
ELA	3	809165	774639	1	D	2	13823	0.49	0.16	0.19	0.15	0.49	0.01	0.33	-0.12	-0.20	-0.11	0.3294	0.7719	0.0191	9.9011	1.0975	9.9011	1.1294	A+	A-	A-
ELA	3	809587	731468	1	A-C	3	13823	0.44	0.36	0.07	0.12	0.44	0.01	0.45	-0.18	-0.24	-0.20	0.4470	1.0297	0.0192	-6.3690	0.9520	-1.8590	0.9794	A-	A-	A-
ELA	3	809589	370851	1	A-V	2	13823	0.73	0.73	0.10	0.08	0.07	0.01	0.39	0.39	-0.21	-0.20	-0.2094	-0.5025	0.0211	-1.4690	0.9851	-0.4690	0.9911	A-	A-	A-
ELA	3	809591	634395	1	A-K	3	13823	0.60	0.20	0.10	0.60	0.09	0.01	0.49	-0.26	-0.26	0.49	-0.1690	0.2417	0.0194	-9.8991	0.9118	-9.8991	0.8629	A+	A-	A-
ELA	3	809592	688318	1	A-K	2	13823	0.57	0.11	0.17	0.14	0.57	0.01	0.48	-0.27	-0.16	-0.25	0.4831	0.3935	0.0192	-9.8991	0.9202	-9.2791	0.8957	A-	A-	A-
ELA	3	809593	899931	1	A-K	3	13823	0.50	0.18	0.50	0.23	0.08	0.01	0.36	-0.21	0.36	-0.05	-0.2724	0.7221	0.0191	7.8811	1.0606	6.9711	1.0769	A-	A-	A-
ELA	3	809594	259013	1	A-V	2	13823	0.62	0.21	0.08	0.62	0.07	0.01	0.49	-0.21	-0.29	0.49	-0.2554	0.1178	0.0196	-9.8991	0.9128	-9.8992	0.8483	A-	A-	A-
ELA	3	809595	454357	1	A-V	2	13823	0.65	0.19	0.65	0.05	0.10	0.01	0.54	-0.37	0.54	-0.20	-0.2082	-0.0259	0.0198	-9.8992	0.8423	-9.8992	0.7788	A+	B-	A-
ELA	3	809596	742778	1	A-V	2	13823	0.45	0.45	0.20	0.05	0.29	0.01	0.13	0.13	-0.06	-0.28	0.0565	0.9717	0.0191	9.9013	1.3259	9.9015	1.4654	A+	A-	A-
ELA	3	652805	610242	2	D	2	13836	0.52	0.13	0.16	0.52	0.17	0.01	0.39	-0.13	-0.20	0.39	-0.1989	0.6651	0.0190	3.0010	1.0227	2.8210	1.0302	A-	A-	A-
ELA	3	715006	676242	2	D	1	13836	0.59	0.11	0.59	0.20	0.09	0.01	0.38	-0.19	0.38	-0.19	-0.1592	0.2879	0.0193	4.8710	1.0389	2.8910	1.035	A-	A-	A-
ELA	3	806534	691231	2	A-C	3	13836	0.68	0.68	0.08	0.09	0.14	0.01	0.51	0.51	-0.29	-0.23	-0.2454	-0.1422	0.0201	-9.8991	0.8855	-9.8992	0.825	A+	A-	A-
ELA	3	806535	200180	2	A-K	2	13836	0.65	0.14	0.12	0.65	0.07	0.01	0.56	-0.36	-0.26	0.56	-0.1849	-0.0036	0.0198	-9.8992	0.8239	-9.8993	0.7434	A+	A-	A+
ELA	3	806538	453829	2	A-K	3	13836	0.37	0.19	0.18	0.25	0.37	0.01	0.33	-0.19	-0.15	-0.05	0.3295	1.4168	0.0196	6.3511	1.0527	9.9012	1.1596	A+	A-	A+
ELA	3	806539	925801	2	A-K	2	13836	0.44	0.21	0.44	0.10	0.24	0.01	0.31	-0.13	0.31	-0.23	-0.0578	1.0837	0.0192	9.9011	1.0924	9.9012	1.1777	A-	A-	A-
ELA	3	806540	793459	2	A-K	2	13836	0.41	0.13	0.32	0.13	0.41	0.01	0.30	-0.27	0.06	-0.24	0.2950	1.2080	0.0193	9.9011	1.1034	9.9012	1.2165	A-	A-	A-
ELA	3	806541	422388	2	A-V	2	13836	0.53	0.18	0.53	0.20	0.09	0.01	0.51	-0.29	0.51	-0.17	-0.2432	0.6218	0.0191	-9.8991	0.8804	-9.8991	0.8595	A-	A-	A-
ELA	3	806542	749892	2	A-V	2	13836	0.50	0.50	0.22	0.15	0.12	0.02	0.35	0.35	-0.12	-0.18	-0.1613	0.7924	0.0190	8.4211	1.0643	8.6911	1.094	A-	A-	A-
ELA	3	806543	372076	2	A-V	2	13836	0.67	0.06	0.07	0.67	0.16	0.01	0.35	-0.16	-0.32	0.35	-0.1115	-0.1124	0.0200	4.1210	1.0368	9.9012	1.1816	A+	A-	A-
ELA	3	653130	307778	3	D	2	13799	0.88	0.04	0.88	0.03	0.04	0.01	0.42	-0.23	0.42	-0.24	-0.2250	-1.6369	0.0278	-7.2891	0.8721	-9.8993	0.6868	A+	A-	B-
ELA	3	800700	981436	3	A-K	1	13799	0.68	0.18	0.68	0.06	0.07	0.01	0.39	-0.20	0.39	-0.20	-0.2081	-0.1861	0.0203	0.0510	1.0004	-0.9690	0.985	A+	A-	A-
ELA	3	800708	721289	3	A-K	2	13799	0.41	0.11	0.16	0.31	0.41	0.01	0.23	-0.27	-0.18	0.10	0.2286	1.2155	0.0193	9.9012	1.1845	9.9013	1.3082	A+	A-	A+
ELA	3	800709	741128	3	A-K	3	13799	0.77	0.14	0.04	0.04	0.77	0.01	0.50	-0.30	-0.26	-0.24	0.4987	-0.7165	0.0221	-9.8991	0.8542	-9.8993	0.7443	A+	A-	A-
ELA	3	800711	757640	3	A-K	2	13799	0.54	0.30	0.06	0.54	0.08	0.01	0.42	-0.19	-0.24	0.42	-0.2152	0.5382	0.0191	-2.2890	0.9828	-1.4690	0.9839	A-	A-	A-
ELA	3	800712	898846	3	A-V	2	13799	0.75	0.13	0.75	0.06	0.06	0.00	0.47	-0.29	0.47	-0.21	-0.2301	-0.5842	0.0216	-9.8991	0.8915	-6.6891	0.8741	A-	A-	A-
ELA	3	800713	203830	3	A-V	2	13799	0.78	0.78	0.07	0.06	0.08	0.01	0.33	0.33	-0.12	-0.20	-0.1983	-0.8165	0.0225	0.9710	1.0117	6.9312	1.1641	A+	A-	A-
ELA	3	800714	378590	3	A-V	2	13799	0.35	0.24	0.17	0.35	0.23	0.01	0.30	-0.18	-0.08	0.30	-0.0726	1.5361	0.0198	8.6011	1.0736	9.9012	1.2316	A-	A-	A-
ELA	3	800715	318875	3	A-V	2	13799	0.68	0.68	0.18	0.06	0.04	0.01	0.34	0.34	-0.10	-0.23	-0.2604	-0.2022	0.0203	5.2610	1.0494	9.9012	1.2083	A+	A+	A-
ELA	3	808528	830207	3	D	2	13799	0.36	0.23	0.36	0.30	0.10	0.01	0.36	-0.18	0.36	-0.09	-0.1640	1.4847	0.0197	2.6910	1.0222	7.7911	1.1084	A-	A-	A-
ELA	3	655397	791810	4	D	2	13831	0.35	0.13	0.35	0.31	0.20	0.01	0.30	-0.08	0.30	-0.13	-0.1351	1.5588	0.0199	9.9011	1.0984	9.9012	1.1955	A-	A+	A-
ELA	3	808531	369268	4	D	2	13831	0.69	0.69	0.09	0.13	0.07	0.01	0.05	0.05	0.03	-0.01	-0.0894	-0.2333	0.0203	9.9013	1.3453	9.9019	1.906	A+	A-	A-
ELA	3	809577	284776	4	A-C	3	13831	0.49	0.49	0.10	0.11	0.29	0.01	0.43	0.43	-0.28	-0.28	-0.0738	0.8141	0.0190	-1.7590	0.9868	-1.5290	0.9839	A+	A-	A-
ELA	3	809578	264342	4	A-C	3	13831	0.58	0.11	0.14	0.58	0.15	0.01	0.42	-0.28	-0.18	0.42	-0.1280	0.3561	0.0192	-1.5390	0.9881	-0.7290	0.9914	A-	A-	A-
ELA	3	809579	822838	4	A-V	2	13831	0.36	0.43	0.11	0.10	0.36	0.00	0.40	-0.05	-0.25	-0.28	0.4007	1.4944	0.0198	-5.3790	0.9553	4.2911	1.0581	A+	A-	A-
ELA	3	809581	313585	4	A-K	2	13831	0.75	0.75	0.09	0.09	0.05	0.02	0.43	0.43	-0.22	-0.23	-0.1809	-0.6184	0.0216	-4.8891	0.9484	-9.2992	0.8226	A-	A-	A-
ELA	3	809583	236649	4	A-K	2	13831	0.46	0.15	0.46	0.30	0.07	0.03	0.33	-0.23	0.33	0.00	-0.2084	0.9707	0.0191	9.9011	1.0894	9.9011	1.1438	A-	A-	A-
ELA	3	809584	280872	4	A-K	2	13831	0.30	0.15	0.21	0.32	0.30	0.01	0.29	-0.25	-0.09	0.01	0.2894	1.8041	0.0205	5.4411	1.0521	9.9013	1.2975	A-	A-	A-
ELA	3	809585	947590	4	A-V	2	13831	0.59	0.10	0.18	0.59	0.12	0.01	0.51	-0.34	-0.22	0.51	-0.1759	0.2833	0.0193	-9.8991	0.8947	-9.8991	0.8763	A+	A+	A-
ELA	3	809586	651922	4	A-V	2	13831	0.71	0.06	0.71	0.11	0.10	0.01	0.41	-0.23	0.41	-0.18	-0.2253	-0.3322	0.0206	-2.7090	0.9745	-5.1591	0.9143	A+	A-	A-
ELA	3	653142	947999	5	D	2	13793	0.37	0.30	0.15	0.37	0.17	0.01	0.43	-0.15	-0.14	0.43	-0.2281	1.3993	0.0196	-6.3791	0.9489	-0.0190	0.9996	A+	A-	A-
ELA	3	800701	841314	5	B-V	2	13793	0.76	0.06	0.76	0.10	0.07	0.01	0.47	-0.27	0.47	-0.28	-0.1849	-0.6488	0.0217	-9.8991	0.8917	-9.8992	0.7946	A-	A-	A-
ELA	3	800703	291472	5	B-V	2	13793	0.61	0.20	0.08	0.61	0.10	0.01	0.51	-0.22	-0.24	0.51	-0.3069	0.2091	0.0194	-9.8991	0.8816	-9.8992	0.8246	A-	A-	A-
ELA	3	800704	937419	5	B-K	3	13793	0.49	0.26	0.15	0.49	0.08	0.01	0.30	-0.11	-0.11	0.30	-0.2023	0.7962	0.0190	9.9011	1.1185	9.9012	1.1832	A-	A-	A+

ContArea	FormGrade	ItemID	PubID	FormNumber	Standard1	Depth	N	PValue	ProportionA	ProportionB	ProportionC	ProportionD	ProportionOMITS	PtBiserial	CorrelationA	CorrelationB	CorrelationC	CorrelationD	FinalB	FinalBErr	Infit	InfitMnSq	Outfit	OutfitMnSq	BiasCodeMALEFEMALE	BiasCodeWHITEBLACK	BiasCodeWHITEHISPANIC
ELA	3	800706	776398	5	B-K	2	13793	0.50	0.50	0.26	0.11	0.12	0.00	0.27	0.27	-0.06	-0.16	-0.1709	0.7574	0.0190	9.9012	1.1499	9.9012	1.21	A-	A-	A-
ELA	3	800707	443649	5	B-V	2	13793	0.59	0.11	0.14	0.15	0.59	0.01	0.34	-0.29	-0.12	-0.08	0.3422	0.2990	0.0193	8.7411	1.0701	8.6011	1.1049	A+	A-	A-
ELA	3	800716	767882	5	B-C	3	13793	0.52	0.18	0.09	0.21	0.52	0.01	0.40	-0.22	-0.27	-0.09	0.4043	0.6301	0.0191	0.8810	1.0066	1.2510	1.0133	A+	A-	A-
ELA	3	800717	894546	5	B-C	2	13793	0.34	0.42	0.34	0.13	0.10	0.01	0.32	-0.12	0.32	-0.15	-0.1206	1.5891	0.0200	4.6610	1.0408	9.9012	1.1505	A+	A-	A+
ELA	3	800718	278766	5	B-C	2	13793	0.58	0.58	0.13	0.12	0.16	0.01	0.38	0.38	-0.21	-0.24	-0.0769	0.3577	0.0192	4.7410	1.0372	5.9511	1.07	A-	A+	A+
ELA	3	808527	908980	5	D	2	13793	0.58	0.58	0.09	0.19	0.13	0.01	0.24	0.24	-0.20	-0.07	-0.0833	0.3214	0.0193	9.9012	1.1975	9.9013	1.3139	A+	A-	A-
ELA	3	653145	902992	6	D	2	13714	0.55	0.25	0.11	0.55	0.09	0.01	0.40	-0.22	-0.13	0.40	-0.2222	0.5302	0.0191	1.1710	1.0088	-1.1890	0.9874	A+	A-	A+
ELA	3	735442	428782	6	A-K	2	54964	0.42	0.33	0.13	0.11	0.42	0.01	0.33	-0.14	-0.10	-0.19	0.3338	1.1725	0.0096	9.9011	1.0566	9.9011	1.1165	A-	A-	A-
ELA	3	735443	155630	6	A-K	2	54964	0.45	0.12	0.07	0.45	0.35	0.01	0.26	-0.23	-0.25	0.26	0.0304	0.9965	0.0095	9.9012	1.1522	9.9012	1.2109	A+	A-	A-
ELA	3	735462	112619	6	A-V	2	54964	0.59	0.59	0.16	0.08	0.16	0.01	0.24	0.24	-0.02	-0.18	-0.1600	0.3199	0.0096	9.9012	1.1725	9.9012	1.2156	A-	A+	A+
ELA	3	735463	599363	6	A-K	1	54964	0.51	0.14	0.51	0.06	0.28	0.00	0.34	-0.23	0.34	-0.23	-0.0684	0.7182	0.0095	9.9011	1.0665	9.9011	1.09	A-	A-	A-
ELA	3	735464	337376	6	A-V	2	54964	0.71	0.71	0.18	0.06	0.04	0.00	0.53	0.53	-0.32	-0.26	-0.2519	-0.3714	0.0104	-9.8991	0.8520	-9.8993	0.736	A-	A-	A-
ELA	3	735467	209763	6	A-V	2	54964	0.76	0.05	0.14	0.04	0.76	0.01	0.50	-0.28	-0.25	-0.29	0.4966	-0.6454	0.0109	-9.8991	0.8647	-9.8992	0.7645	A-	B-	B-
ELA	3	740330	853240	6	D	2	13714	0.62	0.17	0.13	0.62	0.07	0.01	0.54	-0.28	-0.26	0.54	-0.2437	0.1702	0.0195	-9.8991	0.8725	-9.8992	0.8057	A+	A-	A-
ELA	3	808435	880492	6	B-C	2	13714	0.74	0.10	0.10	0.74	0.06	0.01	0.54	-0.29	-0.26	0.54	-0.2709	-0.4903	0.0212	-9.8992	0.8337	-9.8993	0.7013	A+	A-	A-
ELA	3	808436	313785	6	B-V	2	13714	0.84	0.84	0.05	0.06	0.03	0.01	0.48	0.48	-0.27	-0.26	-0.2463	-1.2676	0.0252	-9.8992	0.8292	-9.8993	0.7135	A+	A-	A-
ELA	3	808437	283145	6	B-C	2	13714	0.23	0.19	0.36	0.21	0.23	0.01	0.02	-0.08	0.06	0.00	0.0201	2.2765	0.0222	9.9013	1.3086	9.9019	1.8603	A+	A-	A+
ELA	3	808438	962501	6	B-C	3	13714	0.55	0.23	0.55	0.11	0.10	0.00	0.46	-0.25	0.46	-0.22	-0.1635	0.4939	0.0192	-7.7791	0.9420	-7.6891	0.9202	A-	A-	A-
ELA	3	808439	513442	6	B-K	2	13714	0.63	0.12	0.63	0.11	0.12	0.01	0.46	-0.31	0.46	-0.17	-0.1728	0.0957	0.0197	-7.6591	0.9377	-6.9791	0.9133	A-	A-	A-
ELA	3	808440	607688	6	B-K	2	13714	0.55	0.21	0.11	0.55	0.12	0.01	0.34	-0.10	-0.19	0.34	-0.1981	0.5419	0.0191	9.6611	1.0747	9.9011	1.1238	A-	A-	A-
ELA	3	808442	810560	6	B-V	2	13714	0.65	0.08	0.14	0.13	0.65	0.01	0.48	-0.35	-0.23	-0.15	0.4791	0.0218	0.0198	-9.8991	0.9129	-9.0491	0.884	A-	A-	A-
ELA	3	808443	499067	6	B-V	2	13714	0.26	0.26	0.20	0.11	0.41	0.01	0.22	0.22	-0.14	-0.22	0.0831	2.0319	0.0212	9.9011	1.1143	9.9014	1.4225	A-	A-	A-
ELA	3	655093	950750	7	D	2	13757	0.56	0.56	0.20	0.10	0.14	0.01	0.44	0.44	-0.13	-0.26	-0.2371	0.4641	0.0190	-5.9390	0.9574	-6.3491	0.936	A+	A-	A-
ELA	3	804541	787158	7	B-C	3	13757	0.34	0.34	0.50	0.10	0.05	0.01	0.11	0.11	0.15	-0.24	-0.2340	1.5370	0.0198	9.9013	1.2617	9.9014	1.4134	A+	A-	A-
ELA	3	804544	969591	7	B-C	3	13757	0.18	0.49	0.13	0.19	0.18	0.01	0.12	0.12	-0.20	-0.07	0.1154	2.5811	0.0240	8.8411	1.1292	9.9017	1.713	A+	A-	A+
ELA	3	804545	125789	7	B-C	3	13757	0.34	0.15	0.34	0.34	0.16	0.02	0.26	-0.10	0.26	-0.01	-0.2205	1.5589	0.0198	8.8811	1.0771	9.9012	1.2128	A-	A-	A+
ELA	3	804546	615484	7	B-K	2	13757	0.31	0.27	0.28	0.31	0.13	0.01	0.23	-0.16	0.04	0.23	-0.1389	1.7063	0.0202	9.9011	1.1121	9.9013	1.2874	A-	A-	A-
ELA	3	804547	802001	7	B-K	3	13757	0.15	0.19	0.44	0.15	0.22	0.01	-0.23	-0.17	0.26	-0.23	0.0679	2.8010	0.0254	9.9014	1.4170	9.9029	2.9341	A+	A+	A+
ELA	3	804548	689575	7	B-K	2	13757	0.51	0.51	0.13	0.22	0.12	0.01	0.41	0.41	-0.15	-0.11	-0.3044	0.6737	0.0189	-2.0390	0.9855	-2.3890	0.9768	A-	A+	A-
ELA	3	804549	856729	7	B-V	2	13757	0.66	0.10	0.66	0.13	0.10	0.01	0.44	-0.27	0.44	-0.18	-0.2002	-0.0850	0.0198	-6.9591	0.9424	-7.5591	0.9002	A-	A-	A-
ELA	3	804550	965399	7	B-V	2	13757	0.47	0.18	0.04	0.30	0.47	0.01	0.26	-0.27	-0.25	0.05	0.2647	0.8670	0.0189	9.9011	1.1370	9.9012	1.1609	A+	A-	A-
ELA	3	808532	571037	7	D	2	13757	0.44	0.17	0.20	0.44	0.18	0.01	0.29	-0.14	-0.07	0.29	-0.1406	1.0202	0.0190	9.9011	1.0982	9.9012	1.154	A+	A-	A-
ELA	3	655407	483310	8	D	3	13786	0.67	0.67	0.09	0.13	0.11	0.01	0.42	0.42	-0.19	-0.18	-0.2590	-0.1182	0.0200	-2.3790	0.9794	-2.9290	0.9563	A+	A-	A-
ELA	3	808534	130483	8	D	2	13786	0.32	0.32	0.10	0.30	0.28	0.01	0.15	0.15	-0.26	0.01	0.0233	1.7156	0.0203	9.9012	1.2231	9.9016	1.5563	A+	A+	A+
ELA	3	810413	117991	8	B-C	3	13786	0.63	0.63	0.09	0.13	0.15	0.01	0.36	0.36	-0.24	-0.14	-0.1507	0.1167	0.0196	6.3111	1.0523	2.7310	1.0366	A-	A+	A-
ELA	3	810415	426798	8	B-C	3	13786	0.65	0.05	0.20	0.09	0.65	0.01	0.51	-0.23	-0.26	-0.27	0.5055	-0.0096	0.0198	-9.8991	0.8836	-9.8992	0.8152	A+	A-	A-
ELA	3	810416	255655	8	B-V	2	13786	0.47	0.30	0.47	0.13	0.09	0.01	0.42	-0.12	0.42	-0.24	-0.2414	0.9119	0.0191	-2.6290	0.9802	0.8510	1.0091	A-	A-	A-
ELA	3	810417	263647	8	B-C	2	13786	0.60	0.13	0.13	0.60	0.14	0.01	0.47	-0.29	-0.17	0.47	-0.1955	0.2612	0.0194	-8.5591	0.9340	-9.0391	0.8926	A+	A-	A-
ELA	3	810419	125383	8	B-K	2	13786	0.51	0.18	0.21	0.51	0.08	0.01	0.47	-0.26	-0.17	0.47	-0.2220	0.7032	0.0191	-9.8991	0.9190	-8.7691	0.9092	A-	A-	A-
ELA	3	810421	418592	8	B-K	3	13786	0.43	0.22	0.23	0.11	0.43	0.00	0.43	-0.23	-0.13	-0.19	0.4342	1.0934	0.0192	-6.0790	0.9538	-2.8490	0.9687	A-	A-	A-
ELA	3	810422	383656	8	B-V	2	13786	0.59	0.19	0.59	0.12	0.09	0.01	0.48	-0.22	0.48	-0.26	-0.2027	0.2960	0.0193	-9.8991	0.9218	-9.8991	0.8785	A+	A-	A-
ELA	3	810423	511046	8	B-V	2	13786	0.54	0.54	0.23	0.06	0.16	0.01	0.33	0.33	-0.03	-0.26	-0.2341	0.5660	0.0191	9.9011	1.0911	9.9011	1.1177	A+	A-	A-
ELA	3	655412	302552	9	D	3	13707	0.88	0.05	0.04	0.03	0.88	0.01	0.37	-0.25	-0.16	-0.18	0.3665	-1.5763	0.0276	-4.3791	0.9215	-5.6392	0.8177	A+	A-	A-
ELA	3	804553	223677	9	B-V	2	13707	0.39	0.13	0.40	0.08	0.39	0.01	0.32	-0.11	-0.13	-0.21	0.3211	1.3278	0.0194	5.3910	1.0432	9.9011	1.1466	A+	A-	A-
ELA	3	804554	375622	9	B-K	2	13707	0.45	0.12	0.23	0.45	0.19	0.01	0.42	-0.19	-0.13	0.42	-0.2289	1.0137	0.0191	-5.3590	0.9608	-2.5690	0.9737	A+	A-	A-
ELA	3	804555	464446	9	B-C	3	13707	0.49	0.27	0.49	0.14	0.09	0.01	0.49	-0.27	0.49	-0.20	-0.1891	0.8333	0.0190	-9.8991	0.8871	-9.8991	0.8876	A-	A-	A-
ELA	3	804556	638066	9	B-C	2	13707	0.64	0.14	0.10	0.11	0.64	0.00	0.43	-0.16	-0.26	-0.23	0.4327	0.0795	0.0196	-5.7590	0.9538	-3.6290	0.9536	A+	A-	A-
ELA	3	804557	732491	9	B-K	3	13707	0.62	0.62	0.20	0.07	0.10	0.01	0.31	0.31	-0.09	-0.21	-0.1829	0.1876	0.0194	9.9011	1.0811	9.9012	1.179	A+	A+	A-
ELA	3	804558	406879	9	B-K	2	13707	0.34	0.34	0.19	0.18	0.29	0.01	0.18	0.18	-0.34	0.04	0.0897	1.6174	0.0200	9.9012	1.2227	9.9013	1.3489	A-	A+	A+
ELA	3	804559	618462	9	B-V	2	13707	0.33	0.24	0.33	0.27	0.16	0.00	0.35	-0.26	0.35	-0.12	0.0161	1.6502	0.0200	0.0910	1.0008	7.8711	1.1139	A+	A-	A-
ELA	3	804560	328043	9	B-V	2	13707	0.45	0.21	0.22	0.45	0.10	0.02	0.28	-0.05	-0.11	0.28	-0.2396	1.0119	0.0191	9.9011	1.1117	9.9012	1.1802	A+	A-	A-
ELA	3	808524	893399	9	D	2	13707	0.42	0.30	0.14	0.14	0.42	0.01	0.30	-0.08	-0.14	-0.17	0.2997	1.1858	0.0192	9.9011	1.0954	9.9012	1.1532	A+	A-	A-
ELA	4	652522	259181	0	D	2	124266	0.87	0.87	0.04	0.05	0.03	0.00	0.39	0.39	-0.19	-0.24	-0.2203	-1.5951	0.0091	-9.8991	0.9132	-9.8992	0.7912			
ELA	4	652527	776219	0	D	2	124266	0.70	0.16	0.06	0.08	0.70	0.00	0.45	-0.24	-0.23	-0.25	0.4542	-0.3145	0.0068	-9.8991	0.9387	-9.8991	0.9073			
ELA	4	652599	834783	0	D	2	124266	0.71	0.71	0.05	0.06	0.18	0.00	0.44	0.44	-0.25	-0.24	-0.2286	-0.4179	0.0069	-9.8990	0.9643	-9.8991	0.9386			
ELA	4	653175	831057	0	D	2	124266	0.60	0.15	0.60	0.19	0.05	0.00	0.46	-0.24	0.46	-0.21	-0.2538	0.1967	0.0065	-9.8990	0.9623	-9.8991	0.9458			
ELA	4	653180	219207	0	D	2	124266	0.67	0.11	0.67	0.09	0.13	0.00	0.40	-0.30	0.40	-0.16	-0.1334	-0.0892	0.0067	2.6510	1.0078	4.1810	1.0203			
ELA	4	653733	225679	0	D	2	124266	0.38	0.38	0.16	0.24	0.22	0.00	0.30	0.30	-0.14	-0.16	-0.0620	1.3389	0.0065	9.9011	1.0868	9.9012	1.2401			
ELA	4	655147	743247	0	A-K	2	124266	0.68	0.09	0.16	0.68	0.06	0.01	0.52	-0.32	-0.23	0.52	-0.2461	-0.2233	0.0068	-9.8991	0.8974	-9.8992	0.815			
ELA	4	655149	587365	0	A-K	3	124266	0.75	0.16	0.03	0.05	0.75	0.00	0.44	-0.23	-0.26	-0.26	0.4411	-0.5758	0.0071	-9.8991	0.9161	-9.8991	0.8783			
ELA	4	655151	425463	0	A-K	2	124266	0.77	0.07	0.09	0.07	0.77	0.01	0.55	-0.30	-0.30	-0.26	0.5522	-0.6582	0.0072	-9.8992	0.8002	-9.8993	0.6811			
ELA	4	655153	590829	0	A-C	3	124266	0.64	0.64	0.12	0.14	0.09	0.01	0.45	0.45	-0.09	-0.30	-0.2723	-0.0107	0.0066	-9.2990	0.9737	2.3110	1.0107			
ELA	4	655155	770419	0	A-V	2	124266	0.59	0.59	0.16	0.10	0.15	0.00	0.42	0.42	-0.18	-0.23	-0.1839	0.2756	0.0064	0.9810	1.0026	2.6810	1.0107			
ELA	4	655624	490603	0	D	3	124266	0.58	0.06	0.58	0.08	0.29	0.00	0.42	-0.28	0.42	-0.21	-0.1835	0.3287	0.0064	3.7110	1.0097	4.8810	1.0192			
ELA	4	655786	598741	0	D	3	124266	0.58	0.58	0.16	0.16	0.10	0.00	0.49	0.49	-0.13	-0.33	-0.2442	0.3061	0.0064	-9.8991	0.9322	-9.8991	0.9094			
ELA	4	655928	239568	0	D	2	124266	0.57	0.16	0.57	0.13	0.14	0.00	0.40	-0.17	0.40	-0.17	-0.2163	0.4162	0.0064	8.3910	1.0215	6.9810	1.0267			
ELA	4	657285	586158	0	D	3	124266	0.74	0.07	0.06	0.74	0.12	0.00	0.46	-0.24	-0.23	0.46	-0.2448	-0.5856	0.0071	-9.8990	0.9525	-9.8991	0.905			
ELA	4	703452	346211	0	B-C	2	124266	0.40	0.15	0.27	0.17	0.40	0.00	0.32	-0.08	-0.15	-0.16	0.3212	1.2025	0.0064	9.9011	1.0710	9.9012	1.1739			
ELA	4	703453	215166	0	B-C	2	124266	0.62	0.17	0.62	0.14	0.06	0.00	0.47	-0.16	0.47	-0.24	-0.3185	0.1223	0.0065	-9.8990	0.9514	-9.8991	0.9116			
ELA	4	703454	529836	0	B-K	2	124266	0.53	0.14	0.10	0.22	0.53	0.00	0.51	-0.25	-0.20	-0.24	0.5107	0.6892	0.0063	-9.8991	0.8936	-9.8991	0.8823			
ELA	4	703456	708486	0	B-C	2	124266	0.43	0.43	0.22	0.10	0.25	0.00	0.19	0.19	-0.06	-0.20	-0.0075	1.0844	0.0064	9.9013	1.2647	9.9014	1.4185			
ELA	4	703458	646636	0	B-V	2	124266	0.69	0.14	0.08	0.69	0.08	0.00	0.49	-0.24	-0.21	0.49	-0.2892	-0.2469	0.0068	-9.8991	0.9094	-9.8991	0.8621			
ELA	4	703459	583864	0	B-V	2	124266	0.44	0.42	0.06	0.07	0.44	0.00	0.27	-0.06	-0.23	-0.18	0.2709	0.9754	0.0064	9.9012	1.1509	9.9012	1.2455			
ELA	4	703462	854915	0	B-C	2	124266	0.59	0.04	0.59	0.18	0.18	0.00	0.31	-0.21	0.31	-0.13	-0.1473	0.4000	0.0064	9.9011	1.1083	9.9011	1.1494			
ELA	4	703464	921106	0	B-V	2	124266	0.78	0.12	0.05	0.78	0.04	0.00	0.50	-0.36	-0.24	0.50	-0.1807	-0.8677	0.0075	-9.8991	0.8756	-9.8992	0.7512			
ELA	4	703468	564865	0	B-V	2	124266	0.65	0.19	0.08	0.08	0.65	0.00	0.29	-0.13	-0.16	-0.15	0.2852	-0.1690	0.0067	9.9012	1.1721	9.9014	1.3513			
ELA	4	703469	866051	0	B-K	2	124266	0.55	0.06	0.15	0.55	0.24	0.00	0.49	-0.26	-0.24	0.49	-0.2183	0.4924	0.0064	-9.8991	0.9216	-9.8991	0.9091			
ELA	4	703470	134764	0	B-K	2	124266	0.43	0.35	0.43	0.18	0.04	0.00	0.22	-0.10	0.22	-0.04	-0.2225	1.2154	0.0064	9.9012	1.2318	9.9014	1.3682			
ELA	4	703471	524645	0	B-K	2	124266	0.74	0.08	0.07	0.12	0.74	0.00	0.34	-0.13	-0.15	-0.23	0.3381	-0.6116	0.0072	9.9011	1.0753	9.9012	1.1914			
ELA	4	703473	713549	0	B-C	2	124266	0.74	0.74	0.06	0.04	0.15	0.00	0.40	0.40	-0.21	-0.25	-0.1939	-0.6231	0.0072	2.9310	1.0107	9.9011	1.0793			
ELA	4	736577	522551	0	A-V	2	124266	0.46	0.08	0.46	0.05	0.41	0.00	0.30	-0.20	0.30	-0.27	-0.0785	0.9089	0.0064	9.9011	1.1190	9.9012	1.1882			
ELA	4	736587	983335	0	A-C	3	124266	0.66	0.66	0.08	0.05	0.20	0.00	0.47	0.47	-0.31	-0.23	-0.2186	-0.0908	0.0067	-9.8991	0.9305	-9.8991	0.9092			
ELA	4	736589	144773	0	A-K	3	124266	0.50	0.50	0.21	0.20	0.09	0.00	0.32	0.32	-0.13	-0.10	-0.2182	0.6207	0.0063	9.9011	1.1123	9.9012	1.1539			
ELA	4	736591	248932	0	A-K	2	124266	0.82	0.06	0.07	0.82	0.03	0.00	0.52	-0.31	-0.29	0.52	-0.2577	-1.2067	0.0082	-9.8992	0.8388	-9.8993	0.6614			
ELA	4	736684	167335	0	A-K	2	124266	0.79	0.11	0.79	0.05	0.04	0.00	0.39	-0.22	0.39	-0.21	-0.2198	-0.8668	0.0075	-9.8991	0.9496	-8.8691	0.9339			
ELA	4	741160	412874	0	D	2	124266	0.51	0.16	0.19	0.13	0.51	0.00	0.35	-0.12	-0.15	-0.19	0.3453	0.5750	0.0064	9.9011	1.0933	9.9011	1.1308			
ELA	4	741162	815821	0	D	2	124266	0.44	0.14	0.14	0.28	0.44	0.00	0.33	-0.16	-0.20	-0.08	0.3280	1.0563	0.0064	9.9011	1.0804	9.9012	1.1709			
ELA	4	741164	119587	0	D	2	124266	0.49	0.18	0.07	0.49	0.26	0.00	0.42	-0.26	-0.20	0.42	-0.1267	0.9017	0.0064	-1.9390	0.9952	9.9010	1.0376			

ContArea	FormGrade	ItemID	PubID	FormNumber	Standard1	Depth	N	PValue	ProportionA	ProportionB	ProportionC	ProportionD	ProportionOMITS	PtBiserial	CorrelationA	CorrelationB	CorrelationC	CorrelationD	FinalB	FinalBErr	Infit	InfitMnSq	Outfit	OutfitMnSq	BiasCodeMALEFEMALE	BiasCodeWHITEBLACK	BiasCodeWHITEHISPANIC
ELA	4	741165	629783	0	D	2	124266	0.86	0.04	0.03	0.07	0.86	0.00	0.38	-0.23	-0.23	-0.18	0.3829	-1.3897	0.0086	-9.8991	0.8703	-9.8991	0.8829			
ELA	4	741167	269338	0	D	2	124266	0.38	0.22	0.15	0.38	0.24	0.00	0.42	-0.10	-0.11	0.42	-0.2858	1.3022	0.0065	-9.8990	0.9623	5.2810	1.0223			
ELA	4	741170	904273	0	D	2	124266	0.49	0.49	0.17	0.19	0.14	0.00	0.34	0.34	-0.16	-0.09	-0.1945	0.7917	0.0063	9.9011	1.0876	9.9011	1.14			
ELA	4	741171	322021	0	D	2	124266	0.54	0.24	0.14	0.54	0.08	0.00	0.37	-0.05	-0.28	0.37	-0.2384	0.5073	0.0064	9.9011	1.0585	9.9011	1.102			
ELA	4	741172	210285	0	D	2	124266	0.62	0.62	0.14	0.17	0.07	0.00	0.41	0.41	-0.16	-0.23	-0.2100	0.0994	0.0065	6.6810	1.0185	7.5210	1.033			
ELA	4	655237	859009	1	D	3	13857	0.77	0.13	0.77	0.04	0.06	0.00	0.49	-0.27	0.49	-0.25	-0.2681	-0.7685	0.0221	-9.8391	0.8909	-9.8992	0.7632	A-	A-	A-
ELA	4	703313	474025	1	B-K	2	69035	0.64	0.12	0.64	0.08	0.16	0.00	0.36	-0.19	0.36	-0.22	-0.1283	-0.0067	0.0089	9.9011	1.0587	9.9011	1.1158	A+	A+	A-
ELA	4	703314	720154	1	B-C	3	69035	0.68	0.68	0.07	0.11	0.14	0.00	0.49	0.49	-0.28	-0.23	-0.2382	-0.1883	0.0090	-9.8991	0.9108	-9.8991	0.8794	A-	A-	A-
ELA	4	703315	346439	1	B-C	2	69035	0.83	0.83	0.08	0.04	0.05	0.00	0.42	0.42	-0.22	-0.25	-0.2275	-1.1563	0.0108	-9.8991	0.9164	-9.8992	0.8151	A-	A-	A-
ELA	4	703319	613340	1	B-K	2	69035	0.51	0.19	0.20	0.09	0.51	0.00	0.46	-0.13	-0.27	-0.22	0.4562	0.6960	0.0085	-9.8990	0.9529	-5.0990	0.9754	A+	A+	A-
ELA	4	703320	759737	1	B-V	1	69035	0.50	0.16	0.25	0.50	0.09	0.00	0.33	-0.19	-0.06	0.33	-0.2169	0.7500	0.0085	9.9011	1.0989	9.9011	1.1462	A-	A-	A-
ELA	4	703321	507474	1	B-V	2	69035	0.80	0.07	0.03	0.10	0.80	0.00	0.42	-0.23	-0.26	-0.22	0.4239	-0.9514	0.0103	-9.8991	0.9204	-8.9891	0.9061	A+	A-	A-
ELA	4	809176	730994	1	D	2	13857	0.77	0.12	0.05	0.77	0.06	0.00	0.40	-0.22	-0.23	0.40	-0.1823	-0.7854	0.0222	-0.3890	0.9955	-1.8890	0.9588	A+	A-	A-
ELA	4	809598	115231	1	A-K	2	13857	0.62	0.62	0.13	0.12	0.13	0.00	0.50	0.50	-0.29	-0.21	-0.2210	0.0935	0.0196	-9.8991	0.9093	-9.8992	0.8481	A-	A-	A-
ELA	4	809599	529905	1	A-V	2	13857	0.73	0.10	0.09	0.73	0.08	0.00	0.48	-0.23	-0.23	0.48	-0.2768	-0.5355	0.0212	-9.1091	0.9079	-9.3792	0.832	A+	A-	A-
ELA	4	809600	850251	1	A-K	2	13857	0.62	0.19	0.07	0.12	0.62	0.00	0.52	-0.23	-0.26	-0.30	0.5236	0.0865	0.0196	-9.8991	0.8780	-9.8992	0.8379	A+	A+	A-
ELA	4	809602	948207	1	A-K	2	13857	0.66	0.12	0.66	0.14	0.07	0.01	0.47	-0.28	0.47	-0.16	-0.2958	-0.1246	0.0200	-7.3991	0.9350	-1.8790	0.9721	A+	A-	A-
ELA	4	809603	316077	1	A-V	2	13857	0.84	0.84	0.05	0.07	0.04	0.00	0.48	0.48	-0.26	-0.26	-0.2613	-1.3022	0.0249	-9.8591	0.8612	-9.8993	0.6926	A+	A-	A-
ELA	4	809604	338832	1	A-V	2	13857	0.65	0.12	0.65	0.14	0.08	0.00	0.40	-0.33	0.40	-0.14	-0.1158	-0.0635	0.0199	2.7710	1.0246	6.8411	1.1022	A-	A-	A-
ELA	4	809605	894323	1	A-V	2	13857	0.54	0.19	0.13	0.54	0.14	0.00	0.36	-0.17	-0.13	0.36	-0.1835	0.5045	0.0192	9.9011	1.0855	9.9011	1.1217	A-	A-	A-
ELA	4	809606	549620	1	A-V	1	13857	0.83	0.05	0.05	0.06	0.83	0.00	0.36	-0.22	-0.20	-0.15	0.3577	-1.2482	0.0246	-1.7690	0.9747	2.0911	1.0605	A-	A-	A+
ELA	4	653709	164952	2	D	2	13805	0.87	0.08	0.87	0.03	0.02	0.00	0.35	-0.24	0.35	-0.19	-0.1562	-1.5283	0.0266	-3.8491	0.9363	-3.1091	0.8995	A+	A-	B-
ELA	4	809172	733497	2	D	2	13805	0.77	0.07	0.77	0.05	0.11	0.00	0.39	-0.21	0.39	-0.24	-0.1726	-0.7501	0.0221	-0.9290	0.9893	1.0710	1.023	A+	A+	A+
ELA	4	809607	528822	2	A-K	2	13805	0.47	0.39	0.09	0.05	0.47	0.00	0.33	-0.03	-0.31	-0.27	0.3274	0.8842	0.0191	9.9011	1.0915	9.9012	1.1641	A+	A-	A-
ELA	4	809608	959211	2	A-K	3	13805	0.55	0.27	0.10	0.55	0.08	0.00	0.39	-0.13	-0.24	0.39	-0.2299	0.4569	0.0192	3.3510	1.0258	4.2110	1.0487	A+	A-	A-
ELA	4	809610	735318	2	A-K	2	13805	0.43	0.43	0.09	0.16	0.31	0.00	0.27	0.27	-0.21	-0.16	-0.0190	1.0650	0.0192	9.9012	1.1554	9.9013	1.2644	A-	A+	A+
ELA	4	809612	902823	2	A-V	2	13805	0.65	0.12	0.65	0.14	0.08	0.00	0.50	-0.23	0.50	-0.23	-0.2916	-0.0671	0.0199	-9.8991	0.9146	-9.8991	0.8523	A+	A-	B-
ELA	4	809613	773703	2	A-K	2	13805	0.64	0.19	0.07	0.64	0.08	0.01	0.40	-0.21	-0.19	0.40	-0.1946	-0.0040	0.0198	0.3910	1.0033	5.1611	1.0737	A+	A-	A-
ELA	4	809614	619115	2	A-V	2	13805	0.62	0.62	0.10	0.17	0.10	0.00	0.44	0.44	-0.25	-0.15	-0.2465	0.1015	0.0196	-1.9490	0.9839	-0.9290	0.9877	A+	A-	A-
ELA	4	809615	774466	2	A-V	2	13805	0.69	0.14	0.12	0.05	0.69	0.00	0.48	-0.28	-0.19	-0.27	0.4769	-0.2564	0.0204	-9.0791	0.9175	-3.1791	0.9494	A+	A-	A-
ELA	4	809616	184829	2	A-V	2	13805	0.53	0.30	0.53	0.11	0.06	0.00	0.40	-0.17	0.40	-0.22	-0.2395	0.5601	0.0191	2.0610	1.0156	2.6010	1.0292	A-	A-	A-
ELA	4	708904	154354	3	D	2	13790	0.44	0.30	0.13	0.44	0.13	0.00	0.24	-0.07	-0.14	0.24	-0.1133	1.0287	0.0191	9.9012	1.1821	9.9013	1.2964	A+	A-	A-
ELA	4	808444	508063	3	A-C	2	13790	0.57	0.16	0.18	0.57	0.08	0.00	0.38	-0.17	-0.14	0.38	-0.2485	0.3586	0.0192	5.3010	1.0417	4.0710	1.0477	A-	A-	A+
ELA	4	808445	324787	3	A-K	2	13790	0.54	0.54	0.15	0.24	0.06	0.00	0.47	0.47	-0.20	-0.26	-0.2117	0.5296	0.0191	-9.0991	0.9331	-5.9291	0.9362	A-	A-	A-
ELA	4	808446	168286	3	A-V	2	13790	0.35	0.19	0.35	0.28	0.17	0.00	0.17	-0.23	0.17	0.14	-0.1413	1.4741	0.0197	9.9012	1.2313	9.9015	1.4619	A-	A+	A+
ELA	4	808452	378371	3	A-K	2	13790	0.62	0.62	0.24	0.07	0.08	0.00	0.32	0.32	-0.06	-0.25	-0.2421	0.1445	0.0195	9.9011	1.1146	9.9012	1.1698	A-	A-	A-
ELA	4	808455	457855	3	A-K	2	13790	0.54	0.08	0.54	0.26	0.12	0.00	0.39	-0.25	0.39	-0.19	-0.1223	0.5420	0.0191	4.1210	1.0312	8.4611	1.0955	A+	A+	A+
ELA	4	808456	852755	3	A-V	2	13790	0.89	0.03	0.04	0.89	0.03	0.00	0.45	-0.26	-0.29	0.45	-0.1908	-1.7680	0.0287	-8.8192	0.8391	-9.8994	0.6495	A+	A-	A-
ELA	4	808457	166692	3	A-V	2	13790	0.59	0.11	0.14	0.15	0.59	0.00	0.37	-0.25	-0.13	-0.16	0.3723	0.2671	0.0193	6.4511	1.0520	7.3711	1.0908	A+	A-	A-
ELA	4	808458	953275	3	A-V	1	13790	0.55	0.18	0.17	0.09	0.55	0.00	0.47	-0.25	-0.19	-0.23	0.4728	0.4613	0.0191	-7.3091	0.9454	-6.9791	0.924	A-	B-	B-
ELA	4	809174	469553	3	D	2	13790	0.61	0.61	0.18	0.13	0.08	0.00	0.37	0.37	-0.16	-0.20	-0.1861	0.1840	0.0195	7.3411	1.0607	5.9511	1.0758	A+	A-	A-
ELA	4	653168	640010	4	D	2	13769	0.63	0.63	0.25	0.05	0.06	0.00	0.33	0.33	-0.12	-0.23	-0.2272	0.0410	0.0197	9.9011	1.1031	8.6811	1.1192	A+	A-	A-
ELA	4	800722	494753	4	A-V	1	13769	0.33	0.25	0.18	0.23	0.33	0.00	0.30	-0.16	-0.26	0.08	0.2961	1.5772	0.0200	9.9011	1.0993	9.9012	1.2172	A-	A-	A-
ELA	4	800723	152647	4	A-K	2	13769	0.50	0.19	0.50	0.11	0.20	0.01	0.42	-0.11	0.42	-0.25	-0.2179	0.7324	0.0191	-3.4890	0.9743	-0.2690	0.9971	A-	A-	A-
ELA	4	800724	183872	4	A-K	3	13769	0.43	0.13	0.16	0.27	0.43	0.01	0.23	-0.25	-0.21	0.12	0.2324	1.0581	0.0192	9.9012	1.1993	9.9013	1.3231	A+	A+	A+
ELA	4	800725	931002	4	A-K	2	13769	0.41	0.21	0.13	0.41	0.25	0.00	0.20	-0.07	-0.27	0.20	0.0496	1.1462	0.0193	9.9012	1.2283	9.9014	1.3824	A+	A-	A-
ELA	4	800726	192157	4	A-K	2	13769	0.46	0.46	0.23	0.19	0.12	0.00	0.33	0.33	-0.09	-0.13	-0.2209	0.8903	0.0191	9.9011	1.0844	9.9011	1.142	A+	A-	A-
ELA	4	800727	875076	4	A-V	2	13769	0.26	0.08	0.16	0.26	0.49	0.00	0.15	-0.11	-0.07	0.15	-0.0148	1.9963	0.0213	9.9012	1.1898	9.9017	1.6568	C-	A-	A+
ELA	4	800728	749767	4	A-V	2	13769	0.65	0.65	0.15	0.07	0.13	0.00	0.47	0.47	-0.20	-0.31	-0.2209	-0.0704	0.0199	-7.1091	0.9394	-7.2891	0.9008	A-	A+	A+
ELA	4	800729	865857	4	A-V	2	13769	0.38	0.12	0.38	0.29	0.21	0.00	0.41	-0.15	0.41	-0.09	-0.2641	1.3250	0.0195	-3.3490	0.9735	3.0110	1.0387	A-	A+	A-
ELA	4	809175	233842	4	D	2	13769	0.78	0.07	0.05	0.78	0.09	0.00	0.46	-0.23	-0.19	0.46	-0.3027	-0.8767	0.0226	-8.0591	0.9057	-5.4891	0.8801	A+	A-	A-
ELA	4	655231	651567	5	D	3	13814	0.66	0.09	0.66	0.20	0.05	0.00	0.45	-0.07	0.45	-0.34	-0.2440	-0.0831	0.0200	-4.1190	0.9638	0.8310	1.0121	A+	C-	C-
ELA	4	809177	786757	5	D	2	13814	0.69	0.11	0.69	0.13	0.07	0.00	0.48	-0.25	0.48	-0.23	-0.2563	-0.2513	0.0204	-7.6791	0.9290	-6.9591	0.8914	A+	A-	A-
ELA	4	811190	203302	5	A-V	2	13814	0.74	0.15	0.08	0.74	0.03	0.00	0.45	-0.30	-0.17	0.45	-0.2445	-0.5279	0.0213	-6.5991	0.9317	-0.2990	0.9941	A+	A-	A-
ELA	4	811191	827495	5	A-K	2	13814	0.76	0.76	0.07	0.09	0.07	0.00	0.42	0.42	-0.28	-0.18	-0.1963	-0.6985	0.0220	-4.6691	0.9476	0.5410	1.0113	A+	A-	A-
ELA	4	811192	849028	5	A-V	2	13814	0.70	0.17	0.07	0.06	0.70	0.00	0.46	-0.22	-0.27	-0.25	0.4579	-0.3230	0.0206	-6.0991	0.9418	-3.9091	0.9353	A+	A-	A-
ELA	4	811193	971868	5	A-K	3	13814	0.33	0.29	0.33	0.26	0.12	0.00	0.16	0.02	0.16	-0.07	-0.1567	1.6391	0.0200	9.9012	1.2343	9.9015	1.5487	A+	A-	A-
ELA	4	811194	366922	5	A-K	3	13814	0.60	0.60	0.13	0.16	0.12	0.00	0.44	0.44	-0.26	-0.20	-0.1590	0.2544	0.0194	-2.3390	0.9814	-2.2790	0.972	A+	A-	A-
ELA	4	811196	333076	5	A-K	2	13814	0.53	0.09	0.16	0.21	0.53	0.00	0.39	-0.25	-0.21	-0.10	0.3878	0.5948	0.0191	5.0910	1.0384	5.8311	1.0661	A+	A-	A-
ELA	4	811198	514769	5	A-V	1	13814	0.67	0.05	0.67	0.20	0.08	0.01	0.39	-0.23	0.39	-0.14	-0.2881	-0.1357	0.0201	2.9210	1.0267	3.2510	1.0499	A-	A+	A-
ELA	4	811201	967537	5	A-C	3	13814	0.41	0.27	0.16	0.41	0.14	0.01	0.26	0.01	-0.14	0.26	-0.2095	1.2050	0.0193	9.9011	1.1440	9.9013	1.3032	A+	A-	A-
ELA	4	657289	594880	6	D	2	13883	0.64	0.64	0.11	0.05	0.20	0.00	0.43	0.43	-0.27	-0.25	-0.1708	0.0016	0.0196	-1.8790	0.9844	-3.1290	0.9586	A+	A-	A-
ELA	4	736538	607162	6	A-V	2	55231	0.72	0.08	0.72	0.07	0.14	0.00	0.44	-0.26	0.44	-0.23	-0.2048	-0.4180	0.0104	-9.8991	0.9490	-9.8991	0.9093	A+	A+	A-
ELA	4	736541	739426	6	A-C	3	55231	0.48	0.28	0.48	0.14	0.09	0.00	0.38	-0.14	0.38	-0.18	-0.2235	0.8170	0.0095	9.1410	1.0337	9.9011	1.0745	A-	A-	A-
ELA	4	736544	385139	6	A-K	2	55231	0.67	0.67	0.14	0.13	0.06	0.00	0.28	0.28	-0.17	-0.12	-0.1268	-0.1634	0.0101	9.9011	1.1329	9.9012	1.2436	A-	A-	A-
ELA	4	736545	555814	6	A-K	2	55231	0.80	0.80	0.07	0.06	0.07	0.00	0.49	0.49	-0.25	-0.27	-0.2574	-0.9341	0.0115	-9.8991	0.8618	-9.8992	0.8151	A+	A-	A-
ELA	4	736546	360894	6	A-K	3	55231	0.64	0.13	0.07	0.64	0.15	0.00	0.44	-0.29	-0.24	0.44	-0.1398	-0.0036	0.0099	-9.4290	0.9605	-3.3390	0.9773	A+	A-	A-
ELA	4	736572	818001	6	A-K	2	55231	0.61	0.11	0.13	0.14	0.61	0.00	0.40	-0.32	-0.19	-0.08	0.4025	0.1690	0.0097	2.6710	1.0108	5.2810	1.0334	A+	A+	A+
ELA	4	809178	670663	6	D	2	13883	0.48	0.17	0.06	0.29	0.48	0.00	0.40	-0.16	-0.22	-0.19	0.3998	0.8048	0.0189	1.6310	1.0119	3.8110	1.0403	A+	A-	A-
ELA	4	810425	603028	6	B-C	2	13883	0.52	0.16	0.52	0.15	0.17	0.00	0.36	-0.11	0.36	-0.17	-0.2047	0.6062	0.0189	6.4810	1.0483	6.4711	1.0698	A+	A-	A+
ELA	4	810427	125995	6	B-V	2	13883	0.55	0.55	0.11	0.24	0.10	0.00	0.49	0.49	-0.24	-0.25	-0.2015	0.4803	0.0190	-9.8991	0.9130	-9.8991	0.8909	A-	A-	A-
ELA	4	810428	692301	6	B-C	3	13883	0.37	0.24	0.37	0.16	0.22	0.01	0.25	0.01	0.25	-0.22	-0.1037	1.3875	0.0195	9.9011	1.1232	9.9013	1.2934	A-	A-	A-
ELA	4	810429	371563	6	B-K	2	13883	0.30	0.31	0.13	0.30	0.27	0.00	0.25	-0.07	-0.23	0.25	-0.0042	1.7867	0.0205	8.1211	1.0780	9.9014	1.3669	A-	A-	A-
ELA	4	810430	675940	6	B-K	2	13883	0.53	0.11	0.23	0.12	0.53	0.00	0.42	-0.26	-0.14	-0.20	0.4208	0.5883	0.0190	-2.2790	0.9833	-0.7090	0.9925	A-	A-	A-
ELA	4	810432	380849	6	B-K	2	13883	0.58	0.58	0.13	0.14	0.14	0.00	0.56	0.56	-0.24	-0.28	-0.2570	0.3312	0.0191	-9.8992	0.8343	-9.8992	0.7868	A-	A-	A-
ELA	4	810433	767521	6	B-V	2	13883	0.47	0.40	0.05	0.47	0.08	0.01	0.37	-0.15	-0.20	0.37	-0.2324	0.8926	0.0190	5.1410	1.0381	8.8211	1.096	B-	B-	A-
ELA	4	810434	338593	6	B-V	2	13883	0.23	0.44	0.13	0.19	0.23	0.00	0.32	-0.22	-0.03	-0.03	0.3174	2.1742	0.0219	0.4710	1.0053	9.3012	1.2014	B-	A+	A-
ELA	4	655931	179595	7	D	2	13766	0.60	0.23	0.09	0.08	0.60	0.00	0.39	-0.15	-0.25	-0.22	0.3942	0.2253	0.0194	3.4810	1.0280	3.3310	1.0414	A+	A-	A-
ELA	4	809179	907441	7	D	2	13766	0.79	0.04	0.07	0.10	0.79	0.00	0.52	-0.27	-0.29	-0.28	0.5191	-0.8781	0.0228	-9.8991	0.8561	-9.8993	0.7332	A+	A-	A-
ELA	4	810776	276782	7	B-K	3	13766	0.61	0.13	0.16	0.08	0.61	0.01	0.45	-0.22	-0.17	-0.30	0.4539	0.1577	0.0195	-5.1490	0.9586	-1.6190	0.9796	A+	A-	A+
ELA	4	810779	379935	7	B-C	2	13766	0.65	0.08	0.14	0.65	0.12	0.00	0.38	-0.27	-0.21	0.38	-0.1064	-0.0101	0.0198	3.0810	1.0267	1.2110	1.0168	A+	A+	A+
ELA	4	810780	166346	7	B-K	2	13766	0.64	0.64	0.12	0.09	0.13	0.01	0.42	0.42	-0.20	-0.25	-0.1802	0.0024	0.0198	-0.4990	0.9957	-1.7290	0.9762	A+	A-	A-
ELA	4	810781	216666	7	B-V	2	13766	0.52	0.39	0.52	0.04	0.04	0.00	0.44	-0.27	0.44	-0.19	-0.2690	0.6268	0.0190	-3.5990	0.9738	-1.9590	0.979	A-	A-	B-
ELA	4	810782	637512	7	B-V	2	13766	0.46	0.24	0.20	0.46	0.10	0.00	0.24	-0.18	0.03	0.24	-0.1857	0.9511	0.0190	9.9012	1.1789	9.9013	1.3142	A+	A-	A-
ELA	4	810783	264597	7	B-K	2	13766	0.74	0.10	0.74	0.11	0.05	0.00	0.50	-0.30	0.50	-0.24	-0.2520	-0.5389	0.0213	-9.8991	0.8791	-9.8992	0.823	A-	A-	A-
ELA	4	810784	485875	7	B-K	2	13766	0.60	0.60	0.15	0.12	0.13	0.00	0.43	0.43	-0.18	-0.22	-0.2159	0.2557	0.0193	-2.9590	0.9768	-2.5490	0.9695	A+	A-	A+
ELA	4	810785	151221	7	B-K	2	13766	0.66	0.08	0.08	0.17	0.66	0.00	0.25	-0.12	-0.16	-0.10	0.2480	-0.1125	0.0200	9.9012	1.1720	9.9013	1.2607	A-	A-	A-
ELA	4	657329	831840	8	D	2	13806	0.75	0.05	0.09	0.10	0.75	0.00	0.37	-0.12	-0.20	-0.25	0.3711	-0.6169	0.0215	0.9010	1.0098	2.5610	1.0498	A+	A-	A-

ContArea	FormGrade	ItemID	PubID	FormNumber	Standard1	Depth	N	PValue	ProportionA	ProportionB	ProportionC	ProportionD	ProportionOMITS	PtBiserial	CorrelationA	CorrelationB	CorrelationC	CorrelationD	FinalB	FinalBErr	Infit	InfitMnSq	Outfit	OutfitMnSq	BiasCodeMALEFEMALE	BiasCodeWHITEBLACK	BiasCodeWHITEHISPANIC
ELA	6	702829	975525	0	A-K	3	120128	0.61	0.08	0.21	0.61	0.10	0.00	0.37	-0.24	-0.13	0.37	-0.2018	0.4058	0.0065	8.1110	1.0212	9.9010	1.0402			
ELA	6	702831	251552	0	A-C	3	120128	0.47	0.47	0.16	0.20	0.16	0.00	0.37	0.37	-0.18	-0.21	-0.0944	1.0319	0.0064	4.0610	1.0097	9.9010	1.0362			
ELA	6	702864	495563	0	A-C	3	120128	0.60	0.14	0.10	0.60	0.15	0.00	0.47	-0.22	-0.26	0.47	-0.2007	0.4227	0.0065	-9.8991	0.9332	-9.8991	0.8997			
ELA	6	702865	172388	0	A-C	3	120128	0.41	0.27	0.13	0.19	0.41	0.00	0.31	-0.07	-0.18	-0.15	0.3139	1.3028	0.0064	9.9011	1.0587	9.9011	1.1245			
ELA	6	702867	732749	0	A-C	2	120128	0.48	0.48	0.30	0.07	0.15	0.00	0.26	0.26	-0.03	-0.31	-0.0965	1.0574	0.0064	9.9011	1.1403	9.9012	1.1986			
ELA	6	702871	201157	0	A-V	2	120128	0.54	0.54	0.12	0.19	0.15	0.00	0.20	0.20	-0.16	0.01	-0.1453	0.7857	0.0064	9.9012	1.2003	9.9013	1.3022			
ELA	6	702872	490200	0	A-K	2	120128	0.44	0.25	0.44	0.18	0.14	0.00	0.29	-0.06	0.29	-0.21	-0.1081	1.1800	0.0064	9.9011	1.0941	9.9012	1.1519			
ELA	6	702873	299129	0	A-K	2	120128	0.44	0.39	0.11	0.44	0.06	0.00	0.33	-0.08	-0.26	0.33	-0.1812	1.3184	0.0064	9.9011	1.0642	9.9011	1.1295			
ELA	6	702882	927270	0	B-C	3	120128	0.53	0.17	0.53	0.14	0.15	0.00	0.20	-0.15	0.20	0.02	-0.1329	0.7734	0.0064	9.9012	1.1991	9.9013	1.2791			
ELA	6	702883	416815	0	B-V	2	120128	0.64	0.64	0.13	0.15	0.08	0.00	0.34	0.34	-0.16	-0.13	-0.2375	0.2168	0.0066	9.9010	1.0451	9.9011	1.0831			
ELA	6	702900	272246	0	B-K	3	120128	0.80	0.80	0.09	0.04	0.07	0.00	0.40	0.40	-0.18	-0.23	-0.2559	-0.4884	0.0074	-9.8992	0.8455	-9.8992	0.7813			
ELA	6	702902	119512	0	B-C	3	120128	0.81	0.05	0.06	0.08	0.81	0.00	0.48	-0.24	-0.25	-0.28	0.4819	-0.7242	0.0078	-9.8992	0.8217	-9.8993	0.6915			
ELA	6	702904	950482	0	B-C	2	120128	0.48	0.28	0.48	0.15	0.09	0.00	0.22	-0.06	0.22	-0.14	-0.1026	1.0092	0.0064	9.9012	1.1778	9.9012	1.2389			
ELA	6	736450	174956	0	B-C	3	120128	0.44	0.11	0.40	0.44	0.05	0.00	0.24	-0.29	0.08	0.24	-0.2674	1.1947	0.0064	9.9012	1.1564	9.9012	1.2443			
ELA	6	736459	970356	0	B-K	2	120128	0.71	0.71	0.10	0.10	0.09	0.00	0.53	0.53	-0.26	-0.27	-0.2840	-0.2125	0.0070	-9.8991	0.8746	-9.8992	0.7832			
ELA	6	736461	397018	0	B-C	2	120128	0.58	0.12	0.58	0.16	0.14	0.00	0.48	-0.24	0.48	-0.19	-0.2568	0.5748	0.0064	-9.8991	0.9119	-9.8991	0.8918			
ELA	6	736466	628975	0	B-V	2	120128	0.47	0.28	0.09	0.15	0.47	0.00	0.40	-0.09	-0.26	-0.23	0.4040	1.0622	0.0064	-3.5890	0.9915	1.9610	1.0066			
ELA	6	736467	409517	0	B-K	2	120128	0.62	0.14	0.16	0.62	0.08	0.00	0.46	-0.24	-0.17	0.46	-0.2572	0.3306	0.0065	-9.8991	0.9434	-9.8991	0.9253			
ELA	6	736470	427738	0	B-C	3	120128	0.71	0.71	0.09	0.11	0.09	0.00	0.50	0.50	-0.24	-0.28	-0.2366	-0.1917	0.0070	-9.8991	0.8953	-9.8992	0.8171			
ELA	6	736471	390595	0	B-C	2	120128	0.65	0.07	0.65	0.16	0.11	0.00	0.40	-0.29	0.40	-0.12	-0.2186	0.1500	0.0067	-1.6090	0.9954	9.9011	1.0495			
ELA	6	741249	738609	0	D	2	120128	0.43	0.14	0.22	0.43	0.20	0.00	0.35	-0.26	-0.08	0.35	-0.1137	1.3927	0.0065	9.9011	1.0587	9.9011	1.12			
ELA	6	741251	800793	0	D	2	120128	0.62	0.15	0.14	0.62	0.09	0.00	0.40	-0.19	-0.21	0.40	-0.1809	0.2772	0.0066	4.2010	1.0114	1.4110	1.006			
ELA	6	741253	847177	0	D	2	120128	0.85	0.06	0.85	0.03	0.06	0.00	0.42	-0.24	0.42	-0.20	-0.2473	-1.1256	0.0086	-9.8991	0.8814	-9.8993	0.7118			
ELA	6	741254	598170	0	D	2	120128	0.46	0.46	0.24	0.09	0.20	0.00	0.32	0.32	-0.14	-0.28	-0.0438	1.1312	0.0064	9.9011	1.0811	9.9011	1.1258			
ELA	6	741256	253859	0	D	2	120128	0.58	0.11	0.15	0.58	0.16	0.00	0.39	-0.21	-0.14	0.39	-0.2106	0.4893	0.0065	6.6710	1.0170	4.5610	1.0173			
ELA	6	741257	199699	0	D	2	120128	0.43	0.26	0.43	0.17	0.14	0.00	0.27	-0.12	0.27	-0.15	-0.0762	1.2730	0.0064	9.9011	1.1164	9.9012	1.1871			
ELA	6	741261	745297	0	D	2	120128	0.43	0.13	0.36	0.43	0.08	0.00	0.34	-0.20	-0.06	0.34	-0.2578	1.3410	0.0064	9.9010	1.0396	9.9011	1.1081			
ELA	6	669293	656663	1	D	2	13466	0.75	0.75	0.07	0.08	0.09	0.00	0.47	0.47	-0.24	-0.29	-0.2206	-0.3921	0.0217	-9.8991	0.8924	-9.8992	0.8098	A+	A-	B-
ELA	6	737050	663977	1	B-K	3	66764	0.74	0.16	0.04	0.74	0.06	0.00	0.39	-0.20	-0.26	0.39	-0.2022	-0.3413	0.0096	-8.6090	0.9601	-3.6890	0.9695	A+	A+	A+
ELA	6	737098	979752	1	B-C	3	66764	0.68	0.68	0.12	0.13	0.08	0.00	0.42	0.42	-0.34	-0.04	-0.2817	0.0261	0.0091	-9.8990	0.9540	-6.5890	0.9568	A-	A-	A-
ELA	6	737099	308575	1	B-C	2	66764	0.67	0.11	0.67	0.07	0.15	0.00	0.33	-0.27	0.33	-0.24	-0.0255	0.0660	0.0090	9.9010	1.0451	9.9011	1.1027	A+	A+	A+
ELA	6	737100	131500	1	B-V	2	66764	0.56	0.04	0.03	0.37	0.56	0.00	0.30	-0.20	-0.22	-0.15	0.2999	0.6292	0.0086	9.9011	1.1026	9.9011	1.1222	A-	A-	A+
ELA	6	737101	408550	1	B-V	2	66764	0.63	0.04	0.26	0.07	0.63	0.00	0.33	-0.24	-0.12	-0.23	0.3322	0.3078	0.0088	9.9011	1.0582	9.9011	1.1152	A+	A+	A-
ELA	6	739864	257081	1	B-C	3	66764	0.46	0.46	0.14	0.33	0.07	0.00	0.36	0.36	-0.17	-0.11	-0.2709	1.1404	0.0086	5.8310	1.0190	9.9011	1.0605	A+	A+	A-
ELA	6	810825	648973	1	A-K	2	13466	0.70	0.70	0.04	0.05	0.21	0.00	0.38	0.38	-0.28	-0.30	-0.1403	-0.0828	0.0206	-0.7190	0.9932	4.9811	1.0813	A+	A-	A-
ELA	6	810826	851458	1	A-K	2	13466	0.27	0.19	0.30	0.23	0.27	0.00	0.21	-0.08	0.02	-0.17	0.2113	2.1471	0.0212	9.9011	1.1367	9.9014	1.367	A-	A-	A-
ELA	6	810827	236048	1	A-C	2	13466	0.55	0.27	0.11	0.55	0.07	0.00	0.40	-0.20	-0.19	0.40	-0.1779	0.6848	0.0192	0.7210	1.0053	1.4110	1.0151	A-	A-	A-
ELA	6	810828	969695	1	A-V	2	13466	0.57	0.05	0.57	0.31	0.07	0.00	0.26	-0.29	0.26	-0.05	-0.1645	0.6102	0.0192	9.9011	1.1435	9.9012	1.2043	A-	A-	A-
ELA	6	810829	323703	1	A-C	3	13466	0.44	0.09	0.44	0.21	0.26	0.00	0.34	-0.24	0.34	-0.21	-0.0300	1.2610	0.0192	6.5410	1.0487	9.9011	1.1106	A-	A-	A-
ELA	6	810830	990273	1	A-K	2	13466	0.46	0.09	0.09	0.46	0.36	0.00	0.30	-0.18	-0.30	0.30	-0.0235	1.1542	0.0191	9.9011	1.1037	9.9012	1.1778	A-	A+	A-
ELA	6	810831	216015	1	A-V	2	13466	0.58	0.58	0.12	0.20	0.10	0.00	0.46	0.46	-0.31	-0.21	-0.1499	0.5545	0.0193	-7.8391	0.9420	-7.8891	0.9143	A-	A-	A-
ELA	6	810835	697320	1	A-V	2	13466	0.64	0.05	0.25	0.05	0.64	0.00	0.25	-0.21	-0.04	-0.25	0.2485	0.2380	0.0198	9.9011	1.1359	9.9013	1.2803	A+	A+	A-
ELA	6	812366	818521	1	D	2	13466	0.78	0.07	0.09	0.07	0.78	0.00	0.43	-0.23	-0.19	-0.26	0.4251	-0.5692	0.0224	-6.4891	0.9252	-3.7991	0.9207	B+	A-	A-
ELA	6	671986	882358	2	D	2	13309	0.81	0.06	0.81	0.03	0.10	0.00	0.42	-0.28	0.42	-0.23	-0.1942	-0.7804	0.0235	-7.5791	0.9044	-7.9692	0.817	A+	A-	A-
ELA	6	811627	141665	2	A-K	2	13309	0.61	0.17	0.10	0.61	0.11	0.00	0.52	-0.28	-0.25	0.52	-0.2284	0.3595	0.0196	-9.8991	0.8697	-9.8992	0.8171	A+	A-	A-
ELA	6	811628	397400	2	A-K	2	13309	0.63	0.09	0.63	0.20	0.07	0.00	0.47	-0.28	0.47	-0.19	-0.2500	0.2718	0.0198	-9.8991	0.9212	-8.5591	0.8919	A+	A-	A-
ELA	6	811629	454429	2	A-C	3	13309	0.44	0.44	0.27	0.21	0.08	0.00	0.35	0.35	-0.05	-0.23	-0.2090	1.2224	0.0193	5.5610	1.0419	8.9911	1.0998	A-	A-	A+
ELA	6	811630	104791	2	A-C	2	13309	0.39	0.39	0.28	0.25	0.08	0.00	0.26	0.26	-0.08	-0.07	-0.2343	1.4601	0.0196	9.9011	1.1183	9.9012	1.2309	A-	A-	A-
ELA	6	811631	180548	2	A-C	2	13309	0.73	0.08	0.05	0.13	0.73	0.00	0.50	-0.34	-0.28	-0.20	0.5050	-0.3152	0.0214	-9.8991	0.8588	-7.7191	0.8631	A-	A-	B-
ELA	6	811632	412466	2	A-V	2	13309	0.46	0.27	0.16	0.46	0.11	0.00	0.31	-0.07	-0.16	0.31	-0.1947	1.1337	0.0193	9.9011	1.0857	9.9011	1.1404	A-	A-	A-
ELA	6	811633	935063	2	A-V	1	13309	0.51	0.20	0.51	0.14	0.13	0.00	0.45	-0.10	0.45	-0.29	-0.2326	0.8479	0.0192	-7.5591	0.9461	-6.0891	0.9377	A-	A-	A-
ELA	6	811635	694531	2	A-V	2	13309	0.70	0.10	0.09	0.11	0.70	0.00	0.53	-0.26	-0.27	-0.28	0.5319	-0.1137	0.0207	-9.8991	0.8506	-9.8992	0.7644	A-	A-	A-
ELA	6	812370	163893	2	D	2	13309	0.29	0.20	0.29	0.12	0.39	0.00	0.32	-0.24	0.32	-0.20	0.0379	1.9995	0.0209	2.3210	1.0226	9.9012	1.1824	A+	A+	A-
ELA	6	675839	331483	3	D	2	13410	0.47	0.12	0.25	0.16	0.47	0.00	0.24	-0.09	-0.07	-0.16	0.2442	1.0383	0.0191	9.9012	1.1563	9.9012	1.2139	A+	A+	A-
ELA	6	810480	852691	3	A-C	2	13410	0.39	0.23	0.17	0.39	0.21	0.00	0.30	-0.11	-0.21	0.30	-0.0514	1.4746	0.0195	9.6311	1.0767	9.9012	1.1635	A-	A-	A+
ELA	6	810481	955185	3	A-C	3	13410	0.41	0.20	0.20	0.19	0.41	0.00	0.28	-0.15	-0.04	-0.15	0.2790	1.3487	0.0194	9.9011	1.1144	9.9012	1.174	A+	A-	A-
ELA	6	810482	465469	3	A-V	2	13410	0.66	0.66	0.22	0.05	0.06	0.00	0.42	0.42	-0.17	-0.29	-0.2558	0.0945	0.0201	-4.1990	0.9642	-4.1891	0.9418	A+	A-	A-
ELA	6	810483	433836	3	A-C	2	13410	0.60	0.60	0.11	0.18	0.10	0.00	0.45	0.45	-0.25	-0.15	-0.2661	0.4014	0.0195	-6.2290	0.9524	-3.0690	0.9639	A+	A-	A-
ELA	6	810484	545355	3	A-K	2	13410	0.61	0.13	0.15	0.12	0.61	0.00	0.53	-0.23	-0.22	-0.31	0.5303	0.3874	0.0195	-9.8991	0.8582	-9.8992	0.8175	A-	A-	A-
ELA	6	810487	908652	3	A-K	2	13410	0.67	0.10	0.11	0.67	0.11	0.00	0.44	-0.25	-0.23	0.44	-0.1757	0.0674	0.0201	-6.7591	0.9423	-6.3191	0.9117	A+	A-	A-
ELA	6	810488	132089	3	A-V	2	13410	0.76	0.06	0.76	0.11	0.07	0.00	0.48	-0.24	0.48	-0.33	-0.1815	-0.4518	0.0218	-9.8991	0.8721	-9.8992	0.7902	A+	A-	A-
ELA	6	810489	759534	3	A-V	2	13410	0.59	0.10	0.59	0.19	0.12	0.00	0.42	-0.31	0.42	-0.19	-0.1165	0.4637	0.0194	-3.3090	0.9750	-2.0190	0.9768	A-	A-	A+
ELA	6	812369	236538	3	D	2	13410	0.79	0.79	0.07	0.06	0.08	0.00	0.47	0.47	-0.24	-0.23	-0.2721	-0.6362	0.0227	-9.4991	0.8895	-9.8992	0.7682	A-	A-	A-
ELA	6	676109	421312	4	D	2	13285	0.72	0.72	0.03	0.03	0.22	0.00	0.45	0.45	-0.21	-0.21	-0.3160	-0.1633	0.0209	-8.0491	0.9231	-9.5292	0.8499	A+	A-	A-
ELA	6	741250	571445	4	D	1	13285	0.67	0.05	0.23	0.05	0.67	0.00	0.24	-0.21	-0.06	-0.21	0.2397	0.0766	0.0202	9.9011	1.1376	9.9012	1.2301	A+	A+	A+
ELA	6	808485	992203	4	A-C	3	13285	0.67	0.67	0.14	0.06	0.13	0.00	0.43	0.43	-0.23	-0.23	-0.1931	0.0733	0.0202	-5.0890	0.9557	-3.0290	0.9571	A-	A-	A-
ELA	6	808492	323019	4	A-C	2	13285	0.54	0.05	0.34	0.54	0.07	0.00	0.30	-0.26	-0.06	0.30	-0.2563	0.7298	0.0192	9.9011	1.0939	9.9011	1.1291	A-	A+	A-
ELA	6	808493	803949	4	A-K	3	13285	0.36	0.37	0.36	0.12	0.15	0.00	0.13	0.15	0.13	-0.20	-0.1830	1.6625	0.0199	9.9012	1.2381	9.9014	1.4181	A-	A-	A-
ELA	6	808494	220251	4	A-K	3	13285	0.62	0.18	0.11	0.09	0.62	0.00	0.43	-0.16	-0.23	-0.25	0.4278	0.3461	0.0197	-5.2890	0.9584	-5.7091	0.9318	A+	A-	A+
ELA	6	808495	633889	4	A-K	2	13285	0.64	0.14	0.64	0.10	0.10	0.01	0.51	-0.26	0.51	-0.22	-0.2549	0.2300	0.0199	-9.8991	0.8760	-9.8992	0.8218	A+	A+	A-
ELA	6	808496	619488	4	A-V	2	13285	0.79	0.79	0.12	0.03	0.06	0.00	0.32	0.32	-0.18	-0.22	-0.1276	-0.6387	0.0229	0.0410	1.0005	2.8511	1.0641	A+	A-	A+
ELA	6	808497	254058	4	A-V	2	13285	0.66	0.09	0.08	0.66	0.17	0.00	0.39	-0.32	-0.31	0.39	-0.0190	0.1544	0.0200	-0.8590	0.9926	0.9810	1.0134	A-	A+	A-
ELA	6	808498	691172	4	A-V	2	13285	0.80	0.06	0.07	0.06	0.80	0.00	0.50	-0.24	-0.30	-0.25	0.4953	-0.7518	0.0235	-9.8992	0.8461	-9.8993	0.6943	A-	A-	A-
ELA	6	673918	530818	5	D	2	13294	0.69	0.07	0.69	0.14	0.10	0.00	0.47	-0.25	0.47	-0.22	-0.2553	-0.0347	0.0205	-9.7491	0.9141	-9.8991	0.8526	A+	A-	A-
ELA	6	812371	795075	5	D	2	13294	0.49	0.49	0.07	0.26	0.18	0.00	0.30	0.30	-0.22	-0.07	-0.1519	0.9526	0.0192	9.9011	1.1018	9.9011	1.134	A-	A-	A-
ELA	6	816090	420674	5	A-C	2	13294	0.71	0.10	0.71	0.10	0.09	0.00	0.45	-0.20	0.45	-0.28	-0.2097	-0.1729	0.0209	-7.8291	0.9262	-6.6891	0.8919	A-	A-	A+
ELA	6	816091	243722	5	A-V	2	13294	0.41	0.41	0.13	0.19	0.26	0.01	0.35	0.35	-0.17	-0.20	-0.0590	1.3762	0.0195	3.8510	1.0294	8.1111	1.093	A-	A-	A-
ELA	6	816092	152937	5	A-C	2	13294	0.37	0.27	0.13	0.23	0.37	0.00	0.33	-0.10	-0.22	-0.10	0.3312	1.5584	0.0197	4.0210	1.0325	9.0511	1.1142	A-	A+	A-
ELA	6	816094	953893	5	A-K	2	13294	0.43	0.34	0.16	0.06	0.43	0.00	0.33	-0.15	-0.06	-0.28	0.3289	1.2781	0.0193	9.3411	1.0706	9.9011	1.1251	A+	B-	B-
ELA	6	816096	403575	5	A-V	2	13294	0.91	0.91	0.03	0.02	0.04	0.00	0.42	0.42	-0.23	-0.21	-0.2668	-1.7471	0.0313	-6.5791	0.8575	-9.8995	0.5322	A+	A-	A-
ELA	6	816097	302433	5	A-C	3	13294	0.48	0.10	0.12	0.48	0.29	0.00	0.27	-0.22	-0.32	0.27	0.0784	1.0029	0.0192	9.9011	1.1321	9.9012	1.1949	A-	A-	A-
ELA	6	816098	634927	5	A-K	2	13294	0.62	0.10	0.18	0.62	0.10	0.00	0.44	-0.16	-0.24	0.44	-0.2419	0.3126	0.0197	-6.2690	0.9510	-5.5891	0.9315	A+	A-	A-
ELA	6	816100	956708	5	A-C	3	13294	0.55	0.21	0.55	0.11	0.12	0.00	0.47	-0.19	0.47	-0.27	-0.2073	0.6692	0.0192	-9.8991	0.9240	-9.1591	0.9058	A+	A-	A-
ELA	6	672596	539722	6	D	2	13333	0.75	0.04	0.05	0.16	0.75	0.00	0.49	-0.25	-0.24	-0.29	0.4888	-0.3663	0.0217	-9.8991	0.8809	-9.8992	0.7672	A+	B-	A-
ELA	6	737043	516854	6	A-V	2	53364	0.82	0.82	0.02	0.09	0.07	0.00	0.24	0.24	-0.16	-0.04	-0.2266	-0.8031	0.0119	4.2310	1.0288	9.9013	1.2738	A+	A-	A-
ELA	6	737053	941354	6	A-K	2	53364	0.44	0.11	0.44	0.16	0.30	0.00	0.30	-0.26	0.30	-0.11	-0.0621	1.2459	0.0096	9.9011	1.0744	9.9011	1.1356	A-	A-	A-
ELA	6	737054	204380	6	A-C	3	53364	0.73	0.08	0.10	0.73	0.09	0.00	0.40	-0.26	-0.15	0.40	-0.2123	-0.2262	0.0105	-9.8991	0.9465	0.1010	1.0008	A+	A-	A-
ELA	6	737055	901033	6	A-C	2	53364	0.68	0.05	0.68	0.10	0.17	0.00	0.28	-0.26	0.28	-0.18	-0.0526	0.0710	0.0101	9.9011	1.0903	9.9012	1.1724	A+	A+	A+

ContArea	FormGrade	ItemID	PubID	FormNumber	Standard1	Depth	N	PValue	ProportionA	ProportionB	ProportionC	ProportionD	ProportionOMITS	PtBiserial	CorrelationA	CorrelationB	CorrelationC	CorrelationD	FinalB	FinalBErr	Infit	InfitMnSq	Outfit	OutfitMnSq	BiasCodeMALEFEMALE	BiasCodeWHITEBLACK	BiasCodeWHITEHISPANIC
ELA	6	737056	690397	6 A-C	2	53364	0.46	0.06	0.31	0.17	0.46	0.00	0.26	-0.23	-0.04	-0.15	0.2621	1.1345	0.0096	9.9011	1.1275	9.9012	1.1766	A-	A-	A-
ELA	6	737057	445308	6 A-C	2	53364	0.56	0.07	0.28	0.09	0.56	0.00	0.38	-0.29	-0.08	-0.28	0.3809	0.6679	0.0096	4.3810	1.0160	5.3810	1.0279	A+	A-	A-
ELA	6	800742	489125	6 B-C	3	13333	0.58	0.58	0.21	0.12	0.08	0.01	0.35	0.35	-0.11	-0.15	-0.2869	0.5523	0.0193	4.6710	1.0353	6.9711	1.0777	A+	A-	A-
ELA	6	800745	535875	6 B-C	3	13333	0.59	0.59	0.10	0.13	0.18	0.00	0.40	0.40	-0.20	-0.23	-0.1434	0.5400	0.0193	-0.9790	0.9926	-0.8690	0.9905	A-	A-	A-
ELA	6	800746	156715	6 B-C	1	13333	0.47	0.08	0.36	0.09	0.47	0.00	0.43	-0.27	-0.19	-0.17	0.4253	1.1112	0.0191	-7.3291	0.9492	-3.8790	0.9619	A+	A-	A-
ELA	6	800747	745718	6 B-K	2	13333	0.61	0.23	0.61	0.09	0.07	0.00	0.50	-0.24	0.50	-0.32	-0.2109	0.4041	0.0195	-9.8991	0.8852	-9.8992	0.8488	A+	A-	A-
ELA	6	800748	947928	6 B-K	3	13333	0.75	0.06	0.06	0.75	0.13	0.00	0.44	-0.24	-0.28	0.44	-0.2029	-0.3421	0.0216	-8.0691	0.9157	-6.9791	0.8769	A+	A-	A-
ELA	6	800750	707316	6 B-K	1	13333	0.39	0.32	0.39	0.17	0.12	0.00	0.21	0.03	0.21	-0.09	-0.2478	1.5216	0.0195	9.9011	1.1427	9.9013	1.2541	A+	A+	A+
ELA	6	800751	459208	6 B-V	2	13333	0.37	0.12	0.26	0.25	0.37	0.00	0.15	-0.21	-0.08	0.07	0.1491	1.5992	0.0197	9.9012	1.2359	9.9014	1.372	A-	A-	A-
ELA	6	800752	227549	6 B-V	1	13333	0.70	0.11	0.14	0.70	0.05	0.00	0.39	-0.20	-0.20	0.39	-0.2066	-0.0750	0.0207	-1.9490	0.9816	0.4810	1.0075	A+	B-	A-
ELA	6	812374	659786	6 D	2	13333	0.49	0.11	0.21	0.49	0.18	0.00	0.35	-0.24	-0.15	0.35	-0.0839	1.0102	0.0191	5.8210	1.0414	6.4811	1.065	A+	A-	A-
ELA	6	681179	921602	7 D	2	13345	0.68	0.08	0.13	0.12	0.68	0.00	0.37	-0.25	-0.17	-0.14	0.3669	0.0644	0.0202	1.3610	1.0121	2.5110	1.0357	A+	A-	A-
ELA	6	804591	936872	7 B-C	3	13345	0.56	0.17	0.56	0.14	0.13	0.00	0.24	-0.11	0.24	-0.17	-0.0645	0.6504	0.0192	9.9012	1.1546	9.9012	1.2125	A+	A-	A+
ELA	6	804592	176150	7 B-C	2	13345	0.89	0.89	0.03	0.03	0.06	0.00	0.45	0.45	-0.24	-0.23	-0.2681	-1.4653	0.0286	-7.6891	0.8579	-9.8994	0.5756	A-	B-	B-
ELA	6	804593	863858	7 B-V	2	13345	0.70	0.03	0.06	0.20	0.70	0.00	0.58	-0.22	-0.21	-0.43	0.5780	-0.1102	0.0207	-9.8992	0.8051	-9.8993	0.7119	A-	A-	A-
ELA	6	804594	217294	7 B-C	2	13345	0.57	0.07	0.11	0.57	0.24	0.00	0.33	-0.22	-0.15	0.33	-0.1375	0.5915	0.0193	9.4011	1.0717	9.5911	1.1051	A-	A-	A-
ELA	6	804596	366997	7 B-K	2	13345	0.34	0.23	0.08	0.34	0.34	0.00	0.06	-0.03	-0.30	0.06	0.1461	1.7447	0.0200	9.9013	1.3227	9.9016	1.5572	A+	A+	A-
ELA	6	804597	150344	7 B-K	3	13345	0.57	0.23	0.57	0.11	0.08	0.01	0.43	-0.19	0.43	-0.21	-0.2317	0.5758	0.0193	-5.3890	0.9602	-4.7291	0.9503	A-	A-	A-
ELA	6	804599	231486	7 B-V	2	13345	0.77	0.77	0.12	0.07	0.04	0.00	0.47	0.47	-0.22	-0.28	-0.2733	-0.5366	0.0224	-9.8991	0.8837	-9.8992	0.7886	B-	B-	A-
ELA	6	804600	741774	7 B-V	2	13345	0.68	0.16	0.09	0.07	0.68	0.00	0.47	-0.21	-0.28	-0.24	0.4698	0.0326	0.0203	-9.7891	0.9147	-8.8291	0.8783	B-	A-	A-
ELA	6	812419	382673	7 D	2	13345	0.41	0.17	0.41	0.28	0.13	0.00	0.33	-0.18	0.33	-0.09	-0.1556	1.3803	0.0194	6.2710	1.0473	9.9011	1.1306	A+	A-	A+
ELA	6	679273	477786	8 D	2	13353	0.76	0.04	0.76	0.03	0.18	0.00	0.26	-0.17	0.26	-0.08	-0.1664	-0.4030	0.0218	5.6911	1.0634	9.9013	1.2542	A-	A-	A-
ELA	6	808488	983605	8 B-V	2	13353	0.62	0.10	0.62	0.19	0.09	0.00	0.47	-0.28	0.47	-0.21	-0.2095	0.3241	0.0197	-9.4891	0.9255	-8.9491	0.8931	A-	A-	A-
ELA	6	808489	980910	8 B-K	3	13353	0.56	0.16	0.11	0.56	0.16	0.00	0.37	-0.22	-0.23	0.37	-0.0784	0.6517	0.0193	3.5210	1.0262	5.8511	1.0634	A-	A-	A-
ELA	6	808491	301866	8 B-K	1	13353	0.60	0.12	0.15	0.13	0.60	0.00	0.48	-0.27	-0.25	-0.17	0.4821	0.4675	0.0195	-9.8991	0.9098	-9.8991	0.8879	A-	A-	A-
ELA	6	808499	664115	8 B-V	2	13353	0.75	0.08	0.13	0.75	0.04	0.00	0.51	-0.26	-0.31	0.51	-0.2264	-0.3707	0.0216	-9.8991	0.8713	-9.8992	0.776	A-	B-	B-
ELA	6	808500	200321	8 B-C	2	13353	0.56	0.18	0.14	0.12	0.56	0.00	0.40	-0.11	-0.21	-0.24	0.3982	0.6465	0.0193	-0.0290	0.9998	0.1810	1.0019	A-	A-	A-
ELA	6	808501	912289	8 B-C	2	13353	0.43	0.12	0.43	0.33	0.12	0.01	0.34	-0.17	0.34	-0.07	-0.2389	1.3035	0.0193	4.4410	1.0331	8.8111	1.0974	A-	A+	A+
ELA	6	808502	923200	8 B-C	2	13353	0.67	0.67	0.14	0.06	0.13	0.00	0.34	0.34	-0.14	-0.22	-0.1826	0.1008	0.0201	3.8210	1.0336	4.6311	1.0668	A-	A-	A-
ELA	6	808503	973508	8 B-C	2	13353	0.69	0.69	0.12	0.12	0.08	0.00	0.52	0.52	-0.27	-0.25	-0.2667	-0.0052	0.0204	-9.8991	0.8683	-9.8992	0.7833	A-	A-	A-
ELA	6	812418	370926	8 D	3	13353	0.46	0.11	0.46	0.24	0.19	0.00	0.41	-0.27	0.41	-0.17	-0.1126	1.1337	0.0192	-2.1590	0.9845	0.3910	1.0039	A-	A-	A-
ELA	6	674801	769729	9 D	2	13333	0.42	0.25	0.22	0.42	0.11	0.00	0.30	-0.12	-0.16	0.30	-0.0890	1.3090	0.0192	9.1111	1.0670	9.9011	1.1186	A-	A-	A-
ELA	6	794366	198632	9 B-V	2	13333	0.72	0.72	0.25	0.01	0.01	0.00	0.33	0.33	-0.25	-0.15	-0.1851	-0.1970	0.0209	2.6910	1.0267	3.3011	1.0546	A-	B-	B-
ELA	6	794368	759285	9 B-C	2	13333	0.66	0.12	0.66	0.10	0.13	0.00	0.49	-0.27	0.49	-0.30	-0.1678	0.1554	0.0199	-9.8991	0.8909	-9.8991	0.8638	A-	A-	A-
ELA	6	794369	540335	9 B-C	2	13333	0.67	0.09	0.17	0.06	0.67	0.00	0.56	-0.35	-0.24	-0.27	0.5562	0.0693	0.0201	-9.8992	0.8295	-9.8993	0.7464	A-	A-	A-
ELA	6	794370	859251	9 B-C	3	13333	0.27	0.57	0.06	0.27	0.09	0.00	0.08	0.12	-0.28	0.08	-0.0987	2.1221	0.0211	9.9012	1.2224	9.9015	1.5472	A-	A+	A+
ELA	6	794371	562352	9 B-C	3	13333	0.52	0.52	0.13	0.16	0.18	0.00	0.49	0.49	-0.18	-0.24	-0.2528	0.8175	0.0190	-9.8991	0.8931	-9.8991	0.881	A-	A-	A-
ELA	6	794372	942915	9 B-K	2	13333	0.22	0.10	0.47	0.21	0.22	0.00	-0.11	-0.28	0.27	0.00	-0.1103	2.4601	0.0226	9.9014	1.3571	9.9021	2.113	A+	A+	A+
ELA	6	794373	945512	9 B-K	2	13333	0.47	0.12	0.27	0.47	0.15	0.00	0.26	-0.17	-0.02	0.26	-0.1822	1.0927	0.0191	9.9011	1.1143	9.9012	1.1784	A-	A-	A-
ELA	6	794375	135265	9 B-V	1	13333	0.75	0.12	0.75	0.10	0.03	0.00	0.36	-0.12	0.36	-0.26	-0.2435	-0.4003	0.0217	-2.0990	0.9772	3.8111	1.0721	A-	B-	B-
ELA	6	812417	728861	9 D	2	13333	0.66	0.06	0.14	0.13	0.66	0.00	0.40	-0.29	-0.06	-0.29	0.4034	0.1127	0.0200	-4.1190	0.9651	7.7711	1.1072	A+	A-	A-
ELA	7	669297	231382	0 D	2	121441	0.67	0.06	0.06	0.67	0.21	0.00	0.46	-0.25	-0.22	0.46	-0.2501	-0.0784	0.0068	-9.8990	0.9544	-9.8991	0.9208			
ELA	7	672605	981234	0 D	2	121441	0.81	0.09	0.03	0.07	0.81	0.00	0.46	-0.23	-0.24	-0.29	0.4624	-1.0659	0.0081	-9.8991	0.9311	-9.8992	0.7947			
ELA	7	672617	675863	0 D	2	121441	0.67	0.67	0.16	0.08	0.08	0.00	0.38	0.38	-0.16	-0.24	-0.1875	-0.1693	0.0068	9.9011	1.0515	9.9011	1.0796			
ELA	7	673473	458704	0 B-V	2	121441	0.64	0.13	0.11	0.64	0.12	0.00	0.48	-0.27	-0.23	0.48	-0.2026	-0.0101	0.0067	-9.8990	0.9508	-9.8991	0.9041			
ELA	7	673481	914971	0 B-K	2	121441	0.60	0.12	0.60	0.19	0.08	0.00	0.43	-0.21	0.43	-0.19	-0.2339	0.4425	0.0065	-9.8990	0.9710	-9.8990	0.9576			
ELA	7	673482	266205	0 B-K	2	121441	0.51	0.16	0.15	0.51	0.17	0.00	0.41	-0.12	-0.25	0.41	-0.1751	0.7774	0.0064	4.6910	1.0116	8.0110	1.0289			
ELA	7	673483	477575	0 B-C	3	121441	0.76	0.07	0.06	0.11	0.76	0.00	0.53	-0.29	-0.28	-0.27	0.5329	-0.5576	0.0073	-9.8992	0.8337	-9.8993	0.6924			
ELA	7	673484	854857	0 B-C	2	121441	0.60	0.15	0.14	0.11	0.60	0.00	0.48	-0.24	-0.20	-0.24	0.4754	0.2616	0.0065	-9.8991	0.9418	-9.8991	0.9304			
ELA	7	673498	813402	0 B-K	2	121441	0.68	0.68	0.09	0.11	0.12	0.00	0.47	0.47	-0.21	-0.30	-0.2000	-0.0492	0.0067	-9.8991	0.9099	-9.8991	0.8853			
ELA	7	674820	797326	0 D	3	121441	0.64	0.08	0.15	0.64	0.14	0.00	0.42	-0.26	-0.23	0.42	-0.1359	0.1477	0.0066	-4.0190	0.9890	-3.6490	0.9835			
ELA	7	676076	275091	0 D	2	121441	0.54	0.27	0.04	0.15	0.54	0.00	0.41	-0.26	-0.20	-0.14	0.4073	0.5819	0.0064	5.5610	1.0140	5.4410	1.0204			
ELA	7	676091	392148	0 D	2	121441	0.68	0.11	0.68	0.15	0.06	0.00	0.42	-0.20	0.42	-0.25	-0.1700	-0.1353	0.0068	-3.4090	0.9897	-7.9690	0.9581			
ELA	7	676110	596994	0 D	2	121441	0.83	0.83	0.05	0.05	0.07	0.00	0.46	0.46	-0.23	-0.26	-0.2670	-1.1236	0.0083	-9.8991	0.8605	-9.8993	0.6918			
ELA	7	676114	254977	0 D	2	121441	0.49	0.31	0.49	0.10	0.11	0.00	0.51	-0.28	0.51	-0.23	-0.1919	0.8820	0.0064	-9.8991	0.8933	-9.8991	0.8839			
ELA	7	676640	599470	0 D	2	121441	0.89	0.05	0.03	0.03	0.89	0.00	0.35	-0.22	-0.19	-0.18	0.3549	-1.7042	0.0098	-9.8991	0.9047	-9.8993	0.743			
ELA	7	679165	102228	0 D	2	121441	0.67	0.10	0.13	0.09	0.67	0.00	0.46	-0.20	-0.27	-0.22	0.4598	-0.0463	0.0067	-9.8991	0.9267	-9.8991	0.8899			
ELA	7	679428	171506	0 D	2	121441	0.61	0.06	0.30	0.61	0.03	0.00	0.24	-0.16	-0.11	0.24	-0.1684	0.2541	0.0065	9.9012	1.1850	9.9013	1.2862			
ELA	7	681188	208728	0 D	2	121441	0.72	0.19	0.03	0.06	0.72	0.00	0.45	-0.23	-0.25	-0.28	0.4459	-0.2712	0.0069	-9.8991	0.8973	-9.8991	0.9103			
ELA	7	701701	884800	0 A-V	2	121441	0.70	0.70	0.12	0.10	0.08	0.00	0.24	0.24	-0.23	-0.01	-0.1146	-0.1901	0.0069	9.9011	1.1329	9.9014	1.3816			
ELA	7	701716	867260	0 A-K	3	121441	0.57	0.57	0.16	0.20	0.07	0.00	0.29	0.29	-0.17	-0.05	-0.2336	0.4905	0.0064	9.9011	1.1327	9.9012	1.2134			
ELA	7	701717	719772	0 A-K	2	121441	0.60	0.13	0.11	0.60	0.15	0.00	0.53	-0.32	-0.23	0.53	-0.2153	0.3111	0.0065	-9.8991	0.8808	-9.8992	0.8291			
ELA	7	701720	935235	0 A-V	2	121441	0.79	0.05	0.07	0.79	0.09	0.00	0.48	-0.25	-0.25	0.48	-0.2596	-0.7495	0.0076	-9.8991	0.8576	-9.8993	0.7198			
ELA	7	701721	707912	0 A-V	2	121441	0.42	0.17	0.42	0.18	0.22	0.01	0.36	-0.22	0.36	-0.11	-0.1227	1.1736	0.0065	9.9010	1.0427	9.9011	1.11			
ELA	7	701733	782721	0 A-V	2	121441	0.76	0.12	0.76	0.10	0.03	0.00	0.43	-0.20	0.43	-0.28	-0.2180	-0.4963	0.0072	-9.8991	0.9108	-9.8991	0.8614			
ELA	7	701758	434953	0 A-K	2	121441	0.56	0.56	0.22	0.12	0.09	0.00	0.43	0.43	-0.18	-0.23	-0.2218	0.3242	0.0065	5.9510	1.0156	7.1310	1.0297			
ELA	7	701759	828375	0 A-C	2	121441	0.75	0.15	0.75	0.04	0.06	0.00	0.47	-0.29	0.47	-0.24	-0.2186	-0.4551	0.0071	-9.8991	0.8701	-9.8992	0.8019			
ELA	7	701760	478613	0 A-K	3	121441	0.42	0.23	0.18	0.42	0.16	0.00	0.22	-0.07	-0.08	0.22	-0.1204	1.2342	0.0065	9.9012	1.2040	9.9013	1.3205			
ELA	7	701762	582080	0 A-K	3	121441	0.54	0.18	0.14	0.14	0.54	0.00	0.47	-0.23	-0.23	-0.20	0.4746	0.5731	0.0064	-9.8991	0.9427	-9.8991	0.9287			
ELA	7	701766	179189	0 A-V	2	121441	0.66	0.66	0.12	0.13	0.08	0.00	0.44	0.44	-0.25	-0.18	-0.2364	-0.0338	0.0067	-9.8990	0.9695	-7.9290	0.9607			
ELA	7	735005	172836	0 B-V	2	121441	0.74	0.05	0.74	0.14	0.07	0.00	0.49	-0.21	0.49	-0.27	-0.2811	-0.5189	0.0072	-9.8991	0.9153	-9.8992	0.8227			
ELA	7	735006	464680	0 B-V	2	121441	0.41	0.18	0.23	0.41	0.18	0.00	0.26	-0.25	-0.01	0.26	-0.0640	1.1960	0.0065	9.9011	1.1481	9.9012	1.2416			
ELA	7	735023	687173	0 B-K	3	121441	0.65	0.65	0.12	0.07	0.16	0.00	0.39	0.39	-0.22	-0.26	-0.1272	0.4011	0.0065	-8.0690	0.9794	5.7510	1.0231			
ELA	7	735024	266361	0 B-K	2	121441	0.68	0.16	0.68	0.10	0.06	0.00	0.40	-0.17	0.40	-0.24	-0.2252	-0.0289	0.0067	-9.8990	0.9651	-5.2990	0.9737			
ELA	7	735027	695099	0 B-C	2	121441	0.49	0.23	0.10	0.18	0.49	0.00	0.30	-0.09	-0.19	-0.14	0.2978	0.8598	0.0064	9.9011	1.1291	9.9012	1.1946			
ELA	7	735029	177693	0 B-V	1	121441	0.63	0.13	0.10	0.13	0.63	0.00	0.47	-0.25	-0.20	-0.25	0.4747	0.4031	0.0065	-9.8991	0.9058	-9.8991	0.8769			
ELA	7	741175	255578	0 D	2	121441	0.37	0.16	0.23	0.37	0.24	0.00	0.23	-0.07	-0.12	0.23	-0.0753	1.5908	0.0067	9.9012	1.1993	9.9014	1.3739			
ELA	7	741176	384030	0 D	2	121441	0.58	0.12	0.58	0.18	0.11	0.00	0.38	-0.19	0.38	-0.17	-0.1757	0.3765	0.0065	9.9010	1.0435	8.7910	1.0358			
ELA	7	741177	219201	0 D	2	121441	0.42	0.10	0.42	0.29	0.20	0.00	0.28	-0.19	0.28	-0.06	-0.1246	1.2291	0.0065	9.9011	1.1346	9.9012	1.2309			
ELA	7	741178	363262	0 D	3	121441	0.58	0.58	0.07	0.17	0.18	0.00	0.35	0.35	-0.23	-0.13	-0.1570	0.4191	0.0065	9.9011	1.0745	9.9011	1.1392			
ELA	7	741179	678952	0 D	2	121441	0.47	0.22	0.20	0.47	0.12	0.00	0.33	-0.05	-0.21	0.33	-0.1763	0.9751	0.0064	9.9011	1.0914	9.9012	1.1509			
ELA	7	741181	388016	0 D	2	121441	0.38	0.11	0.38	0.25	0.25	0.00	0.25	-0.21	0.25	-0.12	-0.0040	1.3319	0.0065	9.9011	1.1313	9.9013	1.2563			
ELA	7	679166	501694	1 D	2	13607	0.80	0.06	0.10	0.80	0.04	0.00	0.33	-0.16	-0.20	0.33	-0.1799	-0.8385	0.0231	-0.6690	0.9915	1.7710	1.0432	A+	A-	A-
ELA	7	701731	407405	1 B-K	3	54042	0.60	0.60	0.17	0.12	0.10	0.00	0.35	0.35	-0.17	-0.17	-0.1663	0.3541	0.0097	9.9011	1.0544	9.9011	1.09	A+	A+	A+
ELA	7	701732	596167	1 B-V	2	54042	0.54	0.22	0.11	0.13	0.54	0.00	0.29	-0.04	-0.22	-0.18	0.2908	0.6425	0.0096	9.9011	1.1324	9.9012	1.1823	A-	A+	A+
ELA	7	701764	866340	1 B-C	2	54042	0.61	0.15	0.61	0.14	0.10	0.00	0.29	-0.09	0.29	-0.13	-0.2071	0.2727	0.0098	9.9011	1.1089	9.9012	1.2337	A-	A+	A-
ELA	7	701777	769697	1 B-K	2	54042	0.48	0.48	0.13	0.23	0.16	0.00	0.33	0.33	-0.20	-0.14	-0.0998	0.9233	0.0096	9.9011	1.0962	9.9012	1.1546	A-	A-	A-
ELA	7	701778	361675	1 B-K	2	54042	0.59	0.05	0.19	0.59	0.17	0.00	0.43	-0.29	-0.27	0.43	-0.1018	0.3850	0.0097	-5.2690	0.9798	-6.7690	0.9601	A+	A+	A+

ContArea	FormGrade	ItemID	PubID	FormNumber	Standard1	Depth	N	PValue	ProportionA	ProportionB	ProportionC	ProportionD	ProportionOMITS	PtBiserial	CorrelationA	CorrelationB	CorrelationC	CorrelationD	FinalB	FinalBErr	Infit	InfitMnSq	Outfit	OutfitMnSq	BiasCodeMALEFEMALE	BiasCodeWHITEBLACK	BiasCodeWHITEHISPANIC
ELA	7	701801	661244	1	B-V	2	54042	0.64	0.09	0.14	0.64	0.13	0.00	0.40	-0.23	-0.12	0.40	-0.2409	0.1490	0.0099	-0.8790	0.9964	4.4610	1.0303	A-	A-	A-
ELA	7	811344	914872	1	A-K	2	13607	0.79	0.08	0.79	0.07	0.05	0.00	0.51	-0.30	0.51	-0.27	-0.2445	-0.8052	0.0229	-9.8992	0.8295	-9.8993	0.6535	A+	A-	A-
ELA	7	811345	259949	1	A-K	2	13607	0.67	0.09	0.14	0.67	0.10	0.00	0.45	-0.22	-0.26	0.45	-0.1897	-0.0237	0.0200	-7.3291	0.9380	-5.5991	0.9181	A+	A-	A-
ELA	7	811346	564724	1	A-C	2	13607	0.88	0.88	0.05	0.04	0.03	0.00	0.44	0.44	-0.23	-0.28	-0.2007	-1.5287	0.0278	-8.7192	0.8476	-9.8994	0.6095	A-	A-	A-
ELA	7	811347	754073	1	A-K	2	13607	0.33	0.33	0.22	0.34	0.10	0.00	0.23	0.23	-0.03	-0.05	-0.2325	1.7071	0.0202	9.9012	1.1516	9.9014	1.3763	A+	A+	A-
ELA	7	811348	782149	1	A-V	1	13607	0.71	0.05	0.71	0.06	0.18	0.00	0.30	-0.28	0.30	-0.25	-0.0295	-0.2532	0.0207	7.6911	1.0746	9.9012	1.2015	A-	A-	A+
ELA	7	811349	831436	1	A-V	2	13607	0.84	0.03	0.03	0.11	0.84	0.00	0.39	-0.22	-0.23	-0.23	0.3928	-1.1547	0.0249	-6.4791	0.9061	-4.9591	0.8629	A+	A-	A+
ELA	7	811350	946666	1	A-V	2	13607	0.82	0.04	0.08	0.06	0.82	0.00	0.46	-0.24	-0.26	-0.25	0.4594	-1.0025	0.0240	-9.8991	0.8586	-9.8993	0.7319	A+	A-	A-
ELA	7	811351	579735	1	A-V	2	13607	0.66	0.11	0.15	0.66	0.08	0.00	0.46	-0.26	-0.23	0.46	-0.1965	0.0090	0.0200	-8.6491	0.9279	-7.3691	0.8951	A+	A-	A+
ELA	7	813206	954132	1	D	2	13607	0.50	0.11	0.32	0.50	0.07	0.00	0.25	-0.24	0.04	0.25	-0.2704	0.8290	0.0191	9.9012	1.1774	9.9013	1.2635	A+	A-	A-
ELA	7	677900	880044	2	D	2	13509	0.45	0.24	0.45	0.08	0.23	0.00	0.28	-0.04	0.28	-0.23	-0.1431	1.0791	0.0192	9.9011	1.1399	9.9012	1.2406	A+	A-	A-
ELA	7	806586	119354	2	A-C	2	13509	0.50	0.31	0.12	0.50	0.07	0.00	0.34	-0.18	-0.14	0.34	-0.1626	0.8227	0.0191	9.9011	1.0798	9.9011	1.122	A+	A-	A-
ELA	7	806587	512059	2	A-V	2	13509	0.73	0.73	0.07	0.09	0.10	0.00	0.40	0.40	-0.21	-0.26	-0.1515	-0.4189	0.0213	-4.5490	0.9540	-0.4190	0.9921	A+	A-	A-
ELA	7	806588	137522	2	A-K	2	13509	0.67	0.18	0.67	0.08	0.07	0.00	0.41	-0.25	0.41	-0.17	-0.1927	-0.0389	0.0202	-2.9490	0.9743	-1.7990	0.973	A+	A+	A-
ELA	7	806589	497783	2	A-K	2	13509	0.55	0.12	0.24	0.55	0.09	0.00	0.46	-0.18	-0.22	0.46	-0.2695	0.5703	0.0192	-7.3091	0.9464	-6.2291	0.9315	A+	A+	A-
ELA	7	806590	781719	2	A-K	3	13509	0.47	0.47	0.31	0.11	0.10	0.00	0.12	0.12	0.14	-0.21	-0.1972	0.9529	0.0192	9.9013	1.3139	9.9015	1.4924	A+	A-	A-
ELA	7	806591	184779	2	A-K	2	13509	0.34	0.45	0.34	0.12	0.08	0.00	0.18	0.08	0.18	-0.23	-0.1811	1.6220	0.0200	9.9012	1.1894	9.9015	1.4548	A-	A+	A+
ELA	7	806592	207882	2	A-V	2	13509	0.80	0.07	0.05	0.07	0.80	0.00	0.46	-0.24	-0.26	-0.24	0.4645	-0.8780	0.0234	-9.8991	0.8731	-9.8992	0.7527	B+	A-	A-
ELA	7	806593	440407	2	A-C	2	13509	0.49	0.13	0.29	0.10	0.49	0.00	0.17	-0.11	0.04	-0.23	0.1674	0.9012	0.0191	9.9013	1.2668	9.9014	1.3856	A-	A+	A+
ELA	7	813207	873911	2	D	3	13509	0.72	0.08	0.14	0.72	0.06	0.00	0.47	-0.23	-0.29	0.47	-0.1937	-0.3244	0.0210	-9.4391	0.9099	-9.8992	0.8254	A+	A+	A+
ELA	7	676107	485409	3	D	2	13452	0.80	0.04	0.05	0.80	0.11	0.00	0.45	-0.21	-0.28	0.45	-0.2498	-0.8408	0.0233	-8.3191	0.8972	-9.8992	0.7731	A+	A-	A-
ELA	7	804601	537715	3	A-C	3	13452	0.54	0.18	0.54	0.18	0.09	0.00	0.36	-0.16	0.36	-0.15	-0.1896	0.6404	0.0192	6.4710	1.0488	6.2211	1.0684	A+	A-	A-
ELA	7	804602	657214	3	A-C	3	13452	0.40	0.32	0.16	0.13	0.40	0.00	0.21	0.12	-0.24	-0.21	0.2124	1.3671	0.0196	9.9012	1.1993	9.9013	1.348	A+	A-	A-
ELA	7	804609	905740	3	A-C	2	13452	0.70	0.07	0.70	0.16	0.06	0.00	0.38	-0.23	0.38	-0.12	-0.2838	-0.2252	0.0207	-1.6590	0.9842	3.4311	1.0585	A+	A-	A-
ELA	7	804612	715406	3	A-K	3	13452	0.68	0.06	0.09	0.68	0.16	0.00	0.36	-0.24	-0.26	0.36	-0.0900	-0.0897	0.0204	2.5310	1.0230	5.3711	1.085	A+	A-	A-
ELA	7	804613	734115	3	A-C	2	13452	0.73	0.73	0.09	0.07	0.11	0.00	0.40	0.40	-0.23	-0.19	-0.1927	-0.3552	0.0212	-3.7390	0.9626	0.4810	1.0087	A+	A-	A-
ELA	7	804614	776627	3	A-V	2	13452	0.64	0.11	0.07	0.18	0.64	0.00	0.54	-0.22	-0.33	-0.26	0.5354	0.1533	0.0198	-9.8991	0.8566	-9.8992	0.789	A+	A-	A-
ELA	7	804615	698888	3	A-V	2	13452	0.59	0.12	0.17	0.59	0.12	0.00	0.34	-0.16	-0.16	0.34	-0.1590	0.3980	0.0194	8.4711	1.0670	9.2011	1.112	A+	A-	A+
ELA	7	804616	426257	3	A-V	2	13452	0.81	0.81	0.10	0.04	0.04	0.00	0.43	0.43	-0.29	-0.20	-0.1761	-0.9144	0.0237	-7.7191	0.9008	-5.8591	0.8588	A+	A+	A-
ELA	7	813208	928177	3	D	2	13452	0.27	0.37	0.14	0.22	0.27	0.00	0.18	0.05	-0.19	-0.09	0.1763	2.0808	0.0214	9.9012	1.1658	9.9015	1.5378	A-	A-	A-
ELA	7	709429	107777	4	D	2	13474	0.48	0.18	0.48	0.19	0.16	0.00	0.36	-0.11	0.36	-0.24	-0.1197	0.9351	0.0192	6.3710	1.0482	7.0011	1.0745	A+	A+	A+
ELA	7	800753	393413	4	A-C	3	13474	0.58	0.09	0.14	0.58	0.18	0.00	0.39	-0.18	-0.21	0.39	-0.1709	0.4005	0.0194	3.3410	1.0259	2.9710	1.0348	A-	A-	A-
ELA	7	800763	869456	4	A-C	2	13474	0.43	0.24	0.43	0.12	0.21	0.00	0.30	-0.05	0.30	-0.30	-0.0632	1.1551	0.0193	9.9011	1.1214	9.9012	1.2002	A+	A+	A+
ELA	7	800764	912186	4	A-C	3	13474	0.63	0.14	0.63	0.15	0.09	0.00	0.45	-0.28	0.45	-0.21	-0.1699	0.1676	0.0197	-6.9691	0.9442	-6.2891	0.9198	A+	A-	A-
ELA	7	800766	907222	4	A-K	3	13474	0.61	0.61	0.08	0.11	0.19	0.01	0.49	0.49	-0.29	-0.28	-0.1863	0.2672	0.0196	-9.8991	0.9050	-9.8991	0.8694	A-	A+	A-
ELA	7	800767	564252	4	A-K	3	13474	0.32	0.21	0.41	0.32	0.06	0.00	0.17	-0.09	0.03	0.17	-0.2319	1.7398	0.0204	9.9012	1.2153	9.9015	1.4722	A+	A-	A-
ELA	7	800768	730795	4	A-V	2	13474	0.64	0.64	0.07	0.07	0.22	0.00	0.40	0.40	-0.29	-0.30	-0.1066	0.1136	0.0198	-0.3190	0.9974	1.2110	1.0164	A-	A-	A-
ELA	7	800769	667919	4	A-V	1	13474	0.50	0.18	0.23	0.09	0.50	0.00	0.26	-0.05	-0.12	-0.19	0.2552	0.8308	0.0192	9.9012	1.1712	9.9012	1.2213	A-	A-	A-
ELA	7	813210	842241	4	D	2	13474	0.79	0.05	0.79	0.09	0.08	0.00	0.50	-0.25	0.50	-0.27	-0.2723	-0.7560	0.0227	-9.8991	0.8605	-9.8993	0.725	A+	B-	A-
ELA	7	816003	184215	4	A-C	3	13474	0.61	0.15	0.10	0.61	0.14	0.01	0.44	-0.17	-0.26	0.44	-0.2056	0.2572	0.0196	-4.5590	0.9641	-3.6790	0.9547	A+	A-	A-
ELA	7	681190	694734	5	D	2	13488	0.85	0.03	0.85	0.08	0.04	0.00	0.43	-0.23	0.43	-0.25	-0.2498	-1.2968	0.0259	-9.1891	0.8602	-9.8993	0.67	A+	A-	A-
ELA	7	734936	522863	5	A-K	3	67399	0.69	0.10	0.08	0.69	0.13	0.00	0.44	-0.20	-0.28	0.44	-0.1984	-0.1777	0.0092	-9.8991	0.9404	-9.8991	0.9158	A+	A+	A-
ELA	7	734939	539875	5	A-K	3	67399	0.58	0.58	0.14	0.11	0.17	0.00	0.38	0.38	-0.17	-0.18	-0.1885	0.4298	0.0087	9.4910	1.0330	9.5711	1.0517	A-	A-	A-
ELA	7	734940	385658	5	A-C	3	67399	0.50	0.12	0.50	0.29	0.09	0.00	0.24	-0.15	0.24	0.00	-0.2491	0.8052	0.0086	9.9012	1.1928	9.9013	1.2876	A-	A+	A-
ELA	7	734942	104396	5	A-C	2	67399	0.36	0.12	0.32	0.19	0.36	0.00	0.25	-0.20	0.10	-0.24	0.2452	1.4984	0.0089	9.9012	1.1760	9.9013	1.2735	A+	A+	A-
ELA	7	734944	128150	5	A-V	2	67399	0.41	0.26	0.41	0.13	0.19	0.00	0.32	-0.30	0.32	-0.08	0.0023	1.2654	0.0087	9.9011	1.0934	9.9012	1.1653	A-	A+	A+
ELA	7	734945	920556	5	A-V	2	67399	0.63	0.19	0.14	0.05	0.63	0.00	0.31	-0.09	-0.25	-0.15	0.3126	0.1921	0.0088	9.9011	1.0940	9.9012	1.168	A+	A-	A-
ELA	7	810490	705050	5	B-C	3	13488	0.74	0.16	0.74	0.05	0.05	0.00	0.43	-0.23	0.43	-0.25	-0.2516	-0.4524	0.0214	-6.9491	0.9294	-5.0991	0.9042	A+	A+	A+
ELA	7	810491	878640	5	B-C	2	13488	0.60	0.14	0.10	0.60	0.16	0.00	0.39	-0.21	-0.25	0.39	-0.1116	0.2985	0.0195	2.2210	1.0177	4.1211	1.0529	A+	A-	A-
ELA	7	810492	847589	5	B-V	1	13488	0.55	0.55	0.10	0.23	0.12	0.00	0.45	0.45	-0.26	-0.17	-0.2295	0.5494	0.0193	-4.9790	0.9630	-2.8190	0.9682	A-	A-	A-
ELA	7	810493	342344	5	B-C	2	13488	0.76	0.76	0.08	0.10	0.07	0.00	0.43	0.43	-0.28	-0.20	-0.2022	-0.5807	0.0219	-7.5691	0.9187	-4.9691	0.8994	A+	A-	A-
ELA	7	810494	207341	5	B-C	2	13488	0.54	0.33	0.06	0.54	0.07	0.00	0.36	-0.08	-0.27	0.36	-0.2821	0.6118	0.0193	8.6011	1.0656	8.8311	1.102	A-	A-	A-
ELA	7	810497	535307	5	B-K	2	13488	0.77	0.09	0.05	0.09	0.77	0.00	0.53	-0.26	-0.28	-0.30	0.5250	-0.6900	0.0224	-9.8992	0.8271	-9.8993	0.6774	A-	A-	A-
ELA	7	810498	787562	5	B-V	2	13488	0.73	0.07	0.06	0.14	0.73	0.00	0.49	-0.26	-0.25	-0.26	0.4918	-0.4409	0.0214	-9.8991	0.8805	-9.8992	0.8035	A-	C-	C-
ELA	7	810499	620225	5	B-V	2	13488	0.73	0.05	0.73	0.10	0.11	0.00	0.47	-0.26	0.47	-0.23	-0.2504	-0.4255	0.0213	-9.8991	0.8990	-9.8992	0.8171	A+	A-	A-
ELA	7	813211	752737	5	D	2	13488	0.43	0.43	0.31	0.08	0.18	0.00	0.15	0.15	0.07	-0.27	-0.0864	1.1780	0.0194	9.9013	1.2886	9.9014	1.4135	A-	A+	A-
ELA	7	672625	644166	6	D	2	13484	0.64	0.13	0.64	0.07	0.17	0.00	0.43	-0.23	0.43	-0.23	-0.1932	0.1473	0.0199	-1.7590	0.9854	-1.0790	0.9848	A-	A-	A-
ELA	7	809648	691755	6	B-C	2	13484	0.60	0.60	0.04	0.24	0.12	0.00	0.42	0.42	-0.25	-0.22	-0.1878	0.3340	0.0196	0.5410	1.0042	1.2310	1.0157	A+	B-	B-
ELA	7	809649	862434	6	B-C	2	13484	0.86	0.05	0.86	0.04	0.04	0.00	0.45	-0.26	0.45	-0.24	-0.2338	-1.3384	0.0263	-9.6892	0.8496	-9.8993	0.6912	A+	A-	A-
ELA	7	809651	195669	6	B-K	2	13484	0.69	0.06	0.11	0.13	0.69	0.00	0.55	-0.29	-0.28	-0.28	0.5504	-0.1819	0.0206	-9.8992	0.8342	-9.8993	0.7272	A+	A+	A+
ELA	7	809652	300449	6	B-K	2	13484	0.48	0.27	0.12	0.48	0.13	0.00	0.32	-0.07	-0.21	0.32	-0.1633	0.9466	0.0193	9.9011	1.1132	9.9012	1.1838	A+	A+	A-
ELA	7	809653	466904	6	B-K	3	13484	0.45	0.22	0.45	0.28	0.05	0.00	0.43	-0.16	0.43	-0.21	-0.2278	1.1031	0.0194	-3.2690	0.9750	2.2710	1.0259	B+	A+	A+
ELA	7	809654	520416	6	B-V	2	13484	0.63	0.16	0.16	0.63	0.05	0.00	0.50	-0.24	-0.26	0.50	-0.2492	0.1862	0.0198	-9.8991	0.9084	-9.8991	0.8549	A-	A-	A-
ELA	7	809655	563700	6	B-V	2	13484	0.79	0.79	0.04	0.13	0.04	0.00	0.51	0.51	-0.21	-0.33	-0.2749	-0.7927	0.0229	-9.8992	0.8346	-9.8993	0.6754	A+	A-	B-
ELA	7	809656	409235	6	B-V	2	13484	0.49	0.14	0.28	0.10	0.49	0.00	0.41	-0.15	-0.26	-0.11	0.4063	0.8929	0.0193	2.0410	1.0155	3.1910	1.0356	A+	B+	A+
ELA	7	813203	632689	6	D	2	13484	0.88	0.07	0.88	0.03	0.02	0.00	0.42	-0.26	0.42	-0.22	-0.2228	-1.5195	0.0277	-6.8791	0.8805	-9.8993	0.6514	B+	A-	A-
ELA	7	677924	724184	7	D	2	13486	0.62	0.03	0.62	0.07	0.28	0.00	0.35	-0.18	0.35	-0.26	-0.1529	0.2232	0.0196	7.8911	1.0646	6.1211	1.0819	A+	A+	A-
ELA	7	741182	638726	7	D	2	13486	0.36	0.36	0.31	0.26	0.07	0.00	0.29	0.29	-0.08	-0.09	-0.2433	1.5476	0.0199	9.7811	1.0846	9.9012	1.2428	A+	A-	A+
ELA	7	806564	939000	7	B-C	3	13486	0.75	0.75	0.10	0.06	0.09	0.00	0.37	0.37	-0.26	-0.25	-0.0845	-0.5508	0.0218	-1.6890	0.9817	1.2210	1.025	A+	A-	A-
ELA	7	806565	570100	7	B-C	2	13486	0.55	0.21	0.55	0.17	0.07	0.00	0.38	-0.15	0.38	-0.18	-0.2251	0.5808	0.0192	4.4810	1.0338	3.5010	1.0396	A+	A+	A+
ELA	7	806566	398409	7	B-V	2	13486	0.71	0.71	0.08	0.10	0.11	0.00	0.32	0.32	-0.26	-0.24	-0.0107	-0.2686	0.0208	5.8711	1.0572	7.6011	1.1371	A+	A-	A-
ELA	7	806567	907074	7	B-C	2	13486	0.65	0.16	0.09	0.65	0.10	0.00	0.42	-0.10	-0.25	0.42	-0.3090	0.0290	0.0200	-3.0790	0.9740	0.1110	1.0015	A+	A-	A-
ELA	7	806568	530249	7	B-C	2	13486	0.35	0.11	0.35	0.21	0.33	0.00	0.26	-0.14	0.26	-0.21	0.0144	1.5775	0.0200	9.9011	1.1180	9.9013	1.3015	A-	A+	A-
ELA	7	806571	121430	7	B-K	2	13486	0.68	0.05	0.12	0.68	0.14	0.00	0.47	-0.23	-0.28	0.47	-0.2193	-0.1231	0.0204	-9.4391	0.9173	-8.8491	0.866	A+	A-	A-
ELA	7	806572	582783	7	B-V	2	13486	0.51	0.04	0.16	0.51	0.29	0.00	0.33	-0.22	-0.35	0.33	0.0203	0.7475	0.0192	9.9011	1.0986	9.9012	1.1625	A+	A-	A-
ELA	7	806573	846337	7	B-V	2	13486	0.82	0.08	0.07	0.82	0.03	0.00	0.36	-0.19	-0.21	0.36	-0.1750	-1.0396	0.0242	-2.2090	0.9694	-1.0090	0.9728	A+	B-	A-
ELA	7	675847	680339	8	D	2	13510	0.53	0.14	0.27	0.53	0.06	0.00	0.39	-0.09	-0.26	0.39	-0.1898	0.6890	0.0191	2.9110	1.0215	2.4110	1.0256	A+	A-	A-
ELA	7	804603	583463	8	B-V	2	13510	0.36	0.37	0.09	0.17	0.36	0.00	0.23	-0.07	-0.21	-0.04	0.2296	1.5174	0.0198	9.9012	1.1705	9.9013	1.2969	A+	A+	A-
ELA	7	804604	666954	8	B-K	3	13510	0.49	0.49	0.19	0.10	0.22	0.00	0.35	0.35	-0.15	-0.22	-0.1104	0.8590	0.0191	8.4411	1.0631	8.8611	1.0944	A-	A+	A+
ELA	7	804605	466656	8	B-K	3	13510	0.35	0.22	0.35	0.20	0.22	0.00	0.18	-0.10	0.18	-0.12	0.0214	1.5798	0.0199	9.9012	1.2158	9.9014	1.4012	A+	A+	A-
ELA	7	804608	831778	8	B-V	2	13510	0.22	0.22	0.09	0.54	0.15	0.00	0.11	0.11	-0.27	0.18	-0.1541	2.3606	0.0226	9.9012	1.2141	9.9017	1.7028	A-	A+	A-
ELA	7	804617	640765	8	B-C	2	13510	0.42	0.31	0.16	0.42	0.10	0.00	0.35	-0.19	-0.12	0.35	-0.1170	1.2023	0.0193	6.6611	1.0517	9.5111	1.1084	A+	A-	A+
ELA	7	804618	356086	8	B-C	2	13510	0.58	0.20	0.12	0.58	0.10	0.00	0.37	-0.11	-0.24	0.37	-0.1880	0.4184	0.0193	4.6010	1.0353	7.2211	1.0857	A+	A-	A-
ELA	7	804619	958163	8	B-C	2	13510	0.52	0.10	0.52	0.11	0.27	0.00	0.31	-0.22	0.31	-0.16	-0.0852	0.7273	0.0191	9.9011	1.1022	9.9012	1.1701	A+	A+	A-
ELA	7	804620	234513	8	B-C	2	13510	0.34	0.34	0.22	0.09	0.34	0.01	0.31	0.01	-0.16	-0.28	0.3074	1.6374	0.0201	7.1311	1.0631	9.9012	1.2125	A-	A-	A-
ELA	7	813202	674289	8	D	3	13510	0.48	0.23	0.15	0.13	0.48	0.00	0.37	-0.20	-0.11	-0.18	0.3691	0.9135	0.0191	6.5610	1.0490	8.1611	1.0868	A+	A-	A-
ELA	7	678246	639717	9	D	2	13431	0.59	0.12	0.13	0.17	0.59	0.00	0.32	-0.14	-0.21	-0.11	0.3201	0.3905	0.0195	9.9011	1.1093	9.9012	1.1979	A-	A-	A-
ELA	7	808514	843113	9	B-V	2	13431	0.30	0.30	0.21	0.25	0.24	0.00	0.12	0.12	-0.01	-0.03	-0.0850	1.8854	0.0209	9.9013	1.3003	9.9016	1.58	A-	A-	A-

ContArea	FormGrade	ItemID	PubID	FormNumber	Standard1	Depth	N	PValue	ProportionA	ProportionB	ProportionC	ProportionD	ProportionOMITS	PtBiserial	CorrelationA	CorrelationB	CorrelationC	CorrelationD	FinalB	FinalBErr	Infit	InfitMnSq	Outfit	OutfitMnSq	BiasCodeMALEFEMALE	BiasCodeWHITEBLACK	BiasCodeWHITEHISPANIC
ELA	7	808515	917593	9	B-C	3	13431	0.51	0.17	0.51	0.15	0.17	0.00	0.33	-0.18	0.33	-0.23	-0.0457	0.7738	0.0193	9.9011	1.0801	9.9011	1.1383	A+	A+	A+
ELA	7	808516	896295	9	B-C	2	13431	0.66	0.11	0.13	0.10	0.66	0.00	0.54	-0.24	-0.28	-0.29	0.5409	0.0007	0.0201	-9.8992	0.8449	-9.8992	0.7791	A+	A-	A-
ELA	7	808518	590457	9	B-C	3	13431	0.48	0.17	0.11	0.24	0.48	0.00	0.36	-0.14	-0.24	-0.12	0.3621	0.9273	0.0193	6.2410	1.0478	6.9611	1.0772	A+	A+	A+
ELA	7	808520	654814	9	B-K	2	13431	0.71	0.11	0.11	0.71	0.07	0.00	0.53	-0.27	-0.24	0.53	-0.3031	-0.2756	0.0209	-9.8992	0.8456	-9.8992	0.7684	A+	A+	A+
ELA	7	808521	202180	9	B-K	3	13431	0.62	0.11	0.62	0.18	0.09	0.00	0.36	-0.25	0.36	-0.15	-0.1393	0.2218	0.0197	5.0610	1.0416	8.9211	1.1233	A+	A-	A-
ELA	7	808522	355624	9	B-K	2	13431	0.74	0.74	0.09	0.10	0.06	0.00	0.56	0.56	-0.32	-0.28	-0.2824	-0.4770	0.0216	-9.8992	0.7996	-9.8993	0.6686	A+	A-	A-
ELA	7	808523	834556	9	B-V	2	13431	0.68	0.10	0.15	0.68	0.07	0.00	0.30	-0.28	-0.08	0.30	-0.1172	-0.0925	0.0204	9.9011	1.0933	9.6412	1.161	A+	A+	A+
ELA	7	813204	682237	9	D	3	13431	0.70	0.70	0.07	0.09	0.13	0.00	0.47	0.47	-0.28	-0.26	-0.1935	-0.2474	0.0208	-9.5191	0.9124	-8.2691	0.8629	A+	A+	A+
ELA	8	669296	564974	0	D	2	119014	0.74	0.06	0.06	0.14	0.74	0.00	0.49	-0.28	-0.26	-0.25	0.4944	-0.5872	0.0072	-9.8991	0.8736	-9.8992	0.7803			
ELA	8	672590	505785	0	D	1	119014	0.91	0.03	0.04	0.91	0.02	0.00	0.38	-0.24	-0.22	0.38	-0.1763	-2.0408	0.0104	-9.8991	0.8822	-9.8994	0.6466			
ELA	8	673168	180051	0	D	2	119014	0.64	0.12	0.13	0.64	0.11	0.00	0.49	-0.28	-0.17	0.49	-0.2770	-0.0732	0.0067	-9.8991	0.9048	-9.8991	0.8579			
ELA	8	674826	865275	0	D	2	119014	0.68	0.10	0.07	0.16	0.68	0.00	0.45	-0.19	-0.25	-0.25	0.4526	-0.3424	0.0069	-9.8990	0.9689	-9.8991	0.9148			
ELA	8	676080	140115	0	D	1	119014	0.60	0.60	0.21	0.12	0.07	0.00	0.36	0.36	-0.20	-0.21	-0.0981	0.0852	0.0066	9.9011	1.0664	9.9011	1.0605			
ELA	8	676518	871250	0	D	2	119014	0.84	0.03	0.07	0.84	0.06	0.00	0.38	-0.21	-0.23	0.38	-0.2009	-1.3496	0.0084	-9.8991	0.9090	-9.8991	0.8794			
ELA	8	677400	180898	0	B-K	2	119014	0.62	0.07	0.14	0.62	0.16	0.00	0.39	-0.28	-0.20	0.39	-0.1216	0.0053	0.0066	8.6810	1.0240	9.9011	1.0495			
ELA	8	677401	820547	0	B-C	2	119014	0.57	0.16	0.14	0.13	0.57	0.00	0.52	-0.21	-0.25	-0.27	0.5154	0.3241	0.0065	-9.8991	0.8894	-9.8991	0.858			
ELA	8	677402	746770	0	B-C	2	119014	0.57	0.08	0.57	0.07	0.28	0.00	0.41	-0.28	0.41	-0.27	-0.1269	0.1756	0.0065	8.9810	1.0237	3.1410	1.0125			
ELA	8	677403	174294	0	B-C	2	119014	0.47	0.17	0.47	0.18	0.19	0.00	0.35	-0.14	0.35	-0.13	-0.1839	0.7835	0.0064	9.9011	1.0556	9.9011	1.1051			
ELA	8	677425	447474	0	B-V	2	119014	0.82	0.82	0.07	0.08	0.03	0.00	0.37	0.37	-0.23	-0.19	-0.1860	-1.0799	0.0079	-9.8991	0.9124	-9.8991	0.8963			
ELA	8	677899	931687	0	D	2	119014	0.68	0.68	0.21	0.05	0.06	0.00	0.39	0.39	-0.16	-0.26	-0.2488	-0.3289	0.0069	4.9310	1.0154	9.9011	1.0641			
ELA	8	678010	232020	0	D	2	119014	0.64	0.17	0.09	0.64	0.09	0.00	0.33	-0.11	-0.23	0.33	-0.1740	0.0015	0.0066	9.9011	1.0613	9.9011	1.0943			
ELA	8	678215	825588	0	D	2	119014	0.29	0.40	0.29	0.09	0.22	0.00	0.19	0.05	0.19	-0.29	-0.0619	1.7828	0.0071	9.9012	1.1646	9.9015	1.4975			
ELA	8	678256	435606	0	D	2	119014	0.75	0.07	0.08	0.75	0.09	0.00	0.45	-0.24	-0.25	0.45	-0.2125	-0.7019	0.0073	-9.8991	0.9122	-9.8992	0.8232			
ELA	8	678258	817415	0	D	2	119014	0.57	0.14	0.16	0.14	0.57	0.00	0.34	-0.10	-0.20	-0.18	0.3380	0.3037	0.0065	9.9011	1.0745	9.9011	1.115			
ELA	8	679137	932857	0	D	2	119014	0.84	0.84	0.07	0.05	0.04	0.00	0.37	0.37	-0.22	-0.23	-0.1533	-1.2829	0.0083	-9.8991	0.9356	-9.8991	0.8711			
ELA	8	679159	421476	0	D	2	119014	0.73	0.11	0.10	0.07	0.73	0.00	0.40	-0.16	-0.24	-0.22	0.4039	-0.4709	0.0070	-9.8991	0.9486	-9.8991	0.8987			
ELA	8	716595	228498	0	A-K	2	119014	0.69	0.07	0.15	0.69	0.09	0.00	0.46	-0.27	-0.20	0.46	-0.2396	-0.3240	0.0069	-9.8991	0.9369	-9.8991	0.8982			
ELA	8	716598	885857	0	B-C	1	119014	0.42	0.24	0.42	0.27	0.06	0.00	0.38	-0.19	0.38	-0.12	-0.2032	1.0007	0.0065	5.6610	1.0143	9.9011	1.0749			
ELA	8	716599	810559	0	B-K	2	119014	0.59	0.15	0.16	0.10	0.59	0.00	0.38	-0.20	-0.17	-0.18	0.3806	0.2955	0.0065	8.2410	1.0211	4.8910	1.0185			
ELA	8	716605	400522	0	A-K	2	119014	0.82	0.05	0.82	0.07	0.05	0.00	0.45	-0.25	0.45	-0.26	-0.2179	-1.1404	0.0080	-9.8991	0.8750	-9.8992	0.7527			
ELA	8	716606	896884	0	A-C	3	119014	0.56	0.56	0.22	0.13	0.09	0.00	0.28	0.28	-0.23	-0.08	-0.0540	0.3152	0.0065	9.9011	1.1456	9.9012	1.1945			
ELA	8	716608	561288	0	A-C	3	119014	0.60	0.60	0.17	0.07	0.16	0.00	0.34	0.34	-0.14	-0.28	-0.1138	0.3753	0.0065	9.9011	1.0587	9.9011	1.0938			
ELA	8	716609	328495	0	A-V	2	119014	0.76	0.03	0.07	0.13	0.76	0.00	0.44	-0.22	-0.25	-0.25	0.4435	-0.7759	0.0074	-9.8991	0.9188	-9.8992	0.846			
ELA	8	716611	761806	0	A-V	2	119014	0.46	0.32	0.05	0.17	0.46	0.00	0.33	-0.16	-0.23	-0.10	0.3347	0.8640	0.0065	9.9011	1.0837	9.9011	1.1469			
ELA	8	716612	703920	0	A-K	2	119014	0.64	0.04	0.04	0.64	0.28	0.00	0.34	-0.22	-0.25	0.34	-0.1548	-0.1776	0.0068	9.9011	1.0968	9.9011	1.1439			
ELA	8	716613	997311	0	B-V	2	119014	0.72	0.12	0.72	0.08	0.08	0.00	0.39	-0.25	0.39	-0.17	-0.1753	-0.5910	0.0072	2.8010	1.0097	2.9510	1.0182			
ELA	8	716614	824869	0	B-V	2	119014	0.83	0.83	0.06	0.04	0.07	0.00	0.48	0.48	-0.27	-0.25	-0.2499	-1.1718	0.0081	-9.8992	0.8340	-9.8993	0.661			
ELA	8	716615	466876	0	B-C	2	119014	0.64	0.12	0.07	0.64	0.17	0.00	0.33	-0.26	-0.24	0.33	-0.0252	-0.0474	0.0067	9.9011	1.0748	9.9011	1.1286			
ELA	8	716629	771202	0	A-V	2	119014	0.77	0.07	0.12	0.77	0.04	0.00	0.43	-0.25	-0.22	0.43	-0.2377	-0.8068	0.0075	-9.8991	0.9197	-8.0791	0.9446			
ELA	8	716630	678541	0	A-V	2	119014	0.61	0.17	0.61	0.12	0.10	0.00	0.50	-0.21	0.50	-0.29	-0.2425	-0.0003	0.0066	-9.8991	0.9208	-9.8991	0.8707			
ELA	8	716631	543216	0	A-V	2	119014	0.68	0.68	0.06	0.18	0.08	0.00	0.28	0.28	-0.21	-0.10	-0.1644	-0.3701	0.0069	9.9011	1.1337	9.9012	1.216			
ELA	8	716653	558200	0	A-K	2	119014	0.47	0.47	0.19	0.23	0.10	0.01	0.29	0.29	-0.17	-0.13	-0.0684	0.8180	0.0065	9.9011	1.1176	9.9012	1.1846			
ELA	8	716655	132362	0	A-K	3	119014	0.48	0.12	0.48	0.22	0.17	0.00	0.40	-0.22	0.40	-0.20	-0.1156	0.7477	0.0064	1.4210	1.0035	9.9010	1.0443			
ELA	8	716659	361526	0	A-C	3	119014	0.52	0.07	0.25	0.15	0.52	0.00	0.23	-0.26	-0.05	-0.05	0.2291	0.5162	0.0064	9.9012	1.2012	9.9014	1.351			
ELA	8	741029	941426	0	D	2	119014	0.31	0.12	0.32	0.31	0.25	0.00	0.20	-0.26	-0.04	0.20	0.0289	1.7864	0.0071	9.9012	1.2183	9.9015	1.5437			
ELA	8	741030	190781	0	D	2	119014	0.36	0.33	0.15	0.36	0.16	0.00	0.21	-0.01	-0.11	0.21	-0.1472	1.3604	0.0067	9.9012	1.1824	9.9013	1.3463			
ELA	8	741033	401193	0	D	2	119014	0.39	0.39	0.34	0.06	0.22	0.00	0.41	0.41	-0.12	-0.19	-0.2421	1.1888	0.0066	-9.8990	0.9690	7.1010	1.0291			
ELA	8	741159	723041	0	D	2	119014	0.50	0.14	0.50	0.17	0.19	0.00	0.38	-0.25	0.38	-0.19	-0.0904	0.5207	0.0064	9.9010	1.0278	9.9010	1.0439			
ELA	8	741268	322369	0	D	2	119014	0.45	0.12	0.45	0.24	0.18	0.00	0.36	-0.18	0.36	-0.12	-0.1718	0.7896	0.0064	9.9010	1.0342	9.9011	1.0812			
ELA	8	673146	634754	1	D	2	13280	0.86	0.04	0.86	0.05	0.05	0.00	0.39	-0.25	0.39	-0.16	-0.2368	-1.5239	0.0265	-5.6691	0.9086	-4.8191	0.8541	A+	A-	A-
ELA	8	716589	929004	1	B-V	2	66135	0.43	0.20	0.43	0.23	0.14	0.00	0.23	-0.11	0.23	-0.07	-0.1181	0.9645	0.0087	9.9012	1.1761	9.9013	1.2929	A+	A-	A-
ELA	8	716591	722628	1	B-K	2	66135	0.56	0.07	0.56	0.08	0.28	0.00	0.38	-0.20	0.38	-0.29	-0.1232	0.3248	0.0087	9.7710	1.0335	9.9011	1.0721	A-	A-	A-
ELA	8	716592	678802	1	B-K	3	66135	0.74	0.09	0.08	0.74	0.08	0.00	0.46	-0.25	-0.22	0.46	-0.2420	-0.6347	0.0097	-9.8991	0.9061	-9.8992	0.819	A+	A-	A-
ELA	8	716593	729327	1	B-C	2	66135	0.33	0.16	0.22	0.33	0.29	0.00	0.30	-0.19	-0.03	0.30	-0.1238	1.5233	0.0091	9.9011	1.0662	9.9012	1.2279	A-	A-	A-
ELA	8	716594	990434	1	B-C	2	66135	0.83	0.83	0.09	0.04	0.04	0.00	0.38	0.38	-0.17	-0.24	-0.2487	-1.2661	0.0111	-9.8991	0.9143	-6.8691	0.9184	A+	A+	A-
ELA	8	716603	532626	1	B-C	3	66135	0.57	0.57	0.14	0.16	0.13	0.00	0.39	0.39	-0.28	-0.17	-0.0992	0.2785	0.0087	7.2210	1.0249	7.2710	1.0372	A-	A+	A-
ELA	8	741026	693054	1	D	2	13280	0.58	0.27	0.07	0.58	0.08	0.00	0.42	-0.18	-0.26	0.42	-0.2316	0.2510	0.0196	0.0010	1.0000	-1.7490	0.9799	A-	A-	A-
ELA	8	811887	973041	1	A-K	2	13280	0.78	0.07	0.78	0.07	0.08	0.00	0.53	-0.26	0.53	-0.29	-0.2931	-0.8962	0.0228	-9.8992	0.8255	-9.8993	0.6676	B+	A-	A+
ELA	8	811888	100608	1	A-C	2	13280	0.51	0.18	0.51	0.23	0.08	0.00	0.14	-0.18	0.14	0.11	-0.1820	0.5716	0.0193	9.9013	1.3023	9.9015	1.4789	A+	A-	A-
ELA	8	811889	882406	1	A-K	3	13280	0.69	0.04	0.09	0.18	0.69	0.00	0.38	-0.26	-0.28	-0.11	0.3809	-0.3201	0.0207	-0.7690	0.9928	5.0411	1.0811	A+	A-	A+
ELA	8	811890	918184	1	A-C	2	13280	0.43	0.40	0.10	0.43	0.08	0.00	0.23	-0.03	-0.16	0.23	-0.2092	0.9914	0.0195	9.9012	1.1774	9.9013	1.3046	A+	A+	A-
ELA	8	811891	286012	1	A-V	2	13280	0.84	0.04	0.05	0.84	0.07	0.00	0.52	-0.27	-0.30	0.52	-0.2842	-1.3966	0.0256	-9.8992	0.7954	-9.8994	0.5592	A+	A-	A-
ELA	8	811892	641211	1	A-C	2	13280	0.75	0.75	0.11	0.07	0.06	0.00	0.49	0.49	-0.31	-0.22	-0.2466	-0.7200	0.0220	-9.8991	0.8784	-9.8992	0.7814	A-	A-	A-
ELA	8	811893	973307	1	A-K	2	13280	0.78	0.07	0.10	0.04	0.78	0.00	0.44	-0.34	-0.17	-0.20	0.4384	-0.9280	0.0229	-8.9191	0.8946	-2.5691	0.9428	A+	A-	A-
ELA	8	811894	748155	1	A-V	2	13280	0.57	0.57	0.13	0.14	0.16	0.00	0.25	0.25	-0.17	-0.17	-0.0248	0.3120	0.0195	9.9012	1.1694	9.9012	1.2236	A+	A+	A+
ELA	8	709519	771664	2	D	2	13218	0.61	0.14	0.12	0.61	0.13	0.00	0.43	-0.22	-0.20	0.43	-0.1937	0.0819	0.0197	-3.5490	0.9723	-5.9591	0.9307	A+	A-	A-
ELA	8	741031	208321	2	D	2	13218	0.31	0.31	0.25	0.25	0.19	0.00	0.06	0.06	-0.01	-0.03	-0.0332	1.6232	0.0206	9.9013	1.2940	9.9016	1.5781	A+	A+	A+
ELA	8	804621	267978	2	A-K	3	13218	0.52	0.17	0.26	0.05	0.52	0.00	0.37	-0.22	-0.10	-0.26	0.3691	0.5453	0.0192	3.5710	1.0259	4.3810	1.0448	A+	A+	A-
ELA	8	804622	238948	2	A-C	3	13218	0.40	0.22	0.40	0.15	0.23	0.00	0.25	-0.03	0.25	-0.16	-0.1238	1.1014	0.0195	9.9011	1.1343	9.9013	1.2603	A-	A-	A-
ELA	8	804624	513034	2	A-K	2	13218	0.53	0.53	0.11	0.04	0.32	0.00	0.16	0.16	-0.18	-0.21	0.0322	0.5076	0.0192	9.9012	1.2386	9.9014	1.3624	A-	A-	A-
ELA	8	804627	930877	2	A-K	2	13218	0.76	0.04	0.12	0.07	0.76	0.00	0.38	-0.27	-0.19	-0.18	0.3848	-0.7812	0.0222	-3.8890	0.9563	-0.6490	0.9868	A+	A-	A+
ELA	8	804628	507489	2	A-K	2	13218	0.79	0.05	0.07	0.79	0.09	0.00	0.48	-0.23	-0.29	0.48	-0.2598	-0.9701	0.0231	-9.8991	0.8618	-9.8993	0.7201	A-	A-	A-
ELA	8	804629	345389	2	A-V	3	13218	0.76	0.76	0.05	0.16	0.02	0.00	0.45	0.45	-0.21	-0.31	-0.2110	-0.7612	0.0221	-9.1191	0.9007	-7.9692	0.8499	A-	A-	A-
ELA	8	804630	117556	2	A-V	2	13218	0.43	0.31	0.43	0.08	0.18	0.00	0.43	-0.19	0.43	-0.26	-0.1489	0.9608	0.0194	-4.7590	0.9654	-1.1390	0.988	B-	A-	B-
ELA	8	804631	818747	2	A-V	2	13218	0.75	0.11	0.08	0.75	0.05	0.00	0.43	-0.14	-0.26	0.43	-0.2996	-0.7209	0.0219	-6.7791	0.9269	-3.8991	0.9263	A+	A+	A-
ELA	8	672771	664632	3	D	2	13240	0.50	0.34	0.10	0.07	0.50	0.00	0.51	-0.35	-0.17	-0.15	0.5105	0.6595	0.0193	-9.8991	0.8871	-9.8991	0.8782	A+	A-	B-
ELA	8	794376	694003	3	A-V	2	13240	0.53	0.21	0.09	0.53	0.17	0.00	0.36	-0.24	-0.19	0.36	-0.0706	0.5064	0.0193	5.4610	1.0406	9.8411	1.1067	A+	A-	A-
ELA	8	794378	542950	3	A-V	2	13240	0.50	0.07	0.29	0.14	0.50	0.00	0.28	-0.28	0.06	-0.27	0.2773	0.6557	0.0193	9.9011	1.1325	9.9012	1.1688	A+	A+	A-
ELA	8	794380	698980	3	A-K	2	13240	0.52	0.16	0.12	0.52	0.19	0.00	0.38	-0.19	-0.13	0.38	-0.1917	0.5186	0.0193	3.0710	1.0226	3.9510	1.0419	A-	A+	A-
ELA	8	794381	608286	3	A-K	3	13240	0.40	0.40	0.15	0.18	0.26	0.00	0.11	0.11	-0.10	-0.09	0.0428	1.1134	0.0196	9.9013	1.3020	9.9015	1.4621	A-	A+	A+
ELA	8	794382	365881	3	A-K	2	13240	0.68	0.09	0.08	0.14	0.68	0.00	0.45	-0.18	-0.25	-0.25	0.4508	-0.2793	0.0205	-8.1691	0.9278	-4.9491	0.9268	A+	A-	A+
ELA	8	794383	105816	3	A-K	2	13240	0.48	0.06	0.48	0.22	0.24	0.00	0.21	-0.25	0.21	-0.14	0.0385	0.7586	0.0193	9.9012	1.1957	9.9013	1.2851	A+	A+	A+
ELA	8	794384	318750	3	A-C	2	13240	0.67	0.07	0.67	0.15	0.11	0.00	0.17	-0.21	0.17	-0.07	0.0046	-0.2108	0.0203	9.9012	1.1992	9.9015	1.5406	A+	A+	A+
ELA	8	794385	175374	3	A-V	2	13240	0.74	0.74	0.05	0.15	0.06	0.00	0.32	0.32	-0.26	-0.08	-0.2202	-0.6323	0.0216	3.0210	1.0322	9.4312	1.1877	A+	A-	A-
ELA	8	816464	720254	3	D	2	13240	0.36	0.16	0.36	0.35	0.13	0.00	0.18	-0.15	0.18	0.05	-0.1671	1.3342	0.0199	9.9012	1.2066	9.9014	1.3708	A+	A-	A-
ELA	8	676423	389832	4	D	2	13180	0.87	0.87	0.03	0.08	0.02	0.00	0.38	0.38	-0.15	-0.26	-0.1988	-1.6397	0.0275	-5.4591	0.9064	-6.3492	0.8005	A+	A-	A-
ELA	8	806615	890949	4	A-C	3	13180	0.66	0.66	0.07	0.05	0.22	0.00	0.44	0.44	-0.22	-0.26	-0.2316	-0.2050	0.0204	-4.2790	0.9620	-5.1791	0.9261	A-	A-	A-
ELA	8	806616	509852	4	A-C	2	13180	0.86	0.03	0.03	0.07	0.86	0.01	0.46	-0.24	-0.24	-0.27	0.4565	-1.6071	0.0272	-9.6892	0.8407	-9.8994	0.6203	A+	A-	A-

ContArea	FormGrade	ItemID	PubID	FormNumber	Standard1	Depth	N	PValue	ProportionA	ProportionB	ProportionC	ProportionD	ProportionOMITS	PtBiserial	CorrelationA	CorrelationB	CorrelationC	CorrelationD	FinalB	FinalBErr	Infit	InfitMnSq	Outfit	OutfitMnSq	BiasCodeMALEFEMALE	BiasCodeWHITEBLACK	BiasCodeWHITEHISPANIC
ELA	8	806617	845378	4	A-V	2	13180	0.88	0.02	0.07	0.88	0.02	0.00	0.35	-0.20	-0.21	0.35	-0.1825	-1.8063	0.0289	-4.5891	0.9136	-3.1091	0.8892	A-	A+	A-
ELA	8	806618	909288	4	A-C	2	13180	0.25	0.61	0.10	0.25	0.04	0.00	0.03	0.22	-0.24	0.03	-0.2566	1.9896	0.0220	9.9013	1.3244	9.9018	1.8394	A-	A-	A-
ELA	8	806619	316560	4	A-K	2	13180	0.76	0.12	0.06	0.06	0.76	0.00	0.48	-0.27	-0.29	-0.20	0.4774	-0.7720	0.0223	-9.8991	0.8788	-9.3792	0.819	B+	A+	A-
ELA	8	806620	704399	4	A-K	2	13180	0.68	0.06	0.68	0.15	0.11	0.00	0.40	-0.28	0.40	-0.16	-0.2097	-0.3154	0.0207	-0.6990	0.9934	-0.0390	0.9993	A-	A-	A-
ELA	8	806623	641870	4	A-V	2	13180	0.78	0.78	0.07	0.10	0.04	0.00	0.41	0.41	-0.28	-0.20	-0.1740	-0.9346	0.0230	-4.8091	0.9418	-4.9491	0.8917	A+	A+	A-
ELA	8	806624	895053	4	A-V	2	13180	0.77	0.06	0.77	0.14	0.03	0.00	0.32	-0.25	0.32	-0.13	-0.1636	-0.8443	0.0226	1.6810	1.0200	9.9013	1.2703	A+	A-	A-
ELA	8	816465	163358	4	D	2	13180	0.58	0.23	0.08	0.11	0.58	0.00	0.42	-0.18	-0.24	-0.23	0.4223	0.2081	0.0197	-0.8290	0.9935	-0.5890	0.993	A+	A-	A-
ELA	8	679331	324849	5	D	2	13217	0.52	0.15	0.17	0.52	0.16	0.00	0.39	-0.15	-0.21	0.39	-0.1703	0.5141	0.0193	1.7410	1.0128	2.1710	1.0233	A+	B-	A-
ELA	8	816429	549728	5	A-C	3	13217	0.33	0.33	0.18	0.32	0.17	0.00	0.17	0.17	-0.08	-0.01	-0.1144	1.4928	0.0204	9.9012	1.2100	9.9015	1.4651	A-	A-	A-
ELA	8	816430	408534	5	A-V	2	13217	0.80	0.05	0.11	0.80	0.04	0.00	0.51	-0.27	-0.30	0.51	-0.2478	-1.0429	0.0234	-9.8992	0.8411	-9.8993	0.6716	C-	C-	C-
ELA	8	816434	390628	5	A-V	2	13217	0.69	0.12	0.69	0.15	0.04	0.00	0.47	-0.28	0.47	-0.22	-0.2418	-0.3815	0.0208	-8.6991	0.9203	-8.3691	0.8694	B-	B-	B-
ELA	8	816435	310383	5	A-V	2	13217	0.81	0.05	0.09	0.05	0.81	0.00	0.51	-0.28	-0.27	-0.29	0.5103	-1.1631	0.0241	-9.8992	0.8241	-9.8994	0.6291	A-	A-	A-
ELA	8	816436	853178	5	A-K	3	13217	0.64	0.10	0.13	0.13	0.64	0.00	0.42	-0.28	-0.18	-0.16	0.4156	-0.0715	0.0200	-2.8990	0.9759	-0.0190	0.9997	A+	A-	A-
ELA	8	816438	943305	5	A-C	2	13217	0.63	0.11	0.09	0.63	0.16	0.00	0.36	-0.15	-0.25	0.36	-0.1439	-0.0471	0.0200	4.7910	1.0402	8.0211	1.1113	A-	A-	A-
ELA	8	816439	873896	5	A-K	2	13217	0.64	0.64	0.14	0.15	0.07	0.00	0.47	0.47	-0.26	-0.23	-0.1961	-0.1088	0.0201	-9.1691	0.9243	-8.7091	0.8839	A-	A+	A-
ELA	8	816445	350429	5	A-C	3	13217	0.57	0.22	0.57	0.13	0.07	0.00	0.39	-0.11	0.39	-0.23	-0.2573	0.2689	0.0195	1.5410	1.0117	2.6110	1.0302	A+	A+	A+
ELA	8	816466	109183	5	D	1	13217	0.21	0.50	0.15	0.14	0.21	0.00	0.21	0.00	-0.13	-0.11	0.2064	2.2207	0.0231	6.8811	1.0888	9.9015	1.5235	A-	A+	A-
ELA	8	679309	713631	6	D	2	13197	0.72	0.09	0.72	0.11	0.08	0.00	0.37	-0.14	0.37	-0.21	-0.2077	-0.5438	0.0213	0.1710	1.0017	3.0911	1.0559	A-	A-	A-
ELA	8	700297	798562	6	A-K	2	52879	0.62	0.07	0.23	0.07	0.62	0.00	0.38	-0.26	-0.12	-0.25	0.3826	0.0218	0.0099	3.6810	1.0152	9.9011	1.0964	A+	A-	A-
ELA	8	700299	442466	6	A-K	2	52879	0.69	0.09	0.17	0.69	0.04	0.00	0.43	-0.13	-0.28	0.43	-0.2460	-0.3497	0.0104	-7.7990	0.9638	-4.3290	0.9658	B-	A-	A-
ELA	8	700301	512743	6	A-K	3	52879	0.32	0.28	0.20	0.20	0.32	0.00	0.32	-0.17	-0.06	-0.11	0.3168	1.5399	0.0102	9.2510	1.0418	9.9012	1.2118	A-	A-	A-
ELA	8	700303	800724	6	A-C	3	52879	0.46	0.14	0.12	0.46	0.28	0.00	0.33	-0.16	-0.11	0.33	-0.1633	0.8315	0.0097	9.9011	1.0770	9.9011	1.1326	A-	A+	A-
ELA	8	700304	732881	6	A-C	2	52879	0.40	0.04	0.40	0.42	0.13	0.00	0.25	-0.23	0.25	-0.07	-0.1199	1.1225	0.0098	9.9012	1.1607	9.9013	1.2811	A-	A-	A-
ELA	8	700326	289266	6	A-V	1	52879	0.86	0.86	0.05	0.06	0.03	0.00	0.48	0.48	-0.26	-0.30	-0.2225	-1.4791	0.0131	-9.8992	0.8277	-9.8994	0.5987	A-	A-	A-
ELA	8	800788	317118	6	B-C	2	13197	0.69	0.16	0.11	0.69	0.04	0.00	0.52	-0.29	-0.27	0.52	-0.2539	-0.3284	0.0206	-9.8991	0.8720	-9.8992	0.7777	A+	A-	A+
ELA	8	800789	258892	6	B-C	2	13197	0.80	0.80	0.07	0.09	0.04	0.00	0.34	0.34	-0.25	-0.15	-0.1479	-1.0602	0.0236	-1.1590	0.9848	0.5610	1.0135	A+	A-	A-
ELA	8	800790	763262	6	B-V	2	13197	0.79	0.12	0.79	0.04	0.04	0.00	0.38	-0.20	0.38	-0.21	-0.2038	-0.9870	0.0232	-2.6290	0.9672	-2.9091	0.9337	A+	A-	A-
ELA	8	800791	415409	6	B-C	3	13197	0.76	0.76	0.16	0.06	0.03	0.00	0.39	0.39	-0.16	-0.30	-0.2332	-0.7455	0.0221	-3.3090	0.9635	-2.0690	0.9588	A+	A-	A-
ELA	8	800793	763758	6	B-C	2	13197	0.58	0.09	0.24	0.09	0.58	0.00	0.42	-0.25	-0.14	-0.26	0.4193	0.2345	0.0195	-2.5690	0.9804	0.2410	1.0028	A+	A+	A-
ELA	8	800794	501509	6	B-K	2	13197	0.61	0.11	0.61	0.17	0.10	0.00	0.33	-0.22	0.33	-0.15	-0.1146	0.0826	0.0197	7.5811	1.0618	9.9012	1.1578	A+	A+	A+
ELA	8	800795	579852	6	B-C	3	13197	0.63	0.07	0.26	0.63	0.04	0.00	0.47	-0.27	-0.25	0.47	-0.2246	-0.0029	0.0199	-8.5991	0.9311	-9.0191	0.8875	A-	A-	A-
ELA	8	800796	887244	6	B-V	2	13197	0.39	0.20	0.39	0.14	0.27	0.00	0.35	-0.06	0.35	-0.17	-0.1955	1.1747	0.0197	5.2510	1.0417	9.4711	1.1187	A-	A-	B-
ELA	8	816468	577079	6	D	2	13197	0.79	0.79	0.05	0.06	0.10	0.00	0.37	0.37	-0.26	-0.29	-0.0905	-0.9865	0.0232	-2.4290	0.9697	-0.8490	0.9802	A+	A-	A-
ELA	8	669295	930170	7	D	2	13229	0.72	0.06	0.08	0.15	0.72	0.00	0.30	-0.10	-0.17	-0.19	0.3043	-0.4850	0.0212	7.6411	1.0784	9.9012	1.2401	A-	A-	A+
ELA	8	804623	952834	7	B-V	2	13229	0.83	0.83	0.05	0.03	0.09	0.00	0.42	0.42	-0.25	-0.24	-0.2186	-1.3149	0.0252	-6.2391	0.9097	-6.6192	0.8202	A+	B-	A-
ELA	8	804632	593984	7	B-C	2	13229	0.71	0.16	0.06	0.71	0.06	0.00	0.48	-0.23	-0.30	0.48	-0.2335	-0.4608	0.0211	-9.2191	0.9114	-9.3592	0.8438	A+	A+	A+
ELA	8	804633	524315	7	B-C	3	13229	0.39	0.12	0.24	0.25	0.39	0.00	0.11	-0.22	0.09	-0.05	0.1105	1.2065	0.0198	9.9013	1.3298	9.9015	1.505	A+	A+	A+
ELA	8	804634	201346	7	B-C	2	13229	0.49	0.49	0.24	0.15	0.11	0.00	0.43	0.43	-0.15	-0.28	-0.1642	0.6793	0.0194	-1.1790	0.9911	0.9210	1.01	A-	A-	A-
ELA	8	804636	525757	7	B-K	2	13229	0.76	0.11	0.76	0.05	0.08	0.00	0.41	-0.16	0.41	-0.27	-0.2377	-0.7345	0.0221	-4.6991	0.9484	0.0710	1.0013	A+	A+	A+
ELA	8	804637	460519	7	B-K	2	13229	0.64	0.13	0.09	0.64	0.14	0.00	0.47	-0.22	-0.27	0.47	-0.2119	-0.0500	0.0201	-7.3791	0.9384	-7.3391	0.9017	A-	A+	A+
ELA	8	804638	867190	7	B-K	2	13229	0.65	0.13	0.10	0.13	0.65	0.00	0.53	-0.24	-0.27	-0.27	0.5289	-0.1196	0.0202	-9.8991	0.8729	-9.8992	0.8014	A-	A-	A-
ELA	8	804639	227285	7	B-V	2	13229	0.59	0.11	0.59	0.13	0.17	0.00	0.34	-0.21	0.34	-0.17	-0.1102	0.1793	0.0197	9.9011	1.0955	7.7111	1.0978	A-	A-	A+
ELA	8	816533	950175	7	D	2	13229	0.54	0.54	0.08	0.26	0.12	0.00	0.47	0.47	-0.31	-0.19	-0.1932	0.4594	0.0195	-6.4890	0.9512	-5.1191	0.9441	A-	A-	A-
ELA	8	679423	669914	8	D	2	13223	0.76	0.06	0.09	0.10	0.76	0.00	0.43	-0.24	-0.23	-0.20	0.4263	-0.7280	0.0220	-6.5491	0.9287	-3.4791	0.9328	A+	A-	A-
ELA	8	800777	351575	8	B-C	2	13223	0.64	0.14	0.06	0.16	0.64	0.00	0.40	-0.19	-0.27	-0.17	0.4005	-0.0762	0.0200	-1.8590	0.9844	2.2610	1.0302	A+	A-	A-
ELA	8	800778	219321	8	B-C	2	13223	0.55	0.23	0.17	0.05	0.55	0.00	0.38	-0.17	-0.20	-0.20	0.3849	0.4006	0.0194	2.3410	1.0174	2.3010	1.0246	A-	A-	A-
ELA	8	800779	419681	8	B-C	2	13223	0.64	0.64	0.12	0.10	0.13	0.00	0.35	0.35	-0.18	-0.23	-0.1092	-0.0894	0.0200	4.7010	1.0403	4.8811	1.0665	A+	A-	A-
ELA	8	800782	192728	8	B-K	2	13223	0.53	0.20	0.18	0.53	0.09	0.00	0.35	-0.17	-0.17	0.35	-0.1382	0.4930	0.0193	8.1411	1.0609	7.8511	1.0838	A-	A+	A+
ELA	8	800783	635433	8	B-K	3	13223	0.47	0.13	0.47	0.16	0.24	0.00	0.37	-0.17	0.37	-0.17	-0.1503	0.8042	0.0193	3.4610	1.0254	6.7911	1.0721	A-	A-	A-
ELA	8	800784	862814	8	B-K	2	13223	0.51	0.51	0.07	0.05	0.36	0.00	0.33	0.33	-0.28	-0.23	-0.0873	0.5670	0.0193	9.9011	1.0738	9.9011	1.1316	A-	A-	A-
ELA	8	800785	148727	8	B-V	2	13223	0.40	0.19	0.23	0.40	0.19	0.00	0.28	-0.14	-0.12	0.28	-0.0675	1.1605	0.0196	9.9011	1.1124	9.9012	1.228	A-	A-	A-
ELA	8	800787	498897	8	B-V	2	13223	0.75	0.20	0.75	0.03	0.02	0.00	0.39	-0.26	0.39	-0.18	-0.2166	-0.6836	0.0218	-2.1590	0.9765	0.0510	1.0009	B+	B-	A-
ELA	8	816534	697669	8	D	2	13223	0.64	0.14	0.64	0.14	0.08	0.00	0.47	-0.21	0.47	-0.26	-0.2319	-0.0669	0.0200	-9.1591	0.9249	-9.8791	0.8753	A+	A-	A-
ELA	8	679138	350161	9	D	2	13230	0.91	0.01	0.06	0.02	0.91	0.00	0.32	-0.18	-0.20	-0.17	0.3197	-2.0501	0.0314	-3.8191	0.9163	-3.7892	0.8492	A+	A+	A+
ELA	8	741387	651112	9	D	2	13230	0.28	0.20	0.43	0.28	0.10	0.00	0.17	-0.15	0.09	0.17	-0.2033	1.8153	0.0213	9.9012	1.1837	9.9015	1.4853	A+	A+	A-
ELA	8	816774	413493	9	B-C	2	13230	0.79	0.08	0.79	0.08	0.05	0.00	0.51	-0.29	0.51	-0.29	-0.2356	-0.9448	0.0230	-9.8992	0.8363	-9.8993	0.6852	A+	A+	A-
ELA	8	816775	489993	9	B-C	2	13230	0.73	0.13	0.06	0.07	0.73	0.00	0.47	-0.24	-0.26	-0.24	0.4709	-0.5940	0.0215	-9.8991	0.8880	-8.9492	0.8437	A+	A+	A+
ELA	8	816777	586866	9	B-K	3	13230	0.46	0.46	0.27	0.10	0.17	0.00	0.45	0.45	-0.17	-0.28	-0.1699	0.8511	0.0194	-8.2191	0.9404	-3.2390	0.9657	B-	A+	A-
ELA	8	816778	476457	9	B-V	2	13230	0.54	0.33	0.07	0.54	0.05	0.01	0.32	-0.11	-0.22	0.32	-0.2083	0.4456	0.0194	9.9011	1.0954	9.9012	1.1505	A+	A+	A+
ELA	8	816780	400311	9	B-V	2	13230	0.80	0.07	0.09	0.80	0.05	0.00	0.44	-0.28	-0.23	0.44	-0.2021	-1.0344	0.0235	-7.7391	0.9034	-8.7892	0.8036	A-	A-	A-
ELA	8	816783	388906	9	B-K	2	13230	0.73	0.14	0.06	0.06	0.73	0.00	0.41	-0.13	-0.31	-0.25	0.4109	-0.5591	0.0214	-5.2991	0.9466	-0.7190	0.9869	A+	A+	A+
ELA	8	816808	771855	9	B-C	3	13230	0.59	0.59	0.09	0.18	0.14	0.00	0.38	0.38	-0.28	-0.13	-0.1637	0.2028	0.0196	3.6110	1.0284	3.4110	1.0405	A-	A-	A+
ELA	8	816809	356229	9	B-C	3	13230	0.71	0.12	0.71	0.06	0.11	0.00	0.50	-0.25	0.50	-0.28	-0.2413	-0.4308	0.0209	-9.8991	0.8763	-9.8992	0.7843	B+	A+	A+
MATH	3	652685	671477	0	D-M	2	124407	0.59	0.13	0.59	0.16	0.11	0.01	0.51	-0.24	0.51	-0.26	-0.2208	0.0086	0.0066	-9.8990	0.9537	-9.8991	0.9164			
MATH	3	652709	222936	0	D-M	2	124407	0.52	0.11	0.23	0.14	0.52	0.01	0.47	-0.29	-0.16	-0.21	0.4660	0.5466	0.0065	8.0010	1.0022	-0.7990	0.9967			
MATH	3	655652	820734	0	D-M	1	124407	0.63	0.26	0.63	0.09	0.02	0.01	0.48	-0.46	0.48	-0.03	-0.1293	-0.1236	0.0067	-9.1590	0.9732	-7.9190	0.9582			
MATH	3	656482	816931	0	D-M	2	124407	0.50	0.05	0.03	0.50	0.41	0.00	0.34	-0.22	-0.17	0.34	-0.1869	0.5794	0.0065	9.9012	1.1655	9.9012	1.2389			
MATH	3	656725	500156	0	D-M	2	124407	0.62	0.24	0.08	0.06	0.62	0.01	0.48	-0.18	-0.31	-0.31	0.4811	-0.0129	0.0067	-9.8090	0.9719	-2.8190	0.9858			
MATH	3	656751	716556	0	A-F	1	124407	0.61	0.16	0.13	0.09	0.61	0.01	0.48	-0.21	-0.26	-0.21	0.4761	0.1318	0.0066	-9.8990	0.9698	-9.8991	0.941			
MATH	3	665880	485762	0	B-O	1	124407	0.77	0.16	0.03	0.77	0.03	0.01	0.59	-0.49	-0.18	0.59	-0.1869	-0.8305	0.0073	-9.8993	0.7422	-9.8994	0.6061			
MATH	3	668013	570500	0	A-T	2	124407	0.39	0.53	0.06	0.39	0.02	0.01	0.52	-0.42	-0.11	0.52	-0.1203	1.2361	0.0067	-9.8991	0.9148	-9.8991	0.9062			
MATH	3	668043	154602	0	B-O	2	124407	0.58	0.19	0.15	0.08	0.58	0.01	0.60	-0.48	-0.18	-0.16	0.5994	0.1662	0.0066	-9.8992	0.8316	-9.8992	0.7708			
MATH	3	675030	703716	0	B-O	1	124407	0.78	0.14	0.78	0.05	0.01	0.02	0.40	-0.26	0.40	-0.24	-0.1500	-1.0531	0.0076	-0.5490	0.9979	-8.2091	0.9283			
MATH	3	675037	984652	0	A-F	2	124407	0.70	0.70	0.14	0.10	0.05	0.01	0.38	0.38	-0.20	-0.22	-0.1557	-0.5025	0.0070	9.9011	1.0694	6.3510	1.0425			
MATH	3	675104	303703	0	B-O	1	124407	0.76	0.14	0.03	0.06	0.76	0.00	0.25	-0.19	-0.13	-0.05	0.2477	-0.8841	0.0074	9.9012	1.1641	9.9014	1.3733			
MATH	3	677728	394479	0	D-M	2	124407	0.57	0.09	0.05	0.28	0.57	0.00	0.29	-0.03	-0.08	-0.25	0.2916	0.1807	0.0066	9.9012	1.2325	9.9013	1.3254			
MATH	3	682570	151504	0	D-M	1	124407	0.68	0.07	0.13	0.68	0.12	0.01	0.52	-0.22	-0.31	0.52	-0.2463	-0.3590	0.0069	-9.8991	0.9086	-9.8992	0.8219			
MATH	3	699427	365686	0	B-O	1	124407	0.64	0.64	0.07	0.09	0.19	0.01	0.60	0.60	-0.15	-0.22	-0.4626	-0.2782	0.0068	-9.8992	0.8380	-9.8992	0.7626			
MATH	3	699428	945680	0	B-O	2	124407	0.59	0.59	0.12	0.10	0.18	0.02	0.57	0.57	-0.16	-0.28	-0.3645	0.0512	0.0066	-9.8991	0.8729	-9.8992	0.8226			
MATH	3	699431	190113	0	C-G	2	124407	0.55	0.55	0.15	0.07	0.23	0.00	0.36	0.36	-0.09	-0.24	-0.1970	0.6722	0.0065	9.9011	1.1457	9.9012	1.1865			
MATH	3	699439	796513	0	A-T	1	124407	0.56	0.05	0.28	0.10	0.56	0.01	0.64	-0.16	-0.55	-0.11	0.6402	0.3024	0.0066	-9.8992	0.7806	-9.8993	0.7226			
MATH	3	699440	727841	0	A-F	1	124407	0.41	0.41	0.21	0.20	0.17	0.01	0.55	0.55	-0.20	-0.34	-0.1208	1.0756	0.0066	-9.8991	0.8645	-9.8991	0.8738			
MATH	3	699564	485400	0	A-F	1	124407	0.49	0.24	0.10	0.49	0.17	0.00	0.36	-0.27	-0.25	0.36	0.0320	0.7689	0.0065	9.9011	1.1397	9.9012	1.19			
MATH	3	699565	524718	0	B-O	1	124407	0.76	0.76	0.14	0.06	0.03	0.00	0.45	0.45	-0.25	-0.25	-0.2214	-0.8608	0.0073	-9.8991	0.9476	-2.0890	0.9832			
MATH	3	699570	124329	0	D-M	1	124407	0.58	0.58	0.07	0.05	0.29	0.01	0.57	0.57	-0.11	-0.21	-0.4488	0.1537	0.0066	-9.8991	0.8652	-9.8992	0.8066			
MATH	3	699608	179815	0	B-O	2	124407	0.47	0.21	0.18	0.12	0.47	0.01	0.37	-0.15	-0.19	-0.13	0.3654	0.7387	0.0065	9.9011	1.1270	9.9012	1.1833			
MATH	3	699942	736049	0	B-O	2	124407	0.67	0.24	0.05	0.67	0.04	0.01	0.53	-0.38	-0.21	0.53	-0.1938	-0.3343	0.0068	-9.8991	0.9075	-9.8992	0.815			
MATH	3	699946	337203	0	C-G	1	124407	0.74	0.01	0.74	0.05	0.19	0.00	0.46	-0.13	0.46	-0.16	-0.3783	-0.7153	0.0072	-9.8991	0.9299	-9.8991	0.8763			

ContArea	FormGrade	ItemID	PubID	FormNumber	Standard1	Depth	N	PValue	ProportionA	ProportionB	ProportionC	ProportionD	ProportionOMITS	PtBiserial	CorrelationA	CorrelationB	CorrelationC	CorrelationD	FinalB	FinalBErr	Infit	InfitMnSq	Outfit	OutfitMnSq	BiasCodeMALEFEMALE	BiasCodeWHITEBLACK	BiasCodeWHITEHISPANIC
MATH	3	700619	221480	0	A-T	1	124407	0.69	0.69	0.15	0.08	0.06	0.01	0.51	0.51	-0.28	-0.22	-0.2837	-0.4362	0.0069	-9.8991	0.9107	-9.8992	0.8379			
MATH	3	700621	733070	0	A-F	1	124407	0.36	0.24	0.26	0.36	0.13	0.01	0.43	-0.22	-0.07	0.43	-0.2314	1.3849	0.0068	0.1610	1.0005	9.9011	1.055			
MATH	3	701319	636075	0	B-O	1	124407	0.72	0.05	0.72	0.13	0.09	0.01	0.44	-0.19	0.44	-0.26	-0.2128	-0.7734	0.0072	9.9010	1.0454	4.1010	1.0318			
MATH	3	701326	923327	0	A-T	2	124407	0.67	0.04	0.21	0.07	0.67	0.01	0.62	-0.22	-0.46	-0.22	0.6227	-0.3056	0.0068	-9.8992	0.7894	-9.8993	0.6796			
MATH	3	701370	410315	0	B-O	1	124407	0.79	0.07	0.79	0.11	0.03	0.00	0.47	-0.29	0.47	-0.25	-0.2174	-1.2124	0.0079	-7.6390	0.9683	-9.8991	0.9027			
MATH	3	701371	798414	0	D-M	1	124407	0.58	0.26	0.07	0.58	0.08	0.00	0.33	-0.11	-0.23	0.33	-0.1886	0.1603	0.0066	9.9012	1.1730	9.9012	1.2053			
MATH	3	701374	938029	0	D-M	2	124407	0.53	0.27	0.53	0.13	0.06	0.01	0.34	-0.20	0.34	-0.10	-0.1807	0.4657	0.0065	9.9012	1.1557	9.9012	1.1899			
MATH	3	701411	440217	0	D-M	2	124407	0.60	0.03	0.60	0.34	0.03	0.00	0.59	-0.19	0.59	-0.48	-0.1645	0.0720	0.0066	-9.8992	0.8371	-9.8992	0.7755			
MATH	3	702008	894056	0	A-T	2	124407	0.58	0.58	0.17	0.11	0.14	0.00	0.43	0.43	-0.27	-0.05	-0.2641	0.2512	0.0066	9.9010	1.0438	9.9011	1.0864			
MATH	3	702011	655228	0	B-O	1	124407	0.71	0.04	0.10	0.71	0.14	0.01	0.44	-0.23	-0.18	0.44	-0.2732	-0.7083	0.0072	9.3810	1.0324	9.9011	1.0778			
MATH	3	702228	605240	0	C-G	1	124407	0.78	0.78	0.05	0.08	0.07	0.01	0.38	0.38	-0.19	-0.19	-0.2208	-1.0199	0.0076	1.2110	1.0046	0.1710	1.0015			
MATH	3	702231	697146	0	B-O	1	124407	0.78	0.07	0.04	0.10	0.78	0.01	0.43	-0.24	-0.23	-0.23	0.4304	-0.9575	0.0075	-9.8991	0.9249	-9.8992	0.8498			
MATH	3	712613	768261	0	A-F	1	124407	0.75	0.11	0.10	0.75	0.04	0.00	0.42	-0.24	-0.22	0.42	-0.1952	-0.8072	0.0073	-1.3990	0.9951	-9.8991	0.9163			
MATH	3	712927	394217	0	C-G	1	124407	0.33	0.13	0.25	0.33	0.28	0.01	0.35	-0.09	-0.21	0.35	-0.0906	1.5774	0.0069	9.9011	1.0953	9.9013	1.2959			
MATH	3	713293	510883	0	B-O	2	124407	0.54	0.14	0.17	0.54	0.13	0.01	0.38	-0.23	-0.17	0.38	-0.0938	0.3670	0.0065	9.9011	1.1115	9.9011	1.1259			
MATH	3	713483	125363	0	A-F	1	124407	0.68	0.06	0.68	0.20	0.05	0.01	0.44	-0.14	0.44	-0.33	-0.1568	-0.4834	0.0070	9.9010	1.0326	6.5910	1.0436			
MATH	3	713490	991857	0	C-G	1	124407	0.60	0.10	0.60	0.22	0.07	0.01	0.48	-0.16	0.48	-0.28	-0.2579	0.1188	0.0066	-9.5390	0.9730	-9.8991	0.9322			
MATH	3	713575	686289	0	C-G	2	124407	0.73	0.73	0.05	0.17	0.04	0.01	0.43	0.43	-0.21	-0.26	-0.2142	-0.6741	0.0071	-5.1890	0.9825	-4.8090	0.9654			
MATH	3	713765	174235	0	A-F	2	124407	0.44	0.44	0.20	0.20	0.15	0.00	0.30	0.30	-0.17	-0.16	-0.0374	0.9164	0.0066	9.9012	1.1937	9.9013	1.3049			
MATH	3	714007	143117	0	A-T	1	124407	0.60	0.19	0.13	0.60	0.07	0.01	0.58	-0.43	-0.16	0.58	-0.2272	0.1201	0.0066	-9.8992	0.8440	-9.8992	0.7932			
MATH	3	714141	294170	0	D-M	2	124407	0.73	0.05	0.11	0.09	0.73	0.01	0.38	-0.22	-0.20	-0.16	0.3754	-0.7670	0.0072	9.9011	1.0657	9.9012	1.1958			
MATH	3	714143	332950	0	B-O	1	124407	0.69	0.69	0.09	0.15	0.07	0.01	0.45	0.45	-0.22	-0.25	-0.1925	-0.4170	0.0069	-0.3390	0.9989	-9.8991	0.9131			
MATH	3	714264	382476	0	D-M	1	124407	0.66	0.04	0.66	0.19	0.10	0.01	0.33	-0.24	0.33	-0.07	-0.2573	-0.3124	0.0068	9.9012	1.1526	9.9013	1.3181			
MATH	3	714425	195186	0	A-T	1	124407	0.87	0.02	0.09	0.01	0.87	0.00	0.39	-0.20	-0.28	-0.16	0.3910	-1.7577	0.0090	-9.8991	0.9234	-5.0591	0.9357			
MATH	3	714428	524113	0	B-O	1	124407	0.67	0.04	0.67	0.14	0.14	0.01	0.52	-0.20	0.52	-0.32	-0.2573	-0.3846	0.0069	-9.8991	0.9140	-9.8991	0.8628			
MATH	3	714737	452761	0	B-O	2	124407	0.69	0.10	0.15	0.69	0.04	0.01	0.54	-0.25	-0.35	0.54	-0.2094	-0.3547	0.0069	-9.8991	0.8556	-9.8992	0.7547			
MATH	3	714741	670471	0	D-M	2	124407	0.70	0.16	0.07	0.07	0.70	0.00	0.45	-0.35	-0.16	-0.12	0.4453	-0.5154	0.0070	-2.8090	0.9910	9.9011	1.0797			
MATH	3	714768	386271	0	D-M	2	124407	0.44	0.17	0.13	0.44	0.25	0.01	0.34	-0.29	-0.13	0.34	-0.0282	0.8990	0.0066	9.9011	1.1436	9.9012	1.1923			
MATH	3	714978	160954	0	B-O	2	124407	0.70	0.07	0.70	0.11	0.12	0.01	0.57	-0.20	0.57	-0.26	-0.3881	-0.4742	0.0069	-9.8992	0.8342	-9.8993	0.7356			
MATH	3	714984	497541	0	A-F	2	124407	0.56	0.18	0.56	0.20	0.06	0.00	0.32	-0.17	0.32	-0.10	-0.1880	0.2337	0.0066	9.9012	1.2019	9.9013	1.2503			
MATH	3	715875	155183	0	A-T	1	124407	0.58	0.09	0.26	0.07	0.58	0.00	0.58	-0.09	-0.48	-0.18	0.5795	0.2027	0.0066	-9.8991	0.8579	-9.8992	0.8068			
MATH	3	716245	425863	0	B-O	1	124407	0.70	0.70	0.14	0.03	0.12	0.01	0.52	0.52	-0.33	-0.20	-0.2674	-0.5159	0.0070	-9.8991	0.8951	-9.8992	0.8234			
MATH	3	716250	258238	0	D-M	2	124407	0.38	0.35	0.12	0.15	0.38	0.00	0.47	-0.30	-0.08	-0.16	0.4696	1.2633	0.0067	-8.2790	0.9755	1.5610	1.0075			
MATH	3	730064	459186	0	A-F	2	124407	0.33	0.29	0.05	0.33	0.33	0.01	0.42	-0.39	-0.20	0.06	0.4161	1.5718	0.0069	1.5210	1.0049	9.9011	1.1322			
MATH	3	730289	774515	0	B-O	1	124407	0.72	0.08	0.13	0.72	0.06	0.01	0.48	-0.29	-0.28	0.48	-0.1606	-0.5950	0.0071	-9.8991	0.9334	-9.8991	0.8777			
MATH	3	713292	147796	1	B-O	2	14092	0.50	0.50	0.16	0.23	0.10	0.01	0.36	0.36	-0.16	-0.15	-0.1846	0.5451	0.0195	9.9011	1.1435	9.9012	1.2032	A+	A+	A-
MATH	3	714261	148928	1	D-M	2	14092	0.72	0.12	0.72	0.05	0.10	0.00	0.44	-0.26	0.44	-0.23	-0.1939	-0.6813	0.0211	-0.3790	0.9962	-4.0691	0.9142	A+	A-	A-
MATH	3	714427	937096	1	D-M	2	14092	0.77	0.12	0.06	0.77	0.04	0.00	0.53	-0.31	-0.28	0.53	-0.2429	-1.0058	0.0222	-9.8992	0.8484	-9.8993	0.7345	A+	A-	A-
MATH	3	794390	544692	1	A-F	1	14092	0.39	0.39	0.07	0.42	0.11	0.01	0.40	0.40	-0.11	-0.16	-0.2638	1.1571	0.0199	7.7511	1.0701	9.1211	1.1339	A-	A+	A+
MATH	3	808553	225986	1	C-G	2	14092	0.45	0.07	0.45	0.37	0.10	0.01	0.15	-0.13	0.15	0.03	-0.1562	0.8545	0.0196	9.9014	1.4330	9.9016	1.6232	A-	A-	A+
MATH	3	808557	144574	1	C-G	1	14092	0.65	0.18	0.11	0.05	0.65	0.01	0.44	-0.24	-0.24	-0.18	0.4417	-0.2746	0.0202	1.2610	1.0114	1.6610	1.0288	A+	A-	A-
MATH	3	808681	474451	1	A-T	1	14092	0.83	0.05	0.04	0.83	0.07	0.02	0.44	-0.19	-0.23	0.44	-0.3096	-1.4297	0.0243	-8.2291	0.8931	-4.9092	0.849	A-	B-	A-
MATH	3	808683	601957	1	A-F	2	14092	0.21	0.24	0.19	0.21	0.35	0.01	0.05	0.10	-0.15	0.05	-0.0044	2.2911	0.0232	9.9014	1.3676	9.9023	2.3001	A-	A-	A-
MATH	3	808700	659674	1	A-T	1	14092	0.84	0.08	0.84	0.04	0.03	0.00	0.45	-0.32	0.45	-0.18	-0.2246	-1.5664	0.0251	-9.8991	0.8597	-5.5192	0.8201	A+	B-	A-
MATH	3	808718	772716	1	B-O	2	14092	0.19	0.07	0.19	0.30	0.43	0.02	0.06	-0.21	0.06	-0.13	0.1935	2.4901	0.0241	9.9013	1.2866	9.9026	2.6346	A-	A-	A-
MATH	3	808720	583096	1	B-O	2	14092	0.51	0.10	0.14	0.51	0.24	0.01	0.48	-0.18	-0.09	0.48	-0.3523	0.4957	0.0195	-0.4390	0.9963	-0.4990	0.9936	A-	A-	A-
MATH	3	808735	567990	1	D-M	1	14092	0.43	0.20	0.12	0.24	0.43	0.01	0.53	-0.23	-0.25	-0.20	0.5331	0.9581	0.0197	-9.8991	0.8999	-5.7991	0.9256	A-	A-	A-
MATH	3	714259	153367	2	D-M	1	13842	0.43	0.16	0.43	0.31	0.08	0.01	0.44	-0.40	0.44	-0.11	-0.0620	0.9827	0.0198	3.5410	1.0307	4.5011	1.0594	A+	A+	A+
MATH	3	714738	676486	2	B-O	1	13842	0.47	0.13	0.22	0.47	0.17	0.01	0.51	-0.38	-0.30	0.51	0.0043	0.7670	0.0196	-6.2491	0.9481	-3.5190	0.9565	A-	A-	A+
MATH	3	794395	281134	2	C-G	1	13842	0.36	0.07	0.37	0.36	0.20	0.01	0.29	-0.27	-0.15	0.29	0.0140	1.3970	0.0203	9.9012	1.1881	9.9014	1.4099	A-	A-	A-
MATH	3	808552	850568	2	C-G	2	13842	0.46	0.23	0.46	0.11	0.19	0.00	0.38	-0.21	0.38	-0.16	-0.1240	0.8200	0.0197	9.9011	1.1171	9.9012	1.1606	A-	A-	A-
MATH	3	808692	519519	2	A-F	1	13842	0.74	0.12	0.74	0.05	0.07	0.01	0.40	-0.22	0.40	-0.23	-0.1755	-0.7421	0.0217	3.6810	1.0390	-0.5990	0.9861	A-	A-	A-
MATH	3	808696	134370	2	B-O	2	13842	0.64	0.64	0.13	0.09	0.14	0.01	0.50	0.50	-0.20	-0.16	-0.3500	-0.1113	0.0202	-5.2490	0.9539	-4.4591	0.9297	A-	A-	A-
MATH	3	808701	709870	2	B-O	2	13842	0.63	0.07	0.63	0.18	0.10	0.01	0.49	-0.28	0.49	-0.20	-0.2645	-0.0943	0.0201	-4.9490	0.9566	-3.6791	0.9422	A-	A+	A+
MATH	3	808725	505736	2	B-O	1	13842	0.82	0.82	0.10	0.04	0.04	0.00	0.46	0.46	-0.25	-0.25	-0.2709	-1.3052	0.0241	-8.9991	0.8856	-6.7492	0.8036	A+	A-	A+
MATH	3	808740	566504	2	D-M	2	13842	0.26	0.09	0.47	0.17	0.26	0.02	0.08	-0.21	0.08	-0.02	0.0841	2.0039	0.0220	9.9014	1.4012	9.9021	2.0635	A+	A+	A+
MATH	3	808743	294509	2	D-M	2	13842	0.45	0.16	0.27	0.45	0.11	0.00	0.43	-0.06	-0.30	0.43	-0.1844	0.8777	0.0197	4.6610	1.0401	7.1611	1.0936	A-	A-	A-
MATH	3	808859	562983	2	A-F	1	13842	0.33	0.33	0.18	0.19	0.29	0.01	0.38	0.38	-0.06	-0.15	-0.2130	1.5794	0.0207	5.1911	1.0507	9.9012	1.2165	A-	A-	A-
MATH	3	808862	173068	2	A-T	2	13842	0.64	0.09	0.17	0.09	0.64	0.01	0.47	-0.26	-0.20	-0.24	0.4681	-0.1574	0.0202	-1.2490	0.9888	-4.2091	0.9319	A-	A-	A-
MATH	3	713572	881760	3	A-T	2	13804	0.61	0.15	0.61	0.13	0.10	0.01	0.40	-0.25	0.40	-0.17	-0.1479	0.0114	0.0199	7.9011	1.0696	5.7811	1.087	A-	A-	A-
MATH	3	714740	375257	3	B-O	2	13804	0.52	0.52	0.13	0.12	0.22	0.01	0.38	0.38	-0.27	-0.19	-0.0753	0.5278	0.0195	9.9011	1.0981	9.1911	1.117	A-	A-	A-
MATH	3	794394	768190	3	B-O	1	13804	0.66	0.66	0.10	0.09	0.13	0.01	0.50	0.50	-0.29	-0.22	-0.2410	-0.2790	0.0204	-7.9791	0.9291	-8.7091	0.8585	A+	A+	A+
MATH	3	808639	628611	3	C-G	2	13804	0.57	0.24	0.57	0.06	0.12	0.01	0.36	-0.09	0.36	-0.24	-0.2482	0.2098	0.0197	9.9011	1.1231	9.9011	1.1453	A+	A-	A-
MATH	3	808682	386511	3	A-T	2	13804	0.60	0.20	0.60	0.12	0.06	0.01	0.46	-0.16	0.46	-0.33	-0.2008	0.0479	0.0198	-1.0290	0.9911	1.2010	1.0174	A-	A-	A-
MATH	3	808684	951398	3	A-F	1	13804	0.34	0.08	0.34	0.48	0.07	0.02	0.29	-0.25	0.29	-0.07	-0.0972	1.4540	0.0204	9.9012	1.1695	9.9013	1.3468	A+	A-	A+
MATH	3	808691	355472	3	A-F	2	13804	0.29	0.32	0.18	0.20	0.29	0.01	0.46	-0.21	-0.01	-0.25	0.4563	1.7633	0.0212	-7.8991	0.9220	0.3110	1.0055	A-	A-	A-
MATH	3	808708	464528	3	B-O	2	13804	0.19	0.40	0.20	0.19	0.21	0.01	0.10	0.19	-0.31	0.10	-0.0134	2.4549	0.0240	9.9013	1.2532	9.9022	2.1892	A-	A-	A-
MATH	3	808712	228698	3	B-O	2	13804	0.39	0.39	0.42	0.09	0.10	0.00	0.12	0.12	-0.01	-0.16	-0.0154	1.1977	0.0200	9.9014	1.4016	9.9016	1.6303	A-	A-	A-
MATH	3	808733	530140	3	D-M	2	13804	0.49	0.13	0.15	0.21	0.49	0.01	0.45	-0.14	-0.17	-0.28	0.4505	0.6433	0.0195	1.4710	1.0122	2.0110	1.0246	A-	A-	A-
MATH	3	808737	527823	3	D-M	2	13804	0.28	0.17	0.14	0.28	0.40	0.01	0.00	-0.23	-0.26	0.00	0.3728	1.8291	0.0214	9.9015	1.4995	9.9021	2.1107	A+	A-	A-
MATH	3	808749	627439	3	D-M	1	13804	0.45	0.45	0.06	0.45	0.03	0.00	0.44	0.44	-0.17	-0.28	-0.2096	0.8722	0.0196	1.8210	1.0153	4.9911	1.063	A-	A-	A-
MATH	3	712969	750425	4	C-G	1	13776	0.49	0.07	0.49	0.28	0.16	0.01	0.43	-0.24	0.43	-0.25	-0.1027	0.6737	0.0197	5.9111	1.0509	5.3111	1.068	A+	A-	A-
MATH	3	713484	158010	4	B-O	2	13776	0.59	0.18	0.15	0.59	0.08	0.01	0.52	-0.26	-0.27	0.52	-0.2184	0.1025	0.0199	-7.7991	0.9342	-9.0491	0.8741	A-	A-	A-
MATH	3	713486	582678	4	C-G	1	13776	0.79	0.08	0.06	0.79	0.06	0.01	0.46	-0.25	-0.25	0.46	-0.2410	-1.0684	0.0229	-7.6091	0.9130	-7.3492	0.8115	A+	A-	A-
MATH	3	808689	868326	4	A-F	1	13776	0.49	0.07	0.49	0.14	0.28	0.01	0.52	-0.24	0.52	-0.27	-0.2174	0.6468	0.0197	-8.7491	0.9276	-7.6491	0.9071	A-	A-	A-
MATH	3	808693	690671	4	A-F	2	13776	0.60	0.10	0.16	0.13	0.60	0.01	0.39	-0.24	-0.05	-0.28	0.3862	0.0551	0.0199	9.9011	1.0944	9.9012	1.2317	A+	A-	A-
MATH	3	808713	125933	4	B-O	1	13776	0.15	0.58	0.13	0.13	0.15	0.01	-0.07	0.42	-0.21	-0.32	-0.0730	2.8660	0.0264	9.9014	1.3961	9.9036	3.6106	A+	A-	A-
MATH	3	808722	605728	4	B-O	2	13776	0.57	0.16	0.57	0.13	0.13	0.01	0.45	-0.17	0.45	-0.22	-0.2349	0.2440	0.0198	2.6310	1.0225	1.1210	1.0154	A+	A+	A+
MATH	3	808731	732574	4	D-M	2	13776	0.34	0.32	0.16	0.17	0.34	0.01	0.29	-0.04	-0.18	-0.12	0.2898	1.5065	0.0207	9.9012	1.2037	9.9014	1.3814	A-	A-	A-
MATH	3	808739	789983	4	D-M	2	13776	0.33	0.33	0.17	0.13	0.36	0.01	0.28	0.28	-0.20	-0.16	0.0034	1.5649	0.0208	9.9012	1.1696	9.9015	1.449	A+	A-	A-
MATH	3	808747	426531	4	D-M	2	13776	0.86	0.04	0.02	0.08	0.86	0.01	0.49	-0.23	-0.18	-0.37	0.4913	-1.6597	0.0263	-9.8992	0.8227	-9.8994	0.5894	A+	B-	A-
MATH	3	808858	124392	4	B-O	2	13776	0.52	0.21	0.52	0.10	0.16	0.02	0.37	-0.13	0.37	-0.23	-0.1506	0.4883	0.0197	9.9011	1.1309	9.9012	1.1733	A+	A+	A+
MATH	3	820553	782353	4	A-T	1	13776	0.64	0.64	0.06	0.12	0.17	0.01	0.56	0.56	-0.22	-0.23	-0.3494	-0.1550	0.0202	-9.8991	0.8770	-9.8992	0.8072	A+	A-	A-
MATH	3	713296	196460	5	D-M	2	13744	0.46	0.11	0.30	0.12	0.46	0.01	0.46	-0.28	-0.20	-0.14	0.4625	0.8032	0.0198	-0.4790	0.9959	3.3310	1.043	A-	B-	A-
MATH	3	713576	155041	5	D-M	2	13744	0.86	0.04	0.86	0.03	0.07	0.01	0.47	-0.24	0.47	-0.18	-0.3221	-1.6830	0.0264	-9.8992	0.8419	-9.8994	0.6377	A+	B-	A-
MATH	3	714256	588367	5	A-F	1	13744	0.56	0.31	0.56	0.04	0.07	0.01	0.55	-0.40	0.55	-0.16	-0.2048	0.2639	0.0198	-9.8991	0.8927	-9.8992	0.8475	A+	A-	A-
MATH	3	794391	191052	5	A-T	1	13744	0.22	0.60	0.22	0.05	0.13	0.01	0.33	-0.08	0.33	-0.12	-0.1882	2.2946	0.0233	1.0810	1.0135	9.9015	1.5445	A-	A+	A+
MATH	3	808554	523599	5	C-G	1	13744	0.46	0.13	0.15	0.26	0.46	0.01	0.25	-0.14	-0.13	-0.06	0.2496	0.8154	0.0198	9.9013	1.2943	9.9014	1.4043	A-	A-	A-

ContArea	FormGrade	ItemID	PubID	FormNumber	Standard1	Depth	N	PValue	ProportionA	ProportionB	ProportionC	ProportionD	ProportionOMITS	PtBiserial	CorrelationA	CorrelationB	CorrelationC	CorrelationD	FinalB	FinalBErr	Infit	InfitMnSq	Outfit	OutfitMnSq	BiasCodeMALEFEMALE	BiasCodeWHITEBLACK	BiasCodeWHITEHISPANIC
MATH	3	808677	476482	5	A-T	2	13744	0.39	0.15	0.39	0.32	0.14	0.01	0.33	-0.25	0.33	-0.07	-0.0921	1.2238	0.0202	9.9011	1.1400	9.9013	1.2784	A+	A-	A-
MATH	3	808686	102648	5	A-F	1	13744	0.91	0.91	0.05	0.01	0.02	0.01	0.36	0.36	-0.27	-0.14	-0.1688	-2.1997	0.0309	-4.2691	0.9114	-4.9592	0.7774	A+	B-	A-
MATH	3	808715	660546	5	B-O	2	13744	0.18	0.18	0.51	0.13	0.16	0.01	0.00	0.00	0.10	-0.12	-0.0176	2.5321	0.0244	9.9014	1.3837	9.9027	2.7039	A-	A-	A-
MATH	3	808717	137442	5	B-O	2	13744	0.72	0.07	0.15	0.05	0.72	0.01	0.56	-0.35	-0.31	-0.22	0.5620	-0.6234	0.0213	-9.8992	0.8391	-9.8993	0.7267	A-	A-	A-
MATH	3	808726	537569	5	B-O	2	13744	0.70	0.70	0.10	0.08	0.12	0.01	0.42	0.42	-0.25	-0.23	-0.1583	-0.4800	0.0209	2.6810	1.0260	2.9611	1.0599	A+	A+	A-
MATH	3	808742	226357	5	D-M	1	13744	0.41	0.33	0.13	0.41	0.12	0.00	0.40	-0.18	-0.25	0.40	-0.0822	1.0812	0.0200	7.7811	1.0699	9.4311	1.1337	A+	A-	A-
MATH	3	808750	637650	5	D-M	1	13744	0.82	0.07	0.07	0.82	0.03	0.01	0.32	-0.18	-0.18	0.32	-0.1475	-1.3691	0.0245	2.1910	1.0299	5.1512	1.1747	A+	A-	A-
MATH	3	713291	729671	6	A-F	2	13774	0.38	0.38	0.13	0.31	0.17	0.01	0.35	0.35	-0.14	-0.16	-0.1136	1.2598	0.0201	9.9011	1.0944	9.9013	1.2756	A-	A-	A-
MATH	3	714742	276066	6	D-M	2	13774	0.49	0.06	0.49	0.10	0.34	0.01	0.59	-0.10	0.59	-0.12	-0.4943	0.6853	0.0195	-9.8992	0.8341	-9.8992	0.7998	A-	A-	A-
MATH	3	716246	328874	6	B-O	2	13774	0.47	0.13	0.47	0.19	0.19	0.01	0.37	-0.21	0.37	-0.18	-0.0886	0.7707	0.0196	9.9011	1.0997	9.9011	1.1417	A+	A+	A-
MATH	3	794392	297137	6	A-T	1	13774	0.76	0.07	0.04	0.12	0.76	0.01	0.48	-0.21	-0.27	-0.29	0.4806	-0.8751	0.0221	-8.4891	0.9093	-7.7892	0.8242	A-	B-	A-
MATH	3	794396	465986	6	A-F	2	13774	0.48	0.12	0.25	0.48	0.14	0.01	0.39	-0.29	-0.09	0.39	-0.1617	0.7178	0.0196	9.9011	1.0929	9.5811	1.1217	A+	A-	A-
MATH	3	808551	574225	6	C-G	2	13774	0.38	0.38	0.24	0.19	0.17	0.00	0.27	0.27	-0.15	-0.08	-0.0786	1.2435	0.0200	9.9012	1.2260	9.9014	1.3773	A+	A-	A+
MATH	3	808555	424009	6	C-G	2	13774	0.39	0.39	0.18	0.35	0.07	0.01	0.09	0.09	0.05	-0.02	-0.1530	1.2179	0.0200	9.9015	1.4609	9.9017	1.7169	A+	A+	A-
MATH	3	808697	138330	6	A-T	1	13774	0.82	0.02	0.13	0.82	0.02	0.01	0.54	-0.18	-0.45	0.54	-0.1818	-1.3148	0.0242	-9.8992	0.8034	-9.8994	0.6407	A-	A-	A-
MATH	3	808723	838803	6	B-O	1	13774	0.31	0.27	0.31	0.33	0.08	0.01	0.12	-0.12	0.12	0.17	-0.2937	1.6290	0.0208	9.9014	1.3850	9.9018	1.7536	A-	A-	A-
MATH	3	808727	459470	6	B-O	1	13774	0.37	0.30	0.37	0.08	0.24	0.01	0.24	0.10	0.24	-0.21	-0.2354	1.3150	0.0202	9.9013	1.2615	9.9014	1.4046	A+	A+	A-
MATH	3	808729	742213	6	D-M	2	13774	0.17	0.38	0.28	0.15	0.17	0.01	0.19	0.07	-0.23	0.01	0.1939	2.5979	0.0248	8.1911	1.1214	9.9019	1.9148	A-	A-	A+
MATH	3	808746	428679	6	D-M	2	13774	0.77	0.08	0.06	0.77	0.08	0.01	0.41	-0.26	-0.16	0.41	-0.2163	-0.9279	0.0224	-2.4690	0.9725	1.8110	1.0451	A+	A-	A-
MATH	3	713488	351974	7	D-M	2	13803	0.85	0.04	0.05	0.05	0.85	0.00	0.44	-0.28	-0.27	-0.18	0.4404	-1.5713	0.0258	-8.9191	0.8705	-4.7392	0.8355	A+	B-	A-
MATH	3	713491	750218	7	B-O	1	13803	0.75	0.06	0.08	0.75	0.10	0.01	0.52	-0.27	-0.27	0.52	-0.2803	-0.7934	0.0219	-9.8991	0.8682	-9.1692	0.7926	A+	A+	A+
MATH	3	714156	999990	7	A-F	1	13803	0.52	0.20	0.52	0.19	0.08	0.01	0.37	-0.23	0.37	-0.11	-0.1538	0.5125	0.0197	9.9011	1.1376	9.9012	1.1639	A-	A-	A-
MATH	3	794388	193801	7	D-M	2	13803	0.23	0.54	0.23	0.09	0.14	0.00	0.37	-0.14	0.37	-0.13	-0.1348	2.2049	0.0228	-3.2590	0.9617	9.9013	1.3214	A-	A-	A-
MATH	3	808641	723626	7	C-G	2	13803	0.25	0.31	0.19	0.24	0.25	0.00	0.17	-0.22	0.06	0.03	0.1666	2.0575	0.0222	9.9013	1.2668	9.9019	1.9124	A+	A-	A-
MATH	3	808649	963640	7	C-G	2	13803	0.29	0.30	0.29	0.22	0.19	0.01	0.09	0.08	0.09	-0.12	-0.0534	1.8497	0.0215	9.9014	1.4097	9.9020	2.0054	A-	A+	A+
MATH	3	808695	218142	7	A-T	2	13803	0.26	0.17	0.22	0.26	0.33	0.01	0.17	-0.18	-0.09	0.17	0.0729	2.0087	0.0220	9.9013	1.2665	9.9018	1.8214	A-	A-	A-
MATH	3	808699	441828	7	A-T	1	13803	0.59	0.20	0.08	0.59	0.11	0.01	0.45	-0.21	-0.25	0.45	-0.1963	0.1324	0.0199	2.8310	1.0246	2.0210	1.0303	A-	A-	A-
MATH	3	808710	643835	7	B-O	2	13803	0.55	0.20	0.55	0.10	0.14	0.01	0.52	-0.26	0.52	-0.16	-0.2879	0.3855	0.0197	-7.8491	0.9348	-7.1491	0.9061	A-	A-	A+
MATH	3	808714	795135	7	B-O	2	13803	0.43	0.18	0.21	0.18	0.43	0.00	0.42	-0.17	-0.27	-0.08	0.4199	1.0201	0.0199	6.0811	1.0538	8.4111	1.1163	A-	A+	A+
MATH	3	808741	126841	7	D-M	1	13803	0.60	0.60	0.05	0.16	0.17	0.01	0.61	0.61	-0.16	-0.24	-0.4370	0.0839	0.0200	-9.8992	0.8254	-9.8993	0.7495	A-	A-	A-
MATH	3	808744	282747	7	D-M	1	13803	0.56	0.56	0.09	0.14	0.21	0.01	0.53	0.53	-0.21	-0.19	-0.3288	0.3127	0.0198	-8.6591	0.9280	-6.6791	0.9101	A-	A-	A-
MATH	3	714986	462631	8	B-O	1	13776	0.59	0.12	0.23	0.59	0.06	0.01	0.33	-0.26	-0.05	0.33	-0.2109	0.1537	0.0197	9.9012	1.1508	9.9012	1.2293	A+	A+	A+
MATH	3	730067	125075	8	B-O	1	13776	0.33	0.18	0.28	0.33	0.20	0.01	0.24	-0.18	-0.08	0.24	0.0015	1.5328	0.0206	9.9012	1.2133	9.9014	1.4392	A-	A+	A+
MATH	3	730072	327369	8	D-M	2	13776	0.50	0.50	0.28	0.07	0.14	0.01	0.53	0.53	-0.31	-0.16	-0.2321	0.6087	0.0195	-9.8991	0.9043	-9.7691	0.8876	A-	A-	A-
MATH	3	808550	716016	8	C-G	1	13776	0.24	0.31	0.24	0.09	0.36	0.01	0.20	-0.13	0.20	-0.02	-0.0309	2.0859	0.0223	9.9012	1.1982	9.9016	1.619	A-	A-	A+
MATH	3	808556	572475	8	C-G	2	13776	0.19	0.36	0.23	0.21	0.19	0.01	0.17	-0.03	0.03	-0.14	0.1700	2.5023	0.0242	9.9012	1.1688	9.9019	1.8741	A-	A-	A-
MATH	3	808678	379815	8	A-T	2	13776	0.38	0.20	0.38	0.29	0.11	0.02	0.35	-0.21	0.35	-0.12	-0.0904	1.2700	0.0200	8.4211	1.0764	9.9012	1.199	A-	A-	A-
MATH	3	808685	766330	8	A-F	1	13776	0.22	0.19	0.16	0.22	0.43	0.01	0.16	-0.09	-0.08	0.16	0.0038	2.2622	0.0230	9.9012	1.2006	9.9018	1.8382	A-	A-	A-
MATH	3	808688	875659	8	A-F	1	13776	0.59	0.59	0.21	0.07	0.12	0.00	0.39	0.39	-0.09	-0.20	-0.3072	0.1239	0.0197	9.8211	1.0842	6.7211	1.0952	A+	A-	A-
MATH	3	808698	159978	8	A-T	2	13776	0.44	0.32	0.12	0.11	0.44	0.01	0.45	-0.16	-0.28	-0.17	0.4536	0.9531	0.0196	-1.8390	0.9846	3.2010	1.04	A-	A-	A-
MATH	3	808724	838473	8	B-O	1	13776	0.50	0.13	0.50	0.05	0.31	0.01	0.31	-0.38	0.31	-0.20	0.0503	0.6106	0.0195	9.9012	1.1815	9.9012	1.2383	A-	A-	A-
MATH	3	808732	744524	8	D-M	1	13776	0.52	0.19	0.19	0.09	0.52	0.01	0.33	-0.16	-0.16	-0.11	0.3292	0.4847	0.0195	9.9012	1.1579	9.9012	1.2119	A+	A-	A-
MATH	3	808857	698381	8	D-M	2	13776	0.25	0.21	0.22	0.25	0.32	0.00	0.27	-0.16	-0.18	0.27	0.0586	2.0553	0.0222	8.7011	1.1015	9.9015	1.4574	A+	A+	A-
MATH	3	713573	500680	9	A-F	1	13796	0.79	0.04	0.11	0.79	0.05	0.01	0.25	-0.19	-0.17	0.25	-0.0366	-1.0984	0.0229	9.9011	1.1271	9.9015	1.45	A+	A-	A+
MATH	3	714767	177073	9	C-G	1	13796	0.52	0.13	0.14	0.52	0.20	0.01	0.31	-0.03	-0.22	0.31	-0.1543	0.4856	0.0196	9.9012	1.2038	9.9013	1.2807	A+	A-	A-
MATH	3	714977	521434	9	A-T	2	13796	0.53	0.15	0.53	0.15	0.16	0.01	0.54	-0.16	0.54	-0.24	-0.3358	0.4310	0.0196	-9.8991	0.9054	-9.1291	0.8891	A+	A-	A+
MATH	3	808549	195412	9	C-G	2	13796	0.30	0.06	0.28	0.35	0.30	0.01	0.11	-0.10	-0.03	-0.01	0.1087	1.7124	0.0212	9.9013	1.3468	9.9020	2.0065	A-	A+	A+
MATH	3	808679	254684	9	A-T	2	13796	0.47	0.10	0.20	0.22	0.47	0.01	0.41	-0.25	-0.30	-0.02	0.4140	0.7308	0.0196	7.5611	1.0651	6.9611	1.0882	A-	A+	A+
MATH	3	808702	807817	9	B-O	2	13796	0.56	0.56	0.19	0.16	0.07	0.01	0.46	0.46	-0.19	-0.24	-0.2205	0.2692	0.0197	0.9810	1.0082	0.5510	1.0073	A+	A-	A-
MATH	3	808716	660847	9	B-O	1	13796	0.41	0.41	0.37	0.14	0.07	0.01	0.04	0.04	0.33	-0.37	-0.1729	1.0702	0.0199	9.9016	1.5632	9.9019	1.8514	A-	A-	A-
MATH	3	808719	149274	9	B-O	2	13796	0.59	0.09	0.19	0.59	0.12	0.01	0.44	-0.29	-0.14	0.44	-0.2221	0.1134	0.0198	3.2410	1.0278	0.6710	1.0094	A+	A+	A+
MATH	3	808738	639146	9	D-M	1	13796	0.49	0.22	0.49	0.18	0.11	0.01	0.45	-0.19	0.45	-0.28	-0.1020	0.6511	0.0196	2.5310	1.0214	4.6511	1.0582	A-	A-	A-
MATH	3	808748	137144	9	D-M	1	13796	0.47	0.21	0.47	0.22	0.10	0.01	0.43	-0.23	0.43	-0.14	-0.2135	0.7281	0.0196	3.6910	1.0314	3.3010	1.0412	A-	A-	A-
MATH	3	808751	953789	9	D-M	2	13796	0.41	0.35	0.41	0.11	0.12	0.01	0.38	-0.21	0.38	-0.12	-0.1421	1.0690	0.0199	8.7711	1.0787	9.9012	1.1552	A-	A-	A-
MATH	3	808863	125020	9	A-F	1	13796	0.88	0.04	0.02	0.05	0.88	0.01	0.38	-0.21	-0.15	-0.25	0.3813	-1.8789	0.0278	-4.9191	0.9153	-6.2092	0.7656	B+	A-	A-
MATH	4	652724	573118	0	A-T	1	124609	0.67	0.12	0.09	0.12	0.67	0.00	0.48	-0.24	-0.22	-0.25	0.4758	-0.7682	0.0067	-9.8991	0.9090	-9.8991	0.8662			
MATH	4	652758	247345	0	A-F	1	124609	0.87	0.05	0.87	0.04	0.03	0.00	0.34	-0.21	0.34	-0.15	-0.1912	-2.1182	0.0087	-9.8991	0.8974	-6.8191	0.9243			
MATH	4	655451	363160	0	A-F	1	124609	0.58	0.04	0.36	0.58	0.02	0.00	0.59	-0.19	-0.47	0.59	-0.1714	-0.2584	0.0064	-9.8992	0.8147	-9.8992	0.76			
MATH	4	655469	145701	0	A-T	2	124609	0.48	0.16	0.17	0.19	0.48	0.00	0.33	-0.23	-0.18	-0.03	0.3281	0.1668	0.0064	9.9011	1.1268	9.9012	1.1601			
MATH	4	656381	865333	0	A-T	2	124609	0.72	0.06	0.07	0.14	0.72	0.00	0.42	-0.19	-0.19	-0.26	0.4180	-1.1369	0.0070	-4.1390	0.9868	-9.8991	0.8999			
MATH	4	656529	597996	0	D-M	2	124609	0.62	0.62	0.15	0.16	0.06	0.00	0.36	0.36	-0.12	-0.21	-0.2276	-0.5347	0.0065	9.9011	1.0694	9.9011	1.11			
MATH	4	656705	632313	0	A-F	2	124609	0.51	0.09	0.51	0.15	0.25	0.00	0.49	-0.16	0.49	-0.21	-0.2881	0.0348	0.0064	-9.8991	0.9344	-9.8991	0.9064			
MATH	4	656825	904022	0	A-F	2	124609	0.37	0.21	0.16	0.25	0.37	0.00	0.27	-0.01	-0.12	-0.19	0.2735	0.8200	0.0067	9.9012	1.2080	9.9013	1.3097			
MATH	4	671465	560466	0	A-F	1	124609	0.44	0.28	0.18	0.09	0.44	0.01	0.54	-0.23	-0.25	-0.21	0.5366	0.4311	0.0065	-9.8991	0.8699	-9.8991	0.8699			
MATH	4	675118	367854	0	C-G	2	124609	0.53	0.16	0.09	0.53	0.21	0.00	0.40	-0.24	-0.21	0.40	-0.1243	-0.1469	0.0064	9.9010	1.0369	6.3210	1.0249			
MATH	4	677208	684839	0	A-F	2	124609	0.36	0.49	0.36	0.08	0.07	0.00	0.22	-0.02	0.22	-0.19	-0.1616	0.8991	0.0067	9.9012	1.2325	9.9014	1.4229			
MATH	4	678033	391557	0	B-O	2	124609	0.67	0.08	0.67	0.11	0.13	0.00	0.53	-0.28	0.53	-0.23	-0.2850	-0.8772	0.0067	-9.8991	0.8749	-9.8992	0.7978			
MATH	4	699465	167824	0	B-O	2	124609	0.69	0.69	0.06	0.10	0.14	0.00	0.47	0.47	-0.26	-0.26	-0.2107	-0.8865	0.0067	-9.8991	0.9229	-9.8992	0.8418			
MATH	4	699470	733028	0	B-O	2	124609	0.36	0.36	0.35	0.15	0.13	0.00	0.41	0.41	-0.12	-0.14	-0.2415	0.8381	0.0067	1.4810	1.0044	9.9011	1.0752			
MATH	4	699679	726785	0	A-F	1	124609	0.80	0.07	0.08	0.80	0.05	0.00	0.36	-0.16	-0.24	0.36	-0.1640	-1.6044	0.0076	-5.4190	0.9783	-4.2790	0.9636			
MATH	4	701061	482172	0	A-T	2	124609	0.41	0.10	0.19	0.41	0.29	0.01	0.31	-0.12	-0.15	0.31	-0.1267	0.5758	0.0065	9.9011	1.1320	9.9012	1.217			
MATH	4	701387	325715	0	B-O	2	124609	0.55	0.55	0.10	0.21	0.14	0.00	0.54	0.54	-0.15	-0.26	-0.3324	-0.1214	0.0064	-9.8991	0.8733	-9.8992	0.8377			
MATH	4	701390	903048	0	C-G	2	124609	0.54	0.26	0.13	0.07	0.54	0.01	0.43	-0.21	-0.20	-0.21	0.4346	-0.0676	0.0064	-0.4290	0.9989	-2.1590	0.9917			
MATH	4	701396	183939	0	A-F	1	124609	0.55	0.25	0.11	0.55	0.09	0.00	0.53	-0.39	-0.17	0.53	-0.1392	-0.1737	0.0064	-9.8991	0.8892	-9.8991	0.8542			
MATH	4	701401	424744	0	D-M	2	124609	0.54	0.34	0.04	0.54	0.07	0.00	0.49	-0.39	-0.20	0.49	-0.0770	-0.1677	0.0064	-9.8991	0.9336	-9.8991	0.9196			
MATH	4	701959	902560	0	A-F	1	124609	0.54	0.25	0.14	0.07	0.54	0.00	0.57	-0.39	-0.18	-0.20	0.5660	-0.0878	0.0064	-9.8992	0.8460	-9.8992	0.8037			
MATH	4	701964	760394	0	D-M	1	124609	0.58	0.58	0.36	0.04	0.01	0.00	0.39	0.39	-0.30	-0.16	-0.1198	-0.3746	0.0065	9.9010	1.0451	6.0410	1.0261			
MATH	4	702226	457873	0	B-O	2	124609	0.87	0.87	0.06	0.04	0.03	0.00	0.38	0.38	-0.20	-0.24	-0.2009	-2.1328	0.0087	-9.8991	0.8807	-9.8992	0.7595			
MATH	4	702237	514639	0	A-F	2	124609	0.49	0.26	0.49	0.15	0.10	0.00	0.47	-0.24	0.47	-0.25	-0.1356	0.1318	0.0064	-9.8991	0.9483	-9.8991	0.9368			
MATH	4	702239	215582	0	B-O	2	124609	0.41	0.41	0.37	0.08	0.13	0.00	0.32	0.32	-0.18	-0.12	-0.1028	0.5455	0.0065	9.9011	1.1244	9.9012	1.2			
MATH	4	702240	491391	0	C-G	1	124609	0.54	0.16	0.10	0.54	0.20	0.00	0.49	-0.30	-0.18	0.49	-0.1861	-0.1463	0.0064	-9.8991	0.9341	-9.8991	0.9034			
MATH	4	702244	253460	0	D-M	1	124609	0.58	0.25	0.08	0.58	0.08	0.00	0.44	-0.14	-0.27	0.44	-0.2868	-0.3448	0.0064	-3.6890	0.9904	2.5910	1.011			
MATH	4	702372	519139	0	C-G	2	124609	0.72	0.08	0.07	0.72	0.12	0.00	0.47	-0.25	-0.24	0.47	-0.2431	-1.0945	0.0069	-9.8991	0.8999	-9.8992	0.8232			
MATH	4	702697	747655	0	A-T	1	124609	0.83	0.06	0.06	0.05	0.83	0.00	0.41	-0.23	-0.23	-0.20	0.4115	-2.0483	0.0085	4.3510	1.0227	-7.8191	0.9165			
MATH	4	702702	670489	0	B-O	2	124609	0.61	0.17	0.61	0.10	0.12	0.00	0.46	-0.27	0.46	-0.21	-0.1799	-0.4886	0.0065	-9.8990	0.9541	-9.8991	0.9402			
MATH	4	702985	861917	0	C-G	1	124609	0.71	0.05	0.71	0.09	0.15	0.00	0.26	-0.13	0.26	0.00	-0.2429	-1.0198	0.0069	9.9011	1.1230	9.9013	1.3471			
MATH	4	702986	483996	0	D-M	2	124609	0.88	0.04	0.04	0.04	0.88	0.00	0.39	-0.19	-0.20	-0.24	0.3859	-2.3289	0.0093	-9.8991	0.9247	-9.8992	0.7939			
MATH	4	702992	609562	0	A-F	1	124609	0.58	0.31	0.58	0.07	0.03	0.00	0.45	-0.30	0.45	-0.21	-0.1327	-0.2953	0.0064	-8.8990	0.9771	-9.8991	0.9351			

ContArea	FormGrade	ItemID	PubID	FormNumber	Standard1	Depth	N	PValue	ProportionA	ProportionB	ProportionC	ProportionD	ProportionOMITS	PtBiserial	CorrelationA	CorrelationB	CorrelationC	CorrelationD	FinalB	FinalBErr	Infit	InfitMnSq	Outfit	OutfitMnSq	BiasCodeMALEFEMALE	BiasCodeWHITEBLACK	BiasCodeWHITEHISPANIC
MATH	4	702995	631910	0	C-G	1	124609	0.64	0.64	0.04	0.15	0.17	0.00	0.31	0.31	-0.14	-0.11	-0.2131	-0.5828	0.0065	9.9011	1.1097	9.9011	1.1314			
MATH	4	703508	619590	0	A-F	2	124609	0.75	0.75	0.09	0.08	0.07	0.00	0.41	0.41	-0.27	-0.20	-0.1604	-1.5978	0.0076	9.9011	1.0980	9.9011	1.0985			
MATH	4	703510	482755	0	A-F	1	124609	0.69	0.10	0.69	0.16	0.06	0.00	0.43	-0.22	0.43	-0.26	-0.1688	-0.9379	0.0068	-8.8390	0.9739	-8.8291	0.9491			
MATH	4	712568	199438	0	A-T	1	124609	0.65	0.11	0.13	0.10	0.65	0.00	0.49	-0.27	-0.22	-0.23	0.4878	-0.6985	0.0066	-9.8991	0.9161	-9.8991	0.8595			
MATH	4	713098	164583	0	D-M	1	124609	0.48	0.10	0.25	0.17	0.48	0.00	0.56	-0.11	-0.32	-0.28	0.5580	0.2114	0.0064	-9.8991	0.8570	-9.8992	0.83			
MATH	4	713276	442319	0	A-F	1	124609	0.63	0.24	0.08	0.63	0.04	0.00	0.30	-0.11	-0.23	0.30	-0.1737	-0.6279	0.0066	9.9011	1.1332	9.9012	1.2092			
MATH	4	713471	135926	0	A-T	2	124609	0.52	0.18	0.52	0.14	0.16	0.00	0.43	-0.18	0.43	-0.24	-0.1686	0.0271	0.0064	1.6810	1.0043	0.9410	1.0035			
MATH	4	713476	448119	0	C-G	2	124609	0.46	0.25	0.10	0.19	0.46	0.00	0.39	-0.15	-0.18	-0.18	0.3885	0.2796	0.0064	9.9011	1.0556	9.9011	1.0722			
MATH	4	713748	430063	0	B-O	2	124609	0.60	0.15	0.13	0.60	0.13	0.00	0.41	-0.12	-0.26	0.41	-0.2107	-0.5045	0.0065	9.9010	1.0315	9.9011	1.0509			
MATH	4	713750	878923	0	D-M	2	124609	0.69	0.10	0.08	0.69	0.11	0.00	0.39	-0.11	-0.26	0.39	-0.2227	-0.9807	0.0068	2.5110	1.0076	9.9011	1.092			
MATH	4	713766	346715	0	A-T	1	124609	0.79	0.79	0.05	0.12	0.04	0.00	0.45	0.45	-0.15	-0.35	-0.1923	-1.4930	0.0074	-9.8991	0.8560	-9.8992	0.7651			
MATH	4	714182	303547	0	A-T	2	124609	0.74	0.74	0.07	0.11	0.08	0.00	0.44	0.44	-0.25	-0.21	-0.2335	-1.1968	0.0070	-9.8991	0.9160	-9.8991	0.8765			
MATH	4	714190	125864	0	C-G	1	124609	0.60	0.60	0.16	0.16	0.07	0.00	0.45	0.45	-0.26	-0.19	-0.2103	-0.4546	0.0065	-9.3590	0.9755	-9.3590	0.9588			
MATH	4	714204	816487	0	B-O	2	124609	0.59	0.59	0.08	0.18	0.15	0.00	0.52	0.52	-0.20	-0.20	-0.3356	-0.2784	0.0064	-9.8991	0.8935	-9.8991	0.8638			
MATH	4	714208	694025	0	B-O	2	124609	0.80	0.11	0.02	0.07	0.80	0.00	0.44	-0.23	-0.17	-0.31	0.4407	-1.6012	0.0076	-9.8991	0.8962	-9.8992	0.7813			
MATH	4	714211	981568	0	A-T	1	124609	0.83	0.06	0.06	0.04	0.83	0.00	0.44	-0.24	-0.23	-0.24	0.4395	-1.8771	0.0081	-9.8991	0.8782	-9.8993	0.7292			
MATH	4	714231	389908	0	B-O	2	124609	0.70	0.08	0.06	0.70	0.15	0.00	0.37	-0.25	-0.24	0.37	-0.1131	-0.8996	0.0068	-0.1290	0.9996	7.6310	1.0443			
MATH	4	714234	962281	0	C-G	1	124609	0.49	0.49	0.11	0.18	0.22	0.00	0.29	0.29	-0.15	-0.18	-0.0635	0.0882	0.0064	9.9012	1.1710	9.9012	1.2158			
MATH	4	714548	899655	0	B-O	1	124609	0.52	0.06	0.52	0.28	0.13	0.00	0.40	-0.17	0.40	-0.13	-0.2843	-0.0272	0.0064	9.9010	1.0372	9.9010	1.0473			
MATH	4	714549	482958	0	C-G	2	124609	0.67	0.15	0.67	0.12	0.06	0.00	0.41	-0.27	0.41	-0.12	-0.2180	-0.7300	0.0066	-4.5390	0.9874	-5.8990	0.9697			
MATH	4	714554	522417	0	B-O	2	124609	0.62	0.10	0.62	0.16	0.11	0.00	0.47	-0.20	0.47	-0.25	-0.2339	-0.4986	0.0065	-9.8991	0.9344	-9.8991	0.9032			
MATH	4	714669	702997	0	A-T	1	124609	0.46	0.24	0.46	0.18	0.12	0.00	0.37	-0.06	0.37	-0.26	-0.1869	0.2846	0.0064	9.9011	1.0750	9.9011	1.1092			
MATH	4	714671	448969	0	A-F	2	124609	0.56	0.15	0.18	0.10	0.56	0.01	0.57	-0.29	-0.25	-0.25	0.5652	-0.2593	0.0064	-9.8992	0.8487	-9.8992	0.7905			
MATH	4	714674	948184	0	B-O	2	124609	0.59	0.12	0.14	0.59	0.14	0.01	0.41	-0.08	-0.21	0.41	-0.2766	-0.4402	0.0065	9.9010	1.0308	3.8410	1.0171			
MATH	4	714675	163677	0	B-O	2	124609	0.45	0.16	0.18	0.45	0.20	0.00	0.33	-0.03	-0.14	0.33	-0.2408	0.2712	0.0064	9.9011	1.1188	9.9012	1.1644			
MATH	4	714677	861523	0	D-M	2	124609	0.31	0.07	0.31	0.34	0.28	0.00	0.35	-0.14	0.35	-0.15	-0.1162	1.1473	0.0069	9.9011	1.0678	9.9012	1.1625			
MATH	4	715545	418676	0	D-M	2	124609	0.52	0.52	0.20	0.19	0.08	0.00	0.49	0.49	-0.19	-0.27	-0.2163	0.0292	0.0064	-9.8991	0.9409	-9.8991	0.9187			
MATH	4	713475	771462	1	B-O	2	14140	0.47	0.15	0.47	0.16	0.22	0.00	0.41	-0.18	0.41	-0.09	-0.2578	0.1647	0.0190	1.7710	1.0136	2.4310	1.0267	A-	A-	A-
MATH	4	714188	504949	1	D-M	2	14140	0.52	0.11	0.12	0.52	0.25	0.00	0.38	-0.17	-0.13	0.38	-0.2123	-0.0705	0.0189	7.2611	1.0554	2.9510	1.0331	A-	A-	A-
MATH	4	794399	166738	1	A-F	2	14140	0.50	0.50	0.16	0.23	0.12	0.00	0.26	0.26	-0.11	-0.13	-0.1211	0.0461	0.0189	9.9012	1.1887	9.9012	1.2296	A+	A-	A-
MATH	4	794404	393732	1	B-O	2	14140	0.42	0.10	0.12	0.42	0.35	0.00	0.30	-0.15	-0.16	0.30	-0.0983	0.4106	0.0192	9.9011	1.1409	9.9012	1.1879	A-	A-	A-
MATH	4	794405	741204	1	C-G	2	14140	0.38	0.23	0.38	0.23	0.15	0.00	0.22	-0.03	0.22	-0.09	-0.1480	0.6283	0.0195	9.9012	1.2322	9.9013	1.3205	A-	A-	A-
MATH	4	808575	909537	1	A-F	2	14140	0.68	0.68	0.09	0.09	0.14	0.00	0.36	0.36	-0.16	-0.18	-0.1977	-0.9124	0.0199	3.9310	1.0337	2.2210	1.037	A-	A-	A-
MATH	4	808582	324936	1	A-T	1	14140	0.71	0.16	0.71	0.08	0.04	0.00	0.45	-0.31	0.45	-0.16	-0.2278	-1.0988	0.0204	-9.3891	0.9168	-6.2291	0.8892	A-	A-	A-
MATH	4	808587	957772	1	A-T	2	14140	0.47	0.14	0.21	0.17	0.47	0.00	0.49	-0.26	-0.26	-0.11	0.4877	0.1496	0.0189	-8.7891	0.9344	-6.1391	0.9346	A+	A-	A+
MATH	4	808653	239802	1	D-M	1	14140	0.28	0.16	0.43	0.12	0.28	0.00	0.16	-0.25	0.14	-0.14	0.1615	1.1915	0.0208	9.9013	1.2697	9.9015	1.4974	A+	A-	A+
MATH	4	808774	409660	1	B-O	2	14140	0.27	0.12	0.10	0.51	0.27	0.00	0.28	-0.27	-0.22	0.06	0.2840	1.2967	0.0212	7.9811	1.0873	9.9013	1.3234	A-	A+	A+
MATH	4	808786	893122	1	C-G	1	14140	0.27	0.35	0.22	0.27	0.15	0.01	0.10	0.11	-0.09	0.10	-0.1623	1.2720	0.0211	9.9013	1.2952	9.9017	1.7155	A+	A-	A-
MATH	4	808866	591863	1	D-M	2	14140	0.32	0.29	0.22	0.32	0.17	0.00	0.15	-0.04	-0.01	0.15	-0.1133	0.9919	0.0203	9.9013	1.2873	9.9015	1.5298	A+	A+	A+
MATH	4	713090	316346	2	C-G	2	13769	0.80	0.80	0.12	0.03	0.04	0.00	0.32	0.32	-0.19	-0.15	-0.1970	-1.6534	0.0231	0.7910	1.0097	1.2810	1.0342	A+	B-	A-
MATH	4	715544	893472	2	B-O	2	13769	0.71	0.11	0.11	0.71	0.06	0.00	0.52	-0.30	-0.26	0.52	-0.2275	-1.0551	0.0207	-9.8991	0.8651	-9.8993	0.7456	A+	A+	A-
MATH	4	794402	840608	2	A-T	2	13769	0.61	0.61	0.13	0.20	0.06	0.00	0.47	0.47	-0.21	-0.26	-0.2252	-0.5163	0.0196	-7.1691	0.9438	-5.1291	0.93	A-	A-	A-
MATH	4	808565	588679	2	A-F	2	13769	0.19	0.19	0.32	0.29	0.19	0.01	-0.04	-0.05	0.00	0.08	-0.0449	1.8987	0.0240	9.9014	1.3925	9.9024	2.4287	A-	A-	A-
MATH	4	808573	385932	2	A-F	2	13769	0.35	0.30	0.35	0.16	0.19	0.00	0.20	-0.03	0.20	-0.15	-0.0597	0.8779	0.0202	9.9012	1.2211	9.9014	1.436	A-	A-	A-
MATH	4	808586	774861	2	A-T	2	13769	0.61	0.61	0.12	0.16	0.11	0.00	0.50	0.50	-0.27	-0.22	-0.2439	-0.4790	0.0195	-9.8991	0.9065	-9.8991	0.8677	A+	A-	A-
MATH	4	808759	366634	2	B-O	2	13769	0.42	0.17	0.24	0.16	0.42	0.00	0.26	-0.15	-0.17	0.02	0.2553	0.4706	0.0195	9.9012	1.2096	9.9013	1.2873	A+	A-	A-
MATH	4	808763	225390	2	B-O	1	13769	0.67	0.13	0.07	0.67	0.13	0.00	0.45	-0.26	-0.19	0.45	-0.2095	-0.8330	0.0201	-5.6190	0.9526	-4.8591	0.9211	A+	A-	A-
MATH	4	808775	746525	2	B-O	2	13769	0.25	0.36	0.12	0.25	0.27	0.00	0.08	0.04	-0.14	0.08	-0.0115	1.4365	0.0219	9.9013	1.3094	9.9018	1.8438	A-	A+	A+
MATH	4	808787	203735	2	C-G	1	13769	0.40	0.25	0.11	0.24	0.40	0.00	0.28	-0.09	-0.23	-0.06	0.2845	0.5790	0.0196	9.9012	1.1824	9.9013	1.2565	A+	A-	A-
MATH	4	808799	804966	2	D-M	1	13769	0.62	0.22	0.09	0.07	0.62	0.00	0.57	-0.37	-0.24	-0.21	0.5663	-0.5297	0.0196	-9.8992	0.8315	-9.8992	0.7801	A+	B-	A-
MATH	4	808802	932134	2	D-M	2	13769	0.28	0.42	0.10	0.20	0.28	0.00	0.48	-0.26	-0.21	-0.06	0.4827	1.2906	0.0213	-9.8991	0.8716	-2.3190	0.9594	A-	A-	A-
MATH	4	713470	995097	3	A-T	2	13847	0.39	0.24	0.21	0.15	0.39	0.00	0.43	-0.14	-0.18	-0.21	0.4275	0.6761	0.0196	-2.6190	0.9780	1.9310	1.024	A-	A-	A-
MATH	4	714162	414887	3	B-O	2	13847	0.66	0.11	0.11	0.66	0.12	0.00	0.40	-0.19	-0.11	0.40	-0.2848	-0.7250	0.0199	0.5110	1.0042	3.7311	1.0576	A+	A-	A-
MATH	4	714233	466102	3	B-O	2	13847	0.38	0.26	0.20	0.15	0.38	0.00	0.46	-0.22	-0.17	-0.16	0.4640	0.7063	0.0197	-7.4091	0.9382	-2.3190	0.9711	A-	A-	A-
MATH	4	808564	967713	3	A-F	2	13847	0.33	0.23	0.35	0.09	0.33	0.00	0.49	-0.24	-0.19	-0.12	0.4884	0.9799	0.0202	-9.8991	0.8893	-4.9191	0.9303	A+	A-	A-
MATH	4	808590	578329	3	A-T	1	13847	0.34	0.16	0.13	0.37	0.34	0.00	0.35	-0.20	-0.18	-0.06	0.3473	0.9302	0.0201	7.0211	1.0650	9.9012	1.1503	A-	A+	A+
MATH	4	808651	329158	3	A-F	2	13847	0.51	0.51	0.15	0.05	0.27	0.02	0.54	0.54	-0.14	-0.23	-0.3690	0.0437	0.0191	-9.8991	0.8711	-9.8992	0.8478	A-	B-	A-
MATH	4	808652	855535	3	D-M	1	13847	0.19	0.19	0.14	0.42	0.25	0.00	0.06	0.06	-0.12	0.01	0.0321	1.9024	0.0238	9.9013	1.2792	9.9020	1.9982	A+	A+	A+
MATH	4	808756	994419	3	B-O	2	13847	0.70	0.13	0.70	0.11	0.07	0.00	0.38	-0.11	0.38	-0.25	-0.2333	-0.9476	0.0204	0.9610	1.0087	3.6011	1.0635	A+	A-	A-
MATH	4	808767	922114	3	B-O	2	13847	0.25	0.21	0.25	0.22	0.31	0.00	0.03	-0.10	0.03	0.02	0.0501	1.4906	0.0219	9.9014	1.3759	9.9019	1.9036	A-	A-	A-
MATH	4	808784	864625	3	C-G	2	13847	0.35	0.32	0.19	0.35	0.14	0.00	0.18	-0.02	-0.05	0.18	-0.1615	0.8975	0.0201	9.9013	1.2713	9.9014	1.4441	A+	A-	A+
MATH	4	808789	926733	3	C-G	2	13847	0.62	0.16	0.11	0.62	0.11	0.00	0.45	-0.22	-0.20	0.45	-0.2416	-0.5098	0.0195	-5.3790	0.9575	-4.1291	0.9453	A+	A-	A-
MATH	4	808864	792291	3	D-M	2	13847	0.13	0.07	0.13	0.60	0.20	0.00	-0.24	-0.25	-0.24	0.26	0.0408	2.4417	0.0273	9.9015	1.4520	9.9037	3.7287	A-	A+	A+
MATH	4	713031	908391	4	A-T	1	13779	0.62	0.08	0.18	0.12	0.62	0.00	0.51	-0.27	-0.25	-0.22	0.5059	-0.5190	0.0196	-9.8991	0.9061	-9.8991	0.8648	A-	A-	A-
MATH	4	713032	423033	4	A-F	2	13779	0.56	0.12	0.56	0.12	0.20	0.00	0.57	-0.31	0.57	-0.17	-0.3181	-0.2171	0.0193	-9.8992	0.8407	-9.8992	0.7873	A+	A-	A-
MATH	4	808576	802417	4	A-F	2	13779	0.36	0.31	0.19	0.36	0.13	0.00	0.51	-0.30	-0.19	0.51	-0.0818	0.8049	0.0200	-9.8991	0.8732	-5.3391	0.93	A-	A-	A-
MATH	4	808580	808001	4	A-T	2	13779	0.16	0.28	0.18	0.16	0.37	0.00	-0.08	0.06	-0.19	-0.08	0.1568	2.1774	0.0255	9.9014	1.4029	9.9027	2.7441	A-	A+	A+
MATH	4	808589	580975	4	A-T	1	13779	0.71	0.08	0.12	0.09	0.71	0.00	0.49	-0.30	-0.22	-0.23	0.4889	-1.0442	0.0207	-9.8991	0.8900	-8.2591	0.8525	A-	A-	A-
MATH	4	808656	529513	4	A-F	2	13779	0.41	0.32	0.41	0.11	0.16	0.00	0.27	-0.03	0.27	-0.21	-0.1437	0.5510	0.0196	9.9012	1.1821	9.9013	1.27	A-	A-	A-
MATH	4	808760	886610	4	B-O	2	13779	0.61	0.09	0.09	0.61	0.21	0.00	0.42	-0.29	-0.26	0.42	-0.1109	-0.4841	0.0196	0.5710	1.0046	-1.0990	0.985	A-	A-	A-
MATH	4	808776	677993	4	B-O	2	13779	0.38	0.21	0.16	0.24	0.38	0.01	0.29	-0.10	-0.10	-0.13	0.2924	0.7275	0.0199	9.9011	1.1396	9.9013	1.2585	A-	A-	A-
MATH	4	808780	769582	4	B-O	2	13779	0.71	0.10	0.71	0.09	0.10	0.00	0.48	-0.21	0.48	-0.24	-0.2657	-1.0053	0.0206	-9.8991	0.9114	-9.5992	0.8338	A+	A+	A+
MATH	4	808788	634254	4	D-M	2	13779	0.16	0.24	0.16	0.49	0.11	0.00	-0.06	-0.08	-0.06	0.21	-0.1288	2.2062	0.0257	9.9014	1.3730	9.9027	2.6748	A+	A-	A+
MATH	4	808792	622135	4	C-G	2	13779	0.29	0.29	0.07	0.34	0.29	0.00	0.15	0.15	-0.20	-0.01	-0.0198	1.2289	0.0211	9.9013	1.2806	9.9016	1.5939	A+	A-	A-
MATH	4	808801	290173	4	D-M	1	13779	0.42	0.42	0.18	0.21	0.18	0.00	0.40	0.40	-0.16	-0.18	-0.1556	0.5001	0.0195	3.9310	1.0329	6.5511	1.0792	A-	A-	A+
MATH	4	713477	471914	5	C-G	1	13823	0.60	0.60	0.11	0.13	0.15	0.00	0.46	0.46	-0.21	-0.28	-0.1749	-0.4086	0.0195	-6.6490	0.9632	-3.3590	0.9553	A+	A-	A-
MATH	4	713746	342774	5	A-F	2	13823	0.44	0.28	0.19	0.09	0.44	0.00	0.52	-0.25	-0.27	-0.14	0.5175	0.4245	0.0194	-9.8991	0.8989	-9.8991	0.8891	A-	A-	A-
MATH	4	714163	826462	5	C-G	2	13823	0.51	0.12	0.18	0.19	0.51	0.00	0.33	-0.14	-0.16	-0.15	0.3344	0.0840	0.0193	9.9011	1.1223	9.9011	1.1234	A+	A-	A-
MATH	4	794398	410121	5	D-M	1	13823	0.30	0.30	0.37	0.20	0.11	0.02	0.28	0.28	0.02	-0.19	-0.1935	1.2258	0.0209	9.9011	1.1396	9.9013	1.328	A+	A-	A-
MATH	4	794401	541830	5	A-T	3	13823	0.30	0.18	0.30	0.10	0.41	0.00	0.13	-0.09	0.13	-0.16	0.0457	1.1878	0.0208	9.9013	1.3255	9.9016	1.6227	A-	A+	A+
MATH	4	808578	583901	5	A-F	1	13823	0.61	0.61	0.15	0.15	0.09	0.00	0.56	0.56	-0.29	-0.37	-0.1152	-0.4292	0.0195	-9.8991	0.8546	-9.8992	0.7922	A-	A+	A-
MATH	4	808588	606750	5	A-T	1	13823	0.54	0.07	0.18	0.54	0.20	0.00	0.47	-0.29	-0.29	0.47	-0.1155	-0.1082	0.0193	-4.6390	0.9640	-4.9691	0.9419	A-	A-	A-
MATH	4	808654	537460	5	A-F	2	13823	0.46	0.09	0.37	0.46	0.07	0.00	0.41	-0.22	-0.18	0.41	-0.1788	0.2995	0.0193	4.4510	1.0362	4.3711	1.0503	A-	A-	A-
MATH	4	808761	888398	5	B-O	2	13823	0.41	0.20	0.14	0.25	0.41	0.00	0.49	-0.35	-0.19	-0.08	0.4944	0.5675	0.0196	-9.2391	0.9244	-6.7791	0.9205	A+	A-	A-
MATH	4	808768	625184	5	B-O	2	13823	0.35	0.15	0.35	0.25	0.24	0.00	0.16	-0.08	0.16	-0.21	0.1088	0.9046	0.0201	9.9013	1.3239	9.9015	1.4997	A+	A-	A-
MATH	4	808779	967560	5	B-O	2	13823	0.36	0.08	0.08	0.47	0.36	0.00	0.53	-0.13	-0.21	-0.31	0.5262	0.8397	0.0200	-9.8991	0.8551	-7.6391	0.9001	A-	A-	A-
MATH	4	808800	390863	5	D-M	2	13823	0.15	0.31	0.15	0.29	0.25	0.00	-0.03	-0.14	-0.03	0.12	0.0683	2.2760	0.0259	9.9013	1.3408	9.9026	2.6226	A-	A+	A+
MATH	4	713753	714376	6	B-O	2	13790	0.68	0.68	0.15	0.08	0.09	0.00	0.54	0.54	-0.29	-0.26	-0.2661	-0.8337	0.0202	-9.8992	0.8487	-9.8993	0.7446	A+	A+	A-

ContArea	FormGrade	ItemID	PubID	FormNumber	Standard1	Depth	N	PValue	ProportionA	ProportionB	ProportionC	ProportionD	ProportionOMITS	PtBiserial	CorrelationA	CorrelationB	CorrelationC	CorrelationD	FinalB	FinalBErr	Infit	InfitMnSq	Outfit	OutfitMnSq	BiasCodeMALEFEMALE	BiasCodeWHITEBLACK	BiasCodeWHITEHISPANIC
MATH	4	714187	463593	6	D-M	2	13790	0.41	0.14	0.41	0.25	0.19	0.00	0.33	-0.16	0.33	-0.10	-0.1393	0.5797	0.0195	9.9011	1.1043	9.9012	1.1682	A-	A-	A-
MATH	4	715542	855541	6	A-T	2	13790	0.46	0.33	0.46	0.12	0.08	0.00	0.31	0.00	0.31	-0.24	-0.2675	0.3344	0.0193	9.9011	1.1432	9.9012	1.1842	A-	A+	A+
MATH	4	808574	654360	6	A-F	2	13790	0.30	0.13	0.34	0.22	0.30	0.00	0.14	-0.17	0.04	-0.06	0.1447	1.1675	0.0207	9.9013	1.3110	9.9015	1.5109	A-	A-	A-
MATH	4	808581	485933	6	A-T	2	13790	0.24	0.26	0.24	0.25	0.24	0.00	0.07	-0.03	-0.10	0.06	0.0739	1.5575	0.0221	9.9014	1.3619	9.9017	1.7404	A+	A-	A-
MATH	4	808584	648541	6	A-T	2	13790	0.39	0.16	0.23	0.39	0.21	0.00	0.28	-0.25	0.03	0.28	-0.1428	0.6501	0.0196	9.9011	1.1497	9.9013	1.2619	A-	A-	A-
MATH	4	808655	771701	6	A-F	2	13790	0.44	0.21	0.44	0.18	0.16	0.01	0.49	-0.10	0.49	-0.28	-0.2497	0.4276	0.0193	-9.8991	0.9161	-6.4191	0.9298	A-	A+	A-
MATH	4	808757	307191	6	B-O	2	13790	0.43	0.43	0.28	0.18	0.10	0.00	0.40	0.40	-0.24	-0.14	-0.1048	0.4692	0.0194	2.4010	1.0196	4.6011	1.0529	A-	A-	A-
MATH	4	808770	122225	6	B-O	2	13790	0.54	0.12	0.21	0.54	0.12	0.00	0.47	-0.19	-0.21	0.47	-0.2523	-0.0799	0.0192	-5.8790	0.9553	-6.0991	0.9327	A-	A-	A-
MATH	4	808782	730607	6	C-G	2	13790	0.20	0.20	0.23	0.12	0.44	0.00	0.13	0.13	0.00	-0.11	-0.0246	1.8535	0.0234	9.9012	1.1722	9.9018	1.8441	A-	A+	A-
MATH	4	808793	594104	6	C-G	2	13790	0.19	0.44	0.19	0.12	0.24	0.00	0.21	-0.13	0.21	-0.01	-0.0348	1.8828	0.0236	8.4811	1.1160	9.9015	1.5229	A-	A-	A-
MATH	4	808803	284789	6	D-M	1	13790	0.37	0.14	0.32	0.37	0.16	0.00	0.30	-0.10	-0.17	0.30	-0.0721	0.8033	0.0199	9.9011	1.1232	9.9012	1.2293	A-	A-	A-
MATH	4	714547	466935	7	A-F	1	13829	0.69	0.07	0.10	0.14	0.69	0.00	0.50	-0.25	-0.23	-0.28	0.5015	-0.9033	0.0203	-9.8991	0.8898	-9.8992	0.8174	A+	A-	A+
MATH	4	715539	985190	7	D-M	1	13829	0.46	0.18	0.20	0.46	0.15	0.02	0.36	-0.15	-0.19	0.36	-0.1292	0.3276	0.0192	9.3011	1.0745	9.7611	1.1112	A-	A-	A-
MATH	4	794400	263643	7	A-F	1	13829	0.40	0.40	0.13	0.30	0.17	0.00	0.50	0.50	-0.15	-0.24	-0.2112	0.6277	0.0195	-9.8991	0.8959	-6.8791	0.9196	A-	A-	A-
MATH	4	794406	759970	7	C-G	2	13829	0.21	0.05	0.21	0.44	0.29	0.00	0.30	-0.12	0.30	0.04	-0.2476	1.7446	0.0230	2.0310	1.0257	9.9013	1.2968	A+	A-	A-
MATH	4	794407	558981	7	D-M	2	13829	0.32	0.22	0.28	0.32	0.17	0.00	0.26	-0.13	0.00	0.26	-0.1703	1.0374	0.0204	9.9012	1.1541	9.9013	1.2989	A+	A-	A-
MATH	4	808566	203098	7	A-T	2	13829	0.28	0.17	0.28	0.16	0.38	0.00	0.11	-0.20	0.11	-0.15	0.1757	1.2679	0.0211	9.9013	1.2929	9.9016	1.632	A-	A-	A+
MATH	4	808572	343242	7	A-F	2	13829	0.30	0.20	0.32	0.30	0.18	0.00	0.18	-0.07	-0.03	0.18	-0.0901	1.1473	0.0207	9.9012	1.2330	9.9015	1.505	A-	A+	A-
MATH	4	808583	530497	7	A-T	2	13829	0.16	0.27	0.16	0.39	0.18	0.00	-0.04	0.13	-0.04	-0.06	-0.0374	2.1531	0.0253	9.9013	1.3215	9.9024	2.4153	A-	A+	A+
MATH	4	808766	126098	7	B-O	2	13829	0.52	0.14	0.21	0.13	0.52	0.00	0.32	-0.09	-0.16	-0.19	0.3241	-0.0011	0.0191	9.9011	1.1172	9.9011	1.1295	A+	A-	A-
MATH	4	808769	301788	7	B-O	1	13829	0.33	0.33	0.32	0.18	0.17	0.00	0.19	0.19	-0.11	0.04	-0.1320	0.9850	0.0202	9.9012	1.2334	9.9014	1.4059	A-	A-	A-
MATH	4	808777	101388	7	B-O	2	13829	0.18	0.29	0.39	0.13	0.18	0.00	0.03	-0.08	0.15	-0.12	0.0292	2.0046	0.0244	9.9013	1.3048	9.9021	2.0795	A-	A+	A+
MATH	4	808795	981524	7	D-M	2	13829	0.18	0.17	0.15	0.49	0.18	0.00	0.22	-0.27	-0.22	0.20	0.2204	1.9575	0.0241	4.3611	1.0618	9.9016	1.6134	A-	A-	A-
MATH	4	714186	975588	8	C-G	1	13820	0.46	0.20	0.23	0.10	0.46	0.00	0.51	-0.23	-0.27	-0.16	0.5147	0.3154	0.0194	-9.8991	0.9106	-8.9791	0.8999	A+	A-	A-
MATH	4	714545	195926	8	A-T	2	13820	0.54	0.13	0.54	0.20	0.13	0.00	0.48	-0.18	0.48	-0.23	-0.2525	-0.1286	0.0193	-6.8291	0.9474	-6.9791	0.9176	A-	A-	A-
MATH	4	808567	755577	8	A-F	1	13820	0.51	0.10	0.26	0.12	0.51	0.00	0.44	-0.28	-0.11	-0.27	0.4448	0.0548	0.0193	0.0810	1.0006	-0.5990	0.993	A+	A-	A-
MATH	4	808571	636531	8	A-T	1	13820	0.55	0.13	0.55	0.23	0.08	0.00	0.42	-0.10	0.42	-0.26	-0.2209	-0.1382	0.0193	3.2810	1.0259	2.1610	1.0265	A-	A-	A-
MATH	4	808577	206364	8	A-F	2	13820	0.48	0.19	0.16	0.16	0.48	0.00	0.45	-0.29	-0.15	-0.14	0.4538	0.1831	0.0193	-1.5590	0.9876	-0.3090	0.9964	A-	A-	A-
MATH	4	808676	192814	8	A-T	2	13820	0.30	0.30	0.43	0.07	0.20	0.00	0.29	0.29	-0.19	-0.23	0.0510	1.1970	0.0209	9.6311	1.1001	9.9013	1.341	A-	A-	A-
MATH	4	808764	388002	8	B-O	2	13820	0.20	0.43	0.28	0.20	0.09	0.00	0.11	-0.09	0.09	0.11	-0.1304	1.8666	0.0236	9.9013	1.2497	9.9020	1.9541	A-	A-	A+
MATH	4	808771	936536	8	B-O	2	13820	0.35	0.38	0.16	0.35	0.11	0.00	0.29	-0.06	-0.12	0.29	-0.2096	0.8756	0.0201	9.9011	1.1394	9.9013	1.3126	A-	A-	A+
MATH	4	808772	320757	8	B-O	2	13820	0.58	0.08	0.16	0.17	0.58	0.00	0.50	-0.16	-0.19	-0.35	0.5036	-0.3263	0.0194	-9.8991	0.9208	-7.7491	0.9017	A+	A-	A+
MATH	4	808791	721597	8	C-G	2	13820	0.17	0.41	0.17	0.18	0.23	0.00	0.27	0.14	0.27	-0.23	-0.1789	2.1324	0.0251	3.2510	1.0489	9.9015	1.4587	A-	A-	A+
MATH	4	808798	686463	8	D-M	2	13820	0.49	0.49	0.18	0.17	0.14	0.02	0.22	0.22	-0.15	0.00	-0.1349	0.1377	0.0193	9.9013	1.2621	9.9013	1.317	A-	A-	A-
MATH	4	808804	688761	8	D-M	2	13820	0.88	0.05	0.88	0.03	0.03	0.00	0.37	-0.20	0.37	-0.22	-0.1930	-2.2900	0.0275	-5.4891	0.9048	-3.2391	0.8802	A+	B-	A-
MATH	4	714229	843205	9	A-T	2	13812	0.38	0.15	0.11	0.38	0.35	0.00	0.32	0.03	-0.10	0.32	-0.2753	0.7011	0.0198	9.9011	1.1066	9.9012	1.1995	A-	A-	A-
MATH	4	714546	133069	9	A-F	2	13812	0.34	0.07	0.36	0.34	0.20	0.02	0.43	-0.13	-0.40	0.43	0.0709	0.9230	0.0202	-2.1490	0.9803	1.1210	1.0158	A-	A-	A-
MATH	4	794403	781926	9	B-O	1	13812	0.36	0.24	0.26	0.13	0.36	0.00	0.31	-0.24	0.06	-0.20	0.3126	0.7896	0.0199	9.9011	1.1311	9.9012	1.2118	A-	A-	A-
MATH	4	808568	700530	9	A-F	1	13812	0.55	0.09	0.12	0.24	0.55	0.00	0.49	-0.13	-0.28	-0.26	0.4909	-0.1513	0.0192	-9.0191	0.9320	-8.7891	0.9003	A+	A-	A-
MATH	4	808569	485308	9	A-T	2	13812	0.31	0.20	0.33	0.15	0.31	0.00	0.16	-0.13	0.10	-0.18	0.1632	1.0877	0.0206	9.9013	1.2849	9.9015	1.4717	A+	A+	A-
MATH	4	808579	445041	9	D-M	2	13812	0.74	0.12	0.08	0.74	0.06	0.00	0.33	-0.21	-0.12	0.33	-0.1668	-1.2180	0.0212	4.6310	1.0467	2.0810	1.0437	A+	A-	A-
MATH	4	808650	862074	9	A-F	1	13812	0.77	0.11	0.77	0.06	0.05	0.00	0.38	-0.19	0.38	-0.23	-0.1894	-1.4363	0.0221	-2.5290	0.9723	-3.8191	0.9125	A+	A-	A+
MATH	4	808658	570374	9	A-T	1	13812	0.59	0.09	0.16	0.59	0.16	0.00	0.43	-0.24	-0.21	0.43	-0.1773	-0.3578	0.0193	-1.3890	0.9892	-1.2490	0.984	A-	A-	A-
MATH	4	808773	381187	9	B-O	1	13812	0.57	0.57	0.24	0.10	0.08	0.00	0.49	0.49	-0.33	-0.15	-0.1956	-0.2676	0.0193	-9.1091	0.9311	-8.8891	0.8949	A-	A-	A-
MATH	4	808783	486987	9	C-G	2	13812	0.17	0.15	0.55	0.17	0.13	0.00	-0.05	-0.19	0.26	-0.05	-0.1226	2.0499	0.0247	9.9014	1.3674	9.9025	2.4693	A-	A+	A+
MATH	4	808785	338564	9	C-G	1	13812	0.59	0.59	0.12	0.11	0.18	0.00	0.39	0.39	-0.24	-0.23	-0.1108	-0.3687	0.0194	4.7010	1.0371	3.3710	1.0437	A+	A-	A-
MATH	4	808867	988778	9	D-M	2	13812	0.09	0.13	0.09	0.44	0.33	0.00	-0.06	-0.18	-0.06	0.46	-0.3253	2.8833	0.0313	9.9013	1.2639	9.9030	3.0286	A-	A+	A-
MATH	5	651088	604103	0	B-O	2	122242	0.73	0.73	0.09	0.11	0.07	0.00	0.47	0.47	-0.23	-0.26	-0.2325	-0.9409	0.0070	-9.8991	0.8836	-9.8992	0.769			
MATH	5	654555	642379	0	A-T	1	122242	0.68	0.68	0.09	0.07	0.15	0.00	0.43	0.43	-0.24	-0.24	-0.1852	-0.7820	0.0068	-8.9590	0.9741	-9.0191	0.9436			
MATH	5	655833	627559	0	C-G	1	122242	0.67	0.08	0.07	0.67	0.18	0.00	0.40	-0.17	-0.23	0.40	-0.2063	-0.6456	0.0067	0.8110	1.0023	5.0410	1.0299			
MATH	5	656075	845150	0	B-O	2	122242	0.54	0.13	0.16	0.54	0.17	0.00	0.45	-0.15	-0.28	0.45	-0.1900	0.0062	0.0065	-7.8290	0.9802	-9.1590	0.9619			
MATH	5	656308	333939	0	C-G	2	122242	0.60	0.60	0.14	0.15	0.10	0.00	0.34	0.34	-0.10	-0.17	-0.2201	-0.3529	0.0066	9.9011	1.0894	9.9012	1.2423			
MATH	5	656864	150051	0	C-G	2	122242	0.63	0.05	0.09	0.23	0.63	0.00	0.46	-0.22	-0.28	-0.21	0.4554	-0.4212	0.0066	-9.8991	0.9403	-2.5890	0.9866			
MATH	5	657092	676653	0	A-F	2	122242	0.48	0.48	0.23	0.13	0.15	0.00	0.37	0.37	-0.12	-0.20	-0.1778	0.3966	0.0065	9.9011	1.0747	9.9011	1.0777			
MATH	5	657110	127862	0	A-T	2	122242	0.61	0.13	0.61	0.10	0.16	0.00	0.61	-0.26	0.61	-0.24	-0.3766	-0.3631	0.0066	-9.8992	0.7844	-9.8993	0.7061			
MATH	5	657112	124935	0	A-F	2	122242	0.59	0.59	0.12	0.20	0.09	0.00	0.52	0.52	-0.24	-0.34	-0.1374	-0.1228	0.0065	-9.8991	0.8893	-9.8991	0.8507			
MATH	5	682658	779621	0	A-T	2	122242	0.34	0.11	0.33	0.34	0.22	0.00	0.37	-0.20	-0.08	0.37	-0.1832	1.1366	0.0069	9.9010	1.0387	9.9012	1.1683			
MATH	5	682659	841244	0	A-T	2	122242	0.54	0.12	0.25	0.08	0.54	0.00	0.57	-0.08	-0.44	-0.24	0.5691	0.0531	0.0065	-9.8992	0.8426	-9.8992	0.8082			
MATH	5	682688	474166	0	B-O	2	122242	0.33	0.29	0.31	0.07	0.33	0.00	0.40	-0.34	-0.05	-0.03	0.3963	1.1196	0.0068	9.4810	1.0308	9.9011	1.0695			
MATH	5	696706	660222	0	A-F	2	122242	0.65	0.18	0.11	0.65	0.06	0.00	0.37	-0.23	-0.15	0.37	-0.1547	-0.4968	0.0066	9.9010	1.0438	-2.8890	0.9844			
MATH	5	696708	488994	0	D-M	2	122242	0.46	0.19	0.18	0.16	0.46	0.00	0.61	-0.30	-0.27	-0.22	0.6057	0.4984	0.0065	-9.8992	0.8069	-9.8992	0.7757			
MATH	5	696712	136355	0	B-O	1	122242	0.84	0.04	0.02	0.10	0.84	0.00	0.35	-0.17	-0.14	-0.25	0.3496	-1.7483	0.0083	-9.8991	0.9400	-9.8991	0.8597			
MATH	5	700473	907095	0	A-T	2	122242	0.74	0.07	0.74	0.09	0.09	0.00	0.49	-0.24	0.49	-0.24	-0.2811	-1.1107	0.0072	-9.8991	0.8865	-9.8992	0.788			
MATH	5	700481	795803	0	A-T	2	122242	0.47	0.07	0.47	0.23	0.23	0.00	0.47	-0.16	0.47	-0.19	-0.2688	0.4576	0.0065	-9.8990	0.9655	-9.8990	0.9566			
MATH	5	700492	612963	0	A-F	2	122242	0.40	0.30	0.19	0.10	0.40	0.00	0.44	-0.21	-0.17	-0.16	0.4354	0.7419	0.0066	1.3710	1.0039	1.8010	1.0073			
MATH	5	700518	374508	0	A-F	2	122242	0.30	0.20	0.30	0.27	0.23	0.00	0.22	-0.09	0.22	-0.17	0.0286	1.3830	0.0071	9.9013	1.2510	9.9015	1.4815			
MATH	5	700519	190287	0	A-F	2	122242	0.37	0.15	0.33	0.37	0.15	0.00	0.30	-0.15	-0.10	0.30	-0.1169	0.9706	0.0067	9.9012	1.1527	9.9013	1.2749			
MATH	5	700526	771114	0	A-F	2	122242	0.38	0.11	0.33	0.38	0.18	0.00	0.34	-0.23	-0.04	0.34	-0.1845	0.9270	0.0067	9.9011	1.1216	9.9012	1.1924			
MATH	5	700528	424623	0	B-O	2	122242	0.46	0.46	0.11	0.35	0.08	0.00	0.42	0.42	-0.30	-0.13	-0.1925	0.4053	0.0065	8.9510	1.0240	9.9011	1.0495			
MATH	5	700530	952646	0	A-T	2	122242	0.74	0.15	0.06	0.04	0.74	0.00	0.43	-0.27	-0.23	-0.18	0.4309	-1.0956	0.0072	-9.8991	0.9327	-9.8991	0.9025			
MATH	5	701848	186139	0	A-T	2	122242	0.45	0.38	0.45	0.08	0.10	0.00	0.38	-0.13	0.38	-0.22	-0.2182	0.5070	0.0065	9.9011	1.0650	9.9011	1.0914			
MATH	5	701849	715340	0	A-F	1	122242	0.72	0.72	0.06	0.15	0.06	0.00	0.41	-0.21	-0.24	-0.24	-0.1930	-0.8849	0.0069	-9.8991	0.9485	-9.8991	0.8671			
MATH	5	701876	322626	0	A-F	1	122242	0.69	0.11	0.09	0.11	0.69	0.00	0.50	-0.31	-0.22	-0.23	0.5031	-0.7688	0.0068	-9.8991	0.8786	-9.8992	0.8014			
MATH	5	701893	398510	0	C-G	2	122242	0.57	0.23	0.11	0.57	0.09	0.00	0.49	-0.33	-0.16	0.49	-0.1868	-0.0587	0.0065	-9.8991	0.9226	-9.8991	0.8922			
MATH	5	701930	559731	0	B-O	2	122242	0.30	0.30	0.26	0.20	0.24	0.00	0.24	0.24	-0.10	-0.03	-0.1358	1.3856	0.0071	9.9012	1.1924	9.9014	1.4385			
MATH	5	701936	762300	0	A-T	2	122242	0.32	0.30	0.24	0.32	0.13	0.00	0.28	0.06	-0.18	0.28	-0.2371	1.1366	0.0069	9.9011	1.1387	9.9013	1.2918			
MATH	5	701937	197847	0	B-O	1	122242	0.83	0.05	0.08	0.83	0.04	0.00	0.44	-0.25	-0.26	0.44	-0.1940	-1.6201	0.0080	-9.8992	0.8462	-9.8993	0.6645			
MATH	5	703065	146913	0	C-G	1	122242	0.78	0.06	0.10	0.05	0.78	0.01	0.47	-0.25	-0.27	-0.24	0.4697	-1.2927	0.0074	-9.8991	0.8534	-9.8993	0.7243			
MATH	5	703070	115783	0	C-G	2	122242	0.50	0.17	0.50	0.15	0.17	0.00	0.45	-0.20	0.45	-0.22	-0.1933	0.2658	0.0065	-7.6690	0.9802	-6.6090	0.9743			
MATH	5	703074	331718	0	D-M	2	122242	0.39	0.20	0.16	0.39	0.24	0.00	0.51	-0.24	-0.02	0.51	-0.3421	0.8336	0.0066	-9.8991	0.9186	-9.8991	0.913			
MATH	5	703075	116288	0	D-M	1	122242	0.37	0.25	0.22	0.16	0.37	0.00	0.56	-0.36	-0.19	-0.09	0.5569	0.9451	0.0067	-9.8992	0.8452	-9.8991	0.8524			
MATH	5	703076	879189	0	A-T	1	122242	0.68	0.68	0.10	0.11	0.11	0.00	0.42	0.42	-0.22	-0.24	-0.1759	-0.6483	0.0067	-9.8990	0.9664	-9.8991	0.917			
MATH	5	703107	609271	0	B-O	2	122242	0.62	0.62	0.23	0.08	0.06	0.00	0.48	0.48	-0.28	-0.22	-0.2083	-0.3478	0.0066	-9.8991	0.9239	-9.8991	0.9269			
MATH	5	703139	179745	0	D-M	1	122242	0.68	0.23	0.68	0.06	0.04	0.00	0.53	-0.39	0.53	-0.22	-0.1752	-0.6386	0.0067	-9.8992	0.8453	-9.8993	0.7356			
MATH	5	711161	640320	0	D-M	2	122242	0.36	0.36	0.32	0.11	0.20	0.00	0.23	0.23	-0.10	-0.16	-0.0281	1.0438	0.0068	9.9012	1.2339	9.9014	1.3889			
MATH	5	713185	426032	0	A-T	2	122242	0.36	0.28	0.36	0.30	0.06	0.00	0.42	-0.29	0.42	-0.08	-0.1304	0.9957	0.0068	4.7510	1.0148	9.9011	1.0703			
MATH	5	713334	400103	0	A-T	2	122242	0.74	0.11	0.09	0.06	0.74	0.00	0.50	-0.28	-0.27	-0.23	0.5045	-0.8762	0.0069	-9.8992	0.8097	-9.8993	0.6742			
MATH	5	713337	402169	0	A-F	2	122242	0.38	0.07	0.38	0.10	0.44	0.00	0.25	-0.21	0.25	-0.18	-0.0287	0.8387	0.0067	9.9012	1.2079	9.9013	1.2895			

ContArea	FormGrade	ItemID	PubID	FormNumber	Standard1	Depth	N	PValue	ProportionA	ProportionB	ProportionC	ProportionD	ProportionOMITS	PtBiserial	CorrelationA	CorrelationB	CorrelationC	CorrelationD	FinalB	FinalBErr	Infit	InfitMnSq	Outfit	OutfitMnSq	BiasCodeMALEFEMALE	BiasCodeWHITEBLACK	BiasCodeWHITEHISPANIC
MATH	5	713780	731975	0	B-O	2	122242	0.61	0.11	0.16	0.11	0.61	0.00	0.42	-0.26	-0.18	-0.17	0.4196	-0.3464	0.0066	0.9610	1.0025	0.4910	1.0024			
MATH	5	713781	427071	0	B-O	2	122242	0.36	0.24	0.25	0.36	0.15	0.00	0.39	-0.17	-0.28	0.39	0.0241	1.0329	0.0068	9.9010	1.0421	9.9011	1.1247			
MATH	5	713783	552745	0	C-G	2	122242	0.58	0.07	0.22	0.13	0.58	0.00	0.46	-0.21	-0.19	-0.28	0.4638	-0.2047	0.0065	-9.8990	0.9562	-9.8991	0.9484			
MATH	5	713789	232907	0	A-F	1	122242	0.37	0.05	0.37	0.16	0.41	0.00	0.46	-0.09	0.46	-0.16	-0.2872	0.8688	0.0067	-9.8990	0.9635	-8.6190	0.9637			
MATH	5	713925	814804	0	A-T	1	122242	0.79	0.07	0.04	0.10	0.79	0.00	0.36	-0.19	-0.16	-0.22	0.3591	-1.3282	0.0075	-9.8990	0.9576	-6.2991	0.9466			
MATH	5	713934	761064	0	B-O	2	122242	0.46	0.46	0.17	0.27	0.10	0.00	0.40	0.40	-0.14	-0.18	-0.2015	0.4460	0.0065	9.9010	1.0458	9.9011	1.0504			
MATH	5	713935	597280	0	C-G	1	122242	0.76	0.11	0.06	0.76	0.07	0.00	0.39	-0.22	-0.18	0.39	-0.2064	-1.1980	0.0073	-5.4890	0.9807	-3.7890	0.9699			
MATH	5	714051	705239	0	D-M	2	122242	0.46	0.11	0.46	0.35	0.07	0.00	0.47	-0.17	0.47	-0.27	-0.1837	0.4589	0.0065	-9.8990	0.9610	-9.8990	0.9557			
MATH	5	714169	944028	0	C-G	1	122242	0.63	0.19	0.12	0.07	0.63	0.00	0.26	-0.02	-0.21	-0.20	0.2649	-0.3590	0.0066	9.9011	1.1470	9.9013	1.3208			
MATH	5	714214	633859	0	A-F	1	122242	0.52	0.08	0.06	0.52	0.33	0.00	0.53	-0.22	-0.18	0.53	-0.3405	0.1597	0.0064	-9.8991	0.8900	-9.8992	0.8466			
MATH	5	714415	196137	0	C-G	1	122242	0.82	0.02	0.12	0.03	0.82	0.00	0.38	-0.14	-0.30	-0.14	0.3757	-1.6246	0.0080	-9.8991	0.9244	-9.8991	0.8761			
MATH	5	714514	535486	0	A-T	1	122242	0.71	0.09	0.71	0.11	0.09	0.00	0.42	-0.16	0.42	-0.24	-0.2328	-0.8864	0.0069	-9.8990	0.9519	-8.1791	0.9457			
MATH	5	714520	997546	0	D-M	1	122242	0.57	0.11	0.27	0.57	0.05	0.00	0.51	-0.35	-0.23	0.51	-0.1908	-0.0694	0.0065	-9.8991	0.9003	-9.8992	0.8453			
MATH	5	714778	702392	0	A-F	1	122242	0.72	0.72	0.11	0.05	0.10	0.00	0.50	0.50	-0.28	-0.19	-0.2813	-0.9984	0.0071	-9.8991	0.8898	-9.8992	0.7614			
MATH	5	714781	748467	0	A-F	2	122242	0.52	0.14	0.52	0.10	0.23	0.00	0.30	-0.05	0.30	-0.27	-0.1094	0.1526	0.0064	9.9012	1.1620	9.9012	1.2118			
MATH	5	714784	907093	0	C-G	1	122242	0.75	0.04	0.07	0.75	0.14	0.00	0.46	-0.15	-0.23	0.46	-0.3209	-1.0663	0.0071	-9.8991	0.8755	-9.8992	0.8145			
MATH	5	714785	485204	0	D-M	2	122242	0.64	0.05	0.10	0.21	0.64	0.00	0.51	-0.25	-0.29	-0.25	0.5128	-0.3886	0.0066	-9.8991	0.8684	-9.8992	0.8023			
MATH	5	714921	365158	0	A-F	2	122242	0.42	0.13	0.42	0.24	0.21	0.00	0.47	-0.06	0.47	-0.16	-0.3478	0.7417	0.0066	-9.8990	0.9679	-0.5890	0.9976			
MATH	5	714925	458717	0	D-M	2	122242	0.30	0.27	0.30	0.36	0.07	0.00	0.25	0.00	0.25	-0.18	-0.1073	1.3715	0.0071	9.9012	1.1950	9.9015	1.4584			
MATH	5	713340	130353	1	B-O	2	13891	0.43	0.19	0.43	0.13	0.25	0.00	0.37	-0.22	0.37	-0.24	-0.0304	0.5793	0.0195	9.9011	1.0897	9.5411	1.1197	B-	A-	A-
MATH	5	714037	262002	1	C-G	1	13891	0.41	0.09	0.41	0.29	0.21	0.00	0.27	-0.09	0.27	0.05	-0.3214	0.6600	0.0196	9.9012	1.2266	9.9013	1.2828	A-	A-	A-
MATH	5	714044	982436	1	A-T	2	13891	0.34	0.20	0.17	0.29	0.34	0.00	0.39	-0.24	-0.21	-0.02	0.3892	1.0599	0.0204	4.1810	1.0408	9.9012	1.1604	A-	A-	A-
MATH	5	794415	188384	1	B-O	2	13891	0.23	0.23	0.23	0.25	0.29	0.00	0.23	-0.07	0.23	-0.09	-0.0578	1.7626	0.0228	9.9011	1.1360	9.9016	1.6123	A-	A+	A-
MATH	5	808592	351331	1	A-F	1	13891	0.70	0.08	0.10	0.12	0.70	0.00	0.50	-0.27	-0.25	-0.25	0.5022	-0.8360	0.0203	-9.8991	0.8681	-9.8992	0.7944	A+	A-	A-
MATH	5	808609	451319	1	A-F	1	13891	0.24	0.42	0.16	0.24	0.17	0.00	0.38	-0.28	-0.08	0.38	0.0168	1.6860	0.0224	0.5210	1.0062	8.7512	1.1879	A-	A-	A-
MATH	5	808616	699158	1	A-T	2	13891	0.40	0.40	0.11	0.14	0.35	0.00	0.36	0.36	-0.25	-0.19	-0.0634	0.7471	0.0197	9.9011	1.0903	9.9012	1.1638	A-	A-	A-
MATH	5	808623	884112	1	A-T	1	13891	0.32	0.23	0.19	0.32	0.26	0.01	0.28	-0.06	-0.11	0.28	-0.1369	1.1950	0.0207	9.9012	1.1694	9.9013	1.3202	A-	A+	A-
MATH	5	808659	123797	1	D-M	2	13891	0.45	0.45	0.09	0.15	0.30	0.00	0.49	0.49	-0.15	-0.33	-0.1660	0.4725	0.0194	-6.2791	0.9498	-6.0791	0.9291	A-	A+	A+
MATH	5	808662	859777	1	A-T	1	13891	0.51	0.14	0.51	0.30	0.05	0.00	0.49	-0.21	0.49	-0.29	-0.1886	0.1289	0.0192	-8.0691	0.9395	-5.8891	0.9289	A-	A-	A+
MATH	5	808821	794029	1	C-G	2	13891	0.43	0.29	0.16	0.12	0.43	0.00	0.30	0.00	-0.21	-0.22	0.3038	0.5592	0.0195	9.9012	1.1812	9.9012	1.2398	A-	B-	A-
MATH	5	808834	947471	1	D-M	2	13891	0.34	0.11	0.34	0.34	0.20	0.00	0.39	-0.10	-0.23	0.39	-0.1003	1.0695	0.0204	5.2411	1.0514	9.4411	1.1422	A-	A-	A-
MATH	5	714409	974642	2	A-T	2	13570	0.37	0.16	0.13	0.37	0.33	0.01	0.28	-0.06	-0.15	0.28	-0.1211	0.9382	0.0200	9.9012	1.1621	9.9013	1.2561	A+	A+	A-
MATH	5	714922	525596	2	A-F	2	13570	0.28	0.41	0.28	0.13	0.18	0.00	0.23	-0.07	0.23	-0.24	0.0385	1.4607	0.0215	9.9012	1.1753	9.9014	1.4469	A-	A-	A-
MATH	5	794413	542428	2	A-T	1	13570	0.80	0.12	0.04	0.04	0.80	0.00	0.47	-0.35	-0.21	-0.17	0.4728	-1.4257	0.0231	-9.8992	0.8465	-9.8993	0.6567	A-	A-	A-
MATH	5	808591	760822	2	A-F	2	13570	0.63	0.13	0.63	0.16	0.07	0.00	0.43	-0.18	0.43	-0.22	-0.2452	-0.4044	0.0197	-4.4190	0.9658	-4.5391	0.9323	A+	A-	A-
MATH	5	808595	578081	2	A-F	2	13570	0.30	0.12	0.28	0.30	0.30	0.00	0.14	-0.08	-0.04	0.14	-0.0441	1.3368	0.0211	9.9013	1.2930	9.9016	1.5598	A-	A+	A+
MATH	5	808622	403014	2	A-T	1	13570	0.48	0.23	0.48	0.17	0.12	0.00	0.50	-0.24	0.50	-0.24	-0.1667	0.3695	0.0193	-9.8991	0.9241	-7.3691	0.918	A-	A-	A-
MATH	5	808660	198913	2	A-T	1	13570	0.54	0.14	0.19	0.54	0.13	0.00	0.46	-0.25	-0.22	0.46	-0.1645	0.0539	0.0193	-5.4390	0.9597	-5.1191	0.9386	A-	A+	A+
MATH	5	808812	708332	2	B-O	2	13570	0.22	0.36	0.31	0.22	0.12	0.00	0.07	0.02	0.06	0.07	-0.1992	1.9041	0.0233	9.9013	1.3085	9.9019	1.9087	A+	A-	A-
MATH	5	808815	366839	2	B-O	1	13570	0.70	0.06	0.07	0.16	0.70	0.00	0.45	-0.27	-0.29	-0.18	0.4486	-0.7881	0.0205	-9.8991	0.9071	-4.1391	0.9231	C+	A-	A-
MATH	5	808819	216785	2	C-G	2	13570	0.28	0.28	0.23	0.23	0.26	0.00	0.10	0.10	-0.08	-0.03	0.0111	1.4948	0.0216	9.9013	1.3442	9.9017	1.6754	A+	A-	A+
MATH	5	808829	523805	2	D-M	2	13570	0.37	0.07	0.37	0.26	0.30	0.00	0.28	-0.19	0.28	-0.04	-0.1547	0.9583	0.0201	9.9011	1.1472	9.9013	1.301	A-	A-	A-
MATH	5	808831	249357	2	D-M	2	13570	0.47	0.47	0.13	0.14	0.26	0.00	0.33	0.33	-0.18	-0.25	-0.0435	0.4192	0.0194	9.9011	1.1134	9.6911	1.1147	A-	A-	A-
MATH	5	713342	180433	3	C-G	2	13560	0.58	0.11	0.22	0.58	0.09	0.00	0.43	-0.23	-0.16	0.43	-0.2723	-0.1381	0.0194	-2.7090	0.9796	2.9410	1.0404	A+	A-	A-
MATH	5	714413	602851	3	A-F	1	13560	0.66	0.06	0.05	0.66	0.23	0.00	0.26	-0.25	-0.22	0.26	-0.0272	-0.5499	0.0200	9.9011	1.1378	9.9013	1.2868	A-	A-	A-
MATH	5	794418	766871	3	D-M	2	13560	0.29	0.26	0.27	0.29	0.18	0.00	0.21	-0.08	0.02	0.21	-0.1711	1.4118	0.0214	9.9012	1.2250	9.9015	1.4845	A-	A-	A-
MATH	5	808593	227600	3	A-T	2	13560	0.44	0.44	0.12	0.31	0.13	0.00	0.42	0.42	-0.24	-0.10	-0.2393	0.6031	0.0196	1.5910	1.0132	2.4810	1.0295	A+	A-	A-
MATH	5	808594	197515	3	A-F	1	13560	0.60	0.11	0.13	0.16	0.60	0.00	0.50	-0.24	-0.22	-0.26	0.5010	-0.2428	0.0195	-9.8991	0.9021	-9.8992	0.8485	A+	A-	A-
MATH	5	808608	429060	3	A-F	2	13560	0.15	0.09	0.24	0.15	0.52	0.01	0.07	-0.19	-0.08	0.07	0.1340	2.5011	0.0268	9.9012	1.2319	9.9023	2.266	A-	A+	A-
MATH	5	808619	883083	3	A-T	2	13560	0.41	0.20	0.41	0.25	0.13	0.00	0.24	-0.02	0.24	-0.10	-0.1908	0.7109	0.0197	9.9012	1.2308	9.9013	1.3264	A+	A-	A+
MATH	5	808661	781046	3	A-T	1	13560	0.51	0.51	0.26	0.15	0.09	0.00	0.51	0.51	-0.25	-0.29	-0.1487	0.2152	0.0193	-9.8991	0.9086	-9.5691	0.8899	A-	A-	A-
MATH	5	808814	226746	3	B-O	2	13560	0.37	0.10	0.37	0.12	0.40	0.00	0.20	-0.17	0.20	-0.18	0.0244	0.9268	0.0201	9.9013	1.2603	9.9014	1.3908	A-	A-	A-
MATH	5	808816	285721	3	B-O	2	13560	0.22	0.22	0.43	0.13	0.21	0.00	0.25	0.25	-0.02	-0.23	-0.0330	1.8727	0.0232	7.4611	1.0984	9.9016	1.5802	A-	A+	A-
MATH	5	808818	110808	3	C-G	1	13560	0.64	0.15	0.64	0.09	0.12	0.00	0.48	-0.23	0.48	-0.21	-0.2647	-0.4449	0.0198	-9.8991	0.9089	-7.3991	0.8864	A+	B-	A-
MATH	5	808836	451436	3	D-M	2	13560	0.47	0.17	0.16	0.20	0.47	0.00	0.41	-0.20	-0.17	-0.17	0.4117	0.4092	0.0194	3.7810	1.0302	4.8011	1.0569	A+	A-	A-
MATH	5	714052	120500	4	D-M	2	13553	0.49	0.24	0.07	0.20	0.49	0.00	0.57	-0.44	-0.17	-0.13	0.5714	0.3228	0.0195	-9.8991	0.8513	-9.8992	0.8092	A-	B-	A-
MATH	5	714919	639495	4	A-T	1	13553	0.68	0.21	0.05	0.06	0.68	0.00	0.52	-0.38	-0.20	-0.19	0.5198	-0.6647	0.0203	-9.8991	0.8603	-9.8992	0.7745	A-	A-	A+
MATH	5	794412	609844	4	A-T	2	13553	0.47	0.16	0.18	0.47	0.18	0.00	0.38	-0.22	-0.20	0.38	-0.0739	0.3923	0.0195	9.8411	1.0822	9.0011	1.1102	A+	A-	A+
MATH	5	808598	542483	4	A-F	2	13553	0.55	0.55	0.13	0.17	0.15	0.00	0.48	0.48	-0.20	-0.23	-0.2485	0.0212	0.0195	-6.4790	0.9505	-8.3191	0.8971	A+	A+	A+
MATH	5	808607	479706	4	A-F	1	13553	0.40	0.40	0.14	0.37	0.09	0.00	0.36	0.36	-0.20	-0.18	-0.0651	0.8047	0.0200	9.9011	1.0973	9.2911	1.1221	A-	A-	A-
MATH	5	808613	963286	4	A-F	1	13553	0.45	0.09	0.38	0.08	0.45	0.00	0.53	-0.19	-0.30	-0.23	0.5295	0.5276	0.0196	-9.8991	0.8995	-9.8991	0.8787	A-	A-	A-
MATH	5	808614	287938	4	A-T	2	13553	0.45	0.21	0.45	0.21	0.12	0.00	0.23	-0.06	0.23	-0.15	-0.0825	0.4918	0.0196	9.9013	1.2650	9.9013	1.3485	A+	A-	A-
MATH	5	808809	224072	4	B-O	2	13553	0.47	0.24	0.47	0.14	0.15	0.00	0.29	0.03	0.29	-0.23	-0.2056	0.4305	0.0195	9.9012	1.1936	9.9012	1.2285	A-	A-	A+
MATH	5	808825	626849	4	C-G	1	13553	0.37	0.41	0.13	0.37	0.09	0.00	0.27	0.02	-0.24	0.27	-0.1963	0.9528	0.0203	9.9012	1.2031	9.9013	1.3283	A+	A+	A+
MATH	5	808838	768596	4	D-M	2	13553	0.37	0.45	0.37	0.11	0.06	0.00	0.48	-0.21	0.48	-0.24	-0.2012	0.9181	0.0202	-6.7191	0.9394	-0.5390	0.9928	A-	A-	A-
MATH	5	808868	204689	4	B-O	2	13553	0.24	0.29	0.38	0.08	0.24	0.01	0.34	-0.32	0.06	-0.10	0.3395	1.7385	0.0226	4.0410	1.0495	9.9013	1.3309	A-	A+	A-
MATH	5	808871	334622	4	C-G	2	13553	0.28	0.35	0.26	0.28	0.10	0.00	0.11	0.03	0.00	0.11	-0.2065	1.4559	0.0216	9.9014	1.3713	9.9017	1.7043	A+	A+	A+
MATH	5	713932	140212	5	A-F	2	13510	0.47	0.13	0.47	0.29	0.11	0.00	0.57	-0.18	0.57	-0.33	-0.2224	0.4110	0.0196	-9.8991	0.8512	-9.8992	0.8326	A-	A+	A-
MATH	5	714513	875529	5	A-T	1	13510	0.63	0.06	0.23	0.07	0.63	0.00	0.47	-0.15	-0.35	-0.16	0.4742	-0.4098	0.0199	-8.4091	0.9343	-8.6991	0.8679	A-	A+	A+
MATH	5	794414	753765	5	B-O	2	13510	0.21	0.19	0.28	0.31	0.21	0.00	0.12	-0.07	0.02	-0.06	0.1168	1.9292	0.0235	9.9013	1.2713	9.9019	1.938	A-	A-	A+
MATH	5	794417	331857	5	C-G	2	13510	0.60	0.23	0.60	0.09	0.08	0.00	0.54	-0.31	0.54	-0.25	-0.2253	-0.2571	0.0197	-9.8991	0.8650	-9.8992	0.798	A-	A-	A-
MATH	5	808597	538011	5	A-F	2	13510	0.22	0.13	0.22	0.35	0.29	0.00	0.22	-0.15	0.22	0.00	-0.0766	1.9001	0.0234	9.9012	1.1749	9.9016	1.6311	A-	A+	A+
MATH	5	808606	895240	5	A-F	1	13510	0.47	0.25	0.17	0.47	0.11	0.00	0.46	-0.28	-0.06	0.46	-0.2670	0.4259	0.0196	-2.7290	0.9779	-1.3490	0.984	A-	A-	A-
MATH	5	808611	386360	5	A-F	2	13510	0.25	0.25	0.35	0.19	0.20	0.00	0.28	0.28	-0.05	-0.15	-0.0847	1.6699	0.0224	9.9011	1.1293	9.9014	1.4366	A-	A-	A-
MATH	5	808645	311666	5	A-T	1	13510	0.65	0.65	0.10	0.08	0.18	0.00	0.54	0.54	-0.26	-0.19	-0.3432	-0.5058	0.0200	-9.8992	0.8444	-9.8992	0.7817	A-	A-	A-
MATH	5	808665	183207	5	A-T	2	13510	0.49	0.20	0.49	0.18	0.12	0.00	0.32	-0.18	0.32	-0.11	-0.1258	0.3056	0.0195	9.9012	1.1583	9.9012	1.1929	A+	A+	A+
MATH	5	808817	750318	5	B-O	2	13510	0.36	0.16	0.12	0.36	0.36	0.00	0.31	-0.16	-0.23	0.31	-0.0229	1.0124	0.0204	9.9011	1.1404	9.9013	1.2616	A-	A+	A-
MATH	5	808841	665231	5	D-M	1	13510	0.64	0.12	0.09	0.64	0.14	0.01	0.56	-0.23	-0.27	0.56	-0.3242	-0.4811	0.0200	-9.8992	0.8327	-9.8993	0.7439	A-	A-	A-
MATH	5	808842	355505	5	D-M	1	13510	0.15	0.12	0.61	0.12	0.15	0.00	0.25	-0.18	-0.06	0.00	0.2483	2.4973	0.0268	4.5011	1.0765	9.9016	1.6499	A-	A+	A+
MATH	5	714034	868204	6	B-O	1	13498	0.45	0.12	0.35	0.45	0.08	0.00	0.47	-0.23	-0.27	0.47	-0.1078	0.5284	0.0196	-3.9090	0.9678	-2.1490	0.975	A+	A-	A-
MATH	5	714924	609684	6	C-G	1	13498	0.70	0.70	0.15	0.09	0.06	0.00	0.43	0.43	-0.24	-0.21	-0.2165	-0.7748	0.0207	-5.5990	0.9512	-4.5191	0.9158	A+	A-	A-
MATH	5	794409	533627	6	D-M	2	13498	0.62	0.14	0.62	0.12	0.12	0.00	0.48	-0.17	0.48	-0.24	-0.2759	-0.3209	0.0198	-9.5891	0.9258	-4.3991	0.9362	A+	A-	A-
MATH	5	794416	359297	6	C-G	1	13498	0.31	0.29	0.27	0.31	0.13	0.00	0.16	-0.09	0.08	0.16	-0.2098	1.2883	0.0210	9.9013	1.3276	9.9015	1.5378	A+	A-	A-
MATH	5	808602	599637	6	A-F	2	13498	0.40	0.17	0.15	0.27	0.40	0.00	0.40	-0.24	-0.19	-0.08	0.4028	0.7841	0.0200	5.6911	1.0509	6.4611	1.0823	A+	A+	A+
MATH	5	808603	358437	6	A-F	2	13498	0.52	0.52	0.11	0.10	0.26	0.00	0.58	0.58	-0.22	-0.28	-0.3037	0.1585	0.0195	-9.8992	0.8354	-9.8992	0.7896	A-	A-	A-
MATH	5	808610	611807	6	A-F	2	13498	0.54	0.54	0.15	0.17	0.14	0.01	0.48	0.48	-0.24	-0.21	-0.2049	0.0997	0.0195	-5.5490	0.9570	-6.2691	0.9248	A-	A-	A-
MATH	5	808646	775761	6	A-T	1	13498	0.71	0.05	0.08	0.71	0.16	0.00	0.39	-0.15	-0.21	0.39	-0.2360	-0.8214	0.0208	-2.4290	0.9782	1.5910	1.0315	A+	A-	A-
MATH	5	808664	644042	6	A-T	2	13498	0.23	0.12	0.56	0.23	0.09	0.00	0.20	-0.13	0.04	0.20	-0.1931	1.8649	0.0231	9.9012	1.1962	9.9017	1.7206	A-	A-	A-

ContArea	FormGrade	ItemID	PubID	FormNumber	Standard1	Depth	N	PValue	ProportionA	ProportionB	ProportionC	ProportionD	ProportionOMITS	PtBiserial	CorrelationA	CorrelationB	CorrelationC	CorrelationD	FinalB	FinalBErr	Infit	InfitMnSq	Outfit	OutfitMnSq	BiasCodeMALEFEMALE	BiasCodeWHITEBLACK	BiasCodeWHITEHISPANIC
MATH	5	808806	333800	6	B-O	2	13498	0.53	0.17	0.19	0.10	0.53	0.00	0.50	-0.26	-0.23	-0.19	0.5009	0.1088	0.0195	-9.3391	0.9283	-9.5891	0.8869	A+	A-	A+
MATH	5	808808	645080	6	B-O	2	13498	0.24	0.24	0.30	0.27	0.19	0.00	0.06	0.06	0.05	-0.02	-0.0941	1.7660	0.0227	9.9014	1.3946	9.9020	1.9718	A-	A-	A-
MATH	5	808832	265199	6	D-M	2	13498	0.43	0.16	0.12	0.28	0.43	0.00	0.47	-0.28	-0.23	-0.12	0.4662	0.6176	0.0197	-3.0990	0.9739	-1.4290	0.9831	A+	A-	A-
MATH	5	713779	114543	7	A-F	1	13539	0.73	0.09	0.11	0.07	0.73	0.00	0.50	-0.24	-0.33	-0.19	0.4999	-0.9940	0.0212	-9.8991	0.8603	-9.8993	0.747	A+	A+	A+
MATH	5	714416	599665	7	D-M	2	13539	0.43	0.31	0.19	0.06	0.43	0.00	0.60	-0.34	-0.25	-0.17	0.5999	0.6216	0.0197	-9.8992	0.8155	-9.8992	0.7867	A-	A-	A-
MATH	5	808599	425283	7	A-F	2	13539	0.33	0.34	0.33	0.16	0.16	0.00	0.34	-0.17	0.34	-0.09	-0.1198	1.1304	0.0206	8.3311	1.0830	9.9012	1.2096	A-	A-	A-
MATH	5	808615	416141	7	A-T	2	13539	0.45	0.17	0.16	0.22	0.45	0.00	0.28	-0.01	-0.14	-0.20	0.2780	0.5051	0.0195	9.9012	1.1887	9.9013	1.2535	A+	A+	A-
MATH	5	808618	960270	7	A-T	2	13539	0.25	0.28	0.25	0.19	0.28	0.00	0.16	-0.17	0.16	0.03	-0.0111	1.6553	0.0223	9.9013	1.2909	9.9015	1.5471	A+	A+	A+
MATH	5	808624	559067	7	A-T	2	13539	0.23	0.23	0.16	0.16	0.45	0.00	0.21	0.21	-0.10	-0.09	-0.0286	1.8191	0.0230	9.9012	1.1631	9.9016	1.6161	A-	A-	A-
MATH	5	808643	647831	7	A-F	2	13539	0.33	0.21	0.33	0.36	0.10	0.00	0.28	-0.13	0.28	-0.07	-0.1468	1.1590	0.0207	9.9012	1.1577	9.9013	1.3341	A-	A-	A+
MATH	5	808644	414569	7	A-F	2	13539	0.34	0.34	0.25	0.29	0.13	0.00	0.15	0.15	-0.16	0.06	-0.0882	1.1105	0.0206	9.9013	1.3366	9.9015	1.51	A+	A-	A-
MATH	5	808663	323330	7	A-T	1	13539	0.57	0.12	0.10	0.20	0.57	0.00	0.42	-0.19	-0.24	-0.18	0.4213	-0.1264	0.0195	0.3510	1.0026	-1.6390	0.9784	A+	A+	A+
MATH	5	808826	122940	7	C-G	1	13539	0.53	0.19	0.11	0.53	0.16	0.01	0.41	-0.14	-0.17	0.41	-0.2496	0.0962	0.0194	3.4510	1.0267	4.2811	1.0528	A-	A-	A-
MATH	5	808828	920606	7	C-G	1	13539	0.56	0.18	0.12	0.56	0.14	0.00	0.35	-0.12	-0.17	0.35	-0.2011	-0.0553	0.0194	9.9011	1.0884	9.5411	1.1272	A+	A-	A-
MATH	5	808830	648991	7	D-M	2	13539	0.36	0.25	0.16	0.36	0.22	0.00	0.27	-0.14	-0.01	0.27	-0.1572	0.9749	0.0202	9.9012	1.1915	9.9013	1.2946	A-	A+	A+
MATH	5	713778	827067	8	D-M	2	13560	0.58	0.12	0.13	0.58	0.16	0.00	0.44	-0.15	-0.25	0.44	-0.2123	-0.1235	0.0194	-3.1590	0.9764	-2.7290	0.9645	A+	A-	A-
MATH	5	713939	290950	8	B-O	2	13560	0.47	0.14	0.14	0.47	0.25	0.00	0.39	-0.25	-0.28	0.39	-0.0241	0.3953	0.0194	6.6011	1.0523	5.5811	1.065	A+	A-	A-
MATH	5	794410	354182	8	A-F	2	13560	0.24	0.27	0.24	0.17	0.31	0.00	0.08	-0.06	0.08	-0.13	0.0953	1.6986	0.0224	9.9013	1.3416	9.9018	1.8321	A-	A+	A+
MATH	5	808601	472178	8	A-F	2	13560	0.28	0.23	0.28	0.24	0.26	0.00	0.03	-0.11	0.03	0.07	0.0111	1.4638	0.0215	9.9014	1.4231	9.9018	1.7917	A+	A+	A+
MATH	5	808604	407684	8	A-F	2	13560	0.52	0.52	0.22	0.14	0.13	0.00	0.52	0.52	-0.29	-0.23	-0.1786	0.1843	0.0193	-9.8991	0.8947	-9.8991	0.8532	A+	A-	A-
MATH	5	808620	580636	8	A-T	2	13560	0.48	0.14	0.23	0.48	0.15	0.00	0.41	-0.17	-0.22	0.41	-0.1468	0.3568	0.0193	3.0010	1.0234	2.4310	1.0281	A+	A-	A-
MATH	5	808648	929712	8	A-T	2	13560	0.37	0.22	0.17	0.24	0.37	0.01	0.35	-0.14	-0.12	-0.15	0.3548	0.9598	0.0201	7.8111	1.0721	9.9011	1.1495	A+	A-	A+
MATH	5	808813	558342	8	B-O	2	13560	0.35	0.35	0.25	0.26	0.14	0.00	0.27	0.27	-0.08	-0.07	-0.1706	1.0234	0.0202	9.9012	1.1723	9.9013	1.2796	A+	A-	A-
MATH	5	808827	449814	8	C-G	1	13560	0.71	0.07	0.09	0.13	0.71	0.00	0.37	-0.22	-0.16	-0.19	0.3675	-0.8433	0.0207	-0.9690	0.9912	5.5311	1.1123	A+	A-	A-
MATH	5	808833	350773	8	D-M	2	13560	0.27	0.27	0.21	0.24	0.27	0.00	0.42	-0.44	-0.08	0.11	0.4170	1.5236	0.0217	-2.9390	0.9678	2.8611	1.0515	A-	A-	A-
MATH	5	808840	511121	8	D-M	1	13560	0.55	0.18	0.55	0.09	0.17	0.00	0.38	-0.32	0.38	-0.22	-0.0006	0.0076	0.0193	6.1410	1.0468	1.9310	1.0241	A-	A-	A-
MATH	5	808870	468837	8	C-G	2	13560	0.46	0.20	0.17	0.46	0.17	0.00	0.35	-0.19	-0.15	0.35	-0.1083	0.4855	0.0194	9.9011	1.0892	9.9011	1.1258	A+	A-	A-
MATH	5	713539	639876	9	A-T	1	13561	0.85	0.04	0.85	0.04	0.06	0.01	0.31	-0.16	0.31	-0.17	-0.1809	-1.8598	0.0256	-0.9790	0.9845	-1.3190	0.9562	A+	A-	A-
MATH	5	714035	689718	9	B-O	2	13561	0.52	0.16	0.11	0.21	0.52	0.00	0.45	-0.20	-0.16	-0.24	0.4502	0.1508	0.0193	-2.8790	0.9783	-2.2290	0.9744	A-	A-	A-
MATH	5	794411	363916	9	A-F	2	13561	0.29	0.45	0.18	0.29	0.09	0.00	0.25	0.00	-0.21	0.25	-0.1064	1.3986	0.0213	9.9012	1.1511	9.9014	1.4286	A+	A-	A-
MATH	5	808600	114349	9	A-F	2	13561	0.35	0.20	0.21	0.24	0.35	0.00	0.11	-0.09	0.03	-0.06	0.1075	1.0271	0.0203	9.9014	1.3773	9.9015	1.5371	A+	A+	A+
MATH	5	808612	257597	9	A-F	1	13561	0.44	0.44	0.10	0.37	0.09	0.00	0.44	0.44	-0.28	-0.21	-0.1102	0.5701	0.0195	-0.8790	0.9928	-0.4990	0.9943	A-	A-	A-
MATH	5	808617	996562	9	A-T	1	13561	0.44	0.18	0.44	0.18	0.20	0.00	0.33	-0.15	0.33	-0.17	-0.0861	0.5253	0.0195	9.9011	1.1216	9.9012	1.1557	A+	A-	A+
MATH	5	808642	188484	9	A-T	2	13561	0.32	0.38	0.16	0.32	0.14	0.00	0.20	0.05	-0.16	0.20	-0.1586	1.2056	0.0207	9.9012	1.2418	9.9014	1.4103	A-	A-	A-
MATH	5	808810	366475	9	B-O	2	13561	0.30	0.07	0.11	0.52	0.30	0.00	0.29	-0.17	-0.22	-0.04	0.2908	1.3436	0.0211	9.9011	1.1196	9.9013	1.2953	A+	A+	A-
MATH	5	808811	230501	9	B-O	2	13561	0.61	0.18	0.08	0.61	0.13	0.00	0.37	-0.26	-0.14	0.37	-0.1305	-0.3026	0.0195	3.8910	1.0299	6.1711	1.0885	A-	A-	A-
MATH	5	808822	764932	9	C-G	1	13561	0.36	0.06	0.36	0.45	0.13	0.00	0.12	-0.18	0.12	0.06	-0.1330	0.9890	0.0202	9.9013	1.3452	9.9015	1.5186	A+	A-	A-
MATH	5	808837	567161	9	D-M	2	13561	0.17	0.17	0.12	0.46	0.24	0.00	0.11	0.11	-0.18	0.16	-0.1363	2.2016	0.0250	9.9012	1.1970	9.9019	1.9315	A-	A-	A+
MATH	5	808869	304318	9	D-M	2	13561	0.37	0.23	0.37	0.17	0.23	0.00	0.40	-0.12	0.40	-0.16	-0.1874	0.9154	0.0200	2.6310	1.0237	7.0911	1.0932	A-	A-	A-
MATH	6	664148	888579	0	B-E	1	120261	0.85	0.05	0.85	0.05	0.04	0.00	0.42	-0.22	0.42	-0.24	-0.2304	-1.7824	0.0088	-9.8991	0.9039	-9.8993	0.6859			
MATH	6	668452	864231	0	B-E	2	120261	0.57	0.31	0.07	0.57	0.05	0.00	0.57	-0.36	-0.29	0.57	-0.1893	0.0004	0.0065	-9.8992	0.8364	-9.8992	0.7887			
MATH	6	668459	247545	0	A-R	2	120261	0.73	0.73	0.04	0.20	0.03	0.00	0.48	0.48	-0.17	-0.36	-0.2095	-0.8421	0.0071	-9.8991	0.8815	-9.8992	0.7715			
MATH	6	669280	768671	0	B-E	2	120261	0.67	0.67	0.14	0.10	0.09	0.00	0.48	0.48	-0.26	-0.24	-0.2163	-0.4839	0.0068	-9.8991	0.9156	-9.8992	0.8235			
MATH	6	669285	981715	0	D-S	1	120261	0.71	0.71	0.07	0.16	0.05	0.00	0.46	0.46	-0.15	-0.32	-0.2317	-0.6994	0.0069	-9.8991	0.8998	-9.8991	0.8512			
MATH	6	675723	576212	0	B-E	2	120261	0.70	0.14	0.70	0.07	0.08	0.00	0.45	-0.19	0.45	-0.25	-0.2704	-0.6583	0.0069	-9.8991	0.9145	-9.8991	0.872			
MATH	6	675746	740356	0	C-G	1	120261	0.70	0.11	0.08	0.11	0.70	0.00	0.50	-0.31	-0.24	-0.21	0.5017	-0.6786	0.0069	-9.8991	0.8773	-9.8992	0.7673			
MATH	6	675749	557395	0	C-G	2	120261	0.54	0.54	0.13	0.19	0.13	0.00	0.54	0.54	-0.26	-0.27	-0.2077	0.2114	0.0065	-9.8991	0.8769	-9.8992	0.8257			
MATH	6	677280	330239	0	B-E	2	120261	0.42	0.16	0.35	0.42	0.07	0.00	0.47	-0.10	-0.29	0.47	-0.2176	0.8101	0.0066	-9.8990	0.9603	-9.7190	0.9626			
MATH	6	677299	366036	0	B-E	2	120261	0.81	0.05	0.05	0.81	0.09	0.00	0.39	-0.24	-0.23	0.39	-0.1706	-1.3870	0.0079	-9.8991	0.9392	-9.8991	0.8653			
MATH	6	678653	675184	0	C-G	2	120261	0.73	0.19	0.03	0.05	0.73	0.00	0.34	-0.23	-0.13	-0.19	0.3411	-0.8042	0.0071	3.9810	1.0127	5.8910	1.0409			
MATH	6	679229	986701	0	A-N	1	120261	0.64	0.14	0.64	0.08	0.14	0.00	0.52	-0.25	0.52	-0.20	-0.2989	-0.3305	0.0067	-9.8991	0.8750	-9.8992	0.8069			
MATH	6	679492	983375	0	B-E	2	120261	0.61	0.15	0.61	0.09	0.15	0.00	0.44	-0.21	0.44	-0.18	-0.2381	-0.1612	0.0066	-8.9790	0.9769	-9.8991	0.935			
MATH	6	679503	138034	0	A-N	2	120261	0.50	0.11	0.20	0.50	0.19	0.00	0.36	-0.22	-0.17	0.36	-0.1142	0.2969	0.0065	9.9011	1.0817	9.9011	1.0988			
MATH	6	696694	252245	0	D-S	2	120261	0.44	0.44	0.19	0.18	0.18	0.00	0.45	0.45	-0.18	-0.22	-0.1686	0.6997	0.0065	-7.8890	0.9788	-5.3490	0.9798			
MATH	6	696707	722614	0	A-N	2	120261	0.36	0.36	0.31	0.20	0.13	0.00	0.27	0.27	-0.04	-0.15	-0.1522	1.1429	0.0068	9.9012	1.1727	9.9013	1.2844			
MATH	6	696711	968197	0	C-G	2	120261	0.54	0.17	0.14	0.15	0.54	0.00	0.42	-0.08	-0.25	-0.26	0.4182	0.1441	0.0065	4.3110	1.0109	3.0510	1.0126			
MATH	6	696717	782686	0	A-N	1	120261	0.66	0.19	0.66	0.08	0.06	0.00	0.35	-0.16	0.35	-0.21	-0.1946	-0.4335	0.0067	9.9010	1.0277	9.9012	1.1684			
MATH	6	700421	869127	0	C-G	2	120261	0.44	0.22	0.18	0.44	0.15	0.00	0.34	-0.04	-0.17	0.34	-0.2436	0.6763	0.0065	9.9011	1.0994	9.9011	1.1355			
MATH	6	700423	103572	0	A-R	2	120261	0.47	0.23	0.47	0.19	0.11	0.00	0.50	-0.11	0.50	-0.33	-0.2355	0.5389	0.0065	-9.8991	0.9215	-9.8991	0.9189			
MATH	6	700427	737964	0	A-N	2	120261	0.47	0.19	0.16	0.17	0.47	0.00	0.52	-0.24	-0.19	-0.25	0.5242	0.5979	0.0065	-9.8991	0.8950	-9.8991	0.8723			
MATH	6	700430	622803	0	B-E	2	120261	0.61	0.13	0.61	0.18	0.08	0.00	0.44	-0.28	0.44	-0.19	-0.1681	-0.0903	0.0065	-9.8990	0.9645	-9.8991	0.9405			
MATH	6	700432	775477	0	A-R	2	120261	0.31	0.24	0.21	0.23	0.31	0.00	0.32	-0.04	-0.23	-0.09	0.3241	1.5305	0.0071	9.9011	1.1323	9.9013	1.3206			
MATH	6	700434	143985	0	B-E	1	120261	0.69	0.08	0.10	0.69	0.13	0.00	0.31	-0.17	-0.30	0.31	-0.0245	-0.5634	0.0068	9.9010	1.0482	9.9013	1.2576			
MATH	6	700458	789601	0	A-R	2	120261	0.42	0.20	0.21	0.17	0.42	0.00	0.29	-0.04	-0.23	-0.07	0.2887	0.7897	0.0066	9.9012	1.1611	9.9012	1.2318			
MATH	6	700488	566546	0	C-G	2	120261	0.40	0.09	0.40	0.47	0.04	0.00	0.27	-0.14	0.27	-0.13	-0.1539	1.0191	0.0067	9.9012	1.1970	9.9013	1.2806			
MATH	6	701811	653338	0	A-R	2	120261	0.31	0.14	0.31	0.25	0.31	0.00	0.33	-0.23	0.33	0.11	-0.2617	1.4209	0.0070	9.9011	1.0653	9.9012	1.212			
MATH	6	701842	927798	0	A-N	2	120261	0.50	0.09	0.20	0.50	0.21	0.00	0.50	-0.20	-0.33	0.50	-0.1482	0.4490	0.0065	-9.8991	0.9160	-9.8991	0.8954			
MATH	6	701844	238693	0	A-R	2	120261	0.55	0.13	0.18	0.14	0.55	0.00	0.45	-0.15	-0.33	-0.14	0.4516	0.1115	0.0065	-9.8990	0.9695	-7.8090	0.9679			
MATH	6	701862	777676	0	A-N	1	120261	0.71	0.06	0.71	0.15	0.08	0.00	0.47	-0.19	0.47	-0.25	-0.3020	-0.6489	0.0069	-9.8991	0.8670	-9.8992	0.7969			
MATH	6	701865	950833	0	B-E	1	120261	0.52	0.20	0.19	0.52	0.08	0.00	0.50	-0.24	-0.24	0.50	-0.2023	0.2948	0.0065	-9.8991	0.9213	-9.8991	0.8793			
MATH	6	703041	754210	0	A-N	1	120261	0.81	0.06	0.11	0.81	0.03	0.00	0.45	-0.27	-0.28	0.45	-0.1736	-1.3804	0.0079	-9.8991	0.8760	-9.8993	0.73			
MATH	6	703042	313135	0	C-G	2	120261	0.69	0.69	0.09	0.13	0.08	0.00	0.50	0.50	-0.24	-0.28	-0.2352	-0.5681	0.0068	-9.8991	0.8814	-9.8992	0.761			
MATH	6	703052	245961	0	A-N	1	120261	0.55	0.33	0.07	0.55	0.04	0.00	0.41	-0.27	-0.15	0.41	-0.1789	0.2010	0.0065	2.8010	1.0071	3.2410	1.0131			
MATH	6	703053	523573	0	B-E	1	120261	0.66	0.12	0.07	0.66	0.14	0.00	0.41	-0.20	-0.24	0.41	-0.1748	-0.4118	0.0067	-5.9190	0.9839	0.3510	1.0019			
MATH	6	703055	739928	0	D-S	2	120261	0.47	0.24	0.13	0.47	0.15	0.00	0.40	-0.23	-0.18	0.40	-0.1109	0.4639	0.0065	9.9010	1.0338	9.9010	1.0452			
MATH	6	703086	174855	0	A-N	1	120261	0.64	0.09	0.64	0.19	0.09	0.00	0.33	-0.21	0.33	-0.22	-0.0356	-0.3072	0.0066	9.9011	1.0739	9.9011	1.1305			
MATH	6	703087	614881	0	A-R	2	120261	0.47	0.47	0.05	0.40	0.08	0.00	0.51	0.51	-0.16	-0.31	-0.2497	0.5877	0.0065	-9.8991	0.9153	-9.8991	0.902			
MATH	6	703091	167993	0	D-S	2	120261	0.42	0.15	0.20	0.23	0.42	0.00	0.27	-0.16	-0.21	0.02	0.2668	0.8779	0.0066	9.9012	1.2050	9.9013	1.2767			
MATH	6	703113	134735	0	B-E	2	120261	0.59	0.11	0.22	0.59	0.07	0.00	0.44	-0.20	-0.22	0.44	-0.2334	-0.1092	0.0065	-9.8990	0.9686	-6.3890	0.9708			
MATH	6	714819	541117	0	C-G	2	120261	0.43	0.22	0.19	0.16	0.43	0.00	0.46	-0.30	-0.14	-0.13	0.4621	0.7241	0.0065	-9.8990	0.9583	-9.8990	0.9536			
MATH	6	714832	311807	0	C-G	2	120261	0.55	0.19	0.15	0.10	0.55	0.00	0.54	-0.28	-0.26	-0.21	0.5435	0.1559	0.0065	-9.8991	0.8689	-9.8992	0.8229			
MATH	6	714835	183396	0	D-S	2	120261	0.74	0.09	0.74	0.10	0.07	0.00	0.44	-0.23	0.44	-0.22	-0.2407	-0.8175	0.0071	-9.8991	0.8910	-9.8992	0.8345			
MATH	6	714848	502801	0	D-S	1	120261	0.49	0.49	0.18	0.13	0.20	0.00	0.31	0.31	-0.17	-0.27	-0.0001	0.4688	0.0065	9.9011	1.1358	9.9012	1.1544			
MATH	6	714878	445091	0	B-E	2	120261	0.64	0.64	0.10	0.10	0.15	0.00	0.48	0.48	-0.22	-0.26	-0.2388	-0.2789	0.0066	-9.8991	0.9043	-9.8991	0.8838			
MATH	6	714892	234028	0	B-E	2	120261	0.35	0.29	0.35	0.21	0.15	0.00	0.27	0.07	0.27	-0.19	-0.2240	1.2497	0.0069	9.9012	1.1800	9.9013	1.3365			
MATH	6	719270	504931	0	A-R	2	120261	0.42	0.11	0.26	0.42	0.21	0.00	0.40	-0.24	-0.21	0.40	-0.0780	0.8347	0.0066	9.9010	1.0317	9.9011	1.0593			
MATH	6	719272	947242	0	B-E	2	120261	0.73	0.08	0.09	0.73	0.10	0.00	0.49	-0.27	-0.26	0.49	-0.2346	-0.7276	0.0070	-9.8992	0.8436	-9.8993	0.7391			
MATH	6	719273	248362	0	B-E	1	120261	0.61	0.08	0.09	0.22	0.61	0.00	0.55	-0.28	-0.25	-0.29	0.5464	-0.1433	0.0066	-9.8992	0.8468	-9.8992	0.7846			

ContArea	FormGrade	ItemID	PubID	FormNumber	Standard1	Depth	N	PValue	ProportionA	ProportionB	ProportionC	ProportionD	ProportionOMITS	PtBiserial	CorrelationA	CorrelationB	CorrelationC	CorrelationD	FinalB	FinalBErr	Infit	InfitMnSq	Outfit	OutfitMnSq	BiasCodeMALEFEMALE	BiasCodeWHITEBLACK	BiasCodeWHITEHISPANIC
MATH	6	719274	494906	0	D-S	2	120261	0.40	0.10	0.40	0.35	0.15	0.00	0.30	-0.20	0.30	-0.09	-0.1243	1.0149	0.0067	9.9012	1.1560	9.9012	1.2376			
MATH	6	719275	114002	0	D-S	2	120261	0.45	0.45	0.18	0.19	0.17	0.00	0.25	0.25	0.02	-0.26	-0.0770	0.7254	0.0065	9.9012	1.2229	9.9013	1.2754			
MATH	6	719276	551493	0	D-S	2	120261	0.53	0.30	0.11	0.06	0.53	0.00	0.39	-0.15	-0.21	-0.24	0.3871	0.2989	0.0065	9.9010	1.0440	9.9010	1.0444			
MATH	6	719298	192514	0	B-E	1	120261	0.69	0.07	0.13	0.10	0.69	0.00	0.43	-0.23	-0.18	-0.26	0.4312	-0.5362	0.0068	-9.8991	0.9178	-9.8991	0.9245			
MATH	6	719299	537794	0	C-G	2	120261	0.34	0.34	0.26	0.31	0.10	0.00	0.33	0.33	-0.14	-0.09	-0.1849	1.2930	0.0069	9.9011	1.0899	9.9012	1.2121			
MATH	6	719313	348470	0	A-N	1	120261	0.71	0.09	0.10	0.71	0.09	0.00	0.38	-0.25	-0.20	0.38	-0.1369	-0.7328	0.0070	-2.2290	0.9931	-0.9290	0.9939			
MATH	6	735196	702345	0	B-E	2	120261	0.58	0.58	0.19	0.11	0.12	0.00	0.50	0.50	-0.29	-0.25	-0.1746	-0.0059	0.0065	-9.8991	0.9075	-9.8991	0.8516			
MATH	6	735202	843925	0	A-N	1	120261	0.36	0.28	0.36	0.17	0.19	0.00	0.24	-0.09	0.24	-0.04	-0.1499	1.0456	0.0067	9.9012	1.1949	9.9013	1.2981			
MATH	6	735234	735170	0	A-N	1	120261	0.55	0.12	0.16	0.17	0.55	0.00	0.49	-0.21	-0.25	-0.22	0.4889	0.1437	0.0065	-9.8991	0.9292	-9.8991	0.894			
MATH	6	735235	938313	0	A-N	1	120261	0.59	0.12	0.14	0.59	0.14	0.00	0.47	-0.16	-0.31	0.47	-0.1979	-0.0622	0.0065	-9.8991	0.9418	-9.8991	0.9049			
MATH	6	735468	806248	0	A-N	1	120261	0.39	0.19	0.39	0.23	0.19	0.00	0.35	-0.09	0.35	-0.25	-0.0693	0.9519	0.0066	9.9011	1.0937	9.9011	1.1252			
MATH	6	701886	628271	1	B-E	2	13746	0.47	0.18	0.14	0.19	0.47	0.00	0.49	-0.26	-0.17	-0.22	0.4939	0.4985	0.0192	-8.9491	0.9314	-8.4891	0.907	A+	A+	A-
MATH	6	703054	202962	1	C-G	2	13746	0.36	0.24	0.26	0.36	0.13	0.00	0.36	-0.22	-0.07	0.36	-0.1458	1.1008	0.0201	7.2811	1.0679	9.9011	1.1442	A-	A-	A-
MATH	6	703102	652445	1	D-S	2	13746	0.33	0.22	0.22	0.23	0.33	0.00	0.29	-0.11	-0.16	-0.06	0.2946	1.2644	0.0205	9.9011	1.1322	9.9013	1.2774	A+	A-	A-
MATH	6	712501	122130	1	D-S	2	13746	0.29	0.29	0.24	0.29	0.17	0.00	0.27	0.27	0.04	-0.14	-0.1914	1.4743	0.0211	9.9012	1.1689	9.9013	1.3362	A+	A+	A-
MATH	6	799258	656009	1	A-R	2	13746	0.33	0.39	0.33	0.13	0.15	0.00	0.28	0.09	0.28	-0.22	-0.2896	1.2481	0.0204	9.9012	1.1556	9.9013	1.2543	A-	A-	A-
MATH	6	801983	145217	1	C-G	2	13746	0.35	0.11	0.35	0.27	0.27	0.00	0.19	-0.15	0.19	-0.05	-0.0534	1.1326	0.0201	9.9013	1.2576	9.9014	1.4335	A+	A-	A-
MATH	6	811379	331141	1	A-N	1	13746	0.64	0.27	0.05	0.03	0.64	0.00	0.48	-0.33	-0.22	-0.17	0.4752	-0.3817	0.0197	-9.8991	0.9054	-6.5291	0.9005	A+	A-	A-
MATH	6	812911	138507	1	B-E	1	13746	0.45	0.13	0.21	0.21	0.45	0.00	0.48	-0.10	-0.31	-0.19	0.4768	0.6156	0.0193	-5.5390	0.9562	-4.5791	0.9489	A-	A-	A-
MATH	6	813117	974769	1	B-E	2	13746	0.31	0.13	0.25	0.31	0.30	0.00	0.38	-0.18	-0.25	0.38	-0.0044	1.3817	0.0208	2.1010	1.0212	8.4311	1.1343	A-	A-	A-
MATH	6	813118	298011	1	A-R	2	13746	0.31	0.19	0.14	0.35	0.31	0.00	0.33	-0.10	-0.23	-0.07	0.3320	1.3584	0.0207	8.4211	1.0860	9.9012	1.2283	A-	A+	A-
MATH	6	813733	174696	1	B-E	2	13746	0.34	0.14	0.34	0.11	0.41	0.00	0.14	-0.17	0.14	-0.21	0.1261	1.2066	0.0203	9.9013	1.3278	9.9015	1.5251	A-	A+	A-
MATH	6	817180	940909	1	A-N	1	13746	0.77	0.77	0.17	0.04	0.03	0.00	0.43	0.43	-0.31	-0.20	-0.1730	-1.0912	0.0218	-9.6691	0.9015	-8.6492	0.8099	A-	A-	A-
MATH	6	700419	376386	2	A-N	2	13288	0.25	0.20	0.26	0.29	0.25	0.00	0.27	-0.23	0.09	-0.13	0.2733	1.7999	0.0223	9.3511	1.1118	9.9013	1.3421	A-	A-	A-
MATH	6	714833	184282	2	C-G	2	13288	0.44	0.17	0.20	0.18	0.44	0.00	0.34	-0.19	-0.13	-0.12	0.3412	0.7082	0.0196	9.9011	1.0931	9.9011	1.1263	A-	A-	A-
MATH	6	714888	527485	2	B-E	2	13288	0.49	0.49	0.21	0.16	0.14	0.00	0.42	0.42	-0.22	-0.19	-0.1446	0.4632	0.0194	1.0310	1.0080	0.5310	1.0059	A+	A+	A-
MATH	6	714908	744844	2	B-E	2	13288	0.33	0.33	0.43	0.11	0.12	0.00	0.15	0.15	0.16	-0.24	-0.2183	1.3282	0.0207	9.9013	1.2787	9.9015	1.4674	A+	A+	A+
MATH	6	798642	102728	2	A-N	2	13288	0.62	0.15	0.12	0.62	0.11	0.00	0.43	-0.17	-0.23	0.43	-0.2180	-0.1623	0.0198	-3.9890	0.9692	-3.6291	0.9498	A+	A-	A-
MATH	6	799261	314406	2	C-G	2	13288	0.32	0.32	0.32	0.21	0.15	0.00	0.13	0.13	0.13	-0.09	-0.2350	1.3882	0.0209	9.9013	1.3157	9.9015	1.5135	A-	A-	A-
MATH	6	799264	165426	2	D-S	2	13288	0.67	0.11	0.06	0.67	0.16	0.00	0.44	-0.17	-0.23	0.44	-0.2684	-0.4351	0.0203	-8.1291	0.9335	-4.3991	0.9295	A+	A-	A-
MATH	6	801332	547276	2	A-R	2	13288	0.51	0.17	0.51	0.14	0.18	0.00	0.33	-0.19	0.33	-0.25	-0.0083	0.3701	0.0194	9.9011	1.1049	9.9011	1.1398	A-	A-	A-
MATH	6	801334	654448	2	B-E	1	13288	0.85	0.06	0.85	0.05	0.03	0.00	0.32	-0.15	0.32	-0.19	-0.1897	-1.6727	0.0259	-3.5791	0.9440	-0.1490	0.9947	A+	A-	A-
MATH	6	802000	271517	2	D-S	2	13288	0.67	0.12	0.08	0.67	0.12	0.00	0.44	-0.23	-0.22	0.44	-0.2208	-0.4450	0.0203	-7.8291	0.9357	-5.8591	0.9064	A+	A-	A-
MATH	6	811383	374059	2	B-E	1	13288	0.24	0.51	0.08	0.24	0.17	0.00	0.09	0.29	-0.24	0.09	-0.3131	1.8525	0.0225	9.9013	1.2917	9.9017	1.7143	A-	A+	A+
MATH	6	812933	350685	2	A-R	1	13288	0.54	0.15	0.13	0.17	0.54	0.00	0.40	-0.18	-0.19	-0.18	0.3972	0.2134	0.0194	3.3810	1.0257	1.1610	1.0137	A-	A+	A-
MATH	6	701834	597940	3	B-E	2	13312	0.55	0.55	0.31	0.10	0.05	0.00	0.47	0.47	-0.26	-0.23	-0.2107	0.1883	0.0195	-5.9290	0.9551	-5.9691	0.9283	A+	A+	A+
MATH	6	712516	487159	3	B-E	2	13312	0.53	0.17	0.19	0.53	0.12	0.00	0.40	-0.14	-0.23	0.40	-0.1650	0.2699	0.0195	4.8010	1.0375	1.6510	1.0198	A+	A+	A+
MATH	6	714842	967423	3	D-S	2	13312	0.56	0.18	0.56	0.15	0.11	0.00	0.46	-0.35	0.46	-0.18	-0.0999	0.1171	0.0195	-5.2590	0.9601	-5.5991	0.9308	A+	A-	A+
MATH	6	714845	523774	3	D-S	2	13312	0.72	0.07	0.14	0.07	0.72	0.00	0.43	-0.19	-0.25	-0.22	0.4333	-0.7392	0.0210	-8.1891	0.9255	-4.9691	0.9033	A+	A-	A-
MATH	6	801978	973520	3	A-N	1	13312	0.80	0.08	0.06	0.06	0.80	0.00	0.48	-0.29	-0.25	-0.22	0.4772	-1.2381	0.0231	-9.8992	0.8353	-9.8993	0.6893	A+	A-	A-
MATH	6	801979	405040	3	A-R	1	13312	0.34	0.11	0.34	0.50	0.05	0.00	0.36	-0.10	0.36	-0.18	-0.2277	1.2677	0.0207	5.7911	1.0563	9.9012	1.1638	B-	A-	A-
MATH	6	812912	637744	3	C-G	2	13312	0.28	0.38	0.25	0.28	0.10	0.00	0.17	0.05	-0.14	0.17	-0.1345	1.6437	0.0218	9.9013	1.2616	9.9015	1.5272	A-	A+	A+
MATH	6	813125	121440	3	C-G	2	13312	0.30	0.32	0.30	0.22	0.16	0.00	0.21	-0.01	0.21	-0.11	-0.1291	1.5024	0.0213	9.9012	1.2177	9.9015	1.4746	A-	A-	A-
MATH	6	813731	283717	3	B-E	2	13312	0.60	0.19	0.12	0.10	0.60	0.00	0.42	-0.13	-0.25	-0.26	0.4224	-0.0822	0.0197	-1.3590	0.9895	-1.6690	0.977	A+	A-	A+
MATH	6	813732	285687	3	B-E	2	13312	0.33	0.33	0.28	0.19	0.19	0.00	0.20	0.20	0.02	-0.12	-0.1421	1.3141	0.0208	9.9013	1.2496	9.9014	1.4118	A-	A-	A-
MATH	6	813737	755860	3	D-S	2	13312	0.20	0.55	0.13	0.12	0.20	0.00	0.29	0.06	-0.31	-0.12	0.2878	2.1912	0.0242	2.7210	1.0379	9.9015	1.5127	A-	A-	A-
MATH	6	817179	622180	3	A-N	1	13312	0.54	0.54	0.23	0.14	0.10	0.00	0.52	0.52	-0.22	-0.27	-0.2563	0.2265	0.0195	-9.8991	0.8901	-9.8991	0.8533	A+	A-	A-
MATH	6	696710	360798	4	B-E	2	13279	0.59	0.22	0.09	0.59	0.10	0.00	0.48	-0.27	-0.26	0.48	-0.1629	-0.0348	0.0197	-9.4391	0.9290	-8.4691	0.8901	A+	A+	A-
MATH	6	712515	986418	4	A-R	2	13279	0.50	0.17	0.25	0.50	0.08	0.00	0.49	-0.08	-0.33	0.49	-0.2516	0.4275	0.0195	-8.5591	0.9350	-7.0891	0.9205	A-	A-	A+
MATH	6	801331	196726	4	A-R	2	13279	0.29	0.27	0.24	0.29	0.19	0.00	0.32	-0.15	-0.08	0.32	-0.1176	1.5580	0.0215	7.8511	1.0853	9.9012	1.2345	A-	A-	A-
MATH	6	801982	100440	4	B-E	2	13279	0.21	0.41	0.12	0.21	0.26	0.00	0.12	0.11	-0.18	0.12	-0.1077	2.0672	0.0236	9.9012	1.2230	9.9019	1.8637	A-	A+	A-
MATH	6	804823	597871	4	A-N	2	13279	0.47	0.47	0.23	0.19	0.11	0.00	0.40	0.40	-0.03	-0.27	-0.2669	0.5802	0.0196	4.1210	1.0331	4.4011	1.051	A-	A-	A-
MATH	6	811382	619438	4	A-N	1	13279	0.41	0.17	0.41	0.33	0.09	0.00	0.38	-0.03	0.38	-0.24	-0.2271	0.8890	0.0199	5.8511	1.0506	8.1911	1.102	A-	A+	A-
MATH	6	812575	550902	4	C-G	2	13279	0.31	0.30	0.31	0.14	0.25	0.00	0.52	-0.46	0.52	0.05	-0.0962	1.4219	0.0211	-9.8991	0.8741	-5.5191	0.9167	A-	B-	A-
MATH	6	812908	958056	4	D-S	2	13279	0.29	0.28	0.22	0.21	0.29	0.00	0.32	-0.01	-0.22	-0.12	0.3220	1.5511	0.0215	7.3411	1.0795	9.9012	1.2345	A-	A-	A-
MATH	6	813116	518522	4	A-R	2	13279	0.37	0.10	0.43	0.37	0.10	0.00	0.14	-0.15	0.06	0.14	-0.1759	1.0883	0.0202	9.9013	1.3218	9.9015	1.4641	A-	A-	A+
MATH	6	813126	689135	4	D-S	2	13279	0.78	0.08	0.08	0.05	0.78	0.00	0.42	-0.16	-0.27	-0.23	0.4166	-1.1257	0.0226	-9.0291	0.9009	-4.3191	0.8959	A+	A-	A-
MATH	6	813729	811781	4	B-E	1	13279	0.52	0.52	0.09	0.17	0.21	0.00	0.41	0.41	-0.24	-0.22	-0.1316	0.3074	0.0195	1.9710	1.0152	4.6611	1.056	A+	A-	A-
MATH	6	816052	826797	4	B-E	2	13279	0.71	0.07	0.71	0.10	0.13	0.00	0.34	-0.19	0.34	-0.22	-0.1138	-0.6709	0.0209	2.7310	1.0250	6.9911	1.1407	A+	A-	A-
MATH	6	701825	673749	5	A-N	2	13356	0.66	0.09	0.09	0.66	0.16	0.00	0.55	-0.27	-0.26	0.55	-0.2964	-0.3818	0.0201	-9.8992	0.8212	-9.8993	0.7299	A-	A-	A-
MATH	6	735183	652092	5	A-R	2	13356	0.38	0.38	0.27	0.20	0.15	0.00	0.33	0.33	-0.11	-0.16	-0.1324	1.0685	0.0202	9.9011	1.0997	9.9012	1.2055	A+	A-	A+
MATH	6	735220	263402	5	A-N	2	13356	0.44	0.24	0.22	0.44	0.09	0.00	0.40	-0.26	-0.08	0.40	-0.1953	0.7484	0.0197	4.2910	1.0358	3.7810	1.045	A-	A+	A-
MATH	6	799259	293390	5	B-E	2	13356	0.24	0.23	0.34	0.19	0.24	0.00	0.14	-0.13	-0.07	0.09	0.1381	1.9035	0.0227	9.9013	1.2521	9.9017	1.7331	A-	A+	A-
MATH	6	812077	125840	5	B-E	2	13356	0.62	0.62	0.18	0.11	0.09	0.00	0.46	0.46	-0.22	-0.22	-0.2291	-0.1891	0.0198	-7.0891	0.9451	-6.7191	0.9032	A-	A-	A-
MATH	6	812079	756182	5	A-R	2	13356	0.60	0.09	0.60	0.06	0.24	0.00	0.58	-0.27	0.58	-0.24	-0.3387	-0.0841	0.0197	-9.8992	0.8128	-9.8993	0.7422	A-	A-	A-
MATH	6	812082	448486	5	C-G	2	13356	0.32	0.10	0.26	0.32	0.33	0.00	0.48	-0.23	-0.37	0.48	0.0256	1.4157	0.0210	-8.5991	0.9160	-0.8490	0.9869	A-	A-	A-
MATH	6	812567	209248	5	A-R	2	13356	0.56	0.11	0.56	0.23	0.09	0.00	0.41	-0.20	0.41	-0.19	-0.2074	0.1192	0.0195	1.5310	1.0118	-1.0190	0.9869	A-	A-	A-
MATH	6	812573	781951	5	B-E	2	13356	0.42	0.26	0.42	0.21	0.11	0.00	0.36	-0.18	0.36	-0.13	-0.1416	0.8565	0.0198	9.9011	1.0876	9.9011	1.1335	A+	A+	A-
MATH	6	812909	713310	5	A-N	1	13356	0.78	0.09	0.09	0.04	0.78	0.00	0.49	-0.30	-0.28	-0.19	0.4948	-1.1074	0.0225	-9.8992	0.8304	-9.8993	0.6807	A+	A-	A-
MATH	6	816059	185121	5	D-S	2	13356	0.39	0.11	0.24	0.25	0.39	0.00	0.34	-0.17	-0.10	-0.16	0.3413	0.9821	0.0200	9.9011	1.1033	9.9012	1.1662	A+	A+	A-
MATH	6	817181	196676	5	D-S	2	13356	0.42	0.42	0.15	0.30	0.12	0.00	0.44	0.44	-0.15	-0.20	-0.2073	0.8129	0.0198	-0.6590	0.9944	1.9810	1.0237	A+	A-	A-
MATH	6	703056	231578	6	D-S	1	13345	0.31	0.31	0.26	0.17	0.25	0.00	0.30	0.30	-0.08	-0.13	-0.1231	1.4056	0.0211	9.9011	1.1332	9.9013	1.2775	A+	A-	A-
MATH	6	719301	293398	6	B-E	2	13345	0.31	0.31	0.08	0.47	0.13	0.00	0.39	0.39	-0.16	-0.19	-0.1166	1.4038	0.0211	1.6610	1.0169	8.0311	1.1288	A+	A+	A-
MATH	6	735226	751023	6	A-R	2	13345	0.33	0.16	0.25	0.33	0.25	0.00	0.33	-0.12	-0.06	0.33	-0.1859	1.2965	0.0208	9.4511	1.0952	9.9012	1.2091	A-	A-	A-
MATH	6	798643	910764	6	C-G	2	13345	0.28	0.48	0.19	0.28	0.05	0.00	0.04	0.12	-0.12	0.04	-0.1281	1.6345	0.0218	9.9014	1.4369	9.9018	1.7943	A-	A+	A+
MATH	6	801335	949637	6	C-G	2	13345	0.54	0.54	0.23	0.17	0.07	0.00	0.39	0.39	-0.26	-0.11	-0.1742	0.2078	0.0195	5.5310	1.0427	3.0610	1.038	A+	A-	A-
MATH	6	801980	449701	6	A-R	2	13345	0.50	0.27	0.07	0.50	0.15	0.00	0.31	-0.04	-0.22	0.31	-0.2286	0.3774	0.0195	9.9011	1.1334	9.9012	1.1926	A-	A-	A+
MATH	6	811384	436304	6	C-G	2	13345	0.39	0.28	0.18	0.14	0.39	0.00	0.46	-0.23	-0.16	-0.15	0.4573	0.9709	0.0201	-4.0990	0.9643	-0.6490	0.9919	A-	A-	A-
MATH	6	812569	790260	6	B-E	2	13345	0.65	0.65	0.15	0.15	0.05	0.00	0.46	0.46	-0.25	-0.24	-0.1906	-0.3620	0.0200	-9.5391	0.9252	-7.0791	0.8893	A+	A-	A-
MATH	6	812572	918555	6	B-E	1	13345	0.34	0.17	0.31	0.34	0.17	0.00	0.34	-0.13	-0.17	0.34	-0.0813	1.2566	0.0207	9.9011	1.0996	9.9012	1.1899	A+	A-	A-
MATH	6	812576	525905	6	D-S	2	13345	0.38	0.17	0.38	0.19	0.26	0.00	0.38	-0.18	0.38	-0.23	-0.0519	1.0507	0.0202	5.7711	1.0529	8.3211	1.1112	A+	A-	A-
MATH	6	813120	638136	6	A-N	2	13345	0.62	0.08	0.16	0.62	0.12	0.00	0.51	-0.18	-0.32	0.51	-0.2308	-0.2350	0.0198	-9.8991	0.8812	-9.8992	0.8402	A-	A-	A-
MATH	6	813730	106067	6	A-N	2	13345	0.62	0.08	0.62	0.18	0.12	0.00	0.37	-0.22	0.37	-0.17	-0.1717	-0.2237	0.0198	6.0210	1.0477	0.2710	1.004	A+	A-	A-
MATH	6	714822	555466	7	C-G	2	13280	0.48	0.09	0.20	0.48	0.23	0.00	0.34	-0.13	-0.07	0.34	-0.2472	0.5123	0.0194	9.9011	1.0859	9.4111	1.1057	A-	A+	A-
MATH	6	735185	641923	7	A-N	2	13280	0.54	0.15	0.23	0.54	0.08	0.00	0.40	-0.30	-0.09	0.40	-0.1940	0.2089	0.0194	1.9310	1.0145	3.4310	1.04	A-	A-	A-
MATH	6	799255	382317	7	A-N	2	13280	0.21	0.30	0.18	0.21	0.32	0.00	0.13	0.02	-0.11	0.13	-0.0484	2.0868	0.0237	9.9012	1.2069	9.9017	1.7062	A-	A-	A-
MATH	6	812087	218153	7	A-R	2	13280	0.33	0.18	0.33	0.31	0.18	0.00	0.33	-0.12	0.33	-0.07	-0.1967	1.3065	0.0207	7.5211	1.0738	9.9012	1.1783	A-	A-	A+
MATH	6	812300	399666	7	B-E	2	13280	0.23	0.23	0.33	0.25	0.18	0.00	0.16	0.16	0.03	-0.10	-0.0869	1.9007	0.0228	9.9012	1.2067	9.9016	1.5682	A-	A+	A+

ContArea	FormGrade	ItemID	PubID	FormNumber	Standard1	Depth	N	PValue	ProportionA	ProportionB	ProportionC	ProportionD	ProportionOMITS	PtBiserial	CorrelationA	CorrelationB	CorrelationC	CorrelationD	FinalB	FinalBErr	Infit	InfitMnSq	Outfit	OutfitMnSq	BiasCodeMALEFEMALE	BiasCodeWHITEBLACK	BiasCodeWHITEHISPANIC
MATH	6	812574	168617	7	B-E	2	13280	0.41	0.12	0.12	0.34	0.41	0.00	0.36	-0.17	-0.21	-0.11	0.3592	0.8679	0.0198	7.5411	1.0641	8.6411	1.103	A+	A-	A-
MATH	6	812917	876239	7	B-E	2	13280	0.19	0.17	0.50	0.14	0.19	0.00	0.20	-0.19	0.09	-0.15	0.1972	2.2390	0.0245	8.1311	1.1202	9.9015	1.5202	A-	A+	A+
MATH	6	813728	426519	7	A-R	2	13280	0.28	0.25	0.28	0.29	0.17	0.00	0.07	-0.05	0.07	0.02	-0.0457	1.5555	0.0214	9.9013	1.3469	9.9016	1.6444	A-	A+	A-
MATH	6	813734	134358	7	C-G	2	13280	0.25	0.25	0.22	0.23	0.30	0.00	0.27	0.27	0.08	-0.23	-0.1132	1.7810	0.0223	7.1811	1.0855	9.9013	1.335	A-	A-	A-
MATH	6	813736	667917	7	D-S	1	13280	0.27	0.27	0.47	0.15	0.10	0.00	0.34	0.34	-0.06	-0.17	-0.2055	1.6195	0.0217	3.4510	1.0378	9.6012	1.1733	A-	A-	A+
MATH	6	816057	667878	7	C-G	2	13280	0.56	0.56	0.18	0.17	0.09	0.00	0.40	0.40	-0.22	-0.14	-0.2096	0.0905	0.0194	2.0110	1.0151	1.7210	1.0208	A-	A-	A-
MATH	6	816058	436189	7	D-S	2	13280	0.41	0.20	0.19	0.41	0.19	0.00	0.32	-0.13	-0.11	0.32	-0.1521	0.8355	0.0197	9.9011	1.1096	9.9012	1.1565	A-	A+	A-
MATH	6	701822	556550	8	A-R	2	13296	0.38	0.18	0.38	0.24	0.19	0.01	0.29	0.07	0.29	-0.20	-0.2062	1.0466	0.0201	9.9012	1.1540	9.9012	1.2364	A-	A-	A-
MATH	6	735187	896827	8	A-N	2	13296	0.42	0.42	0.08	0.09	0.41	0.00	0.46	0.46	-0.21	-0.30	-0.1682	0.8391	0.0198	-4.8990	0.9596	-2.9490	0.9661	A-	A-	A-
MATH	6	799256	277751	8	A-R	2	13296	0.50	0.20	0.12	0.18	0.50	0.00	0.42	-0.08	-0.25	-0.25	0.4206	0.4433	0.0195	0.7610	1.0059	-1.3090	0.9853	A-	A-	A-
MATH	6	799263	474920	8	D-S	2	13296	0.39	0.21	0.39	0.23	0.17	0.00	0.23	-0.12	0.23	-0.02	-0.1428	0.9748	0.0200	9.9012	1.2281	9.9013	1.3417	A-	A-	A+
MATH	6	801976	189234	8	A-N	2	13296	0.69	0.08	0.12	0.69	0.11	0.00	0.30	-0.17	-0.14	0.30	-0.1560	-0.5413	0.0205	8.5511	1.0755	7.1611	1.1316	A+	A+	A+
MATH	6	801997	557083	8	B-E	2	13296	0.45	0.23	0.18	0.45	0.14	0.00	0.48	-0.12	-0.29	0.48	-0.2185	0.6853	0.0196	-7.5291	0.9405	-5.7691	0.9365	A-	A-	A-
MATH	6	801998	484995	8	C-G	2	13296	0.23	0.18	0.17	0.41	0.23	0.00	0.29	-0.23	-0.08	0.00	0.2850	1.9437	0.0229	6.7211	1.0849	9.9013	1.3415	A-	A-	A-
MATH	6	811380	518858	8	D-S	1	13296	0.50	0.50	0.20	0.14	0.15	0.00	0.43	0.43	-0.17	-0.25	-0.1688	0.4160	0.0195	-0.1790	0.9986	-1.0990	0.9876	A+	A-	A-
MATH	6	812570	439047	8	A-N	2	13296	0.68	0.68	0.11	0.09	0.12	0.00	0.49	0.49	-0.24	-0.26	-0.2262	-0.4912	0.0204	-9.8991	0.8864	-9.8992	0.8236	A-	A-	A-
MATH	6	812910	653449	8	A-R	2	13296	0.45	0.31	0.45	0.15	0.09	0.00	0.48	-0.23	0.48	-0.21	-0.1974	0.6673	0.0196	-7.1191	0.9438	-6.3391	0.9305	A-	A-	A-
MATH	6	812918	774404	8	B-E	1	13296	0.27	0.08	0.14	0.51	0.27	0.00	0.02	-0.24	-0.21	0.26	0.0217	1.6931	0.0219	9.9014	1.4144	9.9018	1.8168	A+	A-	A+
MATH	6	813123	677029	8	B-E	2	13296	0.49	0.17	0.23	0.49	0.10	0.00	0.36	-0.15	-0.17	0.36	-0.1631	0.4694	0.0195	9.3111	1.0741	7.1211	1.0819	A+	A-	A-
MATH	6	714847	475109	9	D-S	2	13359	0.34	0.34	0.21	0.24	0.20	0.00	0.32	0.32	-0.14	-0.05	-0.1776	1.2679	0.0206	9.5811	1.0941	9.9012	1.2328	A-	A-	A-
MATH	6	714909	570051	9	B-E	2	13359	0.60	0.60	0.15	0.18	0.07	0.00	0.56	0.56	-0.27	-0.30	-0.2365	-0.0974	0.0196	-9.8992	0.8417	-9.8992	0.779	A+	A+	A-
MATH	6	735207	680808	9	A-R	2	13359	0.69	0.12	0.09	0.69	0.09	0.00	0.48	-0.27	-0.24	0.48	-0.2211	-0.5969	0.0205	-9.8991	0.8934	-9.8992	0.7974	A+	A-	A-
MATH	6	802001	422820	9	D-S	2	13359	0.49	0.49	0.25	0.15	0.10	0.00	0.33	0.33	-0.11	-0.16	-0.1847	0.4557	0.0194	9.9011	1.1166	9.9011	1.1359	A+	A-	A-
MATH	6	811377	935666	9	B-E	2	13359	0.40	0.40	0.17	0.14	0.29	0.00	0.33	0.33	-0.20	-0.20	-0.0350	0.9041	0.0199	9.9011	1.1056	9.9012	1.1522	A-	A-	A-
MATH	6	811378	135286	9	A-R	2	13359	0.54	0.18	0.54	0.16	0.12	0.00	0.38	-0.10	0.38	-0.28	-0.1332	0.2288	0.0194	7.0511	1.0544	4.2311	1.0512	A-	A-	A-
MATH	6	811381	451753	9	D-S	2	13359	0.43	0.16	0.13	0.27	0.43	0.00	0.39	-0.18	-0.15	-0.17	0.3949	0.7573	0.0197	4.7510	1.0395	5.0911	1.0596	A+	A+	A-
MATH	6	812076	502292	9	B-E	1	13359	0.50	0.20	0.50	0.08	0.22	0.00	0.27	-0.28	0.27	-0.17	0.0619	0.3904	0.0194	9.9012	1.1804	9.9012	1.2249	A+	A-	A+
MATH	6	812577	663203	9	D-S	2	13359	0.31	0.21	0.29	0.31	0.20	0.00	0.07	0.05	-0.06	0.07	-0.0647	1.4389	0.0211	9.9014	1.3842	9.9017	1.6851	A+	A+	A+
MATH	6	812907	383925	9	A-N	1	13359	0.83	0.05	0.06	0.83	0.05	0.00	0.42	-0.21	-0.22	0.42	-0.2483	-1.5193	0.0246	-9.8991	0.8629	-9.8993	0.7257	A+	A-	A-
MATH	6	813735	521621	9	C-G	2	13359	0.37	0.20	0.24	0.19	0.37	0.00	0.31	-0.11	-0.11	-0.14	0.3095	1.0770	0.0202	9.9011	1.1252	9.9012	1.1934	A-	A-	A-
MATH	6	816055	558611	9	A-N	2	13359	0.38	0.16	0.38	0.21	0.25	0.00	0.31	-0.23	0.31	-0.15	-0.0061	1.0369	0.0201	9.9011	1.1321	9.9012	1.217	A-	A+	A-
MATH	7	665983	618692	0	C-G	2	121665	0.50	0.50	0.13	0.25	0.11	0.00	0.33	0.33	-0.17	-0.16	-0.1112	0.2134	0.0066	9.9012	1.1713	9.9012	1.2098			
MATH	7	666017	290643	0	D-S	2	121665	0.67	0.07	0.67	0.13	0.13	0.00	0.46	-0.13	0.46	-0.25	-0.3020	-0.8225	0.0068	-9.8991	0.9268	-9.8991	0.9303			
MATH	7	666571	684415	0	A-N	1	121665	0.49	0.15	0.20	0.49	0.15	0.00	0.36	0.01	-0.23	0.36	-0.2468	0.0603	0.0065	9.9011	1.1237	9.9012	1.1748			
MATH	7	666576	426853	0	A-N	2	121665	0.71	0.07	0.71	0.10	0.12	0.00	0.54	-0.26	0.54	-0.30	-0.2782	-1.0646	0.0069	-9.8992	0.8301	-9.8993	0.7096			
MATH	7	667566	674190	0	A-R	2	121665	0.59	0.31	0.05	0.05	0.59	0.00	0.48	-0.30	-0.24	-0.18	0.4758	-0.4551	0.0066	-9.8990	0.9562	-9.8991	0.9276			
MATH	7	667574	447301	0	D-S	2	121665	0.46	0.12	0.16	0.26	0.46	0.00	0.41	-0.19	-0.28	-0.09	0.4142	0.2925	0.0066	9.9011	1.0594	9.9011	1.0719			
MATH	7	669583	459033	0	A-R	2	121665	0.76	0.10	0.76	0.07	0.06	0.00	0.42	-0.16	0.42	-0.25	-0.2688	-1.3987	0.0073	-9.8991	0.9128	-9.8991	0.9013			
MATH	7	669635	286659	0	A-R	2	121665	0.74	0.10	0.08	0.74	0.07	0.00	0.49	-0.25	-0.26	0.49	-0.2594	-1.1762	0.0071	-9.8992	0.8401	-9.8993	0.7079			
MATH	7	675163	308082	0	A-R	2	121665	0.69	0.11	0.69	0.11	0.09	0.00	0.49	-0.20	0.49	-0.30	-0.2421	-0.9514	0.0068	-9.8991	0.9048	-9.8992	0.8283			
MATH	7	675178	497356	0	D-S	2	121665	0.45	0.12	0.25	0.45	0.17	0.00	0.37	-0.26	-0.21	0.37	-0.0209	0.2547	0.0066	9.9011	1.1080	9.9011	1.1374			
MATH	7	676762	900007	0	B-E	2	121665	0.59	0.09	0.09	0.23	0.59	0.00	0.45	-0.28	-0.25	-0.17	0.4501	-0.4368	0.0066	-5.6890	0.9852	-9.5690	0.9528			
MATH	7	678559	172492	0	C-G	1	121665	0.50	0.50	0.15	0.12	0.24	0.00	0.45	0.45	-0.08	-0.19	-0.3245	0.0566	0.0065	1.5010	1.0041	0.9010	1.0038			
MATH	7	696696	715910	0	A-N	2	121665	0.49	0.16	0.20	0.49	0.16	0.00	0.46	-0.24	-0.26	0.46	-0.1065	0.1946	0.0066	0.1810	1.0005	-1.5890	0.9935			
MATH	7	696721	345079	0	A-R	2	121665	0.70	0.12	0.70	0.10	0.09	0.00	0.53	-0.30	0.53	-0.26	-0.2433	-0.9411	0.0068	-9.8992	0.8321	-9.8993	0.7155			
MATH	7	700428	404144	0	A-R	2	121665	0.69	0.69	0.16	0.10	0.05	0.00	0.53	0.53	-0.28	-0.30	-0.2309	-1.0354	0.0069	-9.8991	0.8829	-9.8992	0.7772			
MATH	7	700446	673121	0	A-R	2	121665	0.60	0.10	0.24	0.06	0.60	0.00	0.41	-0.19	-0.22	-0.20	0.4110	-0.4327	0.0066	9.3010	1.0245	4.9910	1.0251			
MATH	7	700449	655499	0	C-G	1	121665	0.64	0.64	0.09	0.10	0.16	0.00	0.49	0.49	-0.21	-0.25	-0.2620	-0.6524	0.0067	-9.8991	0.9171	-9.8991	0.8771			
MATH	7	700468	233922	0	A-R	2	121665	0.56	0.13	0.19	0.56	0.12	0.00	0.52	-0.22	-0.25	0.52	-0.2536	-0.2421	0.0065	-9.8991	0.9125	-9.8991	0.8533			
MATH	7	700469	211050	0	A-N	2	121665	0.45	0.16	0.19	0.20	0.45	0.00	0.56	-0.26	-0.29	-0.17	0.5574	0.3484	0.0066	-9.8991	0.8779	-9.8991	0.8571			
MATH	7	700470	423099	0	B-E	2	121665	0.63	0.05	0.63	0.15	0.16	0.00	0.49	-0.13	0.49	-0.21	-0.3505	-0.5301	0.0066	-9.8991	0.9073	-9.8991	0.8568			
MATH	7	700471	467394	0	B-E	2	121665	0.41	0.29	0.13	0.41	0.18	0.00	0.52	-0.35	-0.17	0.52	-0.1029	0.6395	0.0067	-9.8991	0.9267	-9.8991	0.9347			
MATH	7	700505	136864	0	D-S	2	121665	0.47	0.41	0.47	0.05	0.06	0.00	0.53	-0.37	0.53	-0.20	-0.1317	0.2020	0.0066	-9.8991	0.9144	-9.8991	0.8924			
MATH	7	700507	689606	0	A-R	2	121665	0.64	0.09	0.05	0.64	0.22	0.00	0.51	-0.32	-0.23	0.51	-0.2481	-0.7897	0.0067	-9.8991	0.9121	-9.8991	0.9129			
MATH	7	700514	266696	0	C-G	2	121665	0.60	0.16	0.60	0.16	0.08	0.00	0.52	-0.29	0.52	-0.26	-0.1955	-0.3925	0.0066	-9.8991	0.8869	-9.8992	0.8286			
MATH	7	700529	949885	0	B-E	2	121665	0.52	0.52	0.21	0.14	0.12	0.00	0.47	0.47	-0.21	-0.22	-0.2310	-0.0366	0.0065	-9.3490	0.9752	-9.8990	0.9509			
MATH	7	701812	335107	0	A-N	2	121665	0.43	0.14	0.16	0.28	0.43	0.00	0.32	-0.17	-0.16	-0.09	0.3193	0.4478	0.0066	9.9012	1.1718	9.9012	1.2311			
MATH	7	701814	625136	0	C-G	1	121665	0.50	0.16	0.24	0.50	0.09	0.00	0.50	-0.33	-0.21	0.50	-0.1261	0.1063	0.0065	-9.8991	0.9467	-9.8991	0.9392			
MATH	7	701843	532124	0	B-E	2	121665	0.58	0.12	0.58	0.23	0.08	0.00	0.47	-0.14	0.47	-0.28	-0.2447	-0.3903	0.0066	-9.8990	0.9641	-5.8590	0.9716			
MATH	7	701852	616454	0	C-G	1	121665	0.63	0.63	0.12	0.13	0.12	0.00	0.42	0.42	-0.28	-0.23	-0.1054	-0.6376	0.0066	1.8110	1.0048	-1.2590	0.993			
MATH	7	701866	688709	0	B-E	2	121665	0.41	0.15	0.26	0.17	0.41	0.00	0.45	-0.23	-0.14	-0.20	0.4451	0.5271	0.0067	3.7610	1.0113	5.9510	1.0253			
MATH	7	701872	564414	0	D-S	2	121665	0.55	0.55	0.07	0.31	0.07	0.00	0.56	0.56	-0.16	-0.37	-0.2509	-0.2118	0.0065	-9.8991	0.8653	-9.8992	0.8207			
MATH	7	701888	454071	0	A-N	1	121665	0.73	0.07	0.11	0.09	0.73	0.00	0.39	-0.22	-0.19	-0.20	0.3912	-1.1376	0.0070	-9.8990	0.9635	-0.8290	0.9939			
MATH	7	701919	519073	0	B-E	2	121665	0.67	0.67	0.19	0.04	0.09	0.00	0.56	0.56	-0.35	-0.22	-0.2765	-0.8898	0.0068	-9.8992	0.8192	-9.8993	0.7141			
MATH	7	701922	298437	0	D-S	2	121665	0.50	0.16	0.17	0.17	0.50	0.00	0.55	-0.30	-0.18	-0.24	0.5450	0.0262	0.0065	-9.8991	0.8900	-9.8991	0.8593			
MATH	7	703027	207462	0	A-R	2	121665	0.73	0.06	0.14	0.73	0.07	0.00	0.54	-0.26	-0.31	0.54	-0.2619	-1.2023	0.0071	-9.8992	0.8185	-9.8993	0.69			
MATH	7	703044	226896	0	A-N	1	121665	0.60	0.60	0.17	0.11	0.12	0.00	0.43	0.43	-0.23	-0.23	-0.1661	-0.5122	0.0066	-0.8090	0.9979	4.4410	1.0233			
MATH	7	703067	170313	0	B-E	2	121665	0.42	0.42	0.24	0.24	0.10	0.00	0.46	0.46	-0.13	-0.22	-0.2590	0.4861	0.0067	-2.7890	0.9917	4.1410	1.0174			
MATH	7	703079	851022	0	C-G	2	121665	0.36	0.29	0.36	0.19	0.16	0.00	0.28	-0.13	0.28	-0.11	-0.0889	0.7256	0.0068	9.9012	1.1979	9.9013	1.3003			
MATH	7	703104	423989	0	D-S	2	121665	0.49	0.12	0.49	0.27	0.11	0.00	0.40	-0.23	0.40	-0.12	-0.2100	0.0882	0.0065	9.9011	1.0721	9.9011	1.0879			
MATH	7	703110	669452	0	A-R	2	121665	0.67	0.09	0.08	0.67	0.15	0.00	0.43	-0.24	-0.26	0.43	-0.1622	-0.8190	0.0068	-9.8990	0.9632	-3.1590	0.9807			
MATH	7	703121	761265	0	A-N	2	121665	0.64	0.64	0.16	0.03	0.17	0.00	0.48	0.48	-0.20	-0.17	-0.3391	-0.6457	0.0067	-9.8991	0.9127	-9.8991	0.8539			
MATH	7	703124	917009	0	D-S	2	121665	0.77	0.77	0.10	0.08	0.06	0.00	0.47	0.47	-0.25	-0.26	-0.2291	-1.3427	0.0073	-9.8992	0.8335	-9.8993	0.7049			
MATH	7	712502	648724	0	A-N	1	121665	0.34	0.26	0.12	0.28	0.34	0.00	0.56	-0.03	-0.18	-0.43	0.5601	0.8980	0.0069	-9.8991	0.8589	-9.8992	0.835			
MATH	7	714817	744089	0	C-G	2	121665	0.58	0.58	0.15	0.18	0.08	0.00	0.52	0.52	-0.23	-0.29	-0.2090	-0.4124	0.0066	-9.8991	0.9141	-9.8991	0.8567			
MATH	7	714871	394632	0	B-E	2	121665	0.58	0.12	0.15	0.58	0.15	0.00	0.48	-0.24	-0.24	0.48	-0.2088	-0.3380	0.0065	-9.8991	0.9464	-9.8991	0.8868			
MATH	7	714884	712867	0	D-S	2	121665	0.73	0.06	0.73	0.11	0.09	0.00	0.43	-0.21	0.43	-0.21	-0.2548	-1.1876	0.0071	-9.8991	0.9215	-9.8991	0.8964			
MATH	7	714885	619613	0	D-S	2	121665	0.56	0.06	0.56	0.25	0.12	0.00	0.39	-0.19	0.39	-0.28	-0.0849	-0.2497	0.0065	9.9011	1.0637	8.7710	1.0408			
MATH	7	719280	989256	0	D-S	2	121665	0.52	0.15	0.15	0.52	0.18	0.00	0.40	-0.14	-0.21	0.40	-0.1913	-0.1213	0.0065	9.9011	1.0690	9.9011	1.0658			
MATH	7	719291	550941	0	B-E	2	121665	0.47	0.18	0.47	0.24	0.11	0.00	0.25	-0.07	0.25	-0.14	-0.1209	0.2992	0.0066	9.9013	1.2690	9.9013	1.3321			
MATH	7	719306	604974	0	B-E	2	121665	0.54	0.11	0.17	0.54	0.17	0.00	0.43	-0.18	-0.29	0.43	-0.1248	-0.1173	0.0065	8.1310	1.0217	-0.5590	0.9975			
MATH	7	719318	424488	0	B-E	1	121665	0.40	0.11	0.09	0.40	0.40	0.00	0.41	-0.26	-0.24	-0.11	0.4102	0.5989	0.0067	9.9011	1.0623	9.9011	1.0987			
MATH	7	719323	325876	0	B-E	2	121665	0.46	0.14	0.21	0.46	0.19	0.00	0.30	-0.16	-0.13	0.30	-0.0959	0.3496	0.0066	9.9012	1.2124	9.9012	1.247			
MATH	7	719355	988859	0	A-R	2	121665	0.35	0.28	0.35	0.27	0.10	0.00	0.40	-0.14	0.40	-0.16	-0.1759	0.9918	0.0070	9.9011	1.0748	9.9012	1.2103			
MATH	7	735243	937430	0	A-N	1	121665	0.54	0.54	0.17	0.12	0.17	0.00	0.38	0.38	-0.16	-0.23	-0.1384	-0.2347	0.0065	9.9011	1.0917	9.9011	1.1359			
MATH	7	735248	202804	0	A-R	2	121665	0.40	0.33	0.17	0.40	0.09	0.00	0.44	-0.18	-0.18	0.44	-0.2151	0.5359	0.0067	0.7010	1.0021	9.9010	1.0471			
MATH	7	735251	411669	0	A-R	2	121665	0.65	0.10	0.65	0.12	0.12	0.00	0.51	-0.25	0.51	-0.27	-0.2355	-0.7730	0.0067	-9.8991	0.9025	-9.8992	0.814			
MATH	7	735252	643346	0	A-N	2	121665	0.43	0.18	0.14	0.25	0.43	0.00	0.31	-0.11	-0.15	-0.14	0.3069	0.4873	0.0067	9.9012	1.2037	9.9013	1.2688			

ContArea	FormGrade	ItemID	PubID	FormNumber	Standard1	Depth	N	PValue	ProportionA	ProportionB	ProportionC	ProportionD	ProportionOMITS	PtBiserial	CorrelationA	CorrelationB	CorrelationC	CorrelationD	FinalB	FinalBErr	Infit	InfitMnSq	Outfit	OutfitMnSq	BiasCodeMALEFEMALE	BiasCodeWHITEBLACK	BiasCodeWHITEHISPANIC
MATH	7	735253	924293	0	A-R	2	121665	0.54	0.14	0.15	0.18	0.54	0.00	0.48	-0.20	-0.23	-0.22	0.4752	-0.1068	0.0065	-9.8990	0.9698	-9.8991	0.9312			
MATH	7	735259	863912	0	B-E	2	121665	0.40	0.14	0.12	0.34	0.40	0.00	0.29	-0.14	-0.19	-0.06	0.2884	0.5600	0.0067	9.9012	1.2135	9.9013	1.2916			
MATH	7	735264	103452	0	C-G	2	121665	0.47	0.17	0.47	0.25	0.10	0.00	0.38	-0.27	0.38	-0.08	-0.1856	0.0679	0.0065	9.9011	1.0907	9.9011	1.0916			
MATH	7	696697	542925	1	B-E	1	13939	0.39	0.14	0.29	0.17	0.39	0.00	0.26	-0.13	-0.01	-0.20	0.2554	0.5849	0.0199	9.9013	1.2582	9.9013	1.3175	A+	A+	A+
MATH	7	714851	807869	1	C-G	2	13939	0.44	0.36	0.44	0.11	0.08	0.00	0.47	-0.29	0.47	-0.17	-0.1386	0.3278	0.0195	-2.1790	0.9815	-0.0490	0.9993	A-	A-	A-
MATH	7	799267	729909	1	A-R	2	13939	0.34	0.31	0.18	0.34	0.17	0.00	0.25	-0.08	-0.21	0.25	0.0092	0.8807	0.0205	9.9013	1.2521	9.9014	1.401	A-	A+	A-
MATH	7	805371	561789	1	D-S	2	13939	0.45	0.14	0.28	0.45	0.13	0.00	0.54	-0.29	-0.23	0.54	-0.1827	0.2870	0.0195	-9.8991	0.8968	-9.8991	0.8847	A-	A-	A-
MATH	7	812678	144539	1	B-E	2	13939	0.69	0.09	0.69	0.10	0.12	0.00	0.51	-0.25	0.51	-0.25	-0.2785	-1.0173	0.0202	-9.8991	0.8603	-9.8992	0.7687	A+	A+	A-
MATH	7	812682	741445	1	C-G	1	13939	0.40	0.18	0.22	0.40	0.20	0.00	0.26	-0.03	-0.03	0.26	-0.2481	0.5596	0.0198	9.9013	1.2539	9.9013	1.3445	A-	A-	A-
MATH	7	812791	490959	1	C-G	1	13939	0.31	0.18	0.31	0.20	0.31	0.00	0.38	-0.08	-0.12	-0.22	0.3845	1.0861	0.0210	8.3311	1.0901	8.0011	1.1334	A-	A-	A-
MATH	7	813366	410733	1	A-R	2	13939	0.28	0.17	0.33	0.28	0.23	0.00	0.15	-0.12	-0.15	0.15	0.1267	1.2603	0.0216	9.9013	1.3439	9.9017	1.6904	A+	A-	A-
MATH	7	815654	973759	1	A-R	2	13939	0.31	0.35	0.19	0.16	0.31	0.00	0.20	-0.01	-0.04	-0.19	0.1956	1.0737	0.0210	9.9013	1.2835	9.9015	1.5461	A-	A+	A+
MATH	7	815661	562518	1	D-S	1	13939	0.24	0.39	0.24	0.17	0.20	0.00	0.07	-0.02	0.07	-0.08	0.0220	1.4918	0.0224	9.9014	1.4001	9.9019	1.9401	A-	A-	A-
MATH	7	815673	848540	1	A-N	1	13939	0.50	0.15	0.50	0.13	0.21	0.00	0.41	-0.20	0.41	-0.24	-0.1279	-0.0057	0.0193	6.7011	1.0541	6.2711	1.078	A-	A+	A+
MATH	7	815676	636975	1	B-E	2	13939	0.57	0.57	0.27	0.11	0.06	0.00	0.39	0.39	-0.12	-0.29	-0.2108	-0.3247	0.0193	7.0011	1.0544	6.4811	1.0901	A+	A+	A-
MATH	7	714828	796042	2	C-G	1	13459	0.39	0.17	0.17	0.39	0.27	0.00	0.38	-0.16	-0.18	0.38	-0.1296	0.6583	0.0202	8.2511	1.0779	9.9011	1.1342	A+	A-	A-
MATH	7	714875	324645	2	C-G	2	13459	0.31	0.21	0.26	0.22	0.31	0.00	0.29	-0.14	-0.11	-0.07	0.2880	1.1009	0.0212	9.9012	1.1508	9.9013	1.3451	A-	A-	A-
MATH	7	735215	872709	2	A-R	2	13459	0.37	0.37	0.24	0.25	0.14	0.00	0.30	0.30	-0.14	-0.10	-0.1290	0.7455	0.0204	9.9012	1.1734	9.9013	1.2656	A+	A-	A-
MATH	7	799268	453937	2	B-E	2	13459	0.17	0.28	0.26	0.29	0.17	0.00	0.15	-0.05	-0.08	0.00	0.1515	2.1221	0.0257	9.9012	1.2098	9.9018	1.8194	A-	A+	A+
MATH	7	801333	432638	2	A-R	2	13459	0.57	0.57	0.22	0.11	0.10	0.01	0.57	0.57	-0.34	-0.24	-0.2236	-0.3097	0.0196	-9.8992	0.8462	-9.8992	0.7841	A-	A-	A-
MATH	7	802006	119596	2	A-R	2	13459	0.21	0.57	0.21	0.17	0.06	0.00	-0.10	0.18	-0.10	-0.04	-0.1369	1.7876	0.0239	9.9016	1.6045	9.9024	2.4202	A+	A-	A+
MATH	7	812681	166523	2	C-G	2	13459	0.37	0.08	0.41	0.37	0.14	0.00	0.24	-0.20	-0.01	0.24	-0.1580	0.7654	0.0204	9.9013	1.2505	9.9014	1.3862	A-	A-	A+
MATH	7	812683	474830	2	D-S	1	13459	0.35	0.10	0.35	0.25	0.30	0.00	0.25	-0.19	0.25	0.01	-0.1456	0.8563	0.0206	9.9013	1.2610	9.9014	1.3987	A-	A-	A-
MATH	7	812787	281979	2	A-N	1	13459	0.51	0.14	0.15	0.21	0.51	0.00	0.54	-0.11	-0.32	-0.29	0.5412	0.0278	0.0196	-9.8991	0.8877	-9.8991	0.8772	A-	A-	A-
MATH	7	813368	131556	2	A-R	2	13459	0.31	0.28	0.31	0.16	0.24	0.00	0.18	0.10	0.18	-0.24	-0.0916	1.0914	0.0212	9.9013	1.2994	9.9015	1.5214	A+	A+	A-
MATH	7	815662	739186	2	D-S	2	13459	0.49	0.14	0.19	0.49	0.18	0.00	0.51	-0.30	-0.17	0.51	-0.2150	0.1021	0.0196	-9.3691	0.9253	-7.5791	0.912	A+	A-	A-
MATH	7	817820	557542	2	B-E	2	13459	0.37	0.22	0.25	0.15	0.37	0.00	0.16	0.04	0.02	-0.28	0.1636	0.7334	0.0203	9.9014	1.3737	9.9015	1.4941	A+	A-	A+
MATH	7	714883	214217	3	C-G	2	13453	0.44	0.23	0.44	0.20	0.13	0.00	0.26	-0.19	0.26	-0.13	0.0134	0.3982	0.0200	9.9013	1.2749	9.9014	1.3694	A-	A-	A-
MATH	7	719322	309583	3	A-R	2	13453	0.41	0.41	0.22	0.26	0.11	0.00	0.43	0.43	-0.05	-0.29	-0.1967	0.5442	0.0202	4.8610	1.0451	6.9611	1.0938	A-	A-	A+
MATH	7	801336	231215	3	A-R	2	13453	0.58	0.22	0.14	0.58	0.05	0.00	0.52	-0.33	-0.20	0.52	-0.2171	-0.3622	0.0198	-9.8991	0.9117	-9.8992	0.8498	A-	A+	A+
MATH	7	801996	515923	3	B-E	2	13453	0.60	0.13	0.16	0.60	0.11	0.00	0.45	-0.16	-0.27	0.45	-0.2079	-0.4300	0.0198	-0.7890	0.9938	-4.7291	0.9276	A+	A-	A-
MATH	7	812675	327281	3	A-R	2	13453	0.23	0.53	0.10	0.13	0.23	0.00	0.22	0.11	-0.25	-0.21	0.2177	1.6347	0.0233	9.9013	1.2854	9.9016	1.5866	A-	A+	A-
MATH	7	812679	494803	3	B-E	2	13453	0.35	0.11	0.12	0.42	0.35	0.00	0.22	-0.20	-0.25	0.08	0.2246	0.8996	0.0209	9.9013	1.3203	9.9015	1.4737	A-	A-	A+
MATH	7	812793	676620	3	D-S	2	13453	0.51	0.11	0.27	0.51	0.11	0.00	0.49	-0.27	-0.29	0.49	-0.1003	0.0273	0.0197	-4.6990	0.9619	-5.5891	0.9284	A-	A-	A-
MATH	7	813367	379045	3	B-E	1	13453	0.79	0.05	0.10	0.06	0.79	0.00	0.41	-0.23	-0.21	-0.23	0.4130	-1.5663	0.0228	-7.7791	0.9139	-6.7092	0.8181	B+	A-	A-
MATH	7	813376	918610	3	D-S	2	13453	0.43	0.11	0.43	0.30	0.16	0.00	0.37	-0.19	0.37	-0.14	-0.1546	0.4290	0.0200	9.9011	1.1220	9.9012	1.1688	A-	A-	A-
MATH	7	815653	472832	3	A-N	2	13453	0.55	0.55	0.12	0.20	0.13	0.00	0.51	0.51	-0.27	-0.23	-0.2110	-0.1824	0.0197	-8.4391	0.9341	-8.4791	0.8857	A-	A-	A+
MATH	7	815660	114939	3	C-G	2	13453	0.31	0.26	0.31	0.19	0.24	0.00	0.12	-0.01	0.12	-0.11	-0.0171	1.1038	0.0214	9.9014	1.4099	9.9017	1.7298	A-	A+	A+
MATH	7	816205	125424	3	A-R	2	13453	0.53	0.23	0.53	0.13	0.11	0.00	0.45	-0.21	0.45	-0.18	-0.2423	-0.0778	0.0197	0.4510	1.0036	-1.7090	0.977	A-	A-	A-
MATH	7	700523	786394	4	A-N	1	13511	0.75	0.06	0.11	0.75	0.07	0.00	0.49	-0.23	-0.31	0.49	-0.2144	-1.3434	0.0217	-9.8991	0.8689	-9.8993	0.7169	A-	A-	A-
MATH	7	701901	837999	4	C-G	2	13511	0.24	0.24	0.17	0.19	0.39	0.00	-0.03	-0.03	-0.24	-0.11	0.3051	1.5314	0.0227	9.9015	1.5436	9.9021	2.0807	A-	A-	A-
MATH	7	719309	463668	4	B-E	2	13511	0.52	0.11	0.14	0.23	0.52	0.00	0.44	-0.26	-0.24	-0.13	0.4404	-0.0214	0.0195	0.5410	1.0043	-0.0990	0.9987	A+	A-	A-
MATH	7	735233	700331	4	A-R	2	13511	0.27	0.27	0.19	0.34	0.19	0.00	0.23	0.23	-0.13	-0.01	-0.1070	1.3363	0.0219	9.9012	1.2165	9.9015	1.4786	A-	A+	A-
MATH	7	799257	367746	4	D-S	2	13511	0.35	0.20	0.35	0.24	0.20	0.00	0.24	-0.16	0.24	-0.09	-0.0254	0.8475	0.0205	9.9012	1.2451	9.9014	1.3546	A-	A+	A-
MATH	7	799269	840197	4	B-E	2	13511	0.28	0.18	0.28	0.22	0.32	0.00	0.15	-0.11	0.15	-0.17	0.1034	1.2731	0.0217	9.9013	1.3176	9.9016	1.6348	A+	A-	A-
MATH	7	802010	829426	4	A-R	2	13511	0.36	0.23	0.36	0.34	0.07	0.00	0.22	-0.09	0.22	-0.02	-0.2241	0.8093	0.0204	9.9013	1.2680	9.9014	1.4035	A-	A-	A-
MATH	7	804824	775004	4	A-N	2	13511	0.39	0.36	0.18	0.39	0.07	0.00	0.41	-0.13	-0.22	0.41	-0.2095	0.6420	0.0201	4.4010	1.0406	6.7211	1.0879	A-	A-	A-
MATH	7	804827	873417	4	B-E	1	13511	0.50	0.19	0.07	0.50	0.23	0.00	0.49	-0.34	-0.18	0.49	-0.1431	0.0442	0.0195	-6.0190	0.9527	-6.5191	0.9244	A+	A-	A-
MATH	7	812674	741241	4	A-R	2	13511	0.17	0.17	0.28	0.38	0.17	0.00	0.04	-0.15	-0.14	0.21	0.0441	2.0973	0.0255	9.9013	1.3392	9.9022	2.2006	A-	A+	A-
MATH	7	815675	726017	4	C-G	2	13511	0.37	0.15	0.18	0.37	0.29	0.00	0.32	-0.22	-0.24	0.32	0.0438	0.7392	0.0203	9.9011	1.1457	9.9012	1.2252	A+	A-	A-
MATH	7	816209	404468	4	D-S	2	13511	0.37	0.27	0.16	0.20	0.37	0.00	0.30	-0.02	-0.24	-0.12	0.3025	0.7574	0.0203	9.9012	1.1896	9.9013	1.2708	A+	A-	A-
MATH	7	714831	474706	5	D-S	2	13467	0.37	0.33	0.17	0.37	0.13	0.00	0.37	-0.18	-0.13	0.37	-0.1328	0.7848	0.0206	9.9011	1.1020	9.9012	1.2009	A-	A-	A-
MATH	7	735246	377586	5	A-N	2	13467	0.51	0.16	0.51	0.25	0.08	0.00	0.49	-0.23	0.49	-0.30	-0.1124	0.0027	0.0197	-5.8090	0.9534	-5.5391	0.9311	B-	A-	A+
MATH	7	804826	318423	5	A-N	2	13467	0.36	0.18	0.29	0.36	0.17	0.00	0.31	-0.19	-0.06	0.31	-0.1260	0.7975	0.0206	9.9012	1.1724	9.9013	1.2893	A-	A+	A-
MATH	7	812792	752968	5	C-G	2	13467	0.44	0.21	0.17	0.44	0.18	0.00	0.23	0.12	-0.19	0.23	-0.2332	0.3614	0.0199	9.9013	1.3097	9.9014	1.4292	A+	A-	A-
MATH	7	812795	727232	5	B-E	2	13467	0.48	0.23	0.12	0.17	0.48	0.00	0.43	-0.15	-0.22	-0.21	0.4307	0.1728	0.0197	4.5710	1.0388	3.8010	1.0477	A+	A-	A+
MATH	7	815641	386592	5	A-R	2	13467	0.55	0.08	0.27	0.10	0.55	0.00	0.60	-0.24	-0.35	-0.26	0.5986	-0.1824	0.0196	-9.8992	0.8163	-9.8993	0.7432	B-	A-	A-
MATH	7	815642	961331	5	A-R	2	13467	0.29	0.29	0.20	0.38	0.13	0.00	0.32	0.32	-0.16	0.03	-0.2717	1.2224	0.0217	9.9011	1.1490	9.9013	1.3111	A+	A+	A+
MATH	7	815657	780985	5	B-E	2	13467	0.48	0.48	0.23	0.12	0.16	0.00	0.40	0.40	-0.21	-0.21	-0.1191	0.1709	0.0197	7.8811	1.0674	7.8311	1.1001	A+	A-	A-
MATH	7	815680	323571	5	D-S	2	13467	0.75	0.12	0.05	0.75	0.08	0.00	0.52	-0.31	-0.24	0.52	-0.2707	-1.3315	0.0218	-9.8992	0.8196	-9.8993	0.663	A-	B-	B-
MATH	7	816207	458734	5	B-E	2	13467	0.49	0.18	0.49	0.19	0.14	0.00	0.45	-0.17	0.45	-0.26	-0.1674	0.1195	0.0197	1.0710	1.0089	0.3910	1.0048	A-	A-	A-
MATH	7	816208	843428	5	C-G	2	13467	0.31	0.21	0.31	0.28	0.20	0.00	0.03	-0.03	0.03	0.01	-0.0246	1.1154	0.0214	9.9015	1.5425	9.9019	1.8916	A-	A-	A-
MATH	7	817815	647285	5	A-R	2	13467	0.53	0.12	0.53	0.11	0.23	0.00	0.38	-0.23	0.38	-0.27	-0.0617	-0.1014	0.0196	9.9011	1.0902	9.7811	1.1338	A+	A-	A-
MATH	7	714840	588990	6	D-S	2	13462	0.52	0.11	0.14	0.52	0.23	0.00	0.46	-0.21	-0.19	0.46	-0.2312	-0.0353	0.0196	-0.8390	0.9932	0.2710	1.0035	A-	A-	A-
MATH	7	735637	969742	6	A-N	2	13462	0.47	0.16	0.25	0.47	0.13	0.00	0.44	-0.17	-0.21	0.44	-0.1988	0.2262	0.0198	2.1110	1.0180	0.3810	1.0047	A-	A-	A-
MATH	7	799266	568612	6	A-R	2	13462	0.30	0.17	0.30	0.18	0.34	0.00	0.21	-0.14	0.21	-0.16	0.0411	1.1738	0.0216	9.9013	1.2974	9.9016	1.5528	A+	A+	A+
MATH	7	799271	374042	6	D-S	2	13462	0.44	0.44	0.22	0.23	0.11	0.00	0.50	0.50	-0.18	-0.26	-0.2083	0.3871	0.0199	-6.0691	0.9475	-4.0791	0.9496	A+	A-	A-
MATH	7	812785	568717	6	A-N	1	13462	0.57	0.15	0.07	0.57	0.21	0.00	0.56	-0.16	-0.23	0.56	-0.3892	-0.3081	0.0197	-9.8991	0.8647	-9.8992	0.8275	A+	A-	A-
MATH	7	813374	529235	6	C-G	2	13462	0.31	0.21	0.31	0.37	0.12	0.00	0.20	-0.10	0.20	-0.11	0.0168	1.1463	0.0215	9.9013	1.3063	9.9016	1.5861	A-	A-	A+
MATH	7	815655	671314	6	A-R	2	13462	0.45	0.26	0.12	0.16	0.45	0.00	0.61	-0.21	-0.29	-0.31	0.6056	0.3036	0.0199	-9.8992	0.8177	-9.8992	0.7767	B-	A-	A-
MATH	7	815656	158930	6	B-E	2	13462	0.69	0.13	0.69	0.09	0.09	0.00	0.51	-0.34	0.51	-0.24	-0.1856	-0.9628	0.0206	-9.8991	0.8761	-9.8992	0.7595	A+	A+	A-
MATH	7	815679	591015	6	A-R	2	13462	0.15	0.56	0.15	0.14	0.15	0.00	0.13	0.11	-0.15	-0.13	0.1256	2.2996	0.0268	9.9012	1.1757	9.9023	2.3003	A-	A-	A+
MATH	7	816201	902321	6	B-E	2	13462	0.40	0.12	0.28	0.40	0.21	0.00	0.23	-0.17	0.01	0.23	-0.1505	0.6121	0.0203	9.9013	1.2945	9.9014	1.4008	A-	A-	A+
MATH	7	816206	623319	6	B-E	2	13462	0.27	0.15	0.22	0.27	0.36	0.00	0.20	-0.24	-0.24	0.20	0.2092	1.3964	0.0223	9.9013	1.2780	9.9017	1.6746	A-	A-	A-
MATH	7	817822	702769	6	C-G	2	13462	0.45	0.45	0.15	0.24	0.16	0.00	0.28	0.28	-0.15	-0.13	-0.0715	0.3380	0.0199	9.9012	1.2384	9.9013	1.3173	A-	A-	A-
MATH	7	714839	818723	7	D-S	2	13476	0.45	0.13	0.20	0.22	0.45	0.00	0.37	-0.17	-0.12	-0.19	0.3691	0.3531	0.0198	9.9011	1.1126	9.9012	1.1508	A+	A-	A-
MATH	7	735261	455317	7	B-E	2	13476	0.44	0.31	0.44	0.12	0.12	0.00	0.42	-0.27	0.42	-0.15	-0.1080	0.3942	0.0198	4.3510	1.0379	3.5810	1.0445	A+	A+	A+
MATH	7	804828	273828	7	B-E	2	13476	0.52	0.19	0.52	0.18	0.11	0.00	0.50	-0.28	0.50	-0.19	-0.2117	-0.0044	0.0196	-8.2491	0.9358	-7.3191	0.9102	A-	A-	A-
MATH	7	804829	823328	7	C-G	2	13476	0.33	0.21	0.26	0.19	0.33	0.00	0.29	-0.13	-0.10	-0.09	0.2933	0.9928	0.0209	9.9012	1.2000	9.9013	1.3007	A+	A-	A-
MATH	7	812676	824116	7	A-N	2	13476	0.25	0.25	0.24	0.22	0.29	0.00	0.08	0.08	-0.08	-0.09	0.0799	1.5113	0.0226	9.9014	1.4337	9.9018	1.8473	A-	A+	A-
MATH	7	812677	309039	7	B-E	2	13476	0.21	0.32	0.34	0.13	0.21	0.00	0.23	-0.03	-0.02	-0.22	0.2346	1.8209	0.0240	9.4911	1.1342	9.9017	1.7222	A-	A-	A-
MATH	7	812680	257168	7	C-G	2	13476	0.42	0.12	0.42	0.39	0.07	0.00	0.39	-0.17	0.39	-0.19	-0.1688	0.4834	0.0199	8.4711	1.0764	7.9011	1.1013	A-	A-	A-
MATH	7	813372	170628	7	C-G	2	13476	0.36	0.22	0.24	0.36	0.18	0.00	0.28	-0.12	-0.12	0.28	-0.0856	0.7990	0.0205	9.9012	1.1973	9.9013	1.3197	A-	A+	A+
MATH	7	816204	779475	7	A-R	2	13476	0.47	0.17	0.21	0.47	0.15	0.00	0.32	-0.13	-0.12	0.32	-0.1715	0.2122	0.0197	9.9012	1.1711	9.9013	1.2829	A+	A+	A-
MATH	7	817816	624409	7	A-R	2	13476	0.29	0.29	0.12	0.36	0.23	0.00	0.40	0.40	-0.25	-0.02	-0.2176	1.2191	0.0216	1.4310	1.0157	9.9012	1.1818	A-	A-	A+
MATH	7	817818	990096	7	A-N	1	13476	0.53	0.15	0.21	0.12	0.53	0.00	0.31	-0.14	-0.18	-0.11	0.3137	-0.0640	0.0195	9.9012	1.1594	9.9012	1.1979	A+	A-	A+
MATH	7	817824	418771	7	D-S	2	13476	0.37	0.32	0.37	0.16	0.14	0.00	0.13	-0.14	0.13	0.05	-0.0355	0.7571	0.0204	9.9014	1.4321	9.9016	1.5908	A+	A-	A+
MATH	7	678675	267117	8	D-S	2	13464	0.64	0.08	0.22	0.64	0.06	0.00	0.47	-0.19	-0.28	0.47	-0.2356	-0.6266	0.0200	-7.4691	0.9412	-6.1591	0.9004	A-	A-	A-

ContArea	FormGrade	ItemID	PubID	FormNumber	Standard1	Depth	N	PValue	ProportionA	ProportionB	ProportionC	ProportionD	ProportionOMITS	PtBiserial	CorrelationA	CorrelationB	CorrelationC	CorrelationD	FinalB	FinalBErr	Infit	InfitMnSq	Outfit	OutfitMnSq	BiasCodeMALEFEMALE	BiasCodeWHITEBLACK	BiasCodeWHITEHISPANIC
MATH	7	735249	195194	8	A-R	2	13464	0.44	0.44	0.19	0.14	0.22	0.00	0.34	0.34	-0.01	-0.27	-0.1601	0.4045	0.0199	9.9011	1.1486	9.9012	1.1891	A-	A-	A-
MATH	7	798645	975120	8	A-N	2	13464	0.63	0.13	0.63	0.11	0.12	0.00	0.55	-0.29	0.55	-0.25	-0.2676	-0.6109	0.0200	-9.8991	0.8528	-9.8992	0.7562	A+	A-	A-
MATH	7	804834	638552	8	D-S	2	13464	0.43	0.15	0.16	0.26	0.43	0.00	0.35	-0.14	-0.20	-0.11	0.3470	0.4846	0.0200	9.9011	1.1356	9.9012	1.1786	A-	A+	A-
MATH	7	812786	171859	8	A-R	2	13464	0.81	0.06	0.06	0.06	0.81	0.00	0.46	-0.23	-0.26	-0.25	0.4556	-1.7097	0.0237	-9.8991	0.8619	-9.8993	0.6741	A+	A-	A-
MATH	7	813371	820334	8	B-E	2	13464	0.37	0.22	0.19	0.37	0.21	0.00	0.30	0.01	-0.22	0.30	-0.1460	0.7992	0.0205	9.9012	1.1643	9.9013	1.2935	A-	A-	A+
MATH	7	813373	313337	8	C-G	2	13464	0.36	0.14	0.36	0.36	0.13	0.00	0.20	-0.03	0.20	-0.06	-0.1567	0.8418	0.0206	9.9013	1.3315	9.9015	1.4708	A+	A-	A-
MATH	7	815672	733998	8	B-E	2	13464	0.17	0.54	0.22	0.17	0.08	0.00	-0.03	0.23	-0.16	-0.03	-0.1425	2.1828	0.0259	9.9014	1.4385	9.9026	2.5842	A-	A-	A-
MATH	7	815674	129975	8	C-G	2	13464	0.33	0.22	0.40	0.33	0.06	0.00	0.40	-0.32	-0.04	0.40	-0.1382	1.0299	0.0210	5.4411	1.0564	9.8012	1.1577	A-	A-	A-
MATH	7	815677	961074	8	B-E	2	13464	0.49	0.49	0.17	0.19	0.15	0.00	0.44	0.44	-0.20	-0.18	-0.1990	0.1571	0.0197	1.9010	1.0157	-0.5090	0.9937	A+	A+	A+
MATH	7	816203	382997	8	A-R	2	13464	0.34	0.11	0.34	0.32	0.23	0.00	0.22	-0.15	0.22	-0.04	-0.0864	0.9703	0.0208	9.9013	1.2877	9.9015	1.4615	A-	A-	A-
MATH	7	817823	850630	8	C-G	2	13464	0.13	0.14	0.47	0.26	0.13	0.00	0.05	-0.18	0.16	-0.08	0.0519	2.5438	0.0283	9.9012	1.2118	9.9027	2.7127	A-	A-	A-
MATH	7	714824	647864	9	C-G	2	13434	0.32	0.19	0.31	0.17	0.32	0.00	0.32	-0.22	-0.01	-0.15	0.3181	1.0612	0.0213	9.9012	1.1793	9.9013	1.3371	A-	A-	A-
MATH	7	714874	556146	9	B-E	2	13434	0.42	0.24	0.42	0.18	0.16	0.00	0.29	-0.11	0.29	-0.21	-0.0333	0.5072	0.0201	9.9012	1.2352	9.9013	1.2978	A-	A-	A-
MATH	7	798647	274626	9	C-G	2	13434	0.41	0.41	0.15	0.14	0.29	0.00	0.49	0.49	-0.15	-0.17	-0.2786	0.5431	0.0202	-4.7890	0.9568	-0.5190	0.9931	A+	A-	A-
MATH	7	799265	659116	9	A-N	1	13434	0.77	0.09	0.77	0.09	0.05	0.00	0.45	-0.25	0.45	-0.23	-0.2269	-1.4276	0.0222	-9.8991	0.8895	-6.1592	0.8433	A+	A+	A+
MATH	7	804833	836013	9	D-S	2	13434	0.19	0.10	0.55	0.16	0.19	0.00	0.30	-0.24	-0.05	-0.05	0.2996	1.9945	0.0249	7.4411	1.1108	9.9015	1.4641	A-	A-	A-
MATH	7	812788	840863	9	B-E	1	13434	0.68	0.10	0.13	0.68	0.09	0.00	0.48	-0.26	-0.25	0.48	-0.2143	-0.8899	0.0206	-9.8991	0.9134	-7.6891	0.8525	A+	A+	A+
MATH	7	812790	674624	9	C-G	2	13434	0.60	0.11	0.08	0.21	0.60	0.00	0.44	-0.20	-0.25	-0.20	0.4377	-0.4316	0.0199	-0.5290	0.9958	2.8010	1.0449	A+	A-	A-
MATH	7	812794	311393	9	A-R	2	13434	0.59	0.16	0.08	0.59	0.17	0.00	0.44	-0.19	-0.27	0.44	-0.1984	-0.4060	0.0199	-0.1590	0.9987	-1.2190	0.981	A-	A-	A-
MATH	7	813370	391765	9	A-R	1	13434	0.44	0.08	0.44	0.12	0.36	0.00	0.43	-0.17	0.43	-0.22	-0.1986	0.4132	0.0200	5.2110	1.0469	5.4911	1.0725	A-	A-	A-
MATH	7	815658	434525	9	B-E	2	13434	0.54	0.05	0.27	0.54	0.13	0.00	0.49	-0.20	-0.26	0.49	-0.2421	-0.1181	0.0197	-4.7590	0.9619	-5.8291	0.9215	A-	A-	A-
MATH	7	816210	554277	9	D-S	2	13434	0.45	0.45	0.26	0.12	0.17	0.00	0.32	0.32	-0.07	-0.26	-0.1068	0.3592	0.0200	9.9012	1.1928	9.9013	1.2643	A-	A-	A-
MATH	7	817813	495492	9	A-R	2	13434	0.41	0.22	0.19	0.41	0.17	0.00	0.43	-0.07	-0.21	0.43	-0.2622	0.5349	0.0202	5.5311	1.0513	5.7111	1.0771	A-	A+	A+
MATH	8	665046	332534	0	B-E	1	119142	0.71	0.08	0.09	0.11	0.71	0.00	0.42	-0.24	-0.20	-0.21	0.4245	-1.1362	0.0070	-9.8991	0.9272	-9.8991	0.8939			
MATH	8	665687	378334	0	B-E	2	119142	0.60	0.25	0.60	0.09	0.06	0.00	0.43	-0.21	0.43	-0.22	-0.2154	-0.5344	0.0066	-6.3590	0.9839	-7.2390	0.9657			
MATH	8	665689	870138	0	B-F	1	119142	0.72	0.12	0.72	0.08	0.08	0.00	0.40	-0.15	0.40	-0.26	-0.2168	-1.2071	0.0070	-9.8990	0.9602	-9.8991	0.9131			
MATH	8	665961	469087	0	B-F	2	119142	0.78	0.78	0.12	0.05	0.05	0.00	0.46	0.46	-0.25	-0.25	-0.2463	-1.6536	0.0077	-9.8991	0.8975	-9.8992	0.7667			
MATH	8	665964	275176	0	D-S	2	119142	0.48	0.08	0.11	0.48	0.32	0.00	0.30	-0.23	-0.31	0.30	0.0285	0.0757	0.0065	9.9012	1.1650	9.9013	1.3043			
MATH	8	665997	196828	0	C-G	1	119142	0.74	0.14	0.74	0.08	0.04	0.00	0.50	-0.35	0.50	-0.21	-0.1960	-1.2888	0.0071	-9.8992	0.8291	-9.8993	0.733			
MATH	8	666602	104180	0	B-E	2	119142	0.65	0.10	0.15	0.65	0.09	0.00	0.43	-0.24	-0.21	0.43	-0.1906	-0.7692	0.0067	-9.8991	0.9472	-9.8991	0.917			
MATH	8	669599	476887	0	B-E	2	119142	0.29	0.13	0.26	0.32	0.29	0.00	0.37	-0.10	-0.08	-0.22	0.3718	1.1155	0.0072	9.9011	1.0709	9.9011	1.1423			
MATH	8	669601	826789	0	B-E	2	119142	0.63	0.63	0.07	0.25	0.05	0.00	0.49	0.49	-0.18	-0.34	-0.2049	-0.6960	0.0066	-9.8991	0.8920	-9.8991	0.9096			
MATH	8	670272	862545	0	C-G	2	119142	0.56	0.12	0.56	0.11	0.21	0.00	0.45	-0.25	0.45	-0.24	-0.1645	-0.3569	0.0065	-9.8990	0.9650	-9.8991	0.9468			
MATH	8	671767	554080	0	B-E	1	119142	0.57	0.10	0.14	0.57	0.18	0.00	0.39	-0.25	-0.13	0.39	-0.1946	-0.4764	0.0066	9.9010	1.0371	9.1010	1.0431			
MATH	8	673055	176970	0	B-F	2	119142	0.42	0.42	0.10	0.14	0.33	0.00	0.47	0.47	-0.14	-0.19	-0.2547	0.3511	0.0066	-9.8990	0.9524	-9.8991	0.9445			
MATH	8	673061	794505	0	B-E	2	119142	0.69	0.05	0.69	0.21	0.05	0.00	0.39	-0.12	0.39	-0.29	-0.1608	-0.9735	0.0068	-8.1490	0.9771	-5.2990	0.9682			
MATH	8	675077	191632	0	C-G	1	119142	0.58	0.58	0.21	0.13	0.07	0.00	0.54	0.54	-0.36	-0.26	-0.0970	-0.3906	0.0065	-9.8991	0.8669	-9.8992	0.8098			
MATH	8	675705	325012	0	B-F	2	119142	0.52	0.14	0.25	0.09	0.52	0.00	0.45	-0.17	-0.19	-0.29	0.4478	-0.1182	0.0065	-8.5090	0.9784	-3.7090	0.985			
MATH	8	677209	824971	0	B-F	2	119142	0.46	0.17	0.46	0.05	0.31	0.00	0.44	-0.16	0.44	-0.18	-0.2590	0.2469	0.0066	2.7110	1.0074	2.8710	1.0114			
MATH	8	677704	119748	0	C-G	2	119142	0.51	0.12	0.51	0.25	0.11	0.00	0.49	-0.25	0.49	-0.25	-0.1560	-0.0956	0.0065	-9.8991	0.9363	-9.8991	0.901			
MATH	8	677719	583576	0	B-F	2	119142	0.55	0.55	0.12	0.20	0.13	0.00	0.52	0.52	-0.28	-0.24	-0.2116	-0.3023	0.0065	-9.8991	0.8889	-9.8991	0.8554			
MATH	8	678085	559783	0	C-G	2	119142	0.41	0.11	0.32	0.41	0.16	0.00	0.55	-0.20	-0.29	0.55	-0.1889	0.4442	0.0067	-9.8991	0.8614	-9.8991	0.859			
MATH	8	678088	302067	0	B-F	2	119142	0.51	0.16	0.19	0.13	0.51	0.00	0.38	-0.13	-0.19	-0.20	0.3783	-0.0958	0.0065	9.9011	1.0577	9.9011	1.1236			
MATH	8	696700	507071	0	C-G	2	119142	0.54	0.54	0.20	0.17	0.09	0.00	0.44	0.44	-0.21	-0.20	-0.2076	-0.2698	0.0065	-5.9890	0.9849	-4.6090	0.9804			
MATH	8	696720	110896	0	B-F	2	119142	0.71	0.71	0.11	0.07	0.12	0.00	0.47	0.47	-0.21	-0.26	-0.2509	-1.1268	0.0070	-9.8991	0.9022	-9.8992	0.8223			
MATH	8	700410	742508	0	A-N	2	119142	0.55	0.15	0.55	0.17	0.13	0.00	0.41	-0.22	0.41	-0.19	-0.1422	-0.3262	0.0065	9.6610	1.0246	3.4610	1.0152			
MATH	8	700411	867881	0	A-N	1	119142	0.64	0.10	0.06	0.64	0.20	0.00	0.48	-0.35	-0.25	0.48	-0.1541	-0.7375	0.0067	-9.8991	0.9113	-9.8991	0.8981			
MATH	8	700435	630175	0	B-F	2	119142	0.42	0.12	0.18	0.28	0.42	0.00	0.35	-0.18	-0.17	-0.10	0.3455	0.3155	0.0066	9.9011	1.0996	9.9011	1.1231			
MATH	8	700439	973872	0	B-F	1	119142	0.46	0.46	0.21	0.19	0.14	0.00	0.39	0.39	-0.21	-0.16	-0.1392	0.1385	0.0065	9.9010	1.0473	9.9011	1.0601			
MATH	8	700455	523587	0	B-E	1	119142	0.34	0.34	0.32	0.25	0.08	0.00	0.40	0.40	-0.18	-0.15	-0.1401	0.8035	0.0069	3.8210	1.0123	9.9011	1.1088			
MATH	8	700456	814556	0	B-E	2	119142	0.66	0.09	0.15	0.66	0.10	0.00	0.52	-0.25	-0.27	0.52	-0.2616	-0.8089	0.0067	-9.8991	0.8572	-9.8992	0.7601			
MATH	8	700459	895440	0	B-E	2	119142	0.66	0.04	0.66	0.15	0.14	0.00	0.44	-0.20	0.44	-0.28	-0.1953	-0.8353	0.0067	-9.8991	0.9349	-9.8991	0.8702			
MATH	8	700460	309532	0	C-G	2	119142	0.40	0.20	0.24	0.40	0.16	0.00	0.40	-0.14	-0.25	0.40	-0.1003	0.3864	0.0066	7.2510	1.0206	9.9011	1.0538			
MATH	8	700466	485745	0	C-G	2	119142	0.50	0.10	0.20	0.50	0.19	0.00	0.38	-0.16	-0.12	0.38	-0.2316	-0.0710	0.0065	9.9011	1.0628	9.9011	1.0813			
MATH	8	700508	868310	0	B-E	2	119142	0.37	0.25	0.25	0.37	0.13	0.00	0.25	-0.11	-0.01	0.25	-0.1987	0.5708	0.0067	9.9012	1.2010	9.9013	1.3014			
MATH	8	700509	738817	0	C-G	2	119142	0.33	0.33	0.19	0.36	0.12	0.00	0.31	0.31	-0.19	-0.09	-0.0798	0.8942	0.0070	9.9011	1.1229	9.9013	1.274			
MATH	8	701809	165866	0	A-N	2	119142	0.51	0.19	0.51	0.17	0.14	0.00	0.45	-0.22	0.45	-0.24	-0.1431	-0.0737	0.0065	-9.8990	0.9734	-9.8990	0.9568			
MATH	8	701818	668548	0	D-S	2	119142	0.43	0.43	0.15	0.25	0.16	0.00	0.42	0.42	-0.21	-0.14	-0.1847	0.3115	0.0066	4.7110	1.0131	7.3710	1.0296			
MATH	8	701819	527592	0	B-F	2	119142	0.53	0.14	0.14	0.18	0.53	0.00	0.44	-0.28	-0.22	-0.12	0.4431	-0.1712	0.0065	-7.6490	0.9807	-6.5190	0.9733			
MATH	8	701828	631157	0	B-E	2	119142	0.46	0.12	0.27	0.46	0.15	0.00	0.33	-0.25	-0.18	0.33	-0.0066	0.3324	0.0066	9.9011	1.1395	9.9012	1.1764			
MATH	8	701841	318361	0	A-N	2	119142	0.69	0.13	0.11	0.08	0.69	0.00	0.51	-0.34	-0.22	-0.20	0.5126	-1.0123	0.0069	-9.8991	0.8559	-9.8992	0.7845			
MATH	8	701858	536346	0	D-S	2	119142	0.54	0.54	0.09	0.29	0.08	0.00	0.48	0.48	-0.24	-0.23	-0.2438	-0.2728	0.0065	-9.8991	0.9441	-9.8991	0.9187			
MATH	8	701873	506229	0	A-N	1	119142	0.77	0.09	0.77	0.08	0.06	0.00	0.45	-0.26	0.45	-0.24	-0.2023	-1.5737	0.0075	-9.8991	0.9080	-9.8992	0.7843			
MATH	8	701910	385174	0	D-S	2	119142	0.67	0.11	0.16	0.67	0.07	0.00	0.46	-0.24	-0.26	0.46	-0.2043	-0.9203	0.0068	-9.8991	0.9242	-9.8991	0.8778			
MATH	8	701931	498265	0	D-S	2	119142	0.58	0.58	0.15	0.10	0.17	0.00	0.48	0.48	-0.30	-0.17	-0.2198	-0.4835	0.0066	-9.8991	0.9273	-9.8991	0.9036			
MATH	8	701939	961254	0	B-F	1	119142	0.57	0.23	0.57	0.10	0.11	0.00	0.36	-0.14	0.36	-0.20	-0.1910	-0.3586	0.0065	9.9011	1.0674	9.9011	1.082			
MATH	8	702349	783592	0	A-N	2	119142	0.73	0.08	0.11	0.08	0.73	0.00	0.43	-0.30	-0.15	-0.23	0.4302	-1.2755	0.0071	-9.8991	0.9215	-5.5390	0.9605			
MATH	8	703010	759833	0	C-G	2	119142	0.50	0.17	0.11	0.23	0.50	0.00	0.48	-0.27	-0.26	-0.13	0.4769	-0.0012	0.0065	-9.8991	0.9497	-9.8991	0.9393			
MATH	8	703022	549440	0	B-E	2	119142	0.50	0.14	0.15	0.20	0.50	0.00	0.44	-0.19	-0.17	-0.23	0.4384	0.1050	0.0065	0.9810	1.0026	0.1710	1.0007			
MATH	8	703025	491956	0	B-E	1	119142	0.80	0.08	0.06	0.80	0.06	0.00	0.42	-0.25	-0.23	0.42	-0.1936	-1.6453	0.0076	-9.8991	0.8675	-9.8993	0.749			
MATH	8	703105	286465	0	B-E	2	119142	0.62	0.13	0.14	0.10	0.62	0.00	0.49	-0.16	-0.29	-0.26	0.4871	-0.6684	0.0066	-9.8991	0.9111	-9.8991	0.874			
MATH	8	703132	474308	0	B-E	2	119142	0.36	0.24	0.36	0.26	0.14	0.00	0.24	-0.03	0.24	-0.12	-0.1477	0.7195	0.0068	9.9012	1.2176	9.9013	1.3491			
MATH	8	712509	538102	0	B-E	1	119142	0.61	0.61	0.11	0.17	0.11	0.00	0.37	0.37	-0.16	-0.20	-0.1650	-0.5403	0.0066	9.9010	1.0379	9.9011	1.0629			
MATH	8	714856	267646	0	D-S	2	119142	0.47	0.18	0.20	0.15	0.47	0.00	0.43	-0.17	-0.19	-0.21	0.4316	0.0851	0.0065	0.8210	1.0022	1.6110	1.0064			
MATH	8	714862	208347	0	C-G	2	119142	0.34	0.41	0.34	0.12	0.13	0.00	0.47	-0.26	0.47	-0.14	-0.1467	0.8341	0.0069	-9.8991	0.9311	-1.6690	0.992			
MATH	8	714863	602812	0	C-G	2	119142	0.49	0.23	0.49	0.21	0.07	0.00	0.37	-0.16	0.37	-0.17	-0.1792	-0.0213	0.0065	9.9011	1.0715	9.9011	1.0614			
MATH	8	714899	510740	0	B-F	2	119142	0.48	0.16	0.09	0.48	0.26	0.00	0.40	-0.25	-0.23	0.40	-0.0923	0.0909	0.0065	9.9010	1.0395	9.9010	1.0433			
MATH	8	719326	334932	0	A-N	1	119142	0.50	0.50	0.32	0.10	0.07	0.00	0.40	0.40	-0.14	-0.26	-0.2152	-0.0476	0.0065	9.9010	1.0408	9.9010	1.0473			
MATH	8	719332	518947	0	A-N	1	119142	0.45	0.14	0.45	0.22	0.19	0.00	0.40	-0.15	0.40	-0.22	-0.1345	0.2854	0.0066	9.9010	1.0425	9.9011	1.0618			
MATH	8	719347	655659	0	C-G	1	119142	0.34	0.20	0.34	0.34	0.11	0.00	0.38	-0.24	-0.08	0.38	-0.1322	0.8306	0.0069	9.9010	1.0426	9.9012	1.1668			
MATH	8	719350	380013	0	B-F	2	119142	0.39	0.39	0.30	0.21	0.10	0.00	0.28	0.28	-0.06	-0.15	-0.1571	0.5252	0.0067	9.9012	1.1775	9.9012	1.2473			
MATH	8	735208	118188	0	B-F	2	119142	0.45	0.13	0.24	0.18	0.45	0.00	0.32	-0.17	-0.15	-0.10	0.3236	0.2161	0.0066	9.9011	1.1311	9.9012	1.1554			
MATH	8	735260	496473	0	B-E	2	119142	0.38	0.18	0.30	0.15	0.38	0.00	0.45	-0.25	-0.10	-0.22	0.4514	0.4635	0.0067	-9.8990	0.9561	-9.1590	0.9627			
MATH	8	701860	425333	1	D-S	2	13670	0.34	0.16	0.27	0.23	0.34	0.00	0.37	-0.21	-0.13	-0.10	0.3715	0.7514	0.0204	6.8111	1.0666	9.9012	1.1616	A-	A-	A-
MATH	8	712513	802059	1	D-S	2	13670	0.42	0.15	0.26	0.42	0.17	0.00	0.42	-0.22	-0.28	0.42	-0.0092	0.3326	0.0196	1.2410	1.0104	2.3410	1.028	A-	A-	A-
MATH	8	714906	531204	1	B-F	1	13670	0.35	0.28	0.35	0.21	0.16	0.00	0.43	-0.28	0.43	-0.03	-0.1825	0.7360	0.0203	-1.9990	0.9810	3.6011	1.0503	A+	A+	A+
MATH	8	719279	625427	1	C-G	2	13670	0.37	0.37	0.17	0.32	0.14	0.00	0.26	0.26	-0.20	-0.02	-0.1119	0.6086	0.0201	9.9012	1.2054	9.9013	1.2915	A+	A-	A-
MATH	8	798646	352960	1	A-N	2	13670	0.40	0.19	0.16	0.40	0.25	0.00	0.31	-0.15	-0.22	0.31	-0.0196	0.4291	0.0197	9.9012	1.1521	9.9012	1.2259	A-	A-	A-

ContArea	FormGrade	ItemID	PubID	FormNumber	Standard1	Depth	N	PValue	ProportionA	ProportionB	ProportionC	ProportionD	ProportionOMITS	PtBiserial	CorrelationA	CorrelationB	CorrelationC	CorrelationD	FinalB	FinalBErr	Infit	InfitMnSq	Outfit	OutfitMnSq	BiasCodeMALEFEMALE	BiasCodeWHITEBLACK	BiasCodeWHITEHISPANIC
MATH	8	804837	531432	1	A-N	2	13670	0.40	0.14	0.40	0.28	0.17	0.00	0.29	-0.12	0.29	-0.07	-0.1698	0.4295	0.0197	9.9012	1.1619	9.9013	1.2595	A+	A+	A+
MATH	8	804840	312005	1	B-E	2	13670	0.20	0.20	0.24	0.20	0.35	0.00	0.12	0.12	0.00	-0.12	0.0040	1.6482	0.0237	9.9012	1.2347	9.9019	1.8588	A-	A-	A+
MATH	8	812798	651871	1	B-E	2	13670	0.58	0.07	0.14	0.22	0.58	0.00	0.34	-0.20	-0.17	-0.14	0.3400	-0.4682	0.0193	9.9011	1.0860	5.8511	1.0815	A+	A+	A+
MATH	8	812802	777503	1	B-F	2	13670	0.30	0.12	0.30	0.38	0.21	0.00	0.18	-0.09	0.18	0.02	-0.1466	1.0280	0.0212	9.9013	1.2855	9.9015	1.4736	A-	A-	A+
MATH	8	812815	532435	1	D-S	2	13670	0.39	0.37	0.16	0.39	0.08	0.00	0.43	-0.24	-0.18	0.43	-0.0909	0.4744	0.0198	0.5510	1.0047	2.9710	1.0371	A-	A-	A+
MATH	8	813611	270685	1	B-F	2	13670	0.40	0.22	0.15	0.22	0.40	0.00	0.36	-0.10	-0.27	-0.08	0.3551	0.4101	0.0197	9.9011	1.0948	9.9011	1.1365	A+	A-	A-
MATH	8	815814	606850	1	B-E	2	13670	0.74	0.07	0.74	0.14	0.05	0.00	0.50	-0.26	0.50	-0.31	-0.1983	-1.3749	0.0212	-9.8992	0.8452	-9.8993	0.7177	A+	A+	A-
MATH	8	670270	996033	2	B-E	2	13271	0.38	0.16	0.38	0.18	0.27	0.00	0.32	-0.24	0.32	-0.22	0.0497	0.5696	0.0201	9.9011	1.1032	9.9012	1.169	A-	A-	A-
MATH	8	678604	236638	2	C-G	2	13271	0.32	0.17	0.21	0.32	0.31	0.00	0.46	-0.18	-0.09	0.46	-0.2394	0.9383	0.0209	-7.1391	0.9301	-0.4090	0.9939	A-	A-	A-
MATH	8	700426	529305	2	D-S	2	13271	0.39	0.39	0.25	0.19	0.17	0.00	0.33	0.33	-0.08	-0.15	-0.1772	0.5441	0.0200	9.9011	1.0892	9.9012	1.154	A-	A-	A-
MATH	8	714905	852457	2	B-F	2	13271	0.54	0.54	0.16	0.17	0.13	0.00	0.40	0.40	-0.18	-0.24	-0.1225	-0.2469	0.0194	1.7810	1.0131	1.2910	1.016	A+	A+	A+
MATH	8	799407	619206	2	B-E	2	13271	0.39	0.17	0.39	0.19	0.25	0.00	0.29	-0.06	0.29	-0.14	-0.1481	0.5257	0.0200	9.9011	1.1462	9.9012	1.2129	A-	A-	A-
MATH	8	812671	735686	2	C-G	2	13271	0.32	0.24	0.24	0.32	0.20	0.00	0.26	-0.12	-0.14	0.26	-0.0195	0.8926	0.0208	9.9012	1.1607	9.9013	1.336	A-	A-	A+
MATH	8	812797	925577	2	A-N	2	13271	0.18	0.13	0.18	0.51	0.18	0.00	0.07	-0.23	-0.21	0.26	0.0726	1.8428	0.0249	9.9013	1.2784	9.9019	1.906	A-	A-	A+
MATH	8	813609	557729	2	B-E	2	13271	0.48	0.48	0.16	0.25	0.11	0.00	0.41	0.41	-0.21	-0.16	-0.1791	0.0603	0.0194	1.9010	1.0145	-0.0790	0.9991	A+	A+	A-
MATH	8	815820	865313	2	B-F	2	13271	0.16	0.29	0.28	0.27	0.16	0.00	0.09	0.00	-0.01	-0.05	0.0862	2.0242	0.0260	9.9013	1.2624	9.9019	1.9133	A-	A+	A+
MATH	8	816213	418469	2	B-E	2	13271	0.20	0.40	0.28	0.20	0.12	0.00	0.04	0.05	-0.03	0.04	-0.0663	1.7314	0.0242	9.9013	1.3124	9.9020	2.0121	A-	A-	A-
MATH	8	816570	361319	2	D-S	2	13271	0.71	0.10	0.13	0.06	0.71	0.00	0.28	-0.11	-0.11	-0.22	0.2753	-1.0993	0.0207	7.8311	1.0712	9.9012	1.2149	A+	A+	A-
MATH	8	816613	556817	2	A-N	1	13271	0.64	0.10	0.64	0.13	0.12	0.00	0.35	-0.24	0.35	-0.16	-0.1201	-0.7365	0.0199	2.4510	1.0192	9.9012	1.241	A+	A-	A-
MATH	8	714852	148402	3	C-G	2	13143	0.30	0.30	0.17	0.32	0.20	0.00	0.25	0.25	-0.16	0.00	-0.1307	1.0297	0.0214	9.9012	1.2086	9.9014	1.3625	A+	A-	A+
MATH	8	714893	479913	3	B-E	2	13143	0.43	0.16	0.21	0.20	0.43	0.00	0.44	-0.12	-0.25	-0.17	0.4370	0.3381	0.0199	-0.1890	0.9984	0.8010	1.0097	A+	A+	A+
MATH	8	719353	452982	3	D-S	2	13143	0.44	0.36	0.44	0.12	0.08	0.00	0.46	-0.26	0.46	-0.16	-0.1909	0.2791	0.0199	-3.8690	0.9681	-2.6190	0.9686	A-	A-	A-
MATH	8	804831	150218	3	C-G	2	13143	0.58	0.24	0.58	0.13	0.06	0.00	0.41	-0.27	0.41	-0.13	-0.1740	-0.4137	0.0197	2.2610	1.0173	2.4410	1.0345	A+	A-	A-
MATH	8	804835	788994	3	A-N	2	13143	0.22	0.29	0.21	0.22	0.28	0.00	0.12	-0.07	-0.04	0.12	0.0013	1.5778	0.0236	9.9013	1.3018	9.9018	1.7834	A-	A+	A+
MATH	8	804841	969115	3	B-F	1	13143	0.56	0.13	0.56	0.13	0.17	0.00	0.43	-0.22	0.43	-0.23	-0.1592	-0.3351	0.0197	-1.3290	0.9899	-2.6390	0.9646	A+	A-	A-
MATH	8	812801	535013	3	B-E	2	13143	0.52	0.09	0.25	0.13	0.52	0.00	0.45	-0.22	-0.16	-0.26	0.4493	-0.1366	0.0196	-3.3690	0.9743	-1.0790	0.9864	A-	A-	A-
MATH	8	813612	832556	3	B-E	2	13143	0.48	0.26	0.11	0.15	0.48	0.00	0.44	-0.13	-0.26	-0.23	0.4429	0.0573	0.0197	-1.4390	0.9886	-1.9790	0.9762	A+	A+	A+
MATH	8	813615	575296	3	B-F	2	13143	0.32	0.17	0.32	0.32	0.18	0.00	0.25	-0.17	-0.01	0.25	-0.1110	0.9362	0.0212	9.9012	1.1818	9.9014	1.3626	A-	A+	A+
MATH	8	815815	508305	3	B-E	2	13143	0.30	0.30	0.32	0.27	0.11	0.00	0.25	0.25	-0.10	-0.07	-0.1259	1.0750	0.0216	9.9012	1.1661	9.9014	1.4014	A-	A-	A+
MATH	8	816605	766868	3	D-S	2	13143	0.53	0.15	0.17	0.53	0.15	0.00	0.53	-0.21	-0.28	0.53	-0.2226	-0.1870	0.0196	-9.8991	0.8808	-9.8992	0.8301	A-	A-	A-
MATH	8	816615	564596	3	B-F	2	13143	0.51	0.51	0.11	0.27	0.10	0.00	0.42	0.42	-0.24	-0.15	-0.2123	-0.0901	0.0196	1.1310	1.0087	0.0810	1.0009	A-	A-	A-
MATH	8	712508	291242	4	A-N	2	13216	0.55	0.55	0.18	0.16	0.11	0.00	0.54	0.54	-0.22	-0.29	-0.2477	-0.2853	0.0196	-9.8991	0.8701	-9.8992	0.8297	A+	A+	A-
MATH	8	735886	447011	4	D-S	2	13216	0.52	0.19	0.18	0.52	0.10	0.00	0.50	-0.24	-0.22	0.50	-0.2206	-0.1462	0.0196	-9.2591	0.9293	-8.1591	0.8993	A-	A-	A-
MATH	8	799409	692416	4	B-F	1	13216	0.46	0.13	0.17	0.25	0.46	0.00	0.44	-0.20	-0.15	-0.22	0.4415	0.1858	0.0198	1.0410	1.0086	0.8410	1.0102	A+	A-	A-
MATH	8	804839	572318	4	B-E	2	13216	0.66	0.10	0.10	0.66	0.14	0.00	0.49	-0.26	-0.15	0.49	-0.3098	-0.8581	0.0203	-9.8991	0.9010	-9.1192	0.8486	A-	A-	A-
MATH	8	812799	299189	4	A-N	2	13216	0.26	0.26	0.41	0.17	0.16	0.00	0.25	0.25	0.00	-0.19	-0.0858	1.3126	0.0224	9.9012	1.1785	9.9014	1.4465	A-	A-	A-
MATH	8	813347	257088	4	B-F	2	13216	0.47	0.09	0.34	0.10	0.47	0.00	0.50	-0.28	-0.23	-0.19	0.4985	0.1081	0.0197	-8.6991	0.9309	-6.5491	0.9221	A-	A-	A-
MATH	8	815818	913389	4	B-E	2	13216	0.37	0.37	0.30	0.15	0.19	0.00	0.39	0.39	-0.05	-0.25	-0.1942	0.6620	0.0205	5.4211	1.0517	7.2311	1.1017	A+	A-	A-
MATH	8	815823	543434	4	C-G	2	13216	0.25	0.32	0.26	0.25	0.17	0.00	0.15	-0.03	0.00	0.15	-0.1254	1.3875	0.0227	9.9013	1.2926	9.9017	1.6864	A-	A-	A-
MATH	8	816307	358439	4	D-S	2	13216	0.54	0.31	0.54	0.10	0.06	0.00	0.35	-0.15	0.35	-0.18	-0.2170	-0.2361	0.0196	9.9011	1.0977	9.9012	1.1732	A-	A-	A-
MATH	8	816378	141912	4	B-E	2	13216	0.48	0.14	0.20	0.48	0.18	0.00	0.41	-0.23	-0.13	0.41	-0.1919	0.0654	0.0197	4.5010	1.0368	4.3511	1.0541	A+	A+	A-
MATH	8	816571	275790	4	B-E	1	13216	0.55	0.55	0.16	0.18	0.12	0.00	0.45	0.45	-0.25	-0.18	-0.1923	-0.2774	0.0196	-2.4790	0.9809	-3.0790	0.9593	A+	A+	A+
MATH	8	816611	779757	4	C-G	2	13216	0.42	0.32	0.42	0.17	0.08	0.00	0.36	-0.21	0.36	-0.12	-0.1147	0.3994	0.0200	9.9011	1.0987	9.8411	1.1282	A-	A-	A-
MATH	8	703135	565250	5	B-E	1	13168	0.42	0.15	0.42	0.25	0.17	0.00	0.28	-0.09	0.28	-0.17	-0.0854	0.3994	0.0199	9.9012	1.1757	9.9012	1.22	A+	A+	A-
MATH	8	719284	104441	5	C-G	2	13168	0.42	0.15	0.33	0.42	0.10	0.00	0.38	-0.13	-0.25	0.38	-0.0682	0.4089	0.0199	6.2911	1.0536	7.5611	1.0938	A+	A+	A+
MATH	8	735257	825347	5	A-N	2	13168	0.30	0.29	0.30	0.23	0.18	0.00	0.17	-0.02	0.17	-0.16	0.0037	1.1007	0.0214	9.9013	1.2799	9.9015	1.4991	A+	A+	A+
MATH	8	799410	652159	5	B-F	2	13168	0.44	0.23	0.12	0.44	0.21	0.00	0.44	-0.19	-0.24	0.44	-0.1361	0.2990	0.0198	-1.5190	0.9877	0.9710	1.0115	A-	A+	A+
MATH	8	799412	557842	5	C-G	2	13168	0.58	0.11	0.20	0.11	0.58	0.00	0.30	-0.20	-0.05	-0.22	0.3029	-0.4223	0.0197	9.9011	1.1177	9.9011	1.1458	A+	A-	A+
MATH	8	804825	810455	5	D-S	2	13168	0.48	0.16	0.16	0.48	0.20	0.00	0.26	-0.17	-0.11	0.26	-0.0713	0.0957	0.0196	9.9012	1.1968	9.9013	1.3016	A+	A+	A+
MATH	8	804832	590604	5	D-S	2	13168	0.82	0.04	0.82	0.07	0.06	0.00	0.44	-0.19	0.44	-0.24	-0.2815	-1.8443	0.0243	-9.8991	0.8564	-9.8993	0.72	A+	A-	B-
MATH	8	812804	430054	5	C-G	2	13168	0.74	0.07	0.06	0.13	0.74	0.00	0.49	-0.26	-0.27	-0.25	0.4905	-1.2802	0.0216	-9.8992	0.8495	-9.8992	0.7582	A+	A-	A-
MATH	8	813155	773558	5	A-N	2	13168	0.71	0.71	0.16	0.08	0.05	0.00	0.47	0.47	-0.30	-0.20	-0.2130	-1.1118	0.0210	-9.8991	0.8868	-9.4192	0.8238	A+	A+	A-
MATH	8	816382	777453	5	B-F	2	13168	0.41	0.35	0.14	0.41	0.10	0.00	0.34	-0.10	-0.19	0.34	-0.1718	0.4662	0.0200	9.9011	1.1029	9.9012	1.152	A-	A-	A-
MATH	8	816606	168654	5	B-E	2	13168	0.33	0.12	0.33	0.34	0.20	0.00	0.16	-0.12	0.16	0.06	-0.1532	0.8975	0.0208	9.9013	1.3060	9.9015	1.494	A-	A-	A+
MATH	8	816608	803606	5	B-E	2	13168	0.37	0.37	0.29	0.17	0.17	0.00	0.23	0.23	-0.02	-0.13	-0.1377	0.7030	0.0204	9.9012	1.2142	9.9013	1.3372	A-	A-	A-
MATH	8	719330	777693	6	A-N	1	13170	0.55	0.55	0.17	0.08	0.20	0.00	0.45	0.45	-0.30	-0.28	-0.0806	-0.3081	0.0197	-3.2690	0.9750	-1.3790	0.9822	A+	A-	A-
MATH	8	735716	551356	6	B-E	2	13170	0.39	0.28	0.19	0.39	0.14	0.00	0.39	-0.10	-0.19	0.39	-0.1973	0.5281	0.0203	5.1510	1.0469	8.5311	1.1132	A-	A+	A-
MATH	8	804830	589596	6	C-G	2	13170	0.43	0.43	0.29	0.15	0.13	0.00	0.49	0.49	-0.13	-0.21	-0.3228	0.3251	0.0200	-7.7691	0.9354	-4.2991	0.949	A-	A-	A-
MATH	8	805695	161470	6	C-G	2	13170	0.54	0.21	0.54	0.14	0.10	0.00	0.38	-0.14	0.38	-0.20	-0.1872	-0.2451	0.0196	7.5911	1.0598	6.6211	1.0859	A+	A-	A+
MATH	8	812807	281260	6	B-E	2	13170	0.57	0.19	0.57	0.14	0.09	0.00	0.39	-0.08	0.39	-0.24	-0.2512	-0.4290	0.0197	4.6210	1.0360	5.4611	1.076	A-	A-	A-
MATH	8	815816	324995	6	B-E	2	13170	0.44	0.12	0.26	0.18	0.44	0.00	0.46	-0.23	-0.12	-0.26	0.4604	0.2783	0.0199	-2.4490	0.9796	-1.1890	0.9858	A-	A-	A-
MATH	8	815821	356191	6	B-F	2	13170	0.74	0.05	0.06	0.74	0.15	0.00	0.45	-0.23	-0.24	0.45	-0.2505	-1.3135	0.0215	-9.8991	0.8964	-7.7892	0.8376	A-	A-	A-
MATH	8	816111	610045	6	A-N	2	13170	0.23	0.15	0.23	0.19	0.43	0.00	-0.03	-0.23	-0.03	-0.14	0.3023	1.4810	0.0232	9.9015	1.4855	9.9021	2.1476	A+	A+	A-
MATH	8	816380	876879	6	D-S	2	13170	0.69	0.07	0.08	0.69	0.16	0.00	0.37	-0.25	-0.22	0.37	-0.1207	-1.0478	0.0207	-0.2490	0.9978	7.6912	1.1525	A+	A-	A-
MATH	8	816573	459929	6	B-E	2	13170	0.49	0.12	0.21	0.18	0.49	0.00	0.47	-0.25	-0.16	-0.22	0.4715	0.0071	0.0197	-4.5790	0.9640	-3.9090	0.9541	A+	A-	A-
MATH	8	816574	838035	6	B-E	1	13170	0.57	0.15	0.12	0.15	0.57	0.00	0.49	-0.18	-0.26	-0.25	0.4855	-0.4236	0.0197	-9.1791	0.9309	-6.9291	0.9088	A+	A+	A+
MATH	8	816610	951179	6	B-F	2	13170	0.38	0.38	0.18	0.30	0.14	0.00	0.27	0.27	-0.15	-0.06	-0.1293	0.5579	0.0203	9.9012	1.1991	9.9013	1.3096	A-	A-	A-
MATH	8	714901	731473	7	B-F	2	13197	0.63	0.63	0.13	0.13	0.12	0.00	0.45	0.45	-0.25	-0.24	-0.1596	-0.6907	0.0199	-7.2291	0.9446	-6.8391	0.8974	A+	A+	A+
MATH	8	714903	499168	7	B-F	2	13197	0.43	0.20	0.18	0.43	0.19	0.00	0.20	-0.08	-0.21	0.20	0.0392	0.3227	0.0199	9.9013	1.2877	9.9014	1.4035	A+	A-	A-
MATH	8	719331	451853	7	A-N	2	13197	0.45	0.13	0.14	0.45	0.28	0.00	0.34	-0.14	-0.20	0.34	-0.1168	0.2063	0.0197	9.9011	1.1187	9.9012	1.1708	A+	A-	A-
MATH	8	799408	756017	7	D-S	2	13197	0.62	0.10	0.16	0.12	0.62	0.00	0.40	-0.11	-0.22	-0.25	0.4008	-0.6341	0.0199	-0.9490	0.9927	4.9511	1.0765	A+	A-	A-
MATH	8	799411	232580	7	C-G	2	13197	0.51	0.12	0.51	0.21	0.16	0.00	0.49	-0.20	0.49	-0.24	-0.2263	-0.0756	0.0196	-9.0591	0.9315	-8.5591	0.9004	A-	A-	A-
MATH	8	804845	715057	7	B-E	2	13197	0.29	0.15	0.26	0.29	0.29	0.00	0.15	-0.09	-0.08	0.00	0.1545	1.0978	0.0216	9.9013	1.3100	9.9015	1.5436	A-	A-	A-
MATH	8	812796	839237	7	B-E	2	13197	0.51	0.22	0.14	0.51	0.13	0.00	0.45	-0.17	-0.23	0.45	-0.2216	-0.0806	0.0196	-2.3090	0.9822	-3.7790	0.955	A+	A-	A-
MATH	8	812800	386116	7	B-E	2	13197	0.54	0.17	0.16	0.54	0.14	0.00	0.52	-0.24	-0.27	0.52	-0.1972	-0.2134	0.0196	-9.8991	0.8995	-9.8992	0.8497	A+	A-	A-
MATH	8	813613	244222	7	B-E	2	13197	0.40	0.40	0.22	0.15	0.23	0.00	0.32	0.32	-0.13	-0.26	-0.0286	0.4762	0.0201	9.9011	1.1314	9.9012	1.1843	A+	A+	A+
MATH	8	813614	218299	7	C-G	2	13197	0.58	0.17	0.58	0.19	0.06	0.00	0.48	-0.24	0.48	-0.24	-0.2223	-0.4537	0.0197	-9.2191	0.9315	-9.6991	0.8716	A+	A-	A+
MATH	8	813618	405876	7	D-S	2	13197	0.42	0.42	0.19	0.30	0.10	0.00	0.41	0.41	-0.23	-0.09	-0.2261	0.3773	0.0199	3.4010	1.0292	3.9410	1.0482	A-	A-	A-
MATH	8	816567	826509	7	B-F	2	13197	0.36	0.34	0.18	0.36	0.12	0.00	0.27	-0.02	-0.21	0.27	-0.1262	0.6981	0.0205	9.9012	1.1751	9.9013	1.3115	A-	A+	A-
MATH	8	701808	943040	8	B-F	2	13130	0.34	0.32	0.19	0.15	0.34	0.00	0.33	-0.08	-0.14	-0.19	0.3337	0.8207	0.0208	9.9011	1.1118	9.9012	1.1742	A-	A-	A+
MATH	8	703116	529004	8	C-G	2	13130	0.45	0.17	0.17	0.45	0.21	0.00	0.35	-0.15	-0.23	0.35	-0.0823	0.2583	0.0198	9.9011	1.0961	9.9011	1.1338	A+	A+	A-
MATH	8	714891	292182	8	B-E	2	13130	0.51	0.16	0.51	0.28	0.05	0.00	0.39	-0.16	0.39	-0.20	-0.1983	-0.0325	0.0196	6.4911	1.0514	4.0310	1.0495	A-	A-	A-
MATH	8	714900	731027	8	B-F	2	13130	0.27	0.13	0.27	0.34	0.26	0.00	0.13	-0.12	0.13	-0.06	0.0225	1.2693	0.0221	9.9013	1.2979	9.9017	1.6944	A+	A+	A+
MATH	8	735887	145143	8	D-S	2	13130	0.44	0.18	0.20	0.44	0.17	0.00	0.42	-0.18	-0.20	0.42	-0.1510	0.2887	0.0198	1.5510	1.0128	1.4810	1.0177	A+	A-	A+
MATH	8	798644	514760	8	B-E	2	13130	0.46	0.25	0.46	0.15	0.13	0.00	0.47	-0.31	0.47	-0.17	-0.1081	0.1741	0.0197	-4.9690	0.9605	-2.8690	0.9663	C-	B-	A-
MATH	8	812805	397583	8	C-G	2	13130	0.39	0.17	0.27	0.17	0.39	0.00	0.31	-0.14	-0.07	-0.17	0.3098	0.5540	0.0202	9.9012	1.1527	9.9012	1.1919	A+	A+	A+
MATH	8	815819	854322	8	A-N	1	13130	0.64	0.27	0.64	0.04	0.06	0.00	0.54	-0.38	0.54	-0.18	-0.2439	-0.7145	0.0201	-9.8992	0.8493	-9.8992	0.7895	A+	A-	A-
MATH	8	816376	898086	8	B-E	2	13130	0.29	0.27	0.21	0.23	0.29	0.00	0.01	0.01	0.01	-0.02	0.0079	1.1225	0.0216	9.9015	1.5116	9.9018	1.8355	A+	A-	A-

ContArea	FormGrade	ItemID	PubID	FormNumber	Standard1	Depth	N	PValue	ProportionA	ProportionB	ProportionC	ProportionD	ProportionOMITS	PtBiserial	CorrelationA	CorrelationB	CorrelationC	CorrelationD	FinalB	FinalBErr	Infit	InfitMnSq	Outfit	OutfitMnSq	BiasCodeMALEFEMALE	BiasCodeWHITEBLACK	BiasCodeWHITEHISPANIC
MATH	8	816379	135106	8	C-G	2	13130	0.63	0.05	0.09	0.63	0.23	0.00	0.52	-0.20	-0.28	0.52	-0.2985	-0.6506	0.0200	-9.8991	0.8796	-9.8992	0.7935	A+	A-	A-
MATH	8	816564	560795	8	A-N	1	13130	0.44	0.44	0.10	0.38	0.08	0.00	0.27	0.27	-0.28	0.04	-0.2491	0.2954	0.0198	9.9012	1.2082	9.9013	1.2859	A-	A-	A-
MATH	8	816607	149565	8	B-E	2	13130	0.56	0.56	0.19	0.13	0.13	0.00	0.55	0.55	-0.26	-0.21	-0.2920	-0.2932	0.0197	-9.8991	0.8616	-9.8992	0.8146	B-	A-	A-
MATH	8	719337	110549	9	B-E	2	13177	0.34	0.20	0.30	0.17	0.34	0.00	0.27	-0.15	-0.15	0.01	0.2690	0.8101	0.0207	9.9012	1.1710	9.9013	1.285	A+	A-	A-
MATH	8	724101	304380	9	C-G	2	13177	0.50	0.14	0.16	0.20	0.50	0.00	0.34	-0.23	-0.10	-0.14	0.3440	-0.0208	0.0196	9.9011	1.0977	9.9011	1.1471	A-	A-	A-
MATH	8	735230	415425	9	B-E	2	13177	0.51	0.51	0.21	0.20	0.08	0.00	0.41	0.41	-0.22	-0.15	-0.1804	-0.0918	0.0195	3.2310	1.0250	1.3710	1.0163	A-	A-	A-
MATH	8	799406	909641	9	A-N	2	13177	0.25	0.25	0.30	0.26	0.19	0.00	0.04	0.04	0.04	0.02	-0.1121	1.3448	0.0224	9.9014	1.4027	9.9019	1.855	A+	A+	A+
MATH	8	804842	696855	9	B-F	2	13177	0.66	0.66	0.13	0.11	0.10	0.00	0.49	0.49	-0.22	-0.28	-0.2426	-0.8509	0.0203	-9.8991	0.8904	-9.8992	0.808	A+	A+	A-
MATH	8	812579	646088	9	B-E	2	13177	0.34	0.24	0.34	0.27	0.15	0.00	0.32	-0.12	0.32	-0.09	-0.1670	0.8204	0.0207	9.9011	1.0992	9.9012	1.2211	A-	A-	A+
MATH	8	816377	185104	9	B-E	2	13177	0.25	0.25	0.20	0.19	0.35	0.00	0.08	0.08	-0.09	-0.09	0.0760	1.3428	0.0224	9.9013	1.3331	9.9017	1.7474	A-	A-	A-
MATH	8	816565	471135	9	B-E	1	13177	0.65	0.10	0.12	0.65	0.14	0.00	0.45	-0.18	-0.25	0.45	-0.2282	-0.7772	0.0201	-6.9891	0.9445	-8.0791	0.8774	A+	A-	A-
MATH	8	816568	721496	9	B-F	2	13177	0.59	0.19	0.59	0.11	0.10	0.00	0.44	-0.16	0.44	-0.26	-0.2330	-0.5091	0.0197	-4.4890	0.9658	-3.9691	0.9463	A+	A+	A-
MATH	8	816572	783590	9	C-G	2	13177	0.25	0.26	0.25	0.32	0.16	0.00	0.19	0.00	0.19	-0.22	0.0592	1.3418	0.0224	9.9012	1.1923	9.9016	1.5614	A-	A+	A+
MATH	8	816612	428886	9	D-S	2	13177	0.45	0.09	0.18	0.45	0.28	0.00	0.22	-0.27	-0.14	0.22	0.0527	0.2022	0.0197	9.9012	1.2439	9.9013	1.345	A-	A-	A-
MATH	8	816614	499733	9	A-N	2	13177	0.69	0.08	0.12	0.12	0.69	0.00	0.50	-0.25	-0.25	-0.26	0.5020	-0.9934	0.0206	-9.8991	0.8676	-9.8992	0.7771	B+	A-	A+
SCIENCE	4	554091	785820	0	D		123254	0.44	0.11	0.10	0.35	0.44	0.00	0.32	-0.16	-0.09	-0.17	0.3165	1.2677	0.0063	9.9011	1.0602	9.9011	1.0803			
SCIENCE	4	559871	333235	0	B	2	123254	0.57	0.12	0.20	0.57	0.10	0.00	0.37	-0.20	-0.15	0.37	-0.1787	0.6514	0.0063	3.4410	1.0081	2.3410	1.0079			
SCIENCE	4	627544	873190	0	A	2	123254	0.41	0.28	0.23	0.08	0.41	0.00	0.42	-0.12	-0.21	-0.23	0.4222	1.4668	0.0064	-9.8990	0.9515	-9.8990	0.9653			
SCIENCE	4	641666	618208	0	B	2	123254	0.75	0.75	0.08	0.05	0.12	0.00	0.47	0.47	-0.23	-0.22	-0.2768	-0.2016	0.0069	-9.8992	0.8435	-9.8992	0.7556			
SCIENCE	4	642192	795087	0	D	2	123254	0.61	0.09	0.61	0.09	0.21	0.00	0.27	-0.22	0.27	-0.21	-0.0162	0.5365	0.0063	9.9011	1.0795	9.9012	1.1508			
SCIENCE	4	652102	692121	0	A	2	123254	0.66	0.16	0.66	0.13	0.04	0.00	0.39	-0.31	0.39	-0.11	-0.1572	0.2284	0.0065	-9.8990	0.9674	-9.8991	0.9353			
SCIENCE	4	652916	647209	0	A	3	123254	0.48	0.48	0.20	0.19	0.14	0.00	0.36	0.36	-0.09	-0.19	-0.1963	1.1075	0.0063	7.8810	1.0183	7.6310	1.0235			
SCIENCE	4	652917	145598	0	A	3	123254	0.49	0.49	0.12	0.17	0.21	0.00	0.43	0.43	-0.16	-0.15	-0.2482	1.0419	0.0062	-9.8990	0.9516	-9.8991	0.9468			
SCIENCE	4	672670	525923	0	C	2	123254	0.39	0.17	0.25	0.18	0.39	0.00	0.40	-0.27	-0.03	-0.21	0.3967	1.4509	0.0064	-9.8990	0.9585	-5.9790	0.9801			
SCIENCE	4	676005	628677	0	A	2	123254	0.35	0.19	0.35	0.16	0.30	0.00	0.36	0.00	0.36	-0.18	-0.2178	1.7055	0.0065	-4.7490	0.9872	7.2110	1.028			
SCIENCE	4	679563	849447	0	D	2	123254	0.67	0.05	0.17	0.67	0.10	0.00	0.48	-0.25	-0.25	0.48	-0.2381	0.1975	0.0065	-9.8991	0.8723	-9.8992	0.8149			
SCIENCE	4	698763	403797	0	A	2	123254	0.51	0.15	0.51	0.11	0.23	0.00	0.31	-0.18	0.31	-0.22	-0.0483	0.9250	0.0062	9.9011	1.0642	9.9011	1.0788			
SCIENCE	4	698766	500573	0	A	2	123254	0.41	0.14	0.31	0.41	0.14	0.00	0.37	-0.09	-0.19	0.37	-0.1814	1.4562	0.0064	0.9210	1.0023	6.9910	1.0237			
SCIENCE	4	698768	812045	0	A	3	123254	0.42	0.18	0.17	0.42	0.23	0.00	0.35	-0.15	-0.23	0.35	-0.0604	1.4029	0.0063	4.3410	1.0107	9.9010	1.0427			
SCIENCE	4	698770	567783	0	A	2	123254	0.42	0.19	0.18	0.42	0.21	0.00	0.22	-0.16	-0.10	0.22	-0.0182	1.4654	0.0064	9.9012	1.1568	9.9012	1.2142			
SCIENCE	4	698773	907849	0	A	2	123254	0.45	0.13	0.18	0.24	0.45	0.00	0.35	-0.18	-0.19	-0.10	0.3517	1.2793	0.0063	9.4810	1.0227	9.9010	1.033			
SCIENCE	4	698775	685972	0	A	2	123254	0.50	0.14	0.11	0.50	0.25	0.00	0.33	-0.10	-0.15	0.33	-0.1844	0.9824	0.0062	9.9011	1.0521	9.9011	1.0647			
SCIENCE	4	698784	600848	0	B	2	123254	0.51	0.51	0.15	0.25	0.09	0.00	0.37	0.37	-0.18	-0.10	-0.2619	0.9312	0.0062	5.0410	1.0116	3.3310	1.0103			
SCIENCE	4	698790	329663	0	A	2	123254	0.51	0.06	0.51	0.21	0.22	0.00	0.47	-0.16	0.47	-0.16	-0.3129	0.9368	0.0062	-9.8991	0.9128	-9.8991	0.8975			
SCIENCE	4	699626	485385	0	D	2	123254	0.28	0.18	0.38	0.16	0.28	0.00	0.22	-0.21	0.05	-0.11	0.2220	2.1296	0.0069	9.9011	1.0855	9.9012	1.2492			
SCIENCE	4	699627	266282	0	D	2	123254	0.61	0.12	0.61	0.09	0.17	0.00	0.43	-0.22	0.43	-0.22	-0.1928	0.4495	0.0064	-9.8991	0.9433	-9.8991	0.9109			
SCIENCE	4	699634	293518	0	D	2	123254	0.70	0.10	0.11	0.70	0.09	0.00	0.45	-0.23	-0.25	0.45	-0.2024	-0.0108	0.0067	-9.8991	0.9050	-9.8991	0.8643			
SCIENCE	4	699701	956038	0	D	2	123254	0.49	0.17	0.19	0.15	0.49	0.00	0.39	-0.11	-0.19	-0.22	0.3949	1.0431	0.0062	-7.3690	0.9832	-7.7190	0.9766			
SCIENCE	4	699715	669018	0	C	2	123254	0.70	0.10	0.13	0.70	0.07	0.00	0.45	-0.16	-0.27	0.45	-0.2563	0.0731	0.0066	-9.8991	0.8888	-9.8991	0.8559			
SCIENCE	4	699716	919979	0	C	2	123254	0.63	0.63	0.07	0.11	0.19	0.00	0.40	0.40	-0.22	-0.21	-0.1729	0.3114	0.0065	-8.1690	0.9792	-9.8990	0.951			
SCIENCE	4	699718	476565	0	C	2	123254	0.32	0.40	0.32	0.22	0.06	0.00	0.23	-0.02	0.23	-0.11	-0.2297	1.8367	0.0066	9.9011	1.0875	9.9012	1.1925			
SCIENCE	4	699719	896994	0	C	2	123254	0.52	0.12	0.16	0.19	0.52	0.00	0.45	-0.30	-0.20	-0.13	0.4490	0.8986	0.0062	-9.8991	0.9331	-9.8991	0.9164			
SCIENCE	4	700150	152050	0	A	2	123254	0.60	0.17	0.60	0.12	0.12	0.00	0.44	-0.18	0.44	-0.20	-0.2497	0.5236	0.0063	-9.8991	0.9400	-9.8991	0.9111			
SCIENCE	4	700153	528945	0	A	3	123254	0.65	0.65	0.13	0.11	0.10	0.00	0.45	0.45	-0.25	-0.21	-0.1983	0.2715	0.0065	-9.8991	0.9088	-9.8991	0.8833			
SCIENCE	4	700157	993377	0	A	2	123254	0.64	0.15	0.11	0.10	0.64	0.00	0.42	-0.22	-0.19	-0.20	0.4205	0.2557	0.0065	-9.8990	0.9597	-9.8991	0.9384			
SCIENCE	4	700159	113739	0	A	2	123254	0.65	0.65	0.10	0.14	0.10	0.00	0.41	0.41	-0.19	-0.21	-0.1995	0.3440	0.0064	-9.8991	0.9394	-9.8991	0.9152			
SCIENCE	4	701032	998772	0	A	3	123254	0.59	0.15	0.13	0.59	0.13	0.00	0.46	-0.22	-0.24	0.46	-0.1958	0.5898	0.0063	-9.8991	0.9087	-9.8991	0.8725			
SCIENCE	4	701038	767154	0	A	2	123254	0.49	0.19	0.49	0.14	0.17	0.00	0.30	-0.10	0.30	-0.17	-0.1418	1.1535	0.0063	9.9011	1.0776	9.9011	1.0956			
SCIENCE	4	701967	925117	0	B	2	123254	0.38	0.38	0.23	0.14	0.25	0.00	0.35	0.35	-0.12	-0.13	-0.1601	1.6495	0.0065	7.1210	1.0190	9.9011	1.0664			
SCIENCE	4	701971	877226	0	B	2	123254	0.64	0.64	0.06	0.16	0.14	0.00	0.34	0.34	-0.26	-0.16	-0.1128	0.2879	0.0065	9.2910	1.0242	9.9011	1.083			
SCIENCE	4	701976	274479	0	B	2	123254	0.39	0.21	0.15	0.24	0.39	0.00	0.34	-0.06	-0.25	-0.11	0.3416	1.5775	0.0064	9.9010	1.0311	9.9011	1.0746			
SCIENCE	4	702041	585428	0	B	3	123254	0.48	0.20	0.20	0.48	0.11	0.00	0.33	-0.17	-0.10	0.33	-0.1757	1.1749	0.0063	9.9011	1.0511	9.9011	1.0672			
SCIENCE	4	702042	199764	0	B	2	123254	0.70	0.11	0.70	0.08	0.11	0.00	0.44	-0.20	0.44	-0.25	-0.2089	0.0113	0.0067	-9.8991	0.9147	-9.8991	0.8769			
SCIENCE	4	702763	744955	0	C	2	123254	0.74	0.06	0.74	0.05	0.15	0.00	0.41	-0.24	0.41	-0.23	-0.1941	-0.2517	0.0070	-9.8991	0.9487	-9.8991	0.8941			
SCIENCE	4	702769	249190	0	C	2	123254	0.40	0.21	0.24	0.15	0.40	0.00	0.32	-0.19	-0.09	-0.10	0.3153	1.3631	0.0063	9.9010	1.0433	9.9011	1.0644			
SCIENCE	4	703335	874532	0	C	2	123254	0.57	0.22	0.10	0.11	0.57	0.00	0.41	-0.19	-0.23	-0.18	0.4091	0.6352	0.0063	-9.8990	0.9697	-6.9790	0.9764			
SCIENCE	4	704895	250226	0	A	2	123254	0.63	0.16	0.63	0.11	0.09	0.00	0.41	-0.20	0.41	-0.20	-0.2124	0.3910	0.0064	-9.8991	0.9435	-9.8991	0.9213			
SCIENCE	4	704898	230865	0	A	2	123254	0.63	0.11	0.16	0.63	0.10	0.00	0.52	-0.26	-0.26	0.52	-0.2437	0.3590	0.0064	-9.8991	0.8639	-9.8992	0.7976			
SCIENCE	4	704902	814343	0	A	2	123254	0.55	0.55	0.12	0.14	0.19	0.00	0.38	0.38	-0.20	-0.22	-0.1111	0.8286	0.0063	-1.3290	0.9970	-1.8690	0.9941			
SCIENCE	4	704904	772257	0	A	2	123254	0.65	0.12	0.09	0.65	0.15	0.00	0.36	-0.21	-0.16	0.36	-0.1642	0.2775	0.0065	-1.5390	0.9960	-0.2590	0.9989			
SCIENCE	4	704907	446632	0	A	2	123254	0.54	0.14	0.11	0.21	0.54	0.00	0.39	-0.18	-0.20	-0.17	0.3936	0.8086	0.0063	-7.4390	0.9830	-6.1890	0.9805			
SCIENCE	4	704940	487777	0	B	2	123254	0.57	0.14	0.18	0.57	0.11	0.00	0.38	-0.20	-0.16	0.38	-0.1778	0.6751	0.0063	-2.1690	0.9950	3.5610	1.012			
SCIENCE	4	704960	374338	0	A	2	123254	0.47	0.18	0.25	0.47	0.10	0.00	0.36	-0.21	-0.09	0.36	-0.1845	1.1353	0.0063	7.4210	1.0173	8.2010	1.0253			
SCIENCE	4	704971	508234	0	A	2	123254	0.56	0.09	0.56	0.23	0.12	0.00	0.35	-0.24	0.35	-0.14	-0.1354	0.7353	0.0063	9.9010	1.0266	7.5310	1.0248			
SCIENCE	4	704993	355970	0	A	2	123254	0.65	0.65	0.07	0.16	0.12	0.00	0.40	0.40	-0.22	-0.16	-0.2372	0.2729	0.0065	-9.8990	0.9580	-9.8991	0.923			
SCIENCE	4	704999	927676	0	A	3	123254	0.53	0.24	0.53	0.11	0.11	0.00	0.39	-0.12	0.39	-0.25	-0.1961	0.8335	0.0063	-6.7390	0.9846	-6.2090	0.9805			
SCIENCE	4	705002	295296	0	A	2	123254	0.57	0.57	0.13	0.21	0.10	0.00	0.39	0.39	-0.24	-0.11	-0.2105	0.6918	0.0063	-5.9390	0.9863	-6.5090	0.9785			
SCIENCE	4	705005	512203	0	D	2	123254	0.48	0.48	0.20	0.20	0.11	0.00	0.26	0.26	-0.07	-0.15	-0.1256	1.0325	0.0062	9.9011	1.1154	9.9012	1.1576			
SCIENCE	4	735275	532665	0	D	2	123254	0.42	0.16	0.20	0.42	0.22	0.00	0.27	-0.20	-0.17	0.27	0.0257	1.3436	0.0063	9.9011	1.0943	9.9011	1.1274			
SCIENCE	4	735285	249310	0	D	2	123254	0.51	0.09	0.51	0.26	0.13	0.00	0.34	-0.21	0.34	-0.12	-0.1589	1.0617	0.0063	9.9010	1.0440	9.9011	1.0582			
SCIENCE	4	735297	572572	0	B	2	123254	0.54	0.54	0.16	0.14	0.16	0.00	0.16	0.16	-0.05	-0.15	-0.0268	0.7731	0.0063	9.9012	1.2120	9.9013	1.2588			
SCIENCE	4	737544	432518	0	C	2	123254	0.52	0.11	0.52	0.27	0.09	0.00	0.40	-0.21	0.40	-0.17	-0.1988	0.9034	0.0062	-9.8990	0.9761	-9.8990	0.9646			
SCIENCE	4	737555	418191	0	C	3	123254	0.52	0.23	0.12	0.13	0.52	0.00	0.32	-0.07	-0.18	-0.21	0.3203	0.8337	0.0063	9.9011	1.0601	9.9011	1.0848			
SCIENCE	4	704954	342792	1	A	3	10634	0.45	0.14	0.14	0.45	0.27	0.00	0.28	-0.14	-0.20	0.28	-0.0429	1.1956	0.0214	9.9011	1.0871	9.9011	1.1128	A+	A-	A-
SCIENCE	4	705010	690072	1	D	2	10634	0.34	0.19	0.34	0.20	0.26	0.01	0.19	-0.11	0.19	-0.06	-0.0413	1.7233	0.0223	9.9012	1.1595	9.9013	1.2569	A-	A-	A-
SCIENCE	4	808848	829592	1	A	2	10634	0.58	0.12	0.16	0.13	0.58	0.00	0.48	-0.23	-0.24	-0.21	0.4832	0.5490	0.0214	-9.8991	0.8896	-9.8991	0.8504	A+	A-	A-
SCIENCE	4	809042	799846	1	A	1	10634	0.71	0.12	0.08	0.09	0.71	0.00	0.52	-0.24	-0.28	-0.28	0.5238	-0.0988	0.0229	-9.8992	0.8304	-9.8993	0.7357	A+	A-	A-
SCIENCE	4	809082	869543	1	B	2	10634	0.58	0.19	0.58	0.09	0.14	0.00	0.40	-0.28	0.40	-0.25	-0.0413	0.5650	0.0214	-4.1390	0.9675	-3.0990	0.965	A+	A+	A+
SCIENCE	4	809086	908305	1	B	2	10634	0.43	0.15	0.26	0.16	0.43	0.00	0.35	-0.12	-0.11	-0.23	0.3548	1.2707	0.0215	2.1910	1.0181	2.5310	1.0273	A+	A-	A-
SCIENCE	4	809110	378791	1	C	2	10634	0.43	0.43	0.12	0.12	0.33	0.00	0.15	0.15	-0.20	-0.23	0.1458	1.2937	0.0215	9.9012	1.2277	9.9013	1.2848	A-	A-	A-
SCIENCE	4	811286	480455	1	A	2	10634	0.41	0.07	0.41	0.16	0.35	0.00	0.32	-0.25	0.32	-0.18	-0.0543	1.3739	0.0216	4.7910	1.0409	6.2111	1.0712	A-	A-	A-
SCIENCE	4	811553	998482	1	D	2	10634	0.38	0.19	0.22	0.38	0.21	0.01	0.22	-0.13	0.00	0.22	-0.1290	1.5282	0.0219	9.9011	1.1396	9.9012	1.2091	A+	A-	A+
SCIENCE	4	811773	322259	1	A	2	10634	0.78	0.08	0.78	0.08	0.06	0.00	0.48	-0.26	0.48	-0.24	-0.2616	-0.5372	0.0248	-9.8992	0.8381	-9.8992	0.7513	A+	B-	A-
SCIENCE	4	704929	837007	2	A	2	10257	0.59	0.10	0.59	0.08	0.22	0.01	0.43	-0.24	0.43	-0.25	-0.1682	0.5459	0.0220	-7.2891	0.9406	-5.4991	0.9327	A+	A+	A+
SCIENCE	4	739642	985486	2	C	2	10257	0.42	0.13	0.42	0.26	0.17	0.02	0.30	-0.22	0.30	0.01	-0.1940	1.3845	0.0220	9.3411	1.0816	9.5511	1.113	A+	A-	A-
SCIENCE	4	809077	954535	2	A	2	10257	0.57	0.09	0.20	0.57	0.14	0.01	0.48	-0.24	-0.18	0.48	-0.2723	0.6598	0.0218	-9.8991	0.8998	-9.8991	0.8623	A+	A+	A-
SCIENCE	4	809101	618011	2	B	2	10257	0.34	0.24	0.20	0.34	0.21	0.00	0.28	-0.11	-0.15	0.28	-0.0543	1.7925	0.0228	7.4311	1.0744	9.9012	1.1657	A+	A-	A-
SCIENCE	4	810881	905966	2	D	2	10257	0.37	0.17	0.21	0.37	0.24	0.00	0.21	-0.08	-0.11	0.21	-0.0405	1.6249	0.0224	9.9012	1.1556	9.9012	1.2383	A-	A-	A-

ContArea	FormGrade	ItemID	PubID	FormNumber	Standard1	Depth	N	PValue	ProportionA	ProportionB	ProportionC	ProportionD	ProportionOMITS	PtBiserial	CorrelationA	CorrelationB	CorrelationC	CorrelationD	FinalB	FinalBErr	Infit	InfitMnSq	Outfit	OutfitMnSq	BiasCodeMALEFEMALE	BiasCodeWHITEBLACK	BiasCodeWHITEHISPANIC
SCIENCE	4	811284	957605	2	A	2	10257	0.74	0.08	0.07	0.10	0.74	0.00	0.51	-0.26	-0.27	-0.26	0.5108	-0.2298	0.0241	-9.8992	0.8286	-9.8993	0.7333	A+	A-	A-
SCIENCE	4	811362	586091	2	B	2	10257	0.61	0.12	0.61	0.12	0.14	0.00	0.46	-0.23	0.46	-0.24	-0.1913	0.4811	0.0221	-9.8991	0.9150	-9.8991	0.876	A+	A-	A-
SCIENCE	4	811506	575085	2	A	2	10257	0.58	0.16	0.58	0.08	0.17	0.00	0.48	-0.25	0.48	-0.24	-0.2002	0.6048	0.0219	-9.8991	0.8963	-9.8991	0.864	A+	A-	A-
SCIENCE	4	811545	778693	2	C	2	10257	0.82	0.05	0.06	0.82	0.07	0.00	0.43	-0.26	-0.26	0.43	-0.1852	-0.7335	0.0269	-8.8391	0.8716	-9.8993	0.734	A+	A-	A-
SCIENCE	4	811771	232844	2	A	2	10257	0.67	0.17	0.67	0.09	0.06	0.00	0.38	-0.17	0.38	-0.20	-0.2274	0.1744	0.0227	-2.9690	0.9725	-3.6091	0.9445	A+	A-	A+
SCIENCE	4	698762	661437	3	A	2	10254	0.49	0.08	0.28	0.49	0.15	0.00	0.33	-0.24	-0.09	0.33	-0.1573	1.0355	0.0217	5.6510	1.0460	6.7111	1.0725	A-	A-	A-
SCIENCE	4	735276	854973	3	D	2	10254	0.31	0.31	0.31	0.22	0.16	0.01	0.26	-0.01	0.26	-0.19	-0.1018	1.9394	0.0233	7.5111	1.0806	9.9012	1.1834	A-	A-	A-
SCIENCE	4	801690	720234	3	D	2	10254	0.49	0.14	0.20	0.49	0.17	0.00	0.28	-0.19	-0.10	0.28	-0.0851	1.0363	0.0217	9.9011	1.0948	9.9011	1.1232	A+	A-	A-
SCIENCE	4	808849	276838	3	A	2	10254	0.33	0.22	0.19	0.33	0.25	0.00	0.25	-0.08	-0.12	0.25	-0.0820	1.8464	0.0230	9.5111	1.0984	9.9012	1.19	A+	A-	A-
SCIENCE	4	809094	956030	3	B	2	10254	0.42	0.21	0.42	0.21	0.15	0.01	0.37	-0.13	0.37	-0.11	-0.2272	1.3514	0.0219	0.8810	1.0074	2.5610	1.0292	A-	A-	A-
SCIENCE	4	810875	869206	3	D	2	10254	0.81	0.06	0.06	0.07	0.81	0.00	0.48	-0.26	-0.27	-0.24	0.4843	-0.7132	0.0266	-9.8992	0.8265	-9.8993	0.6693	A+	B-	A-
SCIENCE	4	810879	577228	3	A	2	10254	0.71	0.71	0.12	0.09	0.08	0.00	0.51	0.51	-0.27	-0.26	-0.2546	-0.0898	0.0235	-9.8992	0.8395	-9.8993	0.7499	A+	A-	A-
SCIENCE	4	811285	983924	3	A	2	10254	0.67	0.14	0.67	0.09	0.10	0.00	0.44	-0.18	0.44	-0.22	-0.2615	0.1144	0.0228	-9.2991	0.9137	-6.5391	0.9004	A-	A-	A-
SCIENCE	4	811460	177424	3	C	2	10254	0.66	0.14	0.14	0.06	0.66	0.00	0.51	-0.26	-0.26	-0.26	0.5118	0.1913	0.0226	-9.8991	0.8526	-9.8992	0.7997	A-	A-	A-
SCIENCE	4	811462	341263	3	B	2	10254	0.85	0.04	0.05	0.85	0.05	0.00	0.39	-0.23	-0.20	0.39	-0.2015	-1.0694	0.0293	-6.2991	0.8885	-9.7793	0.7127	A+	A-	A-
SCIENCE	4	704963	492876	4	A	2	10237	0.50	0.50	0.17	0.15	0.18	0.00	0.38	0.38	-0.22	-0.19	-0.1002	1.0057	0.0216	-1.6090	0.9873	-2.2590	0.9766	A+	A-	A-
SCIENCE	4	705004	872678	4	D	2	10237	0.34	0.20	0.34	0.23	0.22	0.01	0.31	-0.16	0.31	-0.02	-0.1765	1.7944	0.0227	3.0710	1.0299	7.4411	1.1071	A-	A-	A-
SCIENCE	4	705009	707540	4	D	2	10237	0.47	0.47	0.14	0.13	0.25	0.01	0.32	0.32	-0.16	-0.17	-0.0967	1.1557	0.0217	6.6011	1.0537	6.7011	1.0718	A+	A-	A-
SCIENCE	4	808850	649427	4	A	2	10237	0.70	0.13	0.07	0.10	0.70	0.00	0.28	-0.11	-0.25	-0.10	0.2840	0.0318	0.0232	3.7310	1.0377	7.3511	1.129	A+	A-	A-
SCIENCE	4	809038	584398	4	A	2	10237	0.35	0.38	0.19	0.35	0.07	0.00	0.30	-0.03	-0.17	0.30	-0.2171	1.7406	0.0226	4.7310	1.0455	9.0011	1.1261	A+	A+	A-
SCIENCE	4	810873	868982	4	D	2	10237	0.67	0.12	0.67	0.11	0.09	0.00	0.48	-0.19	0.48	-0.27	-0.2599	0.1507	0.0228	-9.8991	0.8791	-9.8992	0.8406	A+	A-	A-
SCIENCE	4	810880	152892	4	A	2	10237	0.28	0.43	0.23	0.28	0.05	0.00	0.19	0.01	-0.09	0.19	-0.2339	2.1237	0.0238	9.9011	1.1383	9.9013	1.2946	A+	A-	A-
SCIENCE	4	811469	692721	4	B	2	10237	0.40	0.40	0.23	0.19	0.18	0.00	0.24	0.24	0.01	-0.15	-0.1545	1.4991	0.0221	9.9011	1.1270	9.9012	1.1823	A-	A+	A-
SCIENCE	4	811547	722058	4	C	2	10237	0.76	0.13	0.06	0.76	0.04	0.00	0.38	-0.20	-0.22	0.38	-0.1837	-0.3540	0.0248	-5.6291	0.9323	-3.2091	0.9322	A+	A-	A-
SCIENCE	4	811556	144012	4	B	2	10237	0.75	0.04	0.16	0.05	0.75	0.00	0.47	-0.21	-0.33	-0.19	0.4729	-0.2976	0.0245	-9.8991	0.8634	-9.8992	0.7586	B+	A-	A-
SCIENCE	4	704975	678856	5	A	2	10274	0.55	0.14	0.19	0.11	0.55	0.00	0.48	-0.16	-0.24	-0.25	0.4772	0.7553	0.0217	-9.8991	0.8999	-9.8991	0.8707	A-	A-	A+
SCIENCE	4	736975	199343	5	B	2	10274	0.38	0.29	0.15	0.38	0.17	0.00	0.29	-0.02	-0.17	0.29	-0.1768	1.6110	0.0223	7.1011	1.0652	9.5011	1.1233	A+	A+	A-
SCIENCE	4	801672	569918	5	A	2	10274	0.67	0.67	0.18	0.07	0.07	0.00	0.48	0.48	-0.28	-0.23	-0.2208	0.1640	0.0227	-9.8991	0.8794	-9.8992	0.8155	A+	A-	A-
SCIENCE	4	801689	656094	5	D	2	10274	0.36	0.36	0.23	0.14	0.27	0.00	0.21	0.21	-0.07	-0.23	0.0233	1.7145	0.0225	9.9011	1.1468	9.9012	1.2255	A+	A-	A+
SCIENCE	4	809074	658005	5	B	2	10274	0.44	0.20	0.44	0.18	0.17	0.00	0.36	-0.10	0.36	-0.14	-0.2076	1.2851	0.0218	1.4610	1.0120	3.0210	1.0331	A+	A-	A-
SCIENCE	4	810872	820911	5	A	2	10274	0.71	0.11	0.71	0.06	0.11	0.01	0.45	-0.19	0.45	-0.24	-0.2769	-0.0429	0.0234	-9.8991	0.8907	-9.4292	0.8402	A+	A-	A-
SCIENCE	4	811211	394993	5	A	2	10274	0.69	0.69	0.11	0.13	0.07	0.00	0.47	0.47	-0.23	-0.27	-0.2000	0.0684	0.0230	-9.8991	0.8826	-9.8992	0.8236	A-	A-	A-
SCIENCE	4	811458	297250	5	D	2	10274	0.46	0.46	0.12	0.17	0.24	0.01	0.24	0.24	-0.09	-0.17	-0.0586	1.2139	0.0217	9.9011	1.1279	9.9012	1.1673	A-	A-	A-
SCIENCE	4	811554	317566	5	C	2	10274	0.43	0.16	0.13	0.43	0.27	0.00	0.23	-0.11	-0.17	0.23	-0.0204	1.3330	0.0218	9.9011	1.1397	9.9012	1.191	A+	A-	A-
SCIENCE	4	811774	961476	5	A	2	10274	0.69	0.69	0.05	0.13	0.13	0.00	0.43	0.43	-0.23	-0.23	-0.2032	0.0868	0.0229	-8.1791	0.9227	-8.8691	0.8607	A+	A-	A+
SCIENCE	4	705001	743561	6	A	2	10218	0.39	0.19	0.18	0.39	0.24	0.00	0.23	-0.19	-0.03	0.23	-0.0566	1.5614	0.0222	9.9011	1.1279	9.9012	1.1859	A-	A-	A-
SCIENCE	4	734799	898046	6	B	2	10218	0.63	0.13	0.63	0.13	0.10	0.00	0.53	-0.28	0.53	-0.26	-0.2277	0.3596	0.0223	-9.8992	0.8443	-9.8992	0.7833	A+	A-	A-
SCIENCE	4	739644	271433	6	C	2	10218	0.38	0.19	0.10	0.34	0.38	0.00	0.40	-0.23	-0.20	-0.09	0.4024	1.6257	0.0223	-4.3190	0.9614	-2.4290	0.9694	A-	A-	A-
SCIENCE	4	809036	584497	6	A	2	10218	0.49	0.13	0.14	0.24	0.49	0.00	0.29	-0.17	-0.21	-0.03	0.2931	1.0771	0.0217	9.8811	1.0809	8.9811	1.0976	A+	A+	A-
SCIENCE	4	809075	711130	6	B	2	10218	0.81	0.05	0.81	0.06	0.07	0.00	0.48	-0.24	0.48	-0.27	-0.2449	-0.6738	0.0267	-9.8992	0.8401	-9.8993	0.6934	A+	B-	A-
SCIENCE	4	811287	861603	6	A	2	10218	0.54	0.14	0.54	0.20	0.11	0.00	0.35	-0.16	0.35	-0.15	-0.1845	0.8192	0.0217	2.5710	1.0206	2.3410	1.0258	A+	A-	A-
SCIENCE	4	811543	249845	6	B	2	10218	0.71	0.71	0.10	0.10	0.08	0.00	0.53	0.53	-0.30	-0.26	-0.2578	-0.0486	0.0235	-9.8992	0.8239	-9.8993	0.7127	A+	A-	A-
SCIENCE	4	811555	680369	6	D	2	10218	0.32	0.32	0.11	0.33	0.24	0.00	0.22	0.22	-0.11	-0.10	-0.0428	1.9244	0.0231	9.9011	1.1198	9.9012	1.2208	A+	A+	A-
SCIENCE	4	811618	446851	6	D	2	10218	0.28	0.36	0.17	0.18	0.28	0.01	0.11	-0.01	-0.09	-0.03	0.1101	2.1340	0.0239	9.9012	1.2141	9.9014	1.4353	A+	A-	A-
SCIENCE	4	811770	236744	6	A	2	10218	0.77	0.77	0.07	0.11	0.05	0.01	0.37	0.37	-0.20	-0.18	-0.2097	-0.3828	0.0250	-4.1091	0.9492	-3.1891	0.931	A+	B-	A-
SCIENCE	4	704987	409916	7	A	2	10246	0.57	0.20	0.10	0.12	0.57	0.00	0.38	-0.09	-0.22	-0.26	0.3814	0.6614	0.0218	-1.5390	0.9876	0.2710	1.0032	A+	A-	A-
SCIENCE	4	714198	889301	7	C	2	10246	0.50	0.32	0.50	0.10	0.08	0.00	0.28	-0.02	0.28	-0.24	-0.1875	1.0312	0.0217	9.9011	1.0991	9.9011	1.1321	A-	A+	A+
SCIENCE	4	801674	338003	7	A	2	10246	0.57	0.17	0.16	0.10	0.57	0.01	0.48	-0.18	-0.24	-0.26	0.4774	0.7072	0.0218	-9.8991	0.9007	-9.8991	0.8592	A-	A+	A-
SCIENCE	4	808853	550023	7	A	2	10246	0.35	0.34	0.35	0.09	0.21	0.00	0.26	-0.02	0.26	-0.26	-0.0872	1.7817	0.0227	8.6811	1.0861	9.9012	1.1834	A+	A-	A+
SCIENCE	4	808856	410062	7	A	2	10246	0.57	0.11	0.11	0.57	0.21	0.00	0.40	-0.21	-0.23	0.40	-0.1374	0.6848	0.0218	-3.5190	0.9720	-1.5090	0.9825	A-	A-	A-
SCIENCE	4	809093	460895	7	B	2	10246	0.43	0.08	0.18	0.43	0.31	0.00	0.28	-0.25	-0.25	0.28	0.0618	1.3701	0.0219	9.9011	1.0914	9.9011	1.132	A-	A+	A-
SCIENCE	4	810878	922461	7	D	2	10246	0.62	0.17	0.62	0.10	0.09	0.00	0.43	-0.22	0.43	-0.22	-0.1925	0.4141	0.0222	-8.1391	0.9318	-8.2491	0.8932	A-	A-	A-
SCIENCE	4	811358	780356	7	B	2	10246	0.54	0.27	0.10	0.09	0.54	0.01	0.35	-0.09	-0.25	-0.19	0.3464	0.8487	0.0217	3.5410	1.0283	2.7810	1.0305	A+	A-	A-
SCIENCE	4	811465	177743	7	D	2	10246	0.49	0.13	0.13	0.25	0.49	0.00	0.35	-0.25	-0.26	0.00	0.3473	1.0897	0.0217	3.6810	1.0296	5.5311	1.0593	A+	A-	A+
SCIENCE	4	811613	412818	7	A	1	10246	0.85	0.85	0.05	0.04	0.05	0.00	0.42	0.42	-0.22	-0.22	-0.2372	-1.0206	0.0293	-7.6591	0.8654	-9.8993	0.6699	A+	A-	A-
SCIENCE	4	704925	328306	8	A	2	10239	0.43	0.08	0.43	0.43	0.06	0.00	0.27	-0.24	0.27	-0.02	-0.2450	1.3533	0.0219	9.9011	1.0949	9.9011	1.1298	A+	A-	A-
SCIENCE	4	704942	496938	8	B	2	10239	0.54	0.20	0.12	0.14	0.54	0.00	0.48	-0.15	-0.26	-0.27	0.4822	0.8050	0.0217	-9.8991	0.8966	-9.8991	0.87	A+	A-	A-
SCIENCE	4	801686	941228	8	D	2	10239	0.52	0.13	0.14	0.52	0.21	0.00	0.22	-0.21	-0.16	0.22	0.0394	0.9242	0.0217	9.9012	1.1522	9.9012	1.2083	A+	A-	A+
SCIENCE	4	808854	900798	8	A	2	10239	0.42	0.42	0.25	0.19	0.14	0.00	0.33	0.33	-0.06	-0.15	-0.2155	1.4077	0.0220	4.5310	1.0389	6.6211	1.0768	A-	A-	A-
SCIENCE	4	809108	321986	8	C	2	10239	0.42	0.16	0.16	0.26	0.42	0.00	0.30	-0.16	-0.12	-0.10	0.3001	1.4328	0.0220	7.9411	1.0693	9.1011	1.1076	A+	A-	A-
SCIENCE	4	809118	819878	8	D	2	10239	0.48	0.23	0.16	0.48	0.12	0.00	0.42	-0.18	-0.22	0.42	-0.1458	1.1248	0.0217	-5.8590	0.9538	-4.9791	0.9483	A-	A-	A-
SCIENCE	4	811206	937194	8	A	2	10239	0.86	0.86	0.05	0.05	0.04	0.00	0.41	0.41	-0.24	-0.23	-0.2018	-1.0517	0.0296	-6.7391	0.8786	-9.7793	0.7079	A+	B-	A-
SCIENCE	4	811363	618576	8	B	2	10239	0.51	0.19	0.51	0.13	0.15	0.01	0.43	-0.15	0.43	-0.20	-0.2400	0.9585	0.0217	-6.6891	0.9480	-6.7191	0.9301	A+	A+	A-
SCIENCE	4	811769	220907	8	A	2	10239	0.49	0.25	0.49	0.19	0.06	0.01	0.42	-0.19	0.42	-0.17	-0.2339	1.0914	0.0217	-5.0090	0.9606	-4.6390	0.9518	A+	A+	A-
SCIENCE	4	812286	884770	8	A	2	10239	0.64	0.08	0.10	0.17	0.64	0.00	0.53	-0.29	-0.26	-0.24	0.5305	0.3454	0.0223	-9.8992	0.8418	-9.8992	0.7924	A+	A-	A-
SCIENCE	4	704961	884613	9	A	2	10206	0.53	0.10	0.53	0.17	0.20	0.00	0.31	-0.22	0.31	-0.14	-0.0829	0.8764	0.0217	8.0611	1.0660	5.8111	1.0643	A+	A+	A+
SCIENCE	4	705008	116603	9	D	2	10206	0.47	0.21	0.18	0.47	0.14	0.00	0.35	-0.10	-0.20	0.35	-0.1558	1.1520	0.0218	3.1110	1.0254	3.7910	1.0409	A-	A-	A-
SCIENCE	4	801673	378021	9	A	2	10206	0.54	0.14	0.06	0.26	0.54	0.00	0.26	-0.10	-0.24	-0.08	0.2626	0.7959	0.0218	9.9011	1.1113	9.9011	1.1456	A+	A-	A-
SCIENCE	4	801694	756282	9	D	2	10206	0.28	0.40	0.21	0.11	0.28	0.00	0.20	0.12	-0.23	-0.18	0.1967	2.1580	0.0240	9.9011	1.1321	9.9013	1.2997	A-	A-	A+
SCIENCE	4	809076	685185	9	A	2	10206	0.58	0.10	0.16	0.58	0.15	0.01	0.39	-0.25	-0.16	0.39	-0.1439	0.6010	0.0220	-1.5690	0.9870	-2.1190	0.9746	A+	A-	A-
SCIENCE	4	809085	819457	9	B	2	10206	0.64	0.08	0.64	0.18	0.09	0.01	0.32	-0.26	0.32	-0.02	-0.2451	0.2990	0.0225	3.1810	1.0289	6.0211	1.0888	A+	A-	A+
SCIENCE	4	810874	221702	9	A	2	10206	0.50	0.50	0.30	0.12	0.08	0.00	0.43	0.43	-0.17	-0.23	-0.2115	1.0332	0.0217	-5.4390	0.9569	-3.7590	0.9607	B-	A-	A-
SCIENCE	4	810876	966925	9	D	2	10206	0.67	0.15	0.08	0.67	0.10	0.00	0.48	-0.22	-0.29	0.48	-0.2246	0.1546	0.0229	-9.8991	0.8801	-9.8992	0.8139	A+	A+	A-
SCIENCE	4	811210	246364	9	A	2	10206	0.73	0.10	0.08	0.09	0.73	0.00	0.57	-0.29	-0.29	-0.29	0.5662	-0.1793	0.0240	-9.8992	0.7884	-9.8993	0.6531	A+	A-	A-
SCIENCE	4	811549	916951	9	C	2	10206	0.77	0.05	0.11	0.07	0.77	0.00	0.41	-0.24	-0.22	-0.20	0.4106	-0.4181	0.0251	-7.7091	0.9051	-6.7991	0.8534	A+	A-	A-
SCIENCE	4	704977	388117	10	A	2	10231	0.43	0.23	0.43	0.13	0.20	0.00	0.39	-0.13	0.39	-0.22	-0.1514	1.3419	0.0219	-2.3490	0.9804	-0.8890	0.99	A-	A-	A-
SCIENCE	4	736129	134574	10	B	2	10231	0.47	0.13	0.20	0.20	0.47	0.00	0.35	-0.25	-0.17	-0.06	0.3494	1.1479	0.0218	3.9310	1.0323	3.6310	1.0396	A+	A-	A-
SCIENCE	4	801671	449147	10	A	2	10231	0.77	0.08	0.07	0.77	0.07	0.01	0.45	-0.26	-0.22	0.45	-0.2392	-0.4180	0.0252	-9.8991	0.8717	-9.2792	0.8001	A+	A-	A-
SCIENCE	4	801678	503494	10	C	2	10231	0.63	0.14	0.11	0.11	0.63	0.00	0.47	-0.18	-0.30	-0.21	0.4744	0.3967	0.0223	-9.8991	0.8960	-9.8991	0.8652	A+	A-	A-
SCIENCE	4	801682	833102	10	D	2	10231	0.70	0.16	0.07	0.70	0.06	0.00	0.40	-0.21	-0.19	0.40	-0.2177	-0.0089	0.0234	-5.3091	0.9464	-4.9391	0.9142	A-	A-	A-
SCIENCE	4	809034	632336	10	A	2	10231	0.21	0.13	0.33	0.21	0.33	0.01	0.05	-0.09	0.01	0.05	0.0145	2.6386	0.0264	9.9012	1.2197	9.9017	1.7166	A+	A-	A-
SCIENCE	4	809087	613041	10	B	2	10231	0.48	0.17	0.11	0.23	0.48	0.00	0.40	-0.16	-0.27	-0.12	0.3990	1.1012	0.0218	-2.2890	0.9816	-1.6290	0.9825	A-	A-	A-
SCIENCE	4	810877	686743	10	D	2	10231	0.69	0.69	0.15	0.08	0.08	0.00	0.50	0.50	-0.26	-0.24	-0.2609	0.0872	0.0231	-9.8991	0.8584	-9.8992	0.7895	A+	A-	A-
SCIENCE	4	811205	897139	10	A	2	10231	0.46	0.28	0.14	0.12	0.46	0.00	0.40	-0.08	-0.19	-0.29	0.4039	1.2209	0.0218	-2.2390	0.9817	-1.6290	0.9823	A+	A-	A-
SCIENCE	4	811612	824958	10	A	2	10231	0.68	0.68	0.07	0.11	0.14	0.00	0.40	0.40	-0.25	-0.19	-0.1763	0.1327	0.0229	-5.1990	0.9507	-3.5891	0.9425	A-	A-	A-
SCIENCE	4	704910	145821	11	A	2	10236	0.57	0.21	0.11	0.57	0.10	0.00	0.50	-0.23	-0.22	0.50	-0.2594	0.6412	0.0218	-9.8991	0.8812	-9.8992	0.8377	A+	A-	A-
SCIENCE	4	705015	896902	11	D	2	10236	0.39	0.24	0.39	0.19	0.18	0.00	0.31	-0.08	0.31	-0.16	-0.1365	1.5360	0.0222	5.2710	1.0473	7.4011	1.0918	A-	A-	A-
SCIENCE	4	808855	423217	11	A	2	10236	0.60	0.09	0.16	0.60	0.14	0.00	0.44	-0.24	-0.20	0.44	-0.2055	0.5073	0.0220	-9.1191	0.9258	-8.6491	0.8951	A+	A-	A-

ContArea	FormGrade	ItemID	PubID	FormNumber	Standard1	Depth	N	PValue	ProportionA	ProportionB	ProportionC	ProportionD	ProportionOMITS	PtBiserial	CorrelationA	CorrelationB	CorrelationC	CorrelationD	FinalB	FinalBErr	Infit	InfitMnSq	Outfit	OutfitMnSq	BiasCodeMALEFEMALE	BiasCodeWHITEBLACK	BiasCodeWHITEHISPANIC
SCIENCE	4	809090	373594	11	B	2	10236	0.30	0.22	0.19	0.29	0.30	0.00	0.12	-0.13	-0.07	0.07	0.1223	2.0275	0.0235	9.9012	1.2216	9.9014	1.363	A-	A-	A+
SCIENCE	4	811213	937682	11	A	2	10236	0.50	0.50	0.08	0.22	0.20	0.00	0.36	0.36	-0.27	-0.17	-0.0879	1.0182	0.0217	1.3910	1.0110	1.1110	1.0116	A-	A+	A+
SCIENCE	4	811361	405268	11	B	2	10236	0.61	0.16	0.11	0.61	0.11	0.00	0.44	-0.20	-0.30	0.44	-0.1429	0.4781	0.0221	-8.9391	0.9267	-7.9391	0.9019	A+	A+	A-
SCIENCE	4	811459	899572	11	D	2	10236	0.27	0.18	0.29	0.25	0.27	0.00	0.08	-0.14	0.08	-0.03	0.0815	2.1978	0.0242	9.9012	1.2455	9.9015	1.4572	A+	A+	A-
SCIENCE	4	811463	946931	11	D	2	10236	0.56	0.22	0.56	0.12	0.09	0.00	0.39	-0.13	0.39	-0.22	-0.2120	0.7142	0.0218	-2.8290	0.9775	-2.6690	0.97	A+	A-	A-
SCIENCE	4	811544	168848	11	B	2	10236	0.68	0.15	0.07	0.09	0.68	0.01	0.52	-0.27	-0.26	-0.26	0.5163	0.1014	0.0229	-9.8992	0.8446	-9.8992	0.7687	A+	A-	A-
SCIENCE	4	811772	473816	11	A	2	10236	0.54	0.11	0.54	0.20	0.13	0.01	0.45	-0.24	0.45	-0.22	-0.1735	0.8275	0.0217	-9.2191	0.9286	-7.7791	0.9177	A-	A+	A+
SCIENCE	4	704916	553371	12	A	2	10222	0.51	0.23	0.11	0.51	0.14	0.00	0.30	-0.04	-0.20	0.30	-0.1876	0.9848	0.0217	9.9011	1.0831	9.9011	1.116	A+	A+	A-
SCIENCE	4	704924	230149	12	B	2	10222	0.49	0.10	0.09	0.32	0.49	0.00	0.35	-0.26	-0.27	-0.04	0.3491	1.0565	0.0217	4.1510	1.0337	3.8310	1.0419	A-	A-	A-
SCIENCE	4	801669	192544	12	A	2	10222	0.77	0.77	0.08	0.06	0.08	0.00	0.50	0.50	-0.30	-0.28	-0.2151	-0.3808	0.0250	-9.8992	0.8317	-9.8993	0.7105	A+	A+	A-
SCIENCE	4	809095	786148	12	B	2	10222	0.48	0.48	0.09	0.18	0.24	0.01	0.32	0.32	-0.22	-0.13	-0.1066	1.1032	0.0218	6.7011	1.0550	6.2011	1.0684	A-	A-	A+
SCIENCE	4	810882	707366	12	A	2	10222	0.52	0.17	0.20	0.52	0.11	0.00	0.46	-0.25	-0.19	0.46	-0.1820	0.9487	0.0217	-9.8991	0.9209	-9.1191	0.9034	B-	A-	A-
SCIENCE	4	811204	734976	12	A	2	10222	0.43	0.14	0.32	0.10	0.43	0.01	0.34	-0.23	-0.03	-0.24	0.3395	1.3747	0.0220	3.9410	1.0337	5.0911	1.0591	A+	A-	A-
SCIENCE	4	811207	487710	12	A	2	10222	0.55	0.09	0.10	0.55	0.25	0.00	0.42	-0.26	-0.28	0.42	-0.1020	0.7602	0.0218	-4.6490	0.9629	-4.1990	0.9522	A+	A-	A-
SCIENCE	4	811461	351973	12	D	2	10222	0.44	0.19	0.15	0.21	0.44	0.00	0.38	-0.14	-0.19	-0.14	0.3767	1.3241	0.0219	-0.0390	0.9996	0.6310	1.007	A+	A+	A-
SCIENCE	4	811542	788379	12	B	2	10222	0.46	0.46	0.16	0.13	0.25	0.00	0.43	0.43	-0.23	-0.24	-0.1046	1.2195	0.0218	-6.3691	0.9487	-4.3990	0.9526	A-	A-	A-
SCIENCE	4	811546	814508	12	C	2	10222	0.74	0.74	0.08	0.09	0.09	0.00	0.53	0.53	-0.28	-0.28	-0.2577	-0.1926	0.0241	-9.8992	0.8207	-9.8993	0.6997	A+	A-	A-
SCIENCE	8	565271	313274	0	A	2	118314	0.70	0.09	0.70	0.17	0.04	0.00	0.33	-0.17	0.33	-0.19	-0.1537	-0.3901	0.0067	-5.1890	0.9854	0.6210	1.0029			
SCIENCE	8	565271	313274	0	A	2	118314	0.70	0.09	0.70	0.17	0.04	0.00	0.33	-0.17	0.33	-0.19	-0.1537	-0.3901	0.0067	-5.1890	0.9854	0.6210	1.0029			
SCIENCE	8	566346	350970	0	D	2	118314	0.54	0.14	0.12	0.54	0.19	0.00	0.27	-0.12	-0.16	0.27	-0.0962	0.3247	0.0064	9.9011	1.0981	9.9011	1.1149			
SCIENCE	8	566346	350970	0	D	2	118314	0.54	0.14	0.12	0.54	0.19	0.00	0.27	-0.12	-0.16	0.27	-0.0962	0.3247	0.0064	9.9011	1.0981	9.9011	1.1149			
SCIENCE	8	593318	157416	0	B	2	118314	0.48	0.48	0.34	0.09	0.09	0.00	0.37	0.37	-0.12	-0.24	-0.2012	0.6226	0.0064	3.3810	1.0080	1.9010	1.0058			
SCIENCE	8	593318	157416	0	B	2	118314	0.48	0.48	0.34	0.09	0.09	0.00	0.37	0.37	-0.12	-0.24	-0.2012	0.6226	0.0064	3.3810	1.0080	1.9010	1.0058			
SCIENCE	8	640296	539258	0	C	2	118314	0.53	0.28	0.07	0.53	0.11	0.00	0.27	-0.01	-0.24	0.27	-0.2256	0.3788	0.0064	9.9011	1.0955	9.9011	1.117			
SCIENCE	8	640296	539258	0	C	2	118314	0.53	0.28	0.07	0.53	0.11	0.00	0.27	-0.01	-0.24	0.27	-0.2256	0.3788	0.0064	9.9011	1.0955	9.9011	1.117			
SCIENCE	8	642307	322471	0	D	2	118314	0.53	0.10	0.18	0.18	0.53	0.00	0.48	-0.26	-0.18	-0.22	0.4771	0.2824	0.0064	-9.8991	0.9080	-9.8991	0.8835			
SCIENCE	8	642307	322471	0	D	2	118314	0.53	0.10	0.18	0.18	0.53	0.00	0.48	-0.26	-0.18	-0.22	0.4771	0.2824	0.0064	-9.8991	0.9080	-9.8991	0.8835			
SCIENCE	8	653593	749302	0	B	2	118314	0.47	0.14	0.47	0.19	0.21	0.00	0.34	-0.24	0.34	-0.14	-0.0849	0.6440	0.0064	9.9010	1.0296	9.9010	1.0376			
SCIENCE	8	653593	749302	0	B	2	118314	0.47	0.14	0.47	0.19	0.21	0.00	0.34	-0.24	0.34	-0.14	-0.0849	0.6440	0.0064	9.9010	1.0296	9.9010	1.0376			
SCIENCE	8	655326	816486	0	D	2	118314	0.56	0.09	0.56	0.08	0.26	0.00	0.28	-0.21	0.28	-0.21	-0.0418	0.1990	0.0064	9.9011	1.0901	9.9011	1.1315			
SCIENCE	8	655326	816486	0	D	2	118314	0.56	0.09	0.56	0.08	0.26	0.00	0.28	-0.21	0.28	-0.21	-0.0418	0.1990	0.0064	9.9011	1.0901	9.9011	1.1315			
SCIENCE	8	655332	365431	0	D	2	118314	0.59	0.10	0.17	0.13	0.59	0.00	0.50	-0.28	-0.28	-0.15	0.4967	0.1316	0.0064	-9.8991	0.8716	-9.8992	0.8449			
SCIENCE	8	655332	365431	0	D	2	118314	0.59	0.10	0.17	0.13	0.59	0.00	0.50	-0.28	-0.28	-0.15	0.4967	0.1316	0.0064	-9.8991	0.8716	-9.8992	0.8449			
SCIENCE	8	656140	372669	0	A	2	118314	0.65	0.65	0.11	0.10	0.14	0.00	0.44	0.44	-0.28	-0.29	-0.1016	-0.2157	0.0066	-9.8991	0.9103	-9.8991	0.9123			
SCIENCE	8	656140	372669	0	A	2	118314	0.65	0.65	0.11	0.10	0.14	0.00	0.44	0.44	-0.28	-0.29	-0.1016	-0.2157	0.0066	-9.8991	0.9103	-9.8991	0.9123			
SCIENCE	8	656149	667612	0	C	2	118314	0.62	0.62	0.21	0.08	0.09	0.00	0.46	0.46	-0.17	-0.29	-0.2554	0.0371	0.0065	-9.8991	0.8941	-9.8991	0.8556			
SCIENCE	8	656149	667612	0	C	2	118314	0.62	0.62	0.21	0.08	0.09	0.00	0.46	0.46	-0.17	-0.29	-0.2554	0.0371	0.0065	-9.8991	0.8941	-9.8991	0.8556			
SCIENCE	8	671430	530174	0	C	1	118314	0.61	0.22	0.13	0.61	0.04	0.00	0.33	-0.09	-0.26	0.33	-0.1764	-0.0162	0.0065	9.9010	1.0297	6.4210	1.024			
SCIENCE	8	671430	530174	0	C	1	118314	0.61	0.22	0.13	0.61	0.04	0.00	0.33	-0.09	-0.26	0.33	-0.1764	-0.0162	0.0065	9.9010	1.0297	6.4210	1.024			
SCIENCE	8	671436	809045	0	C	3	118314	0.42	0.42	0.12	0.33	0.13	0.00	0.30	0.30	-0.23	0.01	-0.2316	0.9364	0.0065	9.9011	1.0759	9.9011	1.1017			
SCIENCE	8	671436	809045	0	C	3	118314	0.42	0.42	0.12	0.33	0.13	0.00	0.30	0.30	-0.23	0.01	-0.2316	0.9364	0.0065	9.9011	1.0759	9.9011	1.1017			
SCIENCE	8	671444	424457	0	C	2	118314	0.63	0.09	0.15	0.13	0.63	0.00	0.51	-0.25	-0.23	-0.27	0.5063	-0.1024	0.0065	-9.8991	0.8589	-9.8992	0.8153			
SCIENCE	8	671444	424457	0	C	2	118314	0.63	0.09	0.15	0.13	0.63	0.00	0.51	-0.25	-0.23	-0.27	0.5063	-0.1024	0.0065	-9.8991	0.8589	-9.8992	0.8153			
SCIENCE	8	673248	777688	0	A	2	118314	0.50	0.50	0.25	0.04	0.20	0.00	0.39	0.39	-0.21	-0.24	-0.1415	0.4785	0.0064	-6.0690	0.9859	-7.2590	0.9781			
SCIENCE	8	673248	777688	0	A	2	118314	0.50	0.50	0.25	0.04	0.20	0.00	0.39	0.39	-0.21	-0.24	-0.1415	0.4785	0.0064	-6.0690	0.9859	-7.2590	0.9781			
SCIENCE	8	673252	346988	0	A	2	118314	0.46	0.46	0.12	0.21	0.20	0.00	0.44	0.44	-0.19	-0.22	-0.1619	0.7160	0.0064	-9.8991	0.9332	-9.8991	0.9264			
SCIENCE	8	673252	346988	0	A	2	118314	0.46	0.46	0.12	0.21	0.20	0.00	0.44	0.44	-0.19	-0.22	-0.1619	0.7160	0.0064	-9.8991	0.9332	-9.8991	0.9264			
SCIENCE	8	673254	165189	0	A	2	118314	0.40	0.21	0.24	0.40	0.14	0.00	0.38	-0.14	-0.08	0.38	-0.2651	0.9221	0.0065	-7.5090	0.9813	0.0910	1.0003			
SCIENCE	8	673254	165189	0	A	2	118314	0.40	0.21	0.24	0.40	0.14	0.00	0.38	-0.14	-0.08	0.38	-0.2651	0.9221	0.0065	-7.5090	0.9813	0.0910	1.0003			
SCIENCE	8	673261	207366	0	A	2	118314	0.64	0.09	0.16	0.64	0.11	0.00	0.42	-0.17	-0.30	0.42	-0.1433	-0.1355	0.0065	-9.8991	0.9308	-9.8991	0.9078			
SCIENCE	8	673261	207366	0	A	2	118314	0.64	0.09	0.16	0.64	0.11	0.00	0.42	-0.17	-0.30	0.42	-0.1433	-0.1355	0.0065	-9.8991	0.9308	-9.8991	0.9078			
SCIENCE	8	677798	412805	0	A	1	118314	0.59	0.59	0.26	0.08	0.08	0.00	0.33	0.33	-0.07	-0.27	-0.2078	0.0918	0.0064	9.9010	1.0332	9.9010	1.0472			
SCIENCE	8	677798	412805	0	A	1	118314	0.59	0.59	0.26	0.08	0.08	0.00	0.33	0.33	-0.07	-0.27	-0.2078	0.0918	0.0064	9.9010	1.0332	9.9010	1.0472			
SCIENCE	8	678339	136164	0	D	2	118314	0.43	0.13	0.43	0.25	0.19	0.00	0.26	-0.17	0.26	-0.09	-0.0712	1.0116	0.0065	9.9011	1.1394	9.9012	1.187			
SCIENCE	8	678339	136164	0	D	2	118314	0.43	0.13	0.43	0.25	0.19	0.00	0.26	-0.17	0.26	-0.09	-0.0712	1.0116	0.0065	9.9011	1.1394	9.9012	1.187			
SCIENCE	8	678472	329618	0	D	2	118314	0.47	0.47	0.23	0.12	0.18	0.00	0.37	0.37	-0.17	-0.23	-0.0940	0.6494	0.0064	4.2210	1.0100	2.3010	1.007			
SCIENCE	8	678472	329618	0	D	2	118314	0.47	0.47	0.23	0.12	0.18	0.00	0.37	0.37	-0.17	-0.23	-0.0940	0.6494	0.0064	4.2210	1.0100	2.3010	1.007			
SCIENCE	8	700213	282314	0	A	3	118314	0.48	0.26	0.14	0.13	0.48	0.00	0.31	-0.14	-0.16	-0.12	0.3126	0.6625	0.0064	9.9011	1.0661	9.9011	1.0765			
SCIENCE	8	700213	282314	0	A	3	118314	0.48	0.26	0.14	0.13	0.48	0.00	0.31	-0.14	-0.16	-0.12	0.3126	0.6625	0.0064	9.9011	1.0661	9.9011	1.0765			
SCIENCE	8	700228	700608	0	A	2	118314	0.35	0.35	0.25	0.15	0.25	0.00	0.25	0.25	-0.07	-0.20	-0.0389	1.2013	0.0066	9.9011	1.0813	9.9011	1.1462			
SCIENCE	8	700228	700608	0	A	2	118314	0.35	0.35	0.25	0.15	0.25	0.00	0.25	0.25	-0.07	-0.20	-0.0389	1.2013	0.0066	9.9011	1.0813	9.9011	1.1462			
SCIENCE	8	700231	448930	0	A	3	118314	0.48	0.48	0.19	0.22	0.10	0.00	0.35	0.35	-0.15	-0.14	-0.1843	0.6224	0.0064	9.9010	1.0272	8.3810	1.0256			
SCIENCE	8	700231	448930	0	A	3	118314	0.48	0.48	0.19	0.22	0.10	0.00	0.35	0.35	-0.15	-0.14	-0.1843	0.6224	0.0064	9.9010	1.0272	8.3810	1.0256			
SCIENCE	8	700232	721282	0	A	2	118314	0.50	0.35	0.09	0.50	0.06	0.00	0.33	-0.05	-0.29	0.33	-0.2309	0.4955	0.0064	9.9010	1.0448	9.9010	1.0402			
SCIENCE	8	700232	721282	0	A	2	118314	0.50	0.35	0.09	0.50	0.06	0.00	0.33	-0.05	-0.29	0.33	-0.2309	0.4955	0.0064	9.9010	1.0448	9.9010	1.0402			
SCIENCE	8	700234	340889	0	A	2	118314	0.43	0.18	0.43	0.09	0.30	0.00	0.22	-0.10	0.22	-0.28	0.0217	0.8781	0.0064	9.9012	1.1505	9.9012	1.1879			
SCIENCE	8	700234	340889	0	A	2	118314	0.43	0.18	0.43	0.09	0.30	0.00	0.22	-0.10	0.22	-0.28	0.0217	0.8781	0.0064	9.9012	1.1505	9.9012	1.1879			
SCIENCE	8	700239	392210	0	A	3	118314	0.41	0.26	0.41	0.18	0.14	0.00	0.29	-0.08	0.29	-0.18	-0.1092	0.9756	0.0065	9.9011	1.0794	9.9011	1.1239			
SCIENCE	8	700239	392210	0	A	3	118314	0.41	0.26	0.41	0.18	0.14	0.00	0.29	-0.08	0.29	-0.18	-0.1092	0.9756	0.0065	9.9011	1.0794	9.9011	1.1239			
SCIENCE	8	700244	402450	0	C	2	118314	0.67	0.12	0.67	0.07	0.14	0.00	0.35	-0.28	0.35	-0.18	-0.0753	-0.2864	0.0067	-4.4590	0.9880	3.1610	1.0139			
SCIENCE	8	700244	402450	0	C	2	118314	0.67	0.12	0.67	0.07	0.14	0.00	0.35	-0.28	0.35	-0.18	-0.0753	-0.2864	0.0067	-4.4590	0.9880	3.1610	1.0139			
SCIENCE	8	700247	936008	0	C	2	118314	0.69	0.14	0.69	0.09	0.08	0.00	0.46	-0.20	0.46	-0.28	-0.2330	-0.4002	0.0067	-9.8991	0.8833	-9.8992	0.8218			
SCIENCE	8	700247	936008	0	C	2	118314	0.69	0.14	0.69	0.09	0.08	0.00	0.46	-0.20	0.46	-0.28	-0.2330	-0.4002	0.0067	-9.8991	0.8833	-9.8992	0.8218			
SCIENCE	8	700561	281943	0	B	2	118314	0.48	0.36	0.08	0.48	0.07	0.00	0.24	0.02	-0.27	0.24	-0.2204	0.5360	0.0064	9.9011	1.1300	9.9012	1.1602			
SCIENCE	8	700561	281943	0	B	2	118314	0.48	0.36	0.08	0.48	0.07	0.00	0.24	0.02	-0.27	0.24	-0.2204	0.5360	0.0064	9.9011	1.1300	9.9012	1.1602			
SCIENCE	8	701249	193030	0	D	3	118314	0.42	0.11	0.25	0.22	0.42	0.00	0.44	-0.22	-0.15	-0.19	0.4365	0.9236	0.0065	-9.8991	0.9388	-9.8991	0.9435			
SCIENCE	8	701249	193030	0	D	3	118314	0.42	0.11	0.25	0.22	0.42	0.00	0.44	-0.22	-0.15	-0.19	0.4365	0.9236	0.0065	-9.8991	0.9388	-9.8991	0.9435			
SCIENCE	8	701336	734501	0	A	2	118314	0.66	0.09	0.13	0.13	0.66	0.00	0.50	-0.29	-0.24	-0.21	0.4986	-0.2470	0.0066	-9.8991	0.8609	-9.8992	0.8206			
SCIENCE	8	701337	611650	0	A	3	118314	0.59	0.59	0.14	0.15	0.11	0.00	0.44	0.44	-0.25	-0.19	-0.1841	0.0518	0.0065	-9.8991	0.9330	-9.8991	0.9121			
SCIENCE	8	701338	729063	0	B	2	118314	0.55	0.14	0.15	0.16	0.55	0.00	0.50	-0.22	-0.26	-0.21	0.4954	0.2789	0.0064	-9.8991	0.8813	-9.8992	0.8455			
SCIENCE	8	701340	790248	0	B	2	118314	0.60	0.14	0.60	0.14	0.13	0.00	0.56	-0.26	0.56	-0.30	-0.2389	0.0783	0.0064	-9.8992	0.8217	-9.8992	0.7633			
SCIENCE	8	701602	423926	0	B	2	118314	0.40	0.16	0.26	0.18	0.40	0.00	0.30	-0.15	0.00	-0.24	0.3033	0.9965	0.0065	9.9011	1.0655	9.9011	1.0928			
SCIENCE	8	701602	423926	0	B	2	118314	0.40	0.16	0.26	0.18	0.40	0.00	0.30	-0.15	0.00	-0.24	0.3033	0.9965	0.0065	9.9011	1.0655	9.9011	1.0928			
SCIENCE	8	701611	378697	0	B	2	118314	0.40	0.29	0.14	0.40	0.17	0.00	0.15	-0.03	-0.07	0.15	-0.0834	0.9617	0.0065	9.9012	1.2055	9.9013	1.2721			
SCIENCE	8	701611	378697	0	B	2	118314	0.40	0.29	0.14	0.40	0.17	0.00	0.15	-0.03	-0.07	0.15	-0.0834	0.9617	0.0065	9.9012	1.2055	9.9013	1.2721			
SCIENCE	8	701614	756460	0	D	2	118314	0.44	0.14	0.44	0.19	0.23	0.00	0.26	-0.19	0.26	-0.14	-0.0165	0.8342	0.0064	9.9011	1.1092	9.9011	1.1379			
SCIENCE	8	701614	756460	0	D	2	118314	0.44	0.14	0.44	0.19	0.23	0.00	0.26	-0.19	0.26	-0.14	-0.0165	0.8342	0.0064	9.9011	1.1092	9.9011	1.1379			
SCIENCE	8	702651	857354	0	D	2	118314	0.52	0.18	0.15	0.52	0.14	0.00	0.41	-0.17	-0.23	0.41	-0.1607	0.4547	0.0064	-9.8990	0.9646	-9.8990	0.9553			

ContArea	FormGrade	ItemID	PubID	FormNumber	Standard1	Depth	N	PValue	ProportionA	ProportionB	ProportionC	ProportionD	ProportionOMITS	PtBiserial	CorrelationA	CorrelationB	CorrelationC	CorrelationD	FinalB	FinalBErr	Infit	InfitMnSq	Outfit	OutfitMnSq	BiasCodeMALEFEMALE	BiasCodeWHITEBLACK	BiasCodeWHITEHISPANIC
SCIENCE	8	702651	857354	0	D	2	118314	0.52	0.18	0.15	0.52	0.14	0.00	0.41	-0.17	-0.23	0.41	-0.1607	0.4547	0.0064	-9.8990	0.9646	-9.8990	0.9553			
SCIENCE	8	702655	797283	0	D	2	118314	0.34	0.33	0.34	0.21	0.12	0.00	0.08	0.18	0.08	-0.14	-0.2039	1.1380	0.0066	9.9012	1.2376	9.9013	1.3253			
SCIENCE	8	702655	797283	0	D	2	118314	0.34	0.33	0.34	0.21	0.12	0.00	0.08	0.18	0.08	-0.14	-0.2039	1.1380	0.0066	9.9012	1.2376	9.9013	1.3253			
SCIENCE	8	703336	462119	0	A	2	118314	0.54	0.07	0.05	0.54	0.34	0.00	0.42	-0.20	-0.20	0.42	-0.2476	0.3193	0.0064	-9.8990	0.9558	-9.8991	0.9348			
SCIENCE	8	703336	462119	0	A	2	118314	0.54	0.07	0.05	0.54	0.34	0.00	0.42	-0.20	-0.20	0.42	-0.2476	0.3193	0.0064	-9.8990	0.9558	-9.8991	0.9348			
SCIENCE	8	703340	987427	0	C	2	118314	0.38	0.17	0.18	0.26	0.38	0.00	0.32	-0.19	-0.16	-0.05	0.3249	1.1791	0.0066	9.9011	1.0603	9.9011	1.0928			
SCIENCE	8	703340	987427	0	C	2	118314	0.38	0.17	0.18	0.26	0.38	0.00	0.32	-0.19	-0.16	-0.05	0.3249	1.1791	0.0066	9.9011	1.0603	9.9011	1.0928			
SCIENCE	8	703542	105455	0	C	2	118314	0.35	0.35	0.25	0.10	0.31	0.00	0.24	0.24	-0.24	-0.17	0.0904	1.2274	0.0066	9.9011	1.1107	9.9012	1.1617			
SCIENCE	8	703542	105455	0	C	2	118314	0.35	0.35	0.25	0.10	0.31	0.00	0.24	0.24	-0.24	-0.17	0.0904	1.2274	0.0066	9.9011	1.1107	9.9012	1.1617			
SCIENCE	8	703689	294754	0	A	2	118314	0.65	0.11	0.17	0.65	0.08	0.00	0.46	-0.24	-0.24	0.46	-0.2092	-0.1826	0.0066	-9.8991	0.8973	-9.8992	0.8458			
SCIENCE	8	703689	294754	0	A	2	118314	0.65	0.11	0.17	0.65	0.08	0.00	0.46	-0.24	-0.24	0.46	-0.2092	-0.1826	0.0066	-9.8991	0.8973	-9.8992	0.8458			
SCIENCE	8	712321	678437	0	A	2	118314	0.53	0.15	0.12	0.19	0.53	0.00	0.53	-0.24	-0.26	-0.23	0.5291	0.3737	0.0064	-9.8991	0.8541	-9.8992	0.8223			
SCIENCE	8	712321	678437	0	A	2	118314	0.53	0.15	0.12	0.19	0.53	0.00	0.53	-0.24	-0.26	-0.23	0.5291	0.3737	0.0064	-9.8991	0.8541	-9.8992	0.8223			
SCIENCE	8	712339	126387	0	A	2	118314	0.51	0.16	0.51	0.20	0.13	0.00	0.42	-0.21	0.42	-0.11	-0.2586	0.5573	0.0064	-9.8990	0.9659	-9.4690	0.9716			
SCIENCE	8	712339	126387	0	A	2	118314	0.51	0.16	0.51	0.20	0.13	0.00	0.42	-0.21	0.42	-0.11	-0.2586	0.5573	0.0064	-9.8990	0.9659	-9.4690	0.9716			
SCIENCE	8	712444	174144	0	A	2	118314	0.70	0.06	0.08	0.70	0.16	0.00	0.49	-0.26	-0.27	0.49	-0.2472	-0.5086	0.0069	-9.8991	0.8671	-9.8992	0.7856			
SCIENCE	8	712444	174144	0	A	2	118314	0.70	0.06	0.08	0.70	0.16	0.00	0.49	-0.26	-0.27	0.49	-0.2472	-0.5086	0.0069	-9.8991	0.8671	-9.8992	0.7856			
SCIENCE	8	713630	287560	0	A	3	118314	0.58	0.19	0.11	0.12	0.58	0.00	0.45	-0.10	-0.28	-0.29	0.4457	0.1503	0.0064	-9.8991	0.9251	-9.8991	0.9086			
SCIENCE	8	713630	287560	0	A	3	118314	0.58	0.19	0.11	0.12	0.58	0.00	0.45	-0.10	-0.28	-0.29	0.4457	0.1503	0.0064	-9.8991	0.9251	-9.8991	0.9086			
SCIENCE	8	713708	814213	0	A	2	118314	0.58	0.12	0.58	0.11	0.19	0.00	0.45	-0.21	0.45	-0.22	-0.2116	0.1002	0.0064	-9.8991	0.9274	-9.8991	0.9072			
SCIENCE	8	713708	814213	0	A	2	118314	0.58	0.12	0.58	0.11	0.19	0.00	0.45	-0.21	0.45	-0.22	-0.2116	0.1002	0.0064	-9.8991	0.9274	-9.8991	0.9072			
SCIENCE	8	715428	211860	0	A	2	118314	0.54	0.54	0.20	0.13	0.13	0.00	0.45	0.45	-0.19	-0.24	-0.1871	0.2112	0.0064	-9.8991	0.9426	-9.8991	0.9256			
SCIENCE	8	715428	211860	0	A	2	118314	0.54	0.54	0.20	0.13	0.13	0.00	0.45	0.45	-0.19	-0.24	-0.1871	0.2112	0.0064	-9.8991	0.9426	-9.8991	0.9256			
SCIENCE	8	715462	189322	0	A	2	118314	0.56	0.23	0.08	0.56	0.13	0.00	0.41	-0.15	-0.25	0.41	-0.2123	0.1316	0.0064	-9.8990	0.9733	-6.9690	0.9764			
SCIENCE	8	715462	189322	0	A	2	118314	0.56	0.23	0.08	0.56	0.13	0.00	0.41	-0.15	-0.25	0.41	-0.2123	0.1316	0.0064	-9.8990	0.9733	-6.9690	0.9764			
SCIENCE	8	715492	935629	0	A	2	118314	0.57	0.57	0.09	0.13	0.21	0.00	0.34	0.34	-0.24	-0.28	-0.0105	0.1664	0.0064	9.9010	1.0289	9.9010	1.0382			
SCIENCE	8	715492	935629	0	A	2	118314	0.57	0.57	0.09	0.13	0.21	0.00	0.34	0.34	-0.24	-0.28	-0.0105	0.1664	0.0064	9.9010	1.0289	9.9010	1.0382			
SCIENCE	8	715502	664681	0	A	2	118314	0.58	0.58	0.26	0.08	0.08	0.00	0.47	0.47	-0.22	-0.26	-0.2222	0.1248	0.0064	-9.8991	0.9124	-9.8991	0.8742			
SCIENCE	8	715502	664681	0	A	2	118314	0.58	0.58	0.26	0.08	0.08	0.00	0.47	0.47	-0.22	-0.26	-0.2222	0.1248	0.0064	-9.8991	0.9124	-9.8991	0.8742			
SCIENCE	8	719971	984641	0	A	2	118314	0.58	0.58	0.16	0.21	0.05	0.00	0.26	0.26	-0.13	-0.07	-0.2267	0.2085	0.0064	9.9011	1.0954	9.9011	1.1446			
SCIENCE	8	719971	984641	0	A	2	118314	0.58	0.58	0.16	0.21	0.05	0.00	0.26	0.26	-0.13	-0.07	-0.2267	0.2085	0.0064	9.9011	1.0954	9.9011	1.1446			
SCIENCE	8	734801	447525	0	B	2	118314	0.51	0.51	0.13	0.18	0.18	0.00	0.31	0.31	-0.20	-0.12	-0.1110	0.4564	0.0064	9.9011	1.0626	9.9011	1.0918			
SCIENCE	8	734801	447525	0	B	2	118314	0.51	0.51	0.13	0.18	0.18	0.00	0.31	0.31	-0.20	-0.12	-0.1110	0.4564	0.0064	9.9011	1.0626	9.9011	1.0918			
SCIENCE	8	735114	277307	0	A	3	118314	0.66	0.09	0.66	0.15	0.10	0.00	0.41	-0.24	0.41	-0.19	-0.1894	-0.1945	0.0066	-9.8991	0.9229	-9.8991	0.9108			
SCIENCE	8	735114	277307	0	A	3	118314	0.66	0.09	0.66	0.15	0.10	0.00	0.41	-0.24	0.41	-0.19	-0.1894	-0.1945	0.0066	-9.8991	0.9229	-9.8991	0.9108			
SCIENCE	8	735332	678542	0	A	2	118314	0.61	0.10	0.61	0.10	0.19	0.00	0.49	-0.27	0.49	-0.27	-0.1912	-0.0266	0.0065	-9.8991	0.8833	-9.8992	0.8435			
SCIENCE	8	735332	678542	0	A	2	118314	0.61	0.10	0.61	0.10	0.19	0.00	0.49	-0.27	0.49	-0.27	-0.1912	-0.0266	0.0065	-9.8991	0.8833	-9.8992	0.8435			
SCIENCE	8	736133	291419	0	B	3	118314	0.53	0.53	0.14	0.15	0.18	0.00	0.39	0.39	-0.23	-0.22	-0.0831	0.3242	0.0064	-3.1690	0.9926	-6.5290	0.9796			
SCIENCE	8	736133	291419	0	B	3	118314	0.53	0.53	0.14	0.15	0.18	0.00	0.39	0.39	-0.23	-0.22	-0.0831	0.3242	0.0064	-3.1690	0.9926	-6.5290	0.9796			
SCIENCE	8	737552	489604	0	C	2	118314	0.54	0.24	0.54	0.12	0.10	0.00	0.38	-0.14	0.38	-0.21	-0.1890	0.3115	0.0064	-1.0390	0.9976	-4.5190	0.9858			
SCIENCE	8	737552	489604	0	C	2	118314	0.54	0.24	0.54	0.12	0.10	0.00	0.38	-0.14	0.38	-0.21	-0.1890	0.3115	0.0064	-1.0390	0.9976	-4.5190	0.9858			
SCIENCE	8	715495	235769	1	A	2	10246	0.37	0.18	0.28	0.37	0.17	0.00	0.21	-0.16	-0.06	0.21	-0.0339	1.1293	0.0225	9.9012	1.1594	9.9012	1.2241	A+	A+	A-
SCIENCE	8	737551	369046	1	C	2	10246	0.52	0.18	0.13	0.16	0.52	0.00	0.50	-0.26	-0.23	-0.19	0.4969	0.3777	0.0217	-9.8991	0.8884	-9.8991	0.8604	A-	A-	A-
SCIENCE	8	798513	610642	1	A	2	10246	0.34	0.14	0.25	0.34	0.26	0.00	0.15	-0.16	-0.03	0.15	-0.0068	1.2523	0.0228	9.9012	1.2286	9.9013	1.3206	A-	A-	A-
SCIENCE	8	798514	152739	1	A	2	10246	0.68	0.13	0.10	0.68	0.09	0.00	0.48	-0.18	-0.28	0.48	-0.2734	-0.4502	0.0230	-9.8991	0.8713	-7.2491	0.8856	A+	A-	A-
SCIENCE	8	798516	306816	1	B	2	10246	0.41	0.16	0.28	0.41	0.15	0.00	0.34	-0.24	-0.02	0.34	-0.1981	0.9159	0.0221	4.2510	1.0380	5.9011	1.0698	A-	A-	A-
SCIENCE	8	798518	429536	1	C	2	10246	0.57	0.14	0.57	0.15	0.14	0.00	0.46	-0.24	0.46	-0.20	-0.2060	0.1255	0.0219	-9.8991	0.9175	-9.8991	0.88	A+	A-	A-
SCIENCE	8	801776	356624	1	D	2	10246	0.55	0.12	0.17	0.15	0.55	0.00	0.46	-0.24	-0.23	-0.18	0.4613	0.2055	0.0218	-9.8991	0.9186	-8.9791	0.9022	A+	A-	B-
SCIENCE	8	801783	884323	1	D	2	10246	0.41	0.24	0.41	0.24	0.10	0.00	0.29	-0.14	0.29	-0.02	-0.2459	0.8969	0.0221	9.9011	1.0896	9.9011	1.1185	A+	A-	A+
SCIENCE	8	810898	399234	1	A	2	10246	0.64	0.64	0.11	0.14	0.11	0.00	0.52	0.52	-0.27	-0.28	-0.2081	-0.2027	0.0223	-9.8992	0.8482	-9.8992	0.7901	B+	A-	A-
SCIENCE	8	810904	292302	1	B	2	10246	0.53	0.11	0.22	0.13	0.53	0.00	0.51	-0.24	-0.19	-0.29	0.5095	0.3135	0.0217	-9.8991	0.8755	-9.8992	0.8437	A+	A-	A-
SCIENCE	8	812149	436604	1	A	2	10246	0.33	0.33	0.14	0.24	0.29	0.00	0.32	0.32	-0.18	-0.12	-0.0759	1.3390	0.0231	3.5510	1.0366	8.0711	1.1233	A-	A-	A-
SCIENCE	8	812165	332540	1	A	2	10246	0.53	0.10	0.26	0.53	0.11	0.00	0.43	-0.24	-0.15	0.43	-0.2429	0.3239	0.0217	-6.1390	0.9511	-6.2591	0.9338	A-	A-	A-
SCIENCE	8	715427	222899	2	A	2	9849	0.53	0.15	0.07	0.53	0.24	0.00	0.41	-0.24	-0.25	0.41	-0.1166	0.3840	0.0222	-3.4490	0.9718	-4.6091	0.9492	A-	A-	A+
SCIENCE	8	740494	166075	2	C	2	9849	0.44	0.13	0.18	0.25	0.44	0.00	0.35	-0.22	-0.20	-0.04	0.3461	0.8223	0.0224	4.1810	1.0367	3.6310	1.0415	A-	A-	A-
SCIENCE	8	797924	382161	2	D	2	9849	0.55	0.13	0.16	0.16	0.55	0.00	0.50	-0.26	-0.24	-0.19	0.4983	0.2867	0.0222	-9.8991	0.8854	-9.8991	0.8524	A+	A-	A-
SCIENCE	8	797926	464580	2	A	2	9849	0.41	0.11	0.24	0.24	0.41	0.00	0.35	-0.25	-0.14	-0.07	0.3509	0.9458	0.0225	3.2110	1.0290	4.1410	1.0497	A+	A-	A-
SCIENCE	8	797926	464580	2	A	2	9849	0.41	0.11	0.24	0.24	0.41	0.00	0.35	-0.25	-0.14	-0.07	0.3509	0.9458	0.0225	3.2110	1.0290	4.1410	1.0497	A+	A-	A-
SCIENCE	8	797926	464580	2	A	2	9827	0.42	0.10	0.24	0.24	0.42	0.00	0.35	-0.24	-0.17	-0.07	0.3470	0.8815	0.0224	2.5010	1.0217	2.4510	1.0275	A+	A-	A-
SCIENCE	8	797926	464580	2	A	2	9827	0.42	0.10	0.24	0.24	0.42	0.00	0.35	-0.24	-0.17	-0.07	0.3470	0.8815	0.0224	2.5010	1.0217	2.4510	1.0275	A+	A-	A-
SCIENCE	8	797928	867214	2	B	2	9849	0.50	0.12	0.50	0.23	0.15	0.00	0.46	-0.23	0.46	-0.21	-0.1785	0.4995	0.0222	-8.5891	0.9305	-7.4391	0.9207	A-	A-	A-
SCIENCE	8	797931	781958	2	A	2	9849	0.39	0.20	0.39	0.28	0.13	0.00	0.31	-0.08	0.31	-0.12	-0.1895	1.0578	0.0227	6.7411	1.0636	7.9511	1.1022	A+	A+	A-
SCIENCE	8	801724	815219	2	A	1	9849	0.47	0.08	0.47	0.37	0.08	0.00	0.30	-0.25	0.30	-0.04	-0.2295	0.6509	0.0222	9.1111	1.0786	8.6511	1.0975	B-	A-	A-
SCIENCE	8	801777	512608	2	D	2	9849	0.60	0.08	0.22	0.10	0.60	0.00	0.46	-0.25	-0.18	-0.28	0.4644	0.0468	0.0224	-9.8991	0.9078	-9.8991	0.8761	A+	A-	A+
SCIENCE	8	810887	743833	2	C	2	9849	0.52	0.24	0.52	0.12	0.11	0.00	0.48	-0.18	0.48	-0.27	-0.2392	0.4254	0.0222	-9.8991	0.9042	-9.8991	0.8738	A-	A-	A-
SCIENCE	8	811466	482769	2	A	2	9849	0.53	0.15	0.16	0.53	0.17	0.00	0.31	-0.23	-0.10	0.31	-0.1001	0.3934	0.0222	8.4211	1.0710	9.9011	1.1155	A+	A-	A+
SCIENCE	8	812151	371992	2	B	2	9849	0.39	0.39	0.14	0.24	0.23	0.00	0.23	0.23	-0.20	-0.06	-0.0384	1.0562	0.0227	9.9011	1.1417	9.9012	1.1753	A-	A-	A-
SCIENCE	8	812156	562388	2	A	2	9849	0.64	0.12	0.64	0.12	0.13	0.00	0.46	-0.27	0.46	-0.22	-0.1897	-0.1526	0.0228	-9.8991	0.9031	-9.8991	0.8623	A+	A-	A-
SCIENCE	8	734804	176801	3	B	2	9823	0.31	0.28	0.29	0.31	0.12	0.00	0.25	-0.01	-0.12	0.25	-0.1693	1.4617	0.0237	6.7811	1.0735	9.9012	1.2148	A-	A-	A+
SCIENCE	8	735110	697792	3	A	2	9823	0.37	0.21	0.19	0.37	0.22	0.00	0.15	-0.08	-0.07	0.15	-0.0231	1.1566	0.0229	9.9012	1.2088	9.9013	1.2991	A-	A-	A+
SCIENCE	8	736827	335493	3	D	2	9823	0.38	0.18	0.22	0.22	0.38	0.00	0.21	-0.13	-0.03	-0.08	0.2082	1.1245	0.0228	9.9012	1.1626	9.9012	1.214	A+	A-	A-
SCIENCE	8	800675	859850	3	A	2	9823	0.43	0.29	0.43	0.16	0.12	0.00	0.30	-0.03	0.30	-0.22	-0.1673	0.8559	0.0224	7.6311	1.0670	8.3111	1.0962	A+	A+	A+
SCIENCE	8	800677	813914	3	A	2	9823	0.59	0.18	0.13	0.59	0.10	0.00	0.45	-0.14	-0.25	0.45	-0.2691	0.0820	0.0224	-9.1891	0.9242	-8.5791	0.8984	A+	A-	A-
SCIENCE	8	800679	782913	3	A	2	9823	0.36	0.14	0.16	0.34	0.36	0.00	0.34	-0.22	-0.17	-0.04	0.3370	1.2179	0.0230	2.4510	1.0237	4.9211	1.0679	A+	A-	A-
SCIENCE	8	800680	979751	3	B	2	9823	0.74	0.11	0.07	0.74	0.07	0.00	0.49	-0.29	-0.26	0.49	-0.2172	-0.7427	0.0248	-9.8992	0.8476	-9.8993	0.7386	A+	A-	A-
SCIENCE	8	801730	315772	3	C	2	9823	0.51	0.11	0.51	0.23	0.15	0.00	0.42	-0.24	0.42	-0.13	-0.2313	0.4852	0.0221	-5.4790	0.9558	-5.4891	0.9425	A-	A-	A-
SCIENCE	8	809129	847744	3	A	2	9823	0.70	0.09	0.13	0.70	0.08	0.00	0.45	-0.29	-0.17	0.45	-0.2359	-0.4637	0.0237	-9.8591	0.9027	-8.7891	0.8562	A+	A-	A-
SCIENCE	8	809144	949100	3	C	2	9823	0.79	0.09	0.06	0.79	0.06	0.00	0.45	-0.23	-0.27	0.45	-0.2284	-1.0267	0.0263	-9.8991	0.8651	-9.8993	0.7289	A+	A-	A-
SCIENCE	8	809150	298496	3	A	2	9823	0.64	0.64	0.11	0.14	0.11	0.00	0.47	0.47	-0.26	-0.20	-0.2346	-0.1766	0.0229	-9.8991	0.8943	-9.8992	0.8414	A+	A-	A-
SCIENCE	8	810897	657729	3	A	2	9823	0.71	0.71	0.06	0.07	0.15	0.00	0.49	0.49	-0.25	-0.25	-0.2693	-0.5517	0.0240	-9.8991	0.8579	-9.8992	0.7558	A+	A+	A-
SCIENCE	8	730242	761061	4	A	3	9765	0.46	0.14	0.23	0.46	0.18	0.00	0.38	-0.18	-0.14	0.38	-0.1617	0.7298	0.0223	0.0710	1.0006	0.6910	1.0075	A+	A-	A+
SCIENCE	8	739850	216754	4	D	3	9765	0.43	0.19	0.43	0.24	0.14	0.00	0.16	-0.04	0.16	-0.06	-0.1036	0.8619	0.0224	9.9012	1.2112	9.9012	1.2495	A+	A+	A+
SCIENCE	8	801700	522619	4	A	2	9765	0.61	0.61	0.11	0.14	0.13	0.00	0.43	0.43	-0.21	-0.22	-0.1921	-0.0161	0.0226	-7.9791	0.9323	-5.3891	0.9302	B+	A-	A+
SCIENCE	8	801744	270771	4	B	2	9765	0.33	0.19	0.33	0.29	0.19	0.00	0.23	-0.20	0.23	0.05	-0.1286	1.3741	0.0235	9.9011	1.1174	9.9012	1.2129	A+	A+	A-
SCIENCE	8	805226	293306	4	C	2	9765	0.76	0.09	0.76	0.06	0.10	0.00	0.52	-0.29	0.52	-0.25	-0.2684	-0.8107	0.0252	-9.8992	0.8249	-9.8993	0.6749	A+	A-	A-
SCIENCE	8	805228	342155	4	B	2	9765	0.59	0.12	0.11	0.17	0.59	0.00	0.42	-0.17	-0.27	-0.17	0.4207	0.0668	0.0225	-6.5091	0.9455	-6.0991	0.9247	A+	A-	A-
SCIENCE	8	805231	642872	4	A	2	9765	0.60	0.60	0.12	0.12	0.15	0.00	0.41	0.41	-0.23	-0.29	-0.0755	0.0303	0.0226	-5.3290	0.9549	-3.9991	0.9492	A-	A-	A-
SCIENCE	8	805232	939930	4	A	2	9765	0.35	0.30	0.35	0.19	0.15	0.00	0.26	-0.08	0.26	-0.15	-0.0582	1.2676	0.0232	9.8111	1.0998	9.9012	1.1943	A-	A-	A-

ContArea	FormGrade	ItemID	PubID	FormNumber	Standard1	Depth	N	PValue	ProportionA	ProportionB	ProportionC	ProportionD	ProportionOMITS	PtBiserial	CorrelationA	CorrelationB	CorrelationC	CorrelationD	FinalB	FinalBErr	Infit	InfitMnSq	Outfit	OutfitMnSq	BiasCodeMALEFEMALE	BiasCodeWHITEBLACK	BiasCodeWHITEHISPANIC
SCIENCE	8	809142	151840	4	C	2	9765	0.62	0.11	0.13	0.62	0.13	0.00	0.46	-0.24	-0.23	0.46	-0.1922	-0.0510	0.0227	-9.8991	0.9104	-9.8991	0.8545	A-	A+	A+
SCIENCE	8	809148	902726	4	D	2	9765	0.43	0.08	0.10	0.38	0.43	0.00	0.34	-0.27	-0.28	-0.02	0.3437	0.8424	0.0224	4.1910	1.0366	4.8911	1.0563	A+	A-	A-
SCIENCE	8	812161	785501	4	A	2	9765	0.47	0.47	0.28	0.08	0.17	0.00	0.30	0.30	-0.07	-0.27	-0.1046	0.6856	0.0223	9.5211	1.0821	9.0911	1.1022	A+	A+	A-
SCIENCE	8	813695	204329	4	A	2	9765	0.63	0.09	0.11	0.63	0.17	0.00	0.51	-0.27	-0.28	0.51	-0.2084	-0.0996	0.0228	-9.8991	0.8638	-9.8992	0.804	A-	A-	A-
SCIENCE	8	705084	795637	5	A	2	9850	0.39	0.39	0.22	0.19	0.20	0.00	0.31	0.31	-0.05	-0.20	-0.1287	1.0683	0.0225	4.6910	1.0419	5.8011	1.0698	A-	A-	A-
SCIENCE	8	739576	678350	5	B	2	9850	0.34	0.38	0.06	0.34	0.22	0.00	0.23	-0.03	-0.27	0.23	-0.0530	1.3194	0.0231	9.9011	1.1074	9.9012	1.1921	A-	A-	A-
SCIENCE	8	800676	527703	5	D	2	9850	0.29	0.29	0.33	0.27	0.12	0.00	0.13	0.13	0.03	-0.09	-0.1007	1.5930	0.0240	9.9012	1.1823	9.9013	1.3156	A-	A-	A+
SCIENCE	8	800678	397689	5	C	2	9850	0.35	0.13	0.35	0.13	0.39	0.00	0.11	-0.25	0.11	-0.21	0.2149	1.2683	0.0230	9.9012	1.2207	9.9013	1.3112	A+	A+	A+
SCIENCE	8	800681	159901	5	A	2	9850	0.59	0.16	0.15	0.09	0.59	0.00	0.38	-0.16	-0.12	-0.29	0.3811	0.0759	0.0222	-3.8890	0.9683	-0.3490	0.9959	A+	A-	A+
SCIENCE	8	800682	875401	5	B	2	9850	0.72	0.08	0.72	0.11	0.09	0.00	0.49	-0.27	0.49	-0.25	-0.2344	-0.5878	0.0240	-9.8991	0.8529	-9.8993	0.7476	A+	A-	A+
SCIENCE	8	801770	904341	5	C	2	9850	0.52	0.11	0.08	0.52	0.29	0.00	0.22	-0.18	-0.23	0.22	0.0301	0.4408	0.0219	9.9011	1.1293	9.9011	1.1436	A-	A-	A+
SCIENCE	8	809131	720849	5	B	2	9850	0.28	0.30	0.28	0.28	0.14	0.00	0.11	0.03	0.02	0.11	-0.2055	1.6121	0.0241	9.9012	1.1877	9.9014	1.3627	A-	A-	A+
SCIENCE	8	810896	194630	5	A	2	9850	0.63	0.17	0.63	0.12	0.08	0.00	0.44	-0.21	0.44	-0.23	-0.2160	-0.0846	0.0225	-9.8991	0.9156	-9.2091	0.8868	A+	A-	A-
SCIENCE	8	812159	766620	5	A	2	9850	0.42	0.20	0.16	0.42	0.21	0.00	0.33	-0.12	-0.19	0.33	-0.1041	0.8816	0.0222	3.0810	1.0259	4.0710	1.0442	A-	A-	A+
SCIENCE	8	812160	503555	5	A	2	9850	0.27	0.27	0.26	0.28	0.18	0.00	0.09	0.09	-0.09	0.14	-0.1576	1.6809	0.0244	9.9012	1.1992	9.9014	1.4201	A-	A-	A-
SCIENCE	8	813688	440585	5	D	2	9850	0.42	0.17	0.30	0.11	0.42	0.00	0.30	-0.11	-0.08	-0.22	0.2984	0.8954	0.0222	6.9211	1.0589	6.6111	1.0729	A-	A-	A-
SCIENCE	8	715501	998754	6	A	2	9853	0.51	0.12	0.12	0.24	0.51	0.00	0.43	-0.29	-0.24	-0.10	0.4344	0.4722	0.0220	-7.3991	0.9415	-7.4791	0.9232	A+	A-	A-
SCIENCE	8	736139	116000	6	B	2	9853	0.47	0.15	0.17	0.47	0.21	0.00	0.32	-0.22	-0.23	0.32	0.0138	0.6586	0.0221	6.6211	1.0553	6.3711	1.0683	A+	A-	A-
SCIENCE	8	739853	717868	6	D	2	9853	0.38	0.20	0.23	0.19	0.38	0.00	0.35	-0.07	-0.15	-0.20	0.3512	1.1051	0.0227	0.8810	1.0080	3.6510	1.0457	A-	A+	A+
SCIENCE	8	801717	738816	6	A	2	9853	0.52	0.11	0.52	0.17	0.20	0.00	0.32	-0.24	0.32	-0.22	0.0005	0.4397	0.0220	6.4911	1.0533	7.3211	1.0796	A+	A+	A+
SCIENCE	8	809130	141304	6	A	2	9853	0.74	0.12	0.74	0.07	0.06	0.00	0.52	-0.29	0.52	-0.26	-0.2582	-0.7209	0.0246	-9.8992	0.8245	-9.8993	0.6984	A+	B-	A-
SCIENCE	8	810888	114215	6	A	2	9853	0.38	0.38	0.22	0.13	0.27	0.00	0.23	0.23	-0.02	-0.20	-0.0739	1.1234	0.0227	9.9011	1.1311	9.9012	1.1974	A+	A+	A-
SCIENCE	8	810890	110226	6	C	2	9853	0.50	0.20	0.17	0.50	0.13	0.00	0.43	-0.13	-0.26	0.43	-0.1868	0.5198	0.0220	-7.0391	0.9441	-6.8491	0.9299	A+	A-	A-
SCIENCE	8	812185	735696	6	B	2	9853	0.43	0.43	0.33	0.15	0.09	0.00	0.33	0.33	0.03	-0.29	-0.2420	0.8739	0.0223	5.1910	1.0451	5.4211	1.0612	A+	A-	A-
SCIENCE	8	812485	724044	6	C	2	9853	0.26	0.26	0.21	0.26	0.26	0.00	0.12	0.12	-0.11	-0.02	0.0046	1.7703	0.0248	9.9012	1.1776	9.9014	1.3933	A-	A+	A-
SCIENCE	8	812486	904008	6	D	2	9853	0.41	0.17	0.23	0.19	0.41	0.00	0.41	-0.23	-0.12	-0.16	0.4053	0.9693	0.0224	-4.4990	0.9610	-3.0990	0.9647	A+	A+	A+
SCIENCE	8	812491	539931	6	A	2	9853	0.47	0.16	0.47	0.15	0.22	0.00	0.34	-0.20	0.34	-0.22	-0.0298	0.6932	0.0221	4.0910	1.0341	4.4510	1.0476	A+	A+	A+
SCIENCE	8	812493	249258	6	A	2	9853	0.39	0.39	0.16	0.24	0.21	0.00	0.21	0.21	-0.21	-0.04	-0.0088	1.0808	0.0226	9.9012	1.1556	9.9012	1.2039	A-	A-	A-
SCIENCE	8	713634	211833	7	A	2	9799	0.43	0.43	0.19	0.16	0.22	0.00	0.38	0.38	-0.16	-0.21	-0.1113	0.8798	0.0223	-1.8690	0.9842	-1.0790	0.9883	A-	A-	A+
SCIENCE	8	739575	221703	7	B	2	9799	0.39	0.14	0.29	0.39	0.17	0.00	0.31	-0.26	0.04	0.31	-0.2078	1.0476	0.0226	4.7110	1.0426	6.5711	1.0791	A-	A-	A-
SCIENCE	8	800536	648545	7	A	2	9799	0.34	0.17	0.28	0.34	0.21	0.00	0.14	-0.13	-0.07	0.14	0.0464	1.3335	0.0232	9.9012	1.2018	9.9013	1.2937	A+	A+	A+
SCIENCE	8	800537	888130	7	A	2	9799	0.35	0.11	0.09	0.46	0.35	0.00	0.17	-0.16	-0.26	0.09	0.1693	1.2921	0.0231	9.9012	1.1767	9.9012	1.2356	A+	A-	A-
SCIENCE	8	800540	137540	7	B	2	9799	0.32	0.32	0.31	0.15	0.22	0.00	0.20	0.20	0.03	-0.14	-0.1331	1.4536	0.0236	9.9011	1.1237	9.9012	1.2285	A-	A-	A-
SCIENCE	8	800541	349425	7	B	2	9799	0.29	0.29	0.20	0.27	0.22	0.00	0.16	0.16	-0.04	-0.11	-0.0140	1.5686	0.0240	9.9012	1.1530	9.9013	1.3023	A-	A-	A-
SCIENCE	8	800541	349425	7	B	2	9816	0.30	0.30	0.17	0.28	0.25	0.00	0.20	0.20	-0.10	-0.11	-0.0082	1.5492	0.0239	9.9011	1.1190	9.9013	1.2511	A-	A-	A+
SCIENCE	8	801719	465098	7	A	2	9799	0.50	0.17	0.20	0.50	0.13	0.00	0.33	-0.11	-0.15	0.33	-0.1852	0.5341	0.0220	4.7510	1.0385	4.0810	1.0421	A-	A-	A-
SCIENCE	8	801734	613326	7	A	2	9799	0.48	0.26	0.16	0.48	0.10	0.00	0.36	-0.04	-0.25	0.36	-0.2430	0.6168	0.0221	0.8910	1.0072	1.5910	1.0162	A+	A-	A-
SCIENCE	8	801764	563330	7	D	2	9799	0.55	0.20	0.55	0.12	0.13	0.00	0.44	-0.18	0.44	-0.25	-0.1857	0.2897	0.0221	-9.4991	0.9257	-9.6791	0.8992	A-	A-	A-
SCIENCE	8	810891	738920	7	C	2	9799	0.55	0.08	0.18	0.55	0.18	0.00	0.47	-0.26	-0.23	0.47	-0.1949	0.2765	0.0221	-9.8991	0.9010	-9.8991	0.8673	A-	A-	A-
SCIENCE	8	810899	419954	7	D	2	9799	0.62	0.62	0.12	0.12	0.14	0.00	0.35	0.35	-0.16	-0.17	-0.1834	-0.0316	0.0225	0.2510	1.0021	1.8210	1.0233	A+	A-	A-
SCIENCE	8	811616	198772	7	C	2	9799	0.43	0.26	0.18	0.43	0.14	0.00	0.36	-0.14	-0.18	0.36	-0.1280	0.8870	0.0223	0.2710	1.0023	1.8810	1.0206	A+	A-	A+
SCIENCE	8	713658	937269	8	A	2	9816	0.37	0.35	0.37	0.18	0.10	0.00	0.27	0.05	0.27	-0.24	-0.2005	1.1989	0.0229	8.5411	1.0824	9.7211	1.1311	A+	A-	A-
SCIENCE	8	730248	812503	8	C	2	9816	0.48	0.21	0.17	0.48	0.14	0.00	0.37	-0.09	-0.27	0.37	-0.1279	0.6537	0.0221	-0.3190	0.9974	0.1410	1.0015	A+	A-	A-
SCIENCE	8	800538	889786	8	C	2	9816	0.51	0.17	0.51	0.12	0.20	0.00	0.36	-0.21	0.36	-0.27	-0.0219	0.4991	0.0221	1.8010	1.0146	2.1210	1.0223	A+	A-	A-
SCIENCE	8	800539	620845	8	A	2	9816	0.52	0.14	0.15	0.52	0.18	0.00	0.38	-0.21	-0.24	0.38	-0.0676	0.4241	0.0221	-0.8790	0.9929	-2.1690	0.9771	A+	A-	A-
SCIENCE	8	800541	349425	8	B	2	9799	0.29	0.29	0.20	0.27	0.22	0.00	0.16	0.16	-0.04	-0.11	-0.0140	1.5686	0.0240	9.9012	1.1530	9.9013	1.3023	A-	A-	A-
SCIENCE	8	800541	349425	8	B	2	9816	0.30	0.30	0.17	0.28	0.25	0.00	0.20	0.20	-0.10	-0.11	-0.0082	1.5492	0.0239	9.9011	1.1190	9.9013	1.2511	A-	A-	A+
SCIENCE	8	800543	824073	8	A	2	9816	0.60	0.12	0.60	0.15	0.13	0.00	0.52	-0.24	0.52	-0.26	-0.2366	0.0753	0.0224	-9.8991	0.8584	-9.8992	0.8067	A+	A+	A+
SCIENCE	8	801735	252741	8	A	2	9816	0.39	0.13	0.21	0.27	0.39	0.00	0.34	-0.18	-0.19	-0.06	0.3392	1.0675	0.0226	2.4310	1.0219	3.1210	1.0379	A+	A-	A+
SCIENCE	8	809146	472819	8	D	2	9816	0.41	0.41	0.19	0.23	0.17	0.00	0.29	0.29	-0.09	-0.11	-0.1535	0.9657	0.0224	8.7811	1.0783	9.1111	1.1076	A+	A-	A-
SCIENCE	8	809151	531633	8	D	2	9816	0.22	0.16	0.22	0.34	0.27	0.00	-0.03	-0.15	-0.03	0.20	-0.0563	2.0081	0.0260	9.9013	1.2844	9.9017	1.7357	A-	A-	A+
SCIENCE	8	811614	885807	8	A	2	9816	0.54	0.17	0.11	0.18	0.54	0.00	0.37	-0.19	-0.23	-0.09	0.3655	0.3338	0.0221	-0.0490	0.9995	3.4110	1.0376	A+	A-	A-
SCIENCE	8	812157	961328	8	A	2	9816	0.55	0.55	0.14	0.19	0.12	0.00	0.44	0.44	-0.19	-0.22	-0.1959	0.2853	0.0222	-8.6891	0.9311	-8.5191	0.9084	A+	A+	A+
SCIENCE	8	812478	341644	8	B	2	9816	0.44	0.44	0.13	0.26	0.16	0.00	0.33	0.33	-0.24	-0.04	-0.1736	0.8301	0.0222	4.4410	1.0378	5.4411	1.0599	A-	A+	A-
SCIENCE	8	713738	241143	9	A	2	9856	0.35	0.14	0.35	0.27	0.24	0.00	0.21	-0.16	0.21	-0.09	0.0052	1.2613	0.0231	9.9011	1.1429	9.9012	1.2318	A+	A-	A-
SCIENCE	8	730239	383637	9	C	2	9856	0.44	0.22	0.44	0.25	0.09	0.00	0.32	-0.09	0.32	-0.12	-0.2315	0.8116	0.0222	4.9310	1.0422	6.0011	1.066	A-	A-	A-
SCIENCE	8	801712	959545	9	A	2	9856	0.35	0.26	0.13	0.35	0.26	0.00	0.20	-0.05	-0.13	0.20	-0.0603	1.2570	0.0230	9.9012	1.1527	9.9012	1.2228	A-	A+	A+
SCIENCE	8	801749	652049	9	B	2	9856	0.60	0.60	0.14	0.14	0.11	0.00	0.49	0.49	-0.22	-0.28	-0.1981	0.0033	0.0224	-9.8991	0.8813	-9.8992	0.8338	A+	A-	A-
SCIENCE	8	809133	284596	9	B	2	9856	0.29	0.14	0.44	0.29	0.12	0.00	0.09	-0.20	0.14	0.09	-0.1035	1.5781	0.0241	9.9012	1.2414	9.9014	1.4089	A-	A-	A-
SCIENCE	8	809136	643596	9	B	2	9856	0.78	0.07	0.06	0.08	0.78	0.00	0.48	-0.23	-0.27	-0.25	0.4766	-0.9491	0.0257	-9.8992	0.8488	-9.8993	0.7235	A+	A-	A-
SCIENCE	8	809822	541873	9	A	2	9856	0.39	0.21	0.39	0.22	0.17	0.00	0.30	-0.07	0.30	-0.14	-0.1411	1.0262	0.0225	6.9911	1.0639	8.3811	1.1027	A-	A-	A+
SCIENCE	8	812153	849990	9	A	2	9856	0.34	0.17	0.34	0.26	0.22	0.00	0.17	-0.11	0.17	-0.15	0.0685	1.3159	0.0232	9.9012	1.1799	9.9013	1.29	A-	A-	A-
SCIENCE	8	812487	218919	9	D	2	9856	0.60	0.10	0.11	0.18	0.60	0.00	0.39	-0.26	-0.25	-0.07	0.3861	0.0063	0.0224	-3.3890	0.9715	0.0110	1.0001	A+	A+	A+
SCIENCE	8	812488	632540	9	A	2	9856	0.48	0.27	0.48	0.13	0.11	0.00	0.38	-0.10	0.38	-0.23	-0.2000	0.5952	0.0221	-0.3990	0.9967	-0.1490	0.9984	A+	A+	A+
SCIENCE	8	812489	303048	9	C	2	9856	0.38	0.21	0.24	0.38	0.17	0.00	0.28	-0.09	-0.15	0.28	-0.0993	1.1173	0.0227	7.4711	1.0705	9.6411	1.1253	A-	A-	A+
SCIENCE	8	812490	429256	9	A	2	9856	0.60	0.15	0.12	0.60	0.13	0.00	0.44	-0.20	-0.25	0.44	-0.1751	0.0239	0.0224	-7.9391	0.9344	-8.7191	0.8971	A+	A-	A+
SCIENCE	8	713659	279694	10	A	3	9827	0.38	0.28	0.38	0.25	0.08	0.00	0.26	-0.14	0.26	-0.04	-0.1463	1.0796	0.0227	9.9011	1.1073	9.9012	1.1631	A-	A-	A-
SCIENCE	8	734802	466071	10	B	2	9827	0.43	0.16	0.11	0.30	0.43	0.00	0.40	-0.21	-0.27	-0.07	0.3975	0.8388	0.0223	-2.9590	0.9749	-1.2890	0.9859	A+	A+	A+
SCIENCE	8	797925	633758	10	A	2	9827	0.40	0.27	0.20	0.40	0.13	0.00	0.29	-0.08	-0.08	0.29	-0.2264	0.9695	0.0225	7.7211	1.0699	8.7911	1.1055	A+	A+	A-
SCIENCE	8	797926	464580	10	A	2	9849	0.41	0.11	0.24	0.24	0.41	0.00	0.35	-0.25	-0.14	-0.07	0.3509	0.9458	0.0225	3.2110	1.0290	4.1410	1.0497	A+	A-	A-
SCIENCE	8	797926	464580	10	A	2	9849	0.41	0.11	0.24	0.24	0.41	0.00	0.35	-0.25	-0.14	-0.07	0.3509	0.9458	0.0225	3.2110	1.0290	4.1410	1.0497	A+	A-	A-
SCIENCE	8	797926	464580	10	A	2	9827	0.42	0.10	0.24	0.24	0.42	0.00	0.35	-0.24	-0.17	-0.07	0.3470	0.8815	0.0224	2.5010	1.0217	2.4510	1.0275	A+	A-	A-
SCIENCE	8	797926	464580	10	A	2	9827	0.42	0.10	0.24	0.24	0.42	0.00	0.35	-0.24	-0.17	-0.07	0.3470	0.8815	0.0224	2.5010	1.0217	2.4510	1.0275	A+	A-	A-
SCIENCE	8	797929	909045	10	B	2	9827	0.42	0.16	0.21	0.42	0.21	0.00	0.30	-0.13	-0.18	0.30	-0.0622	0.9070	0.0224	6.9011	1.0611	7.9211	1.0919	A+	A-	A-
SCIENCE	8	797930	578894	10	D	2	9827	0.53	0.25	0.14	0.53	0.08	0.00	0.39	-0.12	-0.22	0.39	-0.2378	0.3571	0.0221	-2.0290	0.9838	-1.7390	0.9815	A+	A-	A+
SCIENCE	8	801721	471498	10	A	1	9827	0.67	0.08	0.07	0.67	0.17	0.00	0.42	-0.26	-0.28	0.42	-0.1352	-0.3580	0.0232	-7.7591	0.9279	-7.5591	0.8855	A+	A-	A-
SCIENCE	8	809141	849716	10	C	2	9827	0.51	0.17	0.51	0.20	0.12	0.00	0.30	-0.11	0.30	-0.11	-0.1901	0.4661	0.0221	8.8211	1.0726	8.1711	1.0879	A+	A+	A+
SCIENCE	8	809143	458922	10	C	2	9827	0.57	0.16	0.57	0.17	0.10	0.00	0.38	-0.15	0.38	-0.18	-0.2040	0.1513	0.0222	-1.3990	0.9886	-1.7890	0.9794	A+	A-	A-
SCIENCE	8	810892	155135	10	D	2	9827	0.36	0.33	0.11	0.21	0.36	0.00	0.22	0.04	-0.21	-0.15	0.2239	1.2139	0.0230	9.9011	1.1345	9.9012	1.2063	A+	A-	A-
SCIENCE	8	810895	900518	10	A	2	9827	0.60	0.11	0.12	0.17	0.60	0.00	0.40	-0.18	-0.20	-0.19	0.4008	0.0420	0.0224	-5.0190	0.9588	-2.7490	0.9666	B+	A-	A+
SCIENCE	8	810901	686705	10	A	2	9827	0.60	0.12	0.15	0.12	0.60	0.00	0.50	-0.26	-0.20	-0.26	0.5026	0.0009	0.0224	-9.8991	0.8657	-9.8992	0.8116	A+	A+	A+
SCIENCE	8	713625	919186	11	A	2	9830	0.51	0.51	0.10	0.12	0.27	0.00	0.43	0.43	-0.28	-0.27	-0.1009	0.4586	0.0221	-7.2291	0.9429	-6.8991	0.9292	A-	B-	A-
SCIENCE	8	736943	220924	11	D	2	9830	0.34	0.34	0.13	0.36	0.16	0.00	0.23	0.23	-0.25	-0.03	-0.0306	1.2889	0.0231	9.9011	1.1200	9.9012	1.2097	A-	A-	A+
SCIENCE	8	798512	354748	11	A	3	9830	0.37	0.38	0.37	0.12	0.13	0.00	0.24	0.09	0.24	-0.22	-0.2569	1.1865	0.0229	9.9011	1.1075	9.9012	1.17	A-	A+	A+
SCIENCE	8	798515	210061	11	A	2	9830	0.51	0.22	0.13	0.51	0.14	0.00	0.42	-0.14	-0.28	0.42	-0.1618	0.4763	0.0221	-5.6490	0.9551	-6.0191	0.9382	A+	A-	A-
SCIENCE	8	798517	910919	11	C	2	9830	0.43	0.22	0.16	0.18	0.43	0.00	0.39	-0.09	-0.22	-0.19	0.3891	0.8431	0.0223	-2.2190	0.9813	-1.7290	0.9812	A+	A-	A+
SCIENCE	8	798519	376009	11	D	2	9830	0.63	0.11	0.14	0.63	0.12	0.00	0.41	-0.22	-0.22	0.41	-0.1571	-0.0858	0.0226	-6.5791	0.9438	-5.4091	0.9292	A+	A-	A-
SCIENCE	8	801697	240134	11	A	1	9830	0.47	0.47	0.04	0.05	0.43	0.00	0.31	0.31	-0.23	-0.22	-0.1112	0.6782	0.0221	7.9311	1.0666	7.1011	1.0762	A-	A-	A-

ContArea	FormGrade	ItemID	PubID	FormNumber	Standard1	Depth	N	PValue	ProportionA	ProportionB	ProportionC	ProportionD	ProportionOMITS	PtBiserial	CorrelationA	CorrelationB	CorrelationC	CorrelationD	FinalB	FinalBErr	Infit	InfitMnSq	Outfit	OutfitMnSq	BiasCodeMALEFEMALE	BiasCodeWHITEBLACK	BiasCodeWHITEHISPANIC
SCIENCE	8	801769	625012	11	C	2	9830	0.40	0.19	0.40	0.31	0.10	0.00	0.22	-0.17	0.22	0.05	-0.2079	1.0075	0.0225	9.9011	1.1341	9.9012	1.1834	A-	A-	A-
SCIENCE	8	810894	712740	11	A	2	9830	0.41	0.41	0.13	0.20	0.25	0.00	0.19	0.19	-0.25	-0.13	0.1093	0.9585	0.0224	9.9012	1.1826	9.9012	1.2261	A+	A+	A-
SCIENCE	8	810903	289818	11	A	1	9830	0.44	0.21	0.44	0.16	0.18	0.00	0.35	-0.07	0.35	-0.19	-0.1833	0.8050	0.0222	2.5410	1.0215	3.0610	1.0333	A-	A-	A-
SCIENCE	8	812181	183105	11	B	2	9830	0.33	0.33	0.18	0.14	0.34	0.00	0.28	0.28	-0.18	-0.23	0.0465	1.3518	0.0233	6.1611	1.0635	9.9012	1.158	A-	A-	A-
SCIENCE	8	812182	332933	11	B	2	9830	0.64	0.15	0.11	0.09	0.64	0.00	0.49	-0.16	-0.28	-0.29	0.4895	-0.1496	0.0227	-9.8991	0.8762	-9.8992	0.8259	A+	A-	A-
SCIENCE	8	730247	374032	12	A	3	9800	0.35	0.10	0.22	0.32	0.35	0.00	0.27	-0.25	-0.08	-0.04	0.2741	1.2317	0.0231	8.7911	1.0872	8.5411	1.1206	A-	A-	A-
SCIENCE	8	739856	196607	12	D	2	9800	0.37	0.37	0.20	0.21	0.22	0.00	0.22	0.22	-0.13	-0.12	-0.0034	1.1765	0.0229	9.9011	1.1375	9.9012	1.1982	A-	A-	A+
SCIENCE	8	801753	508047	12	B	2	9800	0.49	0.16	0.49	0.12	0.23	0.00	0.41	-0.18	0.41	-0.29	-0.1078	0.5551	0.0222	-3.9190	0.9682	-3.7690	0.9602	A+	A-	A-
SCIENCE	8	801773	974358	12	D	2	9800	0.26	0.18	0.26	0.24	0.32	0.00	0.11	-0.16	0.11	-0.16	0.1775	1.7438	0.0248	9.9012	1.2101	9.9014	1.4474	A-	A+	A+
SCIENCE	8	805224	143456	12	A	2	9800	0.63	0.10	0.17	0.63	0.09	0.00	0.50	-0.29	-0.24	0.50	-0.2051	-0.1332	0.0228	-9.8991	0.8758	-9.8992	0.8165	A-	A-	A+
SCIENCE	8	805227	706407	12	A	2	9800	0.66	0.06	0.14	0.66	0.14	0.00	0.52	-0.26	-0.26	0.52	-0.2637	-0.2701	0.0231	-9.8992	0.8480	-9.8992	0.7681	A-	A-	A-
SCIENCE	8	805229	416944	12	B	2	9800	0.64	0.64	0.13	0.10	0.12	0.00	0.40	0.40	-0.13	-0.27	-0.1822	-0.1765	0.0229	-4.2390	0.9621	-2.8990	0.9587	A+	A-	A-
SCIENCE	8	805230	151054	12	D	2	9800	0.72	0.05	0.72	0.08	0.15	0.00	0.48	-0.25	0.48	-0.28	-0.2361	-0.5930	0.0242	-9.8991	0.8615	-9.8992	0.7685	A+	A-	A-
SCIENCE	8	809125	943360	12	A	2	9800	0.59	0.22	0.08	0.11	0.59	0.00	0.39	-0.09	-0.27	-0.25	0.3912	0.0866	0.0224	-3.0490	0.9745	-0.1590	0.998	A+	A-	A-
SCIENCE	8	809145	720856	12	C	2	9800	0.56	0.56	0.33	0.06	0.05	0.00	0.34	0.34	-0.18	-0.20	-0.1528	0.2479	0.0222	3.6510	1.0303	1.0310	1.0118	A+	A+	A-
SCIENCE	8	811617	166695	12	B	2	9800	0.48	0.14	0.11	0.48	0.27	0.00	0.33	-0.16	-0.24	0.33	-0.0728	0.6062	0.0222	5.7510	1.0480	4.2610	1.0462	A+	A-	A-
SCIENCE	8	812152	973891	12	A	2	9800	0.49	0.11	0.49	0.26	0.15	0.00	0.31	-0.27	0.31	-0.02	-0.1652	0.5762	0.0222	7.5911	1.0635	7.6411	1.0838	A+	A+	A+

Multiple-Choice Online Item Statistics

Column Heading	Definition
ContArea	Content
FormGrade	Grade
PubID	Form ID
FormNumber	Form
Standard1	Standard
Depth	Depth of Knowledge
N	N
PValue	P-Value
ProportionA	Proportion A
ProportionB	Proportion B
ProportionC	Proportion C
ProportionD	Proportion D
ProportionOMITS	Proportion Omits
PtBiserial	Point Biserial
CorrelationA	Correlation A
CorrelationB	Correlation B
CorrelationC	Correlation C
CorrelationD	Correlation D

ContArea	FormGrade	ItemID	PubID	FormNumber	Standard1	Depth	N	PValue	ProportionA	ProportionB	ProportionC	ProportionD	ProportionOMITS	PtBiserial	CorrelationA	CorrelationB	CorrelationC	CorrelationD
ELA	3	651825	696706	0	D	2	1455	0.45	0.45	0.45	0.06	0.04	0.00	0.18	0.18	0.02	-0.27	-0.17
ELA	3	652248	618944	0	D	2	1455	0.68	0.08	0.07	0.16	0.68	0.00	0.38	-0.21	-0.16	-0.20	0.38
ELA	3	652272	548618	0	D	1	1455	0.86	0.04	0.86	0.05	0.05	0.00	0.40	-0.22	0.40	-0.24	-0.21
ELA	3	652477	931277	0	D	2	1455	0.60	0.23	0.04	0.13	0.60	0.00	0.41	-0.14	-0.16	-0.32	0.41
ELA	3	652822	614603	0	D	2	1455	0.75	0.06	0.16	0.02	0.75	0.00	0.46	-0.25	-0.30	-0.17	0.46
ELA	3	653137	824795	0	D	2	1455	0.48	0.17	0.48	0.12	0.23	0.00	0.36	-0.15	0.36	-0.17	-0.16
ELA	3	654618	621046	0	D	2	1455	0.45	0.27	0.14	0.13	0.45	0.00	0.32	-0.11	-0.15	-0.17	0.32
ELA	3	655105	878116	0	D	2	1455	0.43	0.11	0.27	0.19	0.43	0.00	0.24	-0.25	0.05	-0.15	0.24
ELA	3	655401	428715	0	D	2	1455	0.64	0.64	0.16	0.13	0.07	0.00	0.42	0.42	-0.25	-0.16	-0.22
ELA	3	657272	918040	0	D	1	1455	0.69	0.11	0.69	0.10	0.11	0.00	0.31	-0.18	0.31	-0.09	-0.19
ELA	3	657280	297841	0	D	2	1455	0.83	0.83	0.05	0.09	0.03	0.00	0.44	0.44	-0.26	-0.23	-0.23
ELA	3	657283	171457	0	D	2	1455	0.74	0.74	0.08	0.10	0.07	0.00	0.38	0.38	-0.26	-0.11	-0.24
ELA	3	674843	367882	0	A-C	3	1455	0.47	0.11	0.19	0.47	0.23	0.00	0.29	-0.24	-0.02	0.29	-0.13
ELA	3	674845	454412	0	A-K	2	1455	0.64	0.18	0.64	0.10	0.09	0.00	0.55	-0.30	0.55	-0.30	-0.21
ELA	3	674984	568545	0	A-K	2	1455	0.53	0.53	0.18	0.21	0.08	0.00	0.46	0.46	-0.24	-0.17	-0.25
ELA	3	674985	666607	0	A-C	3	1455	0.44	0.18	0.44	0.22	0.15	0.00	0.35	-0.16	0.35	-0.09	-0.21
ELA	3	674988	358887	0	A-V	2	1455	0.71	0.11	0.11	0.71	0.07	0.00	0.59	-0.34	-0.29	0.59	-0.28
ELA	3	674992	230708	0	A-V	2	1455	0.74	0.10	0.07	0.09	0.74	0.00	0.54	-0.31	-0.23	-0.30	0.54
ELA	3	702680	467518	0	B-K	2	1455	0.32	0.36	0.20	0.32	0.11	0.00	0.32	-0.04	-0.18	0.32	-0.17
ELA	3	702681	722429	0	B-V	2	1455	0.45	0.45	0.18	0.27	0.10	0.00	0.37	0.37	-0.24	-0.04	-0.24
ELA	3	702684	732100	0	B-C	3	1455	0.54	0.25	0.54	0.10	0.11	0.00	0.45	-0.16	0.45	-0.28	-0.23
ELA	3	702686	875005	0	B-K	3	1455	0.38	0.30	0.14	0.17	0.38	0.00	0.31	0.00	-0.28	-0.13	0.31
ELA	3	702709	157910	0	A-V	2	1455	0.76	0.76	0.13	0.06	0.05	0.00	0.50	0.50	-0.31	-0.23	-0.24
ELA	3	702710	941540	0	A-V	1	1455	0.56	0.21	0.07	0.16	0.56	0.00	0.47	-0.13	-0.27	-0.31	0.47
ELA	3	702713	592549	0	A-K	2	1455	0.61	0.61	0.14	0.14	0.11	0.00	0.48	0.48	-0.17	-0.23	-0.28
ELA	3	702716	389974	0	A-K	2	1455	0.55	0.17	0.11	0.55	0.17	0.00	0.50	-0.26	-0.26	0.50	-0.17
ELA	3	736661	444717	0	B-C	3	1455	0.46	0.19	0.10	0.46	0.24	0.00	0.38	-0.23	-0.18	0.38	-0.10
ELA	3	736662	707005	0	B-C	3	1455	0.42	0.16	0.42	0.13	0.28	0.00	0.40	-0.18	0.40	-0.33	-0.04
ELA	3	736664	911560	0	B-C	2	1455	0.48	0.48	0.21	0.10	0.21	0.00	0.46	0.46	-0.18	-0.27	-0.19
ELA	3	736665	681317	0	B-K	2	1455	0.48	0.20	0.20	0.48	0.11	0.00	0.47	-0.20	-0.24	0.47	-0.17
ELA	3	736669	166880	0	B-V	2	1455	0.78	0.09	0.78	0.07	0.05	0.00	0.53	-0.33	0.53	-0.26	-0.24
ELA	3	740245	234304	0	D	2	1455	0.88	0.03	0.04	0.88	0.04	0.00	0.42	-0.26	-0.24	0.42	-0.20
ELA	3	740255	173725	0	D	2	1455	0.39	0.16	0.17	0.39	0.28	0.00	0.33	-0.26	-0.09	0.33	-0.07
ELA	3	740257	512862	0	D	2	1455	0.24	0.25	0.24	0.28	0.22	0.00	0.16	-0.07	0.16	-0.01	-0.07
ELA	3	740273	660733	0	D	2	1455	0.60	0.16	0.12	0.60	0.12	0.00	0.52	-0.26	-0.29	0.52	-0.19
ELA	3	740274	233693	0	D	2	1455	0.54	0.09	0.10	0.54	0.26	0.00	0.39	-0.23	-0.17	0.39	-0.17
ELA	3	740275	981417	0	B-K	2	1455	0.46	0.23	0.21	0.09	0.46	0.00	0.55	-0.18	-0.27	-0.29	0.55
ELA	3	741264	620864	0	D	2	1455	0.47	0.18	0.16	0.47	0.19	0.00	0.42	-0.27	-0.14	0.42	-0.13
ELA	3	655398	792787	1	D	2	682	0.57	0.57	0.10	0.29	0.04	0.00	0.36	0.36	-0.19	-0.22	-0.09
ELA	3	736496	890728	1	B-V	2	1455	0.76	0.76	0.06	0.09	0.09	0.00	0.50	0.50	-0.27	-0.27	-0.25
ELA	3	736498	307312	1	B-C	2	1455	0.56	0.19	0.56	0.14	0.11	0.00	0.51	-0.30	0.51	-0.23	-0.18
ELA	3	736499	380716	1	B-C	2	1455	0.55	0.27	0.08	0.55	0.11	0.00	0.50	-0.22	-0.26	0.50	-0.27
ELA	3	736500	304552	1	B-V	2	1455	0.75	0.75	0.06	0.11	0.08	0.00	0.48	0.48	-0.31	-0.18	-0.29
ELA	3	736501	748701	1	B-K	2	1455	0.48	0.17	0.18	0.17	0.48	0.01	0.38	-0.16	-0.20	-0.14	0.38
ELA	3	736502	533153	1	B-K	2	1455	0.60	0.19	0.06	0.15	0.60	0.00	0.41	-0.31	-0.25	-0.05	0.41
ELA	3	809165	774639	1	D	2	682	0.40	0.19	0.24	0.16	0.40	0.00	0.29	-0.07	-0.19	-0.07	0.29
ELA	3	809587	731468	1	A-C	3	682	0.40	0.30	0.11	0.19	0.40	0.00	0.35	-0.08	-0.19	-0.18	0.35
ELA	3	809589	370851	1	A-V	2	682	0.65	0.65	0.16	0.11	0.08	0.00	0.42	0.42	-0.15	-0.23	-0.26
ELA	3	809591	634395	1	A-K	3	682	0.41	0.28	0.18	0.41	0.12	0.00	0.53	-0.30	-0.22	0.53	-0.13
ELA	3	809592	688318	1	A-K	2	682	0.38	0.19	0.21	0.22	0.38	0.00	0.45	-0.27	-0.12	-0.16	0.45
ELA	3	809593	899931	1	A-K	3	682	0.39	0.24	0.39	0.22	0.14	0.00	0.35	-0.12	0.35	-0.04	-0.30
ELA	3	809594	259013	1	A-V	2	682	0.48	0.26	0.16	0.48	0.10	0.00	0.50	-0.20	-0.27	0.50	-0.19
ELA	3	809595	454357	1	A-V	2	682	0.48	0.26	0.48	0.11	0.15	0.00	0.58	-0.30	0.58	-0.23	-0.24
ELA	3	809596	742778	1	A-V	2	682	0.44	0.44	0.20	0.11	0.24	0.00	0.27	0.27	-0.08	-0.30	-0.01
ELA	3	652805	610242	2	D	2	388	0.58	0.13	0.13	0.58	0.16	0.01	0.41	-0.10	-0.16	0.41	-0.31

ContArea	FormGrade	ItemID	PubID	FormNumber	Standard1	Depth	N	PValue	ProportionA	ProportionB	ProportionC	ProportionD	ProportionOMITS	PtBiserial	CorrelationA	CorrelationB	CorrelationC	CorrelationD
ELA	3	715006	676242	2	D	1	388	0.68	0.10	0.68	0.14	0.08	0.01	0.39	-0.19	0.39	-0.20	-0.21
ELA	3	806534	691231	2	A-C	3	388	0.66	0.66	0.07	0.09	0.18	0.00	0.51	0.51	-0.20	-0.19	-0.35
ELA	3	806535	200180	2	A-K	2	388	0.65	0.14	0.13	0.65	0.07	0.00	0.53	-0.36	-0.27	0.53	-0.13
ELA	3	806538	453829	2	A-K	3	388	0.40	0.23	0.16	0.21	0.40	0.00	0.36	-0.28	-0.20	0.03	0.36
ELA	3	806539	925801	2	A-K	2	388	0.45	0.23	0.45	0.12	0.20	0.01	0.34	-0.25	0.34	-0.15	-0.05
ELA	3	806540	793459	2	A-K	2	388	0.42	0.16	0.30	0.11	0.42	0.01	0.23	-0.25	0.13	-0.23	0.23
ELA	3	806541	422388	2	A-V	2	388	0.57	0.17	0.57	0.18	0.07	0.01	0.50	-0.26	0.50	-0.25	-0.20
ELA	3	806542	749892	2	A-V	2	388	0.48	0.48	0.20	0.19	0.13	0.00	0.33	0.33	-0.08	-0.26	-0.08
ELA	3	806543	372076	2	A-V	2	388	0.75	0.05	0.07	0.75	0.13	0.00	0.33	-0.09	-0.36	0.33	-0.08
ELA	3	653130	307778	3	D	2	385	0.87	0.05	0.87	0.04	0.05	0.00	0.43	-0.21	0.43	-0.26	-0.24
ELA	3	800700	981436	3	A-K	1	385	0.66	0.13	0.66	0.09	0.11	0.00	0.43	-0.15	0.43	-0.19	-0.33
ELA	3	800708	721289	3	A-K	2	385	0.35	0.12	0.17	0.36	0.35	0.00	0.22	-0.32	-0.25	0.19	0.22
ELA	3	800709	741128	3	A-K	3	385	0.79	0.12	0.03	0.05	0.79	0.00	0.47	-0.26	-0.28	-0.26	0.47
ELA	3	800711	757640	3	A-K	2	385	0.58	0.25	0.09	0.58	0.08	0.00	0.49	-0.25	-0.23	0.49	-0.24
ELA	3	800712	898846	3	A-V	2	385	0.76	0.15	0.76	0.06	0.03	0.00	0.47	-0.38	0.47	-0.18	-0.13
ELA	3	800713	203830	3	A-V	2	385	0.77	0.77	0.10	0.04	0.10	0.00	0.36	0.36	-0.13	-0.19	-0.27
ELA	3	800714	378590	3	A-V	2	385	0.32	0.24	0.21	0.32	0.23	0.00	0.27	-0.27	-0.05	0.27	0.02
ELA	3	800715	318875	3	A-V	2	385	0.71	0.71	0.17	0.06	0.06	0.00	0.35	0.35	-0.11	-0.21	-0.28
ELA	3	808528	830207	3	D	2	385	0.42	0.23	0.42	0.25	0.11	0.00	0.32	-0.16	0.32	-0.09	-0.18
ELA	4	652522	259181	0	D	2	1543	0.82	0.82	0.05	0.08	0.05	0.00	0.44	0.44	-0.21	-0.27	-0.24
ELA	4	652527	776219	0	D	2	1543	0.62	0.20	0.08	0.10	0.62	0.00	0.48	-0.24	-0.25	-0.23	0.48
ELA	4	652599	834783	0	D	2	1543	0.67	0.67	0.06	0.07	0.20	0.00	0.41	0.41	-0.23	-0.18	-0.22
ELA	4	653175	831057	0	D	2	1543	0.51	0.19	0.51	0.23	0.06	0.00	0.42	-0.21	0.42	-0.18	-0.23
ELA	4	653180	219207	0	D	2	1543	0.61	0.14	0.61	0.10	0.14	0.00	0.39	-0.30	0.39	-0.12	-0.13
ELA	4	653733	225679	0	D	2	1543	0.32	0.32	0.19	0.26	0.22	0.00	0.25	0.25	-0.14	-0.10	-0.04
ELA	4	655147	743247	0	A-K	2	1543	0.58	0.11	0.19	0.58	0.12	0.00	0.50	-0.26	-0.20	0.50	-0.27
ELA	4	655149	587365	0	A-K	3	1543	0.69	0.17	0.05	0.09	0.69	0.00	0.50	-0.21	-0.29	-0.30	0.50
ELA	4	655151	425463	0	A-K	2	1543	0.64	0.13	0.13	0.10	0.64	0.00	0.57	-0.31	-0.26	-0.28	0.57
ELA	4	655153	590829	0	A-C	3	1543	0.56	0.56	0.14	0.18	0.12	0.00	0.50	0.50	-0.13	-0.29	-0.29
ELA	4	655155	770419	0	A-V	2	1543	0.50	0.50	0.16	0.13	0.21	0.00	0.45	0.45	-0.15	-0.22	-0.23
ELA	4	655624	490603	0	D	3	1543	0.51	0.06	0.51	0.07	0.35	0.00	0.44	-0.25	0.44	-0.17	-0.24
ELA	4	655786	598741	0	D	3	1543	0.54	0.54	0.16	0.19	0.11	0.00	0.45	0.45	-0.12	-0.31	-0.19
ELA	4	655928	239568	0	D	2	1543	0.52	0.19	0.52	0.11	0.18	0.00	0.40	-0.16	0.40	-0.14	-0.24
ELA	4	657285	586158	0	D	3	1543	0.65	0.11	0.08	0.65	0.15	0.00	0.46	-0.25	-0.22	0.46	-0.22
ELA	4	703452	346211	0	B-C	2	1543	0.29	0.19	0.34	0.18	0.29	0.00	0.31	0.00	-0.23	-0.08	0.31
ELA	4	703453	215166	0	B-C	2	1543	0.55	0.17	0.55	0.16	0.12	0.00	0.48	-0.12	0.48	-0.23	-0.35
ELA	4	703454	529836	0	B-K	2	1543	0.43	0.18	0.12	0.27	0.43	0.00	0.49	-0.28	-0.19	-0.17	0.49
ELA	4	703456	708486	0	B-C	2	1543	0.39	0.39	0.20	0.15	0.27	0.00	0.14	0.14	0.02	-0.26	0.04
ELA	4	703458	646636	0	B-V	2	1543	0.61	0.15	0.12	0.61	0.13	0.00	0.50	-0.16	-0.22	0.50	-0.35
ELA	4	703459	583864	0	B-V	2	1543	0.40	0.40	0.10	0.10	0.40	0.00	0.27	0.04	-0.27	-0.24	0.27
ELA	4	703462	854915	0	B-C	2	1543	0.50	0.07	0.50	0.24	0.19	0.01	0.29	-0.22	0.29	-0.10	-0.11
ELA	4	703464	921106	0	B-V	2	1543	0.70	0.15	0.08	0.70	0.06	0.00	0.53	-0.32	-0.27	0.53	-0.23
ELA	4	703468	564865	0	B-V	2	1543	0.59	0.19	0.11	0.11	0.59	0.00	0.37	-0.16	-0.19	-0.20	0.37
ELA	4	703469	866051	0	B-K	2	1543	0.44	0.09	0.20	0.44	0.26	0.00	0.44	-0.26	-0.21	0.44	-0.13
ELA	4	703470	134764	0	B-K	2	1543	0.39	0.34	0.39	0.19	0.08	0.01	0.19	0.05	0.19	-0.11	-0.25
ELA	4	703471	524645	0	B-K	2	1543	0.67	0.11	0.08	0.14	0.67	0.00	0.40	-0.15	-0.24	-0.21	0.40
ELA	4	703473	713549	0	B-C	2	1543	0.69	0.69	0.09	0.07	0.15	0.00	0.43	0.43	-0.25	-0.28	-0.16
ELA	4	736577	522551	0	A-V	2	1543	0.47	0.11	0.47	0.08	0.34	0.00	0.34	-0.24	0.34	-0.29	-0.02
ELA	4	736587	983335	0	A-C	3	1543	0.62	0.62	0.10	0.06	0.22	0.00	0.48	0.48	-0.30	-0.24	-0.21
ELA	4	736589	144773	0	A-K	3	1543	0.42	0.42	0.24	0.20	0.14	0.00	0.31	0.31	-0.10	-0.07	-0.24
ELA	4	736591	248932	0	A-K	2	1543	0.71	0.10	0.12	0.71	0.07	0.00	0.57	-0.27	-0.30	0.57	-0.32
ELA	4	736684	167335	0	A-K	2	1543	0.72	0.12	0.72	0.07	0.08	0.00	0.45	-0.22	0.45	-0.23	-0.26
ELA	4	741160	412874	0	D	2	1543	0.45	0.19	0.19	0.16	0.45	0.00	0.32	-0.10	-0.15	-0.16	0.32
ELA	4	741162	815821	0	D	2	1543	0.38	0.16	0.17	0.29	0.38	0.00	0.28	-0.15	-0.18	-0.03	0.28
ELA	4	741164	119587	0	D	2	1543	0.39	0.21	0.08	0.39	0.32	0.00	0.35	-0.22	-0.17	0.35	-0.07

ContArea	FormGrade	ItemID	PubID	FormNumber	Standard1	Depth	N	PValue	ProportionA	ProportionB	ProportionC	ProportionD	ProportionOMITS	PtBiserial	CorrelationA	CorrelationB	CorrelationC	CorrelationD
ELA	4	741165	629783	0	D	2	1543	0.85	0.05	0.04	0.06	0.85	0.00	0.37	-0.17	-0.22	-0.22	0.37
ELA	4	741167	269338	0	D	2	1543	0.30	0.25	0.17	0.30	0.28	0.00	0.39	-0.01	-0.14	0.39	-0.27
ELA	4	741170	904273	0	D	2	1543	0.47	0.47	0.19	0.19	0.16	0.00	0.27	0.27	-0.13	-0.08	-0.14
ELA	4	741171	322021	0	D	2	1543	0.47	0.27	0.16	0.47	0.10	0.00	0.36	-0.04	-0.28	0.36	-0.18
ELA	4	741172	210285	0	D	2	1543	0.56	0.56	0.14	0.20	0.09	0.00	0.42	0.42	-0.14	-0.25	-0.20
ELA	4	655237	859009	1	D	3	747	0.57	0.23	0.57	0.08	0.13	0.00	0.53	-0.23	0.53	-0.24	-0.29
ELA	4	703313	474025	1	B-K	2	1543	0.54	0.16	0.54	0.12	0.17	0.00	0.36	-0.11	0.36	-0.26	-0.14
ELA	4	703314	720154	1	B-C	3	1543	0.58	0.58	0.09	0.15	0.18	0.00	0.49	0.49	-0.25	-0.22	-0.23
ELA	4	703315	346439	1	B-C	2	1543	0.70	0.70	0.12	0.09	0.09	0.00	0.51	0.51	-0.24	-0.30	-0.25
ELA	4	703319	613340	1	B-K	2	1543	0.39	0.22	0.26	0.13	0.39	0.00	0.37	-0.02	-0.23	-0.21	0.37
ELA	4	703320	759737	1	B-V	1	1543	0.44	0.21	0.24	0.44	0.11	0.00	0.36	-0.19	-0.09	0.36	-0.20
ELA	4	703321	507474	1	B-V	2	1543	0.70	0.11	0.07	0.12	0.70	0.00	0.51	-0.26	-0.31	-0.23	0.51
ELA	4	809176	730994	1	D	2	747	0.68	0.18	0.07	0.68	0.07	0.00	0.36	-0.20	-0.20	0.36	-0.14
ELA	4	809598	115231	1	A-K	2	747	0.46	0.46	0.16	0.14	0.24	0.00	0.49	0.49	-0.26	-0.22	-0.17
ELA	4	809599	529905	1	A-V	2	747	0.54	0.15	0.15	0.54	0.15	0.00	0.49	-0.22	-0.18	0.49	-0.29
ELA	4	809600	850251	1	A-K	2	747	0.42	0.26	0.12	0.20	0.42	0.00	0.53	-0.23	-0.22	-0.23	0.53
ELA	4	809602	948207	1	A-K	2	747	0.50	0.16	0.50	0.20	0.13	0.00	0.44	-0.23	0.44	-0.12	-0.27
ELA	4	809603	316077	1	A-V	2	747	0.67	0.67	0.10	0.12	0.11	0.00	0.57	0.57	-0.29	-0.28	-0.29
ELA	4	809604	338832	1	A-V	2	747	0.52	0.15	0.52	0.19	0.14	0.00	0.48	-0.25	0.48	-0.22	-0.20
ELA	4	809605	894323	1	A-V	2	747	0.40	0.25	0.18	0.40	0.16	0.00	0.35	-0.12	-0.21	0.35	-0.11
ELA	4	809606	549620	1	A-V	1	747	0.71	0.09	0.12	0.09	0.71	0.00	0.44	-0.24	-0.29	-0.13	0.44
ELA	4	653709	164952	2	D	2	392	0.87	0.09	0.87	0.03	0.01	0.00	0.34	-0.27	0.34	-0.13	-0.15
ELA	4	809172	733497	2	D	2	392	0.76	0.09	0.76	0.04	0.11	0.01	0.34	-0.27	0.34	-0.23	-0.06
ELA	4	809607	528822	2	A-K	2	392	0.34	0.44	0.14	0.07	0.34	0.00	0.30	0.08	-0.32	-0.29	0.30
ELA	4	809608	959211	2	A-K	3	392	0.42	0.39	0.12	0.42	0.06	0.00	0.36	-0.14	-0.27	0.36	-0.09
ELA	4	809610	735318	2	A-K	2	392	0.40	0.40	0.08	0.18	0.34	0.00	0.28	0.28	-0.29	-0.22	0.06
ELA	4	809612	902823	2	A-V	2	392	0.64	0.14	0.64	0.14	0.08	0.00	0.46	-0.16	0.46	-0.22	-0.33
ELA	4	809613	773703	2	A-K	2	392	0.54	0.28	0.07	0.54	0.11	0.00	0.41	-0.23	-0.09	0.41	-0.24
ELA	4	809614	619115	2	A-V	2	392	0.61	0.61	0.11	0.18	0.09	0.00	0.49	0.49	-0.27	-0.21	-0.25
ELA	4	809615	774466	2	A-V	2	392	0.67	0.14	0.12	0.07	0.67	0.00	0.50	-0.27	-0.16	-0.34	0.50
ELA	4	809616	184829	2	A-V	2	392	0.49	0.36	0.49	0.11	0.04	0.00	0.42	-0.17	0.42	-0.26	-0.22
ELA	4	708904	154354	3	D	2	404	0.43	0.32	0.12	0.43	0.13	0.00	0.25	-0.12	-0.11	0.25	-0.09
ELA	4	808444	508063	3	A-C	2	404	0.55	0.19	0.18	0.55	0.08	0.00	0.33	-0.22	-0.09	0.33	-0.16
ELA	4	808445	324787	3	A-K	2	404	0.44	0.44	0.15	0.34	0.08	0.00	0.42	0.42	-0.22	-0.22	-0.10
ELA	4	808446	168286	3	A-V	2	404	0.33	0.21	0.33	0.32	0.14	0.00	0.12	-0.20	0.12	0.15	-0.14
ELA	4	808452	378371	3	A-K	2	404	0.57	0.57	0.22	0.10	0.11	0.00	0.33	0.33	-0.04	-0.29	-0.18
ELA	4	808455	457855	3	A-K	2	404	0.48	0.07	0.48	0.30	0.14	0.00	0.30	-0.20	0.30	-0.19	-0.02
ELA	4	808456	852755	3	A-V	2	404	0.88	0.03	0.04	0.88	0.05	0.00	0.47	-0.25	-0.30	0.47	-0.24
ELA	4	808457	166692	3	A-V	2	404	0.57	0.11	0.17	0.16	0.57	0.00	0.43	-0.23	-0.24	-0.14	0.43
ELA	4	808458	953275	3	A-V	1	404	0.56	0.19	0.17	0.09	0.56	0.00	0.41	-0.24	-0.08	-0.28	0.41
ELA	4	809174	469553	3	D	2	404	0.61	0.61	0.18	0.10	0.10	0.00	0.27	0.27	-0.10	-0.21	-0.09
ELA	5	652205	153307	0	D	3	2250	0.50	0.30	0.11	0.50	0.09	0.00	0.46	-0.25	-0.18	0.46	-0.21
ELA	5	652266	369915	0	D	1	2250	0.54	0.54	0.25	0.03	0.18	0.00	0.21	0.21	-0.10	-0.19	-0.08
ELA	5	652831	956777	0	D	2	2250	0.57	0.57	0.12	0.18	0.12	0.00	0.42	0.42	-0.18	-0.23	-0.18
ELA	5	653199	422707	0	D	2	2250	0.58	0.18	0.04	0.19	0.58	0.00	0.54	-0.29	-0.22	-0.28	0.54
ELA	5	653212	867042	0	D	2	2250	0.34	0.09	0.11	0.46	0.34	0.00	0.31	-0.26	-0.25	0.01	0.31
ELA	5	653724	607180	0	D	2	2250	0.46	0.46	0.19	0.20	0.15	0.00	0.22	0.22	-0.06	-0.05	-0.18
ELA	5	654934	729979	0	D	2	2250	0.53	0.32	0.05	0.53	0.09	0.00	0.53	-0.35	-0.20	0.53	-0.18
ELA	5	654939	722710	0	D	2	2250	0.82	0.04	0.06	0.08	0.82	0.00	0.28	-0.18	-0.17	-0.12	0.28
ELA	5	655249	595361	0	D	3	2250	0.61	0.10	0.10	0.61	0.19	0.00	0.38	-0.31	-0.24	0.38	-0.04
ELA	5	655417	489985	0	D	2	2250	0.55	0.16	0.17	0.13	0.55	0.00	0.34	-0.12	-0.19	-0.16	0.34
ELA	5	655606	423557	0	D	3	2250	0.59	0.59	0.07	0.12	0.21	0.00	0.40	0.40	-0.08	-0.26	-0.23
ELA	5	655923	259043	0	D	2	2250	0.46	0.17	0.46	0.22	0.15	0.00	0.34	-0.14	0.34	-0.15	-0.16
ELA	5	703786	427707	0	A-K	2	2250	0.55	0.10	0.13	0.21	0.55	0.00	0.50	-0.25	-0.23	-0.23	0.50
ELA	5	703789	774487	0	A-C	3	2250	0.54	0.12	0.20	0.54	0.14	0.00	0.32	-0.13	-0.13	0.32	-0.19

ContArea	FormGrade	ItemID	PubID	FormNumber	Standard1	Depth	N	PValue	ProportionA	ProportionB	ProportionC	ProportionD	ProportionOMITS	PtBiserial	CorrelationA	CorrelationB	CorrelationC	CorrelationD
ELA	5	703794	820782	0	A-K	3	2250	0.34	0.22	0.28	0.34	0.16	0.00	0.26	-0.15	-0.05	0.26	-0.11
ELA	5	703823	767187	0	A-V	2	2250	0.53	0.21	0.53	0.11	0.15	0.00	0.41	-0.27	0.41	-0.13	-0.15
ELA	5	703824	705141	0	A-V	2	2250	0.48	0.48	0.18	0.13	0.21	0.00	0.25	0.25	0.00	-0.24	-0.12
ELA	5	703825	910475	0	A-V	2	2250	0.56	0.12	0.23	0.56	0.09	0.00	0.52	-0.26	-0.28	0.52	-0.19
ELA	5	703826	972923	0	A-K	2	2250	0.60	0.15	0.13	0.60	0.12	0.00	0.55	-0.26	-0.23	0.55	-0.28
ELA	5	703827	422096	0	A-V	2	2250	0.42	0.11	0.42	0.31	0.16	0.00	0.35	-0.25	0.35	-0.04	-0.20
ELA	5	703842	718132	0	A-K	3	2250	0.62	0.16	0.07	0.14	0.62	0.00	0.48	-0.23	-0.24	-0.25	0.48
ELA	5	703844	139010	0	A-C	3	2250	0.36	0.18	0.21	0.36	0.25	0.00	0.27	-0.13	-0.16	0.27	-0.03
ELA	5	703847	114456	0	A-K	3	2250	0.45	0.22	0.21	0.11	0.45	0.01	0.42	-0.11	-0.20	-0.24	0.42
ELA	5	703900	291493	0	B-V	2	2250	0.74	0.74	0.08	0.06	0.12	0.00	0.48	0.48	-0.28	-0.28	-0.22
ELA	5	703902	175100	0	B-K	2	2250	0.41	0.11	0.30	0.41	0.18	0.00	0.29	-0.14	-0.19	0.29	-0.03
ELA	5	703904	587632	0	B-K	2	2250	0.62	0.16	0.10	0.12	0.62	0.00	0.49	-0.26	-0.33	-0.13	0.49
ELA	5	703905	340483	0	B-K	3	2250	0.70	0.70	0.11	0.11	0.07	0.00	0.47	0.47	-0.22	-0.27	-0.24
ELA	5	703908	915354	0	B-C	3	2250	0.44	0.26	0.11	0.44	0.19	0.00	0.40	-0.08	-0.22	0.40	-0.24
ELA	5	703909	226349	0	B-C	3	2250	0.51	0.51	0.14	0.24	0.10	0.00	0.31	0.31	-0.16	-0.02	-0.30
ELA	5	740472	741781	0	B-V	2	2250	0.65	0.11	0.16	0.65	0.07	0.00	0.44	-0.24	-0.20	0.44	-0.22
ELA	5	740499	859669	0	B-V	2	2250	0.63	0.22	0.08	0.07	0.63	0.00	0.48	-0.19	-0.28	-0.28	0.48
ELA	5	740505	505825	0	B-V	1	2250	0.34	0.34	0.21	0.19	0.26	0.00	0.33	0.33	-0.15	-0.16	-0.07
ELA	5	740525	577748	0	B-C	3	2250	0.37	0.18	0.19	0.25	0.37	0.00	0.43	-0.17	-0.26	-0.08	0.43
ELA	5	740544	183853	0	B-C	2	2250	0.42	0.24	0.25	0.42	0.08	0.00	0.46	-0.24	-0.15	0.46	-0.21
ELA	5	740545	310878	0	B-K	3	2250	0.60	0.12	0.60	0.18	0.10	0.00	0.41	-0.19	0.41	-0.16	-0.25
ELA	5	741051	615785	0	D	2	2250	0.58	0.11	0.15	0.17	0.58	0.00	0.48	-0.23	-0.26	-0.19	0.48
ELA	5	741052	619881	0	D	2	2250	0.62	0.18	0.62	0.06	0.14	0.00	0.34	-0.20	0.34	-0.22	-0.11
ELA	5	741053	116002	0	D	2	2250	0.55	0.55	0.07	0.27	0.11	0.00	0.32	0.32	-0.26	-0.08	-0.18
ELA	5	741056	787059	0	D	2	2250	0.58	0.28	0.05	0.10	0.58	0.00	0.31	-0.09	-0.22	-0.23	0.31
ELA	5	741057	522871	0	D	2	2250	0.35	0.25	0.35	0.19	0.21	0.00	0.21	-0.07	0.21	-0.08	-0.10
ELA	5	741158	580266	0	D	2	2250	0.62	0.62	0.13	0.10	0.15	0.00	0.42	0.42	-0.23	-0.23	-0.16
ELA	5	652594	540942	1	D	2	1104	0.59	0.16	0.13	0.12	0.59	0.00	0.40	-0.24	-0.15	-0.18	0.40
ELA	5	739810	849585	1	B-V	2	2250	0.73	0.12	0.73	0.07	0.08	0.00	0.51	-0.26	0.51	-0.26	-0.29
ELA	5	739811	657193	1	B-V	1	2250	0.48	0.48	0.11	0.19	0.21	0.00	0.32	0.32	-0.30	-0.08	-0.08
ELA	5	739845	186828	1	B-C	2	2250	0.53	0.30	0.11	0.53	0.06	0.00	0.25	0.05	-0.30	0.25	-0.23
ELA	5	739859	221923	1	B-K	2	2250	0.49	0.07	0.13	0.49	0.31	0.00	0.27	-0.29	-0.28	0.27	0.08
ELA	5	739877	214752	1	B-C	3	2250	0.45	0.20	0.45	0.06	0.29	0.00	0.39	-0.26	0.39	-0.23	-0.07
ELA	5	739878	938545	1	B-K	2	2250	0.57	0.57	0.11	0.24	0.07	0.00	0.48	0.48	-0.26	-0.24	-0.19
ELA	5	804571	738179	1	A-C	3	1104	0.50	0.50	0.25	0.16	0.09	0.00	0.37	0.37	-0.12	-0.17	-0.23
ELA	5	804573	369774	1	A-V	2	1104	0.43	0.43	0.15	0.17	0.24	0.00	0.12	0.12	-0.22	-0.12	0.15
ELA	5	804574	228171	1	A-K	2	1104	0.38	0.30	0.21	0.12	0.38	0.00	0.38	-0.12	-0.13	-0.22	0.38
ELA	5	804576	957669	1	A-K	2	1104	0.47	0.15	0.22	0.47	0.15	0.00	0.42	-0.24	-0.18	0.42	-0.14
ELA	5	804578	805394	1	A-V	2	1104	0.64	0.16	0.09	0.64	0.11	0.00	0.51	-0.24	-0.27	0.51	-0.24
ELA	5	804579	399167	1	A-V	2	1104	0.66	0.13	0.66	0.13	0.09	0.00	0.48	-0.19	0.48	-0.29	-0.24
ELA	5	804580	825511	1	A-V	2	1104	0.46	0.15	0.16	0.23	0.46	0.00	0.53	-0.12	-0.32	-0.25	0.53
ELA	5	811671	112646	1	D	2	1104	0.21	0.42	0.19	0.18	0.21	0.00	0.18	-0.11	-0.01	-0.03	0.18
ELA	5	812073	179512	1	A-K	2	1104	0.52	0.17	0.52	0.13	0.18	0.00	0.49	-0.26	0.49	-0.27	-0.15
ELA	5	654353	482991	2	D	2	563	0.80	0.05	0.11	0.80	0.03	0.00	0.44	-0.30	-0.22	0.44	-0.20
ELA	5	800731	828398	2	A-C	3	563	0.47	0.23	0.47	0.16	0.14	0.00	0.24	-0.06	0.24	-0.11	-0.16
ELA	5	800733	903102	2	A-V	2	563	0.89	0.89	0.05	0.03	0.02	0.00	0.37	0.37	-0.26	-0.18	-0.17
ELA	5	800734	711401	2	A-K	2	563	0.76	0.76	0.05	0.08	0.10	0.00	0.18	0.18	-0.17	-0.14	0.00
ELA	5	800736	758411	2	A-K	3	563	0.66	0.09	0.06	0.66	0.19	0.00	0.21	-0.25	-0.20	0.21	0.04
ELA	5	800737	312298	2	A-K	2	563	0.37	0.21	0.12	0.37	0.30	0.00	0.28	-0.12	-0.20	0.28	-0.06
ELA	5	800738	923624	2	A-V	2	563	0.35	0.03	0.03	0.58	0.35	0.00	0.13	-0.20	-0.21	0.02	0.13
ELA	5	800739	286114	2	A-V	2	563	0.81	0.06	0.81	0.09	0.04	0.00	0.29	-0.23	0.29	-0.05	-0.22
ELA	5	800740	341307	2	A-V	2	563	0.43	0.17	0.13	0.26	0.43	0.00	0.32	-0.31	-0.13	0.01	0.32
ELA	5	811672	198236	2	D	1	563	0.48	0.48	0.16	0.22	0.14	0.00	0.09	0.09	-0.07	-0.01	-0.04
ELA	5	655914	478516	3	D	2	583	0.74	0.03	0.15	0.74	0.08	0.00	0.34	-0.11	-0.21	0.34	-0.21
ELA	5	804581	518649	3	A-C	3	583	0.30	0.30	0.11	0.10	0.48	0.00	0.11	0.11	-0.14	-0.28	0.16

ContArea	FormGrade	ItemID	PubID	FormNumber	Standard1	Depth	N	PValue	ProportionA	ProportionB	ProportionC	ProportionD	ProportionOMITS	PtBiserial	CorrelationA	CorrelationB	CorrelationC	CorrelationD
ELA	5	804583	348088	3	A-V	2	583	0.46	0.46	0.11	0.16	0.27	0.00	0.37	0.37	-0.24	-0.31	0.01
ELA	5	804585	810818	3	A-K	2	583	0.48	0.22	0.13	0.48	0.18	0.00	0.34	-0.19	-0.25	0.34	-0.02
ELA	5	804586	622003	3	A-K	3	583	0.30	0.17	0.30	0.18	0.35	0.00	0.04	-0.11	0.04	-0.05	0.08
ELA	5	804587	730841	3	A-K	3	583	0.38	0.23	0.08	0.31	0.38	0.00	0.33	-0.15	-0.21	-0.09	0.33
ELA	5	804588	783611	3	A-V	2	583	0.79	0.09	0.79	0.04	0.08	0.00	0.45	-0.18	0.45	-0.26	-0.31
ELA	5	804589	977339	3	A-V	2	583	0.40	0.54	0.03	0.02	0.40	0.01	0.24	-0.11	-0.17	-0.22	0.24
ELA	5	804590	293650	3	A-V	2	583	0.45	0.49	0.03	0.45	0.03	0.00	0.29	-0.15	-0.20	0.29	-0.20
ELA	5	811673	877806	3	D	2	583	0.83	0.09	0.04	0.04	0.83	0.00	0.34	-0.19	-0.27	-0.11	0.34
ELA	6	672284	268685	0	D	2	3598	0.71	0.08	0.10	0.11	0.71	0.00	0.31	-0.11	-0.17	-0.20	0.31
ELA	6	672608	621106	0	D	2	3598	0.61	0.25	0.61	0.05	0.09	0.00	0.37	-0.18	0.37	-0.21	-0.19
ELA	6	673919	589095	0	D	2	3598	0.61	0.61	0.17	0.10	0.13	0.00	0.47	0.47	-0.23	-0.29	-0.18
ELA	6	674834	127408	0	D	2	3598	0.51	0.19	0.16	0.13	0.51	0.00	0.30	-0.21	-0.18	0.00	0.30
ELA	6	676056	633170	0	D	2	3598	0.62	0.14	0.62	0.09	0.15	0.00	0.53	-0.30	0.53	-0.30	-0.19
ELA	6	676112	908636	0	D	2	3598	0.59	0.15	0.07	0.59	0.19	0.00	0.40	-0.25	-0.26	0.40	-0.10
ELA	6	678119	673323	0	D	2	3598	0.52	0.27	0.11	0.10	0.52	0.00	0.33	-0.17	-0.15	-0.13	0.33
ELA	6	678120	744405	0	D	2	3598	0.80	0.08	0.02	0.10	0.80	0.00	0.43	-0.28	-0.20	-0.22	0.43
ELA	6	679288	868192	0	D	2	3598	0.54	0.16	0.54	0.20	0.09	0.00	0.33	-0.14	0.33	-0.20	-0.13
ELA	6	679293	979527	0	D	1	3598	0.62	0.12	0.20	0.07	0.62	0.00	0.38	-0.29	-0.03	-0.31	0.38
ELA	6	683452	791654	0	D	2	3598	0.53	0.15	0.17	0.15	0.53	0.00	0.37	-0.18	-0.19	-0.14	0.37
ELA	6	702819	615345	0	A-V	2	3598	0.65	0.65	0.11	0.10	0.13	0.00	0.49	0.49	-0.23	-0.26	-0.23
ELA	6	702820	658262	0	A-V	2	3598	0.54	0.11	0.10	0.25	0.54	0.00	0.42	-0.27	-0.25	-0.11	0.42
ELA	6	702824	674690	0	A-C	2	3598	0.49	0.18	0.14	0.19	0.49	0.00	0.30	-0.24	-0.17	0.01	0.30
ELA	6	702829	975525	0	A-K	3	3598	0.59	0.07	0.23	0.59	0.11	0.00	0.39	-0.22	-0.17	0.39	-0.20
ELA	6	702831	251552	0	A-C	3	3598	0.43	0.43	0.16	0.23	0.18	0.00	0.39	0.39	-0.19	-0.21	-0.09
ELA	6	702864	495563	0	A-C	3	3598	0.57	0.16	0.10	0.57	0.18	0.00	0.44	-0.16	-0.26	0.44	-0.22
ELA	6	702865	172388	0	A-C	3	3598	0.39	0.26	0.14	0.21	0.39	0.00	0.30	-0.04	-0.17	-0.17	0.30
ELA	6	702867	732749	0	A-C	2	3598	0.49	0.49	0.29	0.08	0.14	0.00	0.27	0.27	-0.01	-0.33	-0.10
ELA	6	702871	201157	0	A-V	2	3598	0.52	0.52	0.12	0.21	0.14	0.00	0.21	0.21	-0.17	0.01	-0.14
ELA	6	702872	490200	0	A-K	2	3598	0.43	0.26	0.43	0.19	0.12	0.00	0.29	-0.07	0.29	-0.21	-0.09
ELA	6	702873	299129	0	A-K	2	3598	0.38	0.44	0.12	0.38	0.05	0.00	0.28	-0.01	-0.27	0.28	-0.17
ELA	6	702882	927270	0	B-C	3	3598	0.50	0.21	0.50	0.13	0.16	0.00	0.24	-0.15	0.24	-0.04	-0.13
ELA	6	702883	416815	0	B-V	2	3598	0.60	0.60	0.14	0.16	0.10	0.00	0.42	0.42	-0.17	-0.17	-0.28
ELA	6	702900	272246	0	B-K	3	3598	0.74	0.74	0.12	0.06	0.08	0.00	0.45	0.45	-0.20	-0.26	-0.26
ELA	6	702902	119512	0	B-C	3	3598	0.76	0.07	0.08	0.10	0.76	0.00	0.52	-0.24	-0.25	-0.31	0.52
ELA	6	702904	950482	0	B-C	2	3598	0.47	0.26	0.47	0.15	0.12	0.00	0.26	-0.07	0.26	-0.18	-0.09
ELA	6	736450	174956	0	B-C	3	3598	0.41	0.11	0.41	0.41	0.07	0.00	0.18	-0.25	0.13	0.18	-0.29
ELA	6	736459	970356	0	B-K	2	3598	0.64	0.64	0.14	0.12	0.11	0.00	0.56	0.56	-0.27	-0.25	-0.30
ELA	6	736461	397018	0	B-C	2	3598	0.55	0.12	0.55	0.17	0.16	0.00	0.49	-0.20	0.49	-0.20	-0.28
ELA	6	736466	628975	0	B-V	2	3598	0.41	0.28	0.14	0.17	0.41	0.00	0.39	0.02	-0.32	-0.24	0.39
ELA	6	736467	409517	0	B-K	2	3598	0.58	0.17	0.17	0.58	0.08	0.00	0.41	-0.21	-0.17	0.41	-0.22
ELA	6	736470	427738	0	B-C	3	3598	0.66	0.66	0.11	0.14	0.09	0.00	0.52	0.52	-0.23	-0.30	-0.23
ELA	6	736471	390595	0	B-C	2	3598	0.62	0.09	0.62	0.16	0.13	0.00	0.42	-0.26	0.42	-0.13	-0.24
ELA	6	741249	738609	0	D	2	3598	0.37	0.14	0.26	0.37	0.23	0.00	0.32	-0.25	-0.04	0.32	-0.12
ELA	6	741251	800793	0	D	2	3598	0.58	0.15	0.15	0.58	0.11	0.00	0.41	-0.22	-0.21	0.41	-0.16
ELA	6	741253	847177	0	D	2	3598	0.83	0.06	0.83	0.04	0.08	0.00	0.42	-0.21	0.42	-0.22	-0.25
ELA	6	741254	598170	0	D	2	3598	0.41	0.41	0.26	0.10	0.22	0.00	0.34	0.34	-0.15	-0.30	-0.02
ELA	6	741256	253859	0	D	2	3598	0.53	0.10	0.21	0.53	0.16	0.00	0.35	-0.18	-0.10	0.35	-0.21
ELA	6	741257	199699	0	D	2	3598	0.42	0.24	0.42	0.19	0.15	0.00	0.29	-0.11	0.29	-0.15	-0.09
ELA	6	741261	745297	0	D	2	3598	0.39	0.11	0.41	0.39	0.09	0.00	0.32	-0.14	-0.07	0.32	-0.27
ELA	6	669293	656663	1	D	2	1594	0.67	0.67	0.10	0.12	0.10	0.00	0.48	0.48	-0.24	-0.31	-0.17
ELA	6	737050	663977	1	B-K	3	3598	0.69	0.18	0.06	0.69	0.06	0.00	0.41	-0.21	-0.26	0.41	-0.19
ELA	6	737098	979752	1	B-C	3	3598	0.62	0.62	0.14	0.15	0.09	0.00	0.44	0.44	-0.34	-0.05	-0.27
ELA	6	737099	308575	1	B-C	2	3598	0.59	0.11	0.59	0.11	0.19	0.00	0.33	-0.23	0.33	-0.27	-0.02
ELA	6	737100	131500	1	B-V	2	3598	0.55	0.03	0.04	0.38	0.55	0.00	0.29	-0.19	-0.25	-0.13	0.29
ELA	6	737101	408550	1	B-V	2	3598	0.56	0.06	0.31	0.08	0.56	0.00	0.36	-0.26	-0.11	-0.27	0.36

ContArea	FormGrade	ItemID	PubID	FormNumber	Standard1	Depth	N	PValue	ProportionA	ProportionB	ProportionC	ProportionD	ProportionOMITS	PtBiserial	CorrelationA	CorrelationB	CorrelationC	CorrelationD
ELA	6	739864	257081	1	B-C	3	3598	0.45	0.45	0.14	0.33	0.09	0.00	0.40	0.40	-0.17	-0.12	-0.29
ELA	6	810825	648973	1	A-K	2	1594	0.61	0.61	0.08	0.09	0.22	0.00	0.47	0.47	-0.33	-0.30	-0.13
ELA	6	810826	851458	1	A-K	2	1594	0.23	0.19	0.28	0.30	0.23	0.00	0.16	-0.04	0.03	-0.15	0.16
ELA	6	810827	236048	1	A-C	2	1594	0.43	0.33	0.15	0.43	0.10	0.00	0.39	-0.15	-0.17	0.39	-0.21
ELA	6	810828	969695	1	A-V	2	1594	0.51	0.08	0.51	0.31	0.09	0.00	0.30	-0.30	0.30	-0.04	-0.17
ELA	6	810829	323703	1	A-C	3	1594	0.37	0.14	0.37	0.23	0.26	0.00	0.28	-0.24	0.28	-0.13	0.01
ELA	6	810830	990273	1	A-K	2	1594	0.42	0.13	0.11	0.42	0.35	0.00	0.27	-0.17	-0.26	0.27	0.01
ELA	6	810831	216015	1	A-V	2	1594	0.52	0.52	0.13	0.23	0.12	0.00	0.47	0.47	-0.26	-0.21	-0.17
ELA	6	810835	697320	1	A-V	2	1594	0.54	0.08	0.29	0.08	0.54	0.00	0.28	-0.21	0.00	-0.30	0.28
ELA	6	812366	818521	1	D	2	1594	0.69	0.09	0.12	0.10	0.69	0.00	0.44	-0.21	-0.20	-0.27	0.44
ELA	6	671986	882358	2	D	2	1008	0.81	0.05	0.81	0.03	0.11	0.00	0.39	-0.30	0.39	-0.21	-0.16
ELA	6	811627	141665	2	A-K	2	1008	0.60	0.16	0.12	0.60	0.12	0.00	0.43	-0.22	-0.24	0.43	-0.16
ELA	6	811628	397400	2	A-K	2	1008	0.65	0.07	0.65	0.18	0.09	0.00	0.48	-0.29	0.48	-0.20	-0.26
ELA	6	811629	454429	2	A-C	3	1008	0.38	0.38	0.30	0.22	0.10	0.00	0.23	0.23	0.08	-0.18	-0.25
ELA	6	811630	104791	2	A-C	2	1008	0.37	0.37	0.30	0.23	0.10	0.00	0.24	0.24	-0.10	-0.02	-0.20
ELA	6	811631	180548	2	A-C	2	1008	0.74	0.06	0.05	0.15	0.74	0.00	0.45	-0.29	-0.32	-0.16	0.45
ELA	6	811632	412466	2	A-V	2	1008	0.45	0.26	0.15	0.45	0.13	0.00	0.25	-0.04	-0.19	0.25	-0.11
ELA	6	811633	935063	2	A-V	1	1008	0.57	0.17	0.57	0.15	0.12	0.00	0.47	-0.11	0.47	-0.33	-0.23
ELA	6	811635	694531	2	A-V	2	1008	0.76	0.09	0.06	0.09	0.76	0.00	0.48	-0.27	-0.24	-0.24	0.48
ELA	6	812370	163893	2	D	2	1008	0.33	0.19	0.33	0.11	0.37	0.00	0.27	-0.26	0.27	-0.17	0.07
ELA	6	675839	331483	3	D	2	996	0.46	0.11	0.25	0.18	0.46	0.00	0.23	-0.14	-0.05	-0.13	0.23
ELA	6	810480	852691	3	A-C	2	996	0.38	0.21	0.18	0.38	0.22	0.00	0.27	-0.06	-0.19	0.27	-0.07
ELA	6	810481	955185	3	A-C	3	996	0.45	0.20	0.20	0.15	0.45	0.00	0.29	-0.13	-0.05	-0.19	0.29
ELA	6	810482	465469	3	A-V	2	996	0.62	0.62	0.26	0.06	0.06	0.00	0.36	0.36	-0.11	-0.31	-0.23
ELA	6	810483	433836	3	A-C	2	996	0.64	0.64	0.12	0.15	0.09	0.00	0.42	0.42	-0.29	-0.13	-0.20
ELA	6	810484	545355	3	A-K	2	996	0.61	0.11	0.15	0.12	0.61	0.00	0.46	-0.15	-0.20	-0.32	0.46
ELA	6	810487	908652	3	A-K	2	996	0.69	0.11	0.11	0.69	0.09	0.00	0.47	-0.23	-0.22	0.47	-0.26
ELA	6	810488	132089	3	A-V	2	996	0.79	0.04	0.79	0.10	0.08	0.00	0.49	-0.19	0.49	-0.37	-0.21
ELA	6	810489	759534	3	A-V	2	996	0.65	0.09	0.65	0.18	0.08	0.00	0.44	-0.28	0.44	-0.25	-0.12
ELA	6	812369	236538	3	D	2	996	0.81	0.81	0.05	0.07	0.06	0.00	0.49	0.49	-0.28	-0.27	-0.24
ELA	7	669297	231382	0	D	2	4852	0.63	0.07	0.06	0.63	0.24	0.00	0.43	-0.26	-0.22	0.43	-0.20
ELA	7	672605	981234	0	D	2	4852	0.78	0.09	0.04	0.09	0.78	0.00	0.47	-0.21	-0.25	-0.30	0.47
ELA	7	672617	675863	0	D	2	4852	0.66	0.66	0.15	0.10	0.09	0.00	0.35	0.35	-0.10	-0.26	-0.17
ELA	7	673473	458704	0	B-V	2	4852	0.64	0.13	0.12	0.64	0.10	0.00	0.48	-0.28	-0.23	0.48	-0.20
ELA	7	673481	914971	0	B-K	2	4852	0.52	0.15	0.52	0.21	0.12	0.00	0.41	-0.14	0.41	-0.20	-0.23
ELA	7	673482	266205	0	B-K	2	4852	0.52	0.14	0.16	0.52	0.18	0.00	0.40	-0.10	-0.26	0.40	-0.17
ELA	7	673483	477575	0	B-C	3	4852	0.72	0.07	0.07	0.13	0.72	0.00	0.51	-0.26	-0.26	-0.28	0.51
ELA	7	673484	854857	0	B-C	2	4852	0.56	0.15	0.15	0.13	0.56	0.00	0.45	-0.19	-0.18	-0.26	0.45
ELA	7	673498	813402	0	B-K	2	4852	0.61	0.61	0.11	0.13	0.15	0.00	0.50	0.50	-0.21	-0.33	-0.18
ELA	7	674820	797326	0	D	3	4852	0.60	0.09	0.18	0.60	0.13	0.00	0.39	-0.25	-0.21	0.39	-0.11
ELA	7	676076	275091	0	D	2	4852	0.54	0.26	0.05	0.16	0.54	0.00	0.41	-0.26	-0.19	-0.14	0.41
ELA	7	676091	392148	0	D	2	4852	0.65	0.12	0.65	0.16	0.07	0.00	0.40	-0.21	0.40	-0.23	-0.15
ELA	7	676110	596994	0	D	2	4852	0.82	0.82	0.05	0.06	0.08	0.00	0.47	0.47	-0.24	-0.25	-0.27
ELA	7	676114	254977	0	D	2	4852	0.45	0.32	0.45	0.10	0.13	0.00	0.48	-0.24	0.48	-0.22	-0.19
ELA	7	676640	599470	0	D	2	4852	0.88	0.05	0.04	0.03	0.88	0.00	0.35	-0.19	-0.22	-0.17	0.35
ELA	7	679165	102228	0	D	2	4852	0.65	0.11	0.14	0.10	0.65	0.00	0.44	-0.20	-0.24	-0.21	0.44
ELA	7	679428	171506	0	D	2	4852	0.60	0.06	0.30	0.60	0.03	0.00	0.23	-0.18	-0.09	0.23	-0.17
ELA	7	681188	208728	0	D	2	4852	0.65	0.26	0.04	0.05	0.65	0.00	0.36	-0.16	-0.24	-0.26	0.36
ELA	7	701701	884800	0	A-V	2	4852	0.67	0.67	0.15	0.11	0.07	0.00	0.25	0.25	-0.22	-0.05	-0.08
ELA	7	701716	867260	0	A-K	3	4852	0.52	0.52	0.21	0.19	0.08	0.00	0.30	0.30	-0.14	-0.08	-0.23
ELA	7	701717	719772	0	A-K	2	4852	0.55	0.15	0.15	0.55	0.14	0.00	0.52	-0.31	-0.23	0.52	-0.19
ELA	7	701720	935235	0	A-V	2	4852	0.79	0.05	0.08	0.79	0.08	0.00	0.46	-0.24	-0.26	0.46	-0.23
ELA	7	701721	707912	0	A-V	2	4852	0.39	0.17	0.39	0.21	0.23	0.00	0.31	-0.19	0.31	-0.09	-0.10
ELA	7	701733	782721	0	A-V	2	4852	0.74	0.12	0.74	0.11	0.03	0.00	0.44	-0.21	0.44	-0.27	-0.23
ELA	7	701758	434953	0	A-K	2	4852	0.52	0.52	0.23	0.14	0.10	0.00	0.46	0.46	-0.18	-0.24	-0.23

ContArea	FormGrade	ItemID	PubID	FormNumber	Standard1	Depth	N	PValue	ProportionA	ProportionB	ProportionC	ProportionD	ProportionOMITS	PtBiserial	CorrelationA	CorrelationB	CorrelationC	CorrelationD
ELA	7	701759	828375	0	A-C	2	4852	0.72	0.15	0.72	0.06	0.07	0.00	0.46	-0.25	0.46	-0.29	-0.19
ELA	7	701760	478613	0	A-K	3	4852	0.37	0.26	0.21	0.37	0.17	0.00	0.17	-0.04	-0.06	0.17	-0.10
ELA	7	701762	582080	0	A-K	3	4852	0.48	0.19	0.15	0.18	0.48	0.00	0.42	-0.16	-0.22	-0.17	0.42
ELA	7	701766	179189	0	A-V	2	4852	0.63	0.63	0.12	0.16	0.08	0.00	0.44	0.44	-0.27	-0.18	-0.21
ELA	7	735005	172836	0	B-V	2	4852	0.72	0.05	0.72	0.16	0.07	0.00	0.50	-0.23	0.50	-0.30	-0.26
ELA	7	735006	464680	0	B-V	2	4852	0.39	0.18	0.26	0.39	0.17	0.00	0.24	-0.21	-0.02	0.24	-0.06
ELA	7	735023	687173	0	B-K	3	4852	0.64	0.64	0.15	0.07	0.14	0.00	0.40	0.40	-0.23	-0.27	-0.11
ELA	7	735024	266361	0	B-K	2	4852	0.66	0.18	0.66	0.10	0.06	0.00	0.39	-0.16	0.39	-0.24	-0.22
ELA	7	735027	695099	0	B-C	2	4852	0.47	0.22	0.12	0.18	0.47	0.00	0.33	-0.09	-0.22	-0.14	0.33
ELA	7	735029	177693	0	B-V	1	4852	0.65	0.11	0.12	0.12	0.65	0.00	0.46	-0.25	-0.18	-0.26	0.46
ELA	7	741175	255578	0	D	2	4852	0.39	0.16	0.23	0.39	0.23	0.00	0.18	-0.01	-0.16	0.18	-0.04
ELA	7	741176	384030	0	D	2	4852	0.52	0.10	0.52	0.26	0.11	0.00	0.35	-0.17	0.35	-0.17	-0.15
ELA	7	741177	219201	0	D	2	4852	0.41	0.09	0.41	0.30	0.20	0.00	0.25	-0.18	0.25	-0.07	-0.09
ELA	7	741178	363262	0	D	3	4852	0.59	0.59	0.08	0.16	0.17	0.00	0.34	0.34	-0.26	-0.12	-0.15
ELA	7	741179	678952	0	D	2	4852	0.50	0.17	0.19	0.50	0.14	0.00	0.32	-0.05	-0.21	0.32	-0.18
ELA	7	741181	388016	0	D	2	4852	0.30	0.11	0.30	0.31	0.27	0.00	0.13	-0.16	0.13	-0.10	0.08
ELA	7	679166	501694	1	D	2	2018	0.72	0.07	0.14	0.72	0.06	0.00	0.36	-0.14	-0.21	0.36	-0.21
ELA	7	701731	407405	1	B-K	3	4852	0.55	0.55	0.18	0.16	0.11	0.00	0.36	0.36	-0.19	-0.18	-0.13
ELA	7	701732	596167	1	B-V	2	4852	0.53	0.21	0.11	0.15	0.53	0.00	0.31	-0.04	-0.25	-0.17	0.31
ELA	7	701764	866340	1	B-C	2	4852	0.57	0.15	0.57	0.16	0.12	0.00	0.30	-0.06	0.30	-0.14	-0.22
ELA	7	701777	769697	1	B-K	2	4852	0.45	0.45	0.16	0.24	0.15	0.00	0.32	0.32	-0.23	-0.10	-0.09
ELA	7	701778	361675	1	B-K	2	4852	0.55	0.07	0.21	0.55	0.18	0.00	0.43	-0.29	-0.27	0.43	-0.08
ELA	7	701801	661244	1	B-V	2	4852	0.62	0.10	0.15	0.62	0.13	0.00	0.38	-0.21	-0.13	0.38	-0.22
ELA	7	811344	914872	1	A-K	2	2018	0.73	0.09	0.73	0.10	0.08	0.00	0.50	-0.25	0.50	-0.27	-0.25
ELA	7	811345	259949	1	A-K	2	2018	0.53	0.12	0.22	0.53	0.13	0.00	0.42	-0.22	-0.20	0.42	-0.16
ELA	7	811346	564724	1	A-C	2	2018	0.78	0.78	0.10	0.06	0.05	0.00	0.48	0.48	-0.26	-0.24	-0.27
ELA	7	811347	754073	1	A-K	2	2018	0.26	0.26	0.24	0.33	0.17	0.00	0.25	0.25	-0.04	-0.04	-0.20
ELA	7	811348	782149	1	A-V	1	2018	0.67	0.06	0.67	0.08	0.20	0.00	0.30	-0.24	0.30	-0.27	-0.03
ELA	7	811349	831436	1	A-V	2	2018	0.77	0.04	0.04	0.15	0.77	0.00	0.38	-0.22	-0.25	-0.18	0.38
ELA	7	811350	946666	1	A-V	2	2018	0.75	0.06	0.12	0.07	0.75	0.00	0.47	-0.24	-0.28	-0.21	0.47
ELA	7	811351	579735	1	A-V	2	2018	0.55	0.15	0.19	0.55	0.11	0.00	0.44	-0.19	-0.26	0.44	-0.15
ELA	7	813206	954132	1	D	2	2018	0.48	0.12	0.30	0.48	0.09	0.00	0.23	-0.25	0.08	0.23	-0.24
ELA	7	677900	880044	2	D	2	1409	0.44	0.24	0.44	0.08	0.24	0.00	0.30	-0.07	0.30	-0.22	-0.14
ELA	7	806586	119354	2	A-C	2	1409	0.46	0.30	0.16	0.46	0.08	0.00	0.33	-0.15	-0.11	0.33	-0.21
ELA	7	806587	512059	2	A-V	2	1409	0.77	0.77	0.07	0.07	0.09	0.00	0.34	0.34	-0.24	-0.21	-0.11
ELA	7	806588	137522	2	A-K	2	1409	0.66	0.17	0.66	0.09	0.07	0.00	0.42	-0.22	0.42	-0.19	-0.23
ELA	7	806589	497783	2	A-K	2	1409	0.47	0.14	0.29	0.47	0.10	0.00	0.38	-0.12	-0.16	0.38	-0.25
ELA	7	806590	781719	2	A-K	3	1409	0.47	0.47	0.33	0.10	0.10	0.00	0.06	0.06	0.20	-0.22	-0.20
ELA	7	806591	184779	2	A-K	2	1409	0.39	0.40	0.39	0.10	0.11	0.00	0.17	0.12	0.17	-0.22	-0.24
ELA	7	806592	207882	2	A-V	2	1409	0.83	0.06	0.05	0.06	0.83	0.00	0.45	-0.22	-0.24	-0.27	0.45
ELA	7	806593	440407	2	A-C	2	1409	0.45	0.12	0.32	0.11	0.45	0.00	0.14	-0.12	0.07	-0.20	0.14
ELA	7	813207	873911	2	D	3	1409	0.75	0.06	0.14	0.75	0.06	0.00	0.43	-0.19	-0.31	0.43	-0.16
ELA	7	676107	485409	3	D	2	1425	0.81	0.02	0.05	0.81	0.11	0.00	0.42	-0.18	-0.26	0.42	-0.24
ELA	7	804601	537715	3	A-C	3	1425	0.54	0.17	0.54	0.20	0.09	0.00	0.37	-0.12	0.37	-0.21	-0.20
ELA	7	804602	657214	3	A-C	3	1425	0.41	0.30	0.15	0.15	0.41	0.00	0.25	0.09	-0.22	-0.24	0.25
ELA	7	804609	905740	3	A-C	2	1425	0.71	0.06	0.71	0.18	0.05	0.00	0.33	-0.18	0.33	-0.14	-0.25
ELA	7	804612	715406	3	A-K	3	1425	0.72	0.05	0.06	0.72	0.16	0.00	0.36	-0.25	-0.24	0.36	-0.13
ELA	7	804613	734115	3	A-C	2	1425	0.75	0.75	0.09	0.06	0.10	0.00	0.38	0.38	-0.26	-0.18	-0.15
ELA	7	804614	776627	3	A-V	2	1425	0.69	0.05	0.07	0.18	0.69	0.00	0.43	-0.12	-0.32	-0.23	0.43
ELA	7	804615	698888	3	A-V	2	1425	0.54	0.12	0.20	0.54	0.15	0.00	0.25	-0.12	-0.12	0.25	-0.11
ELA	7	804616	426257	3	A-V	2	1425	0.81	0.81	0.12	0.04	0.03	0.00	0.42	0.42	-0.30	-0.22	-0.14
ELA	7	813208	928177	3	D	2	1425	0.28	0.33	0.14	0.24	0.28	0.00	0.15	0.09	-0.17	-0.12	0.15
ELA	8	669296	564974	0	D	2	5262	0.69	0.06	0.09	0.16	0.69	0.00	0.50	-0.27	-0.28	-0.25	0.50
ELA	8	672590	505785	0	D	1	5262	0.88	0.03	0.06	0.88	0.03	0.00	0.39	-0.22	-0.26	0.39	-0.17
ELA	8	673168	180051	0	D	2	5262	0.65	0.11	0.12	0.65	0.12	0.00	0.49	-0.25	-0.19	0.49	-0.28

ContArea	FormGrade	ItemID	PubID	FormNumber	Standard1	Depth	N	PValue	ProportionA	ProportionB	ProportionC	ProportionD	ProportionOMITS	PtBiserial	CorrelationA	CorrelationB	CorrelationC	CorrelationD
ELA	8	674826	865275	0	D	2	5262	0.67	0.10	0.07	0.16	0.67	0.00	0.46	-0.17	-0.26	-0.26	0.46
ELA	8	676080	140115	0	D	1	5262	0.59	0.59	0.20	0.13	0.08	0.00	0.38	0.38	-0.19	-0.24	-0.10
ELA	8	676518	871250	0	D	2	5262	0.84	0.02	0.08	0.84	0.06	0.00	0.38	-0.18	-0.24	0.38	-0.20
ELA	8	677400	180898	0	B-K	2	5262	0.56	0.08	0.16	0.56	0.19	0.00	0.36	-0.25	-0.16	0.36	-0.13
ELA	8	677401	820547	0	B-C	2	5262	0.51	0.15	0.18	0.16	0.51	0.00	0.52	-0.15	-0.27	-0.28	0.52
ELA	8	677402	746770	0	B-C	2	5262	0.49	0.10	0.49	0.09	0.32	0.00	0.37	-0.29	0.37	-0.27	-0.05
ELA	8	677403	174294	0	B-C	2	5262	0.44	0.18	0.44	0.18	0.19	0.00	0.31	-0.09	0.31	-0.13	-0.18
ELA	8	677425	447474	0	B-V	2	5262	0.79	0.79	0.08	0.10	0.03	0.00	0.40	0.40	-0.26	-0.21	-0.17
ELA	8	677899	931687	0	D	2	5262	0.67	0.67	0.21	0.05	0.06	0.00	0.38	0.38	-0.16	-0.25	-0.23
ELA	8	678010	232020	0	D	2	5262	0.58	0.21	0.11	0.58	0.10	0.00	0.28	-0.04	-0.25	0.28	-0.15
ELA	8	678215	825588	0	D	2	5262	0.26	0.39	0.26	0.11	0.24	0.00	0.18	0.10	0.18	-0.31	-0.07
ELA	8	678256	435606	0	D	2	5262	0.77	0.06	0.08	0.77	0.09	0.00	0.45	-0.24	-0.28	0.45	-0.20
ELA	8	678258	817415	0	D	2	5262	0.53	0.14	0.17	0.15	0.53	0.00	0.35	-0.05	-0.23	-0.20	0.35
ELA	8	679137	932857	0	D	2	5262	0.82	0.82	0.07	0.06	0.05	0.00	0.36	0.36	-0.21	-0.23	-0.14
ELA	8	679159	421476	0	D	2	5262	0.65	0.15	0.10	0.09	0.65	0.00	0.35	-0.13	-0.20	-0.21	0.35
ELA	8	716595	228498	0	A-K	2	5262	0.62	0.08	0.17	0.62	0.13	0.00	0.45	-0.25	-0.18	0.45	-0.24
ELA	8	716598	885857	0	B-C	1	5262	0.36	0.28	0.36	0.29	0.06	0.00	0.34	-0.13	0.34	-0.11	-0.22
ELA	8	716599	810559	0	B-K	2	5262	0.56	0.17	0.16	0.11	0.56	0.00	0.40	-0.20	-0.17	-0.20	0.40
ELA	8	716605	400522	0	A-K	2	5262	0.78	0.07	0.78	0.09	0.06	0.00	0.43	-0.24	0.43	-0.25	-0.19
ELA	8	716606	896884	0	A-C	3	5262	0.52	0.52	0.24	0.15	0.09	0.00	0.27	0.27	-0.20	-0.08	-0.07
ELA	8	716608	561288	0	A-C	3	5262	0.61	0.61	0.17	0.07	0.15	0.00	0.40	0.40	-0.19	-0.31	-0.12
ELA	8	716609	328495	0	A-V	2	5262	0.72	0.03	0.08	0.17	0.72	0.00	0.44	-0.21	-0.22	-0.27	0.44
ELA	8	716611	761806	0	A-V	2	5262	0.44	0.33	0.05	0.18	0.44	0.00	0.31	-0.14	-0.20	-0.12	0.31
ELA	8	716612	703920	0	A-K	2	5262	0.64	0.04	0.05	0.64	0.27	0.00	0.34	-0.18	-0.27	0.34	-0.15
ELA	8	716613	997311	0	B-V	2	5262	0.67	0.13	0.67	0.10	0.10	0.00	0.38	-0.22	0.38	-0.19	-0.15
ELA	8	716614	824869	0	B-V	2	5262	0.82	0.82	0.07	0.05	0.06	0.00	0.49	0.49	-0.28	-0.26	-0.26
ELA	8	716615	466876	0	B-C	2	5262	0.63	0.14	0.08	0.63	0.15	0.00	0.35	-0.25	-0.26	0.35	-0.04
ELA	8	716629	771202	0	A-V	2	5262	0.73	0.08	0.14	0.73	0.05	0.00	0.47	-0.24	-0.26	0.47	-0.24
ELA	8	716630	678541	0	A-V	2	5262	0.59	0.14	0.59	0.15	0.11	0.00	0.49	-0.18	0.49	-0.29	-0.23
ELA	8	716631	543216	0	A-V	2	5262	0.67	0.67	0.06	0.19	0.08	0.00	0.33	0.33	-0.19	-0.13	-0.21
ELA	8	716653	558200	0	A-K	2	5262	0.40	0.40	0.21	0.28	0.11	0.00	0.25	0.25	-0.14	-0.11	-0.05
ELA	8	716655	132362	0	A-K	3	5262	0.43	0.13	0.43	0.28	0.16	0.00	0.40	-0.17	0.40	-0.21	-0.12
ELA	8	716659	361526	0	A-C	3	5262	0.47	0.09	0.28	0.16	0.47	0.00	0.29	-0.28	-0.08	-0.09	0.29
ELA	8	741029	941426	0	D	2	5262	0.31	0.13	0.34	0.31	0.22	0.00	0.20	-0.26	-0.03	0.20	0.02
ELA	8	741030	190781	0	D	2	5262	0.36	0.32	0.16	0.36	0.16	0.00	0.17	0.01	-0.11	0.17	-0.13
ELA	8	741033	401193	0	D	2	5262	0.36	0.36	0.33	0.06	0.25	0.00	0.42	0.42	-0.10	-0.21	-0.25
ELA	8	741159	723041	0	D	2	5262	0.42	0.13	0.42	0.22	0.24	0.00	0.30	-0.22	0.30	-0.19	0.01
ELA	8	741268	322369	0	D	2	5262	0.41	0.15	0.41	0.24	0.20	0.00	0.33	-0.16	0.33	-0.12	-0.13
ELA	8	673146	634754	1	D	2	2147	0.81	0.06	0.81	0.07	0.07	0.00	0.42	-0.23	0.42	-0.19	-0.25
ELA	8	716589	929004	1	B-V	2	5262	0.42	0.21	0.42	0.23	0.14	0.00	0.18	-0.10	0.18	-0.04	-0.10
ELA	8	716591	722628	1	B-K	2	5262	0.49	0.09	0.49	0.12	0.30	0.00	0.38	-0.15	0.38	-0.31	-0.10
ELA	8	716592	678802	1	B-K	3	5262	0.68	0.12	0.09	0.68	0.11	0.00	0.42	-0.23	-0.20	0.42	-0.21
ELA	8	716593	729327	1	B-C	2	5262	0.31	0.19	0.22	0.31	0.27	0.00	0.25	-0.17	-0.04	0.25	-0.07
ELA	8	716594	990434	1	B-C	2	5262	0.82	0.82	0.10	0.04	0.04	0.00	0.36	0.36	-0.16	-0.22	-0.25
ELA	8	716603	532626	1	B-C	3	5262	0.50	0.50	0.18	0.18	0.14	0.00	0.41	0.41	-0.25	-0.19	-0.10
ELA	8	741026	693054	1	D	2	2147	0.55	0.27	0.07	0.55	0.11	0.00	0.36	-0.12	-0.22	0.36	-0.22
ELA	8	811887	973041	1	A-K	2	2147	0.66	0.10	0.66	0.12	0.11	0.00	0.56	-0.25	0.56	-0.31	-0.28
ELA	8	811888	100608	1	A-C	2	2147	0.49	0.20	0.49	0.22	0.09	0.00	0.17	-0.16	0.17	0.09	-0.18
ELA	8	811889	882406	1	A-K	3	2147	0.58	0.07	0.14	0.20	0.58	0.00	0.45	-0.29	-0.31	-0.09	0.45
ELA	8	811890	918184	1	A-C	2	2147	0.40	0.39	0.12	0.40	0.08	0.00	0.19	0.04	-0.18	0.19	-0.19
ELA	8	811891	286012	1	A-V	2	2147	0.74	0.05	0.08	0.74	0.13	0.00	0.55	-0.25	-0.31	0.55	-0.30
ELA	8	811892	641211	1	A-C	2	2147	0.65	0.65	0.13	0.11	0.11	0.00	0.52	0.52	-0.28	-0.26	-0.23
ELA	8	811893	973307	1	A-K	2	2147	0.72	0.11	0.10	0.07	0.72	0.00	0.49	-0.32	-0.21	-0.22	0.49
ELA	8	811894	748155	1	A-V	2	2147	0.51	0.51	0.13	0.18	0.17	0.00	0.27	0.27	-0.21	-0.15	-0.02
ELA	8	709519	771664	2	D	2	1542	0.58	0.13	0.15	0.58	0.14	0.00	0.37	-0.14	-0.22	0.37	-0.16

ContArea	FormGrade	ItemID	PubID	FormNumber	Standard1	Depth	N	PValue	ProportionA	ProportionB	ProportionC	ProportionD	ProportionOMITS	PtBiserial	CorrelationA	CorrelationB	CorrelationC	CorrelationD
ELA	8	741031	208321	2	D	2	1542	0.27	0.27	0.27	0.25	0.22	0.00	-0.01	-0.01	0.05	-0.02	-0.01
ELA	8	804621	267978	2	A-K	3	1542	0.51	0.16	0.28	0.04	0.51	0.00	0.27	-0.15	-0.06	-0.25	0.27
ELA	8	804622	238948	2	A-C	3	1542	0.39	0.25	0.39	0.14	0.22	0.00	0.17	-0.03	0.17	-0.15	-0.04
ELA	8	804624	513034	2	A-K	2	1542	0.50	0.50	0.12	0.05	0.32	0.00	0.24	0.24	-0.14	-0.24	-0.04
ELA	8	804627	930877	2	A-K	2	1542	0.76	0.04	0.12	0.09	0.76	0.00	0.37	-0.22	-0.23	-0.16	0.37
ELA	8	804628	507489	2	A-K	2	1542	0.74	0.06	0.07	0.74	0.12	0.00	0.47	-0.22	-0.27	0.47	-0.24
ELA	8	804629	345389	2	A-V	3	1542	0.79	0.79	0.05	0.13	0.02	0.00	0.40	0.40	-0.19	-0.25	-0.23
ELA	8	804630	117556	2	A-V	2	1542	0.41	0.34	0.41	0.09	0.16	0.00	0.39	-0.17	0.39	-0.21	-0.14
ELA	8	804631	818747	2	A-V	2	1542	0.78	0.12	0.06	0.78	0.04	0.00	0.40	-0.15	-0.26	0.40	-0.27
ELA	8	672771	664632	3	D	2	1573	0.55	0.31	0.09	0.06	0.55	0.00	0.49	-0.35	-0.13	-0.18	0.49
ELA	8	794376	694003	3	A-V	2	1573	0.55	0.20	0.09	0.55	0.16	0.00	0.31	-0.21	-0.12	0.31	-0.09
ELA	8	794378	542950	3	A-V	2	1573	0.54	0.05	0.31	0.11	0.54	0.00	0.23	-0.21	0.03	-0.27	0.23
ELA	8	794380	698980	3	A-K	2	1573	0.57	0.13	0.12	0.57	0.18	0.00	0.34	-0.14	-0.12	0.34	-0.21
ELA	8	794381	608286	3	A-K	3	1573	0.40	0.40	0.15	0.17	0.29	0.00	0.16	0.16	-0.11	-0.11	0.01
ELA	8	794382	365881	3	A-K	2	1573	0.68	0.08	0.10	0.14	0.68	0.00	0.38	-0.12	-0.25	-0.20	0.38
ELA	8	794383	105816	3	A-K	2	1573	0.50	0.07	0.50	0.20	0.23	0.00	0.23	-0.25	0.23	-0.21	0.08
ELA	8	794384	318750	3	A-C	2	1573	0.70	0.04	0.70	0.15	0.11	0.00	0.06	-0.14	0.06	-0.04	0.06
ELA	8	794385	175374	3	A-V	2	1573	0.74	0.74	0.06	0.14	0.06	0.00	0.30	0.30	-0.23	-0.11	-0.16
ELA	8	816464	720254	3	D	2	1573	0.35	0.15	0.35	0.38	0.12	0.00	0.10	-0.12	0.10	0.06	-0.10
MATH	3	652685	671477	0	D-M	2	1475	0.55	0.15	0.55	0.17	0.12	0.00	0.51	-0.23	0.51	-0.27	-0.20
MATH	3	652709	222936	0	D-M	2	1475	0.48	0.13	0.24	0.15	0.48	0.00	0.43	-0.27	-0.15	-0.16	0.43
MATH	3	655652	820734	0	D-M	1	1475	0.59	0.32	0.59	0.07	0.02	0.00	0.53	-0.52	0.53	-0.01	-0.13
MATH	3	656482	816931	0	D-M	2	1475	0.60	0.09	0.07	0.60	0.24	0.00	0.39	-0.19	-0.20	0.39	-0.19
MATH	3	656725	500156	0	D-M	2	1475	0.61	0.23	0.10	0.07	0.61	0.00	0.39	-0.07	-0.28	-0.30	0.39
MATH	3	656751	716556	0	A-F	1	1475	0.56	0.19	0.15	0.09	0.56	0.00	0.50	-0.22	-0.29	-0.18	0.50
MATH	3	665880	485762	0	B-O	1	1475	0.68	0.22	0.04	0.68	0.05	0.00	0.63	-0.49	-0.18	0.63	-0.23
MATH	3	668013	570500	0	A-T	2	1475	0.35	0.55	0.07	0.35	0.02	0.00	0.53	-0.39	-0.15	0.53	-0.12
MATH	3	668043	154602	0	B-O	2	1475	0.53	0.25	0.15	0.07	0.53	0.01	0.59	-0.49	-0.11	-0.15	0.59
MATH	3	675030	703716	0	B-O	1	1475	0.77	0.14	0.77	0.07	0.01	0.00	0.42	-0.25	0.42	-0.26	-0.15
MATH	3	675037	984652	0	A-F	2	1475	0.68	0.68	0.14	0.12	0.05	0.00	0.40	0.40	-0.21	-0.23	-0.18
MATH	3	675104	303703	0	B-O	1	1475	0.72	0.17	0.03	0.07	0.72	0.00	0.28	-0.23	-0.11	-0.06	0.28
MATH	3	677728	394479	0	D-M	2	1475	0.51	0.09	0.08	0.32	0.51	0.00	0.18	0.02	-0.08	-0.16	0.18
MATH	3	682570	151504	0	D-M	1	1475	0.65	0.08	0.14	0.65	0.13	0.00	0.52	-0.25	-0.28	0.52	-0.25
MATH	3	699427	365686	0	B-O	1	1475	0.56	0.56	0.08	0.09	0.26	0.01	0.65	0.65	-0.14	-0.20	-0.50
MATH	3	699428	945680	0	B-O	2	1475	0.54	0.54	0.14	0.11	0.21	0.00	0.55	0.55	-0.14	-0.27	-0.33
MATH	3	699431	190113	0	C-G	2	1475	0.47	0.47	0.15	0.06	0.31	0.00	0.33	0.33	-0.04	-0.22	-0.21
MATH	3	699439	796513	0	A-T	1	1475	0.49	0.05	0.35	0.11	0.49	0.00	0.64	-0.12	-0.54	-0.11	0.64
MATH	3	699440	727841	0	A-F	1	1475	0.37	0.37	0.22	0.22	0.18	0.01	0.53	0.53	-0.20	-0.34	-0.07
MATH	3	699564	485400	0	A-F	1	1475	0.48	0.23	0.09	0.48	0.19	0.00	0.33	-0.25	-0.22	0.33	0.01
MATH	3	699565	524718	0	B-O	1	1475	0.65	0.65	0.18	0.10	0.07	0.00	0.53	0.53	-0.24	-0.28	-0.29
MATH	3	699570	124329	0	D-M	1	1475	0.57	0.57	0.09	0.06	0.28	0.00	0.55	0.55	-0.12	-0.22	-0.42
MATH	3	699608	179815	0	B-O	2	1475	0.43	0.26	0.17	0.14	0.43	0.00	0.38	-0.17	-0.20	-0.10	0.38
MATH	3	699942	736049	0	B-O	2	1475	0.58	0.30	0.07	0.58	0.05	0.00	0.52	-0.33	-0.24	0.52	-0.19
MATH	3	699946	337203	0	C-G	1	1475	0.75	0.02	0.75	0.05	0.19	0.00	0.43	-0.15	0.43	-0.12	-0.36
MATH	3	700619	221480	0	A-T	1	1475	0.63	0.63	0.16	0.11	0.09	0.00	0.54	0.54	-0.26	-0.23	-0.29
MATH	3	700621	733070	0	A-F	1	1475	0.31	0.26	0.29	0.31	0.14	0.00	0.46	-0.21	-0.08	0.46	-0.25
MATH	3	701319	636075	0	B-O	1	1475	0.70	0.08	0.70	0.13	0.08	0.01	0.44	-0.22	0.44	-0.23	-0.22
MATH	3	701326	923327	0	A-T	2	1475	0.58	0.06	0.25	0.10	0.58	0.01	0.60	-0.22	-0.42	-0.20	0.60
MATH	3	701370	410315	0	B-O	1	1475	0.74	0.09	0.74	0.12	0.05	0.00	0.48	-0.28	0.48	-0.22	-0.27
MATH	3	701371	798414	0	D-M	1	1475	0.53	0.29	0.08	0.53	0.10	0.00	0.30	-0.04	-0.24	0.30	-0.19
MATH	3	701374	938029	0	D-M	2	1475	0.50	0.29	0.50	0.13	0.07	0.00	0.37	-0.18	0.37	-0.13	-0.22
MATH	3	701411	440217	0	D-M	2	1475	0.49	0.06	0.49	0.42	0.03	0.00	0.58	-0.22	0.58	-0.43	-0.15
MATH	3	702008	894056	0	A-T	2	1475	0.53	0.53	0.16	0.13	0.17	0.00	0.39	0.39	-0.21	-0.02	-0.30
MATH	3	702011	655228	0	B-O	1	1475	0.70	0.06	0.12	0.70	0.12	0.00	0.45	-0.26	-0.20	0.45	-0.24
MATH	3	702228	605240	0	C-G	1	1475	0.74	0.74	0.06	0.11	0.10	0.00	0.42	0.42	-0.18	-0.19	-0.28

ContArea	FormGrade	ItemID	PubID	FormNumber	Standard1	Depth	N	PValue	ProportionA	ProportionB	ProportionC	ProportionD	ProportionOMITS	PtBiserial	CorrelationA	CorrelationB	CorrelationC	CorrelationD
MATH	3	702231	697146	0	B-O	1	1475	0.70	0.12	0.06	0.12	0.70	0.00	0.49	-0.29	-0.24	-0.22	0.49
MATH	3	712613	768261	0	A-F	1	1475	0.69	0.11	0.12	0.69	0.07	0.01	0.52	-0.30	-0.22	0.52	-0.27
MATH	3	712927	394217	0	C-G	1	1475	0.33	0.13	0.25	0.33	0.29	0.00	0.37	-0.08	-0.21	0.37	-0.12
MATH	3	713293	510883	0	B-O	2	1475	0.49	0.17	0.20	0.49	0.14	0.00	0.39	-0.23	-0.18	0.39	-0.11
MATH	3	713483	125363	0	A-F	1	1475	0.62	0.08	0.62	0.23	0.05	0.01	0.47	-0.14	0.47	-0.35	-0.16
MATH	3	713490	991857	0	C-G	1	1475	0.55	0.12	0.55	0.25	0.08	0.01	0.52	-0.18	0.52	-0.28	-0.27
MATH	3	713575	686289	0	C-G	2	1475	0.69	0.69	0.07	0.18	0.07	0.00	0.47	0.47	-0.24	-0.25	-0.25
MATH	3	713765	174235	0	A-F	2	1475	0.40	0.40	0.25	0.17	0.17	0.00	0.25	0.25	-0.22	-0.09	0.01
MATH	3	714007	143117	0	A-T	1	1475	0.55	0.19	0.16	0.55	0.10	0.00	0.53	-0.34	-0.10	0.53	-0.30
MATH	3	714141	294170	0	D-M	2	1475	0.69	0.06	0.13	0.12	0.69	0.00	0.39	-0.23	-0.20	-0.16	0.39
MATH	3	714143	332950	0	B-O	1	1475	0.57	0.57	0.14	0.17	0.12	0.01	0.47	0.47	-0.23	-0.17	-0.25
MATH	3	714264	382476	0	D-M	1	1475	0.58	0.05	0.58	0.23	0.13	0.00	0.27	-0.25	0.27	0.01	-0.25
MATH	3	714425	195186	0	A-T	1	1475	0.81	0.04	0.13	0.02	0.81	0.00	0.48	-0.25	-0.34	-0.16	0.48
MATH	3	714428	524113	0	B-O	1	1475	0.59	0.07	0.59	0.17	0.17	0.00	0.53	-0.25	0.53	-0.28	-0.24
MATH	3	714737	452761	0	B-O	2	1475	0.63	0.11	0.20	0.63	0.06	0.00	0.60	-0.25	-0.39	0.60	-0.22
MATH	3	714741	670471	0	D-M	2	1475	0.67	0.17	0.07	0.09	0.67	0.00	0.46	-0.30	-0.22	-0.16	0.46
MATH	3	714768	386271	0	D-M	2	1475	0.43	0.22	0.13	0.43	0.23	0.00	0.30	-0.27	-0.09	0.30	-0.01
MATH	3	714978	160954	0	B-O	2	1475	0.63	0.05	0.63	0.12	0.19	0.00	0.63	-0.14	0.63	-0.23	-0.49
MATH	3	714984	497541	0	A-F	2	1475	0.48	0.14	0.48	0.27	0.10	0.00	0.35	-0.14	0.35	-0.14	-0.21
MATH	3	715875	155183	0	A-T	1	1475	0.49	0.09	0.32	0.08	0.49	0.00	0.59	-0.04	-0.48	-0.21	0.59
MATH	3	716245	425863	0	B-O	1	1475	0.65	0.65	0.18	0.04	0.13	0.00	0.51	0.51	-0.35	-0.18	-0.22
MATH	3	716250	258238	0	D-M	2	1475	0.32	0.39	0.12	0.17	0.32	0.00	0.46	-0.27	-0.13	-0.11	0.46
MATH	3	730064	459186	0	A-F	2	1475	0.31	0.32	0.07	0.31	0.31	0.00	0.42	-0.41	-0.22	0.11	0.42
MATH	3	730289	774515	0	B-O	1	1475	0.68	0.11	0.14	0.68	0.07	0.00	0.51	-0.29	-0.31	0.51	-0.16
MATH	3	713292	147796	1	B-O	2	734	0.40	0.40	0.21	0.25	0.14	0.00	0.29	0.29	-0.10	-0.09	-0.17
MATH	3	714261	148928	1	D-M	2	734	0.58	0.15	0.58	0.13	0.15	0.00	0.47	-0.19	0.47	-0.31	-0.18
MATH	3	714427	937096	1	D-M	2	734	0.67	0.14	0.08	0.67	0.12	0.00	0.53	-0.26	-0.23	0.53	-0.32
MATH	3	794390	544692	1	A-F	1	734	0.26	0.26	0.08	0.52	0.14	0.00	0.38	0.38	-0.10	-0.08	-0.29
MATH	3	808553	225986	1	C-G	2	734	0.44	0.06	0.44	0.40	0.10	0.00	0.12	-0.05	0.12	-0.02	-0.13
MATH	3	808557	144574	1	C-G	1	734	0.55	0.23	0.16	0.07	0.55	0.00	0.52	-0.30	-0.27	-0.13	0.52
MATH	3	808681	474451	1	A-T	1	734	0.75	0.07	0.08	0.75	0.11	0.00	0.47	-0.14	-0.27	0.47	-0.31
MATH	3	808683	601957	1	A-F	2	734	0.21	0.23	0.21	0.21	0.34	0.01	-0.04	0.11	-0.11	-0.04	0.04
MATH	3	808700	659674	1	A-T	1	734	0.69	0.13	0.69	0.09	0.08	0.00	0.54	-0.33	0.54	-0.25	-0.24
MATH	3	808718	772716	1	B-O	2	734	0.21	0.10	0.21	0.33	0.36	0.00	-0.05	-0.21	-0.05	-0.12	0.29
MATH	3	808720	583096	1	B-O	2	734	0.40	0.16	0.17	0.40	0.26	0.01	0.40	-0.18	-0.09	0.40	-0.22
MATH	3	808735	567990	1	D-M	1	734	0.35	0.25	0.16	0.24	0.35	0.01	0.51	-0.22	-0.25	-0.12	0.51
MATH	3	714259	153367	2	D-M	1	365	0.39	0.16	0.39	0.35	0.09	0.01	0.44	-0.34	0.44	-0.16	-0.03
MATH	3	714738	676486	2	B-O	1	365	0.50	0.10	0.23	0.50	0.17	0.00	0.55	-0.34	-0.36	0.55	-0.05
MATH	3	794395	281134	2	C-G	1	365	0.33	0.05	0.37	0.33	0.24	0.01	0.24	-0.18	-0.17	0.24	0.06
MATH	3	808552	850568	2	C-G	2	365	0.48	0.20	0.48	0.09	0.23	0.00	0.30	-0.13	0.30	-0.09	-0.17
MATH	3	808692	519519	2	A-F	1	365	0.77	0.12	0.77	0.04	0.07	0.00	0.40	-0.27	0.40	-0.21	-0.16
MATH	3	808696	134370	2	B-O	2	365	0.65	0.65	0.11	0.08	0.15	0.01	0.55	0.55	-0.18	-0.24	-0.40
MATH	3	808701	709870	2	B-O	2	365	0.66	0.06	0.66	0.19	0.09	0.00	0.48	-0.29	0.48	-0.16	-0.31
MATH	3	808725	505736	2	B-O	1	365	0.84	0.84	0.09	0.04	0.03	0.00	0.40	0.40	-0.22	-0.22	-0.24
MATH	3	808740	566504	2	D-M	2	365	0.23	0.10	0.50	0.18	0.23	0.00	0.00	-0.22	0.12	0.01	0.00
MATH	3	808743	294509	2	D-M	2	365	0.46	0.16	0.28	0.46	0.09	0.00	0.38	-0.05	-0.29	0.38	-0.13
MATH	3	808859	562983	2	A-F	1	365	0.32	0.32	0.17	0.21	0.29	0.01	0.28	0.28	-0.03	-0.21	-0.07
MATH	3	808862	173068	2	A-T	2	365	0.62	0.11	0.16	0.11	0.62	0.01	0.48	-0.24	-0.18	-0.29	0.48
MATH	3	713572	881760	3	A-T	2	376	0.65	0.14	0.65	0.13	0.09	0.00	0.41	-0.23	0.41	-0.22	-0.14
MATH	3	714740	375257	3	B-O	2	376	0.50	0.50	0.15	0.12	0.24	0.00	0.33	0.33	-0.30	-0.10	-0.06
MATH	3	794394	768190	3	B-O	1	376	0.67	0.67	0.11	0.10	0.11	0.01	0.50	0.50	-0.29	-0.25	-0.22
MATH	3	808639	628611	3	C-G	2	376	0.59	0.23	0.59	0.05	0.12	0.00	0.32	-0.06	0.32	-0.21	-0.27
MATH	3	808682	386511	3	A-T	2	376	0.60	0.23	0.60	0.12	0.05	0.00	0.49	-0.22	0.49	-0.34	-0.18
MATH	3	808684	951398	3	A-F	1	376	0.34	0.10	0.34	0.47	0.09	0.00	0.32	-0.20	0.32	-0.08	-0.18
MATH	3	808691	355472	3	A-F	2	376	0.28	0.32	0.23	0.16	0.28	0.00	0.38	-0.21	-0.01	-0.20	0.38

ContArea	FormGrade	ItemID	PubID	FormNumber	Standard1	Depth	N	PValue	ProportionA	ProportionB	ProportionC	ProportionD	ProportionOMITS	PtBiserial	CorrelationA	CorrelationB	CorrelationC	CorrelationD
MATH	3	808708	464528	3	B-O	2	376	0.17	0.44	0.17	0.17	0.22	0.00	0.18	0.09	-0.33	0.18	0.03
MATH	3	808712	228698	3	B-O	2	376	0.39	0.39	0.37	0.12	0.11	0.01	0.15	0.15	0.06	-0.18	-0.12
MATH	3	808733	530140	3	D-M	2	376	0.52	0.12	0.17	0.19	0.52	0.00	0.44	-0.13	-0.17	-0.29	0.44
MATH	3	808737	527823	3	D-M	2	376	0.30	0.16	0.13	0.30	0.41	0.00	-0.09	-0.20	-0.15	-0.09	0.34
MATH	3	808749	627439	3	D-M	1	376	0.44	0.44	0.07	0.47	0.02	0.01	0.35	0.35	-0.09	-0.26	-0.14
MATH	4	652724	573118	0	A-T	1	1553	0.62	0.12	0.11	0.14	0.62	0.00	0.48	-0.23	-0.20	-0.27	0.48
MATH	4	652758	247345	0	A-F	1	1553	0.82	0.07	0.82	0.06	0.04	0.00	0.41	-0.28	0.41	-0.19	-0.18
MATH	4	655451	363160	0	A-F	1	1553	0.46	0.07	0.43	0.46	0.03	0.01	0.55	-0.28	-0.35	0.55	-0.17
MATH	4	655469	145701	0	A-T	2	1553	0.42	0.15	0.22	0.21	0.42	0.00	0.27	-0.13	-0.14	-0.07	0.27
MATH	4	656381	865333	0	A-T	2	1553	0.66	0.07	0.09	0.18	0.66	0.01	0.37	-0.13	-0.17	-0.24	0.37
MATH	4	656529	597996	0	D-M	2	1553	0.58	0.58	0.17	0.19	0.06	0.00	0.35	0.35	-0.13	-0.21	-0.17
MATH	4	656705	632313	0	A-F	2	1553	0.42	0.09	0.42	0.20	0.30	0.00	0.48	-0.14	0.48	-0.18	-0.28
MATH	4	656825	904022	0	A-F	2	1553	0.29	0.25	0.17	0.28	0.29	0.00	0.31	0.01	-0.16	-0.18	0.31
MATH	4	671465	560466	0	A-F	1	1553	0.37	0.31	0.22	0.11	0.37	0.00	0.48	-0.13	-0.23	-0.23	0.48
MATH	4	675118	367854	0	C-G	2	1553	0.48	0.18	0.12	0.48	0.22	0.00	0.36	-0.19	-0.19	0.36	-0.11
MATH	4	677208	684839	0	A-F	2	1553	0.33	0.46	0.33	0.10	0.11	0.00	0.25	0.01	0.25	-0.17	-0.23
MATH	4	678033	391557	0	B-O	2	1553	0.56	0.12	0.56	0.15	0.17	0.00	0.53	-0.27	0.53	-0.24	-0.24
MATH	4	699465	167824	0	B-O	2	1553	0.58	0.58	0.11	0.14	0.16	0.00	0.47	0.47	-0.30	-0.26	-0.12
MATH	4	699470	733028	0	B-O	2	1553	0.29	0.29	0.38	0.16	0.16	0.00	0.41	0.41	-0.09	-0.16	-0.23
MATH	4	699679	726785	0	A-F	1	1553	0.75	0.07	0.12	0.75	0.06	0.00	0.40	-0.13	-0.30	0.40	-0.18
MATH	4	701061	482172	0	A-T	2	1553	0.37	0.12	0.21	0.37	0.30	0.00	0.23	-0.12	-0.10	0.23	-0.06
MATH	4	701387	325715	0	B-O	2	1553	0.45	0.45	0.13	0.22	0.20	0.00	0.54	0.54	-0.15	-0.20	-0.33
MATH	4	701390	903048	0	C-G	2	1553	0.46	0.31	0.14	0.10	0.46	0.00	0.44	-0.17	-0.19	-0.25	0.44
MATH	4	701396	183939	0	A-F	1	1553	0.46	0.30	0.13	0.46	0.11	0.00	0.54	-0.34	-0.22	0.54	-0.11
MATH	4	701401	424744	0	D-M	2	1553	0.45	0.40	0.05	0.45	0.08	0.00	0.47	-0.33	-0.21	0.47	-0.08
MATH	4	701959	902560	0	A-F	1	1553	0.45	0.28	0.16	0.11	0.45	0.00	0.56	-0.31	-0.18	-0.23	0.56
MATH	4	701964	760394	0	D-M	1	1553	0.53	0.53	0.38	0.06	0.02	0.00	0.34	0.34	-0.21	-0.19	-0.14
MATH	4	702226	457873	0	B-O	2	1553	0.84	0.84	0.07	0.05	0.05	0.00	0.38	0.38	-0.17	-0.22	-0.24
MATH	4	702237	514639	0	A-F	2	1553	0.41	0.29	0.41	0.21	0.09	0.01	0.41	-0.18	0.41	-0.23	-0.09
MATH	4	702239	215582	0	B-O	2	1553	0.36	0.36	0.45	0.08	0.10	0.00	0.27	0.27	-0.13	-0.15	-0.06
MATH	4	702240	491391	0	C-G	1	1553	0.47	0.19	0.12	0.47	0.22	0.00	0.46	-0.26	-0.19	0.46	-0.15
MATH	4	702244	253460	0	D-M	1	1553	0.48	0.32	0.09	0.48	0.11	0.00	0.36	-0.05	-0.24	0.36	-0.30
MATH	4	702372	519139	0	C-G	2	1553	0.63	0.10	0.10	0.63	0.16	0.00	0.50	-0.26	-0.25	0.50	-0.23
MATH	4	702697	747655	0	A-T	1	1553	0.75	0.09	0.09	0.06	0.75	0.00	0.46	-0.24	-0.26	-0.24	0.46
MATH	4	702702	670489	0	B-O	2	1553	0.51	0.22	0.51	0.13	0.14	0.00	0.45	-0.25	0.45	-0.21	-0.16
MATH	4	702985	861917	0	C-G	1	1553	0.63	0.09	0.63	0.11	0.17	0.00	0.21	-0.13	0.21	0.02	-0.19
MATH	4	702986	483996	0	D-M	2	1553	0.85	0.04	0.05	0.05	0.85	0.00	0.39	-0.16	-0.24	-0.25	0.39
MATH	4	702992	609562	0	A-F	1	1553	0.48	0.40	0.48	0.09	0.02	0.00	0.39	-0.25	0.39	-0.20	-0.11
MATH	4	702995	631910	0	C-G	1	1553	0.56	0.56	0.05	0.20	0.18	0.00	0.26	0.26	-0.15	-0.07	-0.18
MATH	4	703508	619590	0	A-F	2	1553	0.68	0.68	0.13	0.09	0.09	0.00	0.44	0.44	-0.28	-0.19	-0.20
MATH	4	703510	482755	0	A-F	1	1553	0.62	0.14	0.62	0.18	0.06	0.00	0.43	-0.24	0.43	-0.23	-0.16
MATH	4	712568	199438	0	A-T	1	1553	0.55	0.14	0.16	0.13	0.55	0.02	0.48	-0.26	-0.21	-0.19	0.48
MATH	4	713098	164583	0	D-M	1	1553	0.35	0.10	0.35	0.19	0.35	0.00	0.51	-0.07	-0.27	-0.23	0.51
MATH	4	713276	442319	0	A-F	1	1553	0.54	0.29	0.10	0.54	0.06	0.01	0.33	-0.07	-0.27	0.33	-0.21
MATH	4	713471	135926	0	A-T	2	1553	0.44	0.19	0.44	0.18	0.19	0.00	0.40	-0.13	0.40	-0.21	-0.18
MATH	4	713476	448119	0	C-G	2	1553	0.39	0.30	0.09	0.21	0.39	0.00	0.37	-0.15	-0.19	-0.14	0.37
MATH	4	713748	430063	0	B-O	2	1553	0.52	0.18	0.16	0.52	0.13	0.00	0.38	-0.09	-0.25	0.38	-0.20
MATH	4	713750	878923	0	D-M	2	1553	0.60	0.13	0.10	0.60	0.17	0.00	0.38	-0.10	-0.24	0.38	-0.21
MATH	4	713766	346715	0	A-T	1	1553	0.73	0.73	0.07	0.15	0.05	0.01	0.47	0.47	-0.20	-0.33	-0.18
MATH	4	714182	303547	0	A-T	2	1553	0.65	0.65	0.09	0.14	0.12	0.00	0.50	0.50	-0.25	-0.21	-0.28
MATH	4	714190	125864	0	C-G	1	1553	0.52	0.52	0.18	0.21	0.09	0.00	0.43	0.43	-0.22	-0.19	-0.18
MATH	4	714204	816487	0	B-O	2	1553	0.50	0.50	0.09	0.18	0.23	0.00	0.54	0.54	-0.16	-0.12	-0.42
MATH	4	714208	694025	0	B-O	2	1553	0.71	0.14	0.03	0.11	0.71	0.00	0.49	-0.22	-0.18	-0.35	0.49
MATH	4	714211	981568	0	A-T	1	1553	0.75	0.09	0.08	0.07	0.75	0.00	0.46	-0.22	-0.24	-0.26	0.46
MATH	4	714231	389908	0	B-O	2	1553	0.64	0.12	0.09	0.64	0.15	0.00	0.42	-0.24	-0.27	0.42	-0.12

ContArea	FormGrade	ItemID	PubID	FormNumber	Standard1	Depth	N	PValue	ProportionA	ProportionB	ProportionC	ProportionD	ProportionOMITS	PtBiserial	CorrelationA	CorrelationB	CorrelationC	CorrelationD
MATH	4	714234	962281	0	C-G	1	1553	0.42	0.42	0.15	0.23	0.20	0.00	0.35	0.35	-0.18	-0.18	-0.09
MATH	4	714548	899655	0	B-O	1	1553	0.46	0.07	0.46	0.31	0.16	0.00	0.36	-0.13	0.36	-0.10	-0.28
MATH	4	714549	482958	0	C-G	2	1553	0.59	0.24	0.59	0.10	0.07	0.00	0.43	-0.33	0.43	-0.06	-0.21
MATH	4	714554	522417	0	B-O	2	1553	0.53	0.14	0.53	0.19	0.14	0.00	0.50	-0.20	0.50	-0.27	-0.21
MATH	4	714669	702997	0	A-T	1	1553	0.41	0.25	0.41	0.21	0.12	0.00	0.38	-0.04	0.38	-0.25	-0.21
MATH	4	714671	448969	0	A-F	2	1553	0.46	0.20	0.19	0.15	0.46	0.00	0.53	-0.25	-0.19	-0.25	0.53
MATH	4	714674	948184	0	B-O	2	1553	0.55	0.10	0.15	0.55	0.19	0.00	0.36	-0.03	-0.18	0.36	-0.27
MATH	4	714675	163677	0	B-O	2	1553	0.40	0.17	0.20	0.40	0.22	0.01	0.25	0.01	-0.11	0.25	-0.18
MATH	4	714677	861523	0	D-M	2	1553	0.24	0.08	0.24	0.36	0.32	0.00	0.32	-0.11	0.32	-0.14	-0.09
MATH	4	715545	418676	0	D-M	2	1553	0.42	0.42	0.25	0.22	0.11	0.00	0.45	0.45	-0.15	-0.22	-0.22
MATH	4	713475	771462	1	B-O	2	830	0.37	0.18	0.37	0.17	0.28	0.00	0.34	-0.13	0.34	0.00	-0.25
MATH	4	714188	504949	1	D-M	2	830	0.46	0.13	0.13	0.46	0.28	0.00	0.32	-0.15	-0.11	0.32	-0.16
MATH	4	794399	166738	1	A-F	2	830	0.42	0.42	0.21	0.23	0.14	0.00	0.20	0.20	-0.07	-0.09	-0.09
MATH	4	794404	393732	1	B-O	2	830	0.33	0.11	0.15	0.33	0.41	0.01	0.29	-0.10	-0.11	0.29	-0.12
MATH	4	794405	741204	1	C-G	2	830	0.33	0.20	0.33	0.24	0.23	0.00	0.26	-0.04	0.26	-0.06	-0.19
MATH	4	808575	909537	1	A-F	2	830	0.57	0.57	0.10	0.13	0.20	0.00	0.34	0.34	-0.11	-0.12	-0.24
MATH	4	808582	324936	1	A-T	1	830	0.58	0.22	0.58	0.12	0.07	0.00	0.46	-0.26	0.46	-0.19	-0.23
MATH	4	808587	957772	1	A-T	2	830	0.33	0.22	0.26	0.18	0.33	0.01	0.44	-0.24	-0.15	-0.10	0.44
MATH	4	808653	239802	1	D-M	1	830	0.21	0.22	0.39	0.18	0.21	0.00	0.08	-0.22	0.25	-0.17	0.08
MATH	4	808774	409660	1	B-O	2	830	0.21	0.20	0.14	0.45	0.21	0.00	0.29	-0.28	-0.22	0.15	0.29
MATH	4	808786	893122	1	C-G	1	830	0.22	0.33	0.26	0.22	0.20	0.00	0.06	0.12	-0.03	0.06	-0.16
MATH	4	808866	591863	1	D-M	2	830	0.29	0.31	0.24	0.29	0.17	0.00	0.15	-0.07	-0.03	0.15	-0.05
MATH	4	713090	316346	2	C-G	2	364	0.82	0.82	0.13	0.01	0.02	0.00	0.16	0.16	-0.09	-0.11	-0.10
MATH	4	715544	893472	2	B-O	2	364	0.75	0.12	0.09	0.75	0.04	0.01	0.51	-0.31	-0.26	0.51	-0.23
MATH	4	794402	840608	2	A-T	2	364	0.58	0.58	0.13	0.22	0.07	0.00	0.45	0.45	-0.20	-0.21	-0.27
MATH	4	808565	588679	2	A-F	2	364	0.16	0.21	0.36	0.27	0.16	0.00	-0.08	-0.10	0.07	0.08	-0.08
MATH	4	808573	385932	2	A-F	2	364	0.30	0.35	0.30	0.15	0.20	0.01	0.09	-0.01	0.09	-0.10	0.01
MATH	4	808586	774861	2	A-T	2	364	0.61	0.61	0.12	0.18	0.09	0.00	0.42	0.42	-0.24	-0.16	-0.22
MATH	4	808759	366634	2	B-O	2	364	0.37	0.18	0.29	0.16	0.37	0.00	0.17	-0.13	-0.16	0.11	0.17
MATH	4	808763	225390	2	B-O	1	364	0.66	0.14	0.05	0.66	0.15	0.00	0.47	-0.29	-0.06	0.47	-0.31
MATH	4	808775	746525	2	B-O	2	364	0.20	0.44	0.09	0.20	0.27	0.00	0.03	0.04	-0.20	0.03	0.06
MATH	4	808787	203735	2	C-G	1	364	0.37	0.27	0.12	0.23	0.37	0.00	0.25	-0.07	-0.22	-0.04	0.25
MATH	4	808799	804966	2	D-M	1	364	0.58	0.29	0.06	0.06	0.58	0.01	0.53	-0.38	-0.16	-0.18	0.53
MATH	4	808802	932134	2	D-M	2	364	0.23	0.42	0.11	0.23	0.23	0.01	0.40	-0.19	-0.25	0.01	0.40
MATH	4	713470	995097	3	A-T	2	359	0.31	0.27	0.25	0.16	0.31	0.01	0.51	-0.11	-0.29	-0.15	0.51
MATH	4	714162	414887	3	B-O	2	359	0.59	0.12	0.11	0.59	0.18	0.00	0.38	-0.10	-0.05	0.38	-0.35
MATH	4	714233	466102	3	B-O	2	359	0.30	0.30	0.20	0.18	0.30	0.01	0.44	-0.16	-0.16	-0.15	0.44
MATH	4	808564	967713	3	A-F	2	359	0.29	0.26	0.36	0.09	0.29	0.00	0.55	-0.23	-0.22	-0.14	0.55
MATH	4	808590	578329	3	A-T	1	359	0.30	0.21	0.13	0.36	0.30	0.00	0.43	-0.22	-0.16	-0.11	0.43
MATH	4	808651	329158	3	A-F	2	359	0.48	0.48	0.18	0.04	0.30	0.00	0.51	0.51	-0.17	-0.21	-0.33
MATH	4	808652	855535	3	D-M	1	359	0.18	0.18	0.19	0.38	0.25	0.00	0.04	0.04	-0.04	0.01	-0.01
MATH	4	808756	994419	3	B-O	2	359	0.70	0.11	0.70	0.11	0.06	0.00	0.39	-0.12	0.39	-0.23	-0.26
MATH	4	808767	922114	3	B-O	2	359	0.20	0.23	0.20	0.26	0.30	0.00	0.06	-0.13	0.06	-0.04	0.11
MATH	4	808784	864625	3	C-G	2	359	0.31	0.34	0.20	0.31	0.14	0.01	0.12	0.08	-0.07	0.12	-0.16
MATH	4	808789	926733	3	C-G	2	359	0.56	0.15	0.13	0.56	0.16	0.00	0.45	-0.19	-0.19	0.45	-0.25
MATH	4	808864	792291	3	D-M	2	359	0.13	0.11	0.13	0.58	0.18	0.00	-0.25	-0.30	-0.25	0.30	0.08
MATH	5	651088	604103	0	B-O	2	2723	0.69	0.69	0.11	0.14	0.06	0.00	0.48	0.48	-0.24	-0.28	-0.22
MATH	5	654555	642379	0	A-T	1	2723	0.65	0.65	0.12	0.08	0.14	0.01	0.45	0.45	-0.24	-0.24	-0.19
MATH	5	655833	627559	0	C-G	1	2723	0.64	0.08	0.08	0.64	0.20	0.00	0.39	-0.18	-0.21	0.39	-0.20
MATH	5	656075	845150	0	B-O	2	2723	0.50	0.14	0.18	0.50	0.18	0.00	0.37	-0.10	-0.24	0.37	-0.15
MATH	5	656308	333939	0	C-G	2	2723	0.57	0.57	0.16	0.18	0.10	0.00	0.35	0.35	-0.15	-0.17	-0.17
MATH	5	656864	150051	0	C-G	2	2723	0.57	0.07	0.13	0.23	0.57	0.01	0.49	-0.24	-0.28	-0.20	0.49
MATH	5	657092	676653	0	A-F	2	2723	0.47	0.47	0.22	0.15	0.16	0.00	0.38	0.38	-0.10	-0.21	-0.20
MATH	5	657110	127862	0	A-T	2	2723	0.56	0.15	0.56	0.11	0.18	0.00	0.65	-0.25	0.65	-0.23	-0.41
MATH	5	657112	124935	0	A-F	2	2723	0.54	0.54	0.15	0.22	0.09	0.00	0.50	0.50	-0.25	-0.32	-0.08

ContArea	FormGrade	ItemID	PubID	FormNumber	Standard1	Depth	N	PValue	ProportionA	ProportionB	ProportionC	ProportionD	ProportionOMITS	PtBiserial	CorrelationA	CorrelationB	CorrelationC	CorrelationD
MATH	5	682658	779621	0	A-T	2	2723	0.31	0.12	0.33	0.31	0.23	0.00	0.32	-0.18	-0.07	0.32	-0.13
MATH	5	682659	841244	0	A-T	2	2723	0.48	0.12	0.30	0.10	0.48	0.00	0.60	-0.06	-0.45	-0.25	0.60
MATH	5	682688	474166	0	B-O	2	2723	0.26	0.32	0.35	0.07	0.26	0.00	0.38	-0.35	-0.02	0.03	0.38
MATH	5	696706	660222	0	A-F	2	2723	0.63	0.19	0.12	0.63	0.06	0.00	0.34	-0.22	-0.14	0.34	-0.14
MATH	5	696708	488994	0	D-M	2	2723	0.40	0.22	0.20	0.18	0.40	0.00	0.61	-0.33	-0.22	-0.18	0.61
MATH	5	696712	136355	0	B-O	1	2723	0.85	0.04	0.01	0.09	0.85	0.00	0.33	-0.20	-0.13	-0.20	0.33
MATH	5	700473	907095	0	A-T	2	2723	0.70	0.08	0.70	0.10	0.11	0.00	0.50	-0.23	0.50	-0.22	-0.30
MATH	5	700481	795803	0	A-T	2	2723	0.41	0.07	0.41	0.25	0.27	0.00	0.50	-0.13	0.50	-0.16	-0.32
MATH	5	700492	612963	0	A-F	2	2723	0.37	0.32	0.19	0.11	0.37	0.00	0.38	-0.15	-0.12	-0.21	0.38
MATH	5	700518	374508	0	A-F	2	2723	0.27	0.16	0.27	0.31	0.25	0.00	0.19	-0.04	0.19	-0.18	0.03
MATH	5	700519	190287	0	A-F	2	2723	0.36	0.14	0.33	0.36	0.16	0.00	0.24	-0.12	-0.02	0.24	-0.17
MATH	5	700526	771114	0	A-F	2	2723	0.33	0.13	0.37	0.33	0.17	0.00	0.29	-0.18	-0.02	0.29	-0.18
MATH	5	700528	424623	0	B-O	2	2723	0.43	0.43	0.13	0.35	0.08	0.00	0.44	0.44	-0.31	-0.13	-0.19
MATH	5	700530	952646	0	A-T	2	2723	0.70	0.16	0.09	0.04	0.70	0.00	0.41	-0.22	-0.25	-0.15	0.41
MATH	5	701848	186139	0	A-T	2	2723	0.42	0.39	0.42	0.08	0.10	0.00	0.32	-0.08	0.32	-0.19	-0.20
MATH	5	701849	715340	0	A-F	1	2723	0.66	0.66	0.08	0.19	0.07	0.00	0.43	0.43	-0.23	-0.25	-0.18
MATH	5	701876	322626	0	A-F	1	2723	0.66	0.13	0.10	0.11	0.66	0.01	0.48	-0.30	-0.19	-0.22	0.48
MATH	5	701893	398510	0	C-G	2	2723	0.55	0.24	0.12	0.55	0.09	0.00	0.48	-0.32	-0.17	0.48	-0.17
MATH	5	701930	559731	0	B-O	2	2723	0.30	0.30	0.27	0.21	0.22	0.00	0.18	0.18	-0.08	-0.02	-0.08
MATH	5	701936	762300	0	A-T	2	2723	0.32	0.28	0.26	0.32	0.14	0.00	0.23	0.09	-0.15	0.23	-0.23
MATH	5	701937	197847	0	B-O	1	2723	0.79	0.07	0.10	0.79	0.03	0.00	0.47	-0.28	-0.29	0.47	-0.17
MATH	5	703065	146913	0	C-G	1	2723	0.73	0.07	0.13	0.07	0.73	0.00	0.48	-0.26	-0.26	-0.22	0.48
MATH	5	703070	115783	0	C-G	2	2723	0.45	0.20	0.45	0.18	0.17	0.00	0.43	-0.18	0.43	-0.22	-0.15
MATH	5	703074	331718	0	D-M	2	2723	0.35	0.20	0.14	0.35	0.30	0.00	0.51	-0.21	0.02	0.51	-0.35
MATH	5	703075	116288	0	D-M	1	2723	0.28	0.28	0.27	0.16	0.28	0.00	0.52	-0.31	-0.15	-0.07	0.52
MATH	5	703076	879189	0	A-T	1	2723	0.63	0.63	0.11	0.14	0.12	0.00	0.43	0.43	-0.21	-0.26	-0.16
MATH	5	703107	609271	0	B-O	2	2723	0.54	0.54	0.29	0.09	0.07	0.00	0.46	0.46	-0.25	-0.21	-0.19
MATH	5	703139	179745	0	D-M	1	2723	0.63	0.28	0.63	0.06	0.03	0.00	0.51	-0.37	0.51	-0.23	-0.14
MATH	5	711161	640320	0	D-M	2	2723	0.32	0.32	0.32	0.16	0.20	0.00	0.31	0.31	-0.12	-0.19	-0.03
MATH	5	713185	426032	0	A-T	2	2723	0.31	0.29	0.31	0.33	0.06	0.00	0.39	-0.24	0.39	-0.08	-0.12
MATH	5	713334	400103	0	A-T	2	2723	0.69	0.14	0.10	0.07	0.69	0.00	0.52	-0.30	-0.24	-0.24	0.52
MATH	5	713337	402169	0	A-F	2	2723	0.36	0.11	0.36	0.13	0.40	0.00	0.21	-0.26	0.21	-0.19	0.10
MATH	5	713780	731975	0	B-O	2	2723	0.64	0.09	0.15	0.12	0.64	0.00	0.39	-0.21	-0.17	-0.21	0.39
MATH	5	713781	427071	0	B-O	2	2723	0.32	0.25	0.29	0.32	0.14	0.00	0.36	-0.15	-0.29	0.36	0.08
MATH	5	713783	552745	0	C-G	2	2723	0.59	0.07	0.22	0.13	0.59	0.00	0.46	-0.20	-0.20	-0.27	0.46
MATH	5	713789	232907	0	A-F	1	2723	0.33	0.05	0.33	0.18	0.42	0.01	0.42	-0.06	0.42	-0.10	-0.28
MATH	5	713925	814804	0	A-T	1	2723	0.75	0.08	0.04	0.12	0.75	0.00	0.38	-0.17	-0.16	-0.26	0.38
MATH	5	713934	761064	0	B-O	2	2723	0.43	0.43	0.18	0.29	0.10	0.00	0.39	0.39	-0.17	-0.18	-0.15
MATH	5	713935	597280	0	C-G	1	2723	0.74	0.12	0.06	0.74	0.07	0.00	0.37	-0.21	-0.15	0.37	-0.21
MATH	5	714051	705239	0	D-M	2	2723	0.40	0.09	0.40	0.38	0.12	0.00	0.46	-0.15	0.46	-0.22	-0.24
MATH	5	714169	944028	0	C-G	1	2723	0.64	0.16	0.13	0.06	0.64	0.00	0.28	-0.05	-0.21	-0.19	0.28
MATH	5	714214	633859	0	A-F	1	2723	0.47	0.09	0.08	0.47	0.36	0.01	0.54	-0.23	-0.18	0.54	-0.32
MATH	5	714415	196137	0	C-G	1	2723	0.79	0.02	0.14	0.04	0.79	0.00	0.41	-0.18	-0.32	-0.15	0.41
MATH	5	714514	535486	0	A-T	1	2723	0.68	0.08	0.68	0.13	0.11	0.00	0.48	-0.16	0.48	-0.27	-0.28
MATH	5	714520	997546	0	D-M	1	2723	0.52	0.13	0.28	0.52	0.06	0.00	0.52	-0.35	-0.20	0.52	-0.20
MATH	5	714778	702392	0	A-F	1	2723	0.69	0.69	0.13	0.06	0.11	0.00	0.53	0.53	-0.30	-0.20	-0.29
MATH	5	714781	748467	0	A-F	2	2723	0.49	0.15	0.49	0.13	0.22	0.00	0.31	-0.01	0.31	-0.31	-0.10
MATH	5	714784	907093	0	C-G	1	2723	0.70	0.04	0.08	0.70	0.18	0.00	0.48	-0.13	-0.26	0.48	-0.32
MATH	5	714785	485204	0	D-M	2	2723	0.61	0.07	0.11	0.21	0.61	0.00	0.52	-0.29	-0.28	-0.23	0.52
MATH	5	714921	365158	0	A-F	2	2723	0.42	0.13	0.42	0.21	0.23	0.00	0.43	-0.06	0.43	-0.12	-0.34
MATH	5	714925	458717	0	D-M	2	2723	0.28	0.27	0.28	0.38	0.07	0.00	0.19	0.07	0.19	-0.16	-0.13
MATH	5	713340	130353	1	B-O	2	1365	0.38	0.21	0.38	0.19	0.22	0.00	0.36	-0.19	0.36	-0.26	0.02
MATH	5	714037	262002	1	C-G	1	1365	0.33	0.12	0.33	0.27	0.28	0.00	0.28	-0.10	0.28	0.11	-0.33
MATH	5	714044	982436	1	A-T	2	1365	0.27	0.24	0.18	0.30	0.27	0.01	0.34	-0.17	-0.15	-0.04	0.34
MATH	5	794415	188384	1	B-O	2	1365	0.21	0.23	0.21	0.26	0.30	0.00	0.17	-0.07	0.17	-0.08	-0.01

ContArea	FormGrade	ItemID	PubID	FormNumber	Standard1	Depth	N	PValue	ProportionA	ProportionB	ProportionC	ProportionD	ProportionOMITS	PtBiserial	CorrelationA	CorrelationB	CorrelationC	CorrelationD
MATH	5	808592	351331	1	A-F	1	1365	0.59	0.10	0.14	0.16	0.59	0.00	0.50	-0.23	-0.24	-0.26	0.50
MATH	5	808609	451319	1	A-F	1	1365	0.17	0.51	0.14	0.17	0.18	0.00	0.35	-0.31	0.05	0.35	0.01
MATH	5	808616	699158	1	A-T	2	1365	0.31	0.31	0.16	0.17	0.36	0.00	0.40	0.40	-0.23	-0.19	-0.05
MATH	5	808623	884112	1	A-T	1	1365	0.29	0.19	0.23	0.29	0.28	0.00	0.21	-0.01	-0.08	0.21	-0.12
MATH	5	808659	123797	1	D-M	2	1365	0.36	0.36	0.10	0.21	0.32	0.00	0.49	0.49	-0.12	-0.34	-0.13
MATH	5	808662	859777	1	A-T	1	1365	0.40	0.15	0.40	0.38	0.07	0.00	0.48	-0.17	0.48	-0.25	-0.20
MATH	5	808821	794029	1	C-G	2	1365	0.36	0.27	0.22	0.15	0.36	0.00	0.39	-0.07	-0.17	-0.23	0.39
MATH	5	808834	947471	1	D-M	2	1365	0.29	0.11	0.37	0.29	0.23	0.00	0.37	-0.09	-0.17	0.37	-0.14
MATH	5	714409	974642	2	A-T	2	695	0.40	0.11	0.08	0.40	0.41	0.00	0.18	-0.05	-0.14	0.18	-0.07
MATH	5	714922	525596	2	A-F	2	695	0.26	0.40	0.26	0.14	0.20	0.00	0.15	-0.03	0.15	-0.30	0.15
MATH	5	794413	542428	2	A-T	1	695	0.83	0.12	0.03	0.02	0.83	0.00	0.48	-0.40	-0.14	-0.18	0.48
MATH	5	808591	760822	2	A-F	2	695	0.65	0.14	0.65	0.15	0.06	0.00	0.45	-0.18	0.45	-0.26	-0.25
MATH	5	808595	578081	2	A-F	2	695	0.32	0.12	0.31	0.32	0.26	0.00	0.08	-0.05	-0.07	0.08	0.03
MATH	5	808622	403014	2	A-T	1	695	0.52	0.21	0.52	0.17	0.10	0.00	0.47	-0.20	0.47	-0.22	-0.22
MATH	5	808660	198913	2	A-T	1	695	0.55	0.11	0.20	0.55	0.15	0.00	0.43	-0.18	-0.24	0.43	-0.17
MATH	5	808812	708332	2	B-O	2	695	0.20	0.39	0.31	0.20	0.10	0.00	0.03	0.08	0.00	0.03	-0.16
MATH	5	808815	366839	2	B-O	1	695	0.73	0.06	0.08	0.13	0.73	0.00	0.47	-0.27	-0.32	-0.17	0.47
MATH	5	808819	216785	2	C-G	2	695	0.25	0.25	0.24	0.24	0.26	0.01	0.12	0.12	-0.08	0.00	-0.03
MATH	5	808829	523805	2	D-M	2	695	0.37	0.04	0.37	0.29	0.29	0.00	0.30	-0.09	0.30	-0.06	-0.21
MATH	5	808831	249357	2	D-M	2	695	0.49	0.49	0.15	0.12	0.25	0.00	0.31	0.31	-0.18	-0.25	-0.02
MATH	5	713342	180433	3	C-G	2	663	0.61	0.08	0.24	0.61	0.07	0.00	0.41	-0.21	-0.20	0.41	-0.23
MATH	5	714413	602851	3	A-F	1	663	0.63	0.04	0.06	0.63	0.26	0.00	0.25	-0.24	-0.29	0.25	0.00
MATH	5	794418	766871	3	D-M	2	663	0.31	0.26	0.28	0.31	0.15	0.00	0.20	-0.04	-0.04	0.20	-0.16
MATH	5	808593	227600	3	A-T	2	663	0.43	0.43	0.10	0.32	0.15	0.00	0.45	0.45	-0.20	-0.13	-0.28
MATH	5	808594	197515	3	A-F	1	663	0.62	0.11	0.12	0.15	0.62	0.00	0.50	-0.27	-0.16	-0.29	0.50
MATH	5	808608	429060	3	A-F	2	663	0.13	0.06	0.33	0.13	0.47	0.00	0.06	-0.18	-0.10	0.06	0.15
MATH	5	808619	883083	3	A-T	2	663	0.41	0.20	0.41	0.29	0.10	0.00	0.21	-0.06	0.21	-0.05	-0.19
MATH	5	808661	781046	3	A-T	1	663	0.49	0.49	0.23	0.17	0.11	0.00	0.46	0.46	-0.20	-0.30	-0.08
MATH	5	808814	226746	3	B-O	2	663	0.37	0.08	0.37	0.10	0.45	0.00	0.17	-0.12	0.17	-0.09	-0.04
MATH	5	808816	285721	3	B-O	2	663	0.22	0.22	0.43	0.16	0.19	0.00	0.23	0.23	0.01	-0.25	-0.02
MATH	5	808818	110808	3	C-G	1	663	0.65	0.15	0.65	0.10	0.10	0.00	0.44	-0.20	0.44	-0.21	-0.25
MATH	5	808836	451436	3	D-M	2	663	0.46	0.16	0.16	0.22	0.46	0.00	0.38	-0.11	-0.21	-0.16	0.38
MATH	6	664148	888579	0	B-E	1	3425	0.84	0.05	0.84	0.05	0.05	0.00	0.46	-0.22	0.46	-0.26	-0.27
MATH	6	668452	864231	0	B-E	2	3425	0.53	0.34	0.09	0.53	0.03	0.00	0.58	-0.36	-0.30	0.58	-0.15
MATH	6	668459	247545	0	A-R	2	3425	0.71	0.71	0.04	0.21	0.04	0.00	0.51	0.51	-0.19	-0.36	-0.23
MATH	6	669280	768671	0	B-E	2	3425	0.64	0.64	0.15	0.13	0.07	0.00	0.48	0.48	-0.28	-0.25	-0.18
MATH	6	669285	981715	0	D-S	1	3425	0.67	0.67	0.09	0.17	0.07	0.00	0.49	0.49	-0.16	-0.31	-0.26
MATH	6	675723	576212	0	B-E	2	3425	0.70	0.12	0.70	0.09	0.09	0.00	0.49	-0.18	0.49	-0.31	-0.27
MATH	6	675746	740356	0	C-G	1	3425	0.66	0.10	0.11	0.12	0.66	0.00	0.52	-0.30	-0.26	-0.23	0.52
MATH	6	675749	557395	0	C-G	2	3425	0.54	0.54	0.12	0.22	0.12	0.00	0.57	0.57	-0.24	-0.31	-0.22
MATH	6	677280	330239	0	B-E	2	3425	0.43	0.15	0.34	0.43	0.08	0.00	0.46	-0.06	-0.31	0.46	-0.23
MATH	6	677299	366036	0	B-E	2	3425	0.79	0.05	0.06	0.79	0.10	0.00	0.41	-0.23	-0.24	0.41	-0.20
MATH	6	678653	675184	0	C-G	2	3425	0.77	0.17	0.02	0.04	0.77	0.00	0.32	-0.23	-0.10	-0.17	0.32
MATH	6	679229	986701	0	A-N	1	3425	0.64	0.12	0.64	0.09	0.13	0.01	0.53	-0.23	0.53	-0.23	-0.32
MATH	6	679492	983375	0	B-E	2	3425	0.61	0.14	0.61	0.07	0.17	0.00	0.46	-0.22	0.46	-0.18	-0.26
MATH	6	679503	138034	0	A-N	2	3425	0.53	0.10	0.19	0.53	0.18	0.00	0.32	-0.18	-0.18	0.32	-0.09
MATH	6	696694	252245	0	D-S	2	3425	0.43	0.43	0.21	0.15	0.20	0.00	0.48	0.48	-0.19	-0.19	-0.22
MATH	6	696707	722614	0	A-N	2	3425	0.34	0.34	0.33	0.21	0.12	0.00	0.29	0.29	-0.02	-0.20	-0.14
MATH	6	696711	968197	0	C-G	2	3425	0.54	0.15	0.14	0.17	0.54	0.00	0.44	-0.07	-0.26	-0.27	0.44
MATH	6	696717	782686	0	A-N	1	3425	0.66	0.20	0.66	0.08	0.06	0.00	0.40	-0.22	0.40	-0.21	-0.18
MATH	6	700421	869127	0	C-G	2	3425	0.44	0.20	0.21	0.44	0.14	0.00	0.34	-0.02	-0.18	0.34	-0.24
MATH	6	700423	103572	0	A-R	2	3425	0.42	0.23	0.42	0.24	0.10	0.00	0.49	-0.05	0.49	-0.36	-0.22
MATH	6	700427	737964	0	A-N	2	3425	0.43	0.18	0.18	0.20	0.43	0.00	0.59	-0.23	-0.20	-0.31	0.59
MATH	6	700430	622803	0	B-E	2	3425	0.61	0.12	0.61	0.18	0.09	0.00	0.45	-0.24	0.45	-0.23	-0.18
MATH	6	700432	775477	0	A-R	2	3425	0.28	0.25	0.22	0.24	0.28	0.00	0.33	0.06	-0.24	-0.17	0.33

ContArea	FormGrade	ItemID	PubID	FormNumber	Standard1	Depth	N	PValue	ProportionA	ProportionB	ProportionC	ProportionD	ProportionOMITS	PtBiserial	CorrelationA	CorrelationB	CorrelationC	CorrelationD
MATH	6	700434	143985	0	B-E	1	3425	0.67	0.09	0.11	0.67	0.13	0.00	0.36	-0.18	-0.34	0.36	-0.03
MATH	6	700458	789601	0	A-R	2	3425	0.40	0.21	0.22	0.18	0.40	0.00	0.23	-0.01	-0.24	-0.02	0.23
MATH	6	700488	566546	0	C-G	2	3425	0.44	0.06	0.44	0.47	0.04	0.00	0.25	-0.10	0.25	-0.16	-0.11
MATH	6	701811	653338	0	A-R	2	3425	0.31	0.16	0.31	0.21	0.32	0.00	0.35	-0.27	0.35	0.11	-0.23
MATH	6	701842	927798	0	A-N	2	3425	0.47	0.08	0.24	0.47	0.21	0.00	0.49	-0.17	-0.35	0.49	-0.12
MATH	6	701844	238693	0	A-R	2	3425	0.51	0.13	0.21	0.15	0.51	0.00	0.47	-0.12	-0.35	-0.15	0.47
MATH	6	701862	777676	0	A-N	1	3425	0.70	0.06	0.70	0.16	0.09	0.00	0.51	-0.17	0.51	-0.27	-0.33
MATH	6	701865	950833	0	B-E	1	3425	0.51	0.18	0.23	0.51	0.08	0.00	0.46	-0.18	-0.27	0.46	-0.17
MATH	6	703041	754210	0	A-N	1	3425	0.78	0.08	0.11	0.78	0.03	0.00	0.49	-0.29	-0.31	0.49	-0.17
MATH	6	703042	313135	0	C-G	2	3425	0.68	0.68	0.09	0.15	0.07	0.00	0.50	0.50	-0.23	-0.31	-0.21
MATH	6	703052	245961	0	A-N	1	3425	0.56	0.33	0.08	0.56	0.03	0.00	0.41	-0.29	-0.15	0.41	-0.15
MATH	6	703053	523573	0	B-E	1	3425	0.67	0.12	0.08	0.67	0.14	0.00	0.40	-0.21	-0.24	0.40	-0.16
MATH	6	703055	739928	0	D-S	2	3425	0.44	0.25	0.16	0.44	0.15	0.00	0.40	-0.20	-0.16	0.40	-0.14
MATH	6	703086	174855	0	A-N	1	3425	0.62	0.10	0.62	0.20	0.07	0.00	0.33	-0.22	0.33	-0.23	-0.02
MATH	6	703087	614881	0	A-R	2	3425	0.44	0.44	0.06	0.41	0.08	0.00	0.55	0.55	-0.21	-0.32	-0.25
MATH	6	703091	167993	0	D-S	2	3425	0.40	0.16	0.22	0.23	0.40	0.00	0.32	-0.14	-0.23	-0.02	0.32
MATH	6	703113	134735	0	B-E	2	3425	0.59	0.11	0.23	0.59	0.07	0.00	0.45	-0.16	-0.26	0.45	-0.21
MATH	6	714819	541117	0	C-G	2	3425	0.42	0.18	0.19	0.21	0.42	0.00	0.48	-0.27	-0.17	-0.16	0.48
MATH	6	714832	311807	0	C-G	2	3425	0.53	0.20	0.15	0.12	0.53	0.00	0.57	-0.31	-0.25	-0.20	0.57
MATH	6	714835	183396	0	D-S	2	3425	0.68	0.10	0.68	0.13	0.09	0.00	0.47	-0.21	0.47	-0.25	-0.25
MATH	6	714848	502801	0	D-S	1	3425	0.51	0.51	0.14	0.16	0.19	0.00	0.32	0.32	-0.19	-0.31	0.06
MATH	6	714878	445091	0	B-E	2	3425	0.60	0.60	0.14	0.15	0.11	0.00	0.50	0.50	-0.25	-0.28	-0.19
MATH	6	714892	234028	0	B-E	2	3425	0.35	0.25	0.35	0.27	0.13	0.00	0.25	0.11	0.25	-0.21	-0.21
MATH	6	719270	504931	0	A-R	2	3425	0.44	0.10	0.26	0.44	0.20	0.00	0.39	-0.21	-0.21	0.39	-0.09
MATH	6	719272	947242	0	B-E	2	3425	0.69	0.11	0.10	0.69	0.09	0.00	0.51	-0.29	-0.26	0.51	-0.23
MATH	6	719273	248362	0	B-E	1	3425	0.60	0.07	0.10	0.22	0.60	0.00	0.56	-0.26	-0.28	-0.29	0.56
MATH	6	719274	494906	0	D-S	2	3425	0.43	0.09	0.43	0.35	0.13	0.00	0.29	-0.21	0.29	-0.12	-0.07
MATH	6	719275	114002	0	D-S	2	3425	0.45	0.45	0.18	0.21	0.15	0.00	0.29	0.29	-0.04	-0.27	-0.05
MATH	6	719276	551493	0	D-S	2	3425	0.54	0.29	0.11	0.06	0.54	0.00	0.39	-0.15	-0.21	-0.23	0.39
MATH	6	719298	192514	0	B-E	1	3425	0.69	0.05	0.11	0.14	0.69	0.00	0.49	-0.19	-0.20	-0.33	0.49
MATH	6	719299	537794	0	C-G	2	3425	0.34	0.34	0.23	0.34	0.08	0.00	0.41	0.41	-0.12	-0.19	-0.18
MATH	6	719313	348470	0	A-N	1	3425	0.70	0.10	0.11	0.70	0.09	0.00	0.40	-0.27	-0.20	0.40	-0.13
MATH	6	735196	702345	0	B-E	2	3425	0.55	0.55	0.20	0.13	0.12	0.00	0.54	0.54	-0.30	-0.26	-0.18
MATH	6	735202	843925	0	A-N	1	3425	0.39	0.28	0.39	0.18	0.16	0.00	0.27	-0.08	0.27	-0.12	-0.13
MATH	6	735234	735170	0	A-N	1	3425	0.52	0.13	0.17	0.17	0.52	0.01	0.50	-0.22	-0.27	-0.20	0.50
MATH	6	735235	938313	0	A-N	1	3425	0.60	0.11	0.14	0.60	0.14	0.01	0.47	-0.19	-0.31	0.47	-0.17
MATH	6	735468	806248	0	A-N	1	3425	0.38	0.19	0.38	0.22	0.20	0.00	0.36	-0.11	0.36	-0.26	-0.05
MATH	6	701886	628271	1	B-E	2	1594	0.40	0.23	0.17	0.20	0.40	0.00	0.48	-0.23	-0.18	-0.17	0.48
MATH	6	703054	202962	1	C-G	2	1594	0.31	0.27	0.26	0.31	0.17	0.00	0.32	-0.21	-0.06	0.32	-0.08
MATH	6	703102	652445	1	D-S	2	1594	0.35	0.22	0.22	0.21	0.35	0.00	0.29	-0.10	-0.19	-0.04	0.29
MATH	6	712501	122130	1	D-S	2	1594	0.26	0.26	0.24	0.31	0.19	0.00	0.30	0.30	-0.01	-0.18	-0.11
MATH	6	799258	656009	1	A-R	2	1594	0.32	0.38	0.32	0.12	0.17	0.00	0.21	0.13	0.21	-0.18	-0.26
MATH	6	801983	145217	1	C-G	2	1594	0.41	0.11	0.41	0.22	0.26	0.00	0.12	-0.13	0.12	0.02	-0.05
MATH	6	811379	331141	1	A-N	1	1594	0.53	0.34	0.06	0.07	0.53	0.00	0.49	-0.32	-0.18	-0.20	0.49
MATH	6	812911	138507	1	B-E	1	1594	0.36	0.13	0.26	0.25	0.36	0.00	0.51	-0.07	-0.30	-0.20	0.51
MATH	6	813117	974769	1	B-E	2	1594	0.29	0.13	0.29	0.29	0.28	0.00	0.33	-0.14	-0.28	0.33	0.06
MATH	6	813118	298011	1	A-R	2	1594	0.27	0.18	0.18	0.37	0.27	0.00	0.24	-0.02	-0.21	-0.05	0.24
MATH	6	813733	174696	1	B-E	2	1594	0.36	0.16	0.36	0.11	0.37	0.01	0.07	-0.18	0.07	-0.15	0.16
MATH	6	817180	940909	1	A-N	1	1594	0.73	0.73	0.21	0.03	0.03	0.00	0.42	0.42	-0.31	-0.18	-0.17
MATH	6	700419	376386	2	A-N	2	910	0.27	0.20	0.27	0.26	0.27	0.00	0.35	-0.25	0.07	-0.19	0.35
MATH	6	714833	184282	2	C-G	2	910	0.49	0.14	0.17	0.20	0.49	0.01	0.31	-0.15	-0.07	-0.18	0.31
MATH	6	714888	527485	2	B-E	2	910	0.55	0.55	0.17	0.15	0.13	0.00	0.40	0.40	-0.27	-0.21	-0.06
MATH	6	714908	744844	2	B-E	2	910	0.32	0.32	0.46	0.13	0.09	0.00	0.20	0.20	0.12	-0.26	-0.22
MATH	6	798642	102728	2	A-N	2	910	0.64	0.13	0.14	0.64	0.08	0.01	0.43	-0.11	-0.31	0.43	-0.20
MATH	6	799261	314406	2	C-G	2	910	0.35	0.35	0.35	0.18	0.11	0.00	0.16	0.16	0.08	-0.10	-0.25

ContArea	FormGrade	ItemID	PubID	FormNumber	Standard1	Depth	N	PValue	ProportionA	ProportionB	ProportionC	ProportionD	ProportionOMITS	PtBiserial	CorrelationA	CorrelationB	CorrelationC	CorrelationD
MATH	6	799264	165426	2	D-S	2	910	0.72	0.09	0.05	0.72	0.13	0.00	0.42	-0.17	-0.24	0.42	-0.25
MATH	6	801332	547276	2	A-R	2	910	0.51	0.14	0.51	0.18	0.18	0.00	0.39	-0.16	0.39	-0.31	-0.04
MATH	6	801334	654448	2	B-E	1	910	0.91	0.03	0.91	0.04	0.02	0.00	0.33	-0.15	0.33	-0.22	-0.15
MATH	6	802000	271517	2	D-S	2	910	0.70	0.10	0.09	0.70	0.11	0.00	0.45	-0.20	-0.25	0.45	-0.23
MATH	6	811383	374059	2	B-E	1	910	0.27	0.54	0.07	0.27	0.13	0.00	0.12	0.23	-0.29	0.12	-0.27
MATH	6	812933	350685	2	A-R	1	910	0.61	0.11	0.10	0.17	0.61	0.00	0.39	-0.20	-0.24	-0.14	0.39
MATH	6	701834	597940	3	B-E	2	921	0.58	0.58	0.30	0.09	0.03	0.00	0.51	0.51	-0.33	-0.23	-0.19
MATH	6	712516	487159	3	B-E	2	921	0.54	0.18	0.17	0.54	0.11	0.00	0.36	-0.14	-0.24	0.36	-0.12
MATH	6	714842	967423	3	D-S	2	921	0.63	0.15	0.63	0.12	0.10	0.00	0.49	-0.36	0.49	-0.18	-0.18
MATH	6	714845	523774	3	D-S	2	921	0.74	0.05	0.12	0.07	0.74	0.00	0.46	-0.23	-0.24	-0.25	0.46
MATH	6	801978	973520	3	A-N	1	921	0.80	0.06	0.07	0.07	0.80	0.00	0.51	-0.24	-0.29	-0.29	0.51
MATH	6	801979	405040	3	A-R	1	921	0.40	0.13	0.40	0.43	0.04	0.00	0.36	-0.08	0.36	-0.21	-0.23
MATH	6	812912	637744	3	C-G	2	921	0.29	0.37	0.27	0.29	0.06	0.00	0.19	0.08	-0.20	0.19	-0.15
MATH	6	813125	121440	3	C-G	2	921	0.31	0.30	0.31	0.23	0.16	0.00	0.22	0.04	0.22	-0.18	-0.11
MATH	6	813731	283717	3	B-E	2	921	0.62	0.17	0.11	0.10	0.62	0.00	0.47	-0.17	-0.22	-0.31	0.47
MATH	6	813732	285687	3	B-E	2	921	0.34	0.34	0.28	0.18	0.20	0.00	0.26	0.26	-0.01	-0.16	-0.15
MATH	6	813737	755860	3	D-S	2	921	0.18	0.61	0.11	0.09	0.18	0.00	0.36	0.01	-0.35	-0.12	0.36
MATH	6	817179	622180	3	A-N	1	921	0.57	0.57	0.24	0.13	0.06	0.00	0.57	0.57	-0.30	-0.32	-0.21
MATH	7	665983	618692	0	C-G	2	4468	0.48	0.48	0.13	0.30	0.08	0.00	0.27	0.27	-0.18	-0.09	-0.12
MATH	7	666017	290643	0	D-S	2	4468	0.68	0.07	0.68	0.11	0.15	0.00	0.47	-0.13	0.47	-0.23	-0.32
MATH	7	666571	684415	0	A-N	1	4468	0.46	0.17	0.22	0.46	0.14	0.01	0.32	0.00	-0.20	0.32	-0.23
MATH	7	666576	426853	0	A-N	2	4468	0.70	0.07	0.70	0.11	0.12	0.00	0.55	-0.24	0.55	-0.31	-0.28
MATH	7	667566	674190	0	A-R	2	4468	0.56	0.31	0.08	0.05	0.56	0.00	0.50	-0.28	-0.28	-0.19	0.50
MATH	7	667574	447301	0	D-S	2	4468	0.44	0.12	0.18	0.25	0.44	0.00	0.39	-0.18	-0.27	-0.07	0.39
MATH	7	669583	459033	0	A-R	2	4468	0.77	0.10	0.77	0.07	0.06	0.00	0.41	-0.17	0.41	-0.22	-0.26
MATH	7	669635	286659	0	A-R	2	4468	0.73	0.11	0.10	0.73	0.06	0.00	0.48	-0.24	-0.28	0.48	-0.23
MATH	7	675163	308082	0	A-R	2	4468	0.69	0.10	0.69	0.13	0.09	0.00	0.46	-0.18	0.46	-0.31	-0.21
MATH	7	675178	497356	0	D-S	2	4468	0.46	0.09	0.24	0.46	0.21	0.00	0.31	-0.21	-0.18	0.31	-0.03
MATH	7	676762	900007	0	B-E	2	4468	0.58	0.07	0.09	0.25	0.58	0.00	0.44	-0.23	-0.24	-0.21	0.44
MATH	7	678559	172492	0	C-G	1	4468	0.55	0.55	0.11	0.12	0.22	0.00	0.47	0.47	-0.09	-0.18	-0.35
MATH	7	696696	715910	0	A-N	2	4468	0.51	0.14	0.22	0.51	0.14	0.00	0.41	-0.20	-0.27	0.41	-0.08
MATH	7	696721	345079	0	A-R	2	4468	0.67	0.09	0.67	0.14	0.10	0.00	0.53	-0.25	0.53	-0.31	-0.23
MATH	7	700428	404144	0	A-R	2	4468	0.67	0.67	0.18	0.10	0.05	0.00	0.54	0.54	-0.31	-0.29	-0.22
MATH	7	700446	673121	0	A-R	2	4468	0.59	0.09	0.26	0.06	0.59	0.00	0.36	-0.15	-0.20	-0.18	0.36
MATH	7	700449	655499	0	C-G	1	4468	0.63	0.63	0.09	0.12	0.16	0.00	0.52	0.52	-0.21	-0.28	-0.28
MATH	7	700468	233922	0	A-R	2	4468	0.56	0.11	0.21	0.56	0.12	0.00	0.51	-0.22	-0.25	0.51	-0.24
MATH	7	700469	211050	0	A-N	2	4468	0.42	0.15	0.23	0.19	0.42	0.00	0.58	-0.24	-0.30	-0.20	0.58
MATH	7	700470	423099	0	B-E	2	4468	0.62	0.04	0.62	0.16	0.18	0.00	0.49	-0.14	0.49	-0.22	-0.34
MATH	7	700471	467394	0	B-E	2	4468	0.39	0.29	0.15	0.39	0.17	0.00	0.52	-0.34	-0.18	0.52	-0.09
MATH	7	700505	136864	0	D-S	2	4468	0.46	0.42	0.46	0.05	0.07	0.00	0.52	-0.37	0.52	-0.19	-0.12
MATH	7	700507	689606	0	A-R	2	4468	0.60	0.10	0.06	0.60	0.24	0.00	0.50	-0.32	-0.24	0.50	-0.22
MATH	7	700514	266696	0	C-G	2	4468	0.58	0.18	0.58	0.17	0.07	0.00	0.50	-0.29	0.50	-0.25	-0.17
MATH	7	700529	949885	0	B-E	2	4468	0.51	0.51	0.26	0.14	0.08	0.00	0.46	0.46	-0.25	-0.20	-0.17
MATH	7	701812	335107	0	A-N	2	4468	0.39	0.13	0.18	0.30	0.39	0.00	0.30	-0.14	-0.15	-0.09	0.30
MATH	7	701814	625136	0	C-G	1	4468	0.48	0.17	0.28	0.48	0.07	0.00	0.51	-0.33	-0.24	0.51	-0.08
MATH	7	701843	532124	0	B-E	2	4468	0.59	0.11	0.59	0.24	0.06	0.00	0.43	-0.10	0.43	-0.30	-0.21
MATH	7	701852	616454	0	C-G	1	4468	0.61	0.61	0.14	0.15	0.09	0.00	0.44	0.44	-0.31	-0.25	-0.07
MATH	7	701866	688709	0	B-E	2	4468	0.35	0.15	0.29	0.21	0.35	0.00	0.49	-0.21	-0.14	-0.23	0.49
MATH	7	701872	564414	0	D-S	2	4468	0.51	0.51	0.10	0.32	0.07	0.00	0.57	0.57	-0.16	-0.38	-0.23
MATH	7	701888	454071	0	A-N	1	4468	0.65	0.08	0.15	0.11	0.65	0.00	0.45	-0.23	-0.22	-0.22	0.45
MATH	7	701919	519073	0	B-E	2	4468	0.66	0.66	0.20	0.05	0.09	0.00	0.57	0.57	-0.37	-0.23	-0.25
MATH	7	701922	298437	0	D-S	2	4468	0.48	0.16	0.16	0.20	0.48	0.00	0.54	-0.27	-0.17	-0.26	0.54
MATH	7	703027	207462	0	A-R	2	4468	0.72	0.06	0.14	0.72	0.08	0.00	0.53	-0.25	-0.32	0.53	-0.25
MATH	7	703044	226896	0	A-N	1	4468	0.56	0.56	0.20	0.12	0.12	0.00	0.46	0.46	-0.23	-0.24	-0.17
MATH	7	703067	170313	0	B-E	2	4468	0.40	0.40	0.25	0.25	0.10	0.00	0.51	0.51	-0.13	-0.27	-0.25

ContArea	FormGrade	ItemID	PubID	FormNumber	Standard1	Depth	N	PValue	ProportionA	ProportionB	ProportionC	ProportionD	ProportionOMITS	PtBiserial	CorrelationA	CorrelationB	CorrelationC	CorrelationD
MATH	7	703079	851022	0	C-G	2	4468	0.36	0.28	0.36	0.22	0.14	0.00	0.26	-0.10	0.26	-0.14	-0.07
MATH	7	703104	423989	0	D-S	2	4468	0.50	0.11	0.50	0.29	0.10	0.00	0.39	-0.19	0.39	-0.17	-0.20
MATH	7	703110	669452	0	A-R	2	4468	0.68	0.10	0.09	0.68	0.14	0.00	0.40	-0.25	-0.26	0.40	-0.10
MATH	7	703121	761265	0	A-N	2	4468	0.60	0.60	0.18	0.04	0.18	0.00	0.53	0.53	-0.22	-0.19	-0.36
MATH	7	703124	917009	0	D-S	2	4468	0.74	0.74	0.11	0.09	0.05	0.00	0.49	0.49	-0.28	-0.27	-0.22
MATH	7	712502	648724	0	A-N	1	4468	0.31	0.27	0.13	0.29	0.31	0.00	0.58	-0.02	-0.21	-0.41	0.58
MATH	7	714817	744089	0	C-G	2	4468	0.50	0.50	0.18	0.24	0.08	0.00	0.56	0.56	-0.20	-0.35	-0.21
MATH	7	714871	394632	0	B-E	2	4468	0.57	0.11	0.17	0.57	0.15	0.00	0.45	-0.21	-0.25	0.45	-0.17
MATH	7	714884	712867	0	D-S	2	4468	0.72	0.06	0.72	0.12	0.09	0.00	0.45	-0.19	0.45	-0.26	-0.25
MATH	7	714885	619613	0	D-S	2	4468	0.58	0.05	0.58	0.27	0.10	0.00	0.32	-0.17	0.32	-0.22	-0.06
MATH	7	719280	989256	0	D-S	2	4468	0.50	0.14	0.18	0.50	0.18	0.00	0.34	-0.08	-0.22	0.34	-0.15
MATH	7	719291	550941	0	B-E	2	4468	0.47	0.17	0.47	0.26	0.09	0.01	0.23	-0.06	0.23	-0.15	-0.09
MATH	7	719306	604974	0	B-E	2	4468	0.52	0.12	0.21	0.52	0.16	0.00	0.41	-0.17	-0.30	0.41	-0.08
MATH	7	719318	424488	0	B-E	1	4468	0.39	0.12	0.09	0.39	0.39	0.00	0.42	-0.23	-0.25	-0.12	0.42
MATH	7	719323	325876	0	B-E	2	4468	0.46	0.13	0.26	0.46	0.15	0.00	0.27	-0.13	-0.13	0.27	-0.08
MATH	7	719355	988859	0	A-R	2	4468	0.35	0.28	0.35	0.28	0.09	0.00	0.35	-0.11	0.35	-0.16	-0.17
MATH	7	735243	937430	0	A-N	1	4468	0.53	0.53	0.20	0.11	0.15	0.00	0.41	0.41	-0.18	-0.25	-0.14
MATH	7	735248	202804	0	A-R	2	4468	0.38	0.35	0.20	0.38	0.07	0.00	0.41	-0.17	-0.18	0.41	-0.18
MATH	7	735251	411669	0	A-R	2	4468	0.65	0.10	0.65	0.14	0.11	0.00	0.50	-0.23	0.50	-0.28	-0.22
MATH	7	735252	643346	0	A-N	2	4468	0.39	0.22	0.14	0.26	0.39	0.00	0.40	-0.10	-0.21	-0.19	0.40
MATH	7	735253	924293	0	A-R	2	4468	0.46	0.14	0.19	0.20	0.46	0.00	0.46	-0.14	-0.22	-0.22	0.46
MATH	7	735259	863912	0	B-E	2	4468	0.34	0.15	0.17	0.33	0.34	0.00	0.34	-0.09	-0.23	-0.08	0.34
MATH	7	735264	103452	0	C-G	2	4468	0.50	0.18	0.50	0.22	0.09	0.00	0.35	-0.27	0.35	-0.05	-0.15
MATH	7	696697	542925	1	B-E	1	1918	0.33	0.12	0.33	0.23	0.33	0.00	0.20	-0.08	0.05	-0.21	0.20
MATH	7	714851	807869	1	C-G	2	1918	0.40	0.41	0.40	0.13	0.06	0.00	0.37	-0.25	0.37	-0.12	-0.05
MATH	7	799267	729909	1	A-R	2	1918	0.34	0.31	0.20	0.34	0.15	0.00	0.20	-0.05	-0.19	0.20	0.02
MATH	7	805371	561789	1	D-S	2	1918	0.39	0.16	0.31	0.39	0.13	0.00	0.50	-0.27	-0.17	0.50	-0.18
MATH	7	812678	144539	1	B-E	2	1918	0.64	0.10	0.64	0.12	0.13	0.00	0.49	-0.24	0.49	-0.27	-0.22
MATH	7	812682	741445	1	C-G	1	1918	0.35	0.18	0.26	0.35	0.21	0.00	0.24	-0.01	-0.04	0.24	-0.22
MATH	7	812791	490959	1	C-G	1	1918	0.25	0.19	0.33	0.24	0.25	0.00	0.36	-0.06	-0.06	-0.24	0.36
MATH	7	813366	410733	1	A-R	2	1918	0.25	0.20	0.36	0.25	0.18	0.00	0.09	-0.12	-0.15	0.09	0.22
MATH	7	815654	973759	1	A-R	2	1918	0.30	0.33	0.20	0.17	0.30	0.00	0.13	0.03	-0.04	-0.15	0.13
MATH	7	815661	562518	1	D-S	1	1918	0.24	0.35	0.24	0.20	0.19	0.00	0.05	0.05	0.05	-0.07	-0.02
MATH	7	815673	848540	1	A-N	1	1918	0.47	0.16	0.47	0.13	0.24	0.01	0.43	-0.21	0.43	-0.21	-0.15
MATH	7	815676	636975	1	B-E	2	1918	0.52	0.52	0.25	0.15	0.08	0.00	0.40	0.40	-0.10	-0.28	-0.20
MATH	7	714828	796042	2	C-G	1	1273	0.45	0.16	0.18	0.45	0.22	0.00	0.36	-0.16	-0.20	0.36	-0.11
MATH	7	714875	324645	2	C-G	2	1273	0.29	0.20	0.32	0.18	0.29	0.00	0.38	-0.07	-0.16	-0.17	0.38
MATH	7	735215	872709	2	A-R	2	1273	0.37	0.37	0.24	0.26	0.12	0.00	0.37	0.37	-0.16	-0.17	-0.11
MATH	7	799268	453937	2	B-E	2	1273	0.17	0.24	0.26	0.34	0.17	0.00	0.07	0.05	-0.04	-0.05	0.07
MATH	7	801333	432638	2	A-R	2	1273	0.59	0.59	0.21	0.11	0.09	0.00	0.59	0.59	-0.35	-0.25	-0.26
MATH	7	802006	119596	2	A-R	2	1273	0.23	0.57	0.23	0.16	0.04	0.00	-0.17	0.17	-0.17	0.00	-0.06
MATH	7	812681	166523	2	C-G	2	1273	0.42	0.05	0.42	0.42	0.12	0.00	0.23	-0.14	-0.07	0.23	-0.15
MATH	7	812683	474830	2	D-S	1	1273	0.33	0.09	0.33	0.29	0.29	0.00	0.21	-0.16	0.21	0.08	-0.19
MATH	7	812787	281979	2	A-N	1	1273	0.52	0.13	0.16	0.20	0.52	0.00	0.54	-0.07	-0.36	-0.30	0.54
MATH	7	813368	131556	2	A-R	2	1273	0.31	0.28	0.31	0.18	0.22	0.00	0.20	0.11	0.20	-0.31	-0.04
MATH	7	815662	739186	2	D-S	2	1273	0.50	0.13	0.19	0.50	0.18	0.00	0.57	-0.30	-0.20	0.57	-0.27
MATH	7	817820	557542	2	B-E	2	1273	0.38	0.21	0.25	0.16	0.38	0.00	0.21	0.04	0.00	-0.31	0.21
MATH	7	714883	214217	3	C-G	2	1277	0.47	0.25	0.47	0.19	0.09	0.00	0.27	-0.23	0.27	-0.16	0.10
MATH	7	719322	309583	3	A-R	2	1277	0.43	0.43	0.25	0.26	0.06	0.00	0.42	0.42	-0.12	-0.26	-0.17
MATH	7	801336	231215	3	A-R	2	1277	0.61	0.24	0.12	0.61	0.03	0.00	0.45	-0.35	-0.14	0.45	-0.15
MATH	7	801996	515923	3	B-E	2	1277	0.65	0.09	0.16	0.65	0.09	0.00	0.39	-0.11	-0.29	0.39	-0.17
MATH	7	812675	327281	3	A-R	2	1277	0.22	0.55	0.09	0.14	0.22	0.00	0.20	0.17	-0.29	-0.24	0.20
MATH	7	812679	494803	3	B-E	2	1277	0.31	0.08	0.13	0.48	0.31	0.00	0.21	-0.16	-0.31	0.11	0.21
MATH	7	812793	676620	3	D-S	2	1277	0.54	0.08	0.28	0.54	0.09	0.00	0.51	-0.23	-0.37	0.51	-0.09
MATH	7	813367	379045	3	B-E	1	1277	0.83	0.03	0.09	0.05	0.83	0.00	0.39	-0.20	-0.21	-0.24	0.39

ContArea	FormGrade	ItemID	PubID	FormNumber	Standard1	Depth	N	PValue	ProportionA	ProportionB	ProportionC	ProportionD	ProportionOMITS	PtBiserial	CorrelationA	CorrelationB	CorrelationC	CorrelationD
MATH	7	813376	918610	3	D-S	2	1277	0.45	0.12	0.45	0.31	0.12	0.00	0.35	-0.20	0.35	-0.15	-0.12
MATH	7	815653	472832	3	A-N	2	1277	0.52	0.52	0.14	0.23	0.10	0.00	0.54	0.54	-0.29	-0.28	-0.18
MATH	7	815660	114939	3	C-G	2	1277	0.36	0.22	0.36	0.19	0.22	0.00	0.11	0.05	0.11	-0.22	0.04
MATH	7	816205	125424	3	A-R	2	1277	0.54	0.24	0.54	0.11	0.11	0.00	0.41	-0.19	0.41	-0.17	-0.23
MATH	8	665046	332534	0	B-E	1	4798	0.66	0.10	0.11	0.13	0.66	0.00	0.44	-0.24	-0.22	-0.20	0.44
MATH	8	665687	378334	0	B-E	2	4798	0.57	0.27	0.57	0.10	0.06	0.00	0.42	-0.20	0.42	-0.24	-0.19
MATH	8	665689	870138	0	B-F	1	4798	0.69	0.10	0.69	0.11	0.10	0.00	0.44	-0.12	0.44	-0.29	-0.26
MATH	8	665961	469087	0	B-F	2	4798	0.75	0.75	0.12	0.06	0.06	0.00	0.49	0.49	-0.25	-0.28	-0.25
MATH	8	665964	275176	0	D-S	2	4798	0.50	0.06	0.12	0.50	0.32	0.00	0.33	-0.18	-0.33	0.33	-0.03
MATH	8	665997	196828	0	C-G	1	4798	0.72	0.17	0.72	0.08	0.03	0.00	0.49	-0.36	0.49	-0.20	-0.17
MATH	8	666602	104180	0	B-E	2	4798	0.65	0.11	0.16	0.65	0.09	0.00	0.43	-0.21	-0.25	0.43	-0.16
MATH	8	669599	476887	0	B-E	2	4798	0.28	0.12	0.26	0.34	0.28	0.00	0.38	-0.07	-0.07	-0.24	0.38
MATH	8	669601	826789	0	B-E	2	4798	0.67	0.67	0.07	0.22	0.04	0.00	0.49	0.49	-0.18	-0.36	-0.19
MATH	8	670272	862545	0	C-G	2	4798	0.60	0.12	0.60	0.10	0.18	0.00	0.46	-0.27	0.46	-0.25	-0.16
MATH	8	671767	554080	0	B-E	1	4798	0.56	0.11	0.15	0.56	0.17	0.00	0.41	-0.27	-0.15	0.41	-0.16
MATH	8	673055	176970	0	B-F	2	4798	0.37	0.37	0.12	0.15	0.35	0.00	0.46	0.46	-0.11	-0.18	-0.25
MATH	8	673061	794505	0	B-E	2	4798	0.68	0.05	0.68	0.22	0.05	0.00	0.38	-0.10	0.38	-0.28	-0.16
MATH	8	675077	191632	0	C-G	1	4798	0.57	0.57	0.25	0.12	0.06	0.00	0.56	0.56	-0.42	-0.24	-0.07
MATH	8	675705	325012	0	B-F	2	4798	0.53	0.12	0.27	0.08	0.53	0.00	0.45	-0.16	-0.21	-0.28	0.45
MATH	8	677209	824971	0	B-F	2	4798	0.44	0.17	0.44	0.06	0.33	0.00	0.44	-0.13	0.44	-0.20	-0.26
MATH	8	677704	119748	0	C-G	2	4798	0.50	0.09	0.50	0.28	0.12	0.00	0.49	-0.21	0.49	-0.28	-0.18
MATH	8	677719	583576	0	B-F	2	4798	0.50	0.50	0.13	0.24	0.13	0.00	0.55	0.55	-0.28	-0.25	-0.23
MATH	8	678085	559783	0	C-G	2	4798	0.41	0.09	0.33	0.41	0.16	0.00	0.55	-0.19	-0.30	0.55	-0.19
MATH	8	678088	302067	0	B-F	2	4798	0.50	0.15	0.20	0.15	0.50	0.00	0.38	-0.10	-0.18	-0.23	0.38
MATH	8	696700	507071	0	C-G	2	4798	0.49	0.49	0.22	0.20	0.09	0.00	0.47	0.47	-0.21	-0.23	-0.20
MATH	8	696720	110896	0	B-F	2	4798	0.68	0.68	0.11	0.08	0.12	0.00	0.49	0.49	-0.21	-0.30	-0.24
MATH	8	700410	742508	0	A-N	2	4798	0.54	0.14	0.54	0.19	0.13	0.00	0.41	-0.20	0.41	-0.21	-0.14
MATH	8	700411	867881	0	A-N	1	4798	0.61	0.14	0.07	0.61	0.18	0.00	0.52	-0.41	-0.25	0.52	-0.13
MATH	8	700435	630175	0	B-F	2	4798	0.36	0.13	0.19	0.32	0.36	0.01	0.33	-0.13	-0.16	-0.11	0.33
MATH	8	700439	973872	0	B-F	1	4798	0.41	0.41	0.25	0.20	0.14	0.00	0.46	0.46	-0.22	-0.21	-0.14
MATH	8	700455	523587	0	B-E	1	4798	0.34	0.34	0.36	0.23	0.07	0.00	0.38	0.38	-0.21	-0.13	-0.08
MATH	8	700456	814556	0	B-E	2	4798	0.64	0.08	0.17	0.64	0.11	0.00	0.47	-0.20	-0.24	0.47	-0.26
MATH	8	700459	895440	0	B-E	2	4798	0.68	0.04	0.68	0.16	0.13	0.00	0.44	-0.19	0.44	-0.28	-0.20
MATH	8	700460	309532	0	C-G	2	4798	0.41	0.15	0.29	0.41	0.14	0.00	0.39	-0.12	-0.26	0.39	-0.08
MATH	8	700466	485745	0	C-G	2	4798	0.47	0.08	0.24	0.47	0.21	0.00	0.36	-0.17	-0.09	0.36	-0.23
MATH	8	700508	868310	0	B-E	2	4798	0.39	0.20	0.27	0.39	0.13	0.00	0.20	-0.03	-0.05	0.20	-0.18
MATH	8	700509	738817	0	C-G	2	4798	0.33	0.33	0.20	0.35	0.11	0.00	0.39	0.39	-0.22	-0.14	-0.07
MATH	8	701809	165866	0	A-N	2	4798	0.46	0.22	0.46	0.21	0.10	0.00	0.45	-0.19	0.45	-0.28	-0.09
MATH	8	701818	668548	0	D-S	2	4798	0.38	0.38	0.18	0.28	0.16	0.00	0.40	0.40	-0.21	-0.15	-0.12
MATH	8	701819	527592	0	B-F	2	4798	0.47	0.13	0.16	0.23	0.47	0.00	0.46	-0.24	-0.18	-0.19	0.46
MATH	8	701828	631157	0	B-E	2	4798	0.44	0.13	0.30	0.44	0.13	0.00	0.32	-0.22	-0.21	0.32	0.03
MATH	8	701841	318361	0	A-N	2	4798	0.59	0.18	0.14	0.09	0.59	0.00	0.54	-0.36	-0.21	-0.18	0.54
MATH	8	701858	536346	0	D-S	2	4798	0.52	0.52	0.10	0.31	0.06	0.00	0.48	0.48	-0.26	-0.23	-0.21
MATH	8	701873	506229	0	A-N	1	4798	0.70	0.11	0.70	0.11	0.08	0.00	0.43	-0.24	0.43	-0.23	-0.20
MATH	8	701910	385174	0	D-S	2	4798	0.65	0.10	0.17	0.65	0.08	0.00	0.45	-0.21	-0.24	0.45	-0.22
MATH	8	701931	498265	0	D-S	2	4798	0.55	0.55	0.17	0.09	0.19	0.00	0.49	0.49	-0.31	-0.12	-0.24
MATH	8	701939	961254	0	B-F	1	4798	0.58	0.21	0.58	0.10	0.10	0.00	0.32	-0.11	0.32	-0.22	-0.14
MATH	8	702349	783592	0	A-N	2	4798	0.70	0.08	0.11	0.10	0.70	0.00	0.45	-0.31	-0.13	-0.25	0.45
MATH	8	703010	759833	0	C-G	2	4798	0.47	0.16	0.12	0.25	0.47	0.00	0.49	-0.27	-0.29	-0.12	0.49
MATH	8	703022	549440	0	B-E	2	4798	0.48	0.14	0.18	0.20	0.48	0.00	0.41	-0.18	-0.16	-0.21	0.41
MATH	8	703025	491956	0	B-E	1	4798	0.83	0.06	0.05	0.83	0.06	0.00	0.40	-0.23	-0.22	0.40	-0.18
MATH	8	703105	286465	0	B-E	2	4798	0.59	0.15	0.13	0.12	0.59	0.00	0.51	-0.14	-0.29	-0.30	0.51
MATH	8	703132	474308	0	B-E	2	4798	0.37	0.19	0.37	0.30	0.14	0.00	0.21	-0.05	0.21	-0.09	-0.11
MATH	8	712509	538102	0	B-E	1	4798	0.60	0.60	0.12	0.18	0.10	0.01	0.38	0.38	-0.14	-0.23	-0.17
MATH	8	714856	267646	0	D-S	2	4798	0.45	0.17	0.24	0.13	0.45	0.00	0.41	-0.15	-0.22	-0.15	0.41

ContArea	FormGrade	ItemID	PubID	FormNumber	Standard1	Depth	N	PValue	ProportionA	ProportionB	ProportionC	ProportionD	ProportionOMITS	PtBiserial	CorrelationA	CorrelationB	CorrelationC	CorrelationD
MATH	8	714862	208347	0	C-G	2	4798	0.34	0.43	0.34	0.12	0.11	0.00	0.43	-0.23	0.43	-0.15	-0.14
MATH	8	714863	602812	0	C-G	2	4798	0.52	0.20	0.52	0.22	0.06	0.00	0.34	-0.13	0.34	-0.20	-0.14
MATH	8	714899	510740	0	B-F	2	4798	0.48	0.15	0.11	0.48	0.26	0.00	0.39	-0.23	-0.23	0.39	-0.09
MATH	8	719326	334932	0	A-N	1	4798	0.51	0.51	0.33	0.10	0.06	0.00	0.41	0.41	-0.16	-0.27	-0.20
MATH	8	719332	518947	0	A-N	1	4798	0.50	0.13	0.50	0.24	0.13	0.00	0.32	-0.12	0.32	-0.22	-0.08
MATH	8	719347	655659	0	C-G	1	4798	0.33	0.19	0.37	0.33	0.10	0.00	0.34	-0.23	-0.09	0.34	-0.08
MATH	8	719350	380013	0	B-F	2	4798	0.35	0.35	0.32	0.23	0.10	0.00	0.26	0.26	-0.04	-0.16	-0.13
MATH	8	735208	118188	0	B-F	2	4798	0.47	0.07	0.31	0.14	0.47	0.00	0.22	-0.14	-0.12	-0.04	0.22
MATH	8	735260	496473	0	B-E	2	4798	0.36	0.19	0.33	0.12	0.36	0.00	0.37	-0.22	-0.08	-0.17	0.37
MATH	8	701860	425333	1	D-S	2	1982	0.32	0.15	0.25	0.28	0.32	0.00	0.37	-0.16	-0.14	-0.11	0.37
MATH	8	712513	802059	1	D-S	2	1982	0.40	0.15	0.32	0.40	0.13	0.00	0.40	-0.22	-0.26	0.40	0.02
MATH	8	714906	531204	1	B-F	1	1982	0.30	0.29	0.30	0.25	0.17	0.00	0.41	-0.23	0.41	-0.05	-0.17
MATH	8	719279	625427	1	C-G	2	1982	0.29	0.29	0.21	0.35	0.15	0.00	0.30	0.30	-0.18	-0.03	-0.15
MATH	8	798646	352960	1	A-N	2	1982	0.39	0.20	0.17	0.39	0.24	0.00	0.29	-0.12	-0.19	0.29	-0.06
MATH	8	804837	531432	1	A-N	2	1982	0.39	0.11	0.39	0.30	0.20	0.00	0.17	-0.08	0.17	-0.02	-0.12
MATH	8	804840	312005	1	B-E	2	1982	0.15	0.15	0.21	0.26	0.38	0.00	0.13	0.13	0.02	-0.16	0.04
MATH	8	812798	651871	1	B-E	2	1982	0.54	0.06	0.16	0.24	0.54	0.00	0.36	-0.18	-0.19	-0.16	0.36
MATH	8	812802	777503	1	B-F	2	1982	0.29	0.09	0.29	0.43	0.19	0.00	0.12	-0.07	0.12	0.03	-0.14
MATH	8	812815	532435	1	D-S	2	1982	0.36	0.38	0.19	0.36	0.07	0.00	0.37	-0.18	-0.19	0.37	-0.06
MATH	8	813611	270685	1	B-F	2	1982	0.34	0.21	0.21	0.23	0.34	0.00	0.36	-0.03	-0.25	-0.13	0.36
MATH	8	815814	606850	1	B-E	2	1982	0.69	0.06	0.69	0.18	0.07	0.00	0.52	-0.23	0.52	-0.35	-0.21
MATH	8	670270	996033	2	B-E	2	1415	0.37	0.15	0.37	0.22	0.25	0.00	0.28	-0.22	0.28	-0.25	0.11
MATH	8	678604	236638	2	C-G	2	1415	0.32	0.14	0.19	0.32	0.35	0.00	0.45	-0.22	-0.03	0.45	-0.25
MATH	8	700426	529305	2	D-S	2	1415	0.34	0.34	0.25	0.25	0.16	0.00	0.38	0.38	-0.02	-0.23	-0.20
MATH	8	714905	852457	2	B-F	2	1415	0.51	0.51	0.19	0.13	0.16	0.00	0.40	0.40	-0.24	-0.20	-0.10
MATH	8	799407	619206	2	B-E	2	1415	0.38	0.19	0.38	0.17	0.26	0.00	0.25	-0.02	0.25	-0.11	-0.16
MATH	8	812671	735686	2	C-G	2	1415	0.36	0.17	0.27	0.36	0.21	0.00	0.14	-0.02	-0.07	0.14	-0.07
MATH	8	812797	925577	2	A-N	2	1415	0.17	0.12	0.17	0.54	0.17	0.00	0.04	-0.22	-0.21	0.27	0.04
MATH	8	813609	557729	2	B-E	2	1415	0.47	0.47	0.18	0.27	0.08	0.00	0.34	0.34	-0.20	-0.12	-0.14
MATH	8	815820	865313	2	B-F	2	1415	0.16	0.29	0.27	0.27	0.16	0.00	0.00	0.13	-0.03	-0.10	0.00
MATH	8	816213	418469	2	B-E	2	1415	0.18	0.41	0.30	0.18	0.11	0.00	-0.04	0.10	-0.04	-0.04	-0.03
MATH	8	816570	361319	2	D-S	2	1415	0.71	0.09	0.14	0.06	0.71	0.00	0.27	-0.07	-0.14	-0.22	0.27
MATH	8	816613	556817	2	A-N	1	1415	0.67	0.09	0.67	0.12	0.12	0.00	0.33	-0.22	0.33	-0.20	-0.09
MATH	8	714852	148402	3	C-G	2	1401	0.31	0.31	0.19	0.31	0.18	0.00	0.27	0.27	-0.14	-0.01	-0.16
MATH	8	714893	479913	3	B-E	2	1401	0.41	0.12	0.22	0.25	0.41	0.00	0.41	-0.02	-0.26	-0.19	0.41
MATH	8	719353	452982	3	D-S	2	1401	0.40	0.41	0.40	0.12	0.07	0.00	0.43	-0.28	0.43	-0.14	-0.11
MATH	8	804831	150218	3	C-G	2	1401	0.62	0.23	0.62	0.12	0.03	0.00	0.35	-0.28	0.35	-0.12	-0.09
MATH	8	804835	788994	3	A-N	2	1401	0.22	0.31	0.20	0.22	0.27	0.00	0.11	-0.05	-0.07	0.11	0.02
MATH	8	804841	969115	3	B-F	1	1401	0.57	0.13	0.57	0.13	0.17	0.00	0.43	-0.20	0.43	-0.29	-0.13
MATH	8	812801	535013	3	B-E	2	1401	0.51	0.07	0.29	0.14	0.51	0.00	0.44	-0.21	-0.16	-0.28	0.44
MATH	8	813612	832556	3	B-E	2	1401	0.44	0.29	0.13	0.14	0.44	0.00	0.48	-0.15	-0.27	-0.22	0.48
MATH	8	813615	575296	3	B-F	2	1401	0.31	0.15	0.39	0.31	0.15	0.00	0.19	-0.15	0.00	0.19	-0.09
MATH	8	815815	508305	3	B-E	2	1401	0.32	0.32	0.36	0.23	0.09	0.00	0.24	0.24	-0.10	-0.06	-0.14
MATH	8	816605	766868	3	D-S	2	1401	0.54	0.14	0.18	0.54	0.14	0.00	0.55	-0.21	-0.30	0.55	-0.24
MATH	8	816615	564596	3	B-F	2	1401	0.50	0.50	0.12	0.27	0.12	0.00	0.44	0.44	-0.19	-0.19	-0.23
SCIENCE	4	554091	785820	0	D		2831	0.47	0.12	0.11	0.30	0.47	0.00	0.30	-0.16	-0.12	-0.12	0.30
SCIENCE	4	559871	333235	0	B	2	2831	0.55	0.12	0.23	0.55	0.10	0.00	0.35	-0.17	-0.14	0.35	-0.18
SCIENCE	4	627544	873190	0	A	2	2831	0.40	0.28	0.21	0.10	0.40	0.00	0.42	-0.10	-0.21	-0.24	0.42
SCIENCE	4	641666	618208	0	B	2	2831	0.73	0.73	0.07	0.05	0.15	0.00	0.48	0.48	-0.23	-0.22	-0.30
SCIENCE	4	642192	795087	0	D	2	2831	0.57	0.08	0.57	0.11	0.23	0.00	0.33	-0.17	0.33	-0.24	-0.09
SCIENCE	4	652102	692121	0	A	2	2831	0.66	0.18	0.66	0.11	0.05	0.00	0.34	-0.28	0.34	-0.07	-0.15
SCIENCE	4	652916	647209	0	A	3	2831	0.42	0.42	0.18	0.23	0.16	0.00	0.35	0.35	-0.04	-0.19	-0.21
SCIENCE	4	652917	145598	0	A	3	2831	0.47	0.47	0.12	0.18	0.23	0.00	0.44	0.44	-0.14	-0.16	-0.26
SCIENCE	4	672670	525923	0	C	2	2831	0.37	0.19	0.25	0.18	0.37	0.01	0.43	-0.25	-0.04	-0.22	0.43
SCIENCE	4	676005	628677	0	A	2	2831	0.32	0.17	0.32	0.14	0.37	0.00	0.34	0.00	0.34	-0.16	-0.21

ContArea	FormGrade	ItemID	PubID	FormNumber	Standard1	Depth	N	PValue	ProportionA	ProportionB	ProportionC	ProportionD	ProportionOMITS	PtBiserial	CorrelationA	CorrelationB	CorrelationC	CorrelationD
SCIENCE	4	679563	849447	0	D	2	2831	0.67	0.05	0.18	0.67	0.09	0.00	0.46	-0.24	-0.24	0.46	-0.23
SCIENCE	4	698763	403797	0	A	2	2831	0.51	0.15	0.51	0.10	0.23	0.00	0.24	-0.18	0.24	-0.19	0.00
SCIENCE	4	698766	500573	0	A	2	2831	0.36	0.13	0.36	0.36	0.15	0.00	0.33	-0.06	-0.16	0.33	-0.16
SCIENCE	4	698768	812045	0	A	3	2831	0.40	0.18	0.18	0.40	0.23	0.00	0.31	-0.07	-0.22	0.31	-0.09
SCIENCE	4	698770	567783	0	A	2	2831	0.44	0.19	0.16	0.44	0.21	0.00	0.22	-0.13	-0.12	0.22	-0.03
SCIENCE	4	698773	907849	0	A	2	2831	0.43	0.12	0.19	0.25	0.43	0.00	0.34	-0.17	-0.17	-0.10	0.34
SCIENCE	4	698775	685972	0	A	2	2831	0.47	0.15	0.12	0.47	0.25	0.00	0.30	-0.05	-0.14	0.30	-0.18
SCIENCE	4	698784	600848	0	B	2	2831	0.52	0.52	0.15	0.24	0.09	0.00	0.40	0.40	-0.17	-0.15	-0.27
SCIENCE	4	698790	329663	0	A	2	2831	0.52	0.03	0.52	0.18	0.27	0.00	0.45	-0.10	0.45	-0.09	-0.38
SCIENCE	4	699626	485385	0	D	2	2831	0.26	0.16	0.42	0.15	0.26	0.00	0.13	-0.19	0.07	-0.05	0.13
SCIENCE	4	699627	266282	0	D	2	2831	0.60	0.12	0.60	0.11	0.17	0.00	0.44	-0.22	0.44	-0.24	-0.18
SCIENCE	4	699634	293518	0	D	2	2831	0.71	0.09	0.12	0.71	0.08	0.00	0.45	-0.21	-0.26	0.45	-0.22
SCIENCE	4	699701	956038	0	D	2	2831	0.48	0.16	0.19	0.18	0.48	0.00	0.36	-0.05	-0.17	-0.24	0.36
SCIENCE	4	699715	669018	0	C	2	2831	0.70	0.11	0.12	0.70	0.07	0.00	0.45	-0.17	-0.27	0.45	-0.25
SCIENCE	4	699716	919979	0	C	2	2831	0.64	0.64	0.07	0.12	0.17	0.00	0.37	0.37	-0.23	-0.20	-0.14
SCIENCE	4	699718	476565	0	C	2	2831	0.30	0.43	0.30	0.22	0.05	0.00	0.24	-0.02	0.24	-0.11	-0.23
SCIENCE	4	699719	896994	0	C	2	2831	0.47	0.14	0.19	0.20	0.47	0.00	0.48	-0.29	-0.23	-0.12	0.48
SCIENCE	4	700150	152050	0	A	2	2831	0.63	0.15	0.63	0.09	0.13	0.00	0.41	-0.17	0.41	-0.15	-0.27
SCIENCE	4	700153	528945	0	A	3	2831	0.64	0.64	0.15	0.11	0.10	0.00	0.43	0.43	-0.23	-0.21	-0.19
SCIENCE	4	700157	993377	0	A	2	2831	0.65	0.14	0.11	0.11	0.65	0.00	0.37	-0.18	-0.18	-0.19	0.37
SCIENCE	4	700159	113739	0	A	2	2831	0.63	0.63	0.11	0.15	0.11	0.00	0.41	0.41	-0.20	-0.23	-0.17
SCIENCE	4	701032	998772	0	A	3	2831	0.58	0.14	0.12	0.58	0.15	0.00	0.43	-0.17	-0.22	0.43	-0.21
SCIENCE	4	701038	767154	0	A	2	2831	0.43	0.18	0.43	0.20	0.19	0.00	0.35	-0.09	0.35	-0.19	-0.16
SCIENCE	4	701967	925117	0	B	2	2831	0.39	0.39	0.22	0.14	0.24	0.00	0.38	0.38	-0.11	-0.16	-0.19
SCIENCE	4	701971	877226	0	B	2	2831	0.62	0.62	0.06	0.17	0.14	0.00	0.38	0.38	-0.26	-0.18	-0.14
SCIENCE	4	701976	274479	0	B	2	2831	0.36	0.21	0.16	0.26	0.36	0.00	0.29	-0.01	-0.23	-0.10	0.29
SCIENCE	4	702041	585428	0	B	3	2831	0.48	0.21	0.22	0.48	0.09	0.00	0.34	-0.16	-0.13	0.34	-0.16
SCIENCE	4	702042	199764	0	B	2	2831	0.71	0.10	0.71	0.08	0.10	0.00	0.43	-0.20	0.43	-0.28	-0.19
SCIENCE	4	702763	744955	0	C	2	2831	0.70	0.06	0.70	0.06	0.18	0.00	0.41	-0.20	0.41	-0.25	-0.21
SCIENCE	4	702769	249190	0	C	2	2831	0.38	0.22	0.25	0.15	0.38	0.00	0.33	-0.22	-0.08	-0.09	0.33
SCIENCE	4	703335	874532	0	C	2	2831	0.52	0.25	0.11	0.12	0.52	0.00	0.41	-0.20	-0.21	-0.15	0.41
SCIENCE	4	704895	250226	0	A	2	2831	0.61	0.17	0.61	0.11	0.10	0.00	0.42	-0.20	0.42	-0.20	-0.22
SCIENCE	4	704898	230865	0	A	2	2831	0.59	0.11	0.18	0.59	0.11	0.00	0.51	-0.22	-0.26	0.51	-0.25
SCIENCE	4	704902	814343	0	A	2	2831	0.52	0.52	0.12	0.16	0.19	0.00	0.38	0.38	-0.17	-0.23	-0.11
SCIENCE	4	704904	772257	0	A	2	2831	0.66	0.12	0.08	0.66	0.14	0.00	0.37	-0.21	-0.16	0.37	-0.17
SCIENCE	4	704907	446632	0	A	2	2831	0.50	0.16	0.12	0.21	0.50	0.00	0.43	-0.22	-0.21	-0.16	0.43
SCIENCE	4	704940	487777	0	B	2	2831	0.53	0.16	0.18	0.53	0.12	0.00	0.36	-0.20	-0.15	0.36	-0.16
SCIENCE	4	704960	374338	0	A	2	2831	0.45	0.18	0.26	0.45	0.11	0.00	0.32	-0.22	-0.07	0.32	-0.15
SCIENCE	4	704971	508234	0	A	2	2831	0.54	0.09	0.54	0.24	0.13	0.00	0.35	-0.25	0.35	-0.14	-0.13
SCIENCE	4	704993	355970	0	A	2	2831	0.62	0.62	0.08	0.16	0.14	0.00	0.43	0.43	-0.27	-0.13	-0.25
SCIENCE	4	704999	927676	0	A	3	2831	0.51	0.27	0.51	0.11	0.10	0.00	0.38	-0.15	0.38	-0.25	-0.14
SCIENCE	4	705002	295296	0	A	2	2831	0.52	0.52	0.14	0.24	0.10	0.00	0.37	0.37	-0.22	-0.10	-0.22
SCIENCE	4	705005	512203	0	D	2	2831	0.44	0.44	0.21	0.21	0.13	0.00	0.25	0.25	-0.05	-0.14	-0.13
SCIENCE	4	735275	532665	0	D	2	2831	0.40	0.19	0.21	0.40	0.19	0.00	0.23	-0.22	-0.12	0.23	0.06
SCIENCE	4	735285	249310	0	D	2	2831	0.53	0.10	0.53	0.24	0.13	0.00	0.34	-0.25	0.34	-0.10	-0.15
SCIENCE	4	735297	572572	0	B	2	2831	0.56	0.56	0.17	0.11	0.16	0.00	0.15	0.15	-0.05	-0.11	-0.06
SCIENCE	4	737544	432518	0	C	2	2831	0.53	0.11	0.53	0.28	0.08	0.00	0.42	-0.17	0.42	-0.24	-0.18
SCIENCE	4	737555	418191	0	C	3	2831	0.50	0.25	0.13	0.12	0.50	0.00	0.29	-0.09	-0.15	-0.16	0.29
SCIENCE	4	704954	342792	1	A	3	1374	0.40	0.17	0.17	0.40	0.26	0.01	0.30	-0.16	-0.20	0.30	-0.02
SCIENCE	4	705010	690072	1	D	2	1374	0.38	0.22	0.38	0.17	0.23	0.00	0.18	-0.12	0.18	-0.03	-0.06
SCIENCE	4	808848	829592	1	A	2	1374	0.52	0.13	0.18	0.16	0.52	0.01	0.46	-0.21	-0.19	-0.21	0.46
SCIENCE	4	809042	799846	1	A	1	1374	0.66	0.12	0.11	0.11	0.66	0.01	0.48	-0.21	-0.25	-0.24	0.48
SCIENCE	4	809082	869543	1	B	2	1374	0.56	0.18	0.56	0.10	0.16	0.01	0.41	-0.21	0.41	-0.26	-0.11
SCIENCE	4	809086	908305	1	B	2	1374	0.45	0.14	0.26	0.14	0.45	0.01	0.34	-0.12	-0.14	-0.17	0.34
SCIENCE	4	809110	378791	1	C	2	1374	0.40	0.40	0.15	0.12	0.33	0.00	0.21	0.21	-0.24	-0.24	0.14

ContArea	FormGrade	ItemID	PubID	FormNumber	Standard1	Depth	N	PValue	ProportionA	ProportionB	ProportionC	ProportionD	ProportionOMITS	PtBiserial	CorrelationA	CorrelationB	CorrelationC	CorrelationD
SCIENCE	4	811286	480455	1	A	2	1374	0.42	0.11	0.42	0.17	0.30	0.01	0.33	-0.30	0.33	-0.13	-0.03
SCIENCE	4	811553	998482	1	D	2	1374	0.35	0.17	0.27	0.35	0.20	0.01	0.22	-0.15	-0.04	0.22	-0.07
SCIENCE	4	811773	322259	1	A	2	1374	0.75	0.10	0.75	0.07	0.07	0.01	0.50	-0.30	0.50	-0.21	-0.26
SCIENCE	4	704929	837007	2	A	2	732	0.66	0.06	0.66	0.07	0.21	0.00	0.31	-0.16	0.31	-0.23	-0.12
SCIENCE	4	739642	985486	2	C	2	732	0.45	0.11	0.45	0.29	0.14	0.00	0.27	-0.21	0.27	-0.05	-0.12
SCIENCE	4	809077	954535	2	A	2	732	0.62	0.07	0.20	0.62	0.11	0.00	0.52	-0.19	-0.28	0.52	-0.28
SCIENCE	4	809101	618011	2	B	2	732	0.39	0.17	0.18	0.39	0.25	0.00	0.28	-0.14	-0.19	0.28	-0.02
SCIENCE	4	810881	905966	2	D	2	732	0.36	0.15	0.25	0.36	0.24	0.00	0.15	-0.08	-0.12	0.15	0.03
SCIENCE	4	811284	957605	2	A	2	732	0.76	0.07	0.07	0.10	0.76	0.00	0.48	-0.25	-0.28	-0.23	0.48
SCIENCE	4	811362	586091	2	B	2	732	0.67	0.11	0.67	0.10	0.11	0.00	0.46	-0.25	0.46	-0.24	-0.21
SCIENCE	4	811506	575085	2	A	2	732	0.57	0.18	0.57	0.10	0.14	0.00	0.48	-0.23	0.48	-0.32	-0.14
SCIENCE	4	811545	778693	2	C	2	732	0.86	0.04	0.04	0.86	0.06	0.00	0.42	-0.26	-0.24	0.42	-0.20
SCIENCE	4	811771	232844	2	A	2	732	0.68	0.17	0.68	0.11	0.04	0.00	0.33	-0.13	0.33	-0.22	-0.18
SCIENCE	4	698762	661437	3	A	2	725	0.52	0.07	0.27	0.52	0.14	0.00	0.32	-0.20	-0.13	0.32	-0.15
SCIENCE	4	735276	854973	3	D	2	725	0.33	0.30	0.33	0.23	0.14	0.00	0.29	-0.08	0.29	-0.20	-0.04
SCIENCE	4	801690	720234	3	D	2	725	0.54	0.11	0.20	0.54	0.15	0.00	0.25	-0.20	-0.08	0.25	-0.08
SCIENCE	4	808849	276838	3	A	2	725	0.35	0.21	0.18	0.35	0.26	0.00	0.31	-0.09	-0.18	0.31	-0.09
SCIENCE	4	809094	956030	3	B	2	725	0.47	0.18	0.47	0.20	0.15	0.00	0.38	-0.13	0.38	-0.13	-0.25
SCIENCE	4	810875	869206	3	D	2	725	0.87	0.03	0.04	0.05	0.87	0.00	0.42	-0.26	-0.19	-0.24	0.42
SCIENCE	4	810879	577228	3	A	2	725	0.74	0.74	0.12	0.08	0.07	0.00	0.49	0.49	-0.31	-0.25	-0.21
SCIENCE	4	811285	983924	3	A	2	725	0.72	0.14	0.72	0.08	0.06	0.00	0.35	-0.18	0.35	-0.19	-0.17
SCIENCE	4	811460	177424	3	C	2	725	0.70	0.11	0.13	0.06	0.70	0.00	0.48	-0.25	-0.21	-0.31	0.48
SCIENCE	4	811462	341263	3	B	2	725	0.88	0.05	0.05	0.88	0.02	0.00	0.43	-0.29	-0.23	0.43	-0.18
SCIENCE	8	565271	313274	0	A	2	5065	0.71	0.10	0.71	0.13	0.05	0.00	0.32	-0.15	0.32	-0.16	-0.20
SCIENCE	8	565271	313274	0	A	2	5065	0.71	0.10	0.71	0.13	0.05	0.00	0.32	-0.15	0.32	-0.16	-0.20
SCIENCE	8	566346	350970	0	D	2	5065	0.55	0.13	0.14	0.55	0.18	0.00	0.25	-0.09	-0.16	0.25	-0.10
SCIENCE	8	566346	350970	0	D	2	5065	0.55	0.13	0.14	0.55	0.18	0.00	0.25	-0.09	-0.16	0.25	-0.10
SCIENCE	8	593318	157416	0	B	2	5065	0.45	0.45	0.40	0.07	0.09	0.00	0.32	0.32	-0.11	-0.18	-0.20
SCIENCE	8	593318	157416	0	B	2	5065	0.45	0.45	0.40	0.07	0.09	0.00	0.32	0.32	-0.11	-0.18	-0.20
SCIENCE	8	640296	539258	0	C	2	5065	0.54	0.27	0.07	0.54	0.11	0.00	0.27	-0.01	-0.24	0.27	-0.22
SCIENCE	8	640296	539258	0	C	2	5065	0.54	0.27	0.07	0.54	0.11	0.00	0.27	-0.01	-0.24	0.27	-0.22
SCIENCE	8	642307	322471	0	D	2	5065	0.55	0.08	0.18	0.18	0.55	0.00	0.46	-0.21	-0.17	-0.26	0.46
SCIENCE	8	642307	322471	0	D	2	5065	0.55	0.08	0.18	0.18	0.55	0.00	0.46	-0.21	-0.17	-0.26	0.46
SCIENCE	8	653593	749302	0	B	2	5065	0.45	0.13	0.45	0.23	0.19	0.00	0.30	-0.20	0.30	-0.14	-0.06
SCIENCE	8	653593	749302	0	B	2	5065	0.45	0.13	0.45	0.23	0.19	0.00	0.30	-0.20	0.30	-0.14	-0.06
SCIENCE	8	655326	816486	0	D	2	5065	0.59	0.08	0.59	0.08	0.26	0.00	0.27	-0.22	0.27	-0.20	-0.04
SCIENCE	8	655326	816486	0	D	2	5065	0.59	0.08	0.59	0.08	0.26	0.00	0.27	-0.22	0.27	-0.20	-0.04
SCIENCE	8	655332	365431	0	D	2	5065	0.61	0.08	0.15	0.14	0.61	0.00	0.49	-0.26	-0.27	-0.19	0.49
SCIENCE	8	655332	365431	0	D	2	5065	0.61	0.08	0.15	0.14	0.61	0.00	0.49	-0.26	-0.27	-0.19	0.49
SCIENCE	8	656140	372669	0	A	2	5065	0.63	0.63	0.11	0.11	0.15	0.00	0.44	0.44	-0.28	-0.31	-0.08
SCIENCE	8	656140	372669	0	A	2	5065	0.63	0.63	0.11	0.11	0.15	0.00	0.44	0.44	-0.28	-0.31	-0.08
SCIENCE	8	656149	667612	0	C	2	5065	0.64	0.64	0.20	0.08	0.08	0.00	0.47	0.47	-0.20	-0.29	-0.24
SCIENCE	8	656149	667612	0	C	2	5065	0.64	0.64	0.20	0.08	0.08	0.00	0.47	0.47	-0.20	-0.29	-0.24
SCIENCE	8	671430	530174	0	C	1	5065	0.66	0.20	0.12	0.66	0.03	0.00	0.26	-0.05	-0.25	0.26	-0.13
SCIENCE	8	671430	530174	0	C	1	5065	0.66	0.20	0.12	0.66	0.03	0.00	0.26	-0.05	-0.25	0.26	-0.13
SCIENCE	8	671436	809045	0	C	3	5065	0.40	0.40	0.12	0.34	0.13	0.00	0.28	0.28	-0.23	0.03	-0.21
SCIENCE	8	671436	809045	0	C	3	5065	0.40	0.40	0.12	0.34	0.13	0.00	0.28	0.28	-0.23	0.03	-0.21
SCIENCE	8	671444	424457	0	C	2	5065	0.58	0.09	0.17	0.15	0.58	0.00	0.50	-0.23	-0.21	-0.28	0.50
SCIENCE	8	671444	424457	0	C	2	5065	0.58	0.09	0.17	0.15	0.58	0.00	0.50	-0.23	-0.21	-0.28	0.50
SCIENCE	8	673248	777688	0	A	2	5065	0.54	0.54	0.24	0.04	0.19	0.00	0.41	0.41	-0.21	-0.24	-0.17
SCIENCE	8	673248	777688	0	A	2	5065	0.54	0.54	0.24	0.04	0.19	0.00	0.41	0.41	-0.21	-0.24	-0.17
SCIENCE	8	673252	346988	0	A	2	5065	0.44	0.44	0.13	0.23	0.20	0.00	0.39	0.39	-0.19	-0.20	-0.11
SCIENCE	8	673252	346988	0	A	2	5065	0.44	0.44	0.13	0.23	0.20	0.00	0.39	0.39	-0.19	-0.20	-0.11
SCIENCE	8	673254	165189	0	A	2	5065	0.40	0.21	0.23	0.40	0.16	0.00	0.30	-0.09	-0.05	0.30	-0.24
SCIENCE	8	673254	165189	0	A	2	5065	0.40	0.21	0.23	0.40	0.16	0.00	0.30	-0.09	-0.05	0.30	-0.24

ContArea	FormGrade	ItemID	PubID	FormNumber	Standard1	Depth	N	PValue	ProportionA	ProportionB	ProportionC	ProportionD	ProportionOMITS	PtBiserial	CorrelationA	CorrelationB	CorrelationC	CorrelationD
SCIENCE	8	673261	207366	0	A	2	5065	0.66	0.07	0.17	0.66	0.09	0.00	0.40	-0.12	-0.33	0.40	-0.10
SCIENCE	8	673261	207366	0	A	2	5065	0.66	0.07	0.17	0.66	0.09	0.00	0.40	-0.12	-0.33	0.40	-0.10
SCIENCE	8	677798	412805	0	A	1	5065	0.60	0.60	0.25	0.08	0.07	0.00	0.32	0.32	-0.05	-0.29	-0.22
SCIENCE	8	677798	412805	0	A	1	5065	0.60	0.60	0.25	0.08	0.07	0.00	0.32	0.32	-0.05	-0.29	-0.22
SCIENCE	8	678339	136164	0	D	2	5065	0.40	0.10	0.40	0.27	0.23	0.00	0.28	-0.14	0.28	-0.13	-0.09
SCIENCE	8	678339	136164	0	D	2	5065	0.40	0.10	0.40	0.27	0.23	0.00	0.28	-0.14	0.28	-0.13	-0.09
SCIENCE	8	678472	329618	0	D	2	5065	0.51	0.51	0.22	0.10	0.17	0.00	0.34	0.34	-0.16	-0.23	-0.09
SCIENCE	8	678472	329618	0	D	2	5065	0.51	0.51	0.22	0.10	0.17	0.00	0.34	0.34	-0.16	-0.23	-0.09
SCIENCE	8	700213	282314	0	A	3	5065	0.45	0.26	0.16	0.12	0.45	0.00	0.29	-0.10	-0.12	-0.17	0.29
SCIENCE	8	700213	282314	0	A	3	5065	0.45	0.26	0.16	0.12	0.45	0.00	0.29	-0.10	-0.12	-0.17	0.29
SCIENCE	8	700228	700608	0	A	2	5065	0.32	0.32	0.26	0.14	0.27	0.00	0.25	0.25	-0.04	-0.23	-0.04
SCIENCE	8	700228	700608	0	A	2	5065	0.32	0.32	0.26	0.14	0.27	0.00	0.25	0.25	-0.04	-0.23	-0.04
SCIENCE	8	700231	448930	0	A	3	5065	0.42	0.42	0.22	0.26	0.10	0.00	0.40	0.40	-0.19	-0.15	-0.18
SCIENCE	8	700231	448930	0	A	3	5065	0.42	0.42	0.22	0.26	0.10	0.00	0.40	0.40	-0.19	-0.15	-0.18
SCIENCE	8	700232	721282	0	A	2	5065	0.48	0.36	0.09	0.48	0.07	0.00	0.25	0.04	-0.27	0.25	-0.27
SCIENCE	8	700232	721282	0	A	2	5065	0.48	0.36	0.09	0.48	0.07	0.00	0.25	0.04	-0.27	0.25	-0.27
SCIENCE	8	700234	340889	0	A	2	5065	0.41	0.18	0.41	0.08	0.32	0.00	0.21	-0.06	0.21	-0.27	-0.01
SCIENCE	8	700234	340889	0	A	2	5065	0.41	0.18	0.41	0.08	0.32	0.00	0.21	-0.06	0.21	-0.27	-0.01
SCIENCE	8	700239	392210	0	A	3	5065	0.39	0.26	0.39	0.19	0.15	0.00	0.27	-0.10	0.27	-0.15	-0.07
SCIENCE	8	700239	392210	0	A	3	5065	0.39	0.26	0.39	0.19	0.15	0.00	0.27	-0.10	0.27	-0.15	-0.07
SCIENCE	8	700244	402450	0	C	2	5065	0.69	0.12	0.69	0.06	0.13	0.00	0.34	-0.28	0.34	-0.19	-0.06
SCIENCE	8	700244	402450	0	C	2	5065	0.69	0.12	0.69	0.06	0.13	0.00	0.34	-0.28	0.34	-0.19	-0.06
SCIENCE	8	700247	936008	0	C	2	5065	0.72	0.12	0.72	0.09	0.07	0.00	0.48	-0.18	0.48	-0.30	-0.26
SCIENCE	8	700247	936008	0	C	2	5065	0.72	0.12	0.72	0.09	0.07	0.00	0.48	-0.18	0.48	-0.30	-0.26
SCIENCE	8	700561	281943	0	B	2	5065	0.46	0.39	0.08	0.46	0.07	0.00	0.20	0.04	-0.25	0.20	-0.20
SCIENCE	8	700561	281943	0	B	2	5065	0.46	0.39	0.08	0.46	0.07	0.00	0.20	0.04	-0.25	0.20	-0.20
SCIENCE	8	701249	193030	0	D	3	5065	0.41	0.08	0.25	0.25	0.41	0.00	0.42	-0.19	-0.16	-0.20	0.42
SCIENCE	8	701249	193030	0	D	3	5065	0.41	0.08	0.25	0.25	0.41	0.00	0.42	-0.19	-0.16	-0.20	0.42
SCIENCE	8	701336	734501	0	A	2	5065	0.65	0.10	0.14	0.11	0.65	0.00	0.50	-0.30	-0.25	-0.19	0.50
SCIENCE	8	701337	611650	0	A	3	5065	0.57	0.57	0.15	0.16	0.11	0.00	0.45	0.45	-0.26	-0.19	-0.18
SCIENCE	8	701338	729063	0	B	2	5065	0.60	0.12	0.12	0.15	0.60	0.00	0.46	-0.19	-0.23	-0.24	0.46
SCIENCE	8	701340	790248	0	B	2	5065	0.58	0.14	0.58	0.13	0.14	0.00	0.54	-0.23	0.54	-0.28	-0.26
SCIENCE	8	701602	423926	0	B	2	5065	0.35	0.17	0.29	0.18	0.35	0.00	0.31	-0.10	0.02	-0.30	0.31
SCIENCE	8	701602	423926	0	B	2	5065	0.35	0.17	0.29	0.18	0.35	0.00	0.31	-0.10	0.02	-0.30	0.31
SCIENCE	8	701611	378697	0	B	2	5065	0.38	0.31	0.16	0.38	0.14	0.00	0.14	0.00	-0.11	0.14	-0.07
SCIENCE	8	701611	378697	0	B	2	5065	0.38	0.31	0.16	0.38	0.14	0.00	0.14	0.00	-0.11	0.14	-0.07
SCIENCE	8	701614	756460	0	D	2	5065	0.46	0.11	0.46	0.20	0.23	0.00	0.27	-0.13	0.27	-0.18	-0.04
SCIENCE	8	701614	756460	0	D	2	5065	0.46	0.11	0.46	0.20	0.23	0.00	0.27	-0.13	0.27	-0.18	-0.04
SCIENCE	8	702651	857354	0	D	2	5065	0.53	0.18	0.16	0.53	0.13	0.00	0.38	-0.15	-0.23	0.38	-0.16
SCIENCE	8	702651	857354	0	D	2	5065	0.53	0.18	0.16	0.53	0.13	0.00	0.38	-0.15	-0.23	0.38	-0.16
SCIENCE	8	702655	797283	0	D	2	5065	0.38	0.31	0.38	0.20	0.11	0.00	0.10	0.22	0.10	-0.19	-0.23
SCIENCE	8	702655	797283	0	D	2	5065	0.38	0.31	0.38	0.20	0.11	0.00	0.10	0.22	0.10	-0.19	-0.23
SCIENCE	8	703336	462119	0	A	2	5065	0.52	0.06	0.03	0.52	0.39	0.00	0.41	-0.18	-0.16	0.41	-0.27
SCIENCE	8	703336	462119	0	A	2	5065	0.52	0.06	0.03	0.52	0.39	0.00	0.41	-0.18	-0.16	0.41	-0.27
SCIENCE	8	703340	987427	0	C	2	5065	0.38	0.16	0.21	0.25	0.38	0.00	0.31	-0.13	-0.14	-0.10	0.31
SCIENCE	8	703340	987427	0	C	2	5065	0.38	0.16	0.21	0.25	0.38	0.00	0.31	-0.13	-0.14	-0.10	0.31
SCIENCE	8	703542	105455	0	C	2	5065	0.32	0.32	0.26	0.12	0.30	0.00	0.24	0.24	-0.22	-0.18	0.09
SCIENCE	8	703542	105455	0	C	2	5065	0.32	0.32	0.26	0.12	0.30	0.00	0.24	0.24	-0.22	-0.18	0.09
SCIENCE	8	703689	294754	0	A	2	5065	0.64	0.12	0.18	0.64	0.06	0.00	0.45	-0.22	-0.23	0.45	-0.21
SCIENCE	8	703689	294754	0	A	2	5065	0.64	0.12	0.18	0.64	0.06	0.00	0.45	-0.22	-0.23	0.45	-0.21
SCIENCE	8	712321	678437	0	A	2	5065	0.51	0.15	0.13	0.20	0.51	0.00	0.56	-0.23	-0.29	-0.24	0.56
SCIENCE	8	712321	678437	0	A	2	5065	0.51	0.15	0.13	0.20	0.51	0.00	0.56	-0.23	-0.29	-0.24	0.56
SCIENCE	8	712339	126387	0	A	2	5065	0.54	0.13	0.54	0.19	0.13	0.00	0.45	-0.17	0.45	-0.18	-0.27
SCIENCE	8	712339	126387	0	A	2	5065	0.54	0.13	0.54	0.19	0.13	0.00	0.45	-0.17	0.45	-0.18	-0.27
SCIENCE	8	712444	174144	0	A	2	5065	0.73	0.04	0.08	0.73	0.15	0.00	0.45	-0.21	-0.27	0.45	-0.24

ContArea	FormGrade	ItemID	PubID	FormNumber	Standard1	Depth	N	PValue	ProportionA	ProportionB	ProportionC	ProportionD	ProportionOMITS	PtBiserial	CorrelationA	CorrelationB	CorrelationC	CorrelationD
SCIENCE	8	712444	174144	0	A	2	5065	0.73	0.04	0.08	0.73	0.15	0.00	0.45	-0.21	-0.27	0.45	-0.24
SCIENCE	8	713630	287560	0	A	3	5065	0.59	0.17	0.12	0.12	0.59	0.00	0.45	-0.07	-0.27	-0.32	0.45
SCIENCE	8	713630	287560	0	A	3	5065	0.59	0.17	0.12	0.12	0.59	0.00	0.45	-0.07	-0.27	-0.32	0.45
SCIENCE	8	713708	814213	0	A	2	5065	0.61	0.11	0.61	0.11	0.18	0.00	0.44	-0.20	0.44	-0.23	-0.22
SCIENCE	8	713708	814213	0	A	2	5065	0.61	0.11	0.61	0.11	0.18	0.00	0.44	-0.20	0.44	-0.23	-0.22
SCIENCE	8	715428	211860	0	A	2	5065	0.54	0.54	0.20	0.13	0.12	0.00	0.45	0.45	-0.19	-0.26	-0.17
SCIENCE	8	715428	211860	0	A	2	5065	0.54	0.54	0.20	0.13	0.12	0.00	0.45	0.45	-0.19	-0.26	-0.17
SCIENCE	8	715462	189322	0	A	2	5065	0.61	0.20	0.06	0.61	0.13	0.00	0.39	-0.16	-0.22	0.39	-0.22
SCIENCE	8	715462	189322	0	A	2	5065	0.61	0.20	0.06	0.61	0.13	0.00	0.39	-0.16	-0.22	0.39	-0.22
SCIENCE	8	715492	935629	0	A	2	5065	0.55	0.55	0.09	0.14	0.21	0.00	0.33	0.33	-0.23	-0.29	0.01
SCIENCE	8	715492	935629	0	A	2	5065	0.55	0.55	0.09	0.14	0.21	0.00	0.33	0.33	-0.23	-0.29	0.01
SCIENCE	8	715502	664681	0	A	2	5065	0.58	0.58	0.28	0.07	0.07	0.00	0.47	0.47	-0.25	-0.27	-0.20
SCIENCE	8	715502	664681	0	A	2	5065	0.58	0.58	0.28	0.07	0.07	0.00	0.47	0.47	-0.25	-0.27	-0.20
SCIENCE	8	719971	984641	0	A	2	5065	0.60	0.60	0.16	0.20	0.04	0.00	0.26	0.26	-0.16	-0.06	-0.22
SCIENCE	8	719971	984641	0	A	2	5065	0.60	0.60	0.16	0.20	0.04	0.00	0.26	0.26	-0.16	-0.06	-0.22
SCIENCE	8	734801	447525	0	B	2	5065	0.49	0.49	0.14	0.19	0.18	0.00	0.33	0.33	-0.22	-0.12	-0.10
SCIENCE	8	734801	447525	0	B	2	5065	0.49	0.49	0.14	0.19	0.18	0.00	0.33	0.33	-0.22	-0.12	-0.10
SCIENCE	8	735114	277307	0	A	3	5065	0.66	0.10	0.66	0.14	0.11	0.00	0.42	-0.26	0.42	-0.16	-0.21
SCIENCE	8	735114	277307	0	A	3	5065	0.66	0.10	0.66	0.14	0.11	0.00	0.42	-0.26	0.42	-0.16	-0.21
SCIENCE	8	735332	678542	0	A	2	5065	0.63	0.07	0.63	0.11	0.19	0.00	0.48	-0.24	0.48	-0.30	-0.20
SCIENCE	8	735332	678542	0	A	2	5065	0.63	0.07	0.63	0.11	0.19	0.00	0.48	-0.24	0.48	-0.30	-0.20
SCIENCE	8	736133	291419	0	B	3	5065	0.54	0.54	0.14	0.10	0.21	0.00	0.40	0.40	-0.23	-0.20	-0.14
SCIENCE	8	736133	291419	0	B	3	5065	0.54	0.54	0.14	0.10	0.21	0.00	0.40	0.40	-0.23	-0.20	-0.14
SCIENCE	8	737552	489604	0	C	2	5065	0.57	0.23	0.57	0.09	0.10	0.00	0.31	-0.10	0.31	-0.15	-0.21
SCIENCE	8	737552	489604	0	C	2	5065	0.57	0.23	0.57	0.09	0.10	0.00	0.31	-0.10	0.31	-0.15	-0.21
SCIENCE	8	715495	235769	1	A	2	2082	0.33	0.21	0.28	0.33	0.18	0.00	0.18	-0.13	-0.06	0.18	0.00
SCIENCE	8	737551	369046	1	C	2	2082	0.53	0.17	0.12	0.18	0.53	0.00	0.51	-0.27	-0.23	-0.20	0.51
SCIENCE	8	798513	610642	1	A	2	2082	0.35	0.14	0.27	0.35	0.24	0.00	0.17	-0.12	-0.05	0.17	-0.03
SCIENCE	8	798514	152739	1	A	2	2082	0.63	0.13	0.10	0.63	0.13	0.00	0.46	-0.10	-0.25	0.46	-0.31
SCIENCE	8	798516	306816	1	B	2	2082	0.40	0.17	0.29	0.40	0.15	0.00	0.34	-0.19	-0.05	0.34	-0.20
SCIENCE	8	798518	429536	1	C	2	2082	0.51	0.14	0.51	0.23	0.12	0.00	0.40	-0.22	0.40	-0.12	-0.21
SCIENCE	8	801776	356624	1	D	2	2082	0.57	0.10	0.18	0.15	0.57	0.00	0.42	-0.21	-0.25	-0.13	0.42
SCIENCE	8	801783	884323	1	D	2	2082	0.40	0.18	0.40	0.30	0.12	0.00	0.25	-0.08	0.25	-0.01	-0.26
SCIENCE	8	810898	399234	1	A	2	2082	0.59	0.59	0.11	0.18	0.12	0.00	0.56	0.56	-0.25	-0.35	-0.19
SCIENCE	8	810904	292302	1	B	2	2082	0.49	0.08	0.22	0.20	0.49	0.00	0.45	-0.19	-0.12	-0.31	0.45
SCIENCE	8	812149	436604	1	A	2	2082	0.31	0.31	0.15	0.24	0.29	0.01	0.28	0.28	-0.20	-0.11	-0.02
SCIENCE	8	812165	332540	1	A	2	2082	0.52	0.09	0.27	0.52	0.11	0.00	0.40	-0.20	-0.15	0.40	-0.22
SCIENCE	8	715427	222899	2	A	2	1492	0.53	0.12	0.07	0.53	0.28	0.00	0.39	-0.22	-0.26	0.39	-0.13
SCIENCE	8	740494	166075	2	C	2	1492	0.47	0.11	0.18	0.24	0.47	0.00	0.32	-0.21	-0.18	-0.05	0.32
SCIENCE	8	797924	382161	2	D	2	1492	0.60	0.10	0.16	0.14	0.60	0.00	0.46	-0.25	-0.23	-0.19	0.46
SCIENCE	8	797926	464580	2	A	2	1492	0.45	0.07	0.25	0.23	0.45	0.00	0.33	-0.26	-0.13	-0.10	0.33
SCIENCE	8	797926	464580	2	A	2	1492	0.45	0.07	0.25	0.23	0.45	0.00	0.33	-0.26	-0.13	-0.10	0.33
SCIENCE	8	797928	867214	2	B	2	1492	0.53	0.16	0.53	0.21	0.10	0.00	0.41	-0.27	0.41	-0.17	-0.12
SCIENCE	8	797931	781958	2	A	2	1492	0.41	0.17	0.41	0.29	0.12	0.00	0.32	-0.02	0.32	-0.18	-0.20
SCIENCE	8	801724	815219	2	A	1	1492	0.50	0.05	0.50	0.39	0.06	0.00	0.25	-0.18	0.25	-0.09	-0.18
SCIENCE	8	801777	512608	2	D	2	1492	0.68	0.06	0.19	0.06	0.68	0.00	0.43	-0.24	-0.20	-0.25	0.43
SCIENCE	8	810887	743833	2	C	2	1492	0.57	0.23	0.57	0.11	0.09	0.00	0.48	-0.18	0.48	-0.33	-0.22
SCIENCE	8	811466	482769	2	A	2	1492	0.60	0.10	0.14	0.60	0.15	0.00	0.26	-0.22	-0.16	0.26	-0.01
SCIENCE	8	812151	371992	2	B	2	1492	0.38	0.38	0.13	0.25	0.23	0.00	0.27	0.27	-0.19	-0.11	-0.05
SCIENCE	8	812156	562388	2	A	2	1492	0.69	0.10	0.69	0.10	0.11	0.00	0.41	-0.26	0.41	-0.29	-0.07
SCIENCE	8	734804	176801	3	B	2	1491	0.33	0.31	0.27	0.33	0.09	0.00	0.35	-0.07	-0.20	0.35	-0.15
SCIENCE	8	735110	697792	3	A	2	1491	0.32	0.26	0.18	0.32	0.23	0.00	0.13	-0.11	-0.14	0.13	0.10
SCIENCE	8	736827	335493	3	D	2	1491	0.43	0.14	0.20	0.23	0.43	0.00	0.22	-0.07	-0.02	-0.17	0.22
SCIENCE	8	800675	859850	3	A	2	1491	0.42	0.27	0.42	0.19	0.12	0.00	0.26	0.08	0.26	-0.23	-0.23
SCIENCE	8	800677	813914	3	A	2	1491	0.62	0.19	0.12	0.62	0.07	0.00	0.43	-0.19	-0.22	0.43	-0.23

ContArea	FormGrade	ItemID	PubID	FormNumber	Standard1	Depth	N	PValue	ProportionA	ProportionB	ProportionC	ProportionD	ProportionOMITS	PtBiserial	CorrelationA	CorrelationB	CorrelationC	CorrelationD
SCIENCE	8	800679	782913	3	A	2	1491	0.37	0.13	0.15	0.36	0.37	0.00	0.26	-0.15	-0.11	-0.08	0.26
SCIENCE	8	800680	979751	3	B	2	1491	0.75	0.12	0.07	0.75	0.05	0.00	0.47	-0.29	-0.30	0.47	-0.14
SCIENCE	8	801730	315772	3	C	2	1491	0.58	0.07	0.58	0.23	0.12	0.00	0.45	-0.19	0.45	-0.18	-0.29
SCIENCE	8	809129	847744	3	A	2	1491	0.79	0.05	0.10	0.79	0.05	0.00	0.39	-0.29	-0.18	0.39	-0.19
SCIENCE	8	809144	949100	3	C	2	1491	0.87	0.05	0.04	0.87	0.03	0.00	0.43	-0.24	-0.26	0.43	-0.20
SCIENCE	8	809150	298496	3	A	2	1491	0.68	0.68	0.11	0.13	0.08	0.00	0.45	0.45	-0.29	-0.22	-0.17
SCIENCE	8	810897	657729	3	A	2	1491	0.79	0.79	0.04	0.05	0.12	0.00	0.45	0.45	-0.25	-0.25	-0.25
SCIENCE	8	797926	464580	10	A	2	1492	0.45	0.07	0.25	0.23	0.45	0.00	0.33	-0.26	-0.13	-0.10	0.33
SCIENCE	8	797926	464580	10	A	2	1492	0.45	0.07	0.25	0.23	0.45	0.00	0.33	-0.26	-0.13	-0.10	0.33

Open-Ended Paper/Pencil Item Statistics

Column Heading	Definition
ContArea	Content
FormGrade	Grade
PubID	Form ID
FormNumber	Form
Standard1	Standard
Depth	Depth of Knowledge
N	N
Mean	Mean
Proportion0	Proportion 0
Proportion1	Proportion 1
Proportion2	Proportion 2
Proportion3	Proportion 3
Proportion4	Proportion 4
PtBiserial	Point Biserial
Correlation0	Correlation 0
Correlation1	Correlation 1
Correlation2	Correlation 2
Correlation3	Correlation 3
Correlation4	Correlation 4
FinalB	IRT Difficulty Estimate
FinalBErr	IRT Difficulty Error
Infit	Infit
InfitMnSq	Infit Mean Square
Outfit	Outfit
OutfitMnSq	Outfit Mean Square
BiasCodeMALEFEMALE	Male/Female DIF Code
BiasCodeWHITEBLACK	White/Black DIF Code
BiasCodeWHITEHISPANIC	White/Hispanic DIF Code

ContArea	FormGrade	ItemID	PubID	FormNumber	Standard1	Depth	N	Mean	Proportion0	Proportion1	Proportion2	Proportion3	Proportion4	PtBiserial	Correlation0	Correlation1	Correlation2	Correlation3	Correlation4	FinalB	FinalBErr	Infit	InfitMnSq	Outfit	OutfitMnSq	BiasCodeMALEFEMALE	BiasCodeWHITEBLACK	BiasCodeWHITEHISPANIC
ELA	3	674986	163205	0 A-K	3	124046	1.20	0.22	0.40	0.34	0.04		0.57	-0.50	-0.03	0.39	0.20		1.5373	0.0043	-6.9590	0.9746	-9.1090	0.9664			
ELA	3	703617	341635	0 B-K	3	124046	1.31	0.15	0.45	0.32	0.07		0.60	-0.46	-0.17	0.38	0.28		1.1546	0.0043	-9.8991	0.9141	-9.8991	0.9106			
ELA	3	810125	651887	1 A-K	3	1091	1.44	0.12	0.40	0.40	0.08		0.64	-0.45	-0.28	0.40	0.32		0.9140	0.0463	-4.1092	0.8429	-3.9992	0.8471	B+	A-	A-
ELA	3	809412	179341	2 A-K	3	1091	1.28	0.19	0.40	0.34	0.07		0.72	-0.62	-0.10	0.47	0.29		1.2473	0.0449	-7.3893	0.7339	-7.4993	0.7305	A+	A-	A+
ELA	3	806625	888440	3 A-K	3	1089	1.45	0.15	0.41	0.28	0.16		0.49	-0.35	-0.16	0.17	0.35		0.7543	0.0411	3.2211	1.1312	3.2111	1.1332	B+	A-	A-
ELA	3	810122	298113	4 A-C	3	1093	1.06	0.28	0.44	0.22	0.06		0.66	-0.53	-0.03	0.41	0.34		1.5832	0.0444	-6.0392	0.7731	-6.1492	0.7695	A-	A-	A-
ELA	3	809737	932510	5 B-K	3	1089	1.28	0.12	0.53	0.29	0.06		0.59	-0.46	-0.15	0.37	0.26		1.1989	0.0489	-2.9491	0.8802	-3.0191	0.8766	A-	A+	A-
ELA	3	809863	296291	6 B-K	3	1087	1.19	0.27	0.36	0.28	0.09		0.64	-0.52	-0.08	0.38	0.34		1.3679	0.0416	-3.2991	0.8748	-3.6891	0.8574	A-	B-	A+
ELA	3	810294	676207	7 B-C	3	1094	1.15	0.22	0.45	0.28	0.04		0.59	-0.49	-0.05	0.42	0.21		1.5028	0.0451	-2.1891	0.9151	-2.3391	0.9100	A+	A-	A-
ELA	3	811353	308626	8 B-K	3	1094	1.29	0.16	0.44	0.36	0.04		0.57	-0.43	-0.18	0.41	0.23		1.4003	0.0470	-1.5191	0.9403	-1.4991	0.9408	B+	A-	A-
ELA	3	809459	885670	9 B-C	3	1091	1.02	0.23	0.56	0.17	0.04		0.51	-0.50	0.13	0.30	0.15		1.7219	0.0487	0.3810	1.0159	0.5810	1.0246	A+	B-	B-
MATH	3	654163	188359	0 A-T	2	124407	1.79	0.10	0.40	0.20	0.21	0.09	0.69	-0.35	-0.46	0.17	0.42	0.33	0.8242	0.0036	2.4710	1.0098	-8.2390	0.9661			
MATH	3	701376	603020	0 C-G	2	124407	1.86	0.11	0.29	0.30	0.22	0.08	0.66	-0.41	-0.35	0.10	0.37	0.32	0.8300	0.0036	9.9011	1.0495	9.9010	1.0405			
MATH	3	730073	724835	0 D-M	3	124407	1.72	0.15	0.30	0.31	0.15	0.08	0.66	-0.46	-0.30	0.21	0.31	0.33	0.9894	0.0036	9.9011	1.0629	9.9010	1.0476			
MATH	3	810739	887537	1 A-F	2	1093	0.85	0.41	0.40	0.14	0.05	0.01	0.57	-0.48	0.10	0.34	0.28	0.10	2.6498	0.0455	0.7010	1.0316	0.3910	1.0176	A+	C-	B-
MATH	3	699606	169549	2 D-M	3	1096	2.03	0.29	0.12	0.14	0.18	0.27	0.74	-0.64	-0.12	0.04	0.21	0.53	0.5910	0.0318	2.6411	1.1273	2.0611	1.1309	A+	A-	A-
MATH	3	813028	493031	3 C-G	2	1088	2.00	0.15	0.23	0.27	0.19	0.17	0.67	-0.50	-0.26	0.09	0.23	0.42	0.5490	0.0346	2.0811	1.0869	1.9311	1.0842	A-	B-	A-
MATH	3	792331	951429	4 A-T	3	1089	1.94	0.24	0.19	0.11	0.33	0.14	0.77	-0.64	-0.20	0.03	0.42	0.41	0.8344	0.0342	-2.3491	0.8978	-1.5691	0.9197	A-	C-	C-
MATH	3	792333	783298	6 B-O	2	1096	1.50	0.29	0.22	0.24	0.22	0.04	0.72	-0.61	-0.12	0.22	0.46	0.22	1.5196	0.0368	-0.8990	0.9619	-1.0590	0.9510	A+	A-	A-
MATH	3	810754	936596	7 A-F	3	1095	1.47	0.29	0.25	0.23	0.17	0.07	0.68	-0.58	-0.09	0.22	0.36	0.31	1.3350	0.0355	0.5610	1.0231	0.4910	1.0219	A+	B-	C-
MATH	3	813026	208719	8 D-M	3	1093	0.74	0.44	0.42	0.11	0.02	0.01	0.50	-0.42	0.13	0.33	0.17	0.14	2.6703	0.0480	1.3911	1.0696	1.4211	1.0683	A-	B-	A-
MATH	3	815958	527273	9 A-F	2	1089	1.45	0.30	0.27	0.19	0.14	0.09	0.74	-0.63	-0.07	0.21	0.38	0.37	1.3159	0.0357	-2.5091	0.8946	-3.1091	0.8606	A+	B-	A-
MATH	4	652750	793958	0 B-O	2	124609	2.39	0.15	0.12	0.19	0.30	0.25	0.64	-0.35	-0.34	-0.16	0.20	0.48	-0.3083	0.0031	9.9011	1.1275	9.9013	1.2830			
MATH	4	654892	898098	0 D-M	2	124609	0.74	0.62	0.17	0.09	0.08	0.04	0.59	-0.57	0.19	0.23	0.32	0.27	1.7174	0.0037	9.9011	1.0568	3.2810	1.0256			
MATH	4	702245	729697	0 A-T	3	124609	1.44	0.26	0.28	0.32	0.07	0.08	0.71	-0.58	-0.10	0.27	0.28	0.38	0.7879	0.0034	-9.8991	0.8941	-9.8991	0.8681			
MATH	4	713896	771770	1 A-F	2	1093	0.98	0.37	0.36	0.19	0.06	0.01	0.66	-0.59	0.09	0.37	0.32	0.16	1.7015	0.0419	-2.3891	0.8996	-3.2691	0.8602	A+	A-	B-
MATH	4	810788	347242	2 A-T	2	1090	0.84	0.41	0.42	0.11	0.04	0.02	0.69	-0.63	0.23	0.36	0.27	0.23	1.6920	0.0439	-5.0992	0.7649	-6.7993	0.7092	A+	A-	A-
MATH	4	812694	788709	3 D-M	2	1094	1.05	0.33	0.41	0.16	0.07	0.02	0.68	-0.60	0.06	0.38	0.30	0.24	1.3874	0.0403	-3.6692	0.8415	-4.4492	0.8121	A+	A-	A-
MATH	4	810738	825044	4 C-G	2	1094	1.01	0.21	0.61	0.14	0.03	0.00	0.53	-0.49	0.11	0.29	0.19	0.09	1.9087	0.0510	0.9210	1.0441	0.9210	1.0430	A+	C-	A-
MATH	4	816106	589637	5 A-T	2	1095	1.20	0.24	0.42	0.25	0.09	0.00	0.68	-0.54	-0.10	0.39	0.36	0.09	1.8634	0.0432	-3.7191	0.8552	-3.9592	0.8479	A-	A-	A-
MATH	4	714167	657378	6 B-O	3	1093	0.55	0.52	0.42	0.04	0.01	0.01	0.58	-0.55	0.40	0.28	0.12	0.13	2.5311	0.0552	-3.3992	0.8199	-4.4492	0.7946	A+	A-	A-
MATH	4	792328	893750	7 C-G	2	1093	1.71	0.16	0.32	0.25	0.18	0.09	0.63	-0.37	-0.30	0.08	0.37	0.35	0.4639	0.0355	0.5310	1.0213	0.5810	1.0239	A+	A-	A-
MATH	4	815957	395494	8 B-O	2	1092	1.21	0.10	0.68	0.15	0.04	0.02	0.60	-0.40	-0.21	0.34	0.27	0.24	1.0895	0.0497	-2.1991	0.8785	-2.8192	0.8394	A+	A+	A-
MATH	4	655959	575060	9 D-M	2	1096	1.33	0.30	0.36	0.13	0.10	0.10	0.74	-0.54	-0.15	0.23	0.37	0.43	0.8432	0.0355	-4.8092	0.7965	-4.6892	0.7902	A+	B-	A-
MATH	5	655661	762770	0 D-M	3	122242	1.25	0.36	0.30	0.12	0.15	0.07	0.74	-0.62	-0.02	0.22	0.41	0.37	1.2154	0.0034	-9.8991	0.8969	-9.8992	0.8498			
MATH	5	656315	419921	0 A-F	2	122242	1.75	0.17	0.20	0.46	0.06	0.12	0.62	-0.40	-0.20	0.07	0.24	0.44	0.5686	0.0035	9.9011	1.0960	9.9011	1.0973			
MATH	5	714927	379281	0 A-T	2	122242	1.38	0.36	0.23	0.18	0.15	0.08	0.68	-0.54	-0.12	0.19	0.37	0.37	1.0513	0.0033	9.9011	1.1136	9.9011	1.0534			
MATH	5	792329	683137	1 A-F	2	1095	1.54	0.19	0.25	0.43	0.10	0.03	0.64	-0.50	-0.15	0.24	0.34	0.24	1.0831	0.0394	-1.0690	0.9576	-0.9390	0.9608	A+	B-	A+
MATH	5	810790	532474	2 C-G	2	1091	1.47	0.24	0.34	0.20	0.13	0.08	0.76	-0.56	-0.19	0.22	0.37	0.41	0.9860	0.0361	-4.6692	0.8131	-4.9992	0.7956	A+	A-	A-
MATH	5	816107	224546	3 C-G	2	1092	1.29	0.05	0.65	0.25	0.02	0.02	0.52	-0.28	-0.31	0.38	0.13	0.22	1.4215	0.0555	1.0711	1.0574	0.5510	1.0292	A+	C-	C-
MATH	5	813031	627681	4 B-O	2	1090	1.56	0.16	0.39	0.23	0.18	0.05	0.67	-0.46	-0.23	0.13	0.44	0.29	0.9865	0.0383	-0.3290	0.9858	-0.5190	0.9775	A+	A-	A-
MATH	5	810737	710058	5 A-T	2	1093	1.33	0.22	0.40	0.24	0.12	0.03	0.68	-0.50	-0.18	0.30	0.41	0.22	1.2872	0.0400	-1.3391	0.9443	-2.0191	0.9178	B+	C-	A+
MATH	5	812691	313839	6 C-G	3	1097	1.47	0.12	0.38	0.42	0.08	0.00	0.62	-0.41	-0.29	0.37	0.34	0.04	2.0794	0.0469	-2.7191	0.8938	-2.4491	0.9030	A+	C-	A-
MATH	5	654568	409564	7 D-M	3	1095	0.85	0.44	0.39	0.08	0.07	0.02	0.71	-0.61	0.16	0.31	0.40	0.25	1.9508	0.0426	-4.9992	0.7725	-5.4092	0.7562	A+	A-	A-
MATH	5	669561	831748	8 A-F	3	1095	0.77	0.35	0.57	0.06	0.02	0.01	0.57	-0.48	0.22	0.33	0.19	0.16	2.4077	0.0531	-1.7491	0.9111	-3.3291	0.8534	A+	A-	A-
MATH	5	792330	930518	9 C-G	2	1092	1.10	0.27	0.48	0.15	0.07	0.02	0.67	-0.52	-0.03	0.35	0.35	0.23	1.5517	0.0422	-2.4091	0.8934	-3.3091	0.8593	A+	A-	A-
MATH	6	668445	626268	0 D-S	3	120261	1.05	0.34	0.36	0.23	0.04	0.03	0.63	-0.54	0.05	0.33	0.27	0.25	1.7951	0.0039	0.6610	1.0027	-6.6090	0.9729			
MATH	6	679485	982723	0 A-R	3	120261	1.23	0.42	0.21	0.17	0.12	0.08	0.70	-0.57	-0.05	0.20	0.37	0.39	1.3260	0.0033	-1.5990	0.9931	-9.8991	0.9348			
MATH	6	713120	845076	0 B-E	2	120261	0.95	0.52	0.22	0.11	0.09	0.06	0.67	-0.57	0.04	0.26	0.33	0.39	1.6635	0.0035	-7.3990	0.9651	-9.8991	0.8918			
MATH	6	703126	589158	1 B-E	3	1097	0.76	0.39	0.49	0.10	0.02	0.01	0.53	-0.43	0.16	0.32	0.20	0.16	2.6028	0.0503	-0.4590	0.9779	-0.5090	0.9776	A+	A-	B-
MATH	6	809531	896116	2 A-R	3	1094	0.49	0.63	0.28	0.06	0.02	0.00	0.63	-0.61	0.37	0.37	0.23	0.07	3.0571	0.0514	-4.0992	0.7908	-5.2093	0.7030	A-	A-	A+
MATH	6	701861	786051	3 A-N	3	1095	0.91	0.40	0.39	0.13	0.06	0.02	0.73	-0.66	0.17	0.38	0.34	0.25	2.0665	0.0423	-4.7992	0.7889	-6.3493	0.7300	A+	A-	B-
MATH	6	816506	399008	4 C-G	2	1093	0.94	0.37	0.44	0.12	0.03	0.04	0.67	-0.57	0.09	0.40	0.22	0.31	1.7887	0.0419	-2.7691	0.8654	-4.0792	0.8157	A-	A-	A-
MATH	6	712494	339330	5 D-S	3	1095	1.37	0.21	0.41	0.25	0.07	0.06	0.70	-0.44	-0.24	0.29	0.29	0.42	1.2296	0.0389	-3.2691	0.8636	-3.2191	0.8661	A+	A-	A-
MATH	6	799514	904434	6 C-G	3	1092	0.71	0.55	0.26	0.13	0.05	0.01	0.72	-0.67	0.22	0.43	0.33	0.18	2.4342	0.0437	-5.6993	0.7418	-6.2993	0.6623	A-	A-	A+
MATH	6	809280	338375	7 A-N	2	1093	1.04	0.42	0.32	0.10	0.11	0.05	0.72	-0.58	0.00	0.28	0.40	0.35	1.5823	0.0368	-3.6892	0.8340	-4.8292	0.7619	A-	A-	A-
MATH	6	703125	922343	8 B-E	3	1093	0.81	0.52	0.26	0.11	0.09	0.02	0.71	-0.66	0.19	0.33	0.40	0.22	2.2445	0.0411	-4.1492	0.8094	-4.6493	0.7423	A+	A-	A-
MATH	6	713179	445194	9 C-G	2	1091	1.37	0.33	0.27	0.19	0.13	0.08	0.72	-0.57	-0.08	0.16	0.37	0.42	1.2130	0.0346	-1.7091	0.9271	-2.5891	0.8815	A+	B-	A-
MATH	7	678367	918273	0 B-E	3	121665	1.01	0.39	0.36	0.13	0.08	0.03	0.74	-0.65	0.09	0.35	0.38	0.28	1.5393	0.0039	-9.8991	0.8595	-9.8992	0.7996			
MATH	7	703144	917448	0 A-R	2	121665	1.15	0.31	0.40	0.16	0.10	0.04	0.75	-0.57	-0.09	0.35	0.42	0.30	1.3600	0.0039	-9.8992	0.8121	-9.8992	0.7812			
MATH	7	713567	907068	0 C-G	3	121665	0.84	0.48	0.31	0.13	0.05	0.03	0.62	-0.54	0.10	0.34	0.27	0.27	1.7804	0.0041	9.9011	1.1435	9.2710	1.0459			
MATH	7	809425	808612	1 B-E	2	1092	0.73	0.47	0.40	0.09	0.03	0.01	0.65	-0.56	0.22	0.35	0.29	0.21	2.1554	0.0473	-3.2892	0.8431	-4.2292	0.8108	A-	A-	A-
MATH	7	812522	650491	2 B-E	2	1089	0.93	0.42	0.33	0.18	0.05	0.02	0.74	-0.63	0.07	0.44	0.34	0.24	1.7612	0.0424	-5.2692	0.7785	-6.1693	0.7360	A+	A-	A-
MATH	7	714810	235190	3 A-N	2	1092	1.06	0.26	0.49	0.21	0.02	0.02	0.65	-0.44	-0.14	0.47	0.23	0.25	1.6367	0.0467	-3.0691	0.8673	-3.5491	0.8565	A-	A-	A+
MATH	7	809550	536568	4 C-G	3	1094	0.62	0.58	0.28	0.11	0.02	0.02	0.74	-0.72	0.34	0.45	0.23	0.23	2.1672	0.0474	-6.6893	0.6809	-8.2594	0.5765	A+	A-	A-
MATH	7	799543	889364	5 B-E	2	1090	0.41	0.65	0.32	0.02	0.01	0.01	0.59	-0.58	0.47	0.23	0.14	0.16	3.0123	0.0616	-2.4591	0.8590	-3.4892	0.8087	B+	A-	A-
MATH	7	713566	987065	6 B-E	2	1093	0.40	0.73	0.18	0.05	0.03	0.01	0.57	-0.54	0.29	0.31	0.27	0.17	2.6908	0.0532	-2.1891	0.8591	-2.4192	0.7887	A+	A+	A+
MATH	7	713195	204988	7 A-R	3	1092	1.10	0.47	0.14	0.27	0.10	0.04	0.68	-0.58	-0.05	0.31	0.39	0.29	1.4833	0.0375	0.8610	1.0371	0.3310	1.0180	A+	A-	A-
MATH	7	703145	530404	8 D-S	3	1091	0.71	0.41	0.53	0.03	0.02	0.02	0.56	-0.48	0.27	0.25	0.22	0.23	2.1399	0.0510	-1.2791	0.9259	-1.0691	0.9477	A+	B-	B-
MATH	7	812461	124260	9 B-E	2	1090	0.62	0.61	0.25	0.07	0.04	0.02	0.63	-0.59	0.22	0.36	0.29	0.25	2.1777	0.0456	-1.9091	0.8931	-2.0691	0.8603	A+	A+	A+
MATH	8	665203	974596	0 D-S	2	119142	1.27	0.23	0.40	0.26	0.11	0.01	0.62	-0.44	-0.18	0.33	0.38	0.11	1.5701	0.0040	5.4810	1.0213	1.8210	1.0070			
MATH	8	669573	741453	0 A-N	3	119142	1.05	0.25	0.54	0.12	0.06	0.02	0.69	-0.54	0.00	0.36	0.35	0.22	1.5069	0.0044	-9.8992	0.8461	-9.8992	0.8175			
MATH	8	696723	881667	0 B-E	3	119142	1.35	0.34	0.27	0.16	0.14	0.08	0.76	-0.60	-0.11	0.23	0.38	0.43	0.7754	0.0034	-9.8992	0.8305	-9.8992	0.7913			
MATH	8	791416	308769	1 A-N	3	1094	1.03	0.38	0.33	0.18	0.09	0.01	0.68	-0.52	-0.05	0.35	0.41	0.21	1.6234	0.0407	-1.6791	0.9290	-2.4491	0.8919	A+	A-	A-
MATH	8	713914	593347	2 B-F	2	1095	1.47	0.29	0.26	0.21	0.18	0.06	0.78	-0.61	-0.17	0.21	0.45	0.38	0.6841	0.0345	-7.1393	0.7326	-6.8593	0.7268	A+	A-	A-
MATH	8	700542	548803	3 A-N	3	1093	1.15	0.31	0.41	0.12	0.12	0.03	0.78	-0.62	-0.03	0.31	0.46	0.29	1.1421	0.0392	-6.5393	0.7325	-7.1093	0.7069	A+	A-	A-
MATH	8	812545	714150	4 B-F	2	1094	0.91	0.49	0.28	0.11	0.08	0.04	0.75	-0.63	0.08	0.33	0.39	0.35	1.4468	0.0393	-6.1193	0.7239	-6.4693	0.6728	A+	A-	A-
MATH	8	816651	137079	5 B-F	2	1090	1.51	0.31	0.33	0.06	0.11	0.18	0.80	-0.61	-0.13	0.11	0.25	0.62	0.4564	0.0329	-5.5992	0.7528	-5.0993	0.7183	A-	A-	A-
MATH	8	809560	402938	6 C-G	3	1095	1.24	0.32	0.38	0.11	0.10	0.09	0.75	-0.58	-0.07	0.23	0.35	0.46	0.8101	0.0361	-4.5092	0.8013	-4.9592	0.7695	A+	A-	A-
MATH	8	791419	283356	7 B-F	2	1094	0.95	0.37	0.43	0.10	0.05	0.04	0.72	-0.60	0.11	0.33	0.32	0.33	1.4144	0.0416	-5.2392	0.7632	-5.9293	0.7460	A-	A-	A-
MATH	8	703118	365016	8 C-G	3	1098	0.57	0.57	0.34	0.06	0.02	0.01	0.64	-0.57	0.30	0.36	0.24	0.22	2.2036	0.0495	-3.6392	0.8092	-4.6792	0.7626	A+	A-	A+
MATH	8	713181	373393	9 D-S	3	1095	1.62	0.16	0.42	0.14	0.20	0.08	0.79	-0.46	-0.38	0.14	0.48	0.43	0.4092	0.0363	-7.1293	0.7212	-7.0593	0.7046	A+	C-	A-
SCIENCE	4	699659	152602	0 C	3	123254	1.06	0.34	0.26	0.40			0.45	-0.38	-0.06	0.42			0.8675	0.0041	9.9012	1.1528	9.9012	1.2019			
SCIENCE	4	699729	400901	0 A	2	123254	1.32	0.19	0.30	0.51			0.59	-0.49	-0.15	0.53			0.2858	0.0044	-9.8992	0.8320	-9.8992	0.8209			
SCIENCE	4	735293	293661	0 D	2	123254	1.16	0.16	0.51	0.33			0.41	-0.42	0.06	0.26			0.5588	0.0048	9.9011	1.0620	9.9011	1.0772			
SCIENCE	4	736989	513635	0 B	2	123254	1.11	0.21	0.48	0.32			0.35	-0.28	-0.04	0.29			0.7258	0.0046	9.9012	1.1688	9.9012	1.1841			
SCIENCE	4	739491	353439	0 A	2	123254	1.51	0.12	0.25	0.63			0.53	-0.42	-0.24	0.49			-0.1594	0.0047	-9.8991	0.8506	-9.8992	0.8408			
SCIENCE	4	798591	328066	1 A	2	1091	0.67	0.49	0.36	0.15			0.17	-0.08	-0.09	0.23			1.7491	0.0489	9.8214	1.4233	9.9015	1.5083	A+	A+	A+
SCIENCE	4	800408	324501	2 A	2	1094	0.87	0.49	0.15	0.36			0.50	-0.50	0.11	0.44			1.2115	0.0418	3.1711	1.1252	2.8612	1.1764	A+	B-	A-
SCIENCE	4	798587	143307	3 B	2	1093	0.67	0.52	0.30	0.18			0.54	-0.51	0.21	0.41			1.7353	0.0470	-1.2390	0.9530	-2.4191	0.8868	A+	A-	A-
SCIENCE	4	800531	709356	4 C	2	1093	1.27	0.21	0.32	0.48			0.51	-0.40	-0.16	0.47			0.4450	0.0459	-0.7590	0.9721	0.8910	1.0418	A+	C-	B-
SCIENCE	4	800405	964135	5 A	2	1094	1.67	0.10	0.14	0.77			0.36	-0.22	-0.30	0.40			-0.4803	0.0534	0.4910	1.0252	4.4015	1.5357	A+	C-	C-
SCIENCE	4	800532	154051	6 D	2	1095	0.78	0.42	0.38	0.20			0.61	-0.56	0.18	0.47			1.5786	0.0479	-4.0091	0.8585	-4.6392	0.8195	A+	A-	A-
SCIENCE	4	798588	572833	7 B	2	1096	1.42	0.09	0.40	0.51			0.47	-0.35	-0.22	0.41			-0.1848	0.0528	-1.3691	0.9466	-0.2090	0.9896	A+	B-	A+

ContArea	FormGrade	ItemID	PubID	FormNumber	Standard1	Depth	N	Mean	Proportion0	Proportion1	Proportion2	Proportion3	Proportion4	PtBiserial	Correlation0	Correlation1	Correlation2	Correlation3	Correlation4	FinalB	FinalBErr	Infit	InfitMnSq	Outfit	OutfitMnSq	BiasCodeMALEFEMALE	BiasCodeWHITEBLACK	BiasCodeWHITEHISPANIC
SCIENCE	4	800404	160913	8	C	2	1093	0.59	0.48	0.45	0.07			0.35	-0.35	0.26	0.17			2.2310	0.0552	2.9011	1.1150	2.5511	1.1043	A-	C-	A+
SCIENCE	4	800529	998506	9	A	2	1096	0.71	0.38	0.54	0.08			0.48	-0.44	0.26	0.30			1.9972	0.0561	-1.2690	0.9518	-1.4391	0.9460	A-	B-	B-
SCIENCE	4	798590	324406	10	A	2	1098	0.95	0.35	0.34	0.31			0.60	-0.52	0.02	0.52			1.1259	0.0455	-3.0291	0.8950	-2.4691	0.8987	A-	C-	A-
SCIENCE	4	800347	585958	11	D	2	1091	0.15	0.87	0.11	0.02			0.25	-0.25	0.21	0.13			3.6223	0.0809	1.2111	1.0997	0.9511	1.1181	A+	B-	A-
SCIENCE	4	800407	895277	12	A	2	1090	0.72	0.44	0.40	0.16			0.38	-0.34	0.13	0.28			1.7493	0.0498	4.2912	1.1695	3.6612	1.1574	A-	B-	B-
SCIENCE	8	700255	345270	0	A	3	118314	0.64	0.52	0.33	0.15			0.39	-0.38	0.21	0.26			1.3719	0.0047	9.9012	1.1682	9.9012	1.1794			
SCIENCE	8	702663	930692	0	D	2	118314	0.59	0.55	0.31	0.14			0.51	-0.49	0.24	0.37			1.4910	0.0048	-9.8990	0.9603	-9.8991	0.9318			
SCIENCE	8	702664	568226	0	B	3	118314	1.38	0.13	0.36	0.51			0.48	-0.37	-0.18	0.42			-0.4099	0.0048	-9.8990	0.9591	-1.4490	0.9935			
SCIENCE	8	737372	485961	0	A	3	118314	0.82	0.41	0.36	0.23			0.60	-0.53	0.12	0.49			0.9191	0.0045	-9.8991	0.8588	-9.8992	0.8348			
SCIENCE	8	739581	407026	0	C	2	118314	0.72	0.31	0.66	0.03			0.42	-0.38	0.28	0.24			1.9001	0.0062	-9.8990	0.9526	-8.8490	0.9633			
SCIENCE	8	800533	584653	1	A	2	1097	0.53	0.57	0.33	0.10			0.51	-0.51	0.35	0.30			1.7752	0.0522	-1.6791	0.9319	-2.2991	0.8891	A+	A-	A+
SCIENCE	8	812528	473992	2	B	2	1092	0.09	0.91	0.08	0.00			0.34	-0.34	0.32	0.11			3.9378	0.1053	-1.0491	0.8973	-2.8994	0.6274	A+	A+	A-
SCIENCE	8	812439	569624	3	A	2	1092	0.91	0.37	0.35	0.28			0.48	-0.45	0.10	0.37			0.7534	0.0455	1.9411	1.0704	1.8711	1.0775	B+	B-	B-
SCIENCE	8	798657	576331	4	A	2	1093	0.65	0.43	0.50	0.07			0.52	-0.48	0.30	0.32			1.6345	0.0557	-2.8691	0.8949	-3.2891	0.8802	A+	A-	C-
SCIENCE	8	800534	180934	5	A	3	1093	0.33	0.68	0.31	0.01			0.48	-0.47	0.44	0.16			3.1264	0.0671	-2.9091	0.8903	-3.3992	0.8406	A-	B-	B-
SCIENCE	8	812438	671163	6	A	2	1090	0.39	0.67	0.27	0.06			0.42	-0.44	0.36	0.20			2.2138	0.0575	-0.0690	0.9960	-0.2490	0.9835	A+	A-	A-
SCIENCE	8	812898	534898	7	D	3	1091	0.33	0.72	0.24	0.05			0.46	-0.45	0.36	0.24			2.3997	0.0605	-1.3691	0.9307	-2.3192	0.8477	A-	A-	A-
SCIENCE	8	798661	460537	8	B	2	1093	0.78	0.53	0.17	0.30			0.53	-0.49	0.05	0.49			0.9858	0.0422	0.2210	1.0078	-0.3390	0.9797	A-	A-	A-
SCIENCE	8	812434	692782	9	A	3	1093	0.33	0.74	0.19	0.07			0.47	-0.46	0.32	0.30			2.1987	0.0575	-0.3090	0.9827	-2.7292	0.7910	B+	A+	A-
SCIENCE	8	800535	585168	10	D	2	1093	0.61	0.50	0.38	0.12			0.47	-0.42	0.21	0.34			1.5091	0.0512	-0.0790	0.9966	-0.7490	0.9671	A+	B-	C-
SCIENCE	8	800530	215907	11	D	2	1094	0.01	0.99	0.01	0.00			0.16	-0.16	0.16				5.4614	0.2818	-0.0590	0.9600	-2.2996	0.3541	A+	A-	A-
SCIENCE	8	798660	996433	12	A	2	1093	0.82	0.42	0.34	0.24			0.52	-0.49	0.14	0.41			1.0039	0.0460	0.0210	1.0001	-0.4590	0.9804	A+	B-	B-

Open-Ended Online Item Statistics

Column Heading	Definition
ContArea	Content
FormGrade	Grade
PublD	Form ID
FormNumber	Form
Standard1	Standard
Depth	Depth of Knowledge
N	N
Mean	Mean
Proportion0	Proportion 0
Proportion1	Proportion 1
Proportion2	Proportion 2
Proportion3	Proportion 3
Proportion4	Proportion 4
PtBiserial	Point Biserial
Correlation0	Correlation 0
Correlation1	Correlation 1
Correlation2	Correlation 2
Correlation3	Correlation 3
Correlation4	Correlation 4

ContArea	FormGrade	ItemID	PubID	FormNumber	Standard1	Depth	N	Mean	Proportion0	Proportion1	Proportion2	Proportion3	Proportion4	PtBiserial	Correlation0	Correlation1	Correlation2	Correlation3	Correlation4
ELA	3	674986	163205	0	A-K	3	1455	0.99	0.33	0.39	0.24	0.04		0.61	-0.56	0.10	0.40	0.23	
ELA	3	703617	341635	0	B-K	3	1455	1.01	0.25	0.52	0.19	0.04		0.54	-0.45	0.03	0.37	0.20	
MATH	3	654163	188359	0	A-T	2	1475	1.57	0.11	0.48	0.19	0.15	0.06	0.72	-0.42	-0.41	0.29	0.43	0.30
MATH	3	701376	603020	0	C-G	2	1475	1.68	0.16	0.30	0.28	0.21	0.05	0.69	-0.47	-0.32	0.20	0.42	0.26
MATH	3	730073	724835	0	D-M	3	1475	1.31	0.28	0.33	0.25	0.09	0.05	0.70	-0.55	-0.14	0.35	0.31	0.31
MATH	4	652750	793958	0	B-O	2	1553	1.88	0.21	0.17	0.23	0.29	0.10	0.74	-0.54	-0.25	0.00	0.45	0.37
MATH	4	654892	898098	0	D-M	2	1553	0.43	0.74	0.16	0.05	0.04	0.01	0.54	-0.54	0.30	0.23	0.31	0.16
MATH	4	702245	729697	0	A-T	3	1553	1.06	0.39	0.28	0.25	0.04	0.04	0.71	-0.64	0.10	0.34	0.29	0.31
MATH	5	655661	762770	0	D-M	3	2723	1.02	0.45	0.29	0.10	0.11	0.05	0.75	-0.66	0.11	0.27	0.38	0.38
MATH	5	656315	419921	0	A-F	2	2723	1.51	0.28	0.16	0.42	0.04	0.10	0.70	-0.53	-0.14	0.22	0.23	0.47
MATH	5	714927	379281	0	A-T	2	2723	1.25	0.38	0.25	0.17	0.13	0.07	0.74	-0.61	-0.06	0.22	0.41	0.39
MATH	6	668445	626268	0	D-S	3	3425	0.99	0.37	0.35	0.21	0.04	0.02	0.66	-0.58	0.10	0.35	0.27	0.25
MATH	6	679485	982723	0	A-R	3	3425	1.05	0.49	0.21	0.14	0.10	0.07	0.74	-0.64	0.05	0.25	0.39	0.40
MATH	6	713120	845076	0	B-E	2	3425	0.85	0.55	0.24	0.08	0.08	0.05	0.71	-0.64	0.14	0.27	0.36	0.38
MATH	7	678367	918273	0	B-E	3	4468	0.89	0.46	0.32	0.12	0.07	0.03	0.75	-0.68	0.16	0.37	0.37	0.28
MATH	7	703144	917448	0	A-R	2	4468	0.99	0.37	0.39	0.15	0.07	0.02	0.75	-0.60	0.03	0.39	0.39	0.26
MATH	7	713567	907068	0	C-G	3	4468	0.82	0.46	0.35	0.12	0.05	0.02	0.60	-0.52	0.14	0.33	0.25	0.23
MATH	8	665203	974596	0	D-S	2	4798	1.24	0.24	0.43	0.19	0.12	0.01	0.67	-0.51	-0.11	0.31	0.41	0.16
MATH	8	669573	741453	0	A-N	3	4798	0.97	0.32	0.49	0.12	0.06	0.01	0.70	-0.59	0.09	0.37	0.36	0.18
MATH	8	696723	881667	0	B-E	3	4798	1.22	0.39	0.26	0.15	0.14	0.06	0.77	-0.64	-0.04	0.26	0.41	0.39
SCIENCE	4	699659	152602	0	C	3	2831	1.06	0.34	0.26	0.40			0.46	-0.40	-0.04	0.42		
SCIENCE	4	699729	400901	0	A	2	2831	1.18	0.26	0.30	0.44			0.62	-0.55	-0.06	0.54		
SCIENCE	4	735293	293661	0	D	2	2831	1.08	0.20	0.53	0.27			0.48	-0.48	0.11	0.30		
SCIENCE	4	736989	513635	0	B	2	2831	1.06	0.24	0.46	0.30			0.43	-0.38	0.02	0.34		
SCIENCE	4	739491	353439	0	A	2	2831	1.27	0.21	0.31	0.48			0.58	-0.49	-0.12	0.51		
SCIENCE	8	700255	345270	0	A	3	5065	0.60	0.56	0.28	0.16			0.42	-0.41	0.21	0.30		
SCIENCE	8	702663	930692	0	D	2	5065	0.66	0.50	0.33	0.16			0.51	-0.47	0.20	0.38		
SCIENCE	8	702664	568226	0	B	3	5065	1.38	0.13	0.36	0.51			0.50	-0.39	-0.19	0.44		
SCIENCE	8	737372	485961	0	A	3	5065	0.75	0.44	0.36	0.20			0.60	-0.54	0.18	0.46		
SCIENCE	8	739581	407026	0	C	2	5065	0.67	0.36	0.61	0.03			0.49	-0.46	0.36	0.24		

Evidence Based Selected Response Paper/Pencil Item Statistics

Column Heading	Definition
ContArea	Content
FormGrade	Grade
PubID	Form ID
FormNumber	Form
Standard1	Standard
Depth	Depth of Knowledge
N	N
Mean	Mean
Proportion0	Proportion 0
Proportion1	Proportion 1
Proportion2	Proportion 2
Proportion3	Proportion 3
PtBiserial	Point Biserial
Correlation0	Correlation 0
Correlation1	Correlation 1
Correlation2	Correlation 2
Correlation3	Correlation 3
FinalB	IRT Difficulty Estimate
FinalBErr	IRT Difficulty Error
Infit	Infit
InfitMnSq	Infit Mean Square
Outfit	Outfit
OutfitMnSq	Outfit Mean Square
BiasCodeMALEFEMALE	Male/Female DIF Code
BiasCodeWHITEBLACK	White/Black DIF Code
BiasCodeWHITEHISPANIC	White/Hispanic DIF Code

ContArea	FormGrade	ItemID	PubID	FormNumber	Standard1	Depth	N	Mean	Proportion0	Proportion1	Proportion2	Proportion3	PtBiserial	Correlation0	Correlation1	Correlation2	Correlation3	FinalB	FinalBErr	Infit	InfitMnSq	Outfit	OutfitMnSq	BiasCodeMALEFEMALE	BiasCodeWHITEBLACK	BiasCodeWHITEHISPANIC
ELA	3	674839	546368	0	A-K	3	124046	1.04	0.32	0.33	0.36		0.40	-0.27	-0.17	0.43		0.6671	0.0043	9.9013	1.2553	9.9013	1.3166			
ELA	3	674983	266374	0	A-K	3	124046	1.88	0.13	0.20	0.32	0.35	0.57	-0.29	-0.39	0.04	0.50	0.1709	0.0037	9.9011	1.0840	9.9011	1.0824			
ELA	3	702677	194720	0	B-V	3	124046	2.04	0.07	0.21	0.34	0.38	0.56	-0.26	-0.39	-0.01	0.47	-0.1953	0.0039	9.1910	1.0358	9.6710	1.0421			
ELA	3	736667	957118	0	B-K	3	124046	1.27	0.20	0.32	0.48		0.43	-0.30	-0.19	0.42		0.1052	0.0045	9.9012	1.1853	9.9013	1.3145			
ELA	3	809588	477236	1	A-K	3	13823	1.55	0.11	0.40	0.33	0.16	0.51	-0.30	-0.25	0.15	0.39	0.5842	0.0121	8.1511	1.0930	8.4011	1.0974	A+	A-	A-
ELA	3	809590	516891	1	A-K	3	13823	1.39	0.18	0.24	0.57		0.63	-0.49	-0.26	0.61		-0.1558	0.0135	-9.8992	0.8294	-9.8992	0.7943	A+	A-	A-
ELA	3	806536	426590	2	A-V	3	13836	1.24	0.21	0.34	0.45		0.40	-0.30	-0.13	0.37		0.1764	0.0135	9.9012	1.2405	9.9014	1.3636	A+	B-	A-
ELA	3	806537	943322	2	A-K	3	13836	1.75	0.12	0.28	0.34	0.26	0.55	-0.29	-0.35	0.12	0.44	0.3264	0.0113	7.9711	1.0908	8.7811	1.1055	A-	A-	A+
ELA	3	800699	527411	3	A-C	3	13799	1.17	0.23	0.37	0.40		0.46	-0.29	-0.23	0.48		0.3350	0.0135	9.9011	1.1342	9.9012	1.2143	A+	A-	A+
ELA	3	800710	621558	3	A-K	3	13799	2.19	0.05	0.15	0.35	0.44	0.56	-0.29	-0.38	-0.06	0.46	-0.4640	0.0124	-0.7290	0.9910	1.5910	1.0221	A+	A-	A-
ELA	3	809580	663213	4	A-C	3	13831	1.86	0.09	0.26	0.34	0.30	0.58	-0.32	-0.34	0.04	0.49	0.1123	0.0115	0.7210	1.0080	0.4710	1.0056	A+	A-	A-
ELA	3	809582	226088	4	A-K	3	13831	0.98	0.30	0.41	0.28		0.51	-0.42	-0.02	0.45		0.8153	0.0136	0.3810	1.0038	2.4010	1.0269	A-	A-	A-
ELA	3	800702	116424	5	B-V	3	13793	1.85	0.09	0.28	0.33	0.30	0.56	-0.29	-0.36	0.08	0.45	0.0824	0.0116	3.7610	1.0423	3.4210	1.0412	A-	B-	A-
ELA	3	800719	558925	5	B-K	3	13793	1.10	0.29	0.32	0.39		0.56	-0.44	-0.13	0.53		0.5238	0.0130	-1.9390	0.9799	1.6010	1.0207	A-	A-	A-
ELA	3	808434	321951	6	B-C	3	13714	1.61	0.12	0.33	0.38	0.17	0.48	-0.31	-0.23	0.18	0.33	0.5601	0.0120	9.9012	1.1516	9.9012	1.1624	A+	A-	A-
ELA	3	808441	256183	6	B-K	3	13714	0.77	0.37	0.48	0.15		0.39	-0.34	0.12	0.29		1.4200	0.0147	9.9011	1.1147	9.9012	1.1683	A-	A-	A-
ELA	3	804542	109774	7	B-C	3	13757	0.93	0.36	0.35	0.29		0.48	-0.35	-0.11	0.49		0.9029	0.0129	3.3410	1.0340	5.3711	1.0649	A-	A-	A+
ELA	3	804543	538266	7	B-V	3	13757	1.83	0.09	0.25	0.42	0.25	0.56	-0.34	-0.35	0.16	0.38	0.1691	0.0118	-1.8990	0.9788	-2.0490	0.9768	A-	B-	A-
ELA	3	810418	193993	8	B-C	3	13786	0.80	0.45	0.30	0.25		0.44	-0.33	-0.06	0.44		1.2197	0.0131	9.9011	1.1373	9.9012	1.2421	A-	A-	A-
ELA	3	810420	596978	8	B-K	3	13786	1.74	0.10	0.29	0.39	0.23	0.58	-0.33	-0.34	0.15	0.44	0.3173	0.0118	-1.3890	0.9846	-1.4190	0.9840	A-	A-	A-
ELA	3	804551	807544	9	B-C	3	13707	1.55	0.14	0.36	0.29	0.20	0.54	-0.23	-0.35	0.14	0.47	0.6245	0.0114	4.3810	1.0488	3.8910	1.0446	A+	A-	A-
ELA	3	804552	439497	9	B-C	3	13707	1.09	0.33	0.26	0.41		0.47	-0.33	-0.21	0.50		0.5865	0.0125	9.9011	1.1373	9.9012	1.1570	A+	A-	A-
ELA	4	659301	118056	0	A-K	2	124266	1.67	0.10	0.13	0.77		0.60	-0.44	-0.38	0.62		-0.9180	0.0053	-9.8992	0.7760	-9.8994	0.6402			
ELA	4	659304	924455	0	A-C	3	124266	2.09	0.09	0.19	0.25	0.47	0.66	-0.35	-0.43	-0.06	0.59	-0.2245	0.0037	-9.8991	0.9289	-9.8991	0.9325			
ELA	4	703455	971920	0	B-C	3	124266	0.76	0.52	0.20	0.28		0.32	-0.18	-0.24	0.41		1.2270	0.0042	9.9014	1.3931	9.9019	1.9105			
ELA	4	703465	682286	0	B-K	3	124266	1.79	0.12	0.24	0.37	0.27	0.52	-0.30	-0.31	0.10	0.41	0.2510	0.0038	9.9012	1.1876	9.9012	1.2446			
ELA	4	703466	660916	0	B-V	3	124266	1.22	0.19	0.39	0.41		0.41	-0.34	-0.09	0.35		0.1515	0.0046	9.9012	1.2146	9.9013	1.3025			
ELA	4	736588	746900	0	A-C	3	124266	2.03	0.04	0.21	0.41	0.34	0.50	-0.26	-0.36	0.05	0.37	-0.3663	0.0042	9.9011	1.1229	9.9012	1.1864			
ELA	4	809597	598605	1	A-K	3	13857	1.18	0.20	0.42	0.38		0.45	-0.45	0.06	0.31		0.2398	0.0140	9.9012	1.1508	9.9012	1.2416	A+	A+	A+
ELA	4	809601	194368	1	A-K	3	13857	1.81	0.13	0.26	0.28	0.33	0.57	-0.26	-0.43	0.08	0.50	0.1814	0.0110	9.9011	1.1296	9.9012	1.1842	A+	A-	A-
ELA	4	809609	801072	2	A-V	3	13805	1.44	0.14	0.27	0.58		0.59	-0.45	-0.25	0.55		-0.3573	0.0143	-7.4991	0.9134	-5.5091	0.9063	A+	A-	A-
ELA	4	809611	535294	2	A-K	3	13805	1.85	0.09	0.23	0.44	0.25	0.57	-0.32	-0.37	0.15	0.40	0.0934	0.0121	2.1810	1.0251	3.8010	1.0447	A+	A-	A-
ELA	4	808453	151578	3	A-K	3	13790	1.68	0.12	0.30	0.35	0.23	0.53	-0.35	-0.25	0.14	0.38	0.3816	0.0115	9.9011	1.1397	9.9012	1.1712	A+	A-	A-
ELA	4	808454	293224	3	A-K	3	13790	1.00	0.23	0.54	0.23		0.49	-0.45	0.10	0.34		0.7338	0.0148	1.6710	1.0178	2.6010	1.0279	A+	A+	A-
ELA	4	800720	207463	4	A-C	3	13769	2.02	0.09	0.20	0.31	0.40	0.61	-0.29	-0.42	-0.02	0.53	-0.1640	0.0115	-0.4890	0.9943	1.4310	1.0195	A+	A-	A-
ELA	4	800721	253611	4	A-K	3	13769	1.19	0.25	0.31	0.44		0.52	-0.42	-0.12	0.48		0.2788	0.0131	4.3110	1.0465	5.1311	1.0722	A-	A-	A-
ELA	4	811195	608571	5	A-V	3	13814	1.09	0.32	0.28	0.41		0.41	-0.32	-0.11	0.41		0.5581	0.0127	9.9013	1.3070	9.9015	1.4730	A-	A-	A-
ELA	4	811202	718731	5	A-C	3	13814	2.09	0.05	0.19	0.37	0.38	0.54	-0.26	-0.40	0.03	0.41	-0.3644	0.0123	7.3411	1.0883	9.9012	1.1557	A+	A-	A-
ELA	4	810426	537173	6	B-C	3	13883	0.90	0.35	0.45	0.15	0.05	0.15	-0.08	-0.02	0.03	0.18	1.8473	0.0128	9.9017	1.6658	9.9018	1.8176	A+	A-	A-
ELA	4	810431	160057	6	B-K	3	13883	1.09	0.33	0.24	0.42		0.49	-0.35	-0.20	0.51		0.5395	0.0124	9.9011	1.1396	9.9012	1.2305	A-	A-	A-
ELA	4	810774	729321	7	B-C	3	13766	1.75	0.12	0.33	0.25	0.31	0.54	-0.27	-0.32	0.03	0.49	0.2430	0.0110	9.9011	1.1454	9.9012	1.1596	A+	A-	A-
ELA	4	810777	202556	7	B-C	3	13766	0.43	0.69	0.20	0.11		0.09	0.00	-0.15	0.19		2.0949	0.0148	9.9015	1.5359	9.9029	2.8931	A-	A-	A-
ELA	4	806547	928033	8	B-K	3	13806	0.96	0.31	0.43	0.27		0.27	-0.22	0.01	0.22		0.8189	0.0136	9.9014	1.4122	9.9015	1.5093	A-	A-	A-
ELA	4	806549	739325	8	B-K	3	13806	1.30	0.15	0.43	0.39	0.03	0.31	-0.25	-0.08	0.22	0.11	1.3655	0.0136	9.9013	1.3407	9.9014	1.3530	A+	A-	A-
ELA	4	811580	986610	9	B-K	3	13776	0.94	0.38	0.29	0.33		0.43	-0.32	-0.11	0.43		0.8694	0.0127	9.9012	1.2360	9.9014	1.3877	A+	A+	A+
ELA	4	811581	788931	9	B-C	3	13776	1.72	0.10	0.34	0.30	0.26	0.55	-0.30	-0.27	0.02	0.48	0.2633	0.0115	9.0511	1.1022	9.9012	1.1505	A+	A-	A-
ELA	5	703788	632834	0	A-C	3	122426	1.00	0.36	0.29	0.35		0.32	-0.24	-0.08	0.32		0.7043	0.0042	9.9015	1.4492	9.9017	1.6546			
ELA	5	703792	983469	0	A-K	3	122426	1.90	0.08	0.26	0.32	0.33	0.53	-0.29	-0.30	0.00	0.46	-0.0409	0.0039	9.9011	1.1361	9.9012	1.1801			
ELA	5	703846	834900	0	A-C	3	122426	1.93	0.08	0.25	0.32	0.35	0.58	-0.31	-0.35	0.00	0.50	-0.0864	0.0039	7.2710	1.0277	9.9011	1.0705			
ELA	5	703903	331237	0	B-K	3	122426	1.31	0.28	0.13	0.59		0.57	-0.45	-0.29	0.60		0.0752	0.0042	9.8110	1.0386	8.3211	1.0654			
ELA	5	740535	624301	0	B-C	3	122426	1.64	0.23	0.22	0.23	0.32	0.49	-0.20	-0.35	-0.04	0.53	0.4921	0.0034	9.9014	1.4004	9.9015	1.5102			
ELA	5	740556	121246	0	B-K	3	122426	1.38	0.21	0.19	0.59		0.63	-0.48	-0.31	0.65		-0.1108	0.0044	-9.8991	0.8804	-9.8992	0.7997			
ELA	5	804572	110220	1	A-C	3	13719	1.27	0.22	0.28	0.49		0.48	-0.32	-0.27	0.51		0.0725	0.0132	9.9011	1.1296	9.9013	1.2888	A+	A-	A+
ELA	5	804575	525009	1	A-K	3	13719	1.59	0.12	0.35	0.34	0.18	0.44	-0.22	-0.23	0.08	0.38	0.4818	0.0118	9.9013	1.2839	9.9013	1.3199	A+	A-	A-
ELA	5	800732	977866	2	A-K	3	13577	1.43	0.22	0.37	0.17	0.24	0.40	-0.08	-0.33	-0.05	0.48	0.7026	0.0106	9.9014	1.4440	9.9016	1.5625	A-	A-	A-
ELA	5	800735	465748	2	A-K	3	13577	1.33	0.21	0.25	0.54		0.48	-0.36	-0.21	0.48		-0.0385	0.0132	7.8511	1.0901	9.9014	1.3632	A+	A+	A+
ELA	5	804582	828037	3	A-C	3	13544	1.78	0.09	0.32	0.32	0.27	0.56	-0.28	-0.37	0.11	0.45	0.1259	0.0117	6.0911	1.0690	8.3411	1.1021	A+	A-	A-
ELA	5	804584	234240	3	A-K	3	13544	1.42	0.20	0.18	0.62		0.49	-0.38	-0.23	0.50		-0.2086	0.0133	8.3911	1.1041	7.9512	1.1864	A+	A+	A-
ELA	5	809631	328219	4	A-K	3	13603	1.34	0.12	0.49	0.32	0.07	0.26	-0.18	-0.08	0.11	0.18	1.0346	0.0135	9.9014	1.4272	9.9014	1.4446	A+	A-	A-
ELA	5	809636	100688	4	A-V	3	13603	1.17	0.26	0.32	0.43		0.42	-0.32	-0.13	0.40		0.3453	0.0131	9.9012	1.2343	9.9014	1.4339	A-	A-	A-
ELA	5	812424	430121	5	A-C	3	13586	0.97	0.42	0.19	0.39		0.39	-0.25	-0.28	0.47		0.7722	0.0121	9.9014	1.3591	9.9016	1.6314	A+	A-	A-
ELA	5	812428	499587	5	A-K	3	13586	1.57	0.11	0.36	0.37	0.16	0.54	-0.31	-0.32	0.26	0.35	0.5612	0.0122	4.6511	1.0528	5.9211	1.0676	A-	A-	A-
ELA	5	809617	748042	6	B-C	3	13618	1.48	0.17	0.41	0.18	0.23	0.38	-0.12	-0.26	-0.02	0.42	0.6101	0.0109	9.9015	1.4758	9.9016	1.5724	A-	A-	A-
ELA	5	809622	559955	6	B-K	3	13618	1.12	0.24	0.40	0.36		0.54	-0.41	-0.13	0.50		0.3777	0.0136	-1.0890	0.9887	1.0410	1.0122	A+	A-	A-
ELA	5	806555	998623	7	B-C	3	13647	0.20	0.83	0.14	0.03		-0.31	0.34	-0.33	-0.09		3.0525	0.0203	9.9017	1.7464	9.9054	5.3838	A+	A+	A+
ELA	5	806560	878392	7	B-K	3	13647	1.49	0.17	0.37	0.27	0.19	0.52	-0.25	-0.30	0.14	0.46	0.6685	0.0112	9.9011	1.1197	9.9011	1.1397	A+	A-	A-
ELA	5	808478	609781	8	B-K	3	13566	0.84	0.52	0.12	0.36		0.36	-0.24	-0.30	0.44		1.0020	0.0119	9.9014	1.4186	9.9020	1.9619	A+	A-	A-
ELA	5	808479	514673	8	B-K	3	13566	1.54	0.15	0.36	0.27	0.21	0.54	-0.30	-0.27	0.11	0.46	0.5755	0.0112	7.7011	1.0871	8.1811	1.0988	A+	A-	A-
ELA	5	810449	424702	9	B-C	3	13566	1.91	0.09	0.26	0.29	0.36	0.64	-0.30	-0.41	-0.03	0.58	-0.0272	0.0113	-4.5791	0.9488	-5.0891	0.9342	A-	A-	A-
ELA	5	810456	767715	9	B-K	3	13566	1.25	0.22	0.31	0.47		0.44	-0.41	-0.01	0.35		0.1053	0.0134	9.9012	1.1746	9.9014	1.4129	A-	A-	A-
ELA	6	702825	599345	0	A-K	3	120128	1.45	0.13	0.28	0.58		0.52	-0.40	-0.22	0.48		-0.1373	0.0048	-8.4090	0.9671	3.8710	1.0219			
ELA	6	702826	166960	0	A-K	3	120128	1.95	0.12	0.21	0.28	0.39	0.62	-0.39	-0.32	0.01	0.52	0.2460	0.0036	-9.2990	0.9643	-5.5390	0.9744			
ELA	6	702868	329713	0	A-K	3	120128	1.43	0.19	0.20	0.62		0.45	-0.32	-0.27	0.47		0.0097	0.0045	9.9011	1.1349	9.9014	1.3512			
ELA	6	702905	552713	0	B-C	3	120128	2.06	0.07	0.13	0.46	0.33	0.46	-0.18	-0.37	-0.01	0.37	0.0592	0.0041	9.9012	1.1573	9.9013	1.2749			
ELA	6	736455	364666	0	B-C	3	120128	1.90	0.09	0.21	0.42	0.29	0.62	-0.33	-0.38	0.04	0.50	0.2692	0.0040	-9.8991	0.9213	-9.8991	0.9142			
ELA	6	736463	144231	0	B-K	3	120128	1.13	0.26	0.34	0.40		0.44	-0.28	-0.23	0.47		0.6299	0.0044	9.9012	1.1669	9.9013	1.2695			
ELA	6	810824	344679	1	A-K	3	13466	2.29	0.07	0.13	0.23	0.57	0.61	-0.32	-0.41	-0.15	0.57	-0.2724	0.0117	-6.2691	0.9184	-2.5890	0.9501	A+	B-	A-
ELA	6	810834	976673	1	A-C	3	13466	1.45	0.16	0.23	0.61		0.49	-0.41	-0.17	0.45		-0.0840	0.0139	2.1210	1.0259	8.8512	1.1795	A+	A+	A+
ELA	6	811624	726239	2	A-K	3	13309	0.86	0.40	0.35	0.25		0.35	-0.28	-0.01	0.33		1.2492	0.0133	9.9013	1.2790	9.9014	1.4126	A+	A-	A-
ELA	6	811626	851329	2	A-K	3	13309	1.61	0.15	0.32	0.30	0.23	0.49	-0.28	-0.24	0.10	0.40	0.7155	0.0112	9.9012	1.2017	9.9012	1.2289	A+	A-	A-
ELA	6	810485	233089	3	A-K	3	13410	1.84	0.10	0.24	0.39	0.27	0.51	-0.26	-0.36	0.11	0.40	0.3512	0.0117	9.0011	1.1059	9.9011	1.1407	A-	A-	A-
ELA	6	810486	289744	3	A-K	3	13410	0.70	0.56	0.19	0.25		0.32	-0.21	-0.16	0.39		1.5412	0.0126	9.9013	1.3210	9.9018	1.8345	A+	A+	A-
ELA	6	808484	781956	4	A-C	3	13285	0.76	0.57	0.10	0.33		0.20	-0.10	-0.28	0.29		1.3802	0.0119	9.9016	1.6367	9.9027	2.7036	A+	A+	A+
ELA	6	808486	945851	4	A-V	3	13285	1.81	0.06	0.24	0.53	0.17	0.56	-0.30	-0.41	0.26	0.32	0.3941	0.0132	-4.9691	0.9410	-5.0991	0.9391	A+	A-	A-

ContArea	FormGrade	ItemID	PubID	FormNumber	Standard1	Depth	N	Mean	Proportion0	Proportion1	Proportion2	Proportion3	PtBiserial	Correlation0	Correlation1	Correlation2	Correlation3	FinalB	FinalBErr	Infit	InfitMnSq	Outfit	OutfitMnSq	BiasCodeMALEFEMALE	BiasCodeWHITEBLACK	BiasCodeWHITEHISPANIC
ELA	6	816093	181419	5	A-K	3	13294	0.92	0.44	0.20	0.36		0.34	-0.26	-0.12	0.37		1.0754	0.0122	9.9014	1.3961	9.9016	1.6483	A-	A-	A-
ELA	6	816099	458601	5	A-C	3	13294	1.96	0.12	0.23	0.23	0.42	0.56	-0.22	-0.40	-0.10	0.57	0.2186	0.0107	8.5911	1.1037	9.9012	1.2281	A+	A-	A-
ELA	6	800743	706069	6	B-C	3	13333	1.83	0.16	0.21	0.28	0.35	0.51	-0.26	-0.31	-0.03	0.49	0.4873	0.0106	9.9012	1.2143	9.9013	1.2946	A+	A-	A-
ELA	6	800744	248167	6	B-V	3	13333	1.30	0.15	0.40	0.45		0.29	-0.33	0.06	0.18		0.1940	0.0143	9.9013	1.2840	9.9014	1.4392	A+	A+	A-
ELA	6	804595	659586	7	B-C	3	13345	0.89	0.45	0.21	0.34		0.41	-0.25	-0.29	0.51		1.1653	0.0122	9.9012	1.2223	9.9014	1.3837	A-	A-	A-
ELA	6	804598	512254	7	B-K	3	13345	1.75	0.16	0.28	0.23	0.34	0.48	-0.25	-0.28	-0.01	0.46	0.5323	0.0105	9.9013	1.2799	9.9014	1.4268	A+	A-	A-
ELA	6	808487	333082	8	B-V	3	13353	1.34	0.19	0.27	0.54		0.43	-0.30	-0.22	0.43		0.1824	0.0134	9.9012	1.1742	9.9013	1.3423	A-	A-	A-
ELA	6	808490	465113	8	B-K	3	13353	1.52	0.09	0.36	0.48	0.07	0.38	-0.21	-0.27	0.31	0.14	1.0362	0.0136	9.9012	1.2013	9.9012	1.2119	A-	A-	A-
ELA	6	794367	113279	9	B-C	3	13333	0.97	0.38	0.27	0.35		0.23	-0.16	-0.09	0.25		0.9961	0.0124	9.9015	1.5298	9.9018	1.8471	A+	A-	A-
ELA	6	794374	306504	9	B-K	3	13333	1.53	0.18	0.36	0.20	0.25	0.48	-0.23	-0.24	0.00	0.48	0.8108	0.0106	9.9012	1.1871	9.9012	1.2183	A-	A-	A-
ELA	7	673461	321755	0	B-K	3	121441	1.69	0.09	0.32	0.40	0.19	0.52	-0.25	-0.37	0.22	0.35	0.4391	0.0041	9.9011	1.1023	9.9011	1.1083			
ELA	7	673472	353470	0	B-C	3	121441	1.22	0.27	0.24	0.49		0.55	-0.41	-0.24	0.56		0.3512	0.0043	9.9010	1.0461	9.9011	1.0644			
ELA	7	701683	847405	0	A-K	3	121441	1.96	0.18	0.14	0.22	0.46	0.57	-0.32	-0.34	-0.11	0.58	0.2103	0.0034	9.9012	1.2167	9.9013	1.3348			
ELA	7	701718	977519	0	A-K	3	121441	0.73	0.49	0.28	0.22		0.37	-0.28	-0.05	0.39		1.4345	0.0044	9.9013	1.2570	9.9016	1.5596			
ELA	7	701757	733311	0	A-C	3	121441	1.72	0.10	0.33	0.33	0.25	0.56	-0.31	-0.30	0.05	0.48	0.3634	0.0039	9.9011	1.0588	9.9011	1.0726			
ELA	7	735028	741698	0	B-C	3	121441	0.82	0.46	0.27	0.27		0.35	-0.24	-0.13	0.39		1.2238	0.0043	9.9014	1.3665	9.9016	1.5522			
ELA	7	811343	328813	1	A-C	3	13607	1.56	0.27	0.17	0.29	0.27	0.35	-0.06	-0.43	-0.01	0.43	0.7890	0.0102	9.9017	1.6980	9.9020	2.0220	A+	B-	A-
ELA	7	811352	530365	1	A-K	3	13607	1.13	0.35	0.16	0.49		0.41	-0.30	-0.24	0.46		0.5652	0.0121	9.9013	1.3260	9.9016	1.5994	A+	A+	A+
ELA	7	806585	828744	2	A-C	3	13509	1.81	0.09	0.29	0.33	0.29	0.55	-0.34	-0.28	0.06	0.44	0.2325	0.0115	6.4211	1.0732	9.9011	1.1291	A+	A-	A-
ELA	7	806594	385679	2	A-V	3	13509	1.12	0.14	0.59	0.26		0.42	-0.31	-0.09	0.34		0.4127	0.0159	5.9011	1.0674	6.5711	1.0759	A+	A-	B-
ELA	7	804610	300040	3	A-K	3	13452	0.95	0.33	0.40	0.27		0.16	-0.15	0.04	0.11		0.9734	0.0135	9.9016	1.6141	9.9017	1.7425	A+	A-	A+
ELA	7	804611	309672	3	A-K	3	13452	1.67	0.08	0.28	0.52	0.12	0.48	-0.33	-0.31	0.33	0.19	0.6103	0.0133	6.6511	1.0816	5.1311	1.0639	A+	B-	A-
ELA	7	800754	562191	4	A-C	3	13474	1.15	0.20	0.48	0.28	0.04	0.12	-0.09	0.00	0.05	0.08	1.6590	0.0134	9.9017	1.6884	9.9017	1.7223	A-	A-	A-
ELA	7	800765	122777	4	A-K	3	13474	1.19	0.31	0.19	0.50		0.48	-0.30	-0.36	0.56		0.4224	0.0124	9.9012	1.1961	9.9014	1.3670	A+	A-	A-
ELA	7	810495	919313	5	B-K	3	13488	1.29	0.23	0.24	0.52		0.41	-0.32	-0.15	0.40		0.1666	0.0131	9.9012	1.2408	9.9014	1.4238	A+	A-	A-
ELA	7	810496	508761	5	B-K	3	13488	1.81	0.06	0.31	0.37	0.25	0.42	-0.20	-0.28	0.07	0.34	0.1319	0.0123	9.9013	1.2723	9.9013	1.3298	A+	A-	A-
ELA	7	809647	490228	6	B-C	3	13484	1.11	0.25	0.39	0.36		0.43	-0.34	-0.08	0.39		0.5628	0.0136	9.9012	1.1862	9.9012	1.2422	B+	A+	A-
ELA	7	809650	568053	6	B-K	3	13484	1.88	0.04	0.28	0.44	0.24	0.54	-0.25	-0.39	0.11	0.39	-0.0477	0.0130	2.0610	1.0235	4.4611	1.0523	A+	A-	A-
ELA	7	806569	911948	7	B-K	3	13486	1.11	0.26	0.37	0.37		0.49	-0.37	-0.12	0.46		0.5525	0.0134	8.2811	1.0881	9.9011	1.1352	A+	A-	A+
ELA	7	806570	316667	7	B-K	3	13486	1.65	0.07	0.33	0.50	0.11	0.42	-0.33	-0.23	0.27	0.17	0.5416	0.0136	9.9012	1.1626	9.9012	1.1707	A+	A-	A-
ELA	7	804606	847783	8	B-K	3	13510	1.58	0.12	0.32	0.41	0.14	0.41	-0.21	-0.28	0.21	0.27	0.7099	0.0122	9.9013	1.2623	9.9013	1.2941	B+	A+	A-
ELA	7	804607	509874	8	B-V	3	13510	1.23	0.19	0.39	0.42		0.43	-0.31	-0.16	0.40		0.2415	0.0138	9.9012	1.1503	9.9012	1.2166	A-	A-	A-
ELA	7	808517	565853	9	B-C	3	13431	1.28	0.23	0.27	0.50		0.55	-0.41	-0.23	0.54		0.1963	0.0132	1.3610	1.0150	1.3710	1.0221	A+	A+	A+
ELA	7	808519	666469	9	B-C	3	13431	1.99	0.09	0.23	0.28	0.40	0.63	-0.33	-0.40	-0.01	0.55	-0.0123	0.0114	-6.1291	0.9300	-4.5591	0.9357	A+	A-	A-
ELA	8	677427	999460	0	B-V	3	119014	1.30	0.25	0.20	0.55		0.35	-0.29	-0.11	0.34		0.0131	0.0043	9.9014	1.3966	9.9019	1.9391			
ELA	8	677442	342430	0	B-K	3	119014	1.74	0.13	0.24	0.39	0.24	0.51	-0.26	-0.33	0.10	0.42	0.2735	0.0039	9.9012	1.1640	9.9012	1.1672			
ELA	8	716585	452419	0	A-K	3	119014	1.46	0.10	0.33	0.56		0.52	-0.42	-0.21	0.45		-0.6034	0.0051	-9.8991	0.9309	-9.8991	0.9470			
ELA	8	716596	150384	0	B-C	3	119014	0.77	0.48	0.27	0.25		0.35	-0.24	-0.11	0.39		1.1389	0.0044	9.9013	1.2979	9.9016	1.6000			
ELA	8	716601	126711	0	B-K	3	119014	1.87	0.08	0.24	0.41	0.27	0.45	-0.24	-0.28	0.05	0.35	-0.0384	0.0041	9.9012	1.2257	9.9012	1.2483			
ELA	8	716656	807928	0	A-K	3	119014	1.68	0.15	0.29	0.30	0.26	0.50	-0.28	-0.27	0.08	0.42	0.3243	0.0037	9.9012	1.2287	9.9013	1.2943			
ELA	8	811896	520494	1	A-K	3	13280	1.45	0.18	0.18	0.64		0.51	-0.41	-0.23	0.51		-0.3485	0.0138	4.0611	1.0522	4.8211	1.1130	A+	A-	A-
ELA	8	811897	290703	1	A-K	3	13280	1.67	0.05	0.29	0.61	0.05	0.48	-0.27	-0.39	0.46	0.07	0.4744	0.0156	0.3710	1.0048	-2.2390	0.9689	A-	B-	A-
ELA	8	804625	479394	2	A-K	3	13218	1.67	0.09	0.16	0.75		0.54	-0.38	-0.34	0.53		-0.9702	0.0161	-9.8992	0.8331	-7.2092	0.8086	A+	A-	A-
ELA	8	804626	772359	2	A-K	3	13218	1.57	0.22	0.25	0.26	0.27	0.33	-0.10	-0.25	-0.06	0.39	0.5310	0.0104	9.9016	1.6494	9.9019	1.8545	A+	A-	A+
ELA	8	794377	494139	3	A-C	3	13240	1.76	0.15	0.24	0.30	0.31	0.57	-0.31	-0.36	0.09	0.48	0.2377	0.0109	8.5211	1.0999	8.7711	1.1161	A+	A-	A-
ELA	8	794379	104445	3	A-K	3	13240	1.26	0.26	0.21	0.53		0.47	-0.33	-0.27	0.50		0.1028	0.0128	9.9012	1.1695	9.9013	1.2793	A+	A+	A-
ELA	8	806621	727701	4	A-K	3	13180	2.11	0.05	0.18	0.39	0.38	0.54	-0.27	-0.31	-0.12	0.48	-0.5290	0.0127	1.9010	1.0228	5.2311	1.0684	A+	A-	A-
ELA	8	806622	746314	4	A-K	3	13180	1.63	0.09	0.18	0.73		0.58	-0.41	-0.36	0.58		-0.9291	0.0160	-9.8992	0.8193	-9.8992	0.7549	A+	A-	A-
ELA	8	816431	766099	5	A-K	3	13217	1.11	0.27	0.35	0.38		0.50	-0.36	-0.16	0.49		0.3699	0.0134	6.7511	1.0719	7.1811	1.0923	A-	A+	A+
ELA	8	816444	649222	5	A-C	3	13217	2.15	0.09	0.17	0.26	0.49	0.59	-0.29	-0.37	-0.15	0.57	-0.4000	0.0115	0.6910	1.0087	1.7110	1.0291	A-	A-	A-
ELA	8	800792	884174	6	B-C	3	13197	2.12	0.07	0.30	0.09	0.55	0.50	-0.26	-0.31	-0.17	0.51	-0.4792	0.0111	9.9012	1.2453	9.9017	1.7130	A+	A-	A-
ELA	8	800797	274127	6	B-V	3	13197	0.98	0.36	0.29	0.34		0.31	-0.20	-0.15	0.35		0.6809	0.0128	9.9014	1.4455	9.9016	1.6336	A-	A-	A-
ELA	8	804635	229123	7	B-C	3	13229	1.82	0.11	0.26	0.33	0.30	0.57	-0.29	-0.33	0.01	0.50	0.0894	0.0116	7.3111	1.0855	8.1011	1.1024	A-	A-	A+
ELA	8	804640	888427	7	B-C	3	13229	1.69	0.10	0.10	0.79		0.55	-0.41	-0.34	0.57		-0.9577	0.0160	-9.8992	0.8448	-8.2493	0.7173	A+	A-	A-
ELA	8	800776	785284	8	B-C	3	13223	1.05	0.25	0.44	0.30		0.33	-0.29	0.02	0.25		0.5160	0.0140	9.9013	1.2961	9.9014	1.3680	A-	A-	A-
ELA	8	800781	662362	8	B-C	3	13223	1.99	0.08	0.21	0.37	0.35	0.57	-0.28	-0.39	0.03	0.46	-0.1946	0.0119	1.0810	1.0127	2.8510	1.0364	A+	A-	A-
ELA	8	816784	234722	9	B-K	3	13230	1.87	0.09	0.28	0.31	0.32	0.61	-0.27	-0.41	0.01	0.55	-0.0449	0.0116	-4.3890	0.9512	-3.5090	0.9568	A+	A-	A+
ELA	8	816785	543407	9	B-C	3	13230	0.94	0.38	0.29	0.32		0.32	-0.24	-0.09	0.33		0.7713	0.0129	9.9014	1.3917	9.9016	1.5767	A+	A-	A-

Evidence Based Selected Response Online Item Statistics

Column Heading	Definition
ContArea	Content
FormGrade	Grade
PubID	Form ID
FormNumber	Form
Standard1	Standard
Depth	Depth of Knowledge
N	N
Mean	Mean
Proportion0	Proportion 0
Proportion1	Proportion 1
Proportion2	Proportion 2
Proportion3	Proportion 3
PtBiserial	Point Biserial
Correlation0	Correlation 0
Correlation1	Correlation 1
Correlation2	Correlation 2
Correlation3	Correlation 3

ContArea	FormGrade	ItemID	PubID	FormNumber	Standard1	Depth	N	Mean	Proportion0	Proportion1	Proportion2	Proportion3	PtBiserial	Correlation0	Correlation1	Correlation2	Correlation3
ELA	3	674839	546368	0	A-K	3	1455	0.93	0.36	0.36	0.28		0.31	-0.19	-0.14	0.35	
ELA	3	674983	266374	0	A-K	3	1455	1.63	0.16	0.27	0.34	0.23	0.54	-0.24	-0.38	0.14	0.46
ELA	3	702677	194720	0	B-V	3	1455	1.87	0.08	0.26	0.37	0.29	0.58	-0.28	-0.39	0.08	0.46
ELA	3	736667	957118	0	B-K	3	1455	1.12	0.27	0.34	0.39		0.48	-0.36	-0.14	0.46	
ELA	3	809588	477236	1	A-K	3	682	1.28	0.17	0.46	0.29	0.08	0.50	-0.27	-0.23	0.24	0.39
ELA	3	809590	516891	1	A-K	3	682	1.07	0.30	0.32	0.38		0.65	-0.48	-0.19	0.64	
ELA	3	806536	426590	2	A-V	3	388	1.25	0.21	0.33	0.46		0.39	-0.29	-0.14	0.37	
ELA	3	806537	943322	2	A-K	3	388	1.65	0.10	0.33	0.39	0.18	0.48	-0.20	-0.38	0.24	0.32
ELA	3	800699	527411	3	A-C	3	385	1.20	0.22	0.37	0.42		0.44	-0.31	-0.17	0.43	
ELA	3	800710	621558	3	A-K	3	385	2.03	0.07	0.19	0.38	0.36	0.54	-0.29	-0.41	0.10	0.38
ELA	4	659301	118056	0	A-K	2	1543	1.49	0.17	0.18	0.65		0.65	-0.47	-0.37	0.67	
ELA	4	659304	924455	0	A-C	3	1543	1.81	0.13	0.26	0.26	0.34	0.66	-0.33	-0.43	0.04	0.60
ELA	4	703455	971920	0	B-C	3	1543	0.65	0.55	0.26	0.20		0.20	-0.05	-0.24	0.33	
ELA	4	703465	682286	0	B-K	3	1543	1.46	0.17	0.32	0.36	0.14	0.54	-0.33	-0.27	0.27	0.37
ELA	4	703466	660916	0	B-V	3	1543	1.05	0.27	0.42	0.32		0.47	-0.39	-0.03	0.40	
ELA	4	736588	746900	0	A-C	3	1543	1.76	0.08	0.31	0.41	0.21	0.53	-0.32	-0.31	0.15	0.37
ELA	4	809597	598605	1	A-K	3	747	0.83	0.37	0.43	0.20		0.49	-0.45	0.15	0.36	
ELA	4	809601	194368	1	A-K	3	747	1.36	0.22	0.36	0.25	0.16	0.56	-0.25	-0.36	0.23	0.48
ELA	4	809609	801072	2	A-V	3	392	1.36	0.17	0.29	0.54		0.64	-0.48	-0.27	0.61	
ELA	4	809611	535294	2	A-K	3	392	1.59	0.12	0.31	0.43	0.14	0.56	-0.34	-0.33	0.30	0.32
ELA	4	808453	151578	3	A-K	3	404	1.51	0.19	0.29	0.34	0.18	0.56	-0.39	-0.24	0.24	0.38
ELA	4	808454	293224	3	A-K	3	404	0.99	0.24	0.53	0.23		0.49	-0.40	0.02	0.39	
ELA	5	703788	632834	0	A-C	3	2250	0.82	0.44	0.29	0.26		0.35	-0.26	-0.07	0.36	
ELA	5	703792	983469	0	A-K	3	2250	1.64	0.12	0.34	0.31	0.23	0.53	-0.25	-0.30	0.06	0.47
ELA	5	703846	834900	0	A-C	3	2250	1.65	0.11	0.35	0.31	0.23	0.54	-0.27	-0.31	0.08	0.47
ELA	5	703903	331237	0	B-K	3	2250	1.14	0.34	0.18	0.48		0.58	-0.44	-0.28	0.63	
ELA	5	740535	624301	0	B-C	3	2250	1.40	0.25	0.30	0.24	0.21	0.48	-0.19	-0.34	0.08	0.50
ELA	5	740556	121246	0	B-K	3	2250	1.12	0.31	0.26	0.43		0.63	-0.46	-0.26	0.65	
ELA	5	804572	110220	1	A-C	3	1104	1.00	0.31	0.39	0.30		0.44	-0.29	-0.15	0.46	
ELA	5	804575	525009	1	A-K	3	1104	1.32	0.19	0.39	0.33	0.09	0.43	-0.21	-0.23	0.20	0.35
ELA	5	800732	977866	2	A-K	3	563	1.26	0.26	0.39	0.19	0.16	0.31	-0.03	-0.25	-0.07	0.45
ELA	5	800735	465748	2	A-K	3	563	1.26	0.22	0.30	0.48		0.52	-0.39	-0.19	0.50	
ELA	5	804582	828037	3	A-C	3	583	1.57	0.13	0.37	0.31	0.20	0.51	-0.23	-0.33	0.14	0.42
ELA	5	804584	234240	3	A-K	3	583	1.37	0.20	0.23	0.57		0.46	-0.32	-0.27	0.49	
ELA	6	702825	599345	0	A-K	3	3598	1.34	0.18	0.30	0.52		0.57	-0.43	-0.24	0.54	
ELA	6	702826	166960	0	A-K	3	3598	1.80	0.15	0.24	0.28	0.33	0.65	-0.40	-0.35	0.07	0.55
ELA	6	702868	329713	0	A-K	3	3598	1.38	0.20	0.22	0.58		0.54	-0.38	-0.31	0.56	
ELA	6	702905	552713	0	B-C	3	3598	1.87	0.11	0.18	0.44	0.27	0.51	-0.22	-0.41	0.08	0.42
ELA	6	736455	364666	0	B-C	3	3598	1.70	0.13	0.28	0.37	0.23	0.62	-0.32	-0.39	0.16	0.48
ELA	6	736463	144231	0	B-K	3	3598	1.07	0.30	0.34	0.36		0.41	-0.26	-0.19	0.44	
ELA	6	810824	344679	1	A-K	3	1594	1.93	0.13	0.21	0.28	0.39	0.65	-0.33	-0.42	-0.03	0.60
ELA	6	810834	976673	1	A-C	3	1594	1.28	0.23	0.25	0.52		0.56	-0.46	-0.14	0.52	
ELA	6	811624	726239	2	A-K	3	1008	0.85	0.40	0.35	0.25		0.33	-0.23	-0.08	0.35	
ELA	6	811626	851329	2	A-K	3	1008	1.55	0.16	0.34	0.30	0.20	0.50	-0.27	-0.27	0.13	0.41
ELA	6	810485	233089	3	A-K	3	996	1.81	0.09	0.24	0.44	0.23	0.52	-0.24	-0.39	0.17	0.36
ELA	6	810486	289744	3	A-K	3	996	0.64	0.58	0.19	0.23		0.26	-0.12	-0.23	0.36	
ELA	7	673461	321755	0	B-K	3	4852	1.55	0.11	0.36	0.38	0.14	0.50	-0.24	-0.33	0.22	0.36
ELA	7	673472	353470	0	B-C	3	4852	1.17	0.28	0.26	0.46		0.59	-0.42	-0.27	0.62	
ELA	7	701683	847405	0	A-K	3	4852	1.81	0.21	0.17	0.23	0.40	0.60	-0.34	-0.35	-0.06	0.60
ELA	7	701718	977519	0	A-K	3	4852	0.66	0.52	0.29	0.19		0.35	-0.24	-0.07	0.39	

ContArea	FormGrade	ItemID	PubID	FormNumber	Standard1	Depth	N	Mean	Proportion0	Proportion1	Proportion2	Proportion3	PtBiserial	Correlation0	Correlation1	Correlation2	Correlation3
ELA	7	701757	733311	0	A-C	3	4852	1.62	0.10	0.38	0.32	0.20	0.55	-0.26	-0.32	0.08	0.49
ELA	7	735028	741698	0	B-C	3	4852	0.74	0.49	0.29	0.22		0.36	-0.26	-0.06	0.37	
ELA	7	811343	328813	1	A-C	3	2018	1.30	0.30	0.26	0.30	0.15	0.30	0.03	-0.42	0.03	0.44
ELA	7	811352	530365	1	A-K	3	2018	0.82	0.49	0.21	0.31		0.37	-0.20	-0.29	0.47	
ELA	7	806585	828744	2	A-C	3	1409	1.74	0.11	0.31	0.30	0.27	0.53	-0.30	-0.28	0.05	0.45
ELA	7	806594	385679	2	A-V	3	1409	1.17	0.14	0.56	0.31		0.38	-0.28	-0.10	0.32	
ELA	7	804610	300040	3	A-K	3	1425	0.89	0.38	0.35	0.27		0.17	-0.18	0.08	0.11	
ELA	7	804611	309672	3	A-K	3	1425	1.59	0.08	0.34	0.51	0.08	0.46	-0.28	-0.30	0.33	0.19
ELA	8	677427	999460	0	B-V	3	5262	1.26	0.27	0.21	0.53		0.40	-0.32	-0.15	0.40	
ELA	8	677442	342430	0	B-K	3	5262	1.57	0.16	0.30	0.35	0.19	0.48	-0.19	-0.36	0.14	0.42
ELA	8	716585	452419	0	A-K	3	5262	1.30	0.14	0.43	0.44		0.54	-0.43	-0.17	0.47	
ELA	8	716596	150384	0	B-C	3	5262	0.64	0.53	0.30	0.17		0.29	-0.16	-0.12	0.36	
ELA	8	716601	126711	0	B-K	3	5262	1.75	0.10	0.28	0.39	0.23	0.46	-0.23	-0.29	0.10	0.36
ELA	8	716656	807928	0	A-K	3	5262	1.53	0.17	0.32	0.30	0.20	0.49	-0.27	-0.26	0.12	0.42
ELA	8	811896	520494	1	A-K	3	2147	1.23	0.28	0.22	0.50		0.54	-0.39	-0.25	0.56	
ELA	8	811897	290703	1	A-K	3	2147	1.54	0.06	0.36	0.53	0.04	0.46	-0.24	-0.38	0.46	0.06
ELA	8	804625	479394	2	A-K	3	1542	1.71	0.07	0.14	0.79		0.48	-0.32	-0.34	0.50	
ELA	8	804626	772359	2	A-K	3	1542	1.54	0.23	0.24	0.27	0.25	0.28	-0.10	-0.18	-0.05	0.33
ELA	8	794377	494139	3	A-C	3	1573	1.69	0.17	0.24	0.32	0.27	0.52	-0.27	-0.35	0.12	0.44
ELA	8	794379	104445	3	A-K	3	1573	1.25	0.27	0.21	0.52		0.48	-0.31	-0.32	0.54	

Text-Dependent Analysis Paper/Pencil Item Statistics

Column Heading	Definition
ContArea	Content
FormGrade	Grade
PubID	Form ID
FormNumber	Form
Standard1	Standard
Depth	Depth of Knowledge
N	N
Mean	Mean
Proportion0	Proportion 0
Proportion1	Proportion 1
Proportion2	Proportion 2
Proportion3	Proportion 3
Proportion4	Proportion 4
PtBiserial	Point Biserial
Correlation0	Correlation 0
Correlation1	Correlation 1
Correlation2	Correlation 2
Correlation3	Correlation 3
Correlation4	Correlation 4
FinalB	IRT Difficulty Estimate
FinalBErr	IRT Difficulty Error
Infit	Infit
InfitMnSq	Infit Mean Square
Outfit	Outfit
OutfitMnSq	Outfit Mean Square
BiasCodeMALEFEMALE	Male/Female DIF Code
BiasCodeWHITEBLACK	White/Black DIF Code
BiasCodeWHITEHISPANIC	White/Hispanic DIF Code

ContArea	FormGrade	ItemID	PubID	FormNumber	Standard1	Depth	N	Mean	Proportion0	Proportion1	Proportion2	Proportion3	Proportion4	PtBiserial	Correlation0	Correlation1	Correlation2	Correlation3	Correlation4	FinalB	FinalBErr	Infit	InfitMnSq	Outfit	OutfitMnSq	BiasCodeMALEFEMALE	BiasCodeWHITEBLACK	BiasCodeWHITEHISPANIC
ELA	4	736809	392945	0	E	3	124266	1.69	0.05	0.32	0.51	0.10	0.01	0.60	-0.36	-0.39	0.33	0.30	0.11	1.4376	0.0046	-9.8992	0.7711	-9.8992	0.7716			
ELA	4	811341	376116	1	E	3	1488	1.38	0.08	0.51	0.35	0.04	0.01	0.62	-0.39	-0.34	0.46	0.24	0.12	1.8349	0.0432	-9.3193	0.6824	-9.5993	0.6773	B+	B-	B-
ELA	4	811745	916349	2	E	3	1491	1.32	0.12	0.52	0.31	0.05	0.00	0.65	-0.45	-0.27	0.45	0.28	0.10	2.1610	0.0418	-9.8993	0.6665	-9.8993	0.6633	B+	A-	A-
ELA	4	810387	555768	3	E	3	1490	1.54	0.08	0.39	0.43	0.09	0.00	0.65	-0.42	-0.38	0.43	0.29	0.08	1.8306	0.0409	-9.7793	0.6882	-9.7593	0.6891	A+	B-	A-
ELA	4	811899	946041	4	E	3	1485	1.35	0.10	0.52	0.31	0.07	0.00	0.67	-0.44	-0.32	0.46	0.32	0.09	2.0080	0.0413	-9.8994	0.6349	-9.8994	0.6319	A+	A-	A-
ELA	4	811200	519117	5	E	3	1490	1.46	0.08	0.45	0.39	0.07	0.00	0.64	-0.41	-0.36	0.43	0.29	0.08	2.0573	0.0419	-9.8993	0.6833	-9.8993	0.6834	B+	C-	B-
ELA	4	811744	626992	6	E	3	1490	1.41	0.10	0.45	0.39	0.05	0.00	0.62	-0.40	-0.32	0.45	0.25	0.09	2.0818	0.0416	-9.0393	0.7054	-9.0893	0.7048	A+	B-	A-
ELA	4	810775	556041	7	E	3	1492	1.44	0.06	0.52	0.35	0.07	0.00	0.55	-0.29	-0.36	0.36	0.28	0.09	1.8971	0.0426	-6.3892	0.7787	-6.6192	0.7684	C+	A-	A-
ELA	4	811746	626957	8	E	3	1494	1.35	0.12	0.47	0.36	0.05	0.00	0.66	-0.45	-0.28	0.46	0.29	0.08	2.1557	0.0413	-9.8993	0.6674	-9.8993	0.6658	A+	A-	A-
ELA	4	811578	962869	9	E	3	1495	1.59	0.06	0.38	0.47	0.08	0.00	0.62	-0.35	-0.41	0.38	0.31	0.09	1.7914	0.0423	-8.2693	0.7269	-8.1393	0.7298	A+	A-	A-
ELA	5	704145	859340	0	E	3	122426	1.65	0.05	0.37	0.46	0.10	0.01	0.60	-0.32	-0.41	0.31	0.32	0.12	1.4164	0.0046	-9.8992	0.7583	-9.8992	0.7581			
ELA	5	812075	181986	1	E	3	1486	1.43	0.07	0.51	0.35	0.07	0.00	0.60	-0.35	-0.36	0.39	0.31	0.08	1.8869	0.0426	-8.2393	0.7230	-8.3993	0.7158	B+	A-	A-
ELA	5	812361	573097	2	E	3	1494	1.65	0.04	0.40	0.45	0.12	0.00	0.61	-0.29	-0.45	0.31	0.37	0.06	1.6341	0.0418	-9.0993	0.7109	-9.0893	0.7094	C+	A-	A-
ELA	5	812326	547165	3	E	3	1492	1.43	0.08	0.50	0.34	0.09	0.00	0.55	-0.36	-0.27	0.32	0.30		0.7253	0.0417	-5.7592	0.8079	-5.9092	0.7999	A+	A-	A-
ELA	5	812450	795482	4	E	3	1496	1.65	0.07	0.34	0.47	0.11	0.00	0.62	-0.31	-0.44	0.33	0.35	0.12	1.7274	0.0402	-9.0593	0.7089	-8.9893	0.7101	B+	A-	A-
ELA	5	812436	806111	5	E	3	1490	1.50	0.06	0.47	0.39	0.08	0.00	0.66	-0.37	-0.44	0.46	0.30	0.09	1.8458	0.0422	-9.8493	0.6802	-9.8993	0.6742	A+	B-	B-
ELA	5	812422	529274	6	E	3	1486	1.42	0.09	0.49	0.34	0.07	0.01	0.61	-0.36	-0.35	0.40	0.29	0.12	1.9422	0.0413	-8.1893	0.7267	-8.2593	0.7247	A+	A-	A-
ELA	5	812551	996299	7	E	3	1492	1.57	0.06	0.40	0.45	0.09	0.00	0.57	-0.34	-0.35	0.33	0.30	0.08	1.8857	0.0416	-6.9392	0.7703	-6.9292	0.7708	B+	B-	C-
ELA	5	812552	623155	8	E	3	1490	1.54	0.06	0.41	0.45	0.07	0.00	0.62	-0.39	-0.37	0.40	0.28	0.09	1.8700	0.0428	-8.8393	0.7093	-8.8093	0.7097	C+	A-	A-
ELA	5	812717	161367	9	E	3	1495	1.45	0.06	0.52	0.35	0.07	0.01	0.59	-0.33	-0.37	0.38	0.29	0.11	1.7281	0.0426	-7.3193	0.7445	-7.5393	0.7345	A+	B-	A-
ELA	6	703220	534968	0	E	3	120128	1.79	0.04	0.33	0.44	0.17	0.02	0.62	-0.33	-0.42	0.20	0.37	0.17	1.2917	0.0042	-9.8993	0.7154	-9.8993	0.7168			
ELA	6	810832	322201	1	E	3	1491	1.82	0.05	0.30	0.45	0.19	0.01	0.69	-0.34	-0.50	0.22	0.43	0.17	1.4457	0.0384	-9.8994	0.6003	-9.8994	0.6053	B+	B-	A-
ELA	6	811625	495441	2	E	3	1486	1.79	0.05	0.32	0.46	0.16	0.01	0.67	-0.31	-0.49	0.24	0.41	0.17	1.4185	0.0389	-9.8994	0.6425	-9.8994	0.6438	B+	A-	A-
ELA	6	813054	262749	3	E	3	1489	1.50	0.06	0.50	0.34	0.09	0.01	0.64	-0.36	-0.41	0.37	0.34	0.17	1.6980	0.0400	-9.8994	0.6500	-9.8994	0.6421	B+	A-	C-
ELA	6	813351	220594	4	E	3	1488	1.78	0.04	0.33	0.45	0.16	0.01	0.69	-0.31	-0.53	0.29	0.41	0.14	1.3765	0.0386	-9.8994	0.5962	-9.8994	0.5984	C+	A-	A-
ELA	6	816232	329637	5	E	3	1489	1.62	0.06	0.39	0.45	0.10	0.01	0.66	-0.37	-0.45	0.39	0.33	0.11	1.7202	0.0403	-9.8994	0.6408	-9.8994	0.6419	B+	B-	A-
ELA	6	813426	410935	6	E	3	1490	1.71	0.04	0.37	0.44	0.14	0.01	0.61	-0.29	-0.47	0.30	0.33	0.17	1.4201	0.0390	-9.8793	0.6821	-9.8493	0.6828	C+	A-	A-
ELA	6	813661	220409	7	E	3	1488	1.54	0.05	0.46	0.40	0.09	0.00	0.65	-0.36	-0.47	0.45	0.31	0.07	1.9082	0.0416	-9.8993	0.6551	-9.8994	0.6500	B+	A-	A-
ELA	6	813725	968203	8	E	3	1489	1.53	0.06	0.48	0.35	0.11	0.01	0.64	-0.33	-0.43	0.36	0.36	0.11	1.9071	0.0400	-9.8993	0.6563	-9.8993	0.6530	A+	C-	A-
ELA	6	795719	658752	9	E	3	1489	1.42	0.03	0.59	0.31	0.06	0.01	0.59	-0.27	-0.45	0.42	0.29	0.09	1.8163	0.0442	-9.1393	0.6732	-9.3594	0.6476	A+	A-	A-
ELA	7	736077	342687	0	E	3	121441	1.59	0.06	0.42	0.39	0.12	0.01	0.63	-0.34	-0.42	0.33	0.35	0.14	1.5978	0.0044	-9.8993	0.7228	-9.8993	0.7221			
ELA	7	811342	131326	1	E	3	1492	1.72	0.11	0.27	0.42	0.18	0.02	0.70	-0.40	-0.42	0.23	0.45	0.19	1.5107	0.0353	-9.8994	0.6267	-9.8994	0.6278	B+	A-	A-
ELA	7	815632	164723	2	E	3	1489	1.94	0.03	0.25	0.49	0.21	0.02	0.65	-0.23	-0.50	0.11	0.42	0.22	0.9893	0.0393	-9.8993	0.6594	-9.8993	0.6600	C+	A-	A-
ELA	7	815803	957027	3	E	3	1493	1.78	0.07	0.30	0.45	0.16	0.02	0.64	-0.38	-0.37	0.18	0.39	0.22	1.2666	0.0368	-9.8693	0.6843	-9.8193	0.6860	C+	B-	A-
ELA	7	816005	340902	4	E	3	1488	1.75	0.06	0.32	0.45	0.15	0.02	0.68	-0.33	-0.47	0.25	0.43	0.17	1.3359	0.0381	-9.8994	0.6349	-9.8994	0.6351	B+	B-	B-
ELA	7	815971	359221	5	E	3	1490	1.88	0.04	0.28	0.48	0.18	0.03	0.62	-0.28	-0.43	0.12	0.39	0.22	0.9963	0.0385	-9.0593	0.7026	-9.0493	0.7027	C+	A-	C-
ELA	7	816039	570739	6	E	3	1492	1.80	0.04	0.34	0.42	0.19	0.01	0.62	-0.28	-0.46	0.20	0.40	0.15	1.3423	0.0389	-8.5993	0.7271	-8.5393	0.7270	C+	A-	C-
ELA	7	816102	578412	7	E	3	1492	1.76	0.05	0.35	0.40	0.18	0.02	0.68	-0.32	-0.48	0.21	0.44	0.19	1.3112	0.0376	-9.8994	0.6276	-9.8994	0.6291	B+	A-	A-
ELA	7	816157	275136	8	E	3	1490	1.64	0.05	0.42	0.38	0.13	0.01	0.63	-0.29	-0.45	0.28	0.37	0.19	1.5273	0.0390	-9.8293	0.6843	-9.7993	0.6826	C+	A-	A-
ELA	7	816344	389987	9	E	3	1493	1.71	0.09	0.31	0.43	0.15	0.02	0.67	-0.39	-0.40	0.26	0.39	0.20	1.4061	0.0362	-9.8993	0.6558	-9.8993	0.6571	B+	A-	A-
ELA	8	735123	240308	0	E	3	119014	1.94	0.03	0.28	0.43	0.24	0.02	0.67	-0.28	-0.52	0.13	0.44	0.19	0.7519	0.0042	-9.8993	0.6600	-9.8993	0.6633			
ELA	8	811895	419133	1	E	3	1496	1.86	0.06	0.29	0.41	0.22	0.03	0.66	-0.34	-0.44	0.17	0.41	0.21	1.0122	0.0360	-9.8993	0.6618	-9.8993	0.6630	C+	A-	A-
ELA	8	816400	948450	2	E	3	1496	1.91	0.04	0.29	0.42	0.24	0.02	0.67	-0.28	-0.51	0.14	0.45	0.19	0.8626	0.0371	-9.8994	0.6135	-9.8994	0.6178	B+	B-	B-
ELA	8	795722	444030	3	E	3	1488	1.90	0.04	0.31	0.39	0.24	0.03	0.61	-0.25	-0.46	0.11	0.41	0.21	0.8735	0.0360	-9.7793	0.6979	-9.8193	0.6946	C+	B-	A-
ELA	8	816896	790685	4	E	3	1493	1.82	0.05	0.33	0.40	0.20	0.02	0.66	-0.34	-0.44	0.16	0.43	0.18	1.0144	0.0369	-9.8994	0.6356	-9.8994	0.6397	C+	A-	B-
ELA	8	816442	709308	5	E	3	1488	1.91	0.04	0.28	0.42	0.24	0.02	0.64	-0.29	-0.46	0.12	0.42	0.19	0.9386	0.0374	-9.8993	0.6634	-9.8993	0.6662	C+	B-	B-
ELA	8	816897	746594	6	E	3	1492	1.86	0.03	0.32	0.41	0.22	0.01	0.65	-0.23	-0.51	0.15	0.46	0.15	0.9754	0.0377	-9.8994	0.6474	-9.8994	0.6496	C+	B-	A-
ELA	8	816921	189484	7	E	3	1491	1.79	0.06	0.33	0.38	0.21	0.02	0.67	-0.36	-0.44	0.20	0.43	0.17	1.1646	0.0367	-9.8993	0.6576	-9.8993	0.6591	A+	A-	C-
ELA	8	816994	319233	8	E	3	1487	1.95	0.05	0.25	0.41	0.26	0.02	0.65	-0.29	-0.48	0.12	0.43	0.19	0.9438	0.0363	-9.8993	0.6722	-9.8993	0.6758	B+	A-	A-
ELA	8	816807	235839	9	E	3	1490	1.99	0.03	0.27	0.39	0.28	0.02	0.65	-0.25	-0.50	0.06	0.46	0.20	0.7201	0.0368	-9.8994	0.6444	-9.8994	0.6459	C+	A-	A-

Text-Dependent Analysis Online Item Statistics

Column Heading	Definition
ContArea	Content
FormGrade	Grade
PublD	Form ID
FormNumber	Form
Standard1	Standard
Depth	Depth of Knowledge
N	N
Mean	Mean
Proportion0	Proportion 0
Proportion1	Proportion 1
Proportion2	Proportion 2
Proportion3	Proportion 3
Proportion4	Proportion 4
PtBiserial	Point Biserial
Correlation0	Correlation 0
Correlation1	Correlation 1
Correlation2	Correlation 2
Correlation3	Correlation 3
Correlation4	Correlation 4

ContArea	FormGrade	ItemID	PubID	FormNumber	Standard1	Depth	N	Mean	Proportion0	Proportion1	Proportion2	Proportion3	Proportion4	PtBiserial	Correlation0	Correlation1	Correlation2	Correlation3	Correlation4
ELA	4	736809	392945	0	E	3	1543	1.462734932	0.13	0.36	0.41	0.08	0.01	0.67	-0.47	-0.30	0.42	0.31	0.12
ELA	5	704145	859340	0	E	3	2250	1.372888889	0.11	0.46	0.39	0.04	0.00	0.61	-0.39	-0.31	0.45	0.24	0.09
ELA	6	703220	534968	0	E	3	3598	1.656197888	0.07	0.37	0.40	0.13	0.02	0.65	-0.38	-0.39	0.28	0.35	0.21
ELA	7	736077	342687	0	E	3	4852	1.464550701	0.10	0.45	0.36	0.09	0.01	0.65	-0.38	-0.36	0.37	0.35	0.15
ELA	8	735123	240308	0	E	3	5262	1.704675029	0.05	0.36	0.42	0.15	0.01	0.67	-0.32	-0.50	0.31	0.40	0.16

Writing Prompt Paper/Pencil Item Statistics

Column Heading	Definition
ContArea	Content
FormGrade	Grade
PubID	Form ID
FormNumber	Form
Standard1	Standard
Depth	Depth of Knowledge
N	N
Mean	Mean
Proportion0	Proportion 0
Proportion1	Proportion 1
Proportion2	Proportion 2
Proportion3	Proportion 3
Proportion4	Proportion 4
PtBiserial	Point Biserial
Correlation0	Correlation 0
Correlation1	Correlation 1
Correlation2	Correlation 2
Correlation3	Correlation 3
Correlation4	Correlation 4
FinalB	IRT Difficulty Estimate
FinalBErr	IRT Difficulty Error
Infit	Infit
InfitMnSq	Infit Mean Square
Outfit	Outfit
OutfitMnSq	Outfit Mean Square

ContArea	FormGrade	ItemID	PubID	FormNumber	Standard1	Depth	N	Mean	Proportion0	Proportion1	Proportion2	Proportion3	Proportion4	PtBiserial	Correlation0	Correlation1	Correlation2	Correlation3	Correlation4	FinalB	FinalBErr	Infit	InfitMnSq	Outfit	OutfitMnSq
ELA	3	653306	708895	0	C	3	124046	1.96	0.02	0.19	0.59	0.18	0.01	0.52	-0.18	-0.42	0.12	0.33	0.12	1.0088	0.0048	-9.8991	0.9376	-9.8991	0.9428
ELA	4	656647	299482	0	C	3	124266	2.36	0.03	0.10	0.44	0.33	0.09	0.55	-0.24	-0.34	-0.16	0.28	0.30	0.1889	0.0040	-9.8991	0.8931	-9.8991	0.8944
ELA	5	656649	549104	0	C	3	122426	2.19	0.01	0.12	0.56	0.26	0.04	0.54	-0.15	-0.39	-0.10	0.36	0.21	0.2906	0.0046	-9.8991	0.8582	-9.8991	0.8536
ELA	6	670312	449299	0	C	3	120128	2.37	0.01	0.10	0.43	0.45	0.02	0.54	-0.12	-0.36	-0.23	0.44	0.14	0.5136	0.0048	-9.8992	0.8393	-9.8992	0.8355
ELA	7	669248	507492	0	C	3	121441	2.46	0.01	0.07	0.41	0.46	0.05	0.60	-0.15	-0.35	-0.33	0.43	0.26	0.1496	0.0047	-9.8992	0.7784	-9.8992	0.7755
ELA	8	675893	534282	0	C	3	119014	2.44	0.01	0.13	0.36	0.42	0.08	0.61	-0.14	-0.43	-0.23	0.38	0.29	-0.2418	0.0042	-9.8992	0.7720	-9.8992	0.7720

Writing Prompt Online Item Statistics

Column Heading	Definition
ContArea	Content
FormGrade	Grade
PubID	Form ID
FormNumber	Form
Standard1	Standard
Depth	Depth of Knowledge
N	N
Mean	Mean
Proportion0	Proportion 0
Proportion1	Proportion 1
Proportion2	Proportion 2
Proportion3	Proportion 3
Proportion4	Proportion 4
PtBiserial	Point Biserial
Correlation0	Correlation 0
Correlation1	Correlation 1
Correlation2	Correlation 2
Correlation3	Correlation 3
Correlation4	Correlation 4

ContArea	FormGrade	ItemID	PubID	FormNumber	Standard1	Depth	N	Mean	Proportion0	Proportion1	Proportion2	Proportion3	Proportion4	PtBiserial	Correlation0	Correlation1	Correlation2	Correlation3	Correlation4
ELA	3	653306	708895	0	C	3	1455	1.74	0.05	0.34	0.46	0.14	0.02	0.61	-0.26	-0.46	0.26	0.35	0.19
ELA	4	656647	299482	0	C	3	1543	2.12	0.06	0.16	0.46	0.22	0.10	0.58	-0.29	-0.35	-0.03	0.26	0.35
ELA	5	656649	549104	0	C	3	2250	1.82	0.02	0.32	0.50	0.14	0.02	0.57	-0.21	-0.46	0.22	0.31	0.20
ELA	6	670312	449299	0	C	3	3598	2.16	0.01	0.17	0.48	0.32	0.02	0.55	-0.15	-0.41	-0.08	0.42	0.14
ELA	7	669248	507492	0	C	3	4852	2.29	0.02	0.09	0.51	0.35	0.03	0.59	-0.17	-0.36	-0.26	0.46	0.22
ELA	8	675893	534282	0	C	3	5262	2.30	0.01	0.18	0.38	0.35	0.08	0.60	-0.15	-0.45	-0.14	0.37	0.29

APPENDIX G: 2017 TEST BOOK SECTION LAYOUT PLANS

ENGLISH LANGUAGE ARTS TEST/ANSWER BOOKLET SECTION LAYOUT FOR GRADES 4, 5, 6, 7, AND 8

English Language Arts Core	
Core/common standalone MC items	18
Core/common passage-based MC items	23
3 core 2 pt EBSR items	6
3 core 3 pt EBSR items	9
1 core 4 pt TDA	16 (weighted x 4)
1 core 4 pt WP	12 (weighted x 3)
Total	84 points

The estimated testing time for English language arts is approximately 230–280 minutes (including placeholder items and embedded field test items). [Timing assumes 30 min per TDA or WP; 3 to 5 min per EBSR; 1½ to 2 min per MC, and 7 min per reading passage set.]

Section	Content	Number of MC/EBSR	MC/EBSR Item Breakdown	Number of WP/ TDA	WP/ TDA Item Breakdown	Estimated Number of Passages	Section Time (in minutes)
1	Writing and Language	20	18–common (core) items, 2–psychometric use/ placeholder	1	1–common (core) writing prompt	N/A	55—65
2	Reading	22—23	22–23–common (core) items	0	N/A	3	60—75
3	Reading and Text-Dependent Analysis	16	6–placeholder items, 10–field test items	1	1–field test TDA	2	70—80
4	Reading and Text-Dependent Analysis	6—7	6–7–common (core) items	1	1–common (core) TDA	1	45—60

Notes. 1) There were nine forms per grade. 2) Sections 2 and 4 must equal a combined total of 29 MC/SR items.

English Language Arts Test/Answer Booklet Section Layout for Grade 3

English Language Arts Core	
Core/common standalone MC items	18
Core/common passage-based MC items	20
2 core 2 pt EBSR items	4
2 core 3 pt EBSR items	6
2 core 3 pt SA items	6
1 core 4 pt WP	8 (weighted x 2)
Total	84 points

The estimated testing time for reading is approximately 160–215 minutes (including equating block items and embedded field test items). [Timing assumes 5 to 10 min per SA, 30 min per WP, 3 to 5 min per EBSR, 1½ to 2 min per MC, and 7 min per reading passage set.]

Section	Content	Number of MC/EBSR	MC/EBSR Item Breakdown	Number of WP/SA	WP/SA Item Breakdown	Estimated Number of Passages	Section Time (in minutes)
1	Writing and Language	20	18–common (core) items, 2–psychometric use/ placeholder	1	1–common (core) writing prompt	N/A	55—65
2	Reading	12	12–common (core) items	1	1–common (core) SA	3	40—50
3	Reading	16	6–placeholder items, 10–field test items	1	1–field test SA	2	45—55
4	Reading	12	12–common (core) items	1	1–common (core) SA	1	40—50

Notes. 1) There were nine forms per grade.

MATHEMATICS TEST/ANSWER BOOK SECTION LAYOUT FOR GRADES 3, 4, 5, 6, 7, AND 8

Mathematics Core	
Core/common MC items	60
3 core 4 pt OE items	12
Total	72 points

The estimated testing time for mathematics is approximately 155–185 minutes. [Timing assumes 5 to 10 min per OE and 1½ to 2 min per MC.]

Section	Content	Number of MC	MC Item Breakdown	Number of OE	OE Item Breakdown	Section Time (in minutes)
1	Mathematics	24	24–common (core) items (includes 4 non–calc in Grades 4–8)	2	2–common (core) items	55—65
2	Mathematics	24	12–common (core) items, 2–placeholder items, 10–embedded field test items	1	1–embedded field test item	50—60
3	Mathematics	24	24–common (core) items	1	1–core test	50—60

Notes. 1) There were nine forms per grade. 2) The ruler items in Grade 3 and the protractor items in Grade 4 may fall in Section 1, 2, or 3. 3) Calculators are not allowed on the Grade 3 test. In Grades 4–8, a portion of section 1 is considered "non-calc."

SCIENCE TEST/ANSWER BOOK SECTION LAYOUT

General Information (see grade level page for specifics)

- Timing Key: MC = 1 to 1½ min; 2 pt OE = 5 min; 4 pt OE = 10 min; G8 Scenario stimulus = 3 min
- There are 12 forms per grade.
- Within a section at Grade 4, MC *most likely* will precede OE items.
- Within a section at Grade 8, non-scenario MC items *most likely* will precede scenario-based MC items which will precede OE items.
- Grade 4 and 8 will have both Test Booklets and scannable Answer Booklets.
- *Generally*, core items will precede equating block items, which will precede field test items.

Science: Grade 4

Core/common MC items	58 (16 core linking)
5 core 2 pt OE items	10 (2 core linking)
Total	68 points

The estimated Grade 4 testing time for science is approximately 95–100 minutes or 110–115 minutes administration time (including equating block items and embedded field test items). [Timing assumes 5 min per 2 pt OE and 1 min per MC.]

Grade	Section	Number of MC	Estimated MC Item Breakdown	Number of OE	Estimated OE Item Breakdown	Testing Time
4	1	34	29-common (core) items, 1-equating block item, 4-embedded field test item	3	3-common (core) items	45–55
4	2	34	29-common (core) items, 1-equating block item, 4- embedded field test items	3	2-common (core) items, 1-embedded field test item	45–55

Science: Grade 8

Core/common MC items	58 (16 core linking)
5 core 2 pt OE items	10 (2 core linking)
Total	68 points

The estimated grade 8 testing time is 105–110 minutes per grade for science or 120–125 minutes administration time (including equating block items and embedded field test items). [Timing assumes 5 min per 2 pt OE, 1 min per MC, and 3 min per grade 8 scenario.]

Grade	Section	Number of MC	Estimated MC Item Breakdown	Number of OE	Estimated OE Item Breakdown	Testing Time
8	1	35	27-common (core) items, 4-embedded field test scenario-based items, 1-equating block item, 3-embedded field test item	3	3-common (core) items	50–60
8	2	35	27-common (core) items, 4-common (core) scenario-based items, 1-equating block item, 3-embedded field test item	3	2-common (core) items. 1-embedded field test item	50–60

APPENDIX H: MEAN RAW SCORES BY FORM

Grade 3 English Language Arts

Mode	Form	N	N Items	Total Points	Min	Max	Mean	Median	STD
All	00	125284	45	62	3	62	36.12	37	11.49
All	01	14294	45	62	5	61	35.58	37	11.67
All	02	14093	45	62	4	61	36.07	37	11.49
All	03	14075	45	62	3	62	36.02	37	11.72
All	04	13803	45	62	5	62	36.23	38	11.40
All	05	13839	45	62	4	61	36.16	37	11.39
All	06	13797	45	62	6	61	36.48	38	11.39
All	07	13754	45	62	3	61	36.10	37	11.43
All	08	13813	45	62	4	60	36.22	38	11.45
All	09	13816	45	62	4	61	36.29	38	11.39
PPT	00	124351	45	62	3	62	36.16	38	11.47
PPT	01	13876	45	62	5	61	35.79	37	11.60
PPT	02	13837	45	62	4	61	36.12	37	11.48
PPT	03	13816	45	62	3	62	36.08	38	11.71
PPT	04	13803	45	62	5	62	36.23	38	11.40
PPT	05	13839	45	62	4	61	36.16	37	11.39
PPT	06	13797	45	62	6	61	36.48	38	11.39
PPT	07	13754	45	62	3	61	36.10	37	11.43
PPT	08	13813	45	62	4	60	36.22	38	11.45
PPT	09	13816	45	62	4	61	36.29	38	11.39
CBT	00	933	45	62	6	58	30.94	30	11.84
CBT	01	418	45	62	6	55	28.51	27	11.62
CBT	02	256	45	62	8	58	33.06	33	11.62
CBT	03	259	45	62	7	58	32.76	33	11.74

GRADE 4 ENGLISH LANGUAGE ARTS

Mode	Form	N	N Items	Total Points	Min	Max	Mean	Median	STD
All	00	123597	49	84	0	84	48.11	50	14.61
All	01	14150	49	84	5	84	47.39	49	15.06
All	02	13905	49	84	5	84	47.94	50	14.80
All	03	13924	49	84	6	84	48.10	50	14.47
All	04	13636	49	84	5	84	48.03	50	14.56
All	05	13646	49	84	7	84	48.34	50	14.53
All	06	13606	49	84	7	83	48.45	50.5	14.42
All	07	13647	49	84	0	84	48.34	50	14.43
All	08	13542	49	84	5	83	48.36	50	14.54
All	09	13541	49	84	7	83	48.08	50	14.61
PPT	00	122516	49	84	0	84	48.18	50	14.58
PPT	01	13644	49	84	5	84	47.78	50	14.90
PPT	02	13620	49	84	5	84	48.03	50	14.77
PPT	03	13634	49	84	6	84	48.18	50	14.46
PPT	04	13636	49	84	5	84	48.03	50	14.56
PPT	05	13646	49	84	7	84	48.34	50	14.53
PPT	06	13606	49	84	7	83	48.45	50.5	14.42
PPT	07	13647	49	84	0	84	48.34	50	14.43
PPT	08	13542	49	84	5	83	48.36	50	14.54
PPT	09	13541	49	84	7	83	48.08	50	14.61
CBT	00	1081	49	84	9	79	40.58	41	15.49
CBT	01	506	49	84	10	78	36.81	36	15.59
CBT	02	285	49	84	9	79	43.35	44	15.07
CBT	03	290	49	84	11	79	44.44	45	14.21

Grade 5 English Language Arts

Mode	Form	N	N Items	Total Points	Min	Max	Mean	Median	STD
All	00	122868	49	84	3	84	48.09	50	14.94
All	01	14301	49	84	5	82	47.67	49	15.06
All	02	13891	49	84	6	83	48.18	50	14.80
All	03	13915	49	84	3	84	47.84	49	14.88
All	04	13479	49	84	4	83	48.29	50	14.85
All	05	13507	49	84	8	84	48.20	50	15.04
All	06	13508	49	84	7	83	48.14	50	14.96
All	07	13497	49	84	8	84	48.03	50	15.00
All	08	13410	49	84	4	83	48.17	50	15.01
All	09	13360	49	84	6	84	48.31	50	14.85
PPT	00	121311	49	84	3	84	48.17	50	14.91
PPT	01	13574	49	84	5	82	48.18	50	14.87
PPT	02	13482	49	84	6	83	48.25	50	14.78
PPT	03	13494	49	84	3	84	47.96	50	14.87
PPT	04	13479	49	84	4	83	48.29	50	14.85
PPT	05	13507	49	84	8	84	48.20	50	15.04
PPT	06	13508	49	84	7	83	48.14	50	14.96
PPT	07	13497	49	84	8	84	48.03	50	15.00
PPT	08	13410	49	84	4	83	48.17	50	15.01
PPT	09	13360	49	84	6	84	48.31	50	14.85
CBT	00	1557	49	84	8	82	41.70	41	15.58
CBT	01	727	49	84	9	75	38.03	36	15.34
CBT	02	409	49	84	8	82	45.78	49	15.17
CBT	03	421	49	84	9	80	44.05	44	14.95

Grade 6 English Language Arts

Mode	Form	N	N Items	Total Points	Min	Max	Mean	Median	STD
All	00	125263	49	84	2	84	50.42	52	14.58
All	01	14951	49	84	8	84	49.77	52	14.95
All	02	14380	49	84	8	84	50.36	52	14.51
All	03	14367	49	84	2	83	50.53	53	14.45
All	04	13632	49	84	7	83	50.68	53	14.57
All	05	13554	49	84	6	84	50.74	53	14.53
All	06	13598	49	84	8	84	50.51	52	14.48
All	07	13620	49	84	5	84	50.33	52	14.54
All	08	13593	49	84	6	84	50.36	52	14.63
All	09	13568	49	84	5	84	50.51	53	14.48
PPT	00	122454	49	84	2	84	50.51	53	14.56
PPT	01	13665	49	84	8	84	50.38	52	14.80
PPT	02	13618	49	84	8	84	50.46	52	14.55
PPT	03	13606	49	84	2	83	50.63	53	14.48
PPT	04	13632	49	84	7	83	50.68	53	14.57
PPT	05	13554	49	84	6	84	50.74	53	14.53
PPT	06	13598	49	84	8	84	50.51	52	14.48
PPT	07	13620	49	84	5	84	50.33	52	14.54
PPT	08	13593	49	84	6	84	50.36	52	14.63
PPT	09	13568	49	84	5	84	50.51	53	14.48
CBT	00	2809	49	84	7	83	46.24	48	14.63
CBT	01	1286	49	84	9	80	43.30	44	15.05
CBT	02	762	49	84	9	78	48.59	50	13.71
CBT	03	761	49	84	7	83	48.85	51	13.87

Grade 7 English Language Arts

Mode	Form	N	N Items	Total Points	Min	Max	Mean	Median	STD
All	00	124961	49	84	5	84	48.99	50	13.92
All	01	15077	49	84	9	83	48.25	49	14.08
All	02	14387	49	84	9	83	49.16	51	13.94
All	03	14376	49	84	8	84	48.99	50	13.79
All	04	13536	49	84	5	83	49.00	51	14.05
All	05	13584	49	84	8	84	48.86	50	13.81
All	06	13514	49	84	8	83	49.01	50	13.91
All	07	13470	49	84	9	83	49.06	50	13.94
All	08	13486	49	84	9	83	49.29	51	13.78
All	09	13531	49	84	7	83	49.36	51	13.93
PPT	00	121795	49	84	5	84	49.09	50	13.91
PPT	01	13660	49	84	9	83	48.90	50	13.94
PPT	02	13518	49	84	9	83	49.24	51	13.98
PPT	03	13496	49	84	8	84	49.09	50	13.82
PPT	04	13536	49	84	5	83	49.00	51	14.05
PPT	05	13584	49	84	8	84	48.86	50	13.81
PPT	06	13514	49	84	8	83	49.01	50	13.91
PPT	07	13470	49	84	9	83	49.06	50	13.94
PPT	08	13486	49	84	9	83	49.29	51	13.78
PPT	09	13531	49	84	7	83	49.36	51	13.93
CBT	00	3166	49	84	12	82	45.18	46	13.84
CBT	01	1417	49	84	12	77	42.02	41	13.92
CBT	02	869	49	84	12	81	47.96	49	13.23
CBT	03	880	49	84	14	82	47.52	49	13.25

Grade 8 English Language Arts

Mode	Form	N	N Items	Total Points	Min	Max	Mean	Median	STD
All	00	123275	49	84	4	84	52.23	54	14.49
All	01	14884	49	84	9	84	51.47	53	14.69
All	02	14330	49	84	4	84	52.08	54	14.33
All	03	14345	49	84	8	84	52.24	54	14.44
All	04	13288	49	84	8	84	52.18	54	14.57
All	05	13331	49	84	4	84	52.33	54	14.46
All	06	13303	49	84	6	84	52.59	54	14.66
All	07	13260	49	84	10	84	52.46	54	14.44
All	08	13227	49	84	8	84	52.52	54	14.39
All	09	13307	49	84	8	84	52.27	54	14.44
PPT	00	119629	49	84	4	84	52.33	54	14.47
PPT	01	13343	49	84	9	84	52.15	54	14.47
PPT	02	13276	49	84	4	84	52.20	54	14.35
PPT	03	13294	49	84	8	84	52.29	54	14.44
PPT	04	13288	49	84	8	84	52.18	54	14.57
PPT	05	13331	49	84	4	84	52.33	54	14.46
PPT	06	13303	49	84	6	84	52.59	54	14.66
PPT	07	13260	49	84	10	84	52.46	54	14.44
PPT	08	13227	49	84	8	84	52.52	54	14.39
PPT	09	13307	49	84	8	84	52.27	54	14.44
CBT	00	3646	49	84	10	83	48.72	50	14.89
CBT	01	1541	49	84	10	81	45.56	45	15.28
CBT	02	1054	49	84	11	83	50.49	52	13.94
CBT	03	1051	49	84	11	82	51.57	54	14.39

Grade 3 Mathematics

Mode	Form	N	N Items	Total Points	Min	Max	Mean	Median	STD
All	00	125420	63	72	3	72	45.76	48	14.65
All	01	14637	63	72	6	72	45.08	47	14.91
All	02	14003	63	72	4	72	45.71	47	14.66
All	03	14023	63	72	6	72	45.41	47	14.73
All	04	13810	63	72	5	72	45.64	47	14.69
All	05	13811	63	72	6	72	45.80	47	14.54
All	06	13849	63	72	4	72	46.06	48	14.58
All	07	13804	63	72	8	72	46.17	48	14.48
All	08	13729	63	72	3	72	46.05	48	14.60
All	09	13754	63	72	7	72	45.93	48	14.61
PPT	00	124450	63	72	3	72	45.81	48	14.64
PPT	01	14151	63	72	6	72	45.40	47	14.81
PPT	02	13760	63	72	4	72	45.79	48	14.65
PPT	03	13782	63	72	6	72	45.47	47	14.73
PPT	04	13810	63	72	5	72	45.64	47	14.69
PPT	05	13811	63	72	6	72	45.80	47	14.54
PPT	06	13849	63	72	4	72	46.06	48	14.58
PPT	07	13804	63	72	8	72	46.17	48	14.48
PPT	08	13729	63	72	3	72	46.05	48	14.60
PPT	09	13754	63	72	7	72	45.93	48	14.61
CBT	00	970	63	72	10	72	38.69	38	14.91
CBT	01	486	63	72	10	71	35.76	34	14.95
CBT	02	243	63	72	11	72	41.37	40	14.30
CBT	03	241	63	72	12	68	41.89	41	14.31

Grade 4 Mathematics

Mode	Form	N	N Items	Total Points	Min	Max	Mean	Median	STD
All	00	123940	63	72	0	72	42.86	44	15.60
All	01	14463	63	72	3	72	42.17	43	15.79
All	02	13885	63	72	7	72	42.71	43	15.55
All	03	13889	63	72	5	72	43.03	44	15.74
All	04	13627	63	72	0	72	43.13	44	15.55
All	05	13600	63	72	6	72	42.91	44	15.59
All	06	13645	63	72	5	72	43.08	44	15.62
All	07	13640	63	72	5	72	42.88	44	15.51
All	08	13571	63	72	7	72	42.91	44	15.44
All	09	13620	63	72	5	72	42.94	44	15.61
PPT	00	122829	63	72	0	72	42.92	44	15.59
PPT	01	13876	63	72	3	72	42.64	44	15.67
PPT	02	13620	63	72	7	72	42.76	43	15.56
PPT	03	13630	63	72	5	72	43.07	44	15.75
PPT	04	13627	63	72	0	72	43.13	44	15.55
PPT	05	13600	63	72	6	72	42.91	44	15.59
PPT	06	13645	63	72	5	72	43.08	44	15.62
PPT	07	13640	63	72	5	72	42.88	44	15.51
PPT	08	13571	63	72	7	72	42.91	44	15.44
PPT	09	13620	63	72	5	72	42.94	44	15.61
CBT	00	1111	63	72	8	72	35.53	34	15.46
CBT	01	587	63	72	8	71	31.04	27	14.50
CBT	02	265	63	72	10	72	40.30	39	14.93
CBT	03	259	63	72	9	71	40.82	42	15.00

GRADE 5 MATHEMATICS

Mode	Form	N	N Items	Total Points	Min	Max	Mean	Median	STD
All	00	122983	63	72	3	72	38.17	37	16.11
All	01	14591	63	72	3	72	37.25	36	16.50
All	02	13908	63	72	5	72	38.26	37	16.18
All	03	13765	63	72	6	72	38.04	37	16.05
All	04	13408	63	72	4	72	38.14	37	16.02
All	05	13395	63	72	4	72	38.58	38	16.13
All	06	13474	63	72	6	72	38.30	38	16.08
All	07	13446	63	72	5	72	38.15	37	16.05
All	08	13504	63	72	5	72	38.57	38	15.99
All	09	13492	63	72	5	72	38.35	38	15.89
PPT	00	121404	63	72	3	72	38.24	37	16.09
PPT	01	13804	63	72	3	72	37.72	37	16.40
PPT	02	13505	63	72	6	72	38.30	37	16.17
PPT	03	13376	63	72	6	72	38.09	37	16.04
PPT	04	13408	63	72	4	72	38.14	37	16.02
PPT	05	13395	63	72	4	72	38.58	38	16.13
PPT	06	13474	63	72	6	72	38.30	38	16.08
PPT	07	13446	63	72	5	72	38.15	37	16.05
PPT	08	13504	63	72	5	72	38.57	38	15.99
PPT	09	13492	63	72	5	72	38.35	38	15.89
CBT	00	1579	63	72	5	71	32.81	29	16.60
CBT	01	787	63	72	7	71	29.02	23	15.98
CBT	02	403	63	72	5	71	36.86	36	16.47
CBT	03	389	63	72	7	70	36.30	33	16.23

Grade 6 Mathematics

Mode	Form	N	N Items	Total Points	Min	Max	Mean	Median	STD
All	00	125305	63	72	3	72	41.95	43	15.88
All	01	15327	63	72	3	72	40.97	41	16.15
All	02	14304	63	72	6	72	42.24	43	15.79
All	03	14246	63	72	4	72	41.95	43	15.87
All	04	13576	63	72	4	72	41.92	43	15.98
All	05	13604	63	72	6	72	42.19	43	15.80
All	06	13570	63	72	5	72	41.97	43	15.86
All	07	13529	63	72	5	72	42.08	43	15.87
All	08	13577	63	72	7	72	42.28	43	15.75
All	09	13572	63	72	6	72	42.06	43	15.81
PPT	00	122530	63	72	4	72	42.01	43	15.88
PPT	01	13940	63	72	7	72	41.47	42	16.09
PPT	02	13611	63	72	6	72	42.23	43	15.80
PPT	03	13551	63	72	4	72	41.88	43	15.91
PPT	04	13576	63	72	4	72	41.92	43	15.98
PPT	05	13604	63	72	6	72	42.19	43	15.80
PPT	06	13570	63	72	5	72	41.97	43	15.86
PPT	07	13529	63	72	5	72	42.08	43	15.87
PPT	08	13577	63	72	7	72	42.28	43	15.75
PPT	09	13572	63	72	6	72	42.06	43	15.81
CBT	00	2775	63	72	3	72	39.40	39	15.89
CBT	01	1387	63	72	3	72	35.91	34	15.79
CBT	02	693	63	72	11	71	42.36	43	15.43
CBT	03	695	63	72	12	71	43.41	44	15.00

Grade 7 Mathematics

Mode	Form	N	N Items	Total Points	Min	Max	Mean	Median	STD
All	00	124959	63	72	4	72	36.91	35	15.75
All	01	15581	63	72	5	72	36.16	34	15.93
All	02	14369	63	72	6	72	37.09	35	15.69
All	03	14403	63	72	6	72	37.34	36	15.75
All	04	13505	63	72	5	72	37.11	35	15.73
All	05	13431	63	72	6	72	36.90	35	15.88
All	06	13390	63	72	4	72	36.99	35	15.71
All	07	13422	63	72	4	72	36.90	35	15.66
All	08	13447	63	72	6	72	36.82	35	15.60
All	09	13411	63	72	4	72	36.93	35	15.74
PPT	00	121490	63	72	4	72	36.93	35	15.75
PPT	01	13941	63	72	5	72	36.57	35	15.93
PPT	02	13450	63	72	6	72	36.93	35	15.71
PPT	03	13493	63	72	6	72	37.20	35	15.78
PPT	04	13505	63	72	5	72	37.11	35	15.73
PPT	05	13431	63	72	6	72	36.90	35	15.88
PPT	06	13390	63	72	4	72	36.99	35	15.71
PPT	07	13422	63	72	4	72	36.90	35	15.66
PPT	08	13447	63	72	6	72	36.82	35	15.60
PPT	09	13411	63	72	4	72	36.93	35	15.74
CBT	00	3469	63	72	6	72	36.24	34	15.75
CBT	01	1640	63	72	6	71	32.66	28	15.57
CBT	02	919	63	72	10	70	39.46	39	15.27
CBT	03	910	63	72	6	72	39.44	39	15.17

GRADE 8 MATHEMATICS

Mode	Form	N	N Items	Total Points	Min	Max	Mean	Median	STD
All	00	123175	63	72	2	72	37.83	37	14.93
All	01	15314	63	72	5	71	36.83	36	14.99
All	02	14222	63	72	4	71	37.76	37	14.93
All	03	14254	63	72	5	71	38.04	37	14.93
All	04	13240	63	72	6	72	37.73	37	14.83
All	05	13242	63	72	2	72	38.14	37	15.09
All	06	13204	63	72	5	71	37.92	37	14.90
All	07	13184	63	72	7	71	38.00	38	14.85
All	08	13258	63	72	7	72	38.02	37	14.94
All	09	13257	63	72	2	71	38.13	38	14.88
PPT	00	119605	63	72	2	72	37.89	37	14.93
PPT	01	13731	63	72	5	71	37.28	36	14.98
PPT	02	13239	63	72	4	71	37.74	37	14.91
PPT	03	13250	63	72	5	71	38.05	37	14.94
PPT	04	13240	63	72	6	72	37.73	37	14.83
PPT	05	13242	63	72	2	72	38.14	37	15.09
PPT	06	13204	63	72	5	71	37.92	37	14.90
PPT	07	13184	63	72	7	71	38.00	38	14.85
PPT	08	13258	63	72	7	72	38.02	37	14.94
PPT	09	13257	63	72	2	71	38.13	38	14.88
CBT	00	3570	63	72	6	70	35.76	34	14.98
CBT	01	1583	63	72	9	70	32.92	30	14.51
CBT	02	983	63	72	6	70	38.06	38	15.13
CBT	03	1004	63	72	9	70	37.99	37	14.82

GRADE 4 SCIENCE

Mode	Form	N	N Items	Total Points	Min	Max	Mean	Median	STD
All	00	123818	63	68	2	68	47.81	51	13.41
All	01	11427	63	68	7	68	47.12	50	13.71
All	02	10731	63	68	6	68	47.88	51	13.48
All	03	10735	63	68	7	68	47.94	51	13.37
All	04	10007	63	68	5	68	47.58	51	13.29
All	05	10126	63	68	6	68	47.77	51	13.48
All	06	10108	63	68	2	68	47.55	50	13.19
All	07	10145	63	68	2	68	48.02	51	13.44
All	08	10155	63	68	7	68	47.83	51	13.46
All	09	10096	63	68	4	68	48.06	51	13.26
All	10	10086	63	68	6	68	48.26	52	13.41
All	11	10096	63	68	7	68	47.82	51	13.37
All	12	10106	63	68	7	68	47.99	51	13.43
PPT	00	121556	63	68	2	68	47.83	51	13.41
PPT	01	10424	63	68	7	68	47.42	51	13.58
PPT	02	10102	63	68	6	68	47.82	51	13.52
PPT	03	10105	63	68	7	68	47.82	51	13.44
PPT	04	10007	63	68	5	68	47.58	51	13.29
PPT	05	10126	63	68	6	68	47.77	51	13.48
PPT	06	10108	63	68	2	68	47.55	50	13.19
PPT	07	10145	63	68	2	68	48.02	51	13.44
PPT	08	10155	63	68	7	68	47.83	51	13.46
PPT	09	10096	63	68	4	68	48.06	51	13.26
PPT	10	10086	63	68	6	68	48.26	52	13.41
PPT	11	10096	63	68	7	68	47.82	51	13.37
PPT	12	10106	63	68	7	68	47.99	51	13.43
CBT	00	2262	63	68	8	68	46.99	50	13.66
CBT	01	1003	63	68	9	68	44.02	47	14.62
CBT	02	629	63	68	9	67	48.83	52	12.75
CBT	03	630	63	68	8	67	49.87	52	11.93

Grade 8 Science

Mode	Form	N	N Items	Total Points	Min	Max	Mean	Median	STD
All	00	122955	63	68	2	68	44.47	48	14.13
All	01	12251	63	68	6	68	43.33	47	14.64
All	02	11089	63	68	4	68	44.76	48	14.10
All	03	11114	63	68	3	68	44.87	48	13.90
All	04	9851	63	68	5	68	44.46	48	14.11
All	05	9800	63	68	5	68	44.69	48	14.11
All	06	9818	63	68	4	68	44.53	48	14.07
All	07	9856	63	68	4	67	44.53	48	14.10
All	08	9868	63	68	7	68	44.56	48	14.07
All	09	9840	63	68	3	67	44.44	48	14.10
All	10	9869	63	68	2	68	44.70	48	14.08
All	11	9797	63	68	4	68	44.44	48	14.03
All	12	9802	63	68	6	68	44.50	48	14.08
PPT	00	118402	63	68	2	68	44.44	48	14.14
PPT	01	10288	63	68	6	68	43.52	47	14.62
PPT	02	9798	63	68	4	68	44.43	48	14.20
PPT	03	9815	63	68	3	68	44.48	48	13.99
PPT	04	9851	63	68	5	68	44.46	48	14.11
PPT	05	9800	63	68	5	68	44.69	48	14.11
PPT	06	9818	63	68	4	68	44.53	48	14.07
PPT	07	9856	63	68	4	67	44.53	48	14.10
PPT	08	9868	63	68	7	68	44.56	48	14.07
PPT	09	9840	63	68	3	67	44.44	48	14.10
PPT	10	9869	63	68	2	68	44.70	48	14.08
PPT	11	9797	63	68	4	68	44.44	48	14.03
PPT	12	9802	63	68	6	68	44.50	48	14.08
CBT	00	4553	63	68	8	68	45.32	49	13.95
CBT	01	1963	63	68	8	67	42.36	44	14.68
CBT	02	1291	63	68	9	68	47.33	51	12.99
CBT	03	1299	63	68	8	67	47.82	52	12.86

APPENDIX I: DEMOGRAPHIC CHARACTERISTICS OF STUDENTS

Demographic Characteristics of Students Taking the 2017 PSSA: English Language Arts

Demographic or Educational Characteristic	Gr 3 PPT	Gr 3 CBT	Gr 3 Total	Gr 4 PPT	Gr 4 CBT	Gr 4 Total	Gr 5 PPT	Gr 5 CBT	Gr 5 Total	Gr 6 PPT	Gr 6 CBT	Gr 6 Total	Gr 7 PPT	Gr 7 CBT	Gr 7 Total	Gr 8 PPT	Gr 8 CBT	Gr 8 Total
Female (Number)	60,500	657	61,157	60,771	681	61,452	59,847	1,025	60,872	58,602	1,674	60,276	58,986	2,212	61,198	57,985	2,426	60,411
Female (Percent)	49	44.6	49	49.1	44	49.1	49.1	45.7	49	49	47.1	48.9	48.8	45.9	48.7	49	46.5	48.9
Male (Number)	62,951	815	63,766	62,882	866	63,748	62,093	1,218	63,311	61,015	1,879	62,894	61,936	2,610	64,546	60,449	2,793	63,242
Male (Percent)	51	55.4	51	50.9	56	50.9	50.9	54.3	51	51	52.9	51.1	51.2	54.1	51.3	51	53.5	51.1
American Indian/Alaskan Native (not Hispanic) (Number)	195	0	195	193	1	194	175	1	176	178	8	186	171	8	179	159	8	167
American Indian/Alaskan Native (not Hispanic) (Percent)	.2	0	.2	.2	.1	.2	.1	0	.1	.1	.2	.2	.1	.2	.1	.1	.2	.1
Asian (not Hispanic) (Number)	4,640	30	4,670	4,822	27	4,849	4,758	40	4,798	4,707	83	4,790	4,875	93	4,968	4,621	104	4,725
Asian (not Hispanic) (Percent)	3.8	2	3.7	3.9	1.7	3.9	3.9	1.8	3.9	3.9	2.3	3.9	4	1.9	4	3.9	2	3.8
Black or African American (not Hispanic) (Number)	18,447	225	18,672	18,243	227	18,470	17,561	300	17,861	17,329	280	17,609	17,190	349	17,539	17,023	380	17,403
Black or African American (not Hispanic) (Percent)	14.9	15.3	14.9	14.8	14.7	14.8	14.4	13.4	14.4	14.5	7.9	14.3	14.2	7.2	13.9	14.4	7.3	14.1
Hispanic (any race) (Number)	14,298	106	14,404	14,209	123	14,332	13,732	223	13,955	12,881	443	13,324	12,666	563	13,229	11,910	517	12,427
Hispanic (any race) (Percent)	11.6	7.2	11.5	11.5	8	11.4	11.3	9.9	11.2	10.8	12.5	10.8	10.5	11.7	10.5	10.1	9.9	10
Multi-Racial (not Hispanic) (Number)	5,789	51	5,840	5,515	48	5,563	4,913	83	4,996	4,351	87	4,438	3,856	105	3,961	3,304	117	3,421
Multi-Racial (not Hispanic) (Percent)	4.7	3.5	4.7	4.5	3.1	4.4	4	3.7	4	3.6	2.4	3.6	3.2	2.2	3.2	2.8	2.2	2.8
White (not Hispanic) (Number)	79,993	1,058	81,051	80,561	1,120	81,681	80,689	1,594	82,283	80,088	2,652	82,740	82,068	3,702	85,770	81,330	4,087	85,417
White (not Hispanic) (Percent)	64.8	71.9	64.9	65.2	72.4	65.2	66.2	71.1	66.3	67	74.6	67.2	67.9	76.8	68.2	68.7	78.3	69.1
Native Hawaiian or Other Pacific Islander (not Hispanic) (Number)	89	2	91	110	1	111	112	2	114	83	0	83	96	2	98	87	6	93
Native Hawaiian or Other Pacific Islander (not Hispanic) (Percent)	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1	0	.1	.1	0	.1	.1	.1	.1
IEP (not gifted) (Number)	19,342	422	19,764	20,386	515	20,901	20,041	735	20,776	19,257	984	20,241	19,056	1,193	20,249	18,138	1,233	19,371
IEP (not gifted) (Percent)	15.7	28.7	15.8	16.5	33.3	16.7	16.4	32.8	16.7	16.1	27.7	16.4	15.8	24.7	16.1	15.3	23.6	15.7
Student exited IEP in last 2 years (Number)	2,475	20	2,495	2,842	23	2,865	3,062	62	3,124	3,115	95	3,210	2,705	101	2,806	2,304	96	2,400

Demographic or Educational Characteristic	Gr 3 PPT	Gr 3 CBT	Gr 3 Total	Gr 4 PPT	Gr 4 CBT	Gr 4 Total	Gr 5 PPT	Gr 5 CBT	Gr 5 Total	Gr 6 PPT	Gr 6 CBT	Gr 6 Total	Gr 7 PPT	Gr 7 CBT	Gr 7 Total	Gr 8 PPT	Gr 8 CBT	Gr 8 Total
Student exited IEP in last 2 years (Percent)	2	1.4	2	2.3	1.5	2.3	2.5	2.8	2.5	2.6	2.7	2.6	2.2	2.1	2.2	1.9	1.8	1.9
Title I (Number)	58,731	526	59,257	57,152	589	57,741	52,072	1,180	53,252	40,159	1,170	41,329	31,800	714	32,514	29,662	805	30,467
Title I (Percent)	47.6	35.7	47.4	46.2	38.1	46.1	42.7	52.6	42.9	33.6	32.9	33.6	26.3	14.8	25.9	25	15.4	24.6
Title III served (Number)	4,171	29	4,200	3,530	25	3,555	3,216	30	3,246	2,804	88	2,892	2,805	84	2,889	2,829	76	2,905
Title III served (Percent)	3.4	2	3.4	2.9	1.6	2.8	2.6	1.3	2.6	2.3	2.5	2.3	2.3	1.7	2.3	2.4	1.5	2.3
Title III not served (Number)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Title III not served (Percent)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Migrant student (Number)	24	0	24	21	0	21	33	0	33	28	0	28	38	1	39	35	1	36
Migrant student (Percent)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ELL (enrolled after 5/6/16) (Number)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ELL (enrolled after 5/6/16) (Percent)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ELL (enrolled on or before 5/6/16) (Number)	4,443	34	4,477	3,718	27	3,745	3,384	33	3,417	2,962	90	3,052	2,934	89	3,023	2,952	92	3,044
ELL (enrolled on or before 5/6/16) (Percent)	3.6	2.3	3.6	3	1.7	3	2.8	1.5	2.8	2.5	2.5	2.5	2.4	1.8	2.4	2.5	1.8	2.5
Exited ESL/bilingual program and in first year of monitoring (Number)	941	6	947	1,446	4	1,450	1,042	7	1,049	625	11	636	361	7	368	304	6	310
Exited ESL/bilingual program and in first year of monitoring (Percent)	.8	.4	.8	1.2	.3	1.2	.9	.3	.8	.5	.3	.5	.3	.1	.3	.3	.1	.3
Exited ESL/bilingual program and in 2nd year of monitoring (Number)	252	4	256	696	5	701	1,040	9	1,049	862	15	877	552	25	577	366	12	378
Exited ESL/bilingual program and in 2nd year of monitoring (Percent)	.2	.3	.2	.6	.3	.6	.9	.4	.8	.7	.4	.7	.5	.5	.5	.3	.2	.3
Former ELL no longer monitored (Number)	149	1	150	368	1	369	797	8	805	1,598	45	1,643	2,237	71	2,308	2,662	88	2,750
Former ELL no longer monitored (Percent)	.1	.1	.1	.3	.1	.3	.7	.4	.6	1.3	1.3	1.3	1.8	1.5	1.8	2.2	1.7	2.2
Economically disadvantaged (Number)	63,256	715	63,971	62,044	773	62,817	59,664	1,112	60,776	56,867	1,505	58,372	55,897	2,030	57,927	53,098	2,211	55,309
Economically disadvantaged (Percent)	51.2	48.6	51.2	50.2	50	50.2	48.9	49.6	48.9	47.5	42.4	47.4	46.2	42.1	46.1	44.8	42.4	44.7

Demographic or Educational Characteristic	Gr 3 PPT	Gr 3 CBT	Gr 3 Total	Gr 4 PPT	Gr 4 CBT	Gr 4 Total	Gr 5 PPT	Gr 5 CBT	Gr 5 Total	Gr 6 PPT	Gr 6 CBT	Gr 6 Total	Gr 7 PPT	Gr 7 CBT	Gr 7 Total	Gr 8 PPT	Gr 8 CBT	Gr 8 Total
Historically Underperforming Subgroup (Number)	71,312	858	72,170	70,214	965	71,179	67,610	1,384	68,994	64,402	1,932	66,334	63,472	2,520	65,992	60,427	2,739	63,166
Historically Underperforming Subgroup (Percent)	57.8	58.3	57.8	56.8	62.4	56.9	55.4	61.7	55.6	53.8	54.4	53.9	52.5	52.3	52.5	51	52.5	51.1
Enrollment in school of residence after 10/1/16 (Number)	3,230	58	3,288	2,973	45	3,018	2,760	76	2,836	2,606	132	2,738	2,667	221	2,888	2,438	255	2,693
Enrollment in school of residence after 10/1/16 (Percent)	2.6	3.9	2.6	2.4	2.9	2.4	2.3	3.4	2.3	2.2	3.7	2.2	2.2	4.6	2.3	2.1	4.9	2.2
Enrollment in district of residence after 10/1/16 (Number)	1,603	52	1,655	1,466	38	1,504	1,446	62	1,508	1,363	109	1,472	1,439	168	1,607	1,357	187	1,544
Enrollment in district of residence after 10/1/16 (Percent)	1.3	3.5	1.3	1.2	2.5	1.2	1.2	2.8	1.2	1.1	3.1	1.2	1.2	3.5	1.3	1.1	3.6	1.2
Enrollment as PA resident after 10/1/16 (Number)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Enrollment as PA resident after 10/1/16 (Percent)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Enrollment in school of residence after 10/1/15 but on/before 10/1/16 (Number)	27,152	196	27,348	27,322	213	27,535	27,557	760	28,317	39,110	771	39,881	29,584	878	30,462	19,220	554	19,774
Enrollment in school of residence after 10/1/15 but on/before 10/1/16 (Percent)	22	13.3	21.9	22.1	13.8	22	22.6	33.9	22.8	32.7	21.7	32.4	24.5	18.2	24.2	16.2	10.6	16
Enrollment in district of residence after 10/1/15 but on/before 10/1/16 (Number)	10,856	168	11,024	9,979	185	10,164	10,184	254	10,438	10,570	408	10,978	9,331	488	9,819	7,825	482	8,307
Enrollment in district of residence after 10/1/15 but on/before 10/1/16 (Percent)	8.8	11.4	8.8	8.1	12	8.1	8.4	11.3	8.4	8.8	11.5	8.9	7.7	10.1	7.8	6.6	9.2	6.7
Court/agency placed (Number)	32	0	32	26	1	27	26	3	29	29	10	39	79	20	99	126	47	173
Court/agency placed (Percent)	0	0	0	0	.1	0	0	.1	0	0	.3	0	.1	.4	.1	.1	.9	.1
Students with scores used in state summaries (Number)	123,451	1,472	124,923	123,653	1,547	125,200	121,940	2,243	124,183	119,617	3,553	123,170	120,922	4,822	125,744	118,434	5,219	123,653

Demographic Characteristics of Students Taking the 2017 PSSA: Mathematics

Demographic or Educational Characteristic	Gr 3 PPT	Gr 3 CBT	Gr 3 Total	Gr 4 PPT	Gr 4 CBT	Gr 4 Total	Gr 5 PPT	Gr 5 CBT	Gr 5 Total	Gr 6 PPT	Gr 6 CBT	Gr 6 Total	Gr 7 PPT	Gr 7 CBT	Gr 7 Total	Gr 8 PPT	Gr 8 CBT	Gr 8 Total
Female (Number)	60,593	671	61,264	60,880	684	61,564	59,706	1,239	60,945	58,605	1,609	60,214	59,079	2,033	61,112	57,935	2,222	60,157
Female (Percent)	49	44.7	48.9	49.1	43.7	49	49.1	45.6	49	48.9	47.5	48.9	48.8	45.8	48.7	48.9	46.7	48.8
Male (Number)	63,112	829	63,941	63,131	880	64,011	61,983	1,477	63,460	61,123	1,775	62,898	62,064	2,408	64,472	60,574	2,540	63,114
Male (Percent)	51	55.3	51.1	50.9	56.3	51	50.9	54.4	51	51.1	52.5	51.1	51.2	54.2	51.3	51.1	53.3	51.2
American Indian/Alaskan Native (not Hispanic) (Number)	194	0	194	192	1	193	175	2	177	181	8	189	171	5	176	161	7	168
American Indian/Alaskan Native (not Hispanic) (Percent)	.2	0	.2	.2	.1	.2	.1	.1	.1	.2	.2	.2	.1	.1	.1	.1	.1	.1
Asian (not Hispanic) (Number)	4,660	26	4,686	4,841	26	4,867	4,772	42	4,814	4,716	76	4,792	4,887	83	4,970	4,632	95	4,727
Asian (not Hispanic) (Percent)	3.8	1.7	3.7	3.9	1.7	3.9	3.9	1.5	3.9	3.9	2.2	3.9	4	1.9	4	3.9	2	3.8
Black or African American (not Hispanic) (Number)	18,547	238	18,785	18,322	251	18,573	17,587	344	17,931	17,310	293	17,603	17,172	313	17,485	16,959	361	17,320
Black or African American (not Hispanic) (Percent)	15	15.9	15	14.8	16	14.8	14.5	12.7	14.4	14.5	8.7	14.3	14.2	7	13.9	14.3	7.6	14.1
Hispanic (any race) (Number)	14,356	112	14,468	14,244	132	14,376	13,633	350	13,983	12,911	431	13,342	12,748	487	13,235	11,969	431	12,400
Hispanic (any race) (Percent)	11.6	7.5	11.6	11.5	8.4	11.4	11.2	12.9	11.2	10.8	12.7	10.8	10.5	11	10.5	10.1	9.1	10.1
Multi-Racial (not Hispanic) (Number)	5,794	50	5,844	5,525	52	5,577	4,911	91	5,002	4,352	77	4,429	3,839	106	3,945	3,296	110	3,406
Multi-Racial (not Hispanic) (Percent)	4.7	3.3	4.7	4.5	3.3	4.4	4	3.4	4	3.6	2.3	3.6	3.2	2.4	3.1	2.8	2.3	2.8
White (not Hispanic) (Number)	80,066	1,072	81,138	80,777	1,101	81,878	80,498	1,886	82,384	80,175	2,499	82,674	82,232	3,444	85,676	81,405	3,753	85,158
White (not Hispanic) (Percent)	64.7	71.5	64.8	65.1	70.4	65.2	66.2	69.4	66.2	67	73.8	67.2	67.9	77.6	68.2	68.7	78.8	69.1
Native Hawaiian or Other Pacific Islander (not Hispanic) (Number)	88	2	90	110	1	111	113	1	114	83	0	83	94	3	97	87	5	92
Native Hawaiian or Other Pacific Islander (not Hispanic) (Percent)	.1	.1	.1	.1	.1	.1	.1	0	.1	.1	0	.1	.1	.1	.1	.1	.1	.1
IEP (not gifted) (Number)	19,402	456	19,858	20,415	570	20,985	19,953	857	20,810	19,216	990	20,206	19,017	1,152	20,169	18,109	1,183	19,292
IEP (not gifted) (Percent)	15.7	30.4	15.9	16.5	36.4	16.7	16.4	31.6	16.7	16	29.3	16.4	15.7	25.9	16.1	15.3	24.8	15.7
Student exited IEP in last 2 years (Number)	2,470	23	2,493	2,852	19	2,871	3,051	74	3,125	3,113	91	3,204	2,701	93	2,794	2,311	88	2,399
Student exited IEP in last 2 years (Percent)	2	1.5	2	2.3	1.2	2.3	2.5	2.7	2.5	2.6	2.7	2.6	2.2	2.1	2.2	2	1.8	1.9
Title I (Number)	58,912	571	59,483	57,308	658	57,966	52,072	1,305	53,377	40,197	1,102	41,299	31,727	743	32,470	29,514	838	30,352

Demographic or Educational Characteristic	Gr 3 PPT	Gr 3 CBT	Gr 3 Total	Gr 4 PPT	Gr 4 CBT	Gr 4 Total	Gr 5 PPT	Gr 5 CBT	Gr 5 Total	Gr 6 PPT	Gr 6 CBT	Gr 6 Total	Gr 7 PPT	Gr 7 CBT	Gr 7 Total	Gr 8 PPT	Gr 8 CBT	Gr 8 Total
Title I (Percent)	47.6	38.1	47.5	46.2	42.1	46.2	42.8	48	42.9	33.6	32.6	33.5	26.2	16.7	25.9	24.9	17.6	24.6
Title III served (Number)	4,200	33	4,233	3,546	28	3,574	3,197	63	3,260	2,831	80	2,911	2,823	71	2,894	2,842	65	2,907
Title III served (Percent)	3.4	2.2	3.4	2.9	1.8	2.8	2.6	2.3	2.6	2.4	2.4	2.4	2.3	1.6	2.3	2.4	1.4	2.4
Title III not served (Number)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Title III not served (Percent)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Migrant student (Number)	24	0	24	21	0	21	30	0	30	29	0	29	38	1	39	35	1	36
Migrant student (Percent)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ELL (enrolled after 5/6/16) (Number)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ELL (enrolled after 5/6/16) (Percent)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ELL (enrolled on or before 5/6/16) (Number)	4,478	38	4,516	3,732	30	3,762	3,370	66	3,436	2,989	82	3,071	2,951	75	3,026	2,960	86	3,046
ELL (enrolled on or before 5/6/16) (Percent)	3.6	2.5	3.6	3	1.9	3	2.8	2.4	2.8	2.5	2.4	2.5	2.4	1.7	2.4	2.5	1.8	2.5
Exited ESL/bilingual program and in first year of monitoring (Number)	945	4	949	1,453	3	1,456	1,033	15	1,048	625	9	634	362	3	365	303	4	307
Exited ESL/bilingual program and in first year of monitoring (Percent)	.8	.3	.8	1.2	.2	1.2	.8	.6	.8	.5	.3	.5	.3	.1	.3	.3	.1	.2
Exited ESL/bilingual program and in 2nd year of monitoring (Number)	253	4	257	697	5	702	1,023	31	1,054	867	15	882	551	23	574	369	9	378
Exited ESL/bilingual program and in 2nd year of monitoring (Percent)	.2	.3	.2	.6	.3	.6	.8	1.1	.8	.7	.4	.7	.5	.5	.5	.3	.2	.3
Former ELL no longer monitored (Number)	147	1	148	370	1	371	779	25	804	1,597	46	1,643	2,253	63	2,316	2,663	81	2,744
Former ELL no longer monitored (Percent)	.1	.1	.1	.3	.1	.3	.6	.9	.6	1.3	1.4	1.3	1.9	1.4	1.8	2.2	1.7	2.2
Economically disadvantaged (Number)	63,408	761	64,169	62,231	823	63,054	59,601	1,294	60,895	56,877	1,447	58,324	55,936	1,901	57,837	53,042	2,043	55,085
Economically disadvantaged (Percent)	51.3	50.7	51.3	50.2	52.6	50.2	49	47.6	48.9	47.5	42.8	47.4	46.2	42.8	46.1	44.8	42.9	44.7
Historically Underperforming Subgroup (Number)	71,499	907	72,406	70,409	1,020	71,429	67,503	1,611	69,114	64,405	1,870	66,275	63,514	2,368	65,882	60,370	2,535	62,905
Historically Underperforming Subgroup (Percent)	57.8	60.5	57.8	56.8	65.2	56.9	55.5	59.3	55.6	53.8	55.3	53.8	52.4	53.3	52.5	50.9	53.2	51

Demographic or Educational Characteristic	Gr 3 PPT	Gr 3 CBT	Gr 3 Total	Gr 4 PPT	Gr 4 CBT	Gr 4 Total	Gr 5 PPT	Gr 5 CBT	Gr 5 Total	Gr 6 PPT	Gr 6 CBT	Gr 6 Total	Gr 7 PPT	Gr 7 CBT	Gr 7 Total	Gr 8 PPT	Gr 8 CBT	Gr 8 Total
Enrollment in school of residence after 10/1/16 (Number)	3,370	61	3,431	3,100	47	3,147	2,855	82	2,937	2,655	134	2,789	2,734	213	2,947	2,468	264	2,732
Enrollment in school of residence after 10/1/16 (Percent)	2.7	4.1	2.7	2.5	3	2.5	2.3	3	2.4	2.2	4	2.3	2.3	4.8	2.3	2.1	5.5	2.2
Enrollment in district of residence after 10/1/16 (Number)	1,698	52	1,750	1,570	39	1,609	1,522	68	1,590	1,400	110	1,510	1,513	161	1,674	1,407	194	1,601
Enrollment in district of residence after 10/1/16 (Percent)	1.4	3.5	1.4	1.3	2.5	1.3	1.3	2.5	1.3	1.2	3.3	1.2	1.2	3.6	1.3	1.2	4.1	1.3
Enrollment as PA resident after 10/1/16 (Number)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Enrollment as PA resident after 10/1/16 (Percent)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Enrollment in school of residence after 10/1/15 but on/before 10/1/16 (Number)	27,214	209	27,423	27,362	229	27,591	27,545	799	28,344	39,153	675	39,828	29,841	557	30,398	19,100	542	19,642
Enrollment in school of residence after 10/1/15 but on/before 10/1/16 (Percent)	22	13.9	21.9	22.1	14.6	22	22.6	29.4	22.8	32.7	19.9	32.4	24.6	12.5	24.2	16.1	11.4	15.9
Enrollment in district of residence after 10/1/15 but on/before 10/1/16 (Number)	10,873	175	11,048	9,988	187	10,175	10,151	283	10,434	10,545	397	10,942	9,307	459	9,766	7,789	467	8,256
Enrollment in district of residence after 10/1/15 but on/before 10/1/16 (Percent)	8.8	11.7	8.8	8.1	12	8.1	8.3	10.4	8.4	8.8	11.7	8.9	7.7	10.3	7.8	6.6	9.8	6.7
Court/agency placed (Number)	30	0	30	23	1	24	24	3	27	32	9	41	80	18	98	117	50	167
Court/agency placed (Percent)	0	0	0	0	.1	0	0	.1	0	0	.3	0	.1	.4	.1	.1	1	.1
Students with scores used in state summaries (Number)	123,705	1,500	125,205	124,011	1,564	125,575	121,689	2,716	124,405	119,728	3,384	123,112	121,143	4,441	125,584	118,509	4,762	123,271

Demographic Characteristics of Students Taking the 2017 PSSA: Science

Demographic or Educational Characteristic	Gr 4 PPT	Gr 4 CBT	Gr 4 Total	Gr 8 PPT	Gr 8 CBT	Gr 8 Total
Female (Number)	60,254	1,292	61,546	57,566	2,334	59,900
Female (Percent)	49.1	45.8	49	48.9	46.4	48.8
Male (Number)	62,412	1,530	63,942	60,124	2,692	62,816
Male (Percent)	50.9	54.2	51	51.1	53.6	51.2
American Indian/Alaskan Native (not Hispanic) (Number)	190	2	192	158	9	167
American Indian/Alaskan Native (not Hispanic) (Percent)	.2	.1	.2	.1	.2	.1
Asian (not Hispanic) (Number)	4,815	49	4,864	4,588	100	4,688
Asian (not Hispanic) (Percent)	3.9	1.7	3.9	3.9	2	3.8
Black or African American (not Hispanic) (Number)	18,264	304	18,568	16,740	392	17,132
Black or African American (not Hispanic) (Percent)	14.9	10.8	14.8	14.2	7.8	14
Hispanic (any race) (Number)	14,092	294	14,386	11,870	463	12,333
Hispanic (any race) (Percent)	11.5	10.4	11.5	10.1	9.2	10.1
Multi-Racial (not Hispanic) (Number)	5,465	106	5,571	3,270	112	3,382
Multi-Racial (not Hispanic) (Percent)	4.5	3.8	4.4	2.8	2.2	2.8
White (not Hispanic) (Number)	79,733	2,064	81,797	80,977	3,945	84,922
White (not Hispanic) (Percent)	65	73.1	65.2	68.8	78.5	69.2
Native Hawaiian or Other Pacific Islander (not Hispanic) (Number)	107	3	110	87	5	92
Native Hawaiian or Other Pacific Islander (not Hispanic) (Percent)	.1	.1	.1	.1	.1	.1
IEP (not gifted) (Number)	20,179	752	20,931	18,014	1,188	19,202
IEP (not gifted) (Percent)	16.5	26.6	16.7	15.3	23.6	15.6
Student exited IEP in last 2 years (Number)	2,820	53	2,873	2,300	89	2,389
Student exited IEP in last 2 years (Percent)	2.3	1.9	2.3	2	1.8	1.9
Title I (Number)	56,865	1,080	57,945	29,146	842	29,988
Title I (Percent)	46.4	38.3	46.2	24.8	16.8	24.4
Title III served (Number)	3,508	66	3,574	2,839	68	2,907
Title III served (Percent)	2.9	2.3	2.8	2.4	1.4	2.4
Title III not served (Number)	0	0	0	0	0	0
Title III not served (Percent)	0	0	0	0	0	0
Migrant student (Number)	21	0	21	35	1	36

Demographic or Educational Characteristic	Gr 4 PPT	Gr 4 CBT	Gr 4 Total	Gr 8 PPT	Gr 8 CBT	Gr 8 Total
Migrant student (Percent)	0	0	0	0	0	0
ELL (enrolled after 5/6/16) (Number)	0	0	0	0	0	0
ELL (enrolled after 5/6/16) (Percent)	0	0	0	0	0	0
ELL (enrolled on or before 5/6/16) (Number)	3,696	68	3,764	2,960	86	3,046
ELL (enrolled on or before 5/6/16) (Percent)	3	2.4	3	2.5	1.7	2.5
Exited ESL/bilingual program and in first year of monitoring (Number)	1,432	21	1,453	303	5	308
Exited ESL/bilingual program and in first year of monitoring (Percent)	1.2	.7	1.2	.3	.1	.3
Exited ESL/bilingual program and in 2nd year of monitoring (Number)	683	19	702	368	9	377
Exited ESL/bilingual program and in 2nd year of monitoring (Percent)	.6	.7	.6	.3	.2	.3
Former ELL no longer monitored (Number)	364	7	371	2,642	84	2,726
Former ELL no longer monitored (Percent)	.3	.2	.3	2.2	1.7	2.2
Economically disadvantaged (Number)	61,641	1,342	62,983	52,526	2,123	54,649
Economically disadvantaged (Percent)	50.3	47.6	50.2	44.6	42.2	44.5
Historically Underperforming Subgroup (Number)	69,750	1,598	71,348	59,846	2,612	62,458
Historically Underperforming Subgroup (Percent)	56.9	56.6	56.9	50.9	52	50.9
Enrollment in school of residence after 10/1/16 (Number)	3,091	81	3,172	2,401	261	2,662
Enrollment in school of residence after 10/1/16 (Percent)	2.5	2.9	2.5	2	5.2	2.2
Enrollment in district of residence after 10/1/16 (Number)	1,568	66	1,634	1,404	195	1,599
Enrollment in district of residence after 10/1/16 (Percent)	1.3	2.3	1.3	1.2	3.9	1.3
Enrollment as PA resident after 10/1/16 (Number)	0	0	0	0	0	0
Enrollment as PA resident after 10/1/16 (Percent)	0	0	0	0	0	0
Enrollment in school of residence after 10/1/15 but on/before 10/1/16 (Number)	27,251	348	27,599	18,824	555	19,379
Enrollment in school of residence after 10/1/15 but on/before 10/1/16 (Percent)	22.2	12.3	22	16	11	15.8
Enrollment in district of residence after 10/1/15 but on/before 10/1/16 (Number)	9,866	298	10,164	7,719	482	8,201
Enrollment in district of residence after 10/1/15 but on/before 10/1/16 (Percent)	8	10.6	8.1	6.6	9.6	6.7
Court/agency placed (Number)	24	1	25	116	51	167
Court/agency placed (Percent)	0	0	0	.1	1	.1
Students with scores used in state summaries (Number)	122,666	2,822	125,488	117,690	5,026	122,716

APPENDIX J: INCIDENCE OF ACCOMMODATIONS RECEIVED

Incidence of Presentation Accommodations Received on the 2017 PSSA: English Language Arts

Type of Presentation Accommodation	Gr 3 PPT	Gr 3 CBT	Gr 3 Total	Gr 4 PPT	Gr 4 CBT	Gr 4 Total	Gr 5 PPT	Gr 5 CBT	Gr 5 Total	Gr 6 PPT	Gr 6 CBT	Gr 6 Total	Gr 7 PPT	Gr 7 CBT	Gr 7 Total	Gr 8 PPT	Gr 8 CBT	Gr 8 Total
Braille format (Number)	11	N/A	11	6	N/A	6	7	N/A	7	5	N/A	5	2	N/A	2	5	N/A	5
Braille format (Percent)	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0
Large print format (Number)	110	N/A	110	85	N/A	85	75	N/A	75	88	N/A	88	74	N/A	74	73	N/A	73
Large print format (Percent)	.1	N/A	.1	.1	N/A	.1	.1	N/A	.1	.1	N/A	.1	.1	N/A	.1	.1	N/A	.1
Computer Assistive Technology (Number)	12	N/A	12	9	N/A	9	6	N/A	6	16	N/A	16	12	N/A	12	20	N/A	20
Computer Assistive Technology (Percent)	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0
Some language questions/writing prompts/text-dependent analysis questions read aloud (Number)	6,183	16	6,199	7,663	27	7,690	6,655	67	6,722	3,800	56	3,856	2,465	90	2,555	1,894	95	1,989
Some language questions/writing prompts/text-dependent analysis questions read aloud (Percent)	5	1.1	5	6.2	1.7	6.1	5.5	3	5.4	3.2	1.6	3.1	2	1.9	2	1.6	1.8	1.6
All language questions/writing prompts/text-dependent analysis questions read aloud (Number)	3,395	62	3,457	3,603	136	3,739	2,756	191	2,947	1,755	228	1,983	1,091	175	1,266	936	148	1,084
All language questions/writing prompts/text-dependent analysis questions read aloud (Percent)	2.8	4.2	2.8	2.9	8.8	3	2.3	8.5	2.4	1.5	6.4	1.6	.9	3.6	1	.8	2.8	.9
Language questions/writing prompts/text-dependent analysis questions signed (Number)	6	2	8	28	25	53	24	7	31	15	7	22	22	13	35	17	10	27
Language questions/writing prompts/text-dependent analysis questions signed (Percent)	0	.1	0	0	1.6	0	0	.3	0	0	.2	0	0	.3	0	0	.2	0
Language questions/writing prompts/text-dependent analysis questions interpreted for ELL student (Number)	55	1	56	60	0	60	53	0	53	39	0	39	29	8	37	44	1	45
Language questions/writing prompts/text-dependent analysis questions interpreted for ELL student (Percent)	0	.1	0	0	0	0	0	0	0	0	0	0	0	.2	0	0	0	0
Amplification device (Number)	39	1	40	92	2	94	45	1	46	29	3	32	19	1	20	19	2	21
Amplification device (Percent)	0	.1	0	.1	.1	.1	0	0	0	0	.1	0	0	0	0	0	0	0
Magnification device (Number)	12	0	12	20	1	21	11	3	14	12	2	14	5	2	7	9	1	10
Magnification device (Percent)	0	0	0	0	.1	0	0	.1	0	0	.1	0	0	0	0	0	0	0
Color overlay (Number)	144	N/A	144	168	N/A	168	76	N/A	76	32	N/A	32	13	N/A	13	17	N/A	17

Type of Presentation Accommodation	Gr 3 PPT	Gr 3 CBT	Gr 3 Total	Gr 4 PPT	Gr 4 CBT	Gr 4 Total	Gr 5 PPT	Gr 5 CBT	Gr 5 Total	Gr 6 PPT	Gr 6 CBT	Gr 6 Total	Gr 7 PPT	Gr 7 CBT	Gr 7 Total	Gr 8 PPT	Gr 8 CBT	Gr 8 Total
Color overlay (Percent)	.1	N/A	.1	.1	N/A	.1	.1	N/A	.1	0	N/A	0	0	N/A	0	0	N/A	0
Other (per Accommodations Guidelines) (Number)	707	5	712	905	10	915	691	7	698	271	4	275	101	5	106	143	5	148
Other (per Accommodations Guidelines) (Percent)	.6	.3	.6	.7	.6	.7	.6	.3	.6	.2	.1	.2	.1	.1	.1	.1	.1	.1
Audio (Number)	N/A	306	306	N/A	367	367	N/A	550	550	N/A	593	593	N/A	613	613	N/A	585	585
Audio (Percent)	N/A	20.8	.2	N/A	23.7	.3	N/A	24.5	.4	N/A	16.7	.5	N/A	12.7	.5	N/A	11.2	.5
Color Chooser (Number)	N/A	2	2	N/A	4	4	N/A	7	7	N/A	29	29	N/A	33	33	N/A	18	18
Color Chooser (Percent)	N/A	.1	0	N/A	.3	0	N/A	.3	0	N/A	.8	0	N/A	.7	0	N/A	.3	0
Contrasting Text Chooser (Number)	N/A	0	0	N/A	1	1	N/A	7	7	N/A	16	16	N/A	29	29	N/A	12	12
Contrasting Text Chooser (Percent)	N/A	0	0	N/A	.1	0	N/A	.3	0	N/A	.5	0	N/A	.6	0	N/A	.2	0
Reverse Contrast (Number)	N/A	0	0	N/A	0	0	N/A	0	0	N/A	2	2	N/A	0	0	N/A	0	0
Reverse Contrast (Percent)	N/A	0	0	N/A	0	0	N/A	0	0	N/A	.1	0	N/A	0	0	N/A	0	0
Refreshable Braille (Number)	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0	0
Refreshable Braille (Percent)	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0	0

Incidence of Presentation Accommodations Received on the 2017 PSSA: Mathematics

Type of Presentation Accommodation	Gr 3 PPT	Gr 3 CBT	Gr 3 Total	Gr 4 PPT	Gr 4 CBT	Gr 4 Total	Gr 5 PPT	Gr 5 CBT	Gr 5 Total	Gr 6 PPT	Gr 6 CBT	Gr 6 Total	Gr 7 PPT	Gr 7 CBT	Gr 7 Total	Gr 8 PPT	Gr 8 CBT	Gr 8 Total
Braille format (Number)	6	N/A	6	5	N/A	5	5	N/A	5	3	N/A	3	2	N/A	2	4	N/A	4
Braille format (Percent)	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0
Large print format (Number)	96	N/A	96	84	N/A	84	65	N/A	65	79	N/A	79	77	N/A	77	68	N/A	68
Large print format (Percent)	.1	N/A	.1	.1	N/A	.1	.1	N/A	.1	.1	N/A	.1	.1	N/A	.1	.1	N/A	.1
Computer Assistive Technology (Number)	5	N/A	5	2	N/A	2	2	N/A	2	7	N/A	7	4	N/A	4	4	N/A	4
Computer Assistive Technology (Percent)	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0
Some test items/questions read aloud (Number)	8,712	14	8,726	8,781	31	8,812	7,388	71	7,459	4,170	78	4,248	2,404	95	2,499	1,791	131	1,922
Some test items/questions read aloud (Percent)	7	.9	7	7.1	2	7	6.1	2.6	6	3.5	2.3	3.5	2	2.1	2	1.5	2.8	1.6
All test items/questions read aloud (Number)	5,994	145	6,139	5,442	177	5,619	4,267	217	4,484	2,620	241	2,861	1,522	203	1,725	1,277	138	1,415
All test items/questions read aloud (Percent)	4.8	9.7	4.9	4.4	11.3	4.5	3.5	8	3.6	2.2	7.1	2.3	1.3	4.6	1.4	1.1	2.9	1.1
Test items/questions signed (Number)	13	2	15	32	10	42	18	8	26	19	5	24	10	14	24	16	9	25
Test items/questions signed (Percent)	0	.1	0	0	.6	0	0	.3	0	0	.1	0	0	.3	0	0	.2	0
Test items/questions interpreted for ELL student (Number)	55	0	55	104	1	105	88	0	88	60	1	61	60	4	64	54	0	54
Test items/questions interpreted for ELL student (Percent)	0	0	0	.1	.1	.1	.1	0	.1	.1	0	0	0	.1	.1	0	0	0
Amplification device (Number)	35	1	36	54	2	56	29	1	30	26	3	29	18	1	19	19	1	20
Amplification device (Percent)	0	.1	0	0	.1	0	0	0	0	0	.1	0	0	0	0	0	0	0
Magnification device (Number)	11	0	11	17	1	18	5	2	7	12	2	14	6	1	7	5	1	6
Magnification device (Percent)	0	0	0	0	.1	0	0	.1	0	0	.1	0	0	0	0	0	0	0
Color overlay (Number)	39	N/A	39	18	N/A	18	18	N/A	18	11	N/A	11	3	N/A	3	4	N/A	4
Color overlay (Percent)	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0
Other (per Accommodations Guidelines) (Number)	287	1	288	263	8	271	340	4	344	147	4	151	73	5	78	76	5	81
Other (per Accommodations Guidelines) (Percent)	.2	.1	.2	.2	.5	.2	.3	.1	.3	.1	.1	.1	.1	.1	.1	.1	.1	.1
Spanish version (Number)	210	N/A	210	287	N/A	287	300	N/A	300	359	N/A	359	362	N/A	362	375	N/A	375
Spanish version (Percent)	.2	N/A	.2	.2	N/A	.2	.2	N/A	.2	.3	N/A	.3	.3	N/A	.3	.3	N/A	.3
Audio (Number)	N/A	371	371	N/A	457	457	N/A	654	654	N/A	660	660	N/A	609	609	N/A	558	558
Audio (Percent)	N/A	24.7	.3	N/A	29.2	.4	N/A	24.1	.5	N/A	19.5	.5	N/A	13.7	.5	N/A	11.7	.5
Video sign language (Number)	N/A	14	14	N/A	21	21	N/A	13	13	N/A	13	13	N/A	23	23	N/A	19	19

Type of Presentation Accommodation	Gr 3 PPT	Gr 3 CBT	Gr 3 Total	Gr 4 PPT	Gr 4 CBT	Gr 4 Total	Gr 5 PPT	Gr 5 CBT	Gr 5 Total	Gr 6 PPT	Gr 6 CBT	Gr 6 Total	Gr 7 PPT	Gr 7 CBT	Gr 7 Total	Gr 8 PPT	Gr 8 CBT	Gr 8 Total
Video sign language (Percent)	N/A	.9	0	N/A	1.3	0	N/A	.5	0	N/A	.4	0	N/A	.5	0	N/A	.4	0
Color Chooser (Number)	N/A	3	3	N/A	4	4	N/A	6	6	N/A	34	34	N/A	28	28	N/A	14	14
Color Chooser (Percent)	N/A	.2	0	N/A	.3	0	N/A	.2	0	N/A	1	0	N/A	.6	0	N/A	.3	0
Contrasting Text Chooser (Number)	N/A	1	1	N/A	1	1	N/A	7	7	N/A	16	16	N/A	26	26	N/A	10	10
Contrasting Text Chooser (Percent)	N/A	.1	0	N/A	.1	0	N/A	.3	0	N/A	.5	0	N/A	.6	0	N/A	.2	0
Reverse Contrast (Number)	N/A	0	0	N/A	0	0	N/A	0	0	N/A	2	2	N/A	0	0	N/A	0	0
Reverse Contrast (Percent)	N/A	0	0	N/A	0	0	N/A	0	0	N/A	.1	0	N/A	0	0	N/A	0	0
Refreshable Braille (Number)	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0	0
Refreshable Braille (Percent)	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0	0

Incidence of Presentation Accommodations Received on the 2017 PSSA: Science

Type of Presentation Accommodation	Gr 4 PPT	Gr 4 CBT	Gr 4 Total	Gr 8 PPT	Gr 8 CBT	Gr 8 Total
Braille format (Number)	8	N/A	8	5	N/A	5
Braille format (Percent)	0	N/A	0	0	N/A	0
Large print format (Number)	67	N/A	67	63	N/A	63
Large print format (Percent)	.1	N/A	.1	.1	N/A	.1
Computer Assistive Technology (Number)	5	N/A	5	7	N/A	7
Computer Assistive Technology (Percent)	0	N/A	0	0	N/A	0
Some test items/questions read aloud (Number)	7,762	61	7,823	1,523	98	1,621
Some test items/questions read aloud (Percent)	6.3	2.2	6.2	1.3	1.9	1.3
All test items/questions read aloud (Number)	5,608	178	5,786	1,349	131	1,480
All test items/questions read aloud (Percent)	4.6	6.3	4.6	1.1	2.6	1.2
Test items/questions signed (Number)	35	10	45	16	9	25
Test items/questions signed (Percent)	0	.4	0	0	.2	0
Test items/questions interpreted for ELL student (Number)	90	1	91	55	0	55
Test items/questions interpreted for ELL student (Percent)	.1	0	.1	0	0	0
Amplification device (Number)	46	3	49	14	3	17
Amplification device (Percent)	0	.1	0	0	.1	0
Magnification device (Number)	11	2	13	5	1	6
Magnification device (Percent)	0	.1	0	0	0	0
Color overlay (Number)	18	N/A	18	6	N/A	6
Color overlay (Percent)	0	N/A	0	0	N/A	0
Other (per Accommodations Guidelines) (Number)	280	7	287	81	5	86
Other (per Accommodations Guidelines) (Percent)	.2	.2	.2	.1	.1	.1
Spanish version (Number)	269	N/A	269	381	N/A	381
Spanish version (Percent)	.2	N/A	.2	.3	N/A	.3
Audio (Number)	N/A	544	544	N/A	578	578
Audio (Percent)	N/A	19.3	.4	N/A	11.5	.5
Video sign language (Number)	N/A	22	22	N/A	19	19
Video sign language (Percent)	N/A	.8	0	N/A	.4	0
Color Chooser (Number)	N/A	4	4	N/A	14	14

Type of Presentation Accommodation	Gr 4 PPT	Gr 4 CBT	Gr 4 Total	Gr 8 PPT	Gr 8 CBT	Gr 8 Total
Color Chooser (Percent)	N/A	.1	0	N/A	.3	0
Contrasting Text Chooser (Number)	N/A	1	1	N/A	12	12
Contrasting Text Chooser (Percent)	N/A	0	0	N/A	.2	0
Reverse Contrast (Number)	N/A	0	0	N/A	0	0
Reverse Contrast (Percent)	N/A	0	0	N/A	0	0
Refreshable Braille (Number)	N/A	0	0	N/A	0	0
Refreshable Braille (Percent)	N/A	0	0	N/A	0	0

Incidence of Response Accommodations Received on the 2017 PSSA: English Language Arts

Type of Response Accommodation	Gr 3 PPT	Gr 3 CBT	Gr 3 Total	Gr 4 PPT	Gr 4 CBT	Gr 4 Total	Gr 5 PPT	Gr 5 CBT	Gr 5 Total	Gr 6 PPT	Gr 6 CBT	Gr 6 Total	Gr 7 PPT	Gr 7 CBT	Gr 7 Total	Gr 8 PPT	Gr 8 CBT	Gr 8 Total
Test administrator marked multiple-choice responses at student's direction (Number)	112	0	112	289	0	289	239	1	240	137	0	137	125	1	126	62	0	62
Test administrator marked multiple-choice responses at student's direction (Percent)	.1	0	.1	.2	0	.2	.2	0	.2	.1	0	.1	.1	0	.1	.1	0	.1
Test administrator transcribed student responses (Number)	380	5	385	698	11	709	703	17	720	733	4	737	584	4	588	538	1	539
Test administrator transcribed student responses (Percent)	.3	.3	.3	.6	.7	.6	.6	.8	.6	.6	.1	.6	.5	.1	.5	.5	0	.4
Keyboard, word processor, or computer (Number)	99	N/A	99	161	N/A	161	282	N/A	282	397	N/A	397	406	N/A	406	393	N/A	393
Keyboard, word processor, or computer (Percent)	.1	N/A	.1	.1	N/A	.1	.2	N/A	.2	.3	N/A	.3	.3	N/A	.3	.3	N/A	.3
Brailler/Notetaker (Number)	4	N/A	4	4	N/A	4	7	N/A	7	8	N/A	8	3	N/A	3	9	N/A	9
Brailler/Notetaker (Percent)	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0
Augmentative communication device (Number)	9	N/A	9	8	N/A	8	4	N/A	4	5	N/A	5	4	N/A	4	3	N/A	3
Augmentative communication device (Percent)	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0
Computer Assistive Technology (Number)	2	N/A	2	8	N/A	8	11	N/A	11	9	N/A	9	4	N/A	4	11	N/A	11
Computer Assistive Technology (Percent)	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0
Other (per Accommodations Guidelines) (Number)	171	0	171	229	1	230	158	3	161	162	2	164	115	1	116	85	4	89
Other (per Accommodations Guidelines) (Percent)	.1	0	.1	.2	.1	.2	.1	.1	.1	.1	.1	.1	.1	0	.1	.1	.1	.1
Mixed-Mode (Number)	N/A	30	30	N/A	24	24	N/A	11	11	N/A	3	3	N/A	3	3	N/A	4	4
Mixed-Mode (Percent)	N/A	2	0	N/A	1.6	0	N/A	.5	0	N/A	.1	0	N/A	.1	0	N/A	.1	0

Incidence of Response Accommodations Received on the 2017 PSSA: Mathematics

Type of Response Accommodation	Gr 3 PPT	Gr 3 CBT	Gr 3 Total	Gr 4 PPT	Gr 4 CBT	Gr 4 Total	Gr 5 PPT	Gr 5 CBT	Gr 5 Total	Gr 6 PPT	Gr 6 CBT	Gr 6 Total	Gr 7 PPT	Gr 7 CBT	Gr 7 Total	Gr 8 PPT	Gr 8 CBT	Gr 8 Total
Test administrator marked multiple-choice responses at student's direction (Number)	133	0	133	298	0	298	256	1	257	129	0	129	111	1	112	66	0	66
Test administrator marked multiple-choice responses at student's direction (Percent)	.1	0	.1	.2	0	.2	.2	0	.2	.1	0	.1	.1	0	.1	.1	0	.1
Test administrator scribed open-ended responses at student's direction (Number)	369	1	370	242	4	246	182	4	186	146	0	146	96	1	97	72	2	74
Test administrator scribed open-ended responses at student's direction (Percent)	.3	.1	.3	.2	.3	.2	.1	.1	.1	.1	0	.1	.1	0	.1	.1	0	.1
Test administrator transcribed student responses (Number)	261	4	265	344	11	355	296	14	310	359	8	367	244	4	248	196	1	197
Test administrator transcribed student responses (Percent)	.2	.3	.2	.3	.7	.3	.2	.5	.2	.3	.2	.3	.2	.1	.2	.2	0	.2
Qualified interpreter translated, transcribed, and/or scribed student's signed responses (Number)	12	0	12	12	0	12	18	0	18	15	0	15	9	0	9	9	0	9
Qualified interpreter translated, transcribed, and/or scribed student's signed responses (Percent)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Qualified interpreter translated, transcribed, and/or scribed ELL student responses (Number)	12	0	12	2	0	2	10	0	10	24	0	24	21	0	21	22	0	22
Qualified interpreter translated, transcribed, and/or scribed ELL student responses (Percent)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Keyboard, word processor, or computer (Number)	34	N/A	34	31	N/A	31	52	N/A	52	140	N/A	140	111	N/A	111	96	N/A	96
Keyboard, word processor, or computer (Percent)	0	N/A	0	0	N/A	0	0	N/A	0	.1	N/A	.1	.1	N/A	.1	.1	N/A	.1
Brailler/Notetaker (Number)	2	N/A	2	3	N/A	3	5	N/A	5	3	N/A	3	2	N/A	2	5	N/A	5
Brailler/Notetaker (Percent)	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0
Augmentative communication device (Number)	3	N/A	3	4	N/A	4	1	N/A	1	0	N/A	0	0	N/A	0	0	N/A	0
Augmentative communication device (Percent)	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0
Computer Assistive Technology (Number)	2	N/A	2	3	N/A	3	7	N/A	7	4	N/A	4	2	N/A	2	4	N/A	4
Computer Assistive Technology (Percent)	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0
Translation dictionary for ELL student (Number)	21	0	21	42	0	42	35	0	35	133	0	133	120	1	121	76	0	76
Translation dictionary for ELL student (Percent)	0	0	0	0	0	0	0	0	0	.1	0	.1	.1	0	.1	.1	0	.1
Other (per Accommodations Guidelines) (Number)	223	0	223	264	3	267	197	4	201	126	2	128	102	2	104	59	3	62
Other (per Accommodations Guidelines) (Percent)	.2	0	.2	.2	.2	.2	.2	.1	.2	.1	.1	.1	.1	0	.1	0	.1	.1
Mixed-Mode (Number)	N/A	39	39	N/A	29	29	N/A	20	20	N/A	7	7	N/A	4	4	N/A	3	3
Mixed-Mode (Percent)	N/A	2.6	0	N/A	1.9	0	N/A	.7	0	N/A	.2	0	N/A	.1	0	N/A	.1	0

Incidence of Response Accommodations Received on the 2017 PSSA: Science

Type of Response Accommodation	Gr 4 PPT	Gr 4 CBT	Gr 4 Total	Gr 8 PPT	Gr 8 CBT	Gr 8 Total
Test administrator marked multiple-choice responses at student's direction (Number)	302	0	302	73	0	73
Test administrator marked multiple-choice responses at student's direction (Percent)	.2	0	.2	.1	0	.1
Test administrator scribed open-ended responses at student's direction (Number)	286	4	290	90	2	92
Test administrator scribed open-ended responses at student's direction (Percent)	.2	.1	.2	.1	0	.1
Test administrator transcribed student responses (Number)	356	0	356	206	1	207
Test administrator transcribed student responses (Percent)	.3	0	.3	.2	0	.2
Qualified interpreter translated, transcribed, and/or scribed student's signed responses (Number)	16	0	16	7	0	7
Qualified interpreter translated, transcribed, and/or scribed student's signed responses (Percent)	0	0	0	0	0	0
Qualified interpreter translated, transcribed, and/or scribed ELL student responses (Number)	3	0	3	31	0	31
Qualified interpreter translated, transcribed, and/or scribed ELL student responses (Percent)	0	0	0	0	0	0
Keyboard, word processor, or computer (Number)	37	N/A	37	103	N/A	103
Keyboard, word processor, or computer (Percent)	0	N/A	0	.1	N/A	.1
Brailler/Notetaker (Number)	3	N/A	3	5	N/A	5
Brailler/Notetaker (Percent)	0	N/A	0	0	N/A	0
Augmentative communication device (Number)	1	N/A	1	1	N/A	1
Augmentative communication device (Percent)	0	N/A	0	0	N/A	0
Computer Assistive Technology (Number)	4	N/A	4	4	N/A	4
Computer Assistive Technology (Percent)	0	N/A	0	0	N/A	0
Translation dictionary for ELL student (Number)	35	1	36	70	0	70
Translation dictionary for ELL student (Percent)	0	0	0	.1	0	.1
Other (per Accommodations Guidelines) (Number)	143	4	147	71	3	74
Other (per Accommodations Guidelines) (Percent)	.1	.1	.1	.1	.1	.1
Mixed-Mode (Number)	N/A	8	8	N/A	3	3
Mixed-Mode (Percent)	N/A	.3	0	N/A	.1	0

Incidence of Setting Accommodations Received on the 2017 PSSA: English Language Arts

Type of Setting Accommodation	Gr 3 PPT	Gr 3 CBT	Gr 3 Total	Gr 4 PPT	Gr 4 CBT	Gr 4 Total	Gr 5 PPT	Gr 5 CBT	Gr 5 Total	Gr 6 PPT	Gr 6 CBT	Gr 6 Total	Gr 7 PPT	Gr 7 CBT	Gr 7 Total	Gr 8 PPT	Gr 8 CBT	Gr 8 Total
Hospital/home setting (Number)	18	0	18	19	0	19	23	0	23	22	0	22	35	0	35	40	0	40
Hospital/home setting (Percent)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
One-on-one setting (Number)	783	5	788	771	11	782	596	26	622	523	8	531	346	22	368	308	21	329
One-on-one setting (Percent)	.6	.3	.6	.6	.7	.6	.5	1.2	.5	.4	.2	.4	.3	.5	.3	.3	.4	.3
Small group setting (Number)	16,064	273	16,337	16,706	337	17,043	15,854	495	16,349	13,303	673	13,976	12,809	800	13,609	12,162	845	13,007
Small group setting (Percent)	13	18.5	13.1	13.5	21.8	13.6	13	22.1	13.2	11.1	18.9	11.3	10.6	16.6	10.8	10.3	16.2	10.5
Other (per Accommodations Guidelines) (Number)	159	14	173	180	28	208	228	25	253	378	33	411	192	38	230	236	1	237
Other (per Accommodations Guidelines) (Percent)	.1	1	.1	.1	1.8	.2	.2	1.1	.2	.3	.9	.3	.2	.8	.2	.2	0	.2

Incidence of Setting Accommodations Received on the 2017 PSSA: Mathematics

Type of Setting Accommodation	Gr 3 PPT	Gr 3 CBT	Gr 3 Total	Gr 4 PPT	Gr 4 CBT	Gr 4 Total	Gr 5 PPT	Gr 5 CBT	Gr 5 Total	Gr 6 PPT	Gr 6 CBT	Gr 6 Total	Gr 7 PPT	Gr 7 CBT	Gr 7 Total	Gr 8 PPT	Gr 8 CBT	Gr 8 Total
Hospital/home setting (Number)	12	0	12	19	0	19	18	0	18	22	0	22	33	0	33	40	1	41
Hospital/home setting (Percent)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
One-on-one setting (Number)	663	3	666	614	9	623	517	27	544	422	7	429	301	23	324	283	19	302
One-on-one setting (Percent)	.5	.2	.5	.5	.6	.5	.4	1	.4	.4	.2	.3	.2	.5	.3	.2	.4	.2
Small group setting (Number)	15,700	296	15,996	16,696	359	17,055	15,610	542	16,152	13,108	662	13,770	12,249	737	12,986	11,904	773	12,677
Small group setting (Percent)	12.7	19.7	12.8	13.5	23	13.6	12.8	20	13	10.9	19.6	11.2	10.1	16.6	10.3	10	16.2	10.3
Other (per Accommodations Guidelines) (Number)	124	14	138	153	28	181	174	25	199	298	34	332	160	41	201	164	1	165
Other (per Accommodations Guidelines) (Percent)	.1	.9	.1	.1	1.8	.1	.1	.9	.2	.2	1	.3	.1	.9	.2	.1	0	.1

Incidence of Setting Accommodations Received on the 2017 PSSA: Science

Type of Setting Accommodation	Gr 4 PPT	Gr 4 CBT	Gr 4 Total	Gr 8 PPT	Gr 8 CBT	Gr 8 Total
Hospital/home setting (Number)	14	0	14	34	0	34
Hospital/home setting (Percent)	0	0	0	0	0	0
One-on-one setting (Number)	664	11	675	298	19	317
One-on-one setting (Percent)	.5	.4	.5	.3	.4	.3
Small group setting (Number)	15,621	488	16,109	11,383	696	12,079
Small group setting (Percent)	12.7	17.3	12.8	9.7	13.8	9.8
Other (per Accommodations Guidelines) (Number)	157	29	186	133	1	134
Other (per Accommodations Guidelines) (Percent)	.1	1	.1	.1	0	.1

Incidence of Timing Accommodations Received on the 2017 PSSA: English Language Arts

Type of Timing Accommodation	Gr 3 PPT	Gr 3 CBT	Gr 3 Total	Gr 4 PPT	Gr 4 CBT	Gr 4 Total	Gr 5 PPT	Gr 5 CBT	Gr 5 Total	Gr 6 PPT	Gr 6 CBT	Gr 6 Total	Gr 7 PPT	Gr 7 CBT	Gr 7 Total	Gr 8 PPT	Gr 8 CBT	Gr 8 Total
Extended time (Number)	7,693	217	7,910	12,446	248	12,694	12,833	339	13,172	9,895	380	10,275	10,430	421	10,851	9,041	449	9,490
Extended time (Percent)	6.2	14.7	6.3	10.1	16	10.1	10.5	15.1	10.6	8.3	10.7	8.3	8.6	8.7	8.6	7.6	8.6	7.7
Frequent breaks (Number)	4,040	160	4,200	4,203	171	4,374	3,770	260	4,030	2,645	328	2,973	2,118	227	2,345	1,573	215	1,788
Frequent breaks (Percent)	3.3	10.9	3.4	3.4	11.1	3.5	3.1	11.6	3.2	2.2	9.2	2.4	1.8	4.7	1.9	1.3	4.1	1.4
Changed test schedule (Number)	468	2	470	514	1	515	345	23	368	198	19	217	299	31	330	336	10	346
Changed test schedule (Percent)	.4	.1	.4	.4	.1	.4	.3	1	.3	.2	.5	.2	.2	.6	.3	.3	.2	.3
Other (per Accommodations Guidelines) (Number)	78	0	78	122	1	123	61	17	78	131	15	146	84	1	85	66	0	66
Other (per Accommodations Guidelines) (Percent)	.1	0	.1	.1	.1	.1	.1	.8	.1	.1	.4	.1	.1	0	.1	.1	0	.1

Incidence of Timing Accommodations Received on the 2017 PSSA: Mathematics

Type of Timing Accommodation	Gr 3 PPT	Gr 3 CBT	Gr 3 Total	Gr 4 PPT	Gr 4 CBT	Gr 4 Total	Gr 5 PPT	Gr 5 CBT	Gr 5 Total	Gr 6 PPT	Gr 6 CBT	Gr 6 Total	Gr 7 PPT	Gr 7 CBT	Gr 7 Total	Gr 8 PPT	Gr 8 CBT	Gr 8 Total
Extended time (Number)	5,458	224	5,682	7,920	265	8,185	8,747	357	9,104	7,360	430	7,790	6,084	462	6,546	4,896	466	5,362
Extended time (Percent)	4.4	14.9	4.5	6.4	16.9	6.5	7.2	13.1	7.3	6.1	12.7	6.3	5	10.4	5.2	4.1	9.8	4.3
Frequent breaks (Number)	3,640	164	3,804	3,773	187	3,960	3,321	291	3,612	2,373	323	2,696	1,781	220	2,001	1,320	233	1,553
Frequent breaks (Percent)	2.9	10.9	3	3	12	3.2	2.7	10.7	2.9	2	9.5	2.2	1.5	5	1.6	1.1	4.9	1.3
Changed test schedule (Number)	401	3	404	455	1	456	351	17	368	214	14	228	290	34	324	327	45	372
Changed test schedule (Percent)	.3	.2	.3	.4	.1	.4	.3	.6	.3	.2	.4	.2	.2	.8	.3	.3	.9	.3
Other (per Accommodations Guidelines) (Number)	94	0	94	138	1	139	129	14	143	89	13	102	92	2	94	49	0	49
Other (per Accommodations Guidelines) (Percent)	.1	0	.1	.1	.1	.1	.1	.5	.1	.1	.4	.1	.1	0	.1	0	0	0

Incidence of Timing Accommodations Received on the 2017 PSSA: Science

Type of Timing Accommodation	Gr 4 PPT	Gr 4 CBT	Gr 4 Total	Gr 8 PPT	Gr 8 CBT	Gr 8 Total
Extended time (Number)	5,056	298	5,354	3,935	349	4,284
Extended time (Percent)	4.1	10.6	4.3	3.3	6.9	3.5
Frequent breaks (Number)	3,322	202	3,524	1,144	192	1,336
Frequent breaks (Percent)	2.7	7.2	2.8	1	3.8	1.1
Changed test schedule (Number)	323	1	324	304	14	318
Changed test schedule (Percent)	.3	0	.3	.3	.3	.3
Other (per Accommodations Guidelines) (Number)	94	1	95	49	0	49
Other (per Accommodations Guidelines) (Percent)	.1	0	.1	0	0	0

APPENDIX K: ACCOMMODATION RATE FOR NON-IEP AND IEP STUDENTS

Accommodation Rate for Non-IEP and IEP Students on the 2017 PSSA: English Language Arts

Student	Gr 3 PPT	Gr 3 CBT	Gr 3 Total	Gr 4 PPT	Gr 4 CBT	Gr 4 Total	Gr 5 PPT	Gr 5 CBT	Gr 5 Total	Gr 6 PPT	Gr 6 CBT	Gr 6 Total	Gr 7 PPT	Gr 7 CBT	Gr 7 Total	Gr 8 PPT	Gr 8 CBT	Gr 8 Total
Non-IEP Students	104,109	1,050	105,159	103,267	1,032	104,299	101,899	1,508	103,407	100,360	2,569	102,929	101,866	3,629	105,495	100,296	3,986	104,282
Non-Accommodated (Number)	92,310	935	93,245	87,839	924	88,763	87,711	1,364	89,075	90,599	2,411	93,010	92,177	3,454	95,631	91,862	3,817	95,679
Non-Accommodated (Percent)	88.7	89	88.7	85.1	89.5	85.1	86.1	90.5	86.1	90.3	93.8	90.4	90.5	95.2	90.6	91.6	95.8	91.8
Accommodated (Number)	11,799	115	11,914	15,428	108	15,536	14,188	144	14,332	9,761	158	9,919	9,689	175	9,864	8,434	169	8,603
Accommodated (Percent)	11.3	11	11.3	14.9	10.5	14.9	13.9	9.5	13.9	9.7	6.2	9.6	9.5	4.8	9.4	8.4	4.2	8.2
IEP Students	19,342	422	19,764	20,386	515	20,901	20,041	735	20,776	19,257	984	20,241	19,056	1,193	20,249	18,138	1,233	19,371
Non-Accommodated (Number)	7,172	115	7,287	6,553	95	6,648	6,127	112	6,239	6,534	193	6,727	6,733	261	6,994	6,517	307	6,824
Non-Accommodated (Percent)	37.1	27.3	36.9	32.1	18.4	31.8	30.6	15.2	30	33.9	19.6	33.2	35.3	21.9	34.5	35.9	24.9	35.2
Accommodated (Number)	12,170	307	12,477	13,833	420	14,253	13,914	623	14,537	12,723	791	13,514	12,323	932	13,255	11,621	926	12,547
Accommodated (Percent)	62.9	72.7	63.1	67.9	81.6	68.2	69.4	84.8	70	66.1	80.4	66.8	64.7	78.1	65.5	64.1	75.1	64.8

Accommodation Rate for Non-IEP and IEP Students on the 2017 PSSA: Mathematics

Student	Gr 3 PPT	Gr 3 CBT	Gr 3 Total	Gr 4 PPT	Gr 4 CBT	Gr 4 Total	Gr 5 PPT	Gr 5 CBT	Gr 5 Total	Gr 6 PPT	Gr 6 CBT	Gr 6 Total	Gr 7 PPT	Gr 7 CBT	Gr 7 Total	Gr 8 PPT	Gr 8 CBT	Gr 8 Total
Non-IEP Students	104,303	1,044	105,347	103,596	994	104,590	101,736	1,859	103,595	100,512	2,394	102,906	102,126	3,289	105,415	100,400	3,579	103,979
Non-Accommodated (Number)	92,154	921	93,075	91,097	868	91,965	90,582	1,712	92,294	92,711	2,205	94,916	96,009	3,078	99,087	95,341	3,431	98,772
Non-Accommodated (Percent)	88.4	88.2	88.4	87.9	87.3	87.9	89	92.1	89.1	92.2	92.1	92.2	94	93.6	94	95	95.9	95
Accommodated (Number)	12,149	123	12,272	12,499	126	12,625	11,154	147	11,301	7,801	189	7,990	6,117	211	6,328	5,059	148	5,207
Accommodated (Percent)	11.6	11.8	11.6	12.1	12.7	12.1	11	7.9	10.9	7.8	7.9	7.8	6	6.4	6	5	4.1	5
IEP Students	19,402	456	19,858	20,415	570	20,985	19,953	857	20,810	19,216	990	20,206	19,017	1,152	20,169	18,109	1,183	19,292
Non-Accommodated (Number)	7,597	97	7,694	6,923	77	7,000	6,411	121	6,532	6,868	164	7,032	7,380	246	7,626	6,982	276	7,258
Non-Accommodated (Percent)	39.2	21.3	38.7	33.9	13.5	33.4	32.1	14.1	31.4	35.7	16.6	34.8	38.8	21.4	37.8	38.6	23.3	37.6
Accommodated (Number)	11,805	359	12,164	13,492	493	13,985	13,542	736	14,278	12,348	826	13,174	11,637	906	12,543	11,127	907	12,034
Accommodated (Percent)	60.8	78.7	61.3	66.1	86.5	66.6	67.9	85.9	68.6	64.3	83.4	65.2	61.2	78.6	62.2	61.4	76.7	62.4

ACCOMMODATION RATE FOR NON-IEP AND IEP STUDENTS ON THE 2017 PSSA: SCIENCE

Student	Gr 4 PPT	Gr 4 CBT	Gr 4 Total	Gr 8 PPT	Gr 8 CBT	Gr 8 Total
Non-IEP Students	102,487	2,070	104,557	99,676	3,838	103,514
Non-Accommodated (Number)	92,775	1,865	94,640	95,522	3,742	99,264
Non-Accommodated (Percent)	90.5	90.1	90.5	95.8	97.5	95.9
Accommodated (Number)	9,712	205	9,917	4,154	96	4,250
Accommodated (Percent)	9.5	9.9	9.5	4.2	2.5	4.1
IEP Students	20,179	752	20,931	18,014	1,188	19,202
Non-Accommodated (Number)	7,376	148	7,524	7,337	321	7,658
Non-Accommodated (Percent)	36.6	19.7	35.9	40.7	27	39.9
Accommodated (Number)	12,803	604	13,407	10,677	867	11,544
Accommodated (Percent)	63.4	80.3	64.1	59.3	73	60.1

APPENDIX L: INCIDENCE OF ACCOMMODATIONS RECEIVED BY IEP AND ELL STUDENTS

Incidence of IEP and ELL Students Receiving Selected Accommodations on the 2017 PSSA: English Language Arts Grade 3

Accommodation Received by Administration Mode	General Education (non-IEP or ELL)	IEP and non-ELL	ELL and non-IEP	Both IEP and ELL
PPT - Some language questions/writing prompts/text-dependent analysis questions read aloud (Number)	2,018	3,536	437	192
PPT - Some language questions/writing prompts/text-dependent analysis questions read aloud (Percent)	2	19	11.8	25.5
PPT - All language questions/writing prompts/text-dependent analysis questions read aloud (Number)	458	2,745	93	99
PPT - All language questions/writing prompts/text-dependent analysis questions read aloud (Percent)	.5	14.8	2.5	13.1
PPT - Small group setting (Number)	4,081	10,343	1,135	505
PPT - Small group setting (Percent)	4.1	55.6	30.8	67.1
PPT - Extended time (Number)	5,080	2,310	208	95
PPT - Extended time (Percent)	5.1	12.4	5.6	12.6
PPT - Frequent breaks (Number)	601	3,255	64	120
PPT - Frequent breaks (Percent)	.6	17.5	1.7	15.9
PPT - Number assessed (Number)	100,419	18,589	3,690	753
CBT - Some language questions/writing prompts/text-dependent analysis questions read aloud (Number)	1	13	0	2
CBT - Some language questions/writing prompts/text-dependent analysis questions read aloud (Percent)	.1	3.2	0	11.8
CBT - All language questions/writing prompts/text-dependent analysis questions read aloud (Number)	2	54	1	5
CBT - All language questions/writing prompts/text-dependent analysis questions read aloud (Percent)	.2	13.3	5.9	29.4
CBT - Small group setting (Number)	47	210	6	10
CBT - Small group setting (Percent)	4.5	51.9	35.3	58.8
CBT - Extended time (Number)	87	122	1	7
CBT - Extended time (Percent)	8.4	30.1	5.9	41.2
CBT - Frequent breaks (Number)	31	124	1	4
CBT - Frequent breaks (Percent)	3	30.6	5.9	23.5
CBT - Number assessed (Number)	1,033	405	17	17
Total - Some language questions/writing prompts/text-dependent analysis questions read aloud (Number)	2,019	3,549	437	194
Total - Some language questions/writing prompts/text-dependent analysis questions read aloud (Percent)	2	18.7	11.8	25.2

Accommodation Received by Administration Mode	General Education (non-IEP or ELL)	IEP and non-ELL	ELL and non-IEP	Both IEP and ELL
Total - All language questions/writing prompts/text-dependent analysis questions read aloud (Number)	460	2,799	94	104
Total - All language questions/writing prompts/text-dependent analysis questions read aloud (Percent)	.5	14.7	2.5	13.5
Total - Small group setting (Number)	4,128	10,553	1,141	515
Total - Small group setting (Percent)	4.1	55.6	30.8	66.9
Total - Extended time (Number)	5,167	2,432	209	102
Total - Extended time (Percent)	5.1	12.8	5.6	13.2
Total - Frequent breaks (Number)	632	3,379	65	124
Total - Frequent breaks (Percent)	.6	17.8	1.8	16.1
Total - Number assessed (Number)	101,452	18,994	3,707	770

Incidence of IEP and ELL Students Receiving Selected Accommodations on the 2017 PSSA: English Language Arts Grade 4

Accommodation Received by Administration Mode	General Education (non-IEP or ELL)	IEP and non-ELL	ELL and non-IEP	Both IEP and ELL
PPT - Some language questions/writing prompts/text-dependent analysis questions read aloud (Number)	2,534	4,578	347	204
PPT - Some language questions/writing prompts/text-dependent analysis questions read aloud (Percent)	2.5	23.4	11.8	26.1
PPT - All language questions/writing prompts/text-dependent analysis questions read aloud (Number)	366	3,043	90	104
PPT - All language questions/writing prompts/text-dependent analysis questions read aloud (Percent)	.4	15.5	3.1	13.3
PPT - Small group setting (Number)	3,500	11,771	919	516
PPT - Small group setting (Percent)	3.5	60	31.3	66
PPT - Extended time (Number)	9,078	3,008	229	131
PPT - Extended time (Percent)	9	15.3	7.8	16.8
PPT - Frequent breaks (Number)	462	3,516	90	135
PPT - Frequent breaks (Percent)	.5	17.9	3.1	17.3
PPT - Number assessed (Number)	100,331	19,604	2,936	782
CBT - Some language questions/writing prompts/text-dependent analysis questions read aloud (Number)	1	26	0	0
CBT - Some language questions/writing prompts/text-dependent analysis questions read aloud (Percent)	.1	5.2	0	0
CBT - All language questions/writing prompts/text-dependent analysis questions read aloud (Number)	4	128	2	2
CBT - All language questions/writing prompts/text-dependent analysis questions read aloud (Percent)	.4	25.4	13.3	16.7
CBT - Small group setting (Number)	34	291	5	7
CBT - Small group setting (Percent)	3.3	57.9	33.3	58.3
CBT - Extended time (Number)	85	157	2	4
CBT - Extended time (Percent)	8.4	31.2	13.3	33.3
CBT - Frequent breaks (Number)	21	144	2	4
CBT - Frequent breaks (Percent)	2.1	28.6	13.3	33.3
CBT - Number assessed (Number)	1,017	503	15	12
Total - Some language questions/writing prompts/text-dependent analysis questions read aloud (Number)	2,535	4,604	347	204
Total - Some language questions/writing prompts/text-dependent analysis questions read aloud (Percent)	2.5	22.9	11.8	25.7
Total - All language questions/writing prompts/text-dependent analysis questions read aloud (Number)	370	3,171	92	106
Total - All language questions/writing prompts/text-dependent analysis questions read aloud (Percent)	.4	15.8	3.1	13.4

Accommodation Received by Administration Mode	General Education (non-IEP or ELL)	IEP and non-ELL	ELL and non-IEP	Both IEP and ELL
Total - Small group setting (Number)	3,534	12,062	924	523
Total - Small group setting (Percent)	3.5	60	31.3	65.9
Total - Extended time (Number)	9,163	3,165	231	135
Total - Extended time (Percent)	9	15.7	7.8	17
Total - Frequent breaks (Number)	483	3,660	92	139
Total - Frequent breaks (Percent)	.5	18.2	3.1	17.5
Total - Number assessed (Number)	101,348	20,107	2,951	794

Incidence of IEP and ELL Students Receiving Selected Accommodations on the 2017 PSSA: English Language Arts Grade 5

Accommodation Received by Administration Mode	General Education (non-IEP or ELL)	IEP and non-ELL	ELL and non-IEP	Both IEP and ELL
PPT - Some language questions/writing prompts/text-dependent analysis questions read aloud (Number)	1,569	4,615	242	229
PPT - Some language questions/writing prompts/text-dependent analysis questions read aloud (Percent)	1.6	24	9.5	27.8
PPT - All language questions/writing prompts/text-dependent analysis questions read aloud (Number)	252	2,357	51	96
PPT - All language questions/writing prompts/text-dependent analysis questions read aloud (Percent)	.3	12.3	2	11.7
PPT - Small group setting (Number)	2,675	11,944	667	568
PPT - Small group setting (Percent)	2.7	62.2	26.1	68.9
PPT - Extended time (Number)	9,586	2,938	198	111
PPT - Extended time (Percent)	9.6	15.3	7.7	13.5
PPT - Frequent breaks (Number)	356	3,260	37	117
PPT - Frequent breaks (Percent)	.4	17	1.4	14.2
PPT - Number assessed (Number)	99,339	19,217	2,560	824
CBT - Some language questions/writing prompts/text-dependent analysis questions read aloud (Number)	11	52	2	2
CBT - Some language questions/writing prompts/text-dependent analysis questions read aloud (Percent)	.7	7.2	11.1	13.3
CBT - All language questions/writing prompts/text-dependent analysis questions read aloud (Number)	12	172	2	5
CBT - All language questions/writing prompts/text-dependent analysis questions read aloud (Percent)	.8	23.9	11.1	33.3
CBT - Small group setting (Number)	34	447	4	10
CBT - Small group setting (Percent)	2.3	62.1	22.2	66.7
CBT - Extended time (Number)	78	249	2	10
CBT - Extended time (Percent)	5.2	34.6	11.1	66.7
CBT - Frequent breaks (Number)	17	234	1	8
CBT - Frequent breaks (Percent)	1.1	32.5	5.6	53.3
CBT - Number assessed (Number)	1,490	720	18	15
Total - Some language questions/writing prompts/text-dependent analysis questions read aloud (Number)	1,580	4,667	244	231
Total - Some language questions/writing prompts/text-dependent analysis questions read aloud (Percent)	1.6	23.4	9.5	27.5
Total - All language questions/writing prompts/text-dependent analysis questions read aloud (Number)	264	2,529	53	101
Total - All language questions/writing prompts/text-dependent analysis questions read aloud (Percent)	.3	12.7	2.1	12

Accommodation Received by Administration Mode	General Education (non-IEP or ELL)	IEP and non-ELL	ELL and non-IEP	Both IEP and ELL
Total - Small group setting (Number)	2,709	12,391	671	578
Total - Small group setting (Percent)	2.7	62.2	26	68.9
Total - Extended time (Number)	9,664	3,187	200	121
Total - Extended time (Percent)	9.6	16	7.8	14.4
Total - Frequent breaks (Number)	373	3,494	38	125
Total - Frequent breaks (Percent)	.4	17.5	1.5	14.9
Total - Number assessed (Number)	100,829	19,937	2,578	839

Incidence of IEP and ELL Students Receiving Selected Accommodations on the 2017 PSSA: English Language Arts Grade 6

Accommodation Received by Administration Mode	General Education (non-IEP or ELL)	IEP and non-ELL	ELL and non-IEP	Both IEP and ELL
PPT - Some language questions/writing prompts/text-dependent analysis questions read aloud (Number)	532	3,035	85	148
PPT - Some language questions/writing prompts/text-dependent analysis questions read aloud (Percent)	.5	16.4	3.9	18.8
PPT - All language questions/writing prompts/text-dependent analysis questions read aloud (Number)	123	1,577	15	40
PPT - All language questions/writing prompts/text-dependent analysis questions read aloud (Percent)	.1	8.5	.7	5.1
PPT - Small group setting (Number)	1,686	10,872	323	422
PPT - Small group setting (Percent)	1.7	58.9	14.8	53.7
PPT - Extended time (Number)	7,270	2,439	93	93
PPT - Extended time (Percent)	7.4	13.2	4.3	11.8
PPT - Frequent breaks (Number)	196	2,317	29	103
PPT - Frequent breaks (Percent)	.2	12.5	1.3	13.1
PPT - Number assessed (Number)	98,184	18,471	2,176	786
CBT - Some language questions/writing prompts/text-dependent analysis questions read aloud (Number)	12	41	1	2
CBT - Some language questions/writing prompts/text-dependent analysis questions read aloud (Percent)	.5	4.3	1.9	5.6
CBT - All language questions/writing prompts/text-dependent analysis questions read aloud (Number)	12	214	1	1
CBT - All language questions/writing prompts/text-dependent analysis questions read aloud (Percent)	.5	22.6	1.9	2.8
CBT - Small group setting (Number)	61	581	3	28
CBT - Small group setting (Percent)	2.4	61.3	5.6	77.8
CBT - Extended time (Number)	73	294	5	8
CBT - Extended time (Percent)	2.9	31	9.3	22.2
CBT - Frequent breaks (Number)	16	296	2	14
CBT - Frequent breaks (Percent)	.6	31.2	3.7	38.9
CBT - Number assessed (Number)	2,515	948	54	36
Total - Some language questions/writing prompts/text-dependent analysis questions read aloud (Number)	544	3,076	86	150
Total - Some language questions/writing prompts/text-dependent analysis questions read aloud (Percent)	.5	15.8	3.9	18.2
Total - All language questions/writing prompts/text-dependent analysis questions read aloud (Number)	135	1,791	16	41
Total - All language questions/writing prompts/text-dependent analysis questions read aloud (Percent)	.1	9.2	.7	5
Total - Small group setting (Number)	1,747	11,453	326	450

Accommodation Received by Administration Mode	General Education (non-IEP or ELL)	IEP and non-ELL	ELL and non-IEP	Both IEP and ELL
Total - Small group setting (Percent)	1.7	59	14.6	54.7
Total - Extended time (Number)	7,343	2,733	98	101
Total - Extended time (Percent)	7.3	14.1	4.4	12.3
Total - Frequent breaks (Number)	212	2,613	31	117
Total - Frequent breaks (Percent)	.2	13.5	1.4	14.2
Total - Number assessed (Number)	100,699	19,419	2,230	822

Incidence of IEP and ELL Students Receiving Selected Accommodations on the 2017 PSSA: English Language Arts Grade 7

Accommodation Received by Administration Mode	General Education (non-IEP or ELL)	IEP and non-ELL	ELL and non-IEP	Both IEP and ELL
PPT - Some language questions/writing prompts/text-dependent analysis questions read aloud (Number)	187	2,067	97	114
PPT - Some language questions/writing prompts/text-dependent analysis questions read aloud (Percent)	.2	11.3	4.5	14.7
PPT - All language questions/writing prompts/text-dependent analysis questions read aloud (Number)	65	979	12	35
PPT - All language questions/writing prompts/text-dependent analysis questions read aloud (Percent)	.1	5.4	.6	4.5
PPT - Small group setting (Number)	1,307	10,777	335	390
PPT - Small group setting (Percent)	1.3	59	15.5	50.3
PPT - Extended time (Number)	7,836	2,368	132	94
PPT - Extended time (Percent)	7.9	13	6.1	12.1
PPT - Frequent breaks (Number)	121	1,899	16	82
PPT - Frequent breaks (Percent)	.1	10.4	.7	10.6
PPT - Number assessed (Number)	99,707	18,281	2,159	775
CBT - Some language questions/writing prompts/text-dependent analysis questions read aloud (Number)	0	70	7	13
CBT - Some language questions/writing prompts/text-dependent analysis questions read aloud (Percent)	0	6.1	14	33.3
CBT - All language questions/writing prompts/text-dependent analysis questions read aloud (Number)	3	169	1	2
CBT - All language questions/writing prompts/text-dependent analysis questions read aloud (Percent)	.1	14.6	2	5.1
CBT - Small group setting (Number)	43	713	17	27
CBT - Small group setting (Percent)	1.2	61.8	34	69.2
CBT - Extended time (Number)	91	302	13	15
CBT - Extended time (Percent)	2.5	26.2	26	38.5
CBT - Frequent breaks (Number)	14	206	2	5
CBT - Frequent breaks (Percent)	.4	17.9	4	12.8
CBT - Number assessed (Number)	3,579	1,154	50	39
Total - Some language questions/writing prompts/text-dependent analysis questions read aloud (Number)	187	2,137	104	127
Total - Some language questions/writing prompts/text-dependent analysis questions read aloud (Percent)	.2	11	4.7	15.6
Total - All language questions/writing prompts/text-dependent analysis questions read aloud (Number)	68	1,148	13	37
Total - All language questions/writing prompts/text-dependent analysis questions read aloud (Percent)	.1	5.9	.6	4.5

Accommodation Received by Administration Mode	General Education (non-IEP or ELL)	IEP and non-ELL	ELL and non-IEP	Both IEP and ELL
Total - Small group setting (Number)	1,350	11,490	352	417
Total - Small group setting (Percent)	1.3	59.1	15.9	51.2
Total - Extended time (Number)	7,927	2,670	145	109
Total - Extended time (Percent)	7.7	13.7	6.6	13.4
Total - Frequent breaks (Number)	135	2,105	18	87
Total - Frequent breaks (Percent)	.1	10.8	.8	10.7
Total - Number assessed (Number)	103,286	19,435	2,209	814

Incidence of IEP and ELL Students Receiving Selected Accommodations on the 2017 PSSA: English Language Arts Grade 8

Accommodation Received by Administration Mode	General Education (non-IEP or ELL)	IEP and non-ELL	ELL and non-IEP	Both IEP and ELL
PPT - Some language questions/writing prompts/text-dependent analysis questions read aloud (Number)	102	1,626	71	95
PPT - Some language questions/writing prompts/text-dependent analysis questions read aloud (Percent)	.1	9.4	3.2	12.5
PPT - All language questions/writing prompts/text-dependent analysis questions read aloud (Number)	60	824	17	35
PPT - All language questions/writing prompts/text-dependent analysis questions read aloud (Percent)	.1	4.7	.8	4.6
PPT - Small group setting (Number)	1,219	10,250	301	392
PPT - Small group setting (Percent)	1.2	59	13.8	51.4
PPT - Extended time (Number)	6,642	2,135	181	83
PPT - Extended time (Percent)	6.8	12.3	8.3	10.9
PPT - Frequent breaks (Number)	95	1,397	13	68
PPT - Frequent breaks (Percent)	.1	8	.6	8.9
PPT - Number assessed (Number)	98,107	17,375	2,189	763
CBT - Some language questions/writing prompts/text-dependent analysis questions read aloud (Number)	1	87	0	7
CBT - Some language questions/writing prompts/text-dependent analysis questions read aloud (Percent)	0	7.3	0	15.6
CBT - All language questions/writing prompts/text-dependent analysis questions read aloud (Number)	10	137	0	1
CBT - All language questions/writing prompts/text-dependent analysis questions read aloud (Percent)	.3	11.5	0	2.2
CBT - Small group setting (Number)	56	742	13	34
CBT - Small group setting (Percent)	1.4	62.5	27.7	75.6
CBT - Extended time (Number)	89	338	5	17
CBT - Extended time (Percent)	2.3	28.5	10.6	37.8
CBT - Frequent breaks (Number)	11	203	0	1
CBT - Frequent breaks (Percent)	.3	17.1	0	2.2
CBT - Number assessed (Number)	3,939	1,188	47	45
Total - Some language questions/writing prompts/text-dependent analysis questions read aloud (Number)	103	1,713	71	102
Total - Some language questions/writing prompts/text-dependent analysis questions read aloud (Percent)	.1	9.2	3.2	12.6
Total - All language questions/writing prompts/text-dependent analysis questions read aloud (Number)	70	961	17	36
Total - All language questions/writing prompts/text-dependent analysis questions read aloud (Percent)	.1	5.2	.8	4.5

Accommodation Received by Administration Mode	General Education (non-IEP or ELL)	IEP and non-ELL	ELL and non-IEP	Both IEP and ELL
Total - Small group setting (Number)	1,275	10,992	314	426
Total - Small group setting (Percent)	1.2	59.2	14	52.7
Total - Extended time (Number)	6,731	2,473	186	100
Total - Extended time (Percent)	6.6	13.3	8.3	12.4
Total - Frequent breaks (Number)	106	1,600	13	69
Total - Frequent breaks (Percent)	.1	8.6	.6	8.5
Total - Number assessed (Number)	102,046	18,563	2,236	808

Incidence of IEP and ELL Students Receiving Selected Accommodations on the 2017 PSSA: Mathematics Grade 3

Accommodation Received by Administration Mode	General Education (non-IEP or ELL)	IEP and non-ELL	ELL and non-IEP	Both IEP and ELL
PPT - Some test items/questions read aloud (Number)	4,398	3,520	587	207
PPT - Some test items/questions read aloud (Percent)	4.4	18.9	15.8	27.4
PPT - All test items/questions read aloud (Number)	995	4,638	187	174
PPT - All test items/questions read aloud (Percent)	1	24.9	5	23
PPT - Small group setting (Number)	4,132	10,020	1,064	484
PPT - Small group setting (Percent)	4.1	53.7	28.6	64.1
PPT - Extended time (Number)	3,438	1,781	171	68
PPT - Extended time (Percent)	3.4	9.6	4.6	9
PPT - Frequent breaks (Number)	559	2,906	56	119
PPT - Frequent breaks (Percent)	.6	15.6	1.5	15.8
PPT - Number assessed (Number)	100,580	18,647	3,723	755
CBT - Some test items/questions read aloud (Number)	0	12	0	2
CBT - Some test items/questions read aloud (Percent)	0	2.7	0	10.5
CBT - All test items/questions read aloud (Number)	17	118	2	8
CBT - All test items/questions read aloud (Percent)	1.7	27	10.5	42.1
CBT - Small group setting (Number)	52	224	7	13
CBT - Small group setting (Percent)	5.1	51.3	36.8	68.4
CBT - Extended time (Number)	84	132	1	7
CBT - Extended time (Percent)	8.2	30.2	5.3	36.8
CBT - Frequent breaks (Number)	30	128	1	5
CBT - Frequent breaks (Percent)	2.9	29.3	5.3	26.3
CBT - Number assessed (Number)	1,025	437	19	19
Total - Some test items/questions read aloud (Number)	4,398	3,532	587	209
Total - Some test items/questions read aloud (Percent)	4.3	18.5	15.7	27
Total - All test items/questions read aloud (Number)	1,012	4,756	189	182
Total - All test items/questions read aloud (Percent)	1	24.9	5.1	23.5
Total - Small group setting (Number)	4,184	10,244	1,071	497
Total - Small group setting (Percent)	4.1	53.7	28.6	64.2
Total - Extended time (Number)	3,522	1,913	172	75
Total - Extended time (Percent)	3.5	10	4.6	9.7
Total - Frequent breaks (Number)	589	3,034	57	124
Total - Frequent breaks (Percent)	.6	15.9	1.5	16
Total - Number assessed (Number)	101,605	19,084	3,742	774

Incidence of IEP and ELL Students Receiving Selected Accommodations on the 2017 PSSA: Mathematics Grade 4

Accommodation Received by Administration Mode	General Education (non-IEP or ELL)	IEP and non-ELL	ELL and non-IEP	Both IEP and ELL
PPT - Some test items/questions read aloud (Number)	3,540	4,582	427	232
PPT - Some test items/questions read aloud (Percent)	3.5	23.3	14.5	29.7
PPT - All test items/questions read aloud (Number)	691	4,415	146	190
PPT - All test items/questions read aloud (Percent)	.7	22.5	4.9	24.3
PPT - Small group setting (Number)	3,652	11,673	872	499
PPT - Small group setting (Percent)	3.6	59.5	29.6	63.8
PPT - Extended time (Number)	5,275	2,373	157	115
PPT - Extended time (Percent)	5.2	12.1	5.3	14.7
PPT - Frequent breaks (Number)	457	3,129	74	113
PPT - Frequent breaks (Percent)	.5	15.9	2.5	14.5
PPT - Number assessed (Number)	100,646	19,633	2,950	782
CBT - Some test items/questions read aloud (Number)	8	23	0	0
CBT - Some test items/questions read aloud (Percent)	.8	4.1	0	0
CBT - All test items/questions read aloud (Number)	8	163	2	4
CBT - All test items/questions read aloud (Percent)	.8	29.4	13.3	26.7
CBT - Small group setting (Number)	39	309	5	6
CBT - Small group setting (Percent)	4	55.7	33.3	40
CBT - Extended time (Number)	90	170	1	4
CBT - Extended time (Percent)	9.2	30.6	6.7	26.7
CBT - Frequent breaks (Number)	22	159	2	4
CBT - Frequent breaks (Percent)	2.2	28.6	13.3	26.7
CBT - Number assessed (Number)	979	555	15	15
Total - Some test items/questions read aloud (Number)	3,548	4,605	427	232
Total - Some test items/questions read aloud (Percent)	3.5	22.8	14.4	29.1
Total - All test items/questions read aloud (Number)	699	4,578	148	194
Total - All test items/questions read aloud (Percent)	.7	22.7	5	24.3
Total - Small group setting (Number)	3,691	11,982	877	505
Total - Small group setting (Percent)	3.6	59.4	29.6	63.4
Total - Extended time (Number)	5,365	2,543	158	119
Total - Extended time (Percent)	5.3	12.6	5.3	14.9
Total - Frequent breaks (Number)	479	3,288	76	117
Total - Frequent breaks (Percent)	.5	16.3	2.6	14.7
Total - Number assessed (Number)	101,625	20,188	2,965	797

Incidence of IEP and ELL Students Receiving Selected Accommodations on the 2017 PSSA: Mathematics Grade 5

Accommodation Received by Administration Mode	General Education (non-IEP or ELL)	IEP and non-ELL	ELL and non-IEP	Both IEP and ELL
PPT - Some test items/questions read aloud (Number)	2,194	4,574	380	240
PPT - Some test items/questions read aloud (Percent)	2.2	23.9	14.9	29.4
PPT - All test items/questions read aloud (Number)	434	3,592	81	160
PPT - All test items/questions read aloud (Percent)	.4	18.8	3.2	19.6
PPT - Small group setting (Number)	2,626	11,690	722	572
PPT - Small group setting (Percent)	2.6	61.1	28.3	70.2
PPT - Extended time (Number)	6,050	2,430	153	114
PPT - Extended time (Percent)	6.1	12.7	6	14
PPT - Frequent breaks (Number)	324	2,856	39	102
PPT - Frequent breaks (Percent)	.3	14.9	1.5	12.5
PPT - Number assessed (Number)	99,181	19,138	2,555	815
CBT - Some test items/questions read aloud (Number)	7	52	1	11
CBT - Some test items/questions read aloud (Percent)	.4	6.3	2.6	39.3
CBT - All test items/questions read aloud (Number)	18	193	0	6
CBT - All test items/questions read aloud (Percent)	1	23.3	0	21.4
CBT - Small group setting (Number)	44	476	3	19
CBT - Small group setting (Percent)	2.4	57.4	7.9	67.9
CBT - Extended time (Number)	79	267	3	8
CBT - Extended time (Percent)	4.3	32.2	7.9	28.6
CBT - Frequent breaks (Number)	19	262	1	9
CBT - Frequent breaks (Percent)	1	31.6	2.6	32.1
CBT - Number assessed (Number)	1,821	829	38	28
Total - Some test items/questions read aloud (Number)	2,201	4,626	381	251
Total - Some test items/questions read aloud (Percent)	2.2	23.2	14.7	29.8
Total - All test items/questions read aloud (Number)	452	3,785	81	166
Total - All test items/questions read aloud (Percent)	.4	19	3.1	19.7
Total - Small group setting (Number)	2,670	12,166	725	591
Total - Small group setting (Percent)	2.6	60.9	28	70.1
Total - Extended time (Number)	6,129	2,697	156	122
Total - Extended time (Percent)	6.1	13.5	6	14.5
Total - Frequent breaks (Number)	343	3,118	40	111
Total - Frequent breaks (Percent)	.3	15.6	1.5	13.2
Total - Number assessed (Number)	101,002	19,967	2,593	843

Incidence of IEP and ELL Students Receiving Selected Accommodations on the 2017 PSSA: Mathematics Grade 6

Accommodation Received by Administration Mode	General Education (non-IEP or ELL)	IEP and non-ELL	ELL and non-IEP	Both IEP and ELL
PPT - Some test items/questions read aloud (Number)	724	3,175	121	150
PPT - Some test items/questions read aloud (Percent)	.7	17.2	5.5	19.1
PPT - All test items/questions read aloud (Number)	200	2,314	35	71
PPT - All test items/questions read aloud (Percent)	.2	12.6	1.6	9
PPT - Small group setting (Number)	1,672	10,685	355	396
PPT - Small group setting (Percent)	1.7	58	16.1	50.4
PPT - Extended time (Number)	5,138	2,047	103	72
PPT - Extended time (Percent)	5.2	11.1	4.7	9.2
PPT - Frequent breaks (Number)	155	2,109	18	91
PPT - Frequent breaks (Percent)	.2	11.4	.8	11.6
PPT - Number assessed (Number)	98,309	18,430	2,203	786
CBT - Some test items/questions read aloud (Number)	11	56	0	11
CBT - Some test items/questions read aloud (Percent)	.5	5.9	0	30.6
CBT - All test items/questions read aloud (Number)	7	230	0	4
CBT - All test items/questions read aloud (Percent)	.3	24.1	0	11.1
CBT - Small group setting (Number)	57	575	3	27
CBT - Small group setting (Percent)	2.4	60.3	6.5	75
CBT - Extended time (Number)	109	311	2	8
CBT - Extended time (Percent)	4.6	32.6	4.3	22.2
CBT - Frequent breaks (Number)	17	292	2	12
CBT - Frequent breaks (Percent)	.7	30.6	4.3	33.3
CBT - Number assessed (Number)	2,348	954	46	36
Total - Some test items/questions read aloud (Number)	735	3,231	121	161
Total - Some test items/questions read aloud (Percent)	.7	16.7	5.4	19.6
Total - All test items/questions read aloud (Number)	207	2,544	35	75
Total - All test items/questions read aloud (Percent)	.2	13.1	1.6	9.1
Total - Small group setting (Number)	1,729	11,260	358	423
Total - Small group setting (Percent)	1.7	58.1	15.9	51.5
Total - Extended time (Number)	5,247	2,358	105	80
Total - Extended time (Percent)	5.2	12.2	4.7	9.7
Total - Frequent breaks (Number)	172	2,401	20	103
Total - Frequent breaks (Percent)	.2	12.4	.9	12.5
Total - Number assessed (Number)	100,657	19,384	2,249	822

Incidence of IEP and ELL Students Receiving Selected Accommodations on the 2017 PSSA: Mathematics Grade 7

Accommodation Received by Administration Mode	General Education (non-IEP or ELL)	IEP and non-ELL	ELL and non-IEP	Both IEP and ELL
PPT - Some test items/questions read aloud (Number)	173	2,016	114	101
PPT - Some test items/questions read aloud (Percent)	.2	11.1	5.2	13
PPT - All test items/questions read aloud (Number)	94	1,372	5	51
PPT - All test items/questions read aloud (Percent)	.1	7.5	.2	6.6
PPT - Small group setting (Number)	1,274	10,272	336	367
PPT - Small group setting (Percent)	1.3	56.3	15.4	47.4
PPT - Extended time (Number)	4,227	1,691	95	71
PPT - Extended time (Percent)	4.2	9.3	4.4	9.2
PPT - Frequent breaks (Number)	99	1,603	14	65
PPT - Frequent breaks (Percent)	.1	8.8	.6	8.4
PPT - Number assessed (Number)	99,950	18,242	2,176	775
CBT - Some test items/questions read aloud (Number)	0	78	4	13
CBT - Some test items/questions read aloud (Percent)	0	7	9.8	38.2
CBT - All test items/questions read aloud (Number)	4	196	1	2
CBT - All test items/questions read aloud (Percent)	.1	17.5	2.4	5.9
CBT - Small group setting (Number)	42	659	14	22
CBT - Small group setting (Percent)	1.3	58.9	34.1	64.7
CBT - Extended time (Number)	127	313	9	13
CBT - Extended time (Percent)	3.9	28	22	38.2
CBT - Frequent breaks (Number)	17	198	2	3
CBT - Frequent breaks (Percent)	.5	17.7	4.9	8.8
CBT - Number assessed (Number)	3,248	1,118	41	34
Total - Some test items/questions read aloud (Number)	173	2,094	118	114
Total - Some test items/questions read aloud (Percent)	.2	10.8	5.3	14.1
Total - All test items/questions read aloud (Number)	98	1,568	6	53
Total - All test items/questions read aloud (Percent)	.1	8.1	.3	6.6
Total - Small group setting (Number)	1,316	10,931	350	389
Total - Small group setting (Percent)	1.3	56.5	15.8	48.1
Total - Extended time (Number)	4,354	2,004	104	84
Total - Extended time (Percent)	4.2	10.4	4.7	10.4
Total - Frequent breaks (Number)	116	1,801	16	68
Total - Frequent breaks (Percent)	.1	9.3	.7	8.4
Total - Number assessed (Number)	103,198	19,360	2,217	809

INCIDENCE OF IEP AND ELL STUDENTS RECEIVING SELECTED ACCOMMODATIONS ON THE 2017 PSSA: MATHEMATICS GRADE 8

Accommodation Received by Administration Mode	General Education (non-IEP or ELL)	IEP and non-ELL	ELL and non-IEP	Both IEP and ELL
PPT - Some test items/questions read aloud (Number)	103	1,519	81	88
PPT - Some test items/questions read aloud (Percent)	.1	8.8	3.7	11.6
PPT - All test items/questions read aloud (Number)	84	1,107	21	65
PPT - All test items/questions read aloud (Percent)	.1	6.4	1	8.6
PPT - Small group setting (Number)	1,198	9,973	332	401
PPT - Small group setting (Percent)	1.2	57.5	15.1	52.8
PPT - Extended time (Number)	3,250	1,479	101	66
PPT - Extended time (Percent)	3.3	8.5	4.6	8.7
PPT - Frequent breaks (Number)	76	1,169	15	60
PPT - Frequent breaks (Percent)	.1	6.7	.7	7.9
PPT - Number assessed (Number)	98,200	17,349	2,200	760
CBT - Some test items/questions read aloud (Number)	2	120	0	9
CBT - Some test items/questions read aloud (Percent)	.1	10.6	0	19.6
CBT - All test items/questions read aloud (Number)	4	131	1	2
CBT - All test items/questions read aloud (Percent)	.1	11.5	2.5	4.3
CBT - Small group setting (Number)	45	684	12	32
CBT - Small group setting (Percent)	1.3	60.2	30	69.6
CBT - Extended time (Number)	85	361	3	17
CBT - Extended time (Percent)	2.4	31.8	7.5	37
CBT - Frequent breaks (Number)	12	220	0	1
CBT - Frequent breaks (Percent)	.3	19.3	0	2.2
CBT - Number assessed (Number)	3,539	1,137	40	46
Total - Some test items/questions read aloud (Number)	105	1,639	81	97
Total - Some test items/questions read aloud (Percent)	.1	8.9	3.6	12
Total - All test items/questions read aloud (Number)	88	1,238	22	67
Total - All test items/questions read aloud (Percent)	.1	6.7	1	8.3
Total - Small group setting (Number)	1,243	10,657	344	433
Total - Small group setting (Percent)	1.2	57.6	15.4	53.7
Total - Extended time (Number)	3,335	1,840	104	83
Total - Extended time (Percent)	3.3	10	4.6	10.3
Total - Frequent breaks (Number)	88	1,389	15	61
Total - Frequent breaks (Percent)	.1	7.5	.7	7.6
Total - Number assessed (Number)	101,739	18,486	2,240	806

Incidence of IEP and ELL Students Receiving Selected Accommodations on the 2017 PSSA: Science Grade 4

Accommodation Received by Administration Mode	General Education (non-IEP or ELL)	IEP and non-ELL	ELL and non-IEP	Both IEP and ELL
PPT - Some test items/questions read aloud (Number)	3,204	3,940	411	207
PPT - Some test items/questions read aloud (Percent)	3.2	20.3	14.1	26.7
PPT - All test items/questions read aloud (Number)	652	4,627	153	176
PPT - All test items/questions read aloud (Percent)	.7	23.8	5.2	22.7
PPT - Small group setting (Number)	3,204	11,129	830	458
PPT - Small group setting (Percent)	3.2	57.4	28.4	59.1
PPT - Extended time (Number)	3,059	1,811	110	76
PPT - Extended time (Percent)	3.1	9.3	3.8	9.8
PPT - Frequent breaks (Number)	363	2,823	42	94
PPT - Frequent breaks (Percent)	.4	14.5	1.4	12.1
PPT - Number assessed (Number)	99,566	19,404	2,921	775
CBT - Some test items/questions read aloud (Number)	11	43	1	6
CBT - Some test items/questions read aloud (Percent)	.5	5.9	2.3	25
CBT - All test items/questions read aloud (Number)	12	157	2	7
CBT - All test items/questions read aloud (Percent)	.6	21.6	4.5	29.2
CBT - Small group setting (Number)	63	394	11	20
CBT - Small group setting (Percent)	3.1	54.1	25	83.3
CBT - Extended time (Number)	115	177	3	3
CBT - Extended time (Percent)	5.7	24.3	6.8	12.5
CBT - Frequent breaks (Number)	25	169	1	7
CBT - Frequent breaks (Percent)	1.2	23.2	2.3	29.2
CBT - Number assessed (Number)	2,026	728	44	24
Total - Some test items/questions read aloud (Number)	3,215	3,983	412	213
Total - Some test items/questions read aloud (Percent)	3.2	19.8	13.9	26.7
Total - All test items/questions read aloud (Number)	664	4,784	155	183
Total - All test items/questions read aloud (Percent)	.7	23.8	5.2	22.9
Total - Small group setting (Number)	3,267	11,523	841	478
Total - Small group setting (Percent)	3.2	57.2	28.4	59.8
Total - Extended time (Number)	3,174	1,988	113	79
Total - Extended time (Percent)	3.1	9.9	3.8	9.9
Total - Frequent breaks (Number)	388	2,992	43	101
Total - Frequent breaks (Percent)	.4	14.9	1.5	12.6
Total - Number assessed (Number)	101,592	20,132	2,965	799

Incidence of IEP and ELL Students Receiving Selected Accommodations on the 2017 PSSA: Science Grade 8

Accommodation Received by Administration Mode	General Education (non-IEP or ELL)	IEP and non-ELL	ELL and non-IEP	Both IEP and ELL
PPT - Some test items/questions read aloud (Number)	86	1,258	83	96
PPT - Some test items/questions read aloud (Percent)	.1	7.3	3.8	12.6
PPT - All test items/questions read aloud (Number)	86	1,183	18	62
PPT - All test items/questions read aloud (Percent)	.1	6.9	.8	8.2
PPT - Small group setting (Number)	1,105	9,583	318	377
PPT - Small group setting (Percent)	1.1	55.5	14.5	49.6
PPT - Extended time (Number)	2,467	1,338	72	58
PPT - Extended time (Percent)	2.5	7.8	3.3	7.6
PPT - Frequent breaks (Number)	72	1,006	17	49
PPT - Frequent breaks (Percent)	.1	5.8	.8	6.4
PPT - Number assessed (Number)	97,476	17,254	2,200	760
CBT - Some test items/questions read aloud (Number)	2	88	0	8
CBT - Some test items/questions read aloud (Percent)	.1	7.7	0	17
CBT - All test items/questions read aloud (Number)	6	123	1	1
CBT - All test items/questions read aloud (Percent)	.2	10.8	2.6	2.1
CBT - Small group setting (Number)	38	623	5	30
CBT - Small group setting (Percent)	1	54.6	12.8	63.8
CBT - Extended time (Number)	36	296	1	16
CBT - Extended time (Percent)	.9	25.9	2.6	34
CBT - Frequent breaks (Number)	12	179	0	1
CBT - Frequent breaks (Percent)	.3	15.7	0	2.1
CBT - Number assessed (Number)	3,799	1,141	39	47
Total - Some test items/questions read aloud (Number)	88	1,346	83	104
Total - Some test items/questions read aloud (Percent)	.1	7.3	3.7	12.9
Total - All test items/questions read aloud (Number)	92	1,306	19	63
Total - All test items/questions read aloud (Percent)	.1	7.1	.8	7.8
Total - Small group setting (Number)	1,143	10,206	323	407
Total - Small group setting (Percent)	1.1	55.5	14.4	50.4
Total - Extended time (Number)	2,503	1,634	73	74
Total - Extended time (Percent)	2.5	8.9	3.3	9.2
Total - Frequent breaks (Number)	84	1,185	17	50
Total - Frequent breaks (Percent)	.1	6.4	.8	6.2
Total - Number assessed (Number)	101,275	18,395	2,239	807

APPENDIX M: CUT SCORES AND SCALE TRANSFORMATIONS

Subject	Grade	Scaling Intercept	Scaling slope	LOSS	Scaled Score Cut: Basic	Scaled Score Cut: Prof.	Scaled Score Cut: Adv.
Mathematics	3	956.31	100	600	923	1000	1110
Mathematics	4	981.92	100	600	908	1000	1107
Mathematics	5	961.69	100	600	901	1000	1113
Mathematics	6	931.41	100	600	897	1000	1105
Mathematics	7	956.16	100	600	904	1000	1109
Mathematics	11	951.76	100	600	906	1000	1108
ELA	3	962.47	100	600	905	1000	1143
ELA	4	957.49	100	600	887	1000	1107
ELA	5	958.32	100	600	893	1000	1139
ELA	6	940.78	100	600	875	1000	1115
ELA	7	947.65	100	600	845	1000	1130
ELA	11	961.11	100	600	886	1000	1130
Science	7	1225.65	176.75	1050	1150	1275	1483
Science	8	1196.64	191.54	925	1150	1275	1464

APPENDIX N: RAW-TO-SCALED SCORE CONVERSION TABLES

Grade 3 English Language Arts

Raw Score	IRT Difficulty Estimate	IRT Difficulty SE	Scale Score	Scale Score SE	Frequency	Percent	Cumulative Frequency	Cumulative Percent	Percentile
0	-5.6750	1.8384	600	184	0	0.0	0	0.0	0
1	-4.4388	1.0227	600	102	0	0.0	0	0.0	0
2	-3.7000	0.7384	600	74	0	0.0	0	0.0	0
3	-3.2496	0.6148	638	61	1	0.0	1	0.0	1
4	-2.9175	0.5423	671	54	7	0.0	8	0.0	1
5	-2.6506	0.4935	697	49	14	0.0	22	0.0	1
6	-2.4251	0.4579	720	46	27	0.0	49	0.0	1
7	-2.2282	0.4306	740	43	71	0.1	120	0.1	1
8	-2.0523	0.4088	757	41	131	0.1	251	0.2	1
9	-1.8926	0.3910	773	39	209	0.2	460	0.4	1
10	-1.7456	0.3761	788	38	375	0.3	835	0.7	1
11	-1.6090	0.3635	802	36	562	0.4	1397	1.1	1
12	-1.4808	0.3527	814	35	779	0.6	2176	1.7	1
13	-1.3598	0.3433	826	34	962	0.8	3138	2.5	2
14	-1.2448	0.3351	838	34	1196	1.0	4334	3.5	3
15	-1.1350	0.3279	849	33	1396	1.1	5730	4.6	4
16	-1.0296	0.3215	860	32	1687	1.4	7417	5.9	5
17	-0.9281	0.3159	870	32	1734	1.4	9151	7.3	7
18	-0.8298	0.3110	879	31	1893	1.5	11044	8.8	8
19	-0.7345	0.3066	889	31	1988	1.6	13032	10.4	10
20	-0.6417	0.3027	898	30	2065	1.7	15097	12.1	11
21	-0.5511	0.2993	907	30	2155	1.7	17252	13.8	13
22	-0.4624	0.2964	916	30	2313	1.9	19565	15.7	15
23	-0.3753	0.2939	925	29	2369	1.9	21934	17.6	17
24	-0.2896	0.2917	934	29	2430	1.9	24364	19.5	19
25	-0.2051	0.2899	942	29	2583	2.1	26947	21.6	21
26	-0.1214	0.2885	950	29	2659	2.1	29606	23.7	23
27	-0.0385	0.2874	959	29	2718	2.2	32324	25.9	25
28	0.0438	0.2866	967	29	2852	2.3	35176	28.2	27
29	0.1258	0.2861	975	29	2911	2.3	38087	30.5	29
30	0.2076	0.2860	983	29	3027	2.4	41114	32.9	32
31	0.2894	0.2861	991	29	3078	2.5	44192	35.4	34
32	0.3714	0.2866	1000	29	3281	2.6	47473	38.0	37
33	0.4537	0.2874	1008	29	3279	2.6	50752	40.6	39
34	0.5366	0.2885	1016	29	3395	2.7	54147	43.3	42

Raw Score	IRT Difficulty Estimate	IRT Difficulty SE	Scale Score	Scale Score SE	Frequency	Percent	Cumulative Frequency	Cumulative Percent	Percentile
35	0.6203	0.2900	1025	29	3466	2.8	57613	46.1	45
36	0.7049	0.2918	1033	29	3549	2.8	61162	49.0	48
37	0.7906	0.2940	1042	29	3603	2.9	64765	51.8	50
38	0.8778	0.2965	1050	30	3642	2.9	68407	54.8	53
39	0.9666	0.2996	1059	30	3786	3.0	72193	57.8	56
40	1.0573	0.3030	1068	30	3889	3.1	76082	60.9	59
41	1.1503	0.3070	1078	31	3903	3.1	79985	64.0	62
42	1.2459	0.3115	1087	31	3915	3.1	83900	67.2	66
43	1.3446	0.3166	1097	32	4015	3.2	87915	70.4	69
44	1.4466	0.3224	1107	32	4046	3.2	91961	73.6	72
45	1.5527	0.3290	1118	33	4030	3.2	95991	76.8	75
46	1.6633	0.3365	1129	34	3879	3.1	99870	79.9	78
47	1.7794	0.3449	1140	34	3740	3.0	103610	82.9	81
48	1.9016	0.3546	1153	35	3676	2.9	107286	85.9	84
49	2.0312	0.3656	1166	37	3244	2.6	110530	88.5	87
50	2.1695	0.3783	1179	38	3114	2.5	113644	91.0	90
51	2.3181	0.3930	1194	39	2615	2.1	116259	93.1	92
52	2.4791	0.4100	1210	41	2367	1.9	118626	95.0	94
53	2.6554	0.4302	1228	43	1912	1.5	120538	96.5	96
54	2.8506	0.4541	1248	45	1553	1.2	122091	97.7	97
55	3.0698	0.4830	1269	48	1142	0.9	123233	98.6	98
56	3.3199	0.5184	1294	52	705	0.6	123938	99.2	99
57	3.6113	0.5628	1324	56	493	0.4	124431	99.6	99
58	3.9599	0.6202	1358	62	275	0.2	124706	99.8	99
59	4.3922	0.6988	1402	70	127	0.1	124833	99.9	99
60	4.9628	0.8214	1459	82	65	0.1	124898	100.0	99
61	5.8382	1.0900	1546	109	20	0.0	124918	100.0	99
62	7.1753	1.8774	1680	188	5	0.0	124923	100.0	99

Grade 4 English Language Arts

Raw Score	IRT Difficulty Estimate	IRT Difficulty SE	Scale Score	Scale Score SE	Frequency	Percent	Cumulative Frequency	Cumulative Percent	Percentile
0	-5.9465	1.8316	600	183	0	0.0	0	0.0	0
1	-4.7276	1.0106	600	101	0	0.0	0	0.0	0
2	-4.0131	0.7220	600	72	0	0.0	0	0.0	0
3	-3.5864	0.5955	600	60	1	0.0	1	0.0	1
4	-3.2774	0.5210	630	52	2	0.0	3	0.0	1
5	-3.0328	0.4707	654	47	2	0.0	5	0.0	1
6	-2.8287	0.4342	675	43	8	0.0	13	0.0	1
7	-2.6525	0.4063	692	41	26	0.0	39	0.0	1
8	-2.4966	0.3842	708	38	28	0.0	67	0.1	1
9	-2.3560	0.3662	722	37	54	0.0	121	0.1	1
10	-2.2275	0.3514	735	35	96	0.1	217	0.2	1
11	-2.1085	0.3389	747	34	151	0.1	368	0.3	1
12	-1.9973	0.3282	758	33	189	0.2	557	0.4	1
13	-1.8926	0.3191	768	32	283	0.2	840	0.7	1
14	-1.7933	0.3112	778	31	377	0.3	1217	1.0	1
15	-1.6986	0.3043	788	30	460	0.4	1677	1.3	1
16	-1.6079	0.2982	797	30	567	0.5	2244	1.8	2
17	-1.5206	0.2929	805	29	647	0.5	2891	2.3	2
18	-1.4362	0.2881	814	29	691	0.6	3582	2.9	3
19	-1.3545	0.2839	822	28	773	0.6	4355	3.5	3
20	-1.2750	0.2801	830	28	894	0.7	5249	4.2	4
21	-1.1975	0.2767	838	28	974	0.8	6223	5.0	5
22	-1.1217	0.2737	845	27	1062	0.8	7285	5.8	5
23	-1.0475	0.2710	853	27	1154	0.9	8439	6.7	6
24	-0.9748	0.2686	860	27	1186	0.9	9625	7.7	7
25	-0.9032	0.2664	867	27	1323	1.1	10948	8.7	8
26	-0.8328	0.2644	874	26	1344	1.1	12292	9.8	9
27	-0.7634	0.2627	881	26	1381	1.1	13673	10.9	10
28	-0.6948	0.2611	888	26	1521	1.2	15194	12.1	12
29	-0.6270	0.2597	895	26	1523	1.2	16717	13.4	13
30	-0.5599	0.2585	902	26	1524	1.2	18241	14.6	14
31	-0.4934	0.2574	908	26	1586	1.3	19827	15.8	15
32	-0.4274	0.2565	915	26	1647	1.3	21474	17.2	16
33	-0.3618	0.2557	921	26	1666	1.3	23140	18.5	18
34	-0.2966	0.2551	928	26	1724	1.4	24864	19.9	19
35	-0.2317	0.2545	934	25	1751	1.4	26615	21.3	21
36	-0.1670	0.2542	941	25	1838	1.5	28453	22.7	22

Raw Score	IRT Difficulty Estimate	IRT Difficulty SE	Scale Score	Scale Score SE	Frequency	Percent	Cumulative Frequency	Cumulative Percent	Percentile
37	-0.1025	0.2539	947	25	1920	1.5	30373	24.3	23
38	-0.0380	0.2538	954	25	2033	1.6	32406	25.9	25
39	0.0263	0.2538	960	25	2095	1.7	34501	27.6	27
40	0.0908	0.2539	967	25	2179	1.7	36680	29.3	28
41	0.1553	0.2541	973	25	2222	1.8	38902	31.1	30
42	0.2199	0.2545	979	25	2348	1.9	41250	32.9	32
43	0.2848	0.2550	986	26	2495	2.0	43745	34.9	34
44	0.3500	0.2556	992	26	2591	2.1	46336	37.0	36
45	0.4156	0.2564	999	26	2599	2.1	48935	39.1	38
46	0.4815	0.2573	1006	26	2726	2.2	51661	41.3	40
47	0.5480	0.2584	1012	26	2793	2.2	54454	43.5	42
48	0.6151	0.2596	1019	26	2864	2.3	57318	45.8	45
49	0.6828	0.2610	1026	26	2968	2.4	60286	48.2	47
50	0.7513	0.2625	1033	26	3054	2.4	63340	50.6	49
51	0.8207	0.2642	1040	26	3139	2.5	66479	53.1	52
52	0.8910	0.2662	1047	27	3281	2.6	69760	55.7	54
53	0.9624	0.2683	1054	27	3308	2.6	73068	58.4	57
54	1.0350	0.2706	1061	27	3327	2.7	76395	61.0	60
55	1.1089	0.2732	1068	27	3356	2.7	79751	63.7	62
56	1.1843	0.2761	1076	28	3496	2.8	83247	66.5	65
57	1.2614	0.2792	1084	28	3227	2.6	86474	69.1	68
58	1.3403	0.2827	1092	28	3327	2.7	89801	71.7	70
59	1.4213	0.2865	1100	29	3282	2.6	93083	74.3	73
60	1.5046	0.2906	1108	29	3114	2.5	96197	76.8	76
61	1.5903	0.2952	1117	30	3084	2.5	99281	79.3	78
62	1.6790	0.3002	1125	30	2916	2.3	102197	81.6	80
63	1.7708	0.3058	1135	31	2820	2.3	105017	83.9	83
64	1.8661	0.3118	1144	31	2665	2.1	107682	86.0	85
65	1.9654	0.3185	1154	32	2526	2.0	110208	88.0	87
66	2.0691	0.3257	1164	33	2304	1.8	112512	89.9	89
67	2.1778	0.3337	1175	33	2155	1.7	114667	91.6	91
68	2.2921	0.3425	1187	34	1930	1.5	116597	93.1	92
69	2.4126	0.3522	1199	35	1679	1.3	118276	94.5	94
70	2.5404	0.3628	1212	36	1452	1.2	119728	95.6	95
71	2.6762	0.3745	1225	37	1212	1.0	120940	96.6	96
72	2.8212	0.3874	1240	39	1051	0.8	121991	97.4	97
73	2.9769	0.4018	1255	40	829	0.7	122820	98.1	98
74	3.1447	0.4179	1272	42	673	0.5	123493	98.6	98

Raw Score	IRT Difficulty Estimate	IRT Difficulty SE	Scale Score	Scale Score SE	Frequency	Percent	Cumulative Frequency	Cumulative Percent	Percentile
75	3.3268	0.4360	1290	44	528	0.4	124021	99.1	99
76	3.5259	0.4567	1310	46	389	0.3	124410	99.4	99
77	3.7453	0.4808	1332	48	277	0.2	124687	99.6	99
78	3.9901	0.5096	1357	51	217	0.2	124904	99.8	99
79	4.2677	0.5454	1384	55	119	0.1	125023	99.9	99
80	4.5903	0.5927	1417	59	70	0.1	125093	99.9	99
81	4.9809	0.6615	1456	66	54	0.0	125147	100.0	99
82	5.4914	0.7783	1507	78	30	0.0	125177	100.0	99
83	6.2904	1.0515	1587	105	18	0.0	125195	100.0	99
84	7.5680	1.8542	1714	185	5	0.0	125200	100.0	99

Grade 5 English Language Arts

Raw Score	IRT Difficulty Estimate	IRT Difficulty SE	Scale Score	Scale Score SE	Frequency	Percent	Cumulative Frequency	Cumulative Percent	Percentile
0	-6.1839	1.8378	600	184	0	0.0	0	0.0	0
1	-4.9489	1.0219	600	102	0	0.0	0	0.0	0
2	-4.2113	0.7378	600	74	0	0.0	0	0.0	0
3	-3.7615	0.6145	600	61	0	0.0	0	0.0	0
4	-3.4296	0.5424	615	54	0	0.0	0	0.0	0
5	-3.1624	0.4939	642	49	0	0.0	0	0.0	0
6	-2.9362	0.4586	665	46	7	0.0	7	0.0	1
7	-2.7386	0.4314	684	43	13	0.0	20	0.0	1
8	-2.5621	0.4097	702	41	22	0.0	42	0.0	1
9	-2.4017	0.3917	718	39	42	0.0	84	0.1	1
10	-2.2542	0.3766	733	38	77	0.1	161	0.1	1
11	-2.1174	0.3635	747	36	96	0.1	257	0.2	1
12	-1.9895	0.3521	759	35	159	0.1	416	0.3	1
13	-1.8691	0.3420	771	34	238	0.2	654	0.5	1
14	-1.7552	0.3330	783	33	317	0.3	971	0.8	1
15	-1.6471	0.3248	794	32	403	0.3	1374	1.1	1
16	-1.5440	0.3174	804	32	503	0.4	1877	1.5	1
17	-1.4455	0.3106	814	31	621	0.5	2498	2.0	2
18	-1.3510	0.3044	823	30	772	0.6	3270	2.6	2
19	-1.2601	0.2986	832	30	893	0.7	4163	3.4	3
20	-1.1725	0.2933	841	29	1040	0.8	5203	4.2	4
21	-1.0879	0.2884	850	29	1195	1.0	6398	5.2	5
22	-1.0060	0.2839	858	28	1383	1.1	7781	6.3	6
23	-0.9266	0.2797	866	28	1391	1.1	9172	7.4	7
24	-0.8495	0.2759	873	28	1593	1.3	10765	8.7	8
25	-0.7743	0.2723	881	27	1723	1.4	12488	10.1	9
26	-0.7011	0.2690	888	27	1767	1.4	14255	11.5	11
27	-0.6296	0.2660	895	27	1749	1.4	16004	12.9	12
28	-0.5595	0.2632	902	26	1922	1.5	17926	14.4	14
29	-0.4909	0.2607	909	26	1913	1.5	19839	16.0	15
30	-0.4236	0.2584	916	26	1989	1.6	21828	17.6	17
31	-0.3573	0.2564	923	26	2010	1.6	23838	19.2	18
32	-0.2921	0.2546	929	25	1988	1.6	25826	20.8	20
33	-0.2277	0.2530	936	25	2095	1.7	27921	22.5	22
34	-0.1640	0.2516	942	25	2036	1.6	29957	24.1	23
35	-0.1011	0.2504	948	25	2099	1.7	32056	25.8	25
36	-0.0386	0.2494	954	25	2177	1.8	34233	27.6	27

Raw Score	IRT Difficulty Estimate	IRT Difficulty SE	Scale Score	Scale Score SE	Frequency	Percent	Cumulative Frequency	Cumulative Percent	Percentile
37	0.0234	0.2486	961	25	2173	1.7	36406	29.3	28
38	0.0850	0.2480	967	25	2248	1.8	38654	31.1	30
39	0.1464	0.2477	973	25	2183	1.8	40837	32.9	32
40	0.2077	0.2475	979	25	2291	1.8	43128	34.7	34
41	0.2690	0.2475	985	25	2375	1.9	45503	36.6	36
42	0.3303	0.2477	991	25	2289	1.8	47792	38.5	38
43	0.3917	0.2481	997	25	2398	1.9	50190	40.4	39
44	0.4535	0.2488	1004	25	2540	2.0	52730	42.5	41
45	0.5156	0.2496	1010	25	2579	2.1	55309	44.5	43
46	0.5781	0.2506	1016	25	2556	2.1	57865	46.6	46
47	0.6412	0.2519	1022	25	2639	2.1	60504	48.7	48
48	0.7050	0.2534	1029	25	2711	2.2	63215	50.9	50
49	0.7697	0.2551	1035	26	2788	2.2	66003	53.1	52
50	0.8352	0.2570	1042	26	2876	2.3	68879	55.5	54
51	0.9018	0.2592	1049	26	2892	2.3	71771	57.8	57
52	0.9696	0.2616	1055	26	2893	2.3	74664	60.1	59
53	1.0387	0.2643	1062	26	3026	2.4	77690	62.6	61
54	1.1093	0.2673	1069	27	2940	2.4	80630	64.9	64
55	1.1816	0.2705	1076	27	3056	2.5	83686	67.4	66
56	1.2558	0.2741	1084	27	2991	2.4	86677	69.8	69
57	1.3320	0.2780	1092	28	2922	2.4	89599	72.2	71
58	1.4104	0.2822	1099	28	2865	2.3	92464	74.5	73
59	1.4913	0.2868	1107	29	2995	2.4	95459	76.9	76
60	1.5750	0.2918	1116	29	2835	2.3	98294	79.2	78
61	1.6618	0.2972	1125	30	2811	2.3	101105	81.4	80
62	1.7518	0.3031	1134	30	2710	2.2	103815	83.6	83
63	1.8456	0.3094	1143	31	2653	2.1	106468	85.7	85
64	1.9434	0.3162	1153	32	2444	2.0	108912	87.7	87
65	2.0457	0.3236	1163	32	2327	1.9	111239	89.6	89
66	2.1530	0.3315	1174	33	2033	1.6	113272	91.2	90
67	2.2657	0.3401	1185	34	1771	1.4	115043	92.6	92
68	2.3846	0.3494	1197	35	1708	1.4	116751	94.0	93
69	2.5101	0.3593	1209	36	1381	1.1	118132	95.1	95
70	2.6430	0.3701	1223	37	1228	1.0	119360	96.1	96
71	2.7843	0.3817	1237	38	1082	0.9	120442	97.0	97
72	2.9347	0.3942	1252	39	845	0.7	121287	97.7	97
73	3.0955	0.4079	1268	41	747	0.6	122034	98.3	98
74	3.2680	0.4229	1285	42	597	0.5	122631	98.8	99

Raw Score	IRT Difficulty Estimate	IRT Difficulty SE	Scale Score	Scale Score SE	Frequency	Percent	Cumulative Frequency	Cumulative Percent	Percentile
75	3.4539	0.4397	1304	44	464	0.4	123095	99.1	99
76	3.6555	0.4586	1324	46	355	0.3	123450	99.4	99
77	3.8758	0.4807	1346	48	258	0.2	123708	99.6	99
78	4.1194	0.5073	1370	51	155	0.1	123863	99.7	99
79	4.3934	0.5410	1398	54	129	0.1	123992	99.8	99
80	4.7100	0.5866	1429	59	81	0.1	124073	99.9	99
81	5.0921	0.6543	1468	65	47	0.0	124120	99.9	99
82	5.5924	0.7712	1518	77	41	0.0	124161	100.0	99
83	6.3799	1.0458	1596	105	17	0.0	124178	100.0	99
84	7.6491	1.8509	1723	185	5	0.0	124183	100.0	99

Grade 6 English Language Arts

Raw Score	IRT Difficulty Estimate	IRT Difficulty SE	Scale Score	Scale Score SE	Frequency	Percent	Cumulative Frequency	Cumulative Percent	Percentile
0	-5.9765	1.8392	600	184	0	0.0	0	0.0	0
1	-4.7381	1.0241	600	102	0	0.0	0	0.0	0
2	-3.9965	0.7403	600	74	0	0.0	0	0.0	0
3	-3.5435	0.6168	600	62	0	0.0	0	0.0	0
4	-3.2093	0.5441	620	54	1	0.0	1	0.0	1
5	-2.9407	0.4949	647	49	3	0.0	4	0.0	1
6	-2.7140	0.4588	669	46	4	0.0	8	0.0	1
7	-2.5166	0.4307	689	43	3	0.0	11	0.0	1
8	-2.3410	0.4081	707	41	15	0.0	26	0.0	1
9	-2.1822	0.3893	723	39	25	0.0	51	0.0	1
10	-2.0370	0.3733	737	37	37	0.0	88	0.1	1
11	-1.9028	0.3595	751	36	75	0.1	163	0.1	1
12	-1.7779	0.3475	763	35	113	0.1	276	0.2	1
13	-1.6609	0.3368	775	34	194	0.2	470	0.4	1
14	-1.5507	0.3274	786	33	235	0.2	705	0.6	1
15	-1.4463	0.3189	796	32	325	0.3	1030	0.8	1
16	-1.3471	0.3112	806	31	413	0.3	1443	1.2	1
17	-1.2524	0.3043	816	30	526	0.4	1969	1.6	1
18	-1.1617	0.2980	825	30	631	0.5	2600	2.1	2
19	-1.0746	0.2923	833	29	680	0.6	3280	2.7	2
20	-0.9907	0.2872	842	29	816	0.7	4096	3.3	3
21	-0.9096	0.2825	850	28	939	0.8	5035	4.1	4
22	-0.8310	0.2782	858	28	1017	0.8	6052	4.9	5
23	-0.7547	0.2743	865	27	1192	1.0	7244	5.9	5
24	-0.6805	0.2707	873	27	1250	1.0	8494	6.9	6
25	-0.6081	0.2675	880	27	1292	1.0	9786	7.9	7
26	-0.5373	0.2646	887	26	1398	1.1	11184	9.1	9
27	-0.4680	0.2620	894	26	1543	1.3	12727	10.3	10
28	-0.4000	0.2596	901	26	1584	1.3	14311	11.6	11
29	-0.3331	0.2575	907	26	1710	1.4	16021	13.0	12
30	-0.2673	0.2556	914	26	1702	1.4	17723	14.4	14
31	-0.2024	0.2539	921	25	1727	1.4	19450	15.8	15
32	-0.1384	0.2524	927	25	1804	1.5	21254	17.3	17
33	-0.0750	0.2512	933	25	1852	1.5	23106	18.8	18
34	-0.0122	0.2501	940	25	1926	1.6	25032	20.3	20
35	0.0501	0.2492	946	25	2024	1.6	27056	22.0	21
36	0.1120	0.2484	952	25	2066	1.7	29122	23.6	23

Raw Score	IRT Difficulty Estimate	IRT Difficulty SE	Scale Score	Scale Score SE	Frequency	Percent	Cumulative Frequency	Cumulative Percent	Percentile
37	0.1736	0.2479	958	25	2079	1.7	31201	25.3	24
38	0.2350	0.2475	964	25	2138	1.7	33339	27.1	26
39	0.2962	0.2473	970	25	2141	1.7	35480	28.8	28
40	0.3573	0.2473	977	25	2286	1.9	37766	30.7	30
41	0.4185	0.2474	983	25	2264	1.8	40030	32.5	32
42	0.4797	0.2477	989	25	2411	2.0	42441	34.5	33
43	0.5412	0.2481	995	25	2410	2.0	44851	36.4	35
44	0.6029	0.2487	1001	25	2532	2.1	47383	38.5	37
45	0.6649	0.2495	1007	25	2651	2.2	50034	40.6	40
46	0.7274	0.2504	1014	25	2656	2.2	52690	42.8	42
47	0.7904	0.2516	1020	25	2789	2.3	55479	45.0	44
48	0.8540	0.2529	1026	25	2847	2.3	58326	47.4	46
49	0.9183	0.2544	1033	25	3006	2.4	61332	49.8	49
50	0.9835	0.2561	1039	26	3014	2.4	64346	52.2	51
51	1.0495	0.2580	1046	26	3052	2.5	67398	54.7	53
52	1.1166	0.2601	1052	26	3068	2.5	70466	57.2	56
53	1.1848	0.2624	1059	26	3058	2.5	73524	59.7	58
54	1.2544	0.2650	1066	27	3189	2.6	76713	62.3	61
55	1.3254	0.2679	1073	27	3199	2.6	79912	64.9	64
56	1.3980	0.2710	1081	27	3286	2.7	83198	67.5	66
57	1.4723	0.2745	1088	27	3247	2.6	86445	70.2	69
58	1.5487	0.2782	1096	28	3226	2.6	89671	72.8	71
59	1.6272	0.2824	1104	28	3089	2.5	92760	75.3	74
60	1.7082	0.2869	1112	29	3117	2.5	95877	77.8	77
61	1.7919	0.2919	1120	29	3039	2.5	98916	80.3	79
62	1.8787	0.2973	1129	30	2821	2.3	101737	82.6	81
63	1.9688	0.3033	1138	30	2837	2.3	104574	84.9	84
64	2.0628	0.3099	1147	31	2557	2.1	107131	87.0	86
65	2.1611	0.3171	1157	32	2496	2.0	109627	89.0	88
66	2.2641	0.3251	1167	33	2130	1.7	111757	90.7	90
67	2.3727	0.3340	1178	33	1963	1.6	113720	92.3	92
68	2.4875	0.3438	1190	34	1827	1.5	115547	93.8	93
69	2.6095	0.3548	1202	35	1588	1.3	117135	95.1	94
70	2.7396	0.3669	1215	37	1346	1.1	118481	96.2	96
71	2.8792	0.3804	1229	38	1127	0.9	119608	97.1	97
72	3.0296	0.3955	1244	40	889	0.7	120497	97.8	97
73	3.1926	0.4123	1260	41	789	0.6	121286	98.5	98
74	3.3703	0.4309	1278	43	598	0.5	121884	99.0	99

Raw Score	IRT Difficulty Estimate	IRT Difficulty SE	Scale Score	Scale Score SE	Frequency	Percent	Cumulative Frequency	Cumulative Percent	Percentile
75	3.5649	0.4516	1297	45	428	0.3	122312	99.3	99
76	3.7792	0.4746	1319	47	266	0.2	122578	99.5	99
77	4.0166	0.5003	1342	50	199	0.2	122777	99.7	99
78	4.2814	0.5296	1369	53	159	0.1	122936	99.8	99
79	4.5802	0.5647	1399	56	107	0.1	123043	99.9	99
80	4.9241	0.6101	1433	61	65	0.1	123108	99.9	99
81	5.3348	0.6759	1474	68	35	0.0	123143	100.0	99
82	5.8635	0.7892	1527	79	15	0.0	123158	100.0	99
83	6.6785	1.0585	1609	106	10	0.0	123168	100.0	99
84	7.9660	1.8578	1737	186	2	0.0	123170	100.0	99

Grade 7 English Language Arts

Raw Score	IRT Difficulty Estimate	IRT Difficulty SE	Scale Score	Scale Score SE	Frequency	Percent	Cumulative Frequency	Cumulative Percent	Percentile
0	-5.9318	1.8313	600	183	0	0.0	0	0.0	0
1	-4.7132	1.0107	600	101	0	0.0	0	0.0	0
2	-3.9976	0.7234	600	72	0	0.0	0	0.0	0
3	-3.5680	0.5986	600	60	1	0.0	1	0.0	1
4	-3.2546	0.5258	622	53	0	0.0	1	0.0	1
5	-3.0042	0.4774	647	48	3	0.0	4	0.0	1
6	-2.7933	0.4427	668	44	8	0.0	12	0.0	1
7	-2.6092	0.4164	687	42	9	0.0	21	0.0	1
8	-2.4445	0.3958	703	40	12	0.0	33	0.0	1
9	-2.2946	0.3792	718	38	40	0.0	73	0.1	1
10	-2.1561	0.3654	732	37	60	0.0	133	0.1	1
11	-2.0269	0.3538	745	35	93	0.1	226	0.2	1
12	-1.9053	0.3439	757	34	120	0.1	346	0.3	1
13	-1.7901	0.3352	769	34	193	0.2	539	0.4	1
14	-1.6804	0.3275	780	33	275	0.2	814	0.6	1
15	-1.5754	0.3206	790	32	396	0.3	1210	1.0	1
16	-1.4746	0.3144	800	31	448	0.4	1658	1.3	1
17	-1.3776	0.3087	810	31	569	0.5	2227	1.8	2
18	-1.2839	0.3034	819	30	698	0.6	2925	2.3	2
19	-1.1933	0.2986	828	30	766	0.6	3691	2.9	3
20	-1.1055	0.2940	837	29	893	0.7	4584	3.6	3
21	-1.0203	0.2898	846	29	973	0.8	5557	4.4	4
22	-0.9375	0.2858	854	29	1172	0.9	6729	5.4	5
23	-0.8569	0.2821	862	28	1312	1.0	8041	6.4	6
24	-0.7783	0.2786	870	28	1479	1.2	9520	7.6	7
25	-0.7016	0.2754	877	28	1639	1.3	11159	8.9	8
26	-0.6266	0.2723	885	27	1714	1.4	12873	10.2	10
27	-0.5532	0.2695	892	27	1814	1.4	14687	11.7	11
28	-0.4813	0.2669	900	27	1935	1.5	16622	13.2	12
29	-0.4108	0.2644	907	26	2011	1.6	18633	14.8	14
30	-0.3414	0.2622	914	26	2159	1.7	20792	16.5	16
31	-0.2732	0.2602	920	26	2126	1.7	22918	18.2	17
32	-0.2060	0.2584	927	26	2202	1.8	25120	20.0	19
33	-0.1396	0.2568	934	26	2165	1.7	27285	21.7	21
34	-0.0740	0.2554	940	26	2256	1.8	29541	23.5	23
35	-0.0091	0.2542	947	25	2301	1.8	31842	25.3	24
36	0.0552	0.2532	953	25	2216	1.8	34058	27.1	26

Raw Score	IRT Difficulty Estimate	IRT Difficulty SE	Scale Score	Scale Score SE	Frequency	Percent	Cumulative Frequency	Cumulative Percent	Percentile
37	0.1191	0.2523	960	25	2288	1.8	36346	28.9	28
38	0.1826	0.2517	966	25	2326	1.8	38672	30.8	30
39	0.2458	0.2513	972	25	2297	1.8	40969	32.6	32
40	0.3089	0.2510	979	25	2506	2.0	43475	34.6	34
41	0.3719	0.2510	985	25	2450	1.9	45925	36.5	36
42	0.4349	0.2511	991	25	2482	2.0	48407	38.5	38
43	0.4981	0.2514	997	25	2573	2.0	50980	40.5	40
44	0.5614	0.2519	1004	25	2571	2.0	53551	42.6	42
45	0.6250	0.2526	1010	25	2591	2.1	56142	44.6	44
46	0.6891	0.2535	1017	25	2654	2.1	58796	46.8	46
47	0.7536	0.2545	1023	25	2752	2.2	61548	48.9	48
48	0.8187	0.2558	1030	26	2727	2.2	64275	51.1	50
49	0.8844	0.2572	1036	26	2737	2.2	67012	53.3	52
50	0.9510	0.2588	1043	26	2765	2.2	69777	55.5	54
51	1.0184	0.2607	1049	26	2856	2.3	72633	57.8	57
52	1.0869	0.2627	1056	26	2907	2.3	75540	60.1	59
53	1.1565	0.2650	1063	27	2939	2.3	78479	62.4	61
54	1.2274	0.2675	1070	27	2944	2.3	81423	64.8	64
55	1.2997	0.2703	1078	27	2845	2.3	84268	67.0	66
56	1.3736	0.2734	1085	27	2877	2.3	87145	69.3	68
57	1.4493	0.2768	1093	28	3000	2.4	90145	71.7	70
58	1.5269	0.2805	1100	28	2878	2.3	93023	74.0	73
59	1.6067	0.2846	1108	28	2802	2.2	95825	76.2	75
60	1.6889	0.2890	1117	29	2863	2.3	98688	78.5	77
61	1.7739	0.2939	1125	29	2769	2.2	101457	80.7	80
62	1.8618	0.2993	1134	30	2679	2.1	104136	82.8	82
63	1.9532	0.3052	1143	31	2543	2.0	106679	84.8	84
64	2.0483	0.3117	1152	31	2449	1.9	109128	86.8	86
65	2.1476	0.3188	1162	32	2250	1.8	111378	88.6	88
66	2.2518	0.3266	1173	33	2138	1.7	113516	90.3	89
67	2.3612	0.3352	1184	34	1925	1.5	115441	91.8	91
68	2.4767	0.3446	1195	34	1848	1.5	117289	93.3	93
69	2.5990	0.3549	1208	35	1566	1.2	118855	94.5	94
70	2.7290	0.3663	1221	37	1333	1.1	120188	95.6	95
71	2.8677	0.3787	1234	38	1229	1.0	121417	96.6	96
72	3.0163	0.3923	1249	39	940	0.7	122357	97.3	97
73	3.1760	0.4073	1265	41	842	0.7	123199	98.0	98
74	3.3485	0.4237	1283	42	701	0.6	123900	98.5	98

Raw Score	IRT Difficulty Estimate	IRT Difficulty SE	Scale Score	Scale Score SE	Frequency	Percent	Cumulative Frequency	Cumulative Percent	Percentile
75	3.5357	0.4418	1301	44	541	0.4	124441	99.0	99
76	3.7399	0.4621	1322	46	402	0.3	124843	99.3	99
77	3.9640	0.4852	1344	49	275	0.2	125118	99.5	99
78	4.2124	0.5124	1369	51	239	0.2	125357	99.7	99
79	4.4918	0.5461	1397	55	140	0.1	125497	99.8	99
80	4.8139	0.5912	1429	59	104	0.1	125601	99.9	99
81	5.2012	0.6579	1468	66	63	0.1	125664	99.9	99
82	5.7057	0.7736	1518	77	48	0.0	125712	100.0	99
83	6.4965	1.0471	1597	105	25	0.0	125737	100.0	99
84	7.7673	1.8514	1724	185	7	0.0	125744	100.0	99

Grade 8 English Language Arts

Raw Score	IRT Difficulty Estimate	IRT Difficulty SE	Scale Score	Scale Score SE	Frequency	Percent	Cumulative Frequency	Cumulative Percent	Percentile
0	-6.5934	1.8440	600	184	1	0.0	1	0.0	1
1	-5.3430	1.0324	600	103	0	0.0	1	0.0	1
2	-4.5848	0.7511	600	75	0	0.0	1	0.0	1
3	-4.1161	0.6289	600	63	0	0.0	1	0.0	1
4	-3.7673	0.5568	600	56	1	0.0	2	0.0	1
5	-3.4852	0.5078	613	51	2	0.0	4	0.0	1
6	-3.2461	0.4716	637	47	3	0.0	7	0.0	1
7	-3.0373	0.4432	657	44	6	0.0	13	0.0	1
8	-2.8512	0.4202	676	42	9	0.0	22	0.0	1
9	-2.6828	0.4010	693	40	26	0.0	48	0.0	1
10	-2.5287	0.3846	708	38	35	0.0	83	0.1	1
11	-2.3863	0.3704	722	37	54	0.0	137	0.1	1
12	-2.2537	0.3579	736	36	98	0.1	235	0.2	1
13	-2.1296	0.3469	748	35	123	0.1	358	0.3	1
14	-2.0127	0.3371	760	34	176	0.1	534	0.4	1
15	-1.9021	0.3283	771	33	256	0.2	790	0.6	1
16	-1.7969	0.3203	781	32	310	0.3	1100	0.9	1
17	-1.6967	0.3131	791	31	434	0.4	1534	1.2	1
18	-1.6007	0.3066	801	31	480	0.4	2014	1.6	1
19	-1.5085	0.3006	810	30	642	0.5	2656	2.1	2
20	-1.4198	0.2952	819	30	707	0.6	3363	2.7	2
21	-1.3341	0.2903	828	29	779	0.6	4142	3.3	3
22	-1.2512	0.2857	836	29	851	0.7	4993	4.0	4
23	-1.1707	0.2816	844	28	1091	0.9	6084	4.9	4
24	-1.0925	0.2778	852	28	1248	1.0	7332	5.9	5
25	-1.0163	0.2744	859	27	1260	1.0	8592	6.9	6
26	-0.9419	0.2712	867	27	1398	1.1	9990	8.1	8
27	-0.8691	0.2683	874	27	1444	1.2	11434	9.2	9
28	-0.7978	0.2657	881	27	1555	1.3	12989	10.5	10
29	-0.7279	0.2633	888	26	1639	1.3	14628	11.8	11
30	-0.6591	0.2612	895	26	1632	1.3	16260	13.1	12
31	-0.5914	0.2593	902	26	1707	1.4	17967	14.5	14
32	-0.5246	0.2575	909	26	1782	1.4	19749	16.0	15
33	-0.4587	0.2560	915	26	1749	1.4	21498	17.4	17
34	-0.3935	0.2547	922	25	1871	1.5	23369	18.9	18
35	-0.3290	0.2535	928	25	2002	1.6	25371	20.5	20
36	-0.2650	0.2525	935	25	1925	1.6	27296	22.1	21

Raw Score	IRT Difficulty Estimate	IRT Difficulty SE	Scale Score	Scale Score SE	Frequency	Percent	Cumulative Frequency	Cumulative Percent	Percentile
37	-0.2014	0.2517	941	25	2019	1.6	29315	23.7	23
38	-0.1382	0.2511	947	25	2133	1.7	31448	25.4	25
39	-0.0752	0.2506	954	25	2099	1.7	33547	27.1	26
40	-0.0125	0.2503	960	25	2178	1.8	35725	28.9	28
41	0.0501	0.2502	966	25	2291	1.9	38016	30.7	30
42	0.1127	0.2502	972	25	2391	1.9	40407	32.7	32
43	0.1753	0.2504	979	25	2491	2.0	42898	34.7	34
44	0.2381	0.2507	985	25	2610	2.1	45508	36.8	36
45	0.3010	0.2512	991	25	2694	2.2	48202	39.0	38
46	0.3643	0.2518	998	25	2659	2.2	50861	41.1	40
47	0.4279	0.2526	1004	25	2857	2.3	53718	43.4	42
48	0.4920	0.2536	1010	25	2752	2.2	56470	45.7	45
49	0.5566	0.2548	1017	25	2899	2.3	59369	48.0	47
50	0.6218	0.2561	1023	26	2875	2.3	62244	50.3	49
51	0.6878	0.2576	1030	26	3003	2.4	65247	52.8	52
52	0.7545	0.2593	1037	26	3021	2.4	68268	55.2	54
53	0.8223	0.2612	1043	26	3099	2.5	71367	57.7	56
54	0.8911	0.2633	1050	26	2906	2.4	74273	60.1	59
55	0.9610	0.2657	1057	27	3160	2.6	77433	62.6	61
56	1.0323	0.2683	1064	27	3065	2.5	80498	65.1	64
57	1.1050	0.2711	1072	27	3090	2.5	83588	67.6	66
58	1.1794	0.2743	1079	27	3061	2.5	86649	70.1	69
59	1.2555	0.2777	1087	28	3103	2.5	89752	72.6	71
60	1.3337	0.2815	1094	28	3011	2.4	92763	75.0	74
61	1.4141	0.2857	1103	29	2893	2.3	95656	77.4	76
62	1.4970	0.2903	1111	29	2822	2.3	98478	79.6	78
63	1.5827	0.2953	1119	30	2789	2.3	101267	81.9	81
64	1.6716	0.3008	1128	30	2676	2.2	103943	84.1	83
65	1.7639	0.3069	1138	31	2545	2.1	106488	86.1	85
66	1.8601	0.3136	1147	31	2447	2.0	108935	88.1	87
67	1.9607	0.3210	1157	32	2282	1.8	111217	89.9	89
68	2.0664	0.3292	1168	33	2105	1.7	113322	91.6	91
69	2.1778	0.3383	1179	34	1861	1.5	115183	93.2	92
70	2.2956	0.3485	1191	35	1618	1.3	116801	94.5	94
71	2.4210	0.3598	1203	36	1417	1.1	118218	95.6	95
72	2.5549	0.3724	1217	37	1256	1.0	119474	96.6	96
73	2.6989	0.3867	1231	39	1098	0.9	120572	97.5	97
74	2.8546	0.4028	1247	40	866	0.7	121438	98.2	98

Raw Score	IRT Difficulty Estimate	IRT Difficulty SE	Scale Score	Scale Score SE	Frequency	Percent	Cumulative Frequency	Cumulative Percent	Percentile
75	3.0241	0.4211	1264	42	653	0.5	122091	98.7	98
76	3.2102	0.4422	1282	44	484	0.4	122575	99.1	99
77	3.4166	0.4669	1303	47	383	0.3	122958	99.4	99
78	3.6482	0.4964	1326	50	261	0.2	123219	99.6	99
79	3.9125	0.5332	1352	53	177	0.1	123396	99.8	99
80	4.2220	0.5816	1383	58	120	0.1	123516	99.9	99
81	4.5997	0.6518	1421	65	84	0.1	123600	100.0	99
82	5.0978	0.7705	1471	77	36	0.0	123636	100.0	99
83	5.8852	1.0462	1550	105	13	0.0	123649	100.0	99
84	7.1553	1.8514	1677	185	4	0.0	123653	100.0	99

Grade 3 Mathematics

Raw Score	IRT Difficulty Estimate	IRT Difficulty SE	Scale Score	Scale Score SE	Frequency	Percent	Cumulative Frequency	Cumulative Percent	Percentile
0	-5.7389	1.8324	600	183	1	0.0	1	0.0	1
1	-4.5180	1.0120	600	101	0	0.0	1	0.0	1
2	-3.8006	0.7241	600	72	1	0.0	2	0.0	1
3	-3.3709	0.5981	619	60	0	0.0	2	0.0	1
4	-3.0588	0.5239	650	52	4	0.0	6	0.0	1
5	-2.8112	0.4739	675	47	3	0.0	9	0.0	1
6	-2.6042	0.4375	696	44	14	0.0	23	0.0	1
7	-2.4253	0.4095	714	41	26	0.0	49	0.0	1
8	-2.2668	0.3874	730	39	67	0.1	116	0.1	1
9	-2.1238	0.3693	744	37	127	0.1	243	0.2	1
10	-1.9931	0.3542	757	35	274	0.2	517	0.4	1
11	-1.8722	0.3415	769	34	406	0.3	923	0.7	1
12	-1.7594	0.3306	780	33	628	0.5	1551	1.2	1
13	-1.6533	0.3211	791	32	865	0.7	2416	1.9	2
14	-1.5528	0.3129	801	31	1148	0.9	3564	2.8	2
15	-1.4572	0.3057	811	31	1373	1.1	4937	3.9	3
16	-1.3657	0.2994	820	30	1686	1.3	6623	5.3	5
17	-1.2778	0.2937	829	29	1786	1.4	8409	6.7	6
18	-1.1930	0.2887	837	29	1986	1.6	10395	8.3	8
19	-1.1109	0.2843	845	28	2064	1.6	12459	10.0	9
20	-1.0313	0.2803	853	28	2072	1.7	14531	11.6	11
21	-0.9537	0.2768	861	28	2030	1.6	16561	13.2	12
22	-0.8780	0.2736	869	27	2079	1.7	18640	14.9	14
23	-0.8039	0.2708	876	27	2036	1.6	20676	16.5	16
24	-0.7312	0.2683	883	27	1910	1.5	22586	18.0	17
25	-0.6598	0.2661	890	27	1931	1.5	24517	19.6	19
26	-0.5895	0.2642	897	26	1957	1.6	26474	21.1	20
27	-0.5202	0.2625	904	26	1957	1.6	28431	22.7	22
28	-0.4516	0.2611	911	26	1896	1.5	30327	24.2	23
29	-0.3838	0.2599	918	26	2045	1.6	32372	25.9	25
30	-0.3165	0.2589	925	26	1896	1.5	34268	27.4	27
31	-0.2497	0.2581	931	26	1918	1.5	36186	28.9	28
32	-0.1833	0.2574	938	26	1977	1.6	38163	30.5	30
33	-0.1172	0.2570	945	26	2088	1.7	40251	32.1	31
34	-0.0512	0.2567	951	26	2009	1.6	42260	33.8	33
35	0.0147	0.2566	958	26	2095	1.7	44355	35.4	35
36	0.0806	0.2567	964	26	2069	1.7	46424	37.1	36

Raw Score	IRT Difficulty Estimate	IRT Difficulty SE	Scale Score	Scale Score SE	Frequency	Percent	Cumulative Frequency	Cumulative Percent	Percentile
37	0.1465	0.2570	971	26	2055	1.6	48479	38.7	38
38	0.2127	0.2574	978	26	2086	1.7	50565	40.4	40
39	0.2791	0.2580	984	26	2128	1.7	52693	42.1	41
40	0.3459	0.2588	991	26	2155	1.7	54848	43.8	43
41	0.4131	0.2598	998	26	2181	1.7	57029	45.5	45
42	0.4809	0.2609	1004	26	2284	1.8	59313	47.4	46
43	0.5493	0.2623	1011	26	2290	1.8	61603	49.2	48
44	0.6185	0.2638	1018	26	2399	1.9	64002	51.1	50
45	0.6885	0.2656	1025	27	2361	1.9	66363	53.0	52
46	0.7595	0.2675	1032	27	2582	2.1	68945	55.1	54
47	0.8317	0.2698	1039	27	2487	2.0	71432	57.1	56
48	0.9052	0.2723	1047	27	2516	2.0	73948	59.1	58
49	0.9800	0.2751	1054	28	2584	2.1	76532	61.1	60
50	1.0566	0.2782	1062	28	2540	2.0	79072	63.2	62
51	1.1349	0.2816	1070	28	2678	2.1	81750	65.3	64
52	1.2152	0.2855	1078	29	2659	2.1	84409	67.4	66
53	1.2979	0.2897	1086	29	2795	2.2	87204	69.6	69
54	1.3832	0.2945	1095	29	2705	2.2	89909	71.8	71
55	1.4715	0.2998	1103	30	2698	2.2	92607	74.0	73
56	1.5631	0.3057	1113	31	2806	2.2	95413	76.2	75
57	1.6586	0.3124	1122	31	2873	2.3	98286	78.5	77
58	1.7585	0.3199	1132	32	2835	2.3	101121	80.8	80
59	1.8635	0.3284	1143	33	2719	2.2	103840	82.9	82
60	1.9746	0.3382	1154	34	2677	2.1	106517	85.1	84
61	2.0926	0.3493	1166	35	2710	2.2	109227	87.2	86
62	2.2192	0.3623	1178	36	2464	2.0	111691	89.2	88
63	2.3559	0.3776	1192	38	2475	2.0	114166	91.2	90
64	2.5053	0.3959	1207	40	2267	1.8	116433	93.0	92
65	2.6707	0.4182	1223	42	2136	1.7	118569	94.7	94
66	2.8571	0.4462	1242	45	1828	1.5	120397	96.2	95
67	3.0721	0.4826	1264	48	1655	1.3	122052	97.5	97
68	3.3284	0.5325	1289	53	1305	1.0	123357	98.5	98
69	3.6500	0.6063	1321	61	939	0.8	124296	99.3	99
70	4.0902	0.7316	1365	73	566	0.5	124862	99.7	99
71	4.8193	1.0181	1438	102	247	0.2	125109	99.9	99
72	6.0492	1.8360	1561	184	96	0.1	125205	100.0	99

Grade 4 Mathematics

Raw Score	IRT Difficulty Estimate	IRT Difficulty SE	Scale Score	Scale Score SE	Frequency	Percent	Cumulative Frequency	Cumulative Percent	Percentile
0	-6.1267	1.8338	600	183	0	0.0	0	0.0	0
1	-4.9021	1.0146	600	101	1	0.0	1	0.0	1
2	-4.1796	0.7275	600	73	0	0.0	1	0.0	1
3	-3.7450	0.6020	607	60	0	0.0	1	0.0	1
4	-3.4283	0.5281	639	53	4	0.0	5	0.0	1
5	-3.1763	0.4783	664	48	6	0.0	11	0.0	1
6	-2.9653	0.4419	685	44	12	0.0	23	0.0	1
7	-2.7827	0.4139	704	41	16	0.0	39	0.0	1
8	-2.6208	0.3915	720	39	56	0.0	95	0.1	1
9	-2.4748	0.3732	734	37	106	0.1	201	0.2	1
10	-2.3413	0.3578	748	36	221	0.2	422	0.3	1
11	-2.2180	0.3447	760	34	380	0.3	802	0.6	1
12	-2.1031	0.3335	772	33	534	0.4	1336	1.1	1
13	-1.9953	0.3236	782	32	791	0.6	2127	1.7	1
14	-1.8934	0.3150	793	32	1035	0.8	3162	2.5	2
15	-1.7966	0.3073	802	31	1333	1.1	4495	3.6	3
16	-1.7043	0.3005	811	30	1516	1.2	6011	4.8	4
17	-1.6158	0.2944	820	29	1848	1.5	7859	6.3	6
18	-1.5307	0.2890	829	29	2046	1.6	9905	7.9	7
19	-1.4487	0.2841	837	28	2031	1.6	11936	9.5	9
20	-1.3692	0.2798	845	28	2224	1.8	14160	11.3	10
21	-1.2920	0.2759	853	28	2272	1.8	16432	13.1	12
22	-1.2169	0.2724	860	27	2285	1.8	18717	14.9	14
23	-1.1435	0.2693	868	27	2393	1.9	21110	16.8	16
24	-1.0717	0.2666	875	27	2304	1.8	23414	18.6	18
25	-1.0013	0.2642	882	26	2373	1.9	25787	20.5	20
26	-0.9320	0.2622	889	26	2263	1.8	28050	22.3	21
27	-0.8637	0.2604	896	26	2356	1.9	30406	24.2	23
28	-0.7963	0.2589	902	26	2382	1.9	32788	26.1	25
29	-0.7296	0.2577	909	26	2392	1.9	35180	28.0	27
30	-0.6635	0.2567	916	26	2429	1.9	37609	29.9	29
31	-0.5978	0.2560	922	26	2400	1.9	40009	31.9	31
32	-0.5324	0.2555	929	26	2474	2.0	42483	33.8	33
33	-0.4672	0.2552	935	26	2371	1.9	44854	35.7	35
34	-0.4021	0.2551	942	26	2428	1.9	47282	37.7	37
35	-0.3371	0.2552	948	26	2480	2.0	49762	39.6	39
36	-0.2719	0.2555	955	26	2504	2.0	52266	41.6	41

Raw Score	IRT Difficulty Estimate	IRT Difficulty SE	Scale Score	Scale Score SE	Frequency	Percent	Cumulative Frequency	Cumulative Percent	Percentile
37	-0.2065	0.2560	961	26	2427	1.9	54693	43.6	43
38	-0.1408	0.2566	968	26	2383	1.9	57076	45.5	45
39	-0.0748	0.2575	974	26	2522	2.0	59598	47.5	46
40	-0.0082	0.2585	981	26	2489	2.0	62087	49.4	48
41	0.0589	0.2597	988	26	2517	2.0	64604	51.4	50
42	0.1267	0.2610	995	26	2493	2.0	67097	53.4	52
43	0.1952	0.2626	1001	26	2544	2.0	69641	55.5	54
44	0.2646	0.2643	1008	26	2520	2.0	72161	57.5	56
45	0.3349	0.2661	1015	27	2544	2.0	74705	59.5	58
46	0.4063	0.2682	1023	27	2522	2.0	77227	61.5	60
47	0.4788	0.2704	1030	27	2564	2.0	79791	63.5	63
48	0.5526	0.2729	1037	27	2580	2.1	82371	65.6	65
49	0.6277	0.2755	1045	28	2597	2.1	84968	67.7	67
50	0.7044	0.2783	1052	28	2566	2.0	87534	69.7	69
51	0.7827	0.2813	1060	28	2585	2.1	90119	71.8	71
52	0.8627	0.2846	1068	28	2572	2.0	92691	73.8	73
53	0.9447	0.2881	1076	29	2648	2.1	95339	75.9	75
54	1.0288	0.2920	1085	29	2488	2.0	97827	77.9	77
55	1.1153	0.2962	1093	30	2536	2.0	100363	79.9	79
56	1.2044	0.3009	1102	30	2487	2.0	102850	81.9	81
57	1.2964	0.3061	1112	31	2470	2.0	105320	83.9	83
58	1.3919	0.3120	1121	31	2374	1.9	107694	85.8	85
59	1.4914	0.3188	1131	32	2236	1.8	109930	87.5	87
60	1.5955	0.3268	1141	33	2283	1.8	112213	89.4	88
61	1.7053	0.3361	1152	34	2024	1.6	114237	91.0	90
62	1.8219	0.3473	1164	35	1918	1.5	116155	92.5	92
63	1.9471	0.3609	1177	36	1782	1.4	117937	93.9	93
64	2.0833	0.3776	1190	38	1583	1.3	119520	95.2	95
65	2.2336	0.3986	1205	40	1469	1.2	120989	96.3	96
66	2.4030	0.4256	1222	43	1287	1.0	122276	97.4	97
67	2.5991	0.4616	1242	46	1081	0.9	123357	98.2	98
68	2.8347	0.5118	1265	51	861	0.7	124218	98.9	99
69	3.1339	0.5869	1295	59	632	0.5	124850	99.4	99
70	3.5504	0.7149	1337	71	413	0.3	125263	99.8	99
71	4.2550	1.0060	1407	101	235	0.2	125498	99.9	99
72	5.4679	1.8295	1529	183	77	0.1	125575	100.0	99

GRADE 5 MATHEMATICS

Raw Score	IRT Difficulty Estimate	IRT Difficulty SE	Scale Score	Scale Score SE	Frequency	Percent	Cumulative Frequency	Cumulative Percent	Percentile
0	-5.7348	1.8329	600	183	0	0.0	0	0.0	0
1	-4.5126	1.0130	600	101	0	0.0	0	0.0	0
2	-3.7932	0.7254	600	73	0	0.0	0	0.0	0
3	-3.3615	0.5997	626	60	1	0.0	1	0.0	1
4	-3.0475	0.5257	657	53	1	0.0	2	0.0	1
5	-2.7979	0.4760	682	48	5	0.0	7	0.0	1
6	-2.5890	0.4397	703	44	15	0.0	22	0.0	1
7	-2.4081	0.4119	721	41	31	0.0	53	0.0	1
8	-2.2476	0.3899	737	39	101	0.1	154	0.1	1
9	-2.1028	0.3719	751	37	139	0.1	293	0.2	1
10	-1.9701	0.3569	765	36	309	0.2	602	0.5	1
11	-1.8473	0.3443	777	34	491	0.4	1093	0.9	1
12	-1.7326	0.3334	788	33	803	0.6	1896	1.5	1
13	-1.6246	0.3241	799	32	1139	0.9	3035	2.4	2
14	-1.5222	0.3159	809	32	1433	1.2	4468	3.6	3
15	-1.4247	0.3088	819	31	1795	1.4	6263	5.0	4
16	-1.3313	0.3025	829	30	2159	1.7	8422	6.8	6
17	-1.2415	0.2969	838	30	2391	1.9	10813	8.7	8
18	-1.1548	0.2920	846	29	2561	2.1	13374	10.8	10
19	-1.0708	0.2876	855	29	2788	2.2	16162	13.0	12
20	-0.9892	0.2837	863	28	2941	2.4	19103	15.4	14
21	-0.9098	0.2802	871	28	2918	2.3	22021	17.7	17
22	-0.8322	0.2771	878	28	2964	2.4	24985	20.1	19
23	-0.7562	0.2743	886	27	2949	2.4	27934	22.5	21
24	-0.6817	0.2718	894	27	2936	2.4	30870	24.8	24
25	-0.6084	0.2696	901	27	2858	2.3	33728	27.1	26
26	-0.5363	0.2676	908	27	2680	2.2	36408	29.3	28
27	-0.4652	0.2658	915	27	2727	2.2	39135	31.5	30
28	-0.3949	0.2643	922	26	2720	2.2	41855	33.6	33
29	-0.3254	0.2630	929	26	2844	2.3	44699	35.9	35
30	-0.2566	0.2618	936	26	2695	2.2	47394	38.1	37
31	-0.1883	0.2608	943	26	2564	2.1	49958	40.2	39
32	-0.1205	0.2600	950	26	2518	2.0	52476	42.2	41
33	-0.0531	0.2593	956	26	2644	2.1	55120	44.3	43
34	0.0140	0.2587	963	26	2592	2.1	57712	46.4	45
35	0.0808	0.2583	970	26	2411	1.9	60123	48.3	47
36	0.1475	0.2581	976	26	2538	2.0	62661	50.4	49

Raw Score	IRT Difficulty Estimate	IRT Difficulty SE	Scale Score	Scale Score SE	Frequency	Percent	Cumulative Frequency	Cumulative Percent	Percentile
37	0.2140	0.2580	983	26	2515	2.0	65176	52.4	51
38	0.2806	0.2580	990	26	2430	2.0	67606	54.3	53
39	0.3472	0.2582	996	26	2368	1.9	69974	56.2	55
40	0.4139	0.2585	1003	26	2325	1.9	72299	58.1	57
41	0.4808	0.2590	1010	26	2343	1.9	74642	60.0	59
42	0.5481	0.2596	1017	26	2270	1.8	76912	61.8	61
43	0.6157	0.2604	1023	26	2242	1.8	79154	63.6	63
44	0.6837	0.2614	1030	26	2267	1.8	81421	65.4	65
45	0.7524	0.2626	1037	26	2168	1.7	83589	67.2	66
46	0.8217	0.2640	1044	26	2241	1.8	85830	69.0	68
47	0.8918	0.2657	1051	27	2097	1.7	87927	70.7	70
48	0.9629	0.2675	1058	27	2229	1.8	90156	72.5	72
49	1.0351	0.2697	1065	27	2123	1.7	92279	74.2	73
50	1.1084	0.2722	1073	27	2089	1.7	94368	75.9	75
51	1.1832	0.2749	1080	27	2000	1.6	96368	77.5	77
52	1.2597	0.2781	1088	28	2002	1.6	98370	79.1	78
53	1.3380	0.2816	1095	28	1994	1.6	100364	80.7	80
54	1.4184	0.2857	1104	29	2001	1.6	102365	82.3	81
55	1.5013	0.2902	1112	29	1839	1.5	104204	83.8	83
56	1.5870	0.2954	1120	30	1861	1.5	106065	85.3	85
57	1.6759	0.3012	1129	30	1905	1.5	107970	86.8	86
58	1.7686	0.3079	1139	31	1868	1.5	109838	88.3	88
59	1.8658	0.3156	1148	32	1778	1.4	111616	89.7	89
60	1.9682	0.3245	1159	32	1745	1.4	113361	91.1	90
61	2.0768	0.3349	1169	33	1614	1.3	114975	92.4	92
62	2.1930	0.3472	1181	35	1538	1.2	116513	93.7	93
63	2.3186	0.3620	1194	36	1450	1.2	117963	94.8	94
64	2.4560	0.3799	1207	38	1313	1.1	119276	95.9	95
65	2.6086	0.4021	1223	40	1150	0.9	120426	96.8	96
66	2.7814	0.4303	1240	43	1016	0.8	121442	97.6	97
67	2.9821	0.4672	1260	47	945	0.8	122387	98.4	98
68	3.2235	0.5181	1284	52	773	0.6	123160	99.0	99
69	3.5298	0.5935	1315	59	575	0.5	123735	99.5	99
70	3.9545	0.7209	1357	72	373	0.3	124108	99.8	99
71	4.6680	1.0104	1428	101	214	0.2	124322	99.9	99
72	5.8871	1.8318	1550	183	83	0.1	124405	100.0	99

GRADE 6 MATHEMATICS

Raw Score	IRT Difficulty Estimate	IRT Difficulty SE	Scale Score	Scale Score SE	Frequency	Percent	Cumulative Frequency	Cumulative Percent	Percentile
0	-5.4968	1.8332	600	183	0	0.0	0	0.0	0
1	-4.2738	1.0135	600	101	0	0.0	0	0.0	0
2	-3.5536	0.7260	600	73	0	0.0	0	0.0	0
3	-3.1212	0.6003	619	60	0	0.0	0	0.0	0
4	-2.8065	0.5263	651	53	1	0.0	1	0.0	1
5	-2.5564	0.4764	676	48	6	0.0	7	0.0	1
6	-2.3470	0.4401	697	44	18	0.0	25	0.0	1
7	-2.1658	0.4123	715	41	44	0.0	69	0.1	1
8	-2.0051	0.3902	731	39	97	0.1	166	0.1	1
9	-1.8600	0.3721	745	37	199	0.2	365	0.3	1
10	-1.7273	0.3571	759	36	363	0.3	728	0.6	1
11	-1.6044	0.3443	771	34	653	0.5	1381	1.1	1
12	-1.4896	0.3334	782	33	971	0.8	2352	1.9	2
13	-1.3816	0.3240	793	32	1342	1.1	3694	3.0	2
14	-1.2794	0.3157	803	32	1713	1.4	5407	4.4	4
15	-1.1820	0.3085	813	31	2064	1.7	7471	6.1	5
16	-1.0888	0.3021	823	30	2494	2.0	9965	8.1	7
17	-0.9993	0.2964	831	30	2735	2.2	12700	10.3	9
18	-0.9130	0.2913	840	29	2793	2.3	15493	12.6	11
19	-0.8295	0.2868	848	29	2957	2.4	18450	15.0	14
20	-0.7484	0.2827	857	28	2997	2.4	21447	17.4	16
21	-0.6695	0.2791	864	28	2976	2.4	24423	19.8	19
22	-0.5925	0.2758	872	28	2940	2.4	27363	22.2	21
23	-0.5172	0.2729	880	27	2816	2.3	30179	24.5	23
24	-0.4435	0.2703	887	27	2809	2.3	32988	26.8	26
25	-0.3711	0.2679	894	27	2806	2.3	35794	29.1	28
26	-0.2999	0.2659	901	27	2669	2.2	38463	31.2	30
27	-0.2297	0.2640	908	26	2635	2.1	41098	33.4	32
28	-0.1604	0.2624	915	26	2706	2.2	43804	35.6	34
29	-0.0920	0.2610	922	26	2579	2.1	46383	37.7	37
30	-0.0242	0.2597	929	26	2593	2.1	48976	39.8	39
31	0.0430	0.2587	936	26	2577	2.1	51553	41.9	41
32	0.1097	0.2578	942	26	2605	2.1	54158	44.0	43
33	0.1759	0.2571	949	26	2470	2.0	56628	46.0	45
34	0.2419	0.2565	956	26	2466	2.0	59094	48.0	47
35	0.3076	0.2561	962	26	2401	2.0	61495	50.0	49
36	0.3731	0.2559	969	26	2461	2.0	63956	51.9	51

Raw Score	IRT Difficulty Estimate	IRT Difficulty SE	Scale Score	Scale Score SE	Frequency	Percent	Cumulative Frequency	Cumulative Percent	Percentile
37	0.4386	0.2558	975	26	2527	2.1	66483	54.0	53
38	0.5040	0.2559	982	26	2309	1.9	68792	55.9	55
39	0.5696	0.2561	988	26	2302	1.9	71094	57.7	57
40	0.6353	0.2565	995	26	2431	2.0	73525	59.7	59
41	0.7012	0.2571	1002	26	2399	1.9	75924	61.7	61
42	0.7675	0.2578	1008	26	2251	1.8	78175	63.5	63
43	0.8342	0.2587	1015	26	2248	1.8	80423	65.3	64
44	0.9014	0.2598	1022	26	2204	1.8	82627	67.1	66
45	0.9692	0.2611	1028	26	2283	1.9	84910	69.0	68
46	1.0378	0.2626	1035	26	2189	1.8	87099	70.7	70
47	1.1072	0.2644	1042	26	2215	1.8	89314	72.5	72
48	1.1776	0.2664	1049	27	2182	1.8	91496	74.3	73
49	1.2492	0.2687	1056	27	2211	1.8	93707	76.1	75
50	1.3220	0.2713	1064	27	2043	1.7	95750	77.8	77
51	1.3964	0.2742	1071	27	2095	1.7	97845	79.5	79
52	1.4725	0.2776	1079	28	2144	1.7	99989	81.2	80
53	1.5507	0.2814	1086	28	1971	1.6	101960	82.8	82
54	1.6310	0.2857	1095	29	1867	1.5	103827	84.3	84
55	1.7141	0.2907	1103	29	1870	1.5	105697	85.9	85
56	1.8002	0.2962	1111	30	1833	1.5	107530	87.3	87
57	1.8898	0.3026	1120	30	1739	1.4	109269	88.8	88
58	1.9834	0.3098	1130	31	1713	1.4	110982	90.1	89
59	2.0819	0.3180	1140	32	1653	1.3	112635	91.5	91
60	2.1860	0.3274	1150	33	1508	1.2	114143	92.7	92
61	2.2967	0.3382	1161	34	1505	1.2	115648	93.9	93
62	2.4152	0.3507	1173	35	1332	1.1	116980	95.0	94
63	2.5433	0.3653	1186	37	1192	1.0	118172	96.0	96
64	2.6830	0.3827	1200	38	1092	0.9	119264	96.9	96
65	2.8373	0.4036	1215	40	960	0.8	120224	97.7	97
66	3.0105	0.4297	1232	43	854	0.7	121078	98.3	98
67	3.2094	0.4637	1252	46	685	0.6	121763	98.9	99
68	3.4456	0.5107	1276	51	536	0.4	122299	99.3	99
69	3.7413	0.5817	1306	58	373	0.3	122672	99.6	99
70	4.1482	0.7052	1346	71	264	0.2	122936	99.9	99
71	4.8338	0.9936	1415	99	143	0.1	123079	100.0	99
72	6.0259	1.8198	1534	182	33	0.0	123112	100.0	99

Grade 7 Mathematics

Raw Score	IRT Difficulty Estimate	IRT Difficulty SE	Scale Score	Scale Score SE	Frequency	Percent	Cumulative Frequency	Cumulative Percent	Percentile
0	-5.7416	1.8316	600	183	3	0.0	3	0.0	1
1	-4.5225	1.0108	600	101	0	0.0	3	0.0	1
2	-3.8075	0.7225	600	72	1	0.0	4	0.0	1
3	-3.3800	0.5963	618	60	1	0.0	5	0.0	1
4	-3.0700	0.5220	649	52	5	0.0	10	0.0	1
5	-2.8243	0.4719	674	47	11	0.0	21	0.0	1
6	-2.6191	0.4355	694	44	34	0.0	55	0.0	1
7	-2.4419	0.4075	712	41	60	0.0	115	0.1	1
8	-2.2850	0.3854	728	39	145	0.1	260	0.2	1
9	-2.1435	0.3673	742	37	296	0.2	556	0.4	1
10	-2.0142	0.3523	755	35	533	0.4	1089	0.9	1
11	-1.8946	0.3396	767	34	914	0.7	2003	1.6	1
12	-1.7830	0.3288	778	33	1274	1.0	3277	2.6	2
13	-1.6781	0.3194	788	32	1676	1.3	4953	3.9	3
14	-1.5787	0.3112	798	31	2225	1.8	7178	5.7	5
15	-1.4841	0.3041	808	30	2635	2.1	9813	7.8	7
16	-1.3936	0.2978	817	30	2930	2.3	12743	10.1	9
17	-1.3066	0.2922	826	29	3245	2.6	15988	12.7	11
18	-1.2227	0.2873	834	29	3470	2.8	19458	15.5	14
19	-1.1414	0.2829	842	28	3394	2.7	22852	18.2	17
20	-1.0625	0.2790	850	28	3344	2.7	26196	20.9	20
21	-0.9856	0.2755	858	28	3233	2.6	29429	23.4	22
22	-0.9106	0.2725	865	27	3024	2.4	32453	25.8	25
23	-0.8371	0.2697	872	27	3127	2.5	35580	28.3	27
24	-0.7650	0.2673	880	27	2886	2.3	38466	30.6	29
25	-0.6941	0.2652	887	27	2720	2.2	41186	32.8	32
26	-0.6242	0.2634	894	26	2618	2.1	43804	34.9	34
27	-0.5553	0.2618	901	26	2604	2.1	46408	37.0	36
28	-0.4871	0.2605	907	26	2561	2.0	48969	39.0	38
29	-0.4195	0.2594	914	26	2442	1.9	51411	40.9	40
30	-0.3525	0.2585	921	26	2407	1.9	53818	42.9	42
31	-0.2859	0.2578	928	26	2357	1.9	56175	44.7	44
32	-0.2196	0.2573	934	26	2374	1.9	58549	46.6	46
33	-0.1534	0.2570	941	26	2350	1.9	60899	48.5	48
34	-0.0874	0.2569	947	26	2327	1.9	63226	50.3	49
35	-0.0214	0.2570	954	26	2238	1.8	65464	52.1	51
36	0.0447	0.2572	961	26	2121	1.7	67585	53.8	53

Raw Score	IRT Difficulty Estimate	IRT Difficulty SE	Scale Score	Scale Score SE	Frequency	Percent	Cumulative Frequency	Cumulative Percent	Percentile
37	0.1110	0.2577	967	26	2111	1.7	69696	55.5	55
38	0.1775	0.2583	974	26	2139	1.7	71835	57.2	56
39	0.2445	0.2591	981	26	2013	1.6	73848	58.8	58
40	0.3118	0.2601	987	26	2105	1.7	75953	60.5	60
41	0.3798	0.2613	994	26	2140	1.7	78093	62.2	61
42	0.4485	0.2627	1001	26	2114	1.7	80207	63.9	63
43	0.5179	0.2643	1008	26	2111	1.7	82318	65.5	65
44	0.5882	0.2661	1015	27	2033	1.6	84351	67.2	66
45	0.6595	0.2680	1022	27	2032	1.6	86383	68.8	68
46	0.7319	0.2703	1029	27	2005	1.6	88388	70.4	70
47	0.8056	0.2727	1037	27	2006	1.6	90394	72.0	71
48	0.8807	0.2754	1044	28	2015	1.6	92409	73.6	73
49	0.9574	0.2784	1052	28	1985	1.6	94394	75.2	74
50	1.0358	0.2816	1060	28	1954	1.6	96348	76.7	76
51	1.1161	0.2852	1068	29	1947	1.6	98295	78.3	77
52	1.1985	0.2891	1076	29	1878	1.5	100173	79.8	79
53	1.2833	0.2933	1084	29	1907	1.5	102080	81.3	81
54	1.3707	0.2980	1093	30	1873	1.5	103953	82.8	82
55	1.4609	0.3031	1102	30	1891	1.5	105844	84.3	84
56	1.5545	0.3087	1112	31	1802	1.4	107646	85.7	85
57	1.6517	0.3150	1121	32	1781	1.4	109427	87.1	86
58	1.7531	0.3219	1131	32	1802	1.4	111229	88.6	88
59	1.8592	0.3297	1142	33	1736	1.4	112965	90.0	89
60	1.9708	0.3386	1153	34	1722	1.4	114687	91.3	91
61	2.0888	0.3487	1165	35	1647	1.3	116334	92.6	92
62	2.2144	0.3604	1178	36	1555	1.2	117889	93.9	93
63	2.3492	0.3743	1191	37	1434	1.1	119323	95.0	94
64	2.4954	0.3910	1206	39	1311	1.0	120634	96.1	96
65	2.6562	0.4116	1222	41	1208	1.0	121842	97.0	97
66	2.8362	0.4379	1240	44	1109	0.9	122951	97.9	97
67	3.0427	0.4726	1260	47	853	0.7	123804	98.6	98
68	3.2884	0.5212	1285	52	711	0.6	124515	99.1	99
69	3.5969	0.5945	1316	59	519	0.4	125034	99.6	99
70	4.0218	0.7203	1358	72	327	0.3	125361	99.8	99
71	4.7336	1.0093	1430	101	157	0.1	125518	99.9	99
72	5.9508	1.8310	1551	183	66	0.1	125584	100.0	99

GRADE 8 MATHEMATICS

Raw Score	IRT Difficulty Estimate	IRT Difficulty SE	Scale Score	Scale Score SE	Frequency	Percent	Cumulative Frequency	Cumulative Percent	Percentile
0	-5.8276	1.8322	600	183	0	0.0	0	0.0	0
1	-4.6071	1.0118	600	101	1	0.0	1	0.0	1
2	-3.8901	0.7238	600	72	3	0.0	4	0.0	1
3	-3.4607	0.5978	606	60	0	0.0	4	0.0	1
4	-3.1489	0.5237	637	52	6	0.0	10	0.0	1
5	-2.9014	0.4737	662	47	14	0.0	24	0.0	1
6	-2.6946	0.4374	682	44	17	0.0	41	0.0	1
7	-2.5157	0.4095	700	41	62	0.1	103	0.1	1
8	-2.3573	0.3873	716	39	167	0.1	270	0.2	1
9	-2.2143	0.3693	730	37	323	0.3	593	0.5	1
10	-2.0836	0.3542	743	35	553	0.4	1146	0.9	1
11	-1.9627	0.3415	755	34	818	0.7	1964	1.6	1
12	-1.8498	0.3306	767	33	1273	1.0	3237	2.6	2
13	-1.7436	0.3212	777	32	1715	1.4	4952	4.0	3
14	-1.6431	0.3130	787	31	2067	1.7	7019	5.7	5
15	-1.5475	0.3058	797	31	2411	2.0	9430	7.6	7
16	-1.4560	0.2994	806	30	2625	2.1	12055	9.8	9
17	-1.3681	0.2937	815	29	2803	2.3	14858	12.1	11
18	-1.2833	0.2887	823	29	2906	2.4	17764	14.4	13
19	-1.2013	0.2841	832	28	2920	2.4	20684	16.8	16
20	-1.1217	0.2801	840	28	3066	2.5	23750	19.3	18
21	-1.0443	0.2765	847	28	2929	2.4	26679	21.6	20
22	-0.9687	0.2733	855	27	2840	2.3	29519	23.9	23
23	-0.8948	0.2704	862	27	2936	2.4	32455	26.3	25
24	-0.8224	0.2678	870	27	2719	2.2	35174	28.5	27
25	-0.7513	0.2656	877	27	2767	2.2	37941	30.8	30
26	-0.6813	0.2636	884	26	2810	2.3	40751	33.1	32
27	-0.6123	0.2618	891	26	2747	2.2	43498	35.3	34
28	-0.5442	0.2602	897	26	2799	2.3	46297	37.6	36
29	-0.4768	0.2589	904	26	2669	2.2	48966	39.7	39
30	-0.4101	0.2578	911	26	2638	2.1	51604	41.9	41
31	-0.3439	0.2569	917	26	2590	2.1	54194	44.0	43
32	-0.2781	0.2562	924	26	2531	2.1	56725	46.0	45
33	-0.2126	0.2556	931	26	2549	2.1	59274	48.1	47
34	-0.1473	0.2553	937	26	2581	2.1	61855	50.2	49
35	-0.0822	0.2551	944	26	2474	2.0	64329	52.2	51
36	-0.0171	0.2551	950	26	2474	2.0	66803	54.2	53

Raw Score	IRT Difficulty Estimate	IRT Difficulty SE	Scale Score	Scale Score SE	Frequency	Percent	Cumulative Frequency	Cumulative Percent	Percentile
37	0.0480	0.2553	957	26	2436	2.0	69239	56.2	55
38	0.1133	0.2557	963	26	2507	2.0	71746	58.2	57
39	0.1788	0.2563	970	26	2316	1.9	74062	60.1	59
40	0.2446	0.2570	976	26	2314	1.9	76376	62.0	61
41	0.3109	0.2580	983	26	2359	1.9	78735	63.9	63
42	0.3778	0.2591	990	26	2298	1.9	81033	65.7	65
43	0.4453	0.2605	996	26	2227	1.8	83260	67.5	67
44	0.5135	0.2621	1003	26	2207	1.8	85467	69.3	68
45	0.5827	0.2640	1010	26	2205	1.8	87672	71.1	70
46	0.6530	0.2661	1017	27	2072	1.7	89744	72.8	72
47	0.7244	0.2685	1024	27	2116	1.7	91860	74.5	74
48	0.7972	0.2712	1031	27	2013	1.6	93873	76.2	75
49	0.8716	0.2743	1039	27	2018	1.6	95891	77.8	77
50	0.9478	0.2777	1047	28	1966	1.6	97857	79.4	79
51	1.0259	0.2815	1054	28	1921	1.6	99778	80.9	80
52	1.1063	0.2857	1062	29	1859	1.5	101637	82.5	82
53	1.1893	0.2904	1071	29	1793	1.5	103430	83.9	83
54	1.2751	0.2957	1079	30	1749	1.4	105179	85.3	85
55	1.3643	0.3015	1088	30	1775	1.4	106954	86.8	86
56	1.4571	0.3081	1097	31	1673	1.4	108627	88.1	87
57	1.5543	0.3155	1107	32	1619	1.3	110246	89.4	89
58	1.6565	0.3239	1117	32	1528	1.2	111774	90.7	90
59	1.7644	0.3334	1128	33	1595	1.3	113369	92.0	91
60	1.8791	0.3443	1140	34	1472	1.2	114841	93.2	93
61	2.0019	0.3569	1152	36	1394	1.1	116235	94.3	94
62	2.1345	0.3717	1165	37	1329	1.1	117564	95.4	95
63	2.2791	0.3894	1180	39	1214	1.0	118778	96.4	96
64	2.4390	0.4109	1196	41	1090	0.9	119868	97.2	97
65	2.6186	0.4376	1214	44	972	0.8	120840	98.0	98
66	2.8248	0.4718	1234	47	821	0.7	121661	98.7	98
67	3.0684	0.5172	1259	52	610	0.5	122271	99.2	99
68	3.3677	0.5802	1289	58	451	0.4	122722	99.6	99
69	3.7572	0.6735	1327	67	284	0.2	123006	99.8	99
70	4.3105	0.8256	1383	83	173	0.1	123179	99.9	99
71	5.2331	1.1325	1475	113	71	0.1	123250	100.0	99
72	6.6598	1.9188	1618	192	21	0.0	123271	100.0	99

Grade 4 Science

Raw Score	IRT Difficulty Estimate	IRT Difficulty SE	Scale Score	Scale Score SE	Frequency	Percent	Cumulative Frequency	Cumulative Percent	Percentile
0	-4.7515	1.8305	1050	324	1	0.0	1	0.0	1
1	-3.5352	1.0088	1050	178	0	0.0	1	0.0	1
2	-2.8244	0.7196	1050	127	0	0.0	1	0.0	1
3	-2.4010	0.5928	1050	105	1	0.0	2	0.0	1
4	-2.0951	0.5180	1050	92	3	0.0	5	0.0	1
5	-1.8536	0.4675	1050	83	5	0.0	10	0.0	1
6	-1.6526	0.4307	1050	76	16	0.0	26	0.0	1
7	-1.4795	0.4024	1050	71	32	0.0	58	0.0	1
8	-1.3267	0.3800	1050	67	67	0.1	125	0.1	1
9	-1.1895	0.3616	1050	64	123	0.1	248	0.2	1
10	-1.0643	0.3464	1050	61	204	0.2	452	0.4	1
11	-0.9488	0.3335	1058	59	376	0.3	828	0.7	1
12	-0.8413	0.3225	1077	57	601	0.5	1429	1.1	1
13	-0.7404	0.3129	1095	55	854	0.7	2283	1.8	1
14	-0.6451	0.3046	1112	54	1180	0.9	3463	2.8	2
15	-0.5546	0.2974	1128	53	1460	1.2	4923	3.9	3
16	-0.4681	0.2910	1143	51	1708	1.4	6631	5.3	5
17	-0.3851	0.2853	1158	50	1976	1.6	8607	6.9	6
18	-0.3052	0.2802	1172	50	2212	1.8	10819	8.6	8
19	-0.2279	0.2758	1185	49	2415	1.9	13234	10.5	10
20	-0.1530	0.2718	1199	48	2582	2.1	15816	12.6	12
21	-0.0801	0.2683	1211	47	2619	2.1	18435	14.7	14
22	-0.0090	0.2651	1224	47	2691	2.1	21126	16.8	16
23	0.0606	0.2624	1236	46	2697	2.1	23823	19.0	18
24	0.1288	0.2599	1248	46	2718	2.2	26541	21.2	20
25	0.1958	0.2578	1260	46	2668	2.1	29209	23.3	22
26	0.2617	0.2559	1272	45	2736	2.2	31945	25.5	24
27	0.3268	0.2543	1283	45	2731	2.2	34676	27.6	27
28	0.3911	0.2530	1295	45	2842	2.3	37518	29.9	29
29	0.4548	0.2518	1306	45	2758	2.2	40276	32.1	31
30	0.5180	0.2509	1317	44	2810	2.2	43086	34.3	33
31	0.5808	0.2503	1328	44	2785	2.2	45871	36.6	35
32	0.6433	0.2498	1339	44	2849	2.3	48720	38.8	38
33	0.7056	0.2496	1350	44	2880	2.3	51600	41.1	40
34	0.7679	0.2495	1361	44	2810	2.2	54410	43.4	42
35	0.8302	0.2497	1372	44	2852	2.3	57262	45.6	44
36	0.8926	0.2500	1383	44	2957	2.4	60219	48.0	47

Raw Score	IRT Difficulty Estimate	IRT Difficulty SE	Scale Score	Scale Score SE	Frequency	Percent	Cumulative Frequency	Cumulative Percent	Percentile
37	0.9553	0.2506	1394	44	2951	2.4	63170	50.3	49
38	1.0183	0.2514	1406	44	2963	2.4	66133	52.7	52
39	1.0817	0.2524	1417	45	2998	2.4	69131	55.1	54
40	1.1458	0.2537	1428	45	3018	2.4	72149	57.5	56
41	1.2105	0.2551	1440	45	3023	2.4	75172	59.9	59
42	1.2760	0.2569	1451	45	3005	2.4	78177	62.3	61
43	1.3425	0.2588	1463	46	2919	2.3	81096	64.6	63
44	1.4100	0.2611	1475	46	3010	2.4	84106	67.0	66
45	1.4789	0.2637	1487	47	2957	2.4	87063	69.4	68
46	1.5492	0.2666	1499	47	2937	2.3	90000	71.7	71
47	1.6211	0.2699	1512	48	2915	2.3	92915	74.0	73
48	1.6949	0.2735	1525	48	2962	2.4	95877	76.4	75
49	1.7708	0.2776	1539	49	2827	2.3	98704	78.7	78
50	1.8491	0.2822	1552	50	2832	2.3	101536	80.9	80
51	1.9302	0.2873	1567	51	2608	2.1	104144	83.0	82
52	2.0144	0.2931	1582	52	2585	2.1	106729	85.1	84
53	2.1021	0.2996	1597	53	2539	2.0	109268	87.1	86
54	2.1941	0.3070	1613	54	2332	1.9	111600	88.9	88
55	2.2909	0.3153	1631	56	2250	1.8	113850	90.7	90
56	2.3933	0.3249	1649	57	2010	1.6	115860	92.3	92
57	2.5024	0.3360	1668	59	1845	1.5	117705	93.8	93
58	2.6196	0.3489	1689	62	1691	1.3	119396	95.1	94
59	2.7466	0.3642	1711	64	1457	1.2	120853	96.3	96
60	2.8858	0.3825	1736	68	1235	1.0	122088	97.3	97
61	3.0405	0.4049	1763	72	1035	0.8	123123	98.1	98
62	3.2156	0.4331	1794	77	829	0.7	123952	98.8	98
63	3.4187	0.4698	1830	83	627	0.5	124579	99.3	99
64	3.6624	0.5201	1873	92	445	0.4	125024	99.6	99
65	3.9705	0.5947	1927	105	246	0.2	125270	99.8	99
66	4.3962	0.7212	2003	127	152	0.1	125422	99.9	99
67	5.1094	1.0099	2129	178	55	0.0	125477	100.0	99
68	6.3273	1.8311	2344	324	11	0.0	125488	100.0	99

Grade 8 Science

Raw Score	IRT Difficulty Estimate	IRT Difficulty SE	Scale Score	Scale Score SE	Frequency	Percent	Cumulative Frequency	Cumulative Percent	Percentile
0	-5.1077	1.8308	925	351	2	0.0	2	0.0	1
1	-3.8906	1.0093	925	193	0	0.0	2	0.0	1
2	-3.1786	0.7204	925	138	1	0.0	3	0.0	1
3	-2.7540	0.5938	925	114	2	0.0	5	0.0	1
4	-2.4469	0.5191	925	99	2	0.0	7	0.0	1
5	-2.2042	0.4688	925	90	3	0.0	10	0.0	1
6	-2.0019	0.4321	925	83	19	0.0	29	0.0	1
7	-1.8276	0.4040	925	77	43	0.0	72	0.1	1
8	-1.6735	0.3816	925	73	96	0.1	168	0.1	1
9	-1.5350	0.3634	925	70	206	0.2	374	0.3	1
10	-1.4085	0.3482	927	67	366	0.3	740	0.6	1
11	-1.2918	0.3354	949	64	619	0.5	1359	1.1	1
12	-1.1831	0.3244	970	62	1013	0.8	2372	1.9	2
13	-1.0810	0.3149	990	60	1279	1.0	3651	3.0	2
14	-0.9844	0.3066	1008	59	1741	1.4	5392	4.4	4
15	-0.8927	0.2994	1026	57	2054	1.7	7446	6.1	5
16	-0.8050	0.2930	1042	56	2510	2.0	9956	8.1	7
17	-0.7208	0.2873	1059	55	2726	2.2	12682	10.3	9
18	-0.6397	0.2823	1074	54	2953	2.4	15635	12.7	12
19	-0.5613	0.2779	1089	53	2904	2.4	18539	15.1	14
20	-0.4852	0.2739	1104	52	3011	2.5	21550	17.6	16
21	-0.4111	0.2704	1118	52	3048	2.5	24598	20.0	19
22	-0.3389	0.2673	1132	51	3034	2.5	27632	22.5	21
23	-0.2682	0.2645	1145	51	2996	2.4	30628	25.0	24
24	-0.1989	0.2620	1159	50	2899	2.4	33527	27.3	26
25	-0.1308	0.2599	1172	50	2832	2.3	36359	29.6	28
26	-0.0638	0.2580	1184	49	2680	2.2	39039	31.8	31
27	0.0024	0.2564	1197	49	2792	2.3	41831	34.1	33
28	0.0678	0.2551	1210	49	2809	2.3	44640	36.4	35
29	0.1326	0.2540	1222	49	2727	2.2	47367	38.6	37
30	0.1968	0.2531	1234	48	2637	2.1	50004	40.7	40
31	0.2607	0.2524	1247	48	2703	2.2	52707	43.0	42
32	0.3243	0.2520	1259	48	2682	2.2	55389	45.1	44
33	0.3877	0.2517	1271	48	2680	2.2	58069	47.3	46
34	0.4511	0.2517	1283	48	2758	2.2	60827	49.6	48
35	0.5145	0.2519	1295	48	2628	2.1	63455	51.7	51
36	0.5780	0.2522	1307	48	2652	2.2	66107	53.9	53

Raw Score	IRT Difficulty Estimate	IRT Difficulty SE	Scale Score	Scale Score SE	Frequency	Percent	Cumulative Frequency	Cumulative Percent	Percentile
37	0.6417	0.2528	1320	48	2785	2.3	68892	56.1	55
38	0.7059	0.2536	1332	49	2806	2.3	71698	58.4	57
39	0.7704	0.2546	1344	49	2772	2.3	74470	60.7	60
40	0.8356	0.2559	1357	49	2766	2.3	77236	62.9	62
41	0.9014	0.2574	1369	49	2695	2.2	79931	65.1	64
42	0.9681	0.2592	1382	50	2801	2.3	82732	67.4	66
43	1.0358	0.2612	1395	50	2825	2.3	85557	69.7	69
44	1.1046	0.2635	1408	50	2856	2.3	88413	72.0	71
45	1.1747	0.2661	1422	51	2787	2.3	91200	74.3	73
46	1.2464	0.2691	1435	52	2772	2.3	93972	76.6	75
47	1.3197	0.2725	1449	52	2754	2.2	96726	78.8	78
48	1.3949	0.2763	1464	53	2734	2.2	99460	81.0	80
49	1.4725	0.2806	1479	54	2653	2.2	102113	83.2	82
50	1.5525	0.2854	1494	55	2507	2.0	104620	85.3	84
51	1.6354	0.2908	1510	56	2514	2.0	107134	87.3	86
52	1.7217	0.2969	1526	57	2250	1.8	109384	89.1	88
53	1.8119	0.3038	1544	58	2118	1.7	111502	90.9	90
54	1.9065	0.3116	1562	60	1895	1.5	113397	92.4	92
55	2.0064	0.3206	1581	61	1826	1.5	115223	93.9	93
56	2.1124	0.3310	1601	63	1638	1.3	116861	95.2	95
57	2.2259	0.3430	1623	66	1418	1.2	118279	96.4	96
58	2.3483	0.3571	1646	68	1176	1.0	119455	97.3	97
59	2.4817	0.3738	1672	72	960	0.8	120415	98.1	98
60	2.6288	0.3939	1700	75	730	0.6	121145	98.7	98
61	2.7936	0.4187	1732	80	572	0.5	121717	99.2	99
62	2.9818	0.4500	1768	86	392	0.3	122109	99.5	99
63	3.2023	0.4907	1810	94	278	0.2	122387	99.7	99
64	3.4697	0.5463	1861	105	161	0.1	122548	99.9	99
65	3.8114	0.6275	1927	120	109	0.1	122657	100.0	99
66	4.2861	0.7614	2018	146	42	0.0	122699	100.0	99
67	5.0732	1.0536	2168	202	12	0.0	122711	100.0	99
68	6.3637	1.8631	2416	357	5	0.0	122716	100.0	99

APPENDIX O: LINKING ITEM STATISTICS

Grade 3 English Language Arts

ID	Type	Form	Item Sequence	Previous Form	Previous Item Sequence	Previous Year	Previous P-Value	P-Value	Previous IRT Difficulty Estimate	IRT Difficulty Estimate
652272	MC	0	1	0	1	2016	0.90	0.90	-1.9667	-1.8244
652822	MC	0	2	0	2	2016	0.80	0.80	-1.0308	-0.9313
657283	MC	0	16	0	16	2016	0.78	0.79	-0.8649	-0.8369
654618	MC	0	18	0	18	2016	0.51	0.50	0.6815	0.8057
674988	MC	0	60	0	60	2016	0.79	0.79	-0.9621	-0.9106
674984	MC	0	61	0	61	2016	0.65	0.65	-0.0781	0.0555
674992	MC	0	62	0	62	2016	0.77	0.76	-0.8424	-0.6699
674985	MC	0	63	0	63	2016	0.51	0.50	0.6175	0.6984
655398	MC	1	7	0	3	2016	0.66	0.64	-0.2033	0.0172
736498	MC	1	35	6	43	2016	0.58	0.63	0.3262	0.0810
736496	MC	1	36	6	44	2016	0.79	0.83	-0.9059	-1.1406
736502	MC	1	37	6	45	2016	0.59	0.62	0.2477	0.1314
736499	MC	1	38	6	46	2016	0.56	0.60	0.4169	0.2774
736500	MC	1	39	6	47	2016	0.81	0.81	-1.0612	-1.0270
736501	MC	1	40	6	48	2016	0.42	0.46	1.1283	0.9711
652805	MC	2	7	0	19	2016	0.47	0.52	0.7124	0.6651
653130	MC	3	7	0	15	2016	0.86	0.88	-1.5370	-1.6369
655397	MC	4	7	0	13	2016	0.34	0.35	1.5785	1.5588
653142	MC	5	7	0	20	2016	0.38	0.37	1.3702	1.3993
653145	MC	6	7	0	11	2016	0.55	0.55	0.4465	0.5302
735463	MC	6	35	2	41	2016	0.50	0.51	0.6723	0.7182
735464	MC	6	36	2	43	2016	0.69	0.71	-0.3277	-0.3714
735462	MC	6	37	2	44	2016	0.56	0.59	0.3874	0.3199
735467	MC	6	38	2	45	2016	0.71	0.76	-0.4471	-0.6454
735443	MC	6	39	2	46	2016	0.44	0.45	0.9764	0.9965
735442	MC	6	40	2	47	2016	0.39	0.42	1.2412	1.1725
655093	MC	7	7	0	12	2016	0.51	0.56	0.6726	0.4641
655407	MC	8	7	0	17	2016	0.70	0.67	-0.4231	-0.1182
655412	MC	9	7	0	8	2016	0.88	0.88	-1.7767	-1.5763
674983	ESR	0	59	0	59	2016	0.64	0.63	0.0564	0.1709
674986	OE	0	64	0	64	2016	0.41	0.40	1.4996	1.5373

Grade 4 English Language Arts

ID	Type	Form	Item Sequence	Previous Form	Previous Item Sequence	Previous Year	Previous P-Value	P-Value	Previous IRT Difficulty Estimate	IRT Difficulty Estimate
657285	MC	0	3	0	3	2016	0.73	0.74	-0.5830	-0.5856
653175	MC	0	4	0	4	2016	0.58	0.60	0.2183	0.1967
655624	MC	0	11	0	11	2016	0.60	0.58	0.1839	0.3287
653733	MC	0	13	0	13	2016	0.38	0.38	1.2829	1.3389
655149	MC	0	39	0	38	2016	0.75	0.75	-0.6169	-0.5758
655155	MC	0	40	0	39	2016	0.61	0.59	0.1127	0.2756
655151	MC	0	41	0	40	2016	0.76	0.77	-0.7739	-0.6582
655147	MC	0	42	0	41	2016	0.70	0.68	-0.3644	-0.2233
655153	MC	0	44	0	43	2016	0.63	0.64	0.0025	-0.0107
655237	MC	1	7	0	15	2016	0.76	0.77	-0.7106	-0.7685
703321	MC	1	45	2	51	2016	0.78	0.80	-0.9038	-0.9514
703315	MC	1	46	2	52	2016	0.77	0.83	-0.8814	-1.1563
703320	MC	1	47	2	54	2016	0.43	0.50	1.0064	0.7500
703313	MC	1	48	2	55	2016	0.62	0.64	0.0345	-0.0067
703314	MC	1	49	2	56	2016	0.64	0.68	-0.0442	-0.1883
703319	MC	1	50	2	59	2016	0.46	0.51	0.8575	0.6960
653709	MC	2	7	0	1	2016	0.86	0.87	-1.4257	-1.5283
708904	MC	3	7	0	12	2016	0.44	0.44	1.0049	1.0287
653168	MC	4	7	0	10	2016	0.64	0.63	-0.0552	0.0410
655231	MC	5	7	0	9	2016	0.64	0.66	-0.0916	-0.0831
657289	MC	6	7	0	19	2016	0.65	0.64	-0.1064	0.0016
736546	MC	6	45	6	51	2016	0.63	0.64	0.0461	-0.0036
736544	MC	6	46	6	50	2016	0.71	0.67	-0.4584	-0.1634
736538	MC	6	47	6	53	2016	0.70	0.72	-0.3693	-0.4180
736572	MC	6	48	6	56	2016	0.61	0.61	0.1304	0.1690
736541	MC	6	49	6	58	2016	0.45	0.48	0.9560	0.8170
736545	MC	6	50	6	59	2016	0.75	0.80	-0.7087	-0.9341
655931	MC	7	7	0	20	2016	0.57	0.60	0.3309	0.2253
657329	MC	8	7	0	6	2016	0.73	0.75	-0.5749	-0.6169
652850	MC	9	7	0	16	2016	0.59	0.62	0.2037	0.1257
659301	ESR	0	38	0	37	2016	0.84	0.84	-1.0322	-0.9180
659304	ESR	0	43	0	42	2016	0.70	0.70	-0.3413	-0.2245

Grade 5 English Language Arts

ID	Type	Form	Item Sequence	Previous Form	Previous Item Sequence	Previous Year	Previous P-Value	P-Value	Previous IRT Difficulty Estimate	IRT Difficulty Estimate
653212	MC	0	6	0	6	2016	0.41	0.39	1.1267	1.2755
652266	MC	0	10	0	10	2016	0.61	0.59	0.1586	0.2747
654934	MC	0	19	0	19	2016	0.60	0.62	0.1554	0.0131
652205	MC	0	20	0	20	2016	0.55	0.58	0.5150	0.4140
703825	MC	0	37	0	36	2016	0.64	0.62	-0.0603	0.1013
703827	MC	0	38	0	37	2016	0.50	0.50	0.6145	0.6317
703842	MC	0	39	0	38	2016	0.73	0.76	-0.5900	-0.6939
703847	MC	0	40	0	39	2016	0.51	0.50	0.6703	0.7414
703823	MC	0	42	0	41	2016	0.59	0.58	0.2488	0.3278
703824	MC	0	43	0	42	2016	0.52	0.52	0.5882	0.6775
703826	MC	0	44	0	43	2016	0.72	0.72	-0.5048	-0.4215
703844	MC	0	45	0	44	2016	0.44	0.43	1.0122	1.0773
652594	MC	1	7	0	17	2016	0.72	0.72	-0.4160	-0.4901
739811	MC	1	46	6	52	2016	0.49	0.49	0.7475	0.7377
739810	MC	1	47	6	54	2016	0.77	0.79	-0.8353	-0.9207
739859	MC	1	48	6	56	2016	0.58	0.57	0.3150	0.3424
739877	MC	1	49	6	57	2016	0.55	0.59	0.4216	0.2720
739878	MC	1	50	6	58	2016	0.62	0.67	0.0733	-0.1582
739845	MC	1	51	6	60	2016	0.60	0.56	0.1641	0.3857
654353	MC	2	7	7	7	2016	0.78	0.80	-0.8936	-0.9931
655914	MC	3	7	0	2	2016	0.72	0.72	-0.4719	-0.4599
654343	MC	4	7	0	8	2016	0.80	0.79	-0.9785	-0.9108
656116	MC	5	7	0	4	2016	0.58	0.58	0.3293	0.3207
655246	MC	6	7	0	9	2016	0.70	0.72	-0.2930	-0.4773
737615	MC	6	46	4	51	2016	0.83	0.83	-1.2171	-1.2168
737619	MC	6	47	4	53	2016	0.55	0.54	0.4341	0.5115
737614	MC	6	48	4	54	2016	0.77	0.80	-0.7488	-0.9663
737616	MC	6	49	4	55	2016	0.77	0.79	-0.8042	-0.8696
737612	MC	6	50	4	58	2016	0.48	0.40	0.7855	1.1969
737620	MC	6	51	4	60	2016	0.58	0.50	0.2789	0.6919
655642	MC	7	7	0	11	2016	0.59	0.63	0.2800	0.0233
655250	MC	8	7	0	13	2016	0.53	0.55	0.4987	0.4701
654347	MC	9	7	0	3	2016	0.68	0.73	-0.2261	-0.4926
703846	ESR	0	41	0	40	2016	0.64	0.64	-0.0744	-0.0864

Grade 6 English Language Arts

ID	Type	Form	Item Sequence	Previous Form	Previous Item Sequence	Previous Year	Previous P-Value	P-Value	Previous IRT Difficulty Estimate	IRT Difficulty Estimate
678120	MC	0	1	0	1	2016	0.85	0.84	-1.1803	-1.0336
674834	MC	0	5	0	5	2016	0.55	0.52	0.5880	0.7627
676112	MC	0	6	0	6	2016	0.62	0.62	0.3098	0.3970
676056	MC	0	18	0	18	2016	0.62	0.63	0.2799	0.2953
702900	MC	0	23	0	23	2016	0.80	0.80	-0.5695	-0.4884
702902	MC	0	24	0	24	2016	0.81	0.81	-0.8351	-0.7242
702904	MC	0	25	0	25	2016	0.49	0.48	0.9463	1.0092
702883	MC	0	26	0	26	2016	0.65	0.64	0.1757	0.2168
702882	MC	0	27	0	27	2016	0.52	0.53	0.7723	0.7734
669293	MC	1	7	0	4	2016	0.75	0.75	-0.4400	-0.3921
737099	MC	1	44	2	52	2016	0.66	0.67	0.0690	0.0660
737101	MC	1	45	2	53	2016	0.59	0.63	0.4391	0.3078
737050	MC	1	46	2	54	2016	0.69	0.74	-0.0997	-0.3413
737100	MC	1	47	2	56	2016	0.52	0.56	0.7669	0.6292
737098	MC	1	48	2	57	2016	0.64	0.68	0.1940	0.0261
739864	MC	1	49	2	58	2016	0.42	0.46	1.2848	1.1404
671986	MC	2	7	0	16	2016	0.74	0.81	-0.4150	-0.7804
675839	MC	3	7	0	11	2016	0.50	0.47	0.9142	1.0383
676109	MC	4	7	0	17	2016	0.72	0.72	-0.2514	-0.1633
673918	MC	5	7	0	12	2016	0.66	0.69	0.1345	-0.0347
672596	MC	6	7	0	15	2016	0.74	0.75	-0.4247	-0.3663
737057	MC	6	44	8	53	2016	0.57	0.56	0.5269	0.6679
737043	MC	6	45	8	54	2016	0.78	0.82	-0.6421	-0.8031
737056	MC	6	46	8	56	2016	0.45	0.46	1.1412	1.1345
737053	MC	6	47	8	57	2016	0.43	0.44	1.2165	1.2459
737055	MC	6	48	8	58	2016	0.66	0.68	0.0387	0.0710
737054	MC	6	49	8	59	2016	0.69	0.73	-0.1294	-0.2262
681179	MC	7	7	0	19	2016	0.64	0.68	0.1974	0.0644
679273	MC	8	7	0	10	2016	0.78	0.76	-0.6482	-0.4030
674801	MC	9	7	0	13	2016	0.43	0.42	1.2437	1.3090
702905	ESR	0	22	0	22	2016	0.68	0.69	-0.0091	0.0592

Grade 7 English Language Arts

ID	Type	Form	Item Sequence	Previous Form	Previous Item Sequence	Previous Year	Previous P-Value	P-Value	Previous IRT Difficulty Estimate	IRT Difficulty Estimate
676076	MC	0	5	0	5	2016	0.55	0.54	0.5394	0.5819
681188	MC	0	10	0	10	2016	0.76	0.72	-0.7043	-0.2712
669297	MC	0	11	0	11	2016	0.67	0.67	-0.0575	-0.0784
676110	MC	0	15	0	15	2016	0.83	0.83	-1.0423	-1.1236
701717	MC	0	36	0	37	2016	0.62	0.60	0.2665	0.3111
701758	MC	0	37	0	38	2016	0.56	0.56	0.3788	0.3242
701766	MC	0	38	0	39	2016	0.66	0.66	-0.0099	-0.0338
701720	MC	0	39	0	40	2016	0.80	0.79	-0.7948	-0.7495
701721	MC	0	40	0	41	2016	0.43	0.42	1.1096	1.1736
701762	MC	0	43	0	44	2016	0.55	0.54	0.5416	0.5731
679166	MC	1	7	0	9	2016	0.82	0.80	-1.0043	-0.8385
701778	MC	1	44	9	50	2015	0.57	0.59	0.4193	0.3850
701732	MC	1	45	9	51	2015	0.47	0.54	0.8975	0.6425
701764	MC	1	46	9	52	2015	0.61	0.61	0.2235	0.2727
701801	MC	1	47	9	53	2015	0.64	0.64	0.0599	0.1490
701777	MC	1	48	9	57	2015	0.46	0.48	0.9693	0.9233
701731	MC	1	49	9	58	2015	0.49	0.60	0.8076	0.3541
677900	MC	2	7	0	20	2016	0.47	0.45	0.9391	1.0791
676107	MC	3	7	0	16	2016	0.78	0.80	-0.6918	-0.8408
709429	MC	4	7	0	12	2016	0.47	0.48	0.8604	0.9351
681190	MC	5	7	0	8	2016	0.86	0.85	-1.2962	-1.2968
734942	MC	5	44	6	51	2016	0.36	0.36	1.5233	1.4984
734944	MC	5	45	6	52	2016	0.40	0.41	1.2824	1.2654
734936	MC	5	46	6	54	2016	0.65	0.69	0.0390	-0.1777
734945	MC	5	47	6	55	2016	0.62	0.63	0.1874	0.1921
734939	MC	5	48	6	57	2016	0.56	0.58	0.4795	0.4298
734940	MC	5	49	6	58	2016	0.51	0.50	0.7246	0.8052
672625	MC	6	7	0	6	2016	0.61	0.64	0.2663	0.1473
677924	MC	7	7	0	3	2016	0.66	0.62	-0.0230	0.2232
675847	MC	8	7	0	13	2016	0.47	0.53	0.9985	0.6890
678246	MC	9	7	0	18	2016	0.57	0.59	0.3952	0.3905
701757	ESR	0	41	0	42	2016	0.59	0.57	0.2530	0.3634
701718	ESR	0	42	0	43	2016	0.36	0.37	1.4249	1.4345

Grade 8 English Language Arts

ID	Type	Form	Item Sequence	Previous Form	Previous Item Sequence	Previous Year	Previous P-Value	P-Value	Previous IRT Difficulty Estimate	IRT Difficulty Estimate
679159	MC	0	6	0	6	2016	0.73	0.73	-0.5480	-0.4709
669296	MC	0	10	0	10	2016	0.73	0.74	-0.5826	-0.5872
676080	MC	0	11	0	11	2016	0.60	0.60	0.0615	0.0852
673168	MC	0	18	0	18	2016	0.63	0.64	-0.0370	-0.0732
677402	MC	0	36	0	38	2016	0.57	0.57	0.1604	0.1756
677403	MC	0	37	0	39	2016	0.46	0.47	0.8245	0.7835
677400	MC	0	38	0	40	2016	0.64	0.62	-0.1189	0.0053
677401	MC	0	39	0	41	2016	0.56	0.57	0.3277	0.3241
677425	MC	0	41	0	43	2016	0.82	0.82	-1.1534	-1.0799
673146	MC	1	7	0	1	2016	0.89	0.86	-1.9263	-1.5239
716593	MC	1	43	2	51	2016	0.30	0.33	1.6655	1.5233
716603	MC	1	44	2	53	2016	0.55	0.57	0.3721	0.2785
716589	MC	1	45	2	54	2016	0.47	0.43	0.7411	0.9645
716592	MC	1	46	2	56	2016	0.71	0.74	-0.4563	-0.6347
716594	MC	1	47	2	58	2016	0.80	0.83	-1.0901	-1.2661
716591	MC	1	48	2	60	2016	0.59	0.56	0.1572	0.3248
709519	MC	2	7	0	4	2016	0.61	0.61	0.1188	0.0819
672771	MC	3	7	3	7	2016	0.49	0.50	0.6650	0.6595
676423	MC	4	7	0	8	2016	0.88	0.87	-1.7433	-1.6397
679331	MC	5	7	0	20	2016	0.51	0.52	0.6820	0.5141
679309	MC	6	7	0	16	2016	0.72	0.72	-0.5907	-0.5438
700304	MC	6	43	3	51	2015	0.42	0.40	0.9669	1.1225
700326	MC	6	44	3	54	2015	0.82	0.86	-1.2103	-1.4791
700299	MC	6	45	3	55	2015	0.70	0.69	-0.4289	-0.3497
700303	MC	6	46	3	56	2015	0.49	0.46	0.6243	0.8315
700297	MC	6	47	3	57	2015	0.62	0.62	-0.0203	0.0218
700301	MC	6	48	3	58	2015	0.32	0.32	1.5207	1.5399
669295	MC	7	7	0	12	2016	0.67	0.72	-0.2479	-0.4850
679423	MC	8	7	0	2	2016	0.76	0.76	-0.7620	-0.7280
679138	MC	9	7	0	15	2016	0.89	0.91	-1.8911	-2.0501
677427	ESR	0	40	0	42	2016	0.66	0.65	-0.0411	0.0131
677442	ESR	0	42	0	44	2016	0.56	0.58	0.3905	0.2735

Grade 3 Mathematics

ID	Type	Form	Item Sequence	Previous Form	Previous Item Sequence	Previous Year	Previous P-Value	P-Value	Previous IRT Difficulty Estimate	IRT Difficulty Estimate
675104	MC	0	1	0	1	2016	0.75	0.76	-0.8801	-0.8841
656482	MC	0	2	0	2	2016	0.49	0.50	0.6247	0.5794
699942	MC	0	8	0	8	2016	0.67	0.67	-0.2744	-0.3343
675030	MC	0	10	0	10	2016	0.79	0.78	-1.1809	-1.0531
655652	MC	0	20	0	20	2016	0.60	0.63	0.0005	-0.1236
699440	MC	0	23	0	23	2016	0.41	0.41	1.0401	1.0756
652709	MC	0	29	0	29	2016	0.52	0.52	0.5096	0.5466
656725	MC	0	35	0	35	2016	0.62	0.62	-0.1029	-0.0129
668043	MC	0	37	0	37	2016	0.58	0.58	0.0895	0.1662
675037	MC	0	38	0	38	2016	0.68	0.70	-0.3919	-0.5025
682570	MC	0	56	0	56	2016	0.67	0.68	-0.3601	-0.3590
701411	MC	0	63	0	63	2016	0.62	0.60	-0.0641	0.0720
656751	MC	0	66	0	66	2016	0.59	0.61	0.1086	0.1318
665880	MC	0	67	0	67	2016	0.78	0.77	-0.9582	-0.8305
652685	MC	0	69	0	69	2016	0.61	0.59	-0.0227	0.0086
702231	MC	0	75	0	75	2016	0.80	0.78	-1.1685	-0.9575
713292	MC	1	42	9	42	2016	0.52	0.50	0.4925	0.5451
714261	MC	1	50	2	50	2016	0.74	0.72	-0.7877	-0.6813
714259	MC	2	44	8	44	2016	0.44	0.43	0.9512	0.9827
714738	MC	2	49	9	49	2016	0.46	0.47	0.8076	0.7670
714740	MC	3	42	3	42	2016	0.53	0.52	0.4093	0.5278
713572	MC	3	47	8	47	2016	0.60	0.61	0.1002	0.0114
712969	MC	4	39	1	39	2016	0.46	0.49	0.7628	0.6737
713484	MC	4	46	1	46	2016	0.56	0.59	0.2294	0.1025
714256	MC	5	40	2	40	2016	0.55	0.56	0.3113	0.2639
713296	MC	5	46	7	46	2016	0.46	0.46	0.8468	0.8032
716246	MC	6	41	8	41	2016	0.47	0.47	0.7535	0.7707
713291	MC	6	49	7	49	2016	0.38	0.38	1.2776	1.2598
713488	MC	7	43	3	43	2016	0.87	0.85	-1.8042	-1.5713
714156	MC	7	47	6	47	2016	0.49	0.52	0.6794	0.5125
730072	MC	8	42	8	42	2016	0.47	0.50	0.7577	0.6087
714986	MC	8	43	5	43	2016	0.57	0.59	0.2236	0.1537
714767	MC	9	44	7	44	2016	0.52	0.52	0.5006	0.4856
714977	MC	9	49	5	49	2016	0.55	0.53	0.3081	0.4310
654163	OE	0	26	0	26	2016	0.45	0.45	0.7789	0.8242
701376	OE	0	76	0	76	2016	0.46	0.46	0.8976	0.8300

Grade 4 Mathematics

ID	Type	Form	Item Sequence	Previous Form	Previous Item Sequence	Previous Year	Previous P-Value	P-Value	Previous IRT Difficulty Estimate	IRT Difficulty Estimate
655451	MC	0	4	0	4	2016	0.57	0.58	-0.2527	-0.2584
652724	MC	0	10	0	10	2016	0.67	0.67	-0.8108	-0.7682
652758	MC	0	16	0	16	2016	0.86	0.87	-2.1003	-2.1182
701390	MC	0	24	0	24	2016	0.56	0.54	-0.1736	-0.0676
675118	MC	0	28	0	28	2016	0.52	0.53	-0.1529	-0.1469
656381	MC	0	33	0	33	2016	0.71	0.72	-1.0948	-1.1369
702702	MC	0	34	0	34	2016	0.60	0.61	-0.4969	-0.4886
656705	MC	0	35	0	35	2016	0.50	0.51	0.0983	0.0348
703508	MC	0	52	0	52	2016	0.79	0.75	-1.8029	-1.5978
702995	MC	0	53	0	53	2016	0.63	0.64	-0.5991	-0.5828
678033	MC	0	54	0	54	2016	0.67	0.67	-0.8631	-0.8772
701959	MC	0	58	0	58	2016	0.54	0.54	-0.1155	-0.0878
655469	MC	0	63	0	63	2016	0.48	0.48	0.1024	0.1668
656529	MC	0	69	0	69	2016	0.63	0.62	-0.6757	-0.5347
701061	MC	0	74	0	74	2016	0.44	0.41	0.4595	0.5758
671465	MC	0	75	0	75	2016	0.43	0.44	0.4981	0.4311
713475	MC	1	43	6	43	2016	0.47	0.47	0.2555	0.1647
714188	MC	1	49	9	49	2016	0.49	0.52	0.1273	-0.0705
713090	MC	2	42	2	42	2016	0.81	0.80	-1.7811	-1.6534
715544	MC	2	48	2	48	2016	0.72	0.71	-1.1638	-1.0551
714233	MC	3	43	4	43	2016	0.39	0.38	0.6599	0.7063
713470	MC	3	49	3	49	2016	0.39	0.39	0.7044	0.6761
713032	MC	4	41	8	41	2016	0.52	0.56	-0.0528	-0.2171
713031	MC	4	46	9	46	2016	0.62	0.62	-0.5814	-0.5190
713746	MC	5	40	6	40	2016	0.41	0.44	0.5843	0.4245
714163	MC	5	45	8	45	2016	0.49	0.51	0.1503	0.0840
715542	MC	6	42	8	42	2016	0.44	0.46	0.3874	0.3344
713753	MC	6	48	3	48	2016	0.67	0.68	-0.8387	-0.8337
714547	MC	7	44	2	44	2016	0.70	0.69	-1.0016	-0.9033
715539	MC	7	50	8	50	2016	0.39	0.46	0.6713	0.3276
714545	MC	8	41	7	41	2016	0.54	0.54	-0.1178	-0.1286
714186	MC	8	47	5	47	2016	0.44	0.46	0.3880	0.3154
714229	MC	9	45	5	45	2016	0.41	0.38	0.5741	0.7011
714546	MC	9	50	4	50	2016	0.34	0.34	0.9680	0.9230
654892	OE	0	25	0	25	2016	0.19	0.18	1.7319	1.7174
652750	OE	0	26	0	26	2016	0.61	0.60	-0.3909	-0.3083

Grade 5 Mathematics

ID	Type	Form	Item Sequence	Previous Form	Previous Item Sequence	Previous Year	Previous P-Value	P-Value	Previous IRT Difficulty Estimate	IRT Difficulty Estimate
654555	MC	0	1	0	1	2016	0.69	0.68	-0.8422	-0.7820
703076	MC	0	9	0	9	2016	0.63	0.68	-0.3650	-0.6483
656864	MC	0	10	0	10	2016	0.63	0.63	-0.3819	-0.4212
700519	MC	0	20	0	20	2016	0.38	0.37	0.7579	0.9706
703139	MC	0	30	0	30	2016	0.67	0.68	-0.6266	-0.6386
657112	MC	0	38	0	39	2016	0.56	0.59	-0.0334	-0.1228
682659	MC	0	55	0	55	2016	0.54	0.54	0.0480	0.0531
655833	MC	0	56	0	56	2016	0.67	0.67	-0.7237	-0.6456
682688	MC	0	59	0	59	2016	0.37	0.33	0.9229	1.1196
700473	MC	0	60	0	60	2016	0.74	0.74	-1.0949	-1.1107
656075	MC	0	62	0	62	2016	0.53	0.54	0.1282	0.0062
682658	MC	0	67	0	67	2016	0.31	0.34	1.3971	1.1366
656308	MC	0	69	0	69	2016	0.58	0.60	-0.1165	-0.3529
657110	MC	0	70	0	70	2016	0.60	0.61	-0.3433	-0.3631
657092	MC	0	74	0	74	2016	0.48	0.48	0.4086	0.3966
651088	MC	0	75	0	75	2016	0.72	0.73	-0.9011	-0.9409
714037	MC	1	41	6	41	2016	0.38	0.41	0.8936	0.6600
714044	MC	1	45	3	45	2016	0.33	0.34	1.1465	1.0599
714922	MC	2	44	1	44	2016	0.33	0.28	1.1690	1.4607
714409	MC	2	50	4	50	2016	0.32	0.37	1.2346	0.9382
714413	MC	3	41	8	41	2016	0.70	0.66	-0.7692	-0.5499
713342	MC	3	46	8	46	2016	0.62	0.58	-0.3415	-0.1381
714052	MC	4	40	2	40	2016	0.50	0.49	0.2845	0.3228
714919	MC	4	44	4	44	2016	0.68	0.68	-0.6840	-0.6647
714513	MC	5	43	8	43	2016	0.64	0.63	-0.4325	-0.4098
713932	MC	5	49	5	49	2016	0.52	0.47	0.1918	0.4110
714034	MC	6	41	2	41	2016	0.49	0.45	0.3290	0.5284
714924	MC	6	45	5	45	2016	0.65	0.70	-0.4899	-0.7748
714416	MC	7	43	1	43	2016	0.42	0.43	0.6441	0.6216
713779	MC	7	48	2	48	2016	0.73	0.73	-0.9754	-0.9940
713939	MC	8	42	8	42	2016	0.53	0.47	0.1208	0.3953
713778	MC	8	47	6	47	2016	0.57	0.58	-0.0857	-0.1235
714035	MC	9	43	9	43	2016	0.52	0.52	0.1620	0.1508
713539	MC	9	50	6	50	2016	0.84	0.85	-1.7911	-1.8598
655661	OE	0	25	0	25	2016	0.31	0.31	1.2548	1.2154
656315	OE	0	76	0	76	2016	0.44	0.44	0.5466	0.5686

Grade 6 Mathematics

ID	Type	Form	Item Sequence	Previous Form	Previous Item Sequence	Previous Year	Previous P-Value	P-Value	Previous IRT Difficulty Estimate	IRT Difficulty Estimate
679229	MC	0	3	0	3	2016	0.64	0.64	-0.2799	-0.3305
678653	MC	0	7	0	7	2016	0.74	0.73	-0.9286	-0.8042
677299	MC	0	8	0	8	2016	0.81	0.81	-1.4459	-1.3870
668459	MC	0	9	0	9	2016	0.75	0.73	-0.9505	-0.8421
669285	MC	0	11	0	11	2016	0.71	0.71	-0.7188	-0.6994
696717	MC	0	14	0	14	2016	0.66	0.66	-0.4549	-0.4335
675749	MC	0	15	0	15	2016	0.53	0.54	0.2546	0.2114
675723	MC	0	16	0	16	2016	0.72	0.70	-0.7585	-0.6583
679503	MC	0	27	0	27	2016	0.52	0.50	0.2315	0.2969
700434	MC	0	31	0	31	2016	0.68	0.69	-0.4829	-0.5634
679492	MC	0	34	0	34	2016	0.60	0.61	-0.2082	-0.1612
675746	MC	0	63	0	63	2016	0.72	0.70	-0.7695	-0.6786
700430	MC	0	66	0	66	2016	0.61	0.61	-0.1596	-0.0903
668452	MC	0	69	0	69	2016	0.56	0.57	0.1336	0.0004
703052	MC	0	73	0	73	2016	0.58	0.55	0.0283	0.2010
700427	MC	0	75	0	75	2016	0.46	0.47	0.5875	0.5979
703054	MC	1	41	4	41	2016	0.39	0.36	0.9642	1.1008
701886	MC	1	47	2	47	2016	0.50	0.47	0.4094	0.4985
714888	MC	2	41	5	41	2016	0.51	0.49	0.3825	0.4632
714833	MC	2	46	3	46	2016	0.47	0.44	0.5634	0.7082
701834	MC	3	40	8	40	2016	0.56	0.55	0.1095	0.1883
714845	MC	3	45	7	45	2016	0.74	0.72	-0.8964	-0.7392
712515	MC	4	42	5	42	2016	0.47	0.50	0.5668	0.4275
696710	MC	4	47	3	47	2016	0.59	0.59	-0.0702	-0.0348
735220	MC	5	41	3	41	2016	0.41	0.44	0.8596	0.7484
735183	MC	5	46	7	46	2016	0.44	0.38	0.7398	1.0685
719301	MC	6	43	4	43	2016	0.31	0.31	1.4795	1.4038
703056	MC	6	47	4	47	2016	0.31	0.31	1.4355	1.4056
735185	MC	7	43	9	43	2016	0.54	0.54	0.1882	0.2089
714822	MC	7	48	5	48	2016	0.52	0.48	0.3364	0.5123
735187	MC	8	45	2	45	2016	0.40	0.42	0.9542	0.8391
701822	MC	8	50	9	50	2016	0.37	0.38	1.1228	1.0466
714909	MC	9	44	9	44	2016	0.61	0.60	-0.1907	-0.0974
714847	MC	9	50	2	50	2016	0.33	0.34	1.3753	1.2679
668445	OE	0	25	0	25	2016	0.26	0.26	1.9870	1.7951
679485	OE	0	76	0	76	2016	0.31	0.31	1.3871	1.3260

Grade 7 Mathematics

ID	Type	Form	Item Sequence	Previous Form	Previous Item Sequence	Previous Year	Previous P-Value	P-Value	Previous IRT Difficulty Estimate	IRT Difficulty Estimate
666571	MC	0	3	0	3	2016	0.47	0.49	0.1818	0.0603
666576	MC	0	13	0	13	2016	0.70	0.71	-1.0921	-1.0646
703027	MC	0	15	0	15	2016	0.73	0.73	-1.1982	-1.2023
701922	MC	0	21	0	21	2016	0.50	0.50	0.0898	0.0262
701852	MC	0	22	0	22	2016	0.63	0.63	-0.5993	-0.6376
703124	MC	0	23	0	23	2016	0.79	0.77	-1.5096	-1.3427
676762	MC	0	29	0	29	2016	0.59	0.59	-0.4150	-0.4368
701812	MC	0	33	0	33	2016	0.41	0.43	0.4820	0.4478
678559	MC	0	37	0	37	2016	0.48	0.50	0.1460	0.0566
700449	MC	0	38	0	38	2016	0.65	0.64	-0.7035	-0.6524
667566	MC	0	53	0	53	2016	0.62	0.59	-0.6306	-0.4551
667574	MC	0	55	0	55	2016	0.46	0.46	0.3155	0.2925
703121	MC	0	57	0	57	2016	0.63	0.64	-0.6114	-0.6457
700514	MC	0	59	0	59	2016	0.61	0.60	-0.4929	-0.3925
700529	MC	0	68	0	68	2016	0.52	0.52	-0.0068	-0.0366
669635	MC	0	75	0	75	2016	0.74	0.74	-1.1331	-1.1762
714851	MC	1	43	2	43	2016	0.45	0.44	0.3087	0.3278
696697	MC	1	48	8	48	2016	0.37	0.39	0.6954	0.5849
735215	MC	2	43	9	43	2016	0.40	0.37	0.5653	0.7455
714828	MC	2	48	3	48	2016	0.38	0.39	0.6872	0.6583
714883	MC	3	43	8	43	2016	0.38	0.44	0.6690	0.3982
719322	MC	3	44	7	44	2016	0.41	0.41	0.5253	0.5442
700523	MC	4	41	3	41	2016	0.76	0.75	-1.3729	-1.3434
719309	MC	4	46	6	46	2016	0.54	0.52	-0.1329	-0.0214
735246	MC	5	40	4	40	2016	0.52	0.51	-0.0575	0.0027
714831	MC	5	45	5	45	2016	0.34	0.37	0.8781	0.7848
714840	MC	6	42	2	42	2016	0.54	0.52	-0.1570	-0.0353
735637	MC	6	46	5	46	2016	0.44	0.47	0.3347	0.2262
735261	MC	7	43	6	43	2016	0.41	0.44	0.5346	0.3942
714839	MC	7	48	6	48	2016	0.41	0.45	0.5182	0.3531
678675	MC	8	40	9	40	2016	0.64	0.64	-0.6685	-0.6266
735249	MC	8	45	1	45	2016	0.42	0.44	0.4270	0.4045
714874	MC	9	47	5	47	2016	0.43	0.42	0.4233	0.5072
714824	MC	9	50	4	50	2016	0.34	0.32	0.9349	1.0612
678367	OE	0	25	0	25	2016	0.25	0.25	1.4934	1.5393
703144	OE	0	76	0	76	2016	0.29	0.29	1.2809	1.3600

Grade 8 Mathematics

ID	Type	Form	Item Sequence	Previous Form	Previous Item Sequence	Previous Year	Previous P-Value	P-Value	Previous IRT Difficulty Estimate	IRT Difficulty Estimate
673061	MC	0	4	0	4	2016	0.71	0.69	-1.1279	-0.9735
700455	MC	0	7	0	7	2016	0.35	0.34	0.7982	0.8035
703105	MC	0	11	0	11	2016	0.64	0.62	-0.7557	-0.6684
670272	MC	0	19	0	19	2016	0.58	0.56	-0.4939	-0.3569
678085	MC	0	20	0	20	2016	0.39	0.41	0.5030	0.4442
703025	MC	0	24	0	24	2016	0.81	0.80	-1.6329	-1.6453
696720	MC	0	30	0	30	2016	0.73	0.71	-1.2779	-1.1268
665687	MC	0	32	0	32	2016	0.58	0.60	-0.4511	-0.5344
665689	MC	0	33	0	33	2016	0.73	0.72	-1.3121	-1.2071
665997	MC	0	35	0	35	2016	0.73	0.74	-1.2978	-1.2888
665046	MC	0	58	0	58	2016	0.72	0.71	-1.2071	-1.1362
677209	MC	0	59	0	59	2016	0.47	0.46	0.1200	0.2469
677704	MC	0	63	0	63	2016	0.49	0.51	-0.0169	-0.0956
703022	MC	0	66	0	66	2016	0.49	0.50	0.0369	0.1050
678088	MC	0	70	0	70	2016	0.53	0.51	-0.0910	-0.0958
675705	MC	0	75	0	75	2016	0.50	0.52	-0.0866	-0.1182
701860	MC	1	42	6	42	2016	0.37	0.34	0.6018	0.7514
714906	MC	1	46	6	46	2016	0.34	0.35	0.7592	0.7360
714905	MC	2	45	5	45	2016	0.55	0.54	-0.3248	-0.2469
670270	MC	2	48	7	48	2016	0.36	0.38	0.6590	0.5696
719353	MC	3	41	8	41	2016	0.45	0.44	0.2058	0.2791
714893	MC	3	45	2	45	2016	0.41	0.43	0.3529	0.3381
735886	MC	4	43	8	43	2016	0.53	0.52	-0.2470	-0.1462
712508	MC	4	47	7	47	2016	0.55	0.55	-0.3383	-0.2853
719284	MC	5	44	1	44	2016	0.40	0.42	0.4106	0.4089
703135	MC	5	47	4	47	2016	0.40	0.42	0.3965	0.3994
719330	MC	6	45	9	45	2016	0.52	0.55	-0.1380	-0.3081
735716	MC	6	49	6	49	2016	0.44	0.39	0.2390	0.5281
714901	MC	7	43	9	43	2016	0.62	0.63	-0.7008	-0.6907
719331	MC	7	47	2	47	2016	0.47	0.45	0.0735	0.2063
714891	MC	8	40	5	40	2016	0.51	0.51	-0.1230	-0.0325
703116	MC	8	44	5	44	2016	0.44	0.45	0.2408	0.2583
724101	MC	9	44	8	44	2016	0.50	0.50	-0.0847	-0.0208
735230	MC	9	48	3	48	2016	0.55	0.51	-0.3350	-0.0918
669573	OE	0	25	0	25	2016	0.25	0.26	1.6255	1.5069
665203	OE	0	26	0	26	2016	0.31	0.32	1.7104	1.5701

Grade 4 Science

ID	Type	Form	Item Sequence	Previous Form	Previous Item Sequence	Previous Year	Previous P-Value	P-Value	Previous IRT Difficulty Estimate	IRT Difficulty Estimate
702763	MC	0	1	0	1	2016	0.73	0.74	-0.2610	-0.2517
652102	MC	0	7	0	6	2016	0.66	0.66	0.1958	0.2284
699716	MC	0	11	0	10	2016	0.66	0.63	0.2332	0.3114
700159	MC	0	13	0	12	2016	0.66	0.65	0.2650	0.3440
698775	MC	0	14	0	13	2016	0.53	0.50	0.9738	0.9824
641666	MC	0	15	0	15	2016	0.78	0.75	-0.3924	-0.2016
642192	MC	0	22	0	22	2016	0.63	0.61	0.5017	0.5365
699634	MC	0	23	0	23	2016	0.74	0.70	-0.2423	-0.0108
652916	MC	0	40	0	40	2016	0.46	0.48	1.2758	1.1075
559871	MC	0	45	0	45	2016	0.48	0.57	1.0851	0.6514
679563	MC	0	50	0	50	2016	0.71	0.67	0.0012	0.1975
700150	MC	0	53	0	53	2016	0.62	0.60	0.4996	0.5236
702042	MC	0	56	0	56	2016	0.74	0.70	-0.3604	0.0113
700153	MC	0	59	0	58	2016	0.67	0.65	0.1713	0.2715
698763	MC	0	63	0	63	2016	0.57	0.51	0.7097	0.9250
698790	MC	0	66	0	66	2016	0.53	0.51	0.9163	0.9368
704954	MC	1	31	4	68	2016	0.45	0.45	1.3401	1.1956
705010	MC	1	71	11	34	2016	0.38	0.34	1.7049	1.7233
704929	MC	2	34	7	71	2016	0.63	0.59	0.4518	0.5459
739642	MC	2	71	9	34	2016	0.47	0.42	1.2847	1.3845
735276	MC	3	34	5	34	2016	0.31	0.31	2.1022	1.9394
698762	MC	3	68	9	31	2016	0.53	0.49	0.9837	1.0355
705009	MC	4	34	1	33	2016	0.47	0.47	1.1568	1.1557
704963	MC	4	69	2	31	2016	0.49	0.50	1.1375	1.0057
704975	MC	5	32	11	32	2016	0.55	0.55	0.8493	0.7553
736975	MC	5	69	3	31	2016	0.38	0.38	1.7189	1.6110
739644	MC	6	30	12	67	2016	0.40	0.38	1.6403	1.6257
705001	MC	6	69	8	69	2016	0.41	0.39	1.5643	1.5614
704987	MC	7	31	2	67	2016	0.56	0.57	0.7817	0.6614
714198	MC	7	67	8	30	2016	0.55	0.50	0.8654	1.0312
704925	MC	8	31	8	68	2016	0.48	0.43	1.2147	1.3533
704942	MC	8	70	8	33	2016	0.51	0.54	1.0686	0.8050
704961	MC	9	33	12	33	2016	0.51	0.53	1.0684	0.8764
705008	MC	9	68	7	31	2016	0.45	0.47	1.3624	1.1520
704977	MC	10	33	2	69	2016	0.44	0.43	1.3970	1.3419

ID	Type	Form	Item Sequence	Previous Form	Previous Item Sequence	Previous Year	Previous P-Value	P-Value	Previous IRT Difficulty Estimate	IRT Difficulty Estimate
736129	MC	10	70	1	32	2016	0.50	0.47	1.0115	1.1479
705015	MC	11	31	1	31	2016	0.37	0.39	1.7055	1.5360
704910	MC	11	69	12	31	2016	0.63	0.57	0.4291	0.6412
704924	MC	12	31	6	68	2016	0.48	0.49	1.1615	1.0565
704916	MC	12	69	6	32	2016	0.52	0.51	0.9550	0.9848
699729	SCR	0	35	0	35	2016	0.67	0.66	0.2550	0.2858
699659	SCR	0	37	0	37	2016	0.49	0.53	1.1463	0.8675

Grade 8 Science

ID	Type	Form	Item Sequence	Previous Form	Previous Item Sequence	Previous Year	Previous P-Value	P-Value	Previous IRT Difficulty Estimate	IRT Difficulty Estimate
703336	MC	0	2	0	1	2016	0.55	0.54	0.3166	0.3193
703336	MC	0	2	0	1	2016	0.55	0.54	0.3166	0.3193
565271	MC	0	5	0	4	2016	0.71	0.70	-0.6154	-0.3901
565271	MC	0	5	0	4	2016	0.71	0.70	-0.6154	-0.3901
700244	MC	0	11	0	10	2016	0.68	0.67	-0.3857	-0.2864
700244	MC	0	11	0	10	2016	0.68	0.67	-0.3857	-0.2864
671444	MC	0	20	0	19	2016	0.64	0.63	-0.1507	-0.1024
671444	MC	0	20	0	19	2016	0.64	0.63	-0.1507	-0.1024
656140	MC	0	24	0	23	2016	0.68	0.65	-0.3934	-0.2157
656140	MC	0	24	0	23	2016	0.68	0.65	-0.3934	-0.2157
701337	MC	0	28	0	28	2016	0.60	0.59	0.0146	0.0518
701340	MC	0	29	0	29	2016	0.61	0.60	-0.0256	0.0783
701336	MC	0	30	0	30	2016	0.62	0.66	-0.0607	-0.2470
701338	MC	0	31	0	31	2016	0.58	0.55	0.2069	0.2789
700247	MC	0	44	0	43	2016	0.70	0.69	-0.5328	-0.4002
700247	MC	0	44	0	43	2016	0.70	0.69	-0.5328	-0.4002
703689	MC	0	45	0	44	2016	0.62	0.65	-0.0354	-0.1826
703689	MC	0	45	0	44	2016	0.62	0.65	-0.0354	-0.1826
673261	MC	0	46	0	45	2016	0.65	0.64	-0.2292	-0.1355
673261	MC	0	46	0	45	2016	0.65	0.64	-0.2292	-0.1355
642307	MC	0	54	0	53	2016	0.62	0.53	-0.1527	0.2824
642307	MC	0	54	0	53	2016	0.62	0.53	-0.1527	0.2824
655332	MC	0	57	0	56	2016	0.63	0.59	-0.0290	0.1316
655332	MC	0	57	0	56	2016	0.63	0.59	-0.0290	0.1316
677798	MC	0	61	0	60	2016	0.59	0.59	0.1802	0.0918
677798	MC	0	61	0	60	2016	0.59	0.59	0.1802	0.0918
678472	MC	0	65	0	64	2016	0.49	0.47	0.6098	0.6494
678472	MC	0	65	0	64	2016	0.49	0.47	0.6098	0.6494
715495	MC	1	34	8	34	2016	0.37	0.37	1.2296	1.1293
737551	MC	1	72	1	34	2016	0.50	0.52	0.4764	0.3777
715427	MC	2	34	10	73	2016	0.52	0.53	0.4940	0.3840
740494	MC	2	72	3	71	2016	0.45	0.44	0.8176	0.8223
735110	MC	3	32	4	32	2016	0.38	0.37	1.1931	1.1566
734804	MC	3	70	12	32	2016	0.35	0.31	1.3262	1.4617
739850	MC	4	34	12	34	2016	0.41	0.43	1.0226	0.8619
730242	MC	4	70	9	70	2016	0.44	0.46	0.8754	0.7298

ID	Type	Form	Item Sequence	Previous Form	Previous Item Sequence	Previous Year	Previous P-Value	P-Value	Previous IRT Difficulty Estimate	IRT Difficulty Estimate
739576	MC	5	33	2	32	2016	0.34	0.34	1.4358	1.3194
705084	MC	5	71	9	71	2016	0.41	0.39	1.0370	1.0683
739853	MC	6	34	10	72	2016	0.37	0.38	1.2505	1.1051
715501	MC	6	73	12	35	2016	0.56	0.51	0.2545	0.4722
739575	MC	7	35	4	73	2016	0.35	0.39	1.3377	1.0476
713634	MC	7	72	9	34	2016	0.43	0.43	0.9107	0.8798
713658	MC	8	33	4	71	2016	0.37	0.37	1.2478	1.1989
730248	MC	8	72	4	72	2016	0.46	0.48	0.7476	0.6537
713738	MC	9	34	2	33	2016	0.35	0.35	1.3637	1.2613
730239	MC	9	70	11	32	2016	0.43	0.44	0.8980	0.8116
734802	MC	10	32	10	32	2016	0.46	0.43	0.7933	0.8388
713659	MC	10	70	7	70	2016	0.40	0.38	1.0638	1.0796
713625	MC	11	34	7	72	2016	0.47	0.51	0.6908	0.4586
736943	MC	11	71	6	33	2016	0.37	0.34	1.2669	1.2889
730247	MC	12	34	4	34	2016	0.37	0.35	1.2350	1.2317
739856	MC	12	70	1	70	2016	0.36	0.37	1.2314	1.1765
702664	SCR	0	37	0	36	2016	0.69	0.69	-0.4796	-0.4099
700255	SCR	0	38	0	37	2016	0.36	0.32	1.3020	1.3719

APPENDIX P: RELIABILITIES

Grade 3 English Language Arts

	Overall	Total Points	N Items	N	Mean	STD	r	SEM	Item Type(s)
Total	All	62	45	124923	35.74	11.42	0.91	3.34	MC*OE
A	All	18	13	124923	10.80	4.06	0.79	1.88	MC*OE
B	All	18	13	124923	9.85	4.00	0.78	1.88	MC*OE
C	All	8	1	124923	3.92	1.43			OE
D	All	18	18	124923	11.17	3.58	0.75	1.77	MC

	Gender	Total Points	N Items	N	Mean	STD	r	SEM	Item Type(s)
Total	Male	62	45	63766	34.53	11.46	0.91	3.35	MC*OE
Total	Female	62	45	61157	37.00	11.25	0.91	3.33	MC*OE
A	Male	18	13	63766	10.39	4.08	0.79	1.88	MC*OE
A	Female	18	13	61157	11.23	3.99	0.78	1.87	MC*OE
B	Male	18	13	63766	9.54	3.97	0.78	1.87	MC*OE
B	Female	18	13	61157	10.16	4.01	0.78	1.87	MC*OE
C	Male	8	1	63766	3.71	1.43			OE
C	Female	8	1	61157	4.14	1.41			OE
D	Male	18	18	63766	10.89	3.62	0.76	1.79	MC
D	Female	18	18	61157	11.47	3.51	0.75	1.75	MC

	Ethnicity	Total Points	N Items	N	Mean	STD	r	SEM	Item Type(s)
Total	White	62	45	81051	38.26	10.55	0.90	3.28	MC*OE
Total	African American	62	45	18672	28.53	10.53	0.89	3.47	MC*OE
Total	Hispanic	62	45	14404	29.79	11.01	0.90	3.45	MC*OE
Total	Asian	62	45	4670	40.61	11.00	0.91	3.22	MC*OE
Total	American Indian	60	45	195	33.37	10.96	0.91	3.36	MC*OE
Total	Pacific Islander	62	45	91	37.20	10.84	0.91	3.22	MC*OE
Total	Multiple Ethnicities	62	45	5840	34.69	11.43	0.91	3.37	MC*OE
A	White	18	13	81051	11.61	3.78	0.76	1.84	MC*OE
A	African American	18	13	18672	8.49	3.91	0.75	1.94	MC*OE
A	Hispanic	18	13	14404	8.92	4.04	0.77	1.93	MC*OE
A	Asian	18	13	4670	12.17	3.78	0.77	1.81	MC*OE

	Ethnicity	Total Points	N Items	N	Mean	STD	r	SEM	Item Type(s)
A	American Indian	18	13	195	10.10	4.01	0.78	1.90	MC*OE
A	Pacific Islander	18	13	91	11.58	3.78	0.78	1.77	MC*OE
A	Multiple Ethnicities	18	13	5840	10.49	4.08	0.79	1.89	MC*OE
B	White	18	13	81051	10.64	3.80	0.76	1.85	MC*OE
B	African American	18	13	18672	7.56	3.58	0.72	1.91	MC*OE
B	Hispanic	18	13	14404	7.98	3.76	0.74	1.92	MC*OE
B	Asian	18	13	4670	11.39	3.96	0.79	1.81	MC*OE
B	American Indian	18	13	195	9.11	3.87	0.75	1.93	MC*OE
B	Pacific Islander	18	13	91	10.35	3.91	0.77	1.88	MC*OE
B	Multiple Ethnicities	18	13	5840	9.48	4.04	0.78	1.88	MC*OE
C	White	8	1	81051	4.09	1.36			OE
C	African American	8	1	18672	3.38	1.49			OE
C	Hispanic	8	1	14404	3.51	1.46			OE
C	Asian	8	1	4670	4.44	1.42			OE
C	American Indian	6	1	195	3.60	1.42			OE
C	Pacific Islander	8	1	91	4.18	1.35			OE
C	Multiple Ethnicities	8	1	5840	3.85	1.46			OE
D	White	18	18	81051	11.91	3.32	0.73	1.74	MC
D	African American	18	18	18672	9.11	3.39	0.70	1.86	MC
D	Hispanic	18	18	14404	9.38	3.51	0.72	1.85	MC
D	Asian	18	18	4670	12.61	3.47	0.77	1.66	MC
D	American Indian	18	18	195	10.56	3.28	0.70	1.80	MC
D	Pacific Islander	18	18	91	11.09	3.38	0.73	1.76	MC
D	Multiple Ethnicities	18	18	5840	10.87	3.57	0.75	1.79	MC

	IEP	Total Points	N Items	N	Mean	STD	r	SEM	Item Type(s)
Total	Y	62	45	19764	26.43	11.13	0.91	3.42	MC*OE
A	Y	18	13	19764	7.66	4.03	0.78	1.89	MC*OE
B	Y	18	13	19764	7.07	3.74	0.75	1.88	MC*OE
C	Y	8	1	19764	3.11	1.44			OE
D	Y	18	18	19764	8.58	3.61	0.73	1.89	MC

	ELL	Total Points	N Items	N	Mean	STD	r	SEM	Item Type(s)
Total	Y	62	45	4477	24.21	8.99	0.85	3.48	MC*OE
A	Y	18	13	4477	6.94	3.36	0.67	1.94	MC*OE
B	Y	18	13	4477	6.23	2.97	0.59	1.89	MC*OE
C	Y	8	1	4477	3.24	1.45			OE
D	Y	18	18	4477	7.81	3.19	0.64	1.90	MC

	Low Income	Total Points	N Items	N	Mean	STD	r	SEM	Item Type(s)
Total	Y	62	45	62185	31.25	10.96	0.90	3.44	MC*OE
A	Y	18	13	62185	9.41	4.03	0.77	1.93	MC*OE
B	Y	18	13	62185	8.38	3.78	0.75	1.91	MC*OE
C	Y	8	1	62185	3.57	1.44			OE
D	Y	18	18	62185	9.89	3.49	0.72	1.84	MC

Grade 4 English Language Arts

	Overall	Total Points	N Items	N	Mean	STD	r	SEM	Item Type(s)
Total	All	84	49	125200	48.38	14.83	0.91	4.44	MC*OE
A	All	18	13	125200	12.46	4.08	0.81	1.79	MC*OE
B	All	20	16	125200	11.34	4.10	0.74	2.10	MC*OE
C	All	12	1	125200	7.08	2.70			OE
D	All	18	18	125200	10.74	4.05	0.80	1.80	MC
E	All	16	1	125200	6.75	3.05			OE

	Gender	Total Points	N Items	N	Mean	STD	r	SEM	Item Type(s)
Total	Male	84	49	63748	46.34	15.00	0.91	4.42	MC*OE
Total	Female	84	49	61452	50.49	14.36	0.90	4.45	MC*OE
A	Male	18	13	63748	12.01	4.22	0.81	1.84	MC*OE
A	Female	18	13	61452	12.93	3.88	0.80	1.74	MC*OE
B	Male	20	16	63748	11.10	4.17	0.75	2.10	MC*OE
B	Female	20	16	61452	11.60	4.02	0.73	2.10	MC*OE
C	Male	12	1	63748	6.72	2.70			OE
C	Female	12	1	61452	7.46	2.64			OE
D	Male	18	18	63748	10.28	4.06	0.80	1.83	MC
D	Female	18	18	61452	11.22	3.98	0.80	1.78	MC
E	Male	16	1	63748	6.24	2.98			OE
E	Female	16	1	61452	7.28	3.04			OE

	Ethnicity	Total Points	N Items	N	Mean	STD	r	SEM	Item Type(s)
Total	White	84	49	81681	51.58	13.53	0.90	4.38	MC*OE
Total	African American	84	49	18470	38.52	14.09	0.89	4.59	MC*OE
Total	Hispanic	84	49	14332	41.15	14.43	0.90	4.53	MC*OE
Total	Asian	84	49	4849	55.77	13.88	0.90	4.34	MC*OE
Total	American Indian	84	49	194	46.31	15.28	0.92	4.40	MC*OE
Total	Pacific Islander	84	49	111	50.22	13.82	0.89	4.62	MC*OE
Total	Multiple Ethnicities	84	49	5563	46.28	15.14	0.91	4.51	MC*OE
A	White	18	13	81681	13.25	3.70	0.78	1.72	MC*OE
A	African American	18	13	18470	10.01	4.26	0.79	1.95	MC*OE
A	Hispanic	18	13	14332	10.76	4.23	0.80	1.91	MC*OE

	Ethnicity	Total Points	N Items	N	Mean	STD	r	SEM	Item Type(s)
A	Asian	18	13	4849	14.02	3.45	0.78	1.61	MC*OE
A	American Indian	18	13	194	11.99	4.22	0.82	1.81	MC*OE
A	Pacific Islander	18	13	111	12.95	3.58	0.75	1.79	MC*OE
A	Multiple Ethnicities	18	13	5563	11.95	4.21	0.81	1.83	MC*OE
B	White	20	16	81681	12.16	3.87	0.71	2.08	MC*OE
B	African American	20	16	18470	8.90	3.79	0.69	2.11	MC*OE
B	Hispanic	20	16	14332	9.51	3.90	0.70	2.13	MC*OE
B	Asian	20	16	4849	12.95	3.92	0.72	2.07	MC*OE
B	American Indian	20	16	194	10.59	4.33	0.78	2.04	MC*OE
B	Pacific Islander	20	16	111	11.77	3.94	0.71	2.12	MC*OE
B	Multiple Ethnicities	20	16	5563	10.85	4.14	0.74	2.10	MC*OE
C	White	12	1	81681	7.42	2.55			OE
C	African American	12	1	18470	5.91	2.79			OE
C	Hispanic	12	1	14332	6.37	2.72			OE
C	Asian	12	1	4849	8.20	2.70			OE
C	American Indian	12	1	194	6.93	2.62			OE
C	Pacific Islander	12	1	111	7.65	2.55			OE
C	Multiple Ethnicities	12	1	5563	6.84	2.79			OE
D	White	18	18	81681	11.58	3.81	0.78	1.77	MC
D	African American	18	18	18470	8.23	3.65	0.73	1.88	MC
D	Hispanic	18	18	14332	8.74	3.81	0.76	1.87	MC
D	Asian	18	18	4849	12.68	3.82	0.81	1.67	MC
D	American Indian	18	18	194	10.37	4.05	0.80	1.83	MC
D	Pacific Islander	18	18	111	11.00	3.92	0.79	1.78	MC
D	Multiple Ethnicities	18	18	5563	10.23	4.04	0.80	1.83	MC
E	White	16	1	81681	7.17	2.92			OE
E	African American	16	1	18470	5.46	3.02			OE

	Ethnicity	Total Points	N Items	N	Mean	STD	r	SEM	Item Type(s)
E	Hispanic	16	1	14332	5.78	3.04			OE
E	Asian	16	1	4849	7.91	3.05			OE
E	American Indian	16	1	194	6.43	3.00			OE
E	Pacific Islander	16	1	111	6.85	3.02			OE
E	Multiple Ethnicities	16	1	5563	6.42	3.10			OE

	IEP	Total Points	N Items	N	Mean	STD	r	SEM	Item Type(s)
Total	Y	84	49	20901	35.53	14.51	0.91	4.46	MC*OE
A	Y	18	13	20901	9.11	4.34	0.80	1.95	MC*OE
B	Y	20	16	20901	8.41	3.93	0.72	2.10	MC*OE
C	Y	12	1	20901	5.56	2.73			OE
D	Y	18	18	20901	7.73	3.74	0.75	1.88	MC
E	Y	16	1	20901	4.72	2.97			OE

	ELL	Total Points	N Items	N	Mean	STD	r	SEM	Item Type(s)
Total	Y	84	49	3745	31.05	11.61	0.85	4.56	MC*OE
A	Y	18	13	3745	8.01	3.56	0.69	1.97	MC*OE
B	Y	20	16	3745	7.13	3.03	0.53	2.08	MC*OE
C	Y	12	1	3745	5.19	2.78			OE
D	Y	18	18	3745	6.43	2.95	0.59	1.89	MC
E	Y	16	1	3745	4.28	2.97			OE

	Low Income	Total Points	N Items	N	Mean	STD	r	SEM	Item Type(s)
Total	Y	84	49	61175	42.35	14.38	0.90	4.52	MC*OE
A	Y	18	13	61175	11.05	4.24	0.80	1.90	MC*OE
B	Y	20	16	61175	9.86	3.94	0.71	2.12	MC*OE
C	Y	12	1	61175	6.36	2.69			OE
D	Y	18	18	61175	9.18	3.85	0.77	1.86	MC
E	Y	16	1	61175	5.90	2.99			OE

Grade 5 English Language Arts

	Overall	Total Points	N Items	N	Mean	STD	r	SEM	Item Type(s)
Total	All	84	49	124183	46.76	15.04	0.92	4.36	MC*OE
A	All	19	14	124183	11.03	4.18	0.76	2.04	MC*OE
B	All	19	15	124183	11.69	4.57	0.80	2.07	MC*OE
C	All	12	1	124183	6.56	2.24			OE
D	All	18	18	124183	10.88	3.96	0.78	1.85	MC
E	All	16	1	124183	6.60	3.07			OE

	Gender	Total Points	N Items	N	Mean	STD	r	SEM	Item Type(s)
Total	Male	84	49	63311	44.87	15.14	0.92	4.33	MC*OE
Total	Female	84	49	60872	48.73	14.68	0.91	4.38	MC*OE
A	Male	19	14	63311	10.67	4.23	0.77	2.05	MC*OE
A	Female	19	14	60872	11.40	4.10	0.76	2.02	MC*OE
B	Male	19	15	63311	11.40	4.65	0.80	2.07	MC*OE
B	Female	19	15	60872	12.01	4.46	0.79	2.06	MC*OE
C	Male	12	1	63311	6.15	2.21			OE
C	Female	12	1	60872	6.99	2.19			OE
D	Male	18	18	63311	10.49	4.00	0.78	1.87	MC
D	Female	18	18	60872	11.29	3.88	0.78	1.83	MC
E	Male	16	1	63311	6.17	3.00			OE
E	Female	16	1	60872	7.05	3.08			OE

	Ethnicity	Total Points	N Items	N	Mean	STD	r	SEM	Item Type(s)
Total	White	84	49	82283	49.81	14.02	0.90	4.33	MC*OE
Total	African American	84	49	17861	37.05	13.72	0.90	4.38	MC*OE
Total	Hispanic	84	49	13955	39.23	14.15	0.90	4.40	MC*OE
Total	Asian	84	49	4798	54.51	14.66	0.92	4.26	MC*OE
Total	American Indian	84	49	176	44.52	14.79	0.91	4.35	MC*OE
Total	Pacific Islander	84	49	114	48.18	14.60	0.91	4.33	MC*OE
Total	Multiple Ethnicities	84	49	4996	44.95	15.05	0.92	4.37	MC*OE
A	White	19	14	82283	11.80	3.95	0.74	2.01	MC*OE
A	African American	19	14	17861	8.51	3.93	0.72	2.07	MC*OE
A	Hispanic	19	14	13955	9.21	4.00	0.73	2.07	MC*OE

	Ethnicity	Total Points	N Items	N	Mean	STD	r	SEM	Item Type(s)
A	Asian	19	14	4798	12.89	3.88	0.75	1.92	MC*OE
A	American Indian	19	14	176	10.77	4.06	0.74	2.07	MC*OE
A	Pacific Islander	19	14	114	11.40	4.35	0.79	2.00	MC*OE
A	Multiple Ethnicities	19	14	4996	10.55	4.19	0.76	2.05	MC*OE
B	White	19	15	82283	12.54	4.33	0.78	2.03	MC*OE
B	African American	19	15	17861	9.04	4.26	0.75	2.11	MC*OE
B	Hispanic	19	15	13955	9.65	4.39	0.77	2.12	MC*OE
B	Asian	19	15	4798	13.64	4.23	0.80	1.91	MC*OE
B	American Indian	19	15	176	10.82	4.65	0.79	2.12	MC*OE
B	Pacific Islander	19	15	114	12.12	4.46	0.78	2.08	MC*OE
B	Multiple Ethnicities	19	15	4996	11.15	4.54	0.79	2.09	MC*OE
C	White	12	1	82283	6.86	2.17			OE
C	African American	12	1	17861	5.56	2.18			OE
C	Hispanic	12	1	13955	5.82	2.14			OE
C	Asian	12	1	4798	7.42	2.34			OE
C	American Indian	12	1	176	6.34	2.29			OE
C	Pacific Islander	12	1	114	6.68	2.00			OE
C	Multiple Ethnicities	12	1	4996	6.37	2.25			OE
D	White	18	18	82283	11.63	3.74	0.76	1.82	MC
D	African American	18	18	17861	8.60	3.63	0.71	1.94	MC
D	Hispanic	18	18	13955	8.95	3.77	0.74	1.93	MC
D	Asian	18	18	4798	12.60	3.92	0.81	1.71	MC
D	American Indian	18	18	176	10.32	3.74	0.75	1.88	MC
D	Pacific Islander	18	18	114	11.34	3.94	0.78	1.83	MC
D	Multiple Ethnicities	18	18	4996	10.48	3.99	0.78	1.87	MC
E	White	16	1	82283	6.98	2.98			OE
E	African American	16	1	17861	5.35	2.93			OE

	Ethnicity	Total Points	N Items	N	Mean	STD	r	SEM	Item Type(s)
E	Hispanic	16	1	13955	5.59	2.95			OE
E	Asian	16	1	4798	7.97	3.23			OE
E	American Indian	16	1	176	6.27	3.10			OE
E	Pacific Islander	16	1	114	6.63	3.10			OE
E	Multiple Ethnicities	16	1	4996	6.40	3.08			OE

	IEP	Total Points	N Items	N	Mean	STD	r	SEM	Item Type(s)
Total	Y	84	49	20776	33.06	13.31	0.89	4.32	MC*OE
A	Y	19	14	20776	7.82	3.77	0.70	2.05	MC*OE
B	Y	19	15	20776	8.05	4.14	0.75	2.09	MC*OE
C	Y	12	1	20776	5.02	2.16			OE
D	Y	18	18	20776	7.70	3.58	0.71	1.93	MC
E	Y	16	1	20776	4.47	2.83			OE

	ELL	Total Points	N Items	N	Mean	STD	r	SEM	Item Type(s)
Total	Y	80	49	3417	28.31	9.96	0.81	4.31	MC*OE
A	Y	19	14	3417	6.59	2.85	0.50	2.02	MC*OE
B	Y	19	15	3417	6.69	3.14	0.57	2.06	MC*OE
C	Y	12	1	3417	4.73	2.11			OE
D	Y	18	18	3417	6.25	2.71	0.50	1.92	MC
E	Y	12	1	3417	4.05	2.75			OE

	Low Income	Total Points	N Items	N	Mean	STD	r	SEM	Item Type(s)
Total	Y	84	49	59108	40.52	14.18	0.90	4.39	MC*OE
A	Y	19	14	59108	9.51	4.05	0.74	2.07	MC*OE
B	Y	19	15	59108	9.99	4.41	0.77	2.12	MC*OE
C	Y	12	1	59108	5.91	2.15			OE
D	Y	18	18	59108	9.40	3.81	0.75	1.92	MC
E	Y	16	1	59108	5.71	2.91			OE

Grade 6 English Language Arts

	Overall	Total Points	N Items	N	Mean	STD	r	SEM	Item Type(s)
Total	All	84	49	123170	48.04	14.49	0.91	4.40	MC*OE
A	All	18	14	123170	10.60	3.91	0.73	2.02	MC*OE
B	All	20	15	123170	12.53	4.18	0.77	2.00	MC*OE
C	All	12	1	123170	7.09	2.16			OE
D	All	18	18	123170	10.67	3.90	0.77	1.85	MC
E	All	16	1	123170	7.16	3.38			OE

	Gender	Total Points	N Items	N	Mean	STD	r	SEM	Item Type(s)
Total	Male	84	49	62894	45.63	14.61	0.91	4.38	MC*OE
Total	Female	84	49	60276	50.56	13.91	0.90	4.42	MC*OE
A	Male	18	14	62894	10.13	3.97	0.74	2.04	MC*OE
A	Female	18	14	60276	11.09	3.77	0.72	1.99	MC*OE
B	Male	20	15	62894	12.15	4.27	0.78	2.02	MC*OE
B	Female	20	15	60276	12.92	4.05	0.76	1.97	MC*OE
C	Male	12	1	62894	6.59	2.22			OE
C	Female	12	1	60276	7.61	1.97			OE
D	Male	18	18	62894	10.26	3.92	0.77	1.87	MC
D	Female	18	18	60276	11.10	3.82	0.77	1.84	MC
E	Male	16	1	62894	6.50	3.27			OE
E	Female	16	1	60276	7.84	3.35			OE

	Ethnicity	Total Points	N Items	N	Mean	STD	r	SEM	Item Type(s)
Total	White	84	49	82740	51.00	13.45	0.89	4.36	MC*OE
Total	African American	84	49	17609	38.65	13.23	0.89	4.45	MC*OE
Total	Hispanic	84	49	13324	40.34	13.93	0.90	4.42	MC*OE
Total	Asian	84	49	4790	55.23	13.57	0.90	4.37	MC*OE
Total	American Indian	84	49	186	45.26	15.11	0.92	4.38	MC*OE
Total	Pacific Islander	84	49	83	48.58	14.95	0.92	4.34	MC*OE
Total	Multiple Ethnicities	84	49	4438	45.75	14.52	0.91	4.41	MC*OE
A	White	18	14	82740	11.30	3.70	0.71	1.98	MC*OE
A	African American	18	14	17609	8.38	3.69	0.68	2.08	MC*OE
A	Hispanic	18	14	13324	8.81	3.83	0.71	2.08	MC*OE

	Ethnicity	Total Points	N Items	N	Mean	STD	r	SEM	Item Type(s)
A	Asian	18	14	4790	12.06	3.57	0.71	1.92	MC*OE
A	American Indian	18	14	186	9.97	3.97	0.74	2.03	MC*OE
A	Pacific Islander	18	14	83	10.52	3.82	0.72	2.02	MC*OE
A	Multiple Ethnicities	18	14	4438	10.13	3.90	0.73	2.04	MC*OE
B	White	20	15	82740	13.31	3.94	0.75	1.96	MC*OE
B	African American	20	15	17609	10.06	3.95	0.73	2.06	MC*OE
B	Hispanic	20	15	13324	10.57	4.09	0.75	2.06	MC*OE
B	Asian	20	15	4790	14.19	3.70	0.73	1.90	MC*OE
B	American Indian	20	15	186	11.91	4.54	0.82	1.95	MC*OE
B	Pacific Islander	20	15	83	12.70	4.23	0.79	1.94	MC*OE
B	Multiple Ethnicities	20	15	4438	11.93	4.18	0.77	2.02	MC*OE
C	White	12	1	82740	7.36	2.05			OE
C	African American	12	1	17609	6.20	2.27			OE
C	Hispanic	12	1	13324	6.36	2.25			OE
C	Asian	12	1	4790	7.90	1.94			OE
C	American Indian	12	1	186	6.68	2.28			OE
C	Pacific Islander	12	1	83	7.30	2.05			OE
C	Multiple Ethnicities	12	1	4438	6.83	2.19			OE
D	White	18	18	82740	11.41	3.70	0.76	1.83	MC
D	African American	18	18	17609	8.34	3.49	0.69	1.93	MC
D	Hispanic	18	18	13324	8.76	3.69	0.73	1.92	MC
D	Asian	18	18	4790	12.36	3.71	0.78	1.75	MC
D	American Indian	18	18	186	10.17	3.99	0.78	1.88	MC
D	Pacific Islander	18	18	83	10.88	3.81	0.76	1.86	MC
D	Multiple Ethnicities	18	18	4438	10.06	3.91	0.77	1.88	MC
E	White	16	1	82740	7.62	3.27			OE
E	African American	16	1	17609	5.67	3.15			OE

	Ethnicity	Total Points	N Items	N	Mean	STD	r	SEM	Item Type(s)
E	Hispanic	16	1	13324	5.84	3.23			OE
E	Asian	16	1	4790	8.72	3.55			OE
E	American Indian	16	1	186	6.54	3.32			OE
E	Pacific Islander	16	1	83	7.18	3.63			OE
E	Multiple Ethnicities	16	1	4438	6.81	3.38			OE

	IEP	Total Points	N Items	N	Mean	STD	r	SEM	Item Type(s)
Total	Y	84	49	20241	33.56	12.58	0.88	4.36	MC*OE
A	Y	18	14	20241	7.27	3.55	0.66	2.06	MC*OE
B	Y	20	15	20241	8.87	3.88	0.71	2.08	MC*OE
C	Y	12	1	20241	5.43	2.22			OE
D	Y	18	18	20241	7.34	3.39	0.67	1.94	MC
E	Y	16	1	20241	4.64	2.94			OE

	ELL	Total Points	N Items	N	Mean	STD	r	SEM	Item Type(s)
Total	Y	80	49	3052	28.50	9.71	0.80	4.30	MC*OE
A	Y	18	14	3052	5.93	2.74	0.46	2.01	MC*OE
B	Y	20	15	3052	7.53	3.00	0.53	2.05	MC*OE
C	Y	12	1	3052	5.25	2.25			OE
D	Y	18	18	3052	6.01	2.58	0.45	1.91	MC
E	Y	12	1	3052	3.77	2.85			OE

	Low Income	Total Points	N Items	N	Mean	STD	r	SEM	Item Type(s)
Total	Y	84	49	56838	41.96	13.85	0.90	4.43	MC*OE
A	Y	18	14	56838	9.20	3.82	0.70	2.08	MC*OE
B	Y	20	15	56838	10.95	4.12	0.75	2.06	MC*OE
C	Y	12	1	56838	6.50	2.22			OE
D	Y	18	18	56838	9.20	3.73	0.74	1.91	MC
E	Y	16	1	56838	6.11	3.18			OE

Grade 7 English Language Arts

	Overall	Total Points	N Items	N	Mean	STD	r	SEM	Item Type(s)
Total	All	84	49	125744	47.07	14.97	0.92	4.36	MC*OE
A	All	19	14	125744	11.19	4.25	0.76	2.08	MC*OE
B	All	19	15	125744	11.11	4.30	0.79	1.98	MC*OE
C	All	12	1	125744	7.38	2.23			OE
D	All	18	18	125744	11.03	3.80	0.78	1.80	MC
E	All	16	1	125744	6.37	3.26			OE

	Gender	Total Points	N Items	N	Mean	STD	r	SEM	Item Type(s)
Total	Male	84	49	64546	44.62	14.92	0.92	4.32	MC*OE
Total	Female	84	49	61198	49.66	14.57	0.91	4.39	MC*OE
A	Male	19	14	64546	10.84	4.28	0.76	2.09	MC*OE
A	Female	19	14	61198	11.56	4.18	0.76	2.06	MC*OE
B	Male	19	15	64546	10.66	4.34	0.79	1.99	MC*OE
B	Female	19	15	61198	11.58	4.21	0.78	1.97	MC*OE
C	Male	12	1	64546	6.87	2.25			OE
C	Female	12	1	61198	7.92	2.09			OE
D	Male	18	18	64546	10.54	3.85	0.77	1.83	MC
D	Female	18	18	61198	11.54	3.68	0.77	1.78	MC
E	Male	16	1	64546	5.71	3.10			OE
E	Female	16	1	61198	7.06	3.29			OE

	Ethnicity	Total Points	N Items	N	Mean	STD	r	SEM	Item Type(s)
Total	White	84	49	85770	49.81	14.01	0.90	4.33	MC*OE
Total	African American	84	49	17539	37.40	13.47	0.89	4.39	MC*OE
Total	Hispanic	84	49	13229	39.20	14.04	0.90	4.38	MC*OE
Total	Asian	84	49	4968	56.51	14.27	0.91	4.27	MC*OE
Total	American Indian	80	49	179	42.77	15.03	0.91	4.60	MC*OE
Total	Pacific Islander	84	49	98	50.68	13.87	0.89	4.51	MC*OE
Total	Multiple Ethnicities	84	49	3961	45.11	15.00	0.92	4.37	MC*OE
A	White	19	14	85770	11.92	4.05	0.74	2.05	MC*OE
A	African American	19	14	17539	8.69	3.86	0.70	2.12	MC*OE
A	Hispanic	19	14	13229	9.09	3.96	0.71	2.11	MC*OE
A	Asian	19	14	4968	13.33	4.05	0.77	1.96	MC*OE

	Ethnicity	Total Points	N Items	N	Mean	STD	r	SEM	Item Type(s)
A	American Indian	19	14	179	9.92	4.08	0.73	2.13	MC*OE
A	Pacific Islander	19	14	98	12.22	4.18	0.76	2.04	MC*OE
A	Multiple Ethnicities	19	14	3961	10.71	4.25	0.76	2.10	MC*OE
B	White	19	15	85770	11.75	4.11	0.77	1.96	MC*OE
B	African American	19	15	17539	8.74	3.99	0.74	2.02	MC*OE
B	Hispanic	19	15	13229	9.21	4.14	0.76	2.02	MC*OE
B	Asian	19	15	4968	13.72	3.87	0.77	1.84	MC*OE
B	American Indian	19	15	179	10.15	4.16	0.76	2.02	MC*OE
B	Pacific Islander	19	15	98	11.78	4.04	0.76	1.98	MC*OE
B	Multiple Ethnicities	19	15	3961	10.58	4.34	0.79	1.99	MC*OE
C	White	12	1	85770	7.65	2.10			OE
C	African American	12	1	17539	6.38	2.35			OE
C	Hispanic	12	1	13229	6.59	2.32			OE
C	Asian	12	1	4968	8.42	2.14			OE
C	American Indian	12	1	179	6.97	2.33			OE
C	Pacific Islander	12	1	98	8.05	1.96			OE
C	Multiple Ethnicities	12	1	3961	7.23	2.30			OE
D	White	18	18	85770	11.71	3.60	0.76	1.77	MC
D	African American	18	18	17539	8.73	3.50	0.71	1.90	MC
D	Hispanic	18	18	13229	9.16	3.64	0.73	1.89	MC
D	Asian	18	18	4968	12.87	3.54	0.78	1.66	MC
D	American Indian	18	18	179	10.03	3.96	0.78	1.84	MC
D	Pacific Islander	18	18	98	11.82	3.66	0.77	1.75	MC
D	Multiple Ethnicities	18	18	3961	10.50	3.81	0.77	1.83	MC
E	White	16	1	85770	6.78	3.18			OE
E	African American	16	1	17539	4.86	2.94			OE
E	Hispanic	16	1	13229	5.14	3.05			OE
E	Asian	16	1	4968	8.16	3.47			OE

	Ethnicity	Total Points	N Items	N	Mean	STD	r	SEM	Item Type(s)
E	American Indian	12	1	179	5.70	3.39			OE
E	Pacific Islander	16	1	98	6.82	3.00			OE
E	Multiple Ethnicities	16	1	3961	6.09	3.23			OE

	IEP	Total Points	N Items	N	Mean	STD	r	SEM	Item Type(s)
Total	Y	84	49	20249	32.61	12.23	0.88	4.28	MC*OE
A	Y	19	14	20249	7.88	3.67	0.68	2.09	MC*OE
B	Y	19	15	20249	7.49	3.67	0.70	2.00	MC*OE
C	Y	12	1	20249	5.57	2.26			OE
D	Y	18	18	20249	7.65	3.35	0.67	1.93	MC
E	Y	16	1	20249	4.01	2.64			OE

	ELL	Total Points	N Items	N	Mean	STD	r	SEM	Item Type(s)
Total	Y	84	49	3023	27.14	9.35	0.80	4.23	MC*OE
A	Y	19	14	3023	6.27	2.58	0.39	2.01	MC*OE
B	Y	19	15	3023	6.31	2.85	0.53	1.96	MC*OE
C	Y	12	1	3023	5.02	2.41			OE
D	Y	18	18	3023	6.29	2.62	0.46	1.93	MC
E	Y	16	1	3023	3.24	2.59			OE

	Low Income	Total Points	N Items	N	Mean	STD	r	SEM	Item Type(s)
Total	Y	84	49	56446	40.82	14.09	0.90	4.38	MC*OE
A	Y	19	14	56446	9.65	4.07	0.73	2.11	MC*OE
B	Y	19	15	56446	9.51	4.15	0.76	2.02	MC*OE
C	Y	12	1	56446	6.72	2.27			OE
D	Y	18	18	56446	9.58	3.66	0.74	1.88	MC
E	Y	16	1	56446	5.36	3.04			OE

Grade 8 English Language Arts

	Overall	Total Points	N Items	N	Mean	STD	r	SEM	Item Type(s)
Total	All	84	49	123653	49.05	14.65	0.91	4.28	MC*OE
A	All	18	15	123653	11.17	3.78	0.74	1.92	MC*OE
B	All	20	14	123653	11.91	4.11	0.74	2.10	MC*OE
C	All	12	1	123653	7.31	2.55			OE
D	All	18	18	123653	10.91	3.64	0.76	1.77	MC
E	All	16	1	123653	7.75	3.43			OE

	Gender	Total Points	N Items	N	Mean	STD	r	SEM	Item Type(s)
Total	Male	84	49	63242	46.23	14.69	0.92	4.26	MC*OE
Total	Female	84	49	60411	52.00	14.01	0.91	4.29	MC*OE
A	Male	18	15	63242	10.65	3.87	0.75	1.93	MC*OE
A	Female	18	15	60411	11.70	3.61	0.73	1.89	MC*OE
B	Male	20	14	63242	11.57	4.18	0.75	2.11	MC*OE
B	Female	20	14	60411	12.27	4.00	0.73	2.09	MC*OE
C	Male	12	1	63242	6.75	2.57			OE
C	Female	12	1	60411	7.89	2.40			OE
D	Male	18	18	63242	10.32	3.63	0.75	1.80	MC
D	Female	18	18	60411	11.53	3.55	0.76	1.74	MC
E	Male	16	1	63242	6.94	3.31			OE
E	Female	16	1	60411	8.60	3.35			OE

	Ethnicity	Total Points	N Items	N	Mean	STD	r	SEM	Item Type(s)
Total	White	84	49	85417	51.71	13.65	0.90	4.25	MC*OE
Total	African American	84	49	17403	39.67	13.57	0.90	4.36	MC*OE
Total	Hispanic	84	49	12427	41.28	14.08	0.91	4.33	MC*OE
Total	Asian	84	49	4725	57.43	14.02	0.91	4.15	MC*OE
Total	American Indian	84	49	167	47.95	14.18	0.91	4.27	MC*OE
Total	Pacific Islander	84	49	93	52.84	13.78	0.90	4.36	MC*OE
Total	Multiple Ethnicities	84	49	3421	46.97	14.70	0.91	4.34	MC*OE
A	White	18	15	85417	11.78	3.54	0.72	1.89	MC*OE
A	African American	18	15	17403	9.10	3.75	0.72	1.98	MC*OE
A	Hispanic	18	15	12427	9.38	3.82	0.73	1.98	MC*OE
A	Asian	18	15	4725	12.64	3.56	0.74	1.80	MC*OE

	Ethnicity	Total Points	N Items	N	Mean	STD	r	SEM	Item Type(s)
A	American Indian	18	15	167	10.63	3.68	0.73	1.92	MC*OE
A	Pacific Islander	18	15	93	11.77	3.96	0.77	1.89	MC*OE
A	Multiple Ethnicities	18	15	3421	10.83	3.82	0.74	1.93	MC*OE
B	White	20	14	85417	12.60	3.93	0.72	2.09	MC*OE
B	African American	20	14	17403	9.51	3.75	0.67	2.14	MC*OE
B	Hispanic	20	14	12427	9.99	3.87	0.70	2.14	MC*OE
B	Asian	20	14	4725	13.75	3.94	0.74	2.00	MC*OE
B	American Indian	20	14	167	11.60	4.12	0.73	2.12	MC*OE
B	Pacific Islander	20	14	93	12.51	3.80	0.69	2.12	MC*OE
B	Multiple Ethnicities	20	14	3421	11.34	4.17	0.74	2.11	MC*OE
C	White	12	1	85417	7.63	2.43			OE
C	African American	12	1	17403	6.11	2.57			OE
C	Hispanic	12	1	12427	6.32	2.54			OE
C	Asian	12	1	4725	8.59	2.38			OE
C	American Indian	12	1	167	7.44	2.28			OE
C	Pacific Islander	12	1	93	8.03	2.39			OE
C	Multiple Ethnicities	12	1	3421	6.98	2.62			OE
D	White	18	18	85417	11.51	3.48	0.75	1.74	MC
D	African American	18	18	17403	8.81	3.33	0.68	1.87	MC
D	Hispanic	18	18	12427	9.20	3.48	0.72	1.85	MC
D	Asian	18	18	4725	12.67	3.40	0.77	1.63	MC
D	American Indian	18	18	167	10.61	3.76	0.78	1.77	MC
D	Pacific Islander	18	18	93	11.84	3.37	0.74	1.72	MC
D	Multiple Ethnicities	18	18	3421	10.40	3.62	0.75	1.80	MC
E	White	16	1	85417	8.18	3.30			OE
E	African American	16	1	17403	6.14	3.28			OE
E	Hispanic	16	1	12427	6.38	3.34			OE

	Ethnicity	Total Points	N Items	N	Mean	STD	r	SEM	Item Type(s)
E	Asian	16	1	4725	9.78	3.42			OE
E	American Indian	16	1	167	7.66	3.27			OE
E	Pacific Islander	16	1	93	8.69	3.21			OE
E	Multiple Ethnicities	16	1	3421	7.42	3.44			OE

	IEP	Total Points	N Items	N	Mean	STD	r	SEM	Item Type(s)
Total	Y	84	49	19371	34.17	12.10	0.88	4.24	MC*OE
A	Y	18	15	19371	7.78	3.50	0.68	1.98	MC*OE
B	Y	20	14	19371	8.62	3.59	0.65	2.14	MC*OE
C	Y	12	1	19371	5.23	2.38			OE
D	Y	18	18	19371	7.65	3.17	0.64	1.91	MC
E	Y	16	1	19371	4.90	2.80			OE

	ELL	Total Points	N Items	N	Mean	STD	r	SEM	Item Type(s)
Total	Y	84	49	3044	29.24	9.77	0.81	4.24	MC*OE
A	Y	18	15	3044	6.27	2.85	0.52	1.97	MC*OE
B	Y	20	14	3044	7.30	2.75	0.42	2.10	MC*OE
C	Y	12	1	3044	4.86	2.32			OE
D	Y	18	18	3044	6.62	2.63	0.47	1.92	MC
E	Y	16	1	3044	4.20	2.79			OE

	Low Income	Total Points	N Items	N	Mean	STD	r	SEM	Item Type(s)
Total	Y	84	49	53953	43.01	14.10	0.91	4.33	MC*OE
A	Y	18	15	53953	9.86	3.82	0.74	1.97	MC*OE
B	Y	20	14	53953	10.41	3.96	0.71	2.14	MC*OE
C	Y	12	1	53953	6.53	2.54			OE
D	Y	18	18	53953	9.56	3.51	0.72	1.84	MC
E	Y	16	1	53953	6.64	3.30			OE

Grade 3 Mathematics

	Overall	Total Points	N Items	N	Mean	STD	r	SEM	Item Type(s)
Total	All	72	63	125205	42.41	15.90	0.95	3.65	MC*OE
A	All	22	19	125205	12.04	5.29	0.85	2.03	MC*OE
B	All	20	20	125205	13.74	4.91	0.87	1.76	MC
C	All	10	7	125205	5.60	2.43	0.67	1.40	MC*OE
D	All	20	17	125205	11.03	4.64	0.81	2.01	MC*OE

	Gender	Total Points	N Items	N	Mean	STD	r	SEM	Item Type(s)
Total	Male	72	63	63941	42.63	16.09	0.95	3.63	MC*OE
Total	Female	72	63	61264	42.17	15.69	0.95	3.67	MC*OE
A	Male	22	19	63941	12.17	5.33	0.86	2.02	MC*OE
A	Female	22	19	61264	11.90	5.25	0.85	2.04	MC*OE
B	Male	20	20	63941	13.78	4.95	0.87	1.75	MC
B	Female	20	20	61264	13.69	4.87	0.87	1.78	MC
C	Male	10	7	63941	5.55	2.46	0.67	1.41	MC*OE
C	Female	10	7	61264	5.65	2.39	0.66	1.40	MC*OE
D	Male	20	17	63941	11.13	4.69	0.82	1.99	MC*OE
D	Female	20	17	61264	10.93	4.59	0.81	2.03	MC*OE

	Ethnicity	Total Points	N Items	N	Mean	STD	r	SEM	Item Type(s)
Total	White	72	63	81138	46.21	14.60	0.94	3.59	MC*OE
Total	African American	72	63	18785	30.91	13.90	0.93	3.74	MC*OE
Total	Hispanic	72	63	14468	34.11	14.70	0.94	3.74	MC*OE
Total	Asian	72	63	4686	51.72	14.31	0.94	3.39	MC*OE
Total	American Indian	72	63	194	37.55	15.11	0.94	3.71	MC*OE
Total	Pacific Islander	72	63	90	44.21	16.33	0.95	3.60	MC*OE
Total	Multiple Ethnicities	72	63	5844	39.76	15.80	0.95	3.69	MC*OE
A	White	22	19	81138	13.26	4.96	0.84	2.01	MC*OE
A	African American	22	19	18785	8.36	4.45	0.80	2.00	MC*OE
A	Hispanic	22	19	14468	9.36	4.74	0.82	2.03	MC*OE
A	Asian	22	19	4686	15.05	5.05	0.85	1.93	MC*OE
A	American Indian	22	19	194	10.52	5.11	0.84	2.02	MC*OE

	Ethnicity	Total Points	N Items	N	Mean	STD	r	SEM	Item Type(s)
A	Pacific Islander	22	19	90	12.52	5.51	0.86	2.04	MC*OE
A	Multiple Ethnicities	22	19	5844	11.19	5.23	0.85	2.02	MC*OE
B	White	20	20	81138	14.74	4.48	0.86	1.70	MC
B	African American	20	20	18785	10.67	4.84	0.84	1.95	MC
B	Hispanic	20	20	14468	11.47	4.95	0.85	1.91	MC
B	Asian	20	20	4686	16.56	3.83	0.86	1.45	MC
B	American Indian	20	20	194	12.34	4.67	0.83	1.92	MC
B	Pacific Islander	20	20	90	14.29	4.80	0.87	1.73	MC
B	Multiple Ethnicities	20	20	5844	13.00	4.99	0.87	1.82	MC
C	White	10	7	81138	6.08	2.29	0.64	1.37	MC*OE
C	African American	10	7	18785	4.12	2.22	0.60	1.40	MC*OE
C	Hispanic	10	7	14468	4.56	2.30	0.62	1.41	MC*OE
C	Asian	10	7	4686	6.70	2.36	0.68	1.34	MC*OE
C	American Indian	10	7	194	5.06	2.30	0.62	1.42	MC*OE
C	Pacific Islander	10	7	90	5.87	2.36	0.69	1.31	MC*OE
C	Multiple Ethnicities	10	7	5844	5.31	2.40	0.66	1.41	MC*OE
D	White	20	17	81138	12.12	4.32	0.79	1.98	MC*OE
D	African American	20	17	18785	7.76	4.01	0.74	2.03	MC*OE
D	Hispanic	20	17	14468	8.74	4.25	0.77	2.04	MC*OE
D	Asian	20	17	4686	13.42	4.36	0.80	1.94	MC*OE
D	American Indian	20	17	194	9.64	4.36	0.79	2.00	MC*OE
D	Pacific Islander	20	17	90	11.53	4.90	0.83	2.00	MC*OE
D	Multiple Ethnicities	20	17	5844	10.26	4.58	0.80	2.03	MC*OE

	IEP	Total Points	N Items	N	Mean	STD	r	SEM	Item Type(s)
Total	Y	72	63	19858	31.71	15.34	0.94	3.72	MC*OE
A	Y	22	19	19858	8.87	4.94	0.84	2.00	MC*OE
B	Y	20	20	19858	10.35	5.06	0.85	1.93	MC
C	Y	10	7	19858	4.18	2.34	0.64	1.41	MC*OE
D	Y	20	17	19858	8.31	4.42	0.79	2.01	MC*OE

	ELL	Total Points	N Items	N	Mean	STD	r	SEM	Item Type(s)
Total	Y	72	63	4516	29.49	13.22	0.92	3.73	MC*OE
A	Y	22	19	4516	7.96	4.25	0.78	1.99	MC*OE
B	Y	20	20	4516	10.21	4.70	0.83	1.96	MC
C	Y	10	7	4516	3.83	2.12	0.56	1.40	MC*OE
D	Y	20	17	4516	7.50	3.84	0.72	2.02	MC*OE

	Low Income	Total Points	N Items	N	Mean	STD	r	SEM	Item Type(s)
Total	Y	72	63	62388	36.01	15.08	0.94	3.73	MC*OE
A	Y	22	19	62388	10.01	4.92	0.83	2.03	MC*OE
B	Y	20	20	62388	11.98	4.96	0.85	1.89	MC
C	Y	10	7	62388	4.76	2.33	0.63	1.41	MC*OE
D	Y	20	17	62388	9.26	4.38	0.78	2.04	MC*OE

Grade 4 Mathematics

	Overall	Total Points	N Items	N	Mean	STD	r	SEM	Item Type(s)
Total	All	72	63	125575	40.54	15.14	0.94	3.79	MC*OE
A	All	30	27	125575	17.28	6.61	0.87	2.36	MC*OE
B	All	19	16	125575	11.42	4.51	0.79	2.04	MC*OE
C	All	10	10	125575	5.90	2.50	0.69	1.38	MC
D	All	13	10	125575	5.93	3.00	0.71	1.62	MC*OE

	Gender	Total Points	N Items	N	Mean	STD	r	SEM	Item Type(s)
Total	Male	72	63	64011	40.91	15.52	0.94	3.79	MC*OE
Total	Female	72	63	61564	40.15	14.72	0.93	3.79	MC*OE
A	Male	30	27	64011	17.53	6.78	0.88	2.35	MC*OE
A	Female	30	27	61564	17.02	6.41	0.86	2.38	MC*OE
B	Male	19	16	64011	11.48	4.57	0.80	2.05	MC*OE
B	Female	19	16	61564	11.36	4.45	0.79	2.04	MC*OE
C	Male	10	10	64011	5.92	2.53	0.70	1.38	MC
C	Female	10	10	61564	5.88	2.48	0.69	1.39	MC
D	Male	13	10	64011	5.98	3.10	0.72	1.64	MC*OE
D	Female	13	10	61564	5.88	2.89	0.69	1.60	MC*OE

	Ethnicity	Total Points	N Items	N	Mean	STD	r	SEM	Item Type(s)
Total	White	72	63	81878	44.02	14.13	0.93	3.75	MC*OE
Total	African American	72	63	18573	29.35	12.46	0.91	3.80	MC*OE
Total	Hispanic	72	63	14376	32.99	13.51	0.92	3.83	MC*OE
Total	Asian	72	63	4867	50.21	14.15	0.93	3.62	MC*OE
Total	American Indian	72	63	193	38.13	14.86	0.93	3.81	MC*OE
Total	Pacific Islander	72	63	111	41.95	14.38	0.93	3.72	MC*OE
Total	Multiple Ethnicities	72	63	5577	37.71	14.95	0.93	3.83	MC*OE
A	White	30	27	81878	18.69	6.22	0.86	2.33	MC*OE
A	African American	30	27	18573	12.70	5.59	0.81	2.41	MC*OE
A	Hispanic	30	27	14376	14.18	5.96	0.84	2.41	MC*OE
A	Asian	30	27	4867	21.45	6.10	0.87	2.22	MC*OE
A	American Indian	30	27	193	16.33	6.65	0.87	2.36	MC*OE
A	Pacific Islander	30	27	111	18.14	6.18	0.86	2.33	MC*OE

	Ethnicity	Total Points	N Items	N	Mean	STD	r	SEM	Item Type(s)
A	Multiple Ethnicities	30	27	5577	16.13	6.58	0.87	2.39	MC*OE
B	White	19	16	81878	12.34	4.18	0.77	1.98	MC*OE
B	African American	19	16	18573	8.46	4.18	0.75	2.11	MC*OE
B	Hispanic	19	16	14376	9.43	4.35	0.76	2.12	MC*OE
B	Asian	19	16	4867	14.06	4.04	0.79	1.85	MC*OE
B	American Indian	19	16	193	10.60	4.43	0.78	2.08	MC*OE
B	Pacific Islander	19	16	111	11.87	4.30	0.78	2.00	MC*OE
B	Multiple Ethnicities	19	16	5577	10.71	4.51	0.78	2.09	MC*OE
C	White	10	10	81878	6.39	2.39	0.68	1.36	MC
C	African American	10	10	18573	4.35	2.16	0.55	1.45	MC
C	Hispanic	10	10	14376	4.86	2.37	0.63	1.44	MC
C	Asian	10	10	4867	7.16	2.38	0.72	1.25	MC
C	American Indian	10	10	193	5.62	2.44	0.66	1.42	MC
C	Pacific Islander	10	10	111	6.02	2.55	0.72	1.35	MC
C	Multiple Ethnicities	10	10	5577	5.51	2.50	0.68	1.40	MC
D	White	13	10	81878	6.60	2.90	0.67	1.66	MC*OE
D	African American	13	10	18573	3.83	2.27	0.61	1.41	MC*OE
D	Hispanic	13	10	14376	4.53	2.50	0.65	1.48	MC*OE
D	Asian	13	10	4867	7.54	3.06	0.66	1.78	MC*OE
D	American Indian	13	10	193	5.58	2.90	0.70	1.59	MC*OE
D	Pacific Islander	13	10	111	5.92	2.83	0.68	1.60	MC*OE
D	Multiple Ethnicities	13	10	5577	5.36	2.87	0.69	1.59	MC*OE

	IEP	Total Points	N Items	N	Mean	STD	r	SEM	Item Type(s)
Total	Y	72	63	20985	29.85	13.93	0.92	3.82	MC*OE
A	Y	30	27	20985	12.83	6.16	0.85	2.41	MC*OE
B	Y	19	16	20985	8.31	4.38	0.77	2.11	MC*OE
C	Y	10	10	20985	4.47	2.35	0.63	1.43	MC
D	Y	13	10	20985	4.24	2.60	0.67	1.49	MC*OE

	ELL	Total Points	N Items	N	Mean	STD	r	SEM	Item Type(s)
Total	Y	72	63	3762	25.94	10.57	0.87	3.76	MC*OE
A	Y	30	27	3762	11.45	4.92	0.77	2.38	MC*OE
B	Y	19	16	3762	7.15	3.62	0.67	2.08	MC*OE
C	Y	10	10	3762	3.85	2.03	0.49	1.45	MC
D	Y	13	10	3762	3.49	1.95	0.49	1.39	MC*OE

	Low Income	Total Points	N Items	N	Mean	STD	r	SEM	Item Type(s)
Total	Y	72	63	61408	34.32	13.96	0.92	3.83	MC*OE
A	Y	30	27	61408	14.72	6.18	0.85	2.41	MC*OE
B	Y	19	16	61408	9.77	4.39	0.77	2.11	MC*OE
C	Y	10	10	61408	5.04	2.38	0.64	1.43	MC
D	Y	13	10	61408	4.78	2.63	0.67	1.51	MC*OE

Grade 5 Mathematics

	Overall	Total Points	N Items	N	Mean	STD	r	SEM	Item Type(s)
Total	All	72	63	124405	37.65	15.33	0.94	3.81	MC*OE
A	All	37	31	124405	18.82	8.03	0.88	2.78	MC*OE
B	All	11	11	124405	6.07	2.53	0.70	1.39	MC
C	All	11	11	124405	7.29	2.69	0.74	1.37	MC
D	All	13	10	124405	5.48	3.43	0.76	1.68	MC*OE

	Gender	Total Points	N Items	N	Mean	STD	r	SEM	Item Type(s)
Total	Male	72	63	63460	37.61	15.77	0.94	3.81	MC*OE
Total	Female	72	63	60945	37.70	14.87	0.93	3.80	MC*OE
A	Male	37	31	63460	18.77	8.29	0.89	2.78	MC*OE
A	Female	37	31	60945	18.87	7.76	0.87	2.78	MC*OE
B	Male	11	11	63460	6.05	2.60	0.71	1.40	MC
B	Female	11	11	60945	6.09	2.47	0.69	1.38	MC
C	Male	11	11	63460	7.22	2.74	0.75	1.37	MC
C	Female	11	11	60945	7.36	2.63	0.73	1.37	MC
D	Male	13	10	63460	5.57	3.48	0.77	1.67	MC*OE
D	Female	13	10	60945	5.38	3.39	0.75	1.68	MC*OE

	Ethnicity	Total Points	N Items	N	Mean	STD	r	SEM	Item Type(s)
Total	White	72	63	82384	40.97	14.67	0.93	3.78	MC*OE
Total	African American	72	63	17931	26.39	11.49	0.89	3.75	MC*OE
Total	Hispanic	72	63	13983	30.05	12.85	0.91	3.78	MC*OE
Total	Asian	72	63	4814	47.83	15.46	0.94	3.63	MC*OE
Total	American Indian	72	63	177	35.08	14.87	0.94	3.79	MC*OE
Total	Pacific Islander	72	63	114	38.35	14.92	0.93	3.84	MC*OE
Total	Multiple Ethnicities	72	63	5002	34.92	14.90	0.93	3.81	MC*OE
A	White	37	31	82384	20.41	7.79	0.87	2.77	MC*OE
A	African American	37	31	17931	13.29	6.11	0.80	2.73	MC*OE
A	Hispanic	37	31	13983	15.15	6.73	0.83	2.75	MC*OE
A	Asian	37	31	4814	24.24	8.09	0.89	2.65	MC*OE
A	American Indian	37	31	177	17.72	7.91	0.88	2.78	MC*OE
A	Pacific Islander	37	31	114	19.26	7.82	0.87	2.77	MC*OE

	Ethnicity	Total Points	N Items	N	Mean	STD	r	SEM	Item Type(s)
A	Multiple Ethnicities	37	31	5002	17.50	7.77	0.87	2.79	MC*OE
B	White	11	11	82384	6.52	2.45	0.69	1.37	MC
B	African American	11	11	17931	4.55	2.16	0.54	1.46	MC
B	Hispanic	11	11	13983	5.01	2.28	0.60	1.44	MC
B	Asian	11	11	4814	7.50	2.46	0.73	1.28	MC
B	American Indian	11	11	177	5.85	2.46	0.68	1.40	MC
B	Pacific Islander	11	11	114	6.11	2.42	0.67	1.40	MC
B	Multiple Ethnicities	11	11	5002	5.68	2.51	0.68	1.41	MC
C	White	11	11	82384	7.91	2.40	0.70	1.32	MC
C	African American	11	11	17931	5.29	2.59	0.67	1.49	MC
C	Hispanic	11	11	13983	5.98	2.66	0.70	1.47	MC
C	Asian	11	11	4814	8.40	2.41	0.74	1.23	MC
C	American Indian	11	11	177	6.73	2.79	0.75	1.41	MC
C	Pacific Islander	11	11	114	7.25	2.65	0.74	1.36	MC
C	Multiple Ethnicities	11	11	5002	6.82	2.74	0.74	1.41	MC
D	White	13	10	82384	6.14	3.40	0.75	1.69	MC*OE
D	African American	13	10	17931	3.25	2.37	0.60	1.49	MC*OE
D	Hispanic	13	10	13983	3.91	2.78	0.69	1.56	MC*OE
D	Asian	13	10	4814	7.68	3.67	0.79	1.68	MC*OE
D	American Indian	13	10	177	4.77	3.11	0.73	1.60	MC*OE
D	Pacific Islander	13	10	114	5.74	3.48	0.75	1.76	MC*OE
D	Multiple Ethnicities	13	10	5002	4.92	3.28	0.75	1.64	MC*OE

	IEP	Total Points	N Items	N	Mean	STD	r	SEM	Item Type(s)
Total	Y	72	63	20810	26.38	12.57	0.91	3.75	MC*OE
A	Y	37	31	20810	13.19	6.60	0.83	2.72	MC*OE
B	Y	11	11	20810	4.44	2.25	0.58	1.46	MC
C	Y	11	11	20810	5.30	2.67	0.69	1.48	MC
D	Y	13	10	20810	3.45	2.65	0.67	1.52	MC*OE

	ELL	Total Points	N Items	N	Mean	STD	r	SEM	Item Type(s)
Total	Y	72	63	3436	22.72	8.85	0.83	3.67	MC*OE
A	Y	37	31	3436	11.73	4.87	0.70	2.65	MC*OE
B	Y	11	11	3436	3.95	1.87	0.39	1.47	MC
C	Y	11	11	3436	4.36	2.23	0.55	1.50	MC
D	Y	13	10	3436	2.68	1.92	0.46	1.40	MC*OE

	Low Income	Total Points	N Items	N	Mean	STD	r	SEM	Item Type(s)
Total	Y	72	63	59233	31.24	13.42	0.92	3.81	MC*OE
A	Y	37	31	59233	15.64	7.04	0.84	2.77	MC*OE
B	Y	11	11	59233	5.17	2.34	0.62	1.44	MC
C	Y	11	11	59233	6.26	2.70	0.71	1.45	MC
D	Y	13	10	59233	4.17	2.90	0.70	1.59	MC*OE

Grade 6 Mathematics

	Overall	Total Points	N Items	N	Mean	STD	r	SEM	Item Type(s)
Total	All	72	63	123112	36.72	15.17	0.94	3.81	MC*OE
A	All	27	24	123112	13.38	6.06	0.84	2.39	MC*OE
B	All	22	19	123112	12.26	5.16	0.84	2.08	MC*OE
C	All	10	10	123112	5.37	2.58	0.72	1.36	MC
D	All	13	10	123112	5.71	2.81	0.67	1.60	MC*OE

	Gender	Total Points	N Items	N	Mean	STD	r	SEM	Item Type(s)
Total	Male	72	63	62898	36.11	15.45	0.94	3.81	MC*OE
Total	Female	72	63	60214	37.36	14.84	0.93	3.80	MC*OE
A	Male	27	24	62898	13.22	6.10	0.85	2.39	MC*OE
A	Female	27	24	60214	13.55	6.03	0.84	2.39	MC*OE
B	Male	22	19	62898	12.01	5.31	0.84	2.10	MC*OE
B	Female	22	19	60214	12.52	4.99	0.83	2.05	MC*OE
C	Male	10	10	62898	5.29	2.63	0.73	1.35	MC
C	Female	10	10	60214	5.46	2.52	0.71	1.36	MC
D	Male	13	10	62898	5.58	2.84	0.68	1.60	MC*OE
D	Female	13	10	60214	5.84	2.77	0.66	1.61	MC*OE

	Ethnicity	Total Points	N Items	N	Mean	STD	r	SEM	Item Type(s)
Total	White	72	63	82674	39.82	14.56	0.93	3.80	MC*OE
Total	African American	72	63	17603	26.06	11.44	0.90	3.71	MC*OE
Total	Hispanic	72	63	13342	28.86	12.77	0.91	3.75	MC*OE
Total	Asian	72	63	4792	47.48	15.03	0.94	3.70	MC*OE
Total	American Indian	72	63	189	32.81	13.69	0.92	3.87	MC*OE
Total	Pacific Islander	72	63	83	36.61	15.30	0.94	3.83	MC*OE
Total	Multiple Ethnicities	72	63	4429	33.49	14.66	0.93	3.81	MC*OE
A	White	27	24	82674	14.53	5.88	0.83	2.40	MC*OE
A	African American	27	24	17603	9.43	4.69	0.76	2.30	MC*OE
A	Hispanic	27	24	13342	10.37	5.13	0.79	2.34	MC*OE
A	Asian	27	24	4792	17.65	6.07	0.85	2.31	MC*OE
A	American Indian	27	24	189	12.15	5.28	0.78	2.45	MC*OE
A	Pacific Islander	27	24	83	13.81	5.71	0.83	2.36	MC*OE

	Ethnicity	Total Points	N Items	N	Mean	STD	r	SEM	Item Type(s)
A	Multiple Ethnicities	27	24	4429	12.12	5.85	0.83	2.38	MC*OE
B	White	22	19	82674	13.24	4.93	0.82	2.07	MC*OE
B	African American	22	19	17603	8.93	4.34	0.79	2.00	MC*OE
B	Hispanic	22	19	13342	9.73	4.62	0.81	2.04	MC*OE
B	Asian	22	19	4792	15.66	4.79	0.82	2.05	MC*OE
B	American Indian	22	19	189	11.10	5.01	0.82	2.12	MC*OE
B	Pacific Islander	22	19	83	12.19	5.66	0.85	2.16	MC*OE
B	Multiple Ethnicities	22	19	4429	11.26	5.11	0.84	2.07	MC*OE
C	White	10	10	82674	5.84	2.51	0.72	1.33	MC
C	African American	10	10	17603	3.71	2.03	0.51	1.42	MC
C	Hispanic	10	10	13342	4.27	2.28	0.62	1.41	MC
C	Asian	10	10	4792	6.91	2.52	0.76	1.23	MC
C	American Indian	10	10	189	4.56	2.30	0.62	1.41	MC
C	Pacific Islander	10	10	83	5.22	2.36	0.64	1.41	MC
C	Multiple Ethnicities	10	10	4429	4.89	2.50	0.69	1.38	MC
D	White	13	10	82674	6.21	2.75	0.66	1.61	MC*OE
D	African American	13	10	17603	3.99	2.20	0.52	1.53	MC*OE
D	Hispanic	13	10	13342	4.48	2.41	0.58	1.55	MC*OE
D	Asian	13	10	4792	7.28	2.97	0.70	1.62	MC*OE
D	American Indian	13	10	189	5.00	2.66	0.65	1.57	MC*OE
D	Pacific Islander	13	10	83	5.40	2.85	0.70	1.56	MC*OE
D	Multiple Ethnicities	13	10	4429	5.21	2.70	0.65	1.60	MC*OE

	IEP	Total Points	N Items	N	Mean	STD	r	SEM	Item Type(s)
Total	Y	72	63	20206	24.08	11.23	0.89	3.69	MC*OE
A	Y	27	24	20206	8.63	4.48	0.74	2.27	MC*OE
B	Y	22	19	20206	7.91	4.18	0.77	2.02	MC*OE
C	Y	10	10	20206	3.72	2.10	0.55	1.41	MC
D	Y	13	10	20206	3.82	2.23	0.54	1.52	MC*OE

	ELL	Total Points	N Items	N	Mean	STD	r	SEM	Item Type(s)
Total	Y	72	63	3071	21.27	8.30	0.81	3.60	MC*OE
A	Y	27	24	3071	7.48	3.46	0.59	2.21	MC*OE
B	Y	22	19	3071	7.12	3.32	0.65	1.97	MC*OE
C	Y	10	10	3071	3.33	1.81	0.39	1.41	MC
D	Y	13	10	3071	3.34	1.86	0.37	1.47	MC*OE

	Low Income	Total Points	N Items	N	Mean	STD	r	SEM	Item Type(s)
Total	Y	72	63	56783	30.33	13.25	0.92	3.77	MC*OE
A	Y	27	24	56783	10.96	5.34	0.81	2.35	MC*OE
B	Y	22	19	56783	10.21	4.74	0.81	2.04	MC*OE
C	Y	10	10	56783	4.44	2.33	0.64	1.41	MC
D	Y	13	10	56783	4.72	2.48	0.60	1.57	MC*OE

Grade 7 Mathematics

	Overall	Total Points	N Items	N	Mean	STD	r	SEM	Item Type(s)
Total	All	72	63	125584	36.21	15.99	0.95	3.69	MC*OE
A	All	30	27	125584	16.30	7.05	0.89	2.33	MC*OE
B	All	18	15	125584	8.10	4.27	0.80	1.89	MC*OE
C	All	13	10	125584	5.63	3.08	0.73	1.59	MC*OE
D	All	11	11	125584	6.19	2.87	0.76	1.42	MC

	Gender	Total Points	N Items	N	Mean	STD	r	SEM	Item Type(s)
Total	Male	72	63	64472	35.68	16.29	0.95	3.67	MC*OE
Total	Female	72	63	61112	36.77	15.66	0.94	3.70	MC*OE
A	Male	30	27	64472	15.93	7.21	0.90	2.32	MC*OE
A	Female	30	27	61112	16.68	6.85	0.88	2.33	MC*OE
B	Male	18	15	64472	8.02	4.29	0.81	1.87	MC*OE
B	Female	18	15	61112	8.18	4.24	0.80	1.91	MC*OE
C	Male	13	10	64472	5.56	3.12	0.74	1.59	MC*OE
C	Female	13	10	61112	5.71	3.04	0.72	1.59	MC*OE
D	Male	11	11	64472	6.17	2.90	0.76	1.42	MC
D	Female	11	11	61112	6.21	2.84	0.75	1.42	MC

	Ethnicity	Total Points	N Items	N	Mean	STD	r	SEM	Item Type(s)
Total	White	72	63	85676	39.13	15.44	0.94	3.67	MC*OE
Total	African American	72	63	17485	25.40	11.98	0.91	3.65	MC*OE
Total	Hispanic	72	63	13235	27.69	13.18	0.92	3.68	MC*OE
Total	Asian	72	63	4970	48.93	15.96	0.95	3.50	MC*OE
Total	American Indian	72	63	176	33.65	15.42	0.94	3.74	MC*OE
Total	Pacific Islander	72	63	97	38.08	15.52	0.94	3.73	MC*OE
Total	Multiple Ethnicities	72	63	3945	33.46	15.66	0.94	3.71	MC*OE
A	White	30	27	85676	17.50	6.77	0.88	2.31	MC*OE
A	African American	30	27	17485	11.78	5.80	0.83	2.36	MC*OE
A	Hispanic	30	27	13235	12.74	6.18	0.85	2.37	MC*OE
A	Asian	30	27	4970	21.82	6.59	0.90	2.13	MC*OE
A	American Indian	30	27	176	15.17	6.59	0.87	2.38	MC*OE

	Ethnicity	Total Points	N Items	N	Mean	STD	r	SEM	Item Type(s)
A	Pacific Islander	30	27	97	17.45	6.89	0.89	2.31	MC*OE
A	Multiple Ethnicities	30	27	3945	15.13	6.95	0.88	2.36	MC*OE
B	White	18	15	85676	8.76	4.20	0.80	1.89	MC*OE
B	African American	18	15	17485	5.55	3.18	0.68	1.81	MC*OE
B	Hispanic	18	15	13235	6.11	3.50	0.72	1.84	MC*OE
B	Asian	18	15	4970	11.41	4.53	0.83	1.84	MC*OE
B	American Indian	18	15	176	7.67	4.13	0.79	1.89	MC*OE
B	Pacific Islander	18	15	97	8.36	4.25	0.79	1.95	MC*OE
B	Multiple Ethnicities	18	15	3945	7.46	4.13	0.79	1.89	MC*OE
C	White	13	10	85676	6.15	3.01	0.72	1.61	MC*OE
C	African American	13	10	17485	3.69	2.32	0.59	1.48	MC*OE
C	Hispanic	13	10	13235	4.15	2.55	0.65	1.52	MC*OE
C	Asian	13	10	4970	7.80	3.19	0.74	1.64	MC*OE
C	American Indian	13	10	176	5.06	3.26	0.76	1.61	MC*OE
C	Pacific Islander	13	10	97	6.15	2.98	0.70	1.62	MC*OE
C	Multiple Ethnicities	13	10	3945	5.16	3.05	0.73	1.58	MC*OE
D	White	11	11	85676	6.71	2.77	0.75	1.40	MC
D	African American	11	11	17485	4.38	2.35	0.60	1.49	MC
D	Hispanic	11	11	13235	4.68	2.49	0.65	1.49	MC
D	Asian	11	11	4970	7.90	2.77	0.79	1.26	MC
D	American Indian	11	11	176	5.76	2.87	0.75	1.43	MC
D	Pacific Islander	11	11	97	6.11	2.74	0.72	1.45	MC
D	Multiple Ethnicities	11	11	3945	5.70	2.83	0.74	1.44	MC

	IEP	Total Points	N Items	N	Mean	STD	r	SEM	Item Type(s)
Total	Y	72	63	20169	22.76	11.14	0.89	3.61	MC*OE
A	Y	30	27	20169	10.28	5.31	0.80	2.36	MC*OE
B	Y	18	15	20169	4.92	2.96	0.65	1.76	MC*OE
C	Y	13	10	20169	3.47	2.28	0.59	1.46	MC*OE
D	Y	11	11	20169	4.08	2.24	0.55	1.50	MC

	ELL	Total Points	N Items	N	Mean	STD	r	SEM	Item Type(s)
Total	Y	72	63	3026	19.99	8.25	0.81	3.55	MC*OE
A	Y	30	27	3026	9.37	4.40	0.72	2.34	MC*OE
B	Y	18	15	3026	4.28	2.38	0.48	1.71	MC*OE
C	Y	13	10	3026	2.95	1.82	0.40	1.40	MC*OE
D	Y	11	11	3026	3.39	1.75	0.28	1.49	MC

	Low Income	Total Points	N Items	N	Mean	STD	r	SEM	Item Type(s)
Total	Y	72	63	56344	29.41	13.89	0.93	3.69	MC*OE
A	Y	30	27	56344	13.47	6.41	0.86	2.37	MC*OE
B	Y	18	15	56344	6.48	3.68	0.75	1.85	MC*OE
C	Y	13	10	56344	4.43	2.68	0.67	1.54	MC*OE
D	Y	11	11	56344	5.03	2.60	0.67	1.48	MC

Grade 8 Mathematics

	Overall	Total Points	N Items	N	Mean	STD	r	SEM	Item Type(s)
Total	All	72	63	123271	35.85	15.20	0.94	3.73	MC*OE
A	All	12	9	123271	5.89	2.77	0.74	1.40	MC*OE
B	All	37	34	123271	19.27	8.09	0.88	2.76	MC*OE
C	All	13	13	123271	6.24	3.37	0.79	1.55	MC
D	All	10	7	123271	4.46	2.33	0.66	1.36	MC*OE

	Gender	Total Points	N Items	N	Mean	STD	r	SEM	Item Type(s)
Total	Male	72	63	63114	35.07	15.44	0.94	3.72	MC*OE
Total	Female	72	63	60157	36.67	14.89	0.94	3.73	MC*OE
A	Male	12	9	63114	5.67	2.81	0.75	1.40	MC*OE
A	Female	12	9	60157	6.11	2.71	0.73	1.40	MC*OE
B	Male	37	34	63114	18.92	8.24	0.89	2.75	MC*OE
B	Female	37	34	60157	19.63	7.90	0.88	2.76	MC*OE
C	Male	13	13	63114	6.16	3.38	0.79	1.55	MC
C	Female	13	13	60157	6.34	3.35	0.79	1.54	MC
D	Male	10	7	63114	4.32	2.35	0.67	1.36	MC*OE
D	Female	10	7	60157	4.59	2.31	0.65	1.36	MC*OE

	Ethnicity	Total Points	N Items	N	Mean	STD	r	SEM	Item Type(s)
Total	White	72	63	85158	38.57	14.60	0.94	3.72	MC*OE
Total	African American	72	63	17320	25.41	11.77	0.90	3.68	MC*OE
Total	Hispanic	72	63	12400	28.01	12.85	0.92	3.71	MC*OE
Total	Asian	72	63	4727	47.71	15.30	0.95	3.51	MC*OE
Total	American Indian	72	63	168	34.67	15.46	0.94	3.70	MC*OE
Total	Pacific Islander	71	63	92	39.35	14.54	0.94	3.66	MC*OE
Total	Multiple Ethnicities	72	63	3406	33.03	14.78	0.94	3.73	MC*OE
A	White	12	9	85158	6.30	2.65	0.73	1.39	MC*OE
A	African American	12	9	17320	4.24	2.49	0.69	1.37	MC*OE
A	Hispanic	12	9	12400	4.70	2.54	0.70	1.38	MC*OE
A	Asian	12	9	4727	7.86	2.67	0.72	1.42	MC*OE
A	American Indian	12	9	168	5.68	2.65	0.71	1.43	MC*OE

	Ethnicity	Total Points	N Items	N	Mean	STD	r	SEM	Item Type(s)
A	Pacific Islander	12	9	92	6.63	2.48	0.71	1.34	MC*OE
A	Multiple Ethnicities	12	9	3406	5.47	2.75	0.74	1.40	MC*OE
B	White	37	34	85158	20.65	7.76	0.87	2.75	MC*OE
B	African American	37	34	17320	13.96	6.53	0.83	2.72	MC*OE
B	Hispanic	37	34	12400	15.19	7.01	0.85	2.74	MC*OE
B	Asian	37	34	4727	25.48	8.01	0.90	2.56	MC*OE
B	American Indian	37	34	168	18.76	8.24	0.89	2.73	MC*OE
B	Pacific Islander	37	34	92	21.03	7.86	0.88	2.73	MC*OE
B	Multiple Ethnicities	37	34	3406	17.83	7.87	0.88	2.76	MC*OE
C	White	13	13	85158	6.75	3.34	0.79	1.54	MC
C	African American	13	13	17320	4.27	2.53	0.61	1.57	MC
C	Hispanic	13	13	12400	4.77	2.81	0.69	1.57	MC
C	Asian	13	13	4727	8.60	3.53	0.84	1.40	MC
C	American Indian	13	13	168	5.96	3.48	0.81	1.54	MC
C	Pacific Islander	13	13	92	6.89	3.43	0.80	1.52	MC
C	Multiple Ethnicities	13	13	3406	5.70	3.23	0.77	1.56	MC
D	White	10	7	85158	4.87	2.25	0.64	1.36	MC*OE
D	African American	10	7	17320	2.94	1.92	0.55	1.29	MC*OE
D	Hispanic	10	7	12400	3.36	2.07	0.59	1.32	MC*OE
D	Asian	10	7	4727	5.77	2.27	0.66	1.32	MC*OE
D	American Indian	10	7	168	4.27	2.32	0.67	1.34	MC*OE
D	Pacific Islander	9	7	92	4.79	2.29	0.68	1.30	MC*OE
D	Multiple Ethnicities	10	7	3406	4.03	2.33	0.67	1.34	MC*OE

	IEP	Total Points	N Items	N	Mean	STD	r	SEM	Item Type(s)
Total	Y	72	63	19292	22.71	10.39	0.88	3.64	MC*OE
A	Y	12	9	19292	3.63	2.27	0.64	1.37	MC*OE
B	Y	37	34	19292	12.45	5.80	0.79	2.68	MC*OE
C	Y	13	13	19292	3.94	2.33	0.55	1.57	MC
D	Y	10	7	19292	2.68	1.80	0.49	1.29	MC*OE

	ELL	Total Points	N Items	N	Mean	STD	r	SEM	Item Type(s)
Total	Y	72	63	3046	20.94	8.62	0.83	3.58	MC*OE
A	Y	12	9	3046	3.51	2.14	0.60	1.35	MC*OE
B	Y	37	34	3046	11.53	4.96	0.72	2.63	MC*OE
C	Y	13	13	3046	3.56	2.06	0.44	1.55	MC
D	Y	10	7	3046	2.34	1.54	0.36	1.24	MC*OE

	Low Income	Total Points	N Items	N	Mean	STD	r	SEM	Item Type(s)
Total	Y	72	63	53725	29.47	13.36	0.92	3.73	MC*OE
A	Y	12	9	53725	4.87	2.59	0.71	1.39	MC*OE
B	Y	37	34	53725	15.98	7.25	0.86	2.75	MC*OE
C	Y	13	13	53725	5.04	2.93	0.71	1.57	MC
D	Y	10	7	53725	3.58	2.14	0.61	1.34	MC*OE

Grade 4 Science

	Overall	Total Points	N Items	N	Mean	STD	r	SEM	Item Type(s)
Total	All	68	63	125488	37.21	13.26	0.92	3.74	MC*OE
A	All	32	30	125488	17.83	6.87	0.86	2.54	MC*OE
B	All	12	11	125488	6.64	2.57	0.62	1.57	MC*OE
C	All	12	11	125488	6.37	2.81	0.67	1.61	MC*OE
D	All	12	11	125488	6.37	2.56	0.63	1.56	MC*OE

	Gender	Total Points	N Items	N	Mean	STD	r	SEM	Item Type(s)
Total	Male	68	63	63942	37.46	13.63	0.93	3.73	MC*OE
Total	Female	68	63	61546	36.96	12.86	0.92	3.75	MC*OE
A	Male	32	30	63942	17.86	7.00	0.87	2.54	MC*OE
A	Female	32	30	61546	17.80	6.74	0.86	2.55	MC*OE
B	Male	12	11	63942	6.60	2.63	0.64	1.58	MC*OE
B	Female	12	11	61546	6.68	2.51	0.61	1.57	MC*OE
C	Male	12	11	63942	6.53	2.88	0.69	1.60	MC*OE
C	Female	12	11	61546	6.21	2.73	0.65	1.61	MC*OE
D	Male	12	11	63942	6.48	2.63	0.65	1.55	MC*OE
D	Female	12	11	61546	6.26	2.49	0.60	1.57	MC*OE

	Ethnicity	Total Points	N Items	N	Mean	STD	r	SEM	Item Type(s)
Total	White	68	63	81797	40.60	12.25	0.91	3.69	MC*OE
Total	African American	68	63	18568	26.96	10.79	0.87	3.84	MC*OE
Total	Hispanic	68	63	14386	30.20	11.79	0.89	3.84	MC*OE
Total	Asian	68	63	4864	43.13	13.02	0.92	3.59	MC*OE
Total	American Indian	68	63	192	35.20	12.89	0.91	3.78	MC*OE
Total	Pacific Islander	68	63	110	37.51	13.05	0.92	3.77	MC*OE
Total	Multiple Ethnicities	68	63	5571	34.75	13.12	0.92	3.78	MC*OE
A	White	32	30	81797	19.50	6.42	0.85	2.49	MC*OE
A	African American	32	30	18568	12.78	5.63	0.78	2.64	MC*OE
A	Hispanic	32	30	14386	14.30	6.16	0.82	2.64	MC*OE
A	Asian	32	30	4864	20.91	6.75	0.87	2.41	MC*OE
A	American Indian	32	30	192	16.93	6.79	0.86	2.57	MC*OE

	Ethnicity	Total Points	N Items	N	Mean	STD	r	SEM	Item Type(s)
A	Pacific Islander	32	30	110	17.76	6.89	0.86	2.57	MC*0E
A	Multiple Ethnicities	32	30	5571	16.58	6.77	0.85	2.58	MC*0E
B	White	12	11	81797	7.15	2.44	0.59	1.56	MC*0E
B	African American	12	11	18568	5.05	2.31	0.52	1.60	MC*0E
B	Hispanic	12	11	14386	5.58	2.39	0.55	1.61	MC*0E
B	Asian	12	11	4864	7.61	2.52	0.64	1.52	MC*0E
B	American Indian	12	11	192	6.34	2.43	0.56	1.61	MC*0E
B	Pacific Islander	12	11	110	6.80	2.35	0.52	1.62	MC*0E
B	Multiple Ethnicities	12	11	5571	6.29	2.57	0.62	1.59	MC*0E
C	White	12	11	81797	6.97	2.67	0.64	1.60	MC*0E
C	African American	12	11	18568	4.54	2.42	0.55	1.62	MC*0E
C	Hispanic	12	11	14386	5.13	2.57	0.60	1.63	MC*0E
C	Asian	12	11	4864	7.48	2.81	0.70	1.55	MC*0E
C	American Indian	12	11	192	5.90	2.78	0.67	1.61	MC*0E
C	Pacific Islander	12	11	110	6.35	2.82	0.68	1.60	MC*0E
C	Multiple Ethnicities	12	11	5571	5.95	2.81	0.67	1.61	MC*0E
D	White	12	11	81797	6.97	2.38	0.58	1.54	MC*0E
D	African American	12	11	18568	4.59	2.28	0.51	1.60	MC*0E
D	Hispanic	12	11	14386	5.19	2.42	0.56	1.60	MC*0E
D	Asian	12	11	4864	7.13	2.46	0.61	1.53	MC*0E
D	American Indian	12	11	192	6.04	2.51	0.61	1.57	MC*0E
D	Pacific Islander	12	11	110	6.59	2.69	0.67	1.54	MC*0E
D	Multiple Ethnicities	12	11	5571	5.92	2.53	0.61	1.58	MC*0E

	IEP	Total Points	N Items	N	Mean	STD	r	SEM	Item Type(s)
Total	Y	68	63	20931	28.93	12.24	0.90	3.83	MC*OE
A	Y	32	30	20931	13.56	6.25	0.82	2.63	MC*OE
B	Y	12	11	20931	5.29	2.46	0.57	1.61	MC*OE
C	Y	12	11	20931	4.97	2.67	0.63	1.62	MC*OE
D	Y	12	11	20931	5.10	2.52	0.60	1.59	MC*OE

	ELL	Total Points	N Items	N	Mean	STD	r	SEM	Item Type(s)
Total	Y	68	63	3764	22.92	8.25	0.79	3.81	MC*OE
A	Y	32	30	3764	10.56	4.34	0.64	2.61	MC*OE
B	Y	12	11	3764	4.50	1.99	0.33	1.62	MC*OE
C	Y	12	11	3764	3.82	2.05	0.40	1.59	MC*OE
D	Y	12	11	3764	4.04	2.08	0.42	1.59	MC*OE

	Low Income	Total Points	N Items	N	Mean	STD	r	SEM	Item Type(s)
Total	Y	68	63	61335	31.81	12.27	0.90	3.83	MC*OE
A	Y	32	30	61335	15.07	6.35	0.83	2.63	MC*OE
B	Y	12	11	61335	5.81	2.46	0.57	1.60	MC*OE
C	Y	12	11	61335	5.43	2.67	0.63	1.63	MC*OE
D	Y	12	11	61335	5.50	2.49	0.59	1.59	MC*OE

Grade 8 Science

	Overall	Total Points	N Items	N	Mean	STD	r	SEM	Item Type(s)
Total	All	68	63	122716	34.93	13.26	0.92	3.71	MC*0E
A	All	33	31	122716	17.50	7.11	0.87	2.58	MC*0E
B	All	11	10	122716	5.79	2.48	0.62	1.53	MC*0E
C	All	12	11	122716	6.18	2.54	0.66	1.49	MC*0E
D	All	12	11	122716	5.46	2.67	0.64	1.60	MC*0E

	Gender	Total Points	N Items	N	Mean	STD	r	SEM	Item Type(s)
Total	Male	68	63	62816	34.72	13.77	0.93	3.70	MC*0E
Total	Female	68	63	59900	35.14	12.71	0.91	3.72	MC*0E
A	Male	33	31	62816	17.29	7.29	0.88	2.57	MC*0E
A	Female	33	31	59900	17.72	6.90	0.86	2.59	MC*0E
B	Male	11	10	62816	5.65	2.53	0.64	1.52	MC*0E
B	Female	11	10	59900	5.94	2.42	0.60	1.53	MC*0E
C	Male	12	11	62816	6.20	2.64	0.68	1.48	MC*0E
C	Female	12	11	59900	6.16	2.43	0.62	1.49	MC*0E
D	Male	12	11	62816	5.58	2.76	0.67	1.59	MC*0E
D	Female	12	11	59900	5.33	2.56	0.61	1.60	MC*0E

	Ethnicity	Total Points	N Items	N	Mean	STD	r	SEM	Item Type(s)
Total	White	68	63	84922	37.70	12.59	0.91	3.70	MC*0E
Total	African American	68	63	17132	25.13	10.33	0.87	3.73	MC*0E
Total	Hispanic	68	63	12333	27.25	11.38	0.89	3.74	MC*0E
Total	Asian	68	63	4688	42.41	12.94	0.92	3.56	MC*0E
Total	American Indian	68	63	167	33.57	12.24	0.90	3.78	MC*0E
Total	Pacific Islander	67	63	92	37.30	12.77	0.92	3.70	MC*0E
Total	Multiple Ethnicities	68	63	3382	32.37	12.88	0.92	3.73	MC*0E
A	White	33	31	84922	18.94	6.78	0.86	2.57	MC*0E
A	African American	33	31	17132	12.43	5.64	0.79	2.60	MC*0E
A	Hispanic	33	31	12333	13.50	6.17	0.82	2.61	MC*0E
A	Asian	33	31	4688	21.45	6.77	0.87	2.45	MC*0E
A	American Indian	33	31	167	17.18	6.42	0.83	2.66	MC*0E

	Ethnicity	Total Points	N Items	N	Mean	STD	r	SEM	Item Type(s)
A	Pacific Islander	33	31	92	18.70	6.62	0.85	2.58	MC*0E
A	Multiple Ethnicities	33	31	3382	16.18	6.98	0.86	2.59	MC*0E
B	White	11	10	84922	6.18	2.40	0.61	1.50	MC*0E
B	African American	11	10	17132	4.38	2.22	0.50	1.57	MC*0E
B	Hispanic	11	10	12333	4.70	2.29	0.53	1.56	MC*0E
B	Asian	11	10	4688	7.04	2.50	0.66	1.45	MC*0E
B	American Indian	11	10	167	5.49	2.51	0.63	1.53	MC*0E
B	Pacific Islander	11	10	92	6.50	2.41	0.59	1.54	MC*0E
B	Multiple Ethnicities	11	10	3382	5.45	2.46	0.61	1.54	MC*0E
C	White	12	11	84922	6.65	2.40	0.62	1.48	MC*0E
C	African American	12	11	17132	4.53	2.26	0.55	1.52	MC*0E
C	Hispanic	12	11	12333	4.87	2.37	0.59	1.52	MC*0E
C	Asian	12	11	4688	7.33	2.42	0.66	1.41	MC*0E
C	American Indian	12	11	167	5.83	2.41	0.60	1.52	MC*0E
C	Pacific Islander	11	11	92	6.38	2.53	0.68	1.43	MC*0E
C	Multiple Ethnicities	12	11	3382	5.75	2.48	0.63	1.51	MC*0E
D	White	12	11	84922	5.94	2.63	0.63	1.61	MC*0E
D	African American	12	11	17132	3.79	2.05	0.45	1.53	MC*0E
D	Hispanic	12	11	12333	4.19	2.26	0.52	1.56	MC*0E
D	Asian	12	11	4688	6.58	2.70	0.65	1.60	MC*0E
D	American Indian	12	11	167	5.07	2.51	0.59	1.60	MC*0E
D	Pacific Islander	12	11	92	5.73	2.69	0.64	1.62	MC*0E
D	Multiple Ethnicities	12	11	3382	4.98	2.53	0.60	1.59	MC*0E

	IEP	Total Points	N Items	N	Mean	STD	r	SEM	Item Type(s)
Total	Y	68	63	19202	24.17	10.44	0.87	3.70	MC*0E
A	Y	33	31	19202	11.75	5.64	0.79	2.57	MC*0E
B	Y	11	10	19202	4.09	2.11	0.46	1.55	MC*0E
C	Y	12	11	19202	4.41	2.29	0.56	1.52	MC*0E
D	Y	12	11	19202	3.91	2.21	0.51	1.54	MC*0E

	ELL	Total Points	N Items	N	Mean	STD	r	SEM	Item Type(s)
Total	Y	68	63	3046	19.72	6.60	0.70	3.61	MC*0E
A	Y	33	31	3046	9.57	3.83	0.57	2.51	MC*0E
B	Y	11	10	3046	3.42	1.72	0.21	1.53	MC*0E
C	Y	12	11	3046	3.60	1.86	0.34	1.51	MC*0E
D	Y	12	11	3046	3.12	1.64	0.20	1.46	MC*0E

	Low Income	Total Points	N Items	N	Mean	STD	r	SEM	Item Type(s)
Total	Y	68	63	53301	29.15	11.93	0.90	3.75	MC*0E
A	Y	33	31	53301	14.47	6.46	0.84	2.62	MC*0E
B	Y	11	10	53301	4.92	2.33	0.55	1.56	MC*0E
C	Y	12	11	53301	5.25	2.42	0.61	1.52	MC*0E
D	Y	12	11	53301	4.51	2.40	0.57	1.57	MC*0E

APPENDIX Q: HISTORICAL STATISTICS

Grade 3 English Language Arts

		All	Paper Overall	Paper Master	Online
Raw Score	Mean	35.74	35.78	35.90	32.39
Raw Score	SD	11.42	11.41	11.40	11.87
Raw Score	Max	62			
Raw Score	Reliability	0.91			
Scaled Score	Mean	1039.30	1039.67	1040.90	1007.87
Scaled Score	SD	111.21	111.14	111.01	112.62
Scaled Score	Max	1680			
Raw Cuts	Bel. Basic/Basic	21	21	21	21
Raw Cuts	Basic/Prof.	32	32	32	32
Raw Cuts	Prof./Adv.	48	48	48	48
Impact Pct	Below Basic	12.09	11.99	11.85	20.11
Impact Pct	Basic	23.29	23.24	22.91	27.51
Impact Pct	Proficient	47.56	47.65	47.83	40.56
Impact Pct	Advanced	17.06	17.12	17.42	11.82
Impact Pct	Prof. + Adv.	64.62	64.77	65.25	52.38
Demographics	N	124923	123451	27483	1472
Demographics	Pct City	9.78	9.90	9.89	
Demographics	Pct White	64.88	64.80	64.61	71.88
Demographics	Pct Black	14.95	14.94	14.83	15.29
Demographics	Pct Hispanic	11.53	11.58	11.71	7.20
Demographics	Pct Male	51.04	50.99	50.73	55.37
Demographics	Pct Female	48.96	49.01	49.27	44.63

Grade 4 English Language Arts

		All	Paper Overall	Paper Master	Online
Raw Score	Mean	48.38	48.45	48.29	42.67
Raw Score	SD	14.83	14.81	14.81	15.85
Raw Score	Max	84			
Raw Score	Reliability	0.92			
Scaled Score	Mean	1030.55	1031.07	1029.83	988.71
Scaled Score	SD	112.72	112.58	112.25	116.03
Scaled Score	Max	1714			
Raw Cuts	Bel. Basic/Basic	28	28	28	28
Raw Cuts	Basic/Prof.	46	46	46	46
Raw Cuts	Prof./Adv.	60	60	60	60
Impact Pct	Below Basic	10.92	10.78	11.00	22.43
Impact Pct	Basic	28.16	28.14	28.33	30.51
Impact Pct	Proficient	35.26	35.31	35.28	31.29
Impact Pct	Advanced	25.65	25.78	25.39	15.77
Impact Pct	Prof. + Adv.	60.91	61.09	60.68	47.06
Demographics	N	125200	123653	27431	1547
Demographics	Pct City	9.60	9.72	9.67	0.06
Demographics	Pct White	65.24	65.15	65.00	72.40
Demographics	Pct Black	14.75	14.75	14.71	14.67
Demographics	Pct Hispanic	11.45	11.49	11.77	7.95
Demographics	Pct Male	50.92	50.85	50.99	55.98
Demographics	Pct Female	49.08	49.15	49.01	44.02

Grade 5 English Language Arts

		All	Paper Overall	Paper Master	Online
Raw Score	Mean	46.76	46.87	46.75	40.63
Raw Score	SD	15.04	15.02	15.12	15.01
Raw Score	Max	84			
Raw Score	Reliability	0.92			
Scaled Score	Mean	1029.58	1030.41	1029.70	984.38
Scaled Score	SD	112.26	112.19	113.10	107.08
Scaled Score	Max	1723			
Raw Cuts	Bel. Basic/Basic	27	27	27	27
Raw Cuts	Basic/Prof.	44	44	44	44
Raw Cuts	Prof./Adv.	63	63	63	63
Impact Pct	Below Basic	11.48	11.30	11.62	21.36
Impact Pct	Basic	28.94	28.83	29.10	34.73
Impact Pct	Proficient	43.18	43.30	42.60	36.69
Impact Pct	Advanced	16.40	16.57	16.68	7.22
Impact Pct	Prof. + Adv.	59.58	59.87	59.28	43.91
Demographics	N	124183	121940	27116	2243
Demographics	Pct City	8.77	8.93	8.98	0.09
Demographics	Pct White	66.26	66.17	66.20	71.07
Demographics	Pct Black	14.38	14.40	14.47	13.37
Demographics	Pct Hispanic	11.24	11.26	11.13	9.94
Demographics	Pct Male	50.98	50.92	50.98	54.30
Demographics	Pct Female	49.02	49.08	49.02	45.70

Grade 6 English Language Arts

		All	Paper Overall	Paper Master	Online
Raw Score	Mean	48.04	48.13	48.05	45.04
Raw Score	SD	14.49	14.46	14.47	15.17
Raw Score	Max	84			
Raw Score	Reliability	0.91			
Scaled Score	Mean	1035.08	1035.71	1035.21	1013.80
Scaled Score	SD	106.23	106.06	106.32	109.62
Scaled Score	Max	1737			
Raw Cuts	Bel. Basic/Basic	25	25	25	25
Raw Cuts	Basic/Prof.	44	44	44	44
Raw Cuts	Prof./Adv.	61	61	61	61
Impact Pct	Below Basic	6.90	6.76	6.71	11.57
Impact Pct	Basic	29.52	29.41	29.77	33.24
Impact Pct	Proficient	41.43	41.53	41.51	37.97
Impact Pct	Advanced	22.16	22.31	22.00	17.22
Impact Pct	Prof. + Adv.	63.59	63.84	63.52	55.19
Demographics	N	123170	119617	26516	3553
Demographics	Pct City	7.96	8.18	8.15	0.37
Demographics	Pct White	67.18	66.95	67.33	74.64
Demographics	Pct Black	14.30	14.49	14.31	7.88
Demographics	Pct Hispanic	10.82	10.77	10.80	12.47
Demographics	Pct Male	51.06	51.01	51.10	52.88
Demographics	Pct Female	48.94	48.99	48.90	47.12

Grade 7 English Language Arts

		All	Paper Overall	Paper Master	Online
Raw Score	Mean	47.07	47.17	47.21	44.49
Raw Score	SD	14.97	14.96	15.03	14.84
Raw Score	Max	84			
Raw Score	Reliability	0.92			
Scaled Score	Mean	1031.71	1032.47	1032.91	1012.42
Scaled Score	SD	113.46	113.52	114.44	110.32
Scaled Score	Max	1724			
Raw Cuts	Bel. Basic/Basic	21	21	21	21
Raw Cuts	Basic/Prof.	44	44	44	44
Raw Cuts	Prof./Adv.	62	62	62	62
Impact Pct	Below Basic	3.65	3.60	3.70	4.83
Impact Pct	Basic	36.90	36.68	36.52	42.45
Impact Pct	Proficient	40.14	40.23	40.11	37.99
Impact Pct	Advanced	19.31	19.50	19.67	14.72
Impact Pct	Prof. + Adv.	59.46	59.73	59.78	52.72
Demographics	N	125744	120922	26910	4822
Demographics	Pct City	7.55	7.83	7.88	0.58
Demographics	Pct White	68.21	67.87	67.65	76.77
Demographics	Pct Black	13.95	14.22	14.40	7.24
Demographics	Pct Hispanic	10.52	10.47	10.55	11.68
Demographics	Pct Male	51.33	51.22	51.32	54.13
Demographics	Pct Female	48.67	48.78	48.68	45.87

Grade 8 English Language Arts

		All	Paper Overall	Paper Master	Online
Raw Score	Mean	49.05	49.19	49.11	45.84
Raw Score	SD	14.65	14.63	14.48	14.60
Raw Score	Max	84			
Raw Score	Reliability	0.91			
Scaled Score	Mean	1025.03	1026.08	1025.28	1001.26
Scaled Score	SD	108.86	108.88	107.47	105.70
Scaled Score	Max	1677			
Raw Cuts	Bel. Basic/Basic	29	29	29	29
Raw Cuts	Basic/Prof.	47	47	47	47
Raw Cuts	Prof./Adv.	65	65	65	65
Impact Pct	Below Basic	10.50	10.34	10.10	14.18
Impact Pct	Basic	30.63	30.41	30.77	35.62
Impact Pct	Proficient	42.93	43.09	43.62	39.34
Impact Pct	Advanced	15.94	16.16	15.51	10.86
Impact Pct	Prof. + Adv.	58.87	59.25	59.13	50.20
Demographics	N	123653	118434	26296	5219
Demographics	Pct City	7.18	7.46	7.47	0.84
Demographics	Pct White	69.08	68.67	68.92	78.31
Demographics	Pct Black	14.07	14.37	14.46	7.28
Demographics	Pct Hispanic	10.05	10.06	9.79	9.91
Demographics	Pct Male	51.14	51.04	51.22	53.52
Demographics	Pct Female	48.86	48.96	48.78	46.48

Grade 3 Mathematics

		All	Paper Overall	Paper Master	Online
Raw Score	Mean	42.41	42.45	42.54	38.53
Raw Score	SD	15.90	15.88	15.84	16.39
Raw Score	Max	72			
Raw Score	Reliability	0.95			
Scaled Score	Mean	1019.85	1020.23	1020.77	988.73
Scaled Score	SD	129.66	129.62	129.18	129.19
Scaled Score	Max	1561			
Raw Cuts	Bel. Basic/Basic	30	30	30	30
Raw Cuts	Basic/Prof.	42	42	42	42
Raw Cuts	Prof./Adv.	56	56	56	56
Impact Pct	Below Basic	25.86	25.73	25.51	36.20
Impact Pct	Basic	19.69	19.70	19.59	18.80
Impact Pct	Proficient	28.42	28.46	28.68	24.80
Impact Pct	Advanced	26.04	26.11	26.23	20.20
Impact Pct	Prof. + Adv.	54.45	54.57	54.91	45.00
Demographics	N	125205	123705	27428	1500
Demographics	Pct City	9.83	9.95	9.90	
Demographics	Pct White	64.80	64.72	64.84	71.47
Demographics	Pct Black	15.00	14.99	14.82	15.87
Demographics	Pct Hispanic	11.56	11.61	11.63	7.47
Demographics	Pct Male	51.07	51.02	51.14	55.27
Demographics	Pct Female	48.93	48.98	48.86	44.73

Grade 4 Mathematics

		All	Paper Overall	Paper Master	Online
Raw Score	Mean	40.54	40.61	40.48	34.90
Raw Score	SD	15.14	15.13	15.05	14.88
Raw Score	Max	72			
Raw Score	Reliability	0.94			
Scaled Score	Mean	993.58	994.13	993.25	950.01
Scaled Score	SD	118.67	118.65	118.02	111.80
Scaled Score	Max	1529			
Raw Cuts	Bel. Basic/Basic	29	29	29	29
Raw Cuts	Basic/Prof.	43	43	43	43
Raw Cuts	Prof./Adv.	57	57	57	57
Impact Pct	Below Basic	26.11	25.93	26.27	40.54
Impact Pct	Basic	27.32	27.31	27.42	28.39
Impact Pct	Proficient	28.47	28.57	28.53	20.65
Impact Pct	Advanced	18.10	18.19	17.78	10.42
Impact Pct	Prof. + Adv.	46.57	46.76	46.31	31.07
Demographics	N	125575	124011	27458	1564
Demographics	Pct City	9.64	9.76	9.75	0.06
Demographics	Pct White	65.20	65.14	65.46	70.40
Demographics	Pct Black	14.79	14.77	14.79	16.05
Demographics	Pct Hispanic	11.45	11.49	11.31	8.44
Demographics	Pct Male	50.97	50.91	50.69	56.27
Demographics	Pct Female	49.03	49.09	49.31	43.73

Grade 5 Mathematics

		All	Paper Overall	Paper Master	Online
Raw Score	Mean	37.65	37.71	37.93	35.05
Raw Score	SD	15.33	15.33	15.26	15.32
Raw Score	Max	72			
Raw Score	Reliability	0.94			
Scaled Score	Mean	991.82	992.27	993.94	971.63
Scaled Score	SD	119.70	119.70	119.15	117.84
Scaled Score	Max	1550			
Raw Cuts	Bel. Basic/Basic	25	25	25	25
Raw Cuts	Basic/Prof.	40	40	40	40
Raw Cuts	Prof./Adv.	56	56	56	56
Impact Pct	Below Basic	24.81	24.66	24.01	31.52
Impact Pct	Basic	31.43	31.44	31.63	31.33
Impact Pct	Proficient	27.51	27.58	27.83	24.56
Impact Pct	Advanced	16.24	16.32	16.53	12.59
Impact Pct	Prof. + Adv.	43.75	43.90	44.35	37.15
Demographics	N	124405	121689	26944	2716
Demographics	Pct City	8.81	9.00	9.00	0.07
Demographics	Pct White	66.22	66.15	66.22	69.44
Demographics	Pct Black	14.41	14.45	14.26	12.67
Demographics	Pct Hispanic	11.24	11.20	11.23	12.89
Demographics	Pct Male	51.01	50.94	50.99	54.38
Demographics	Pct Female	48.99	49.06	49.01	45.62

Grade 6 Mathematics

		All	Paper Overall	Paper Master	Online
Raw Score	Mean	36.72	36.74	36.95	35.91
Raw Score	SD	15.17	15.15	15.09	15.59
Raw Score	Max	72			
Raw Score	Reliability	0.94			
Scaled Score	Mean	976.25	976.40	977.93	971.03
Scaled Score	SD	115.64	115.50	114.88	120.32
Scaled Score	Max	1534			
Raw Cuts	Bel. Basic/Basic	26	26	26	26
Raw Cuts	Basic/Prof.	41	41	41	41
Raw Cuts	Prof./Adv.	56	56	56	56
Impact Pct	Below Basic	29.07	28.98	28.42	32.42
Impact Pct	Basic	30.65	30.68	30.71	29.55
Impact Pct	Proficient	26.13	26.20	26.58	23.82
Impact Pct	Advanced	14.15	14.14	14.30	14.21
Impact Pct	Prof. + Adv.	40.28	40.34	40.88	38.03
Demographics	N	123112	119728	26475	3384
Demographics	Pct City	7.97	8.18	8.15	0.41
Demographics	Pct White	67.15	66.96	67.08	73.85
Demographics	Pct Black	14.30	14.46	14.54	8.66
Demographics	Pct Hispanic	10.84	10.78	10.63	12.74
Demographics	Pct Male	51.09	51.05	51.20	52.45
Demographics	Pct Female	48.91	48.95	48.80	47.55

Grade 7 Mathematics

		All	Paper Overall	Paper Master	Online
Raw Score	Mean	36.21	36.26	36.20	35.02
Raw Score	SD	15.99	16.00	15.97	15.82
Raw Score	Max	72			
Raw Score	Reliability	0.95			
Scaled Score	Mean	968.65	969.00	968.46	959.09
Scaled Score	SD	126.69	126.78	126.48	123.80
Scaled Score	Max	1551			
Raw Cuts	Bel. Basic/Basic	28	28	28	28
Raw Cuts	Basic/Prof.	42	42	42	42
Raw Cuts	Prof./Adv.	56	56	56	56
Impact Pct	Below Basic	36.95	36.83	37.15	40.35
Impact Pct	Basic	25.23	25.26	24.80	24.45
Impact Pct	Proficient	22.10	22.14	22.42	21.01
Impact Pct	Advanced	15.72	15.77	15.63	14.19
Impact Pct	Prof. + Adv.	37.82	37.91	38.05	35.19
Demographics	N	125584	121143	26806	4441
Demographics	Pct City	7.55	7.81	7.80	0.54
Demographics	Pct White	68.22	67.88	67.98	77.55
Demographics	Pct Black	13.92	14.17	14.31	7.05
Demographics	Pct Hispanic	10.54	10.52	10.23	10.97
Demographics	Pct Male	51.34	51.23	51.34	54.22
Demographics	Pct Female	48.66	48.77	48.66	45.78

Grade 8 Mathematics

		All	Paper Overall	Paper Master	Online
Raw Score	Mean	35.85	35.90	35.88	34.76
Raw Score	SD	15.20	15.20	15.11	15.19
Raw Score	Max	72			
Raw Score	Reliability	0.94			
Scaled Score	Mean	953.46	953.81	953.70	944.77
Scaled Score	SD	118.27	118.34	117.51	116.31
Scaled Score	Max	1618			
Raw Cuts	Bel. Basic/Basic	30	30	30	30
Raw Cuts	Basic/Prof.	44	44	44	44
Raw Cuts	Prof./Adv.	58	58	58	58
Impact Pct	Below Basic	39.72	39.60	39.34	42.80
Impact Pct	Basic	27.82	27.86	28.53	26.94
Impact Pct	Proficient	21.89	21.95	21.68	20.43
Impact Pct	Advanced	10.57	10.60	10.45	9.83
Impact Pct	Prof. + Adv.	32.46	32.55	32.13	30.26
Demographics	N	123271	118509	26354	4762
Demographics	Pct City	7.14	7.39	7.44	0.94
Demographics	Pct White	69.08	68.69	68.69	78.81
Demographics	Pct Black	14.05	14.31	14.44	7.58
Demographics	Pct Hispanic	10.06	10.10	9.86	9.05
Demographics	Pct Male	51.20	51.11	51.01	53.34
Demographics	Pct Female	48.80	48.89	48.99	46.66

Grade 4 Science

		All	Paper Overall	Paper Master	Online
Raw Score	Mean	37.21	37.24	37.25	35.91
Raw Score	SD	13.26	13.26	13.24	13.30
Raw Score	Max	68			
Raw Score	Reliability	0.92			
Scaled Score	Mean	1406.07	1406.45	1406.51	1389.75
Scaled Score	SD	170.94	170.94	170.66	170.58
Scaled Score	Max	2344			
Raw Cuts	Bel. Basic/Basic	17	17	17	17
Raw Cuts	Basic/Prof.	27	27	27	27
Raw Cuts	Prof./Adv.	45	45	45	45
Impact Pct	Below Basic	5.28	5.26	5.26	6.45
Impact Pct	Basic	20.17	20.11	19.98	22.79
Impact Pct	Proficient	41.57	41.57	41.78	41.35
Impact Pct	Advanced	32.98	33.06	32.98	29.41
Impact Pct	Prof. + Adv.	74.54	74.63	74.76	70.77
Demographics	N	125488	122666	20391	2822
Demographics	Pct City	9.66	9.88	9.86	0.04
Demographics	Pct White	65.18	65.00	65.03	73.14
Demographics	Pct Black	14.80	14.89	14.86	10.77
Demographics	Pct Hispanic	11.46	11.49	11.34	10.42
Demographics	Pct Male	50.95	50.88	51.15	54.22
Demographics	Pct Female	49.05	49.12	48.85	45.78

Grade 8 Science

		All	Paper Overall	Paper Master	Online
Raw Score	Mean	34.93	34.92	34.88	34.94
Raw Score	SD	13.26	13.28	13.37	12.99
Raw Score	Max	68			
Raw Score	Reliability	0.92			
Scaled Score	Mean	1299.33	1299.34	1298.77	1299.07
Scaled Score	SD	183.99	184.17	185.63	179.77
Scaled Score	Max	2416			
Raw Cuts	Bel. Basic/Basic	24	24	24	24
Raw Cuts	Basic/Prof.	34	34	34	34
Raw Cuts	Prof./Adv.	48	48	48	48
Impact Pct	Below Basic	24.96	25.01	25.44	23.86
Impact Pct	Basic	22.36	22.34	22.14	22.90
Impact Pct	Proficient	31.50	31.43	30.87	33.13
Impact Pct	Advanced	21.18	21.22	21.55	20.12
Impact Pct	Prof. + Adv.	52.68	52.66	52.42	53.24
Demographics	N	122716	117690	19596	5026
Demographics	Pct City	7.03	7.29	7.30	0.86
Demographics	Pct White	69.20	68.81	69.01	78.49
Demographics	Pct Black	13.96	14.22	14.42	7.80
Demographics	Pct Hispanic	10.05	10.09	9.74	9.21
Demographics	Pct Male	51.19	51.09	51.54	53.56
Demographics	Pct Female	48.81	48.91	48.46	46.44

APPENDIX R: PSSA SCORE-REPORT DEVELOPMENT

PENNSYLVANIA SYSTEM OF SCHOOL ASSESSMENT (PSSA)

BACKGROUND

An important aspect of the PSSA transition to the Pennsylvania Core Standard (PCS) is the need to produce revised score reports to support the newly-aligned assessments, specifically the introduction of an English Language Arts assessment with dual reporting of the reading scores and a desire to provide greater detail for the new score reporting categories. PDE also determined that the transition represented an opportunity to reevaluate the score reports as a whole. To that end, PDE and DRC developed a plan to utilize parent and educator focus groups to guide the development of revised PSSA individual student score reports.

This document provides a high-level summary of the focus-group approach that was followed, the feedback that DRC and PDE received, and the direction in which the reports were developed as an output of the process.

THE FOCUS GROUP APPOACH

DRC facilitated seven focus groups at four different locations across the Commonwealth, chosen to provide an opportunity for "geographically-representative" participation.

- A total of 56 educators and 22 parents participated in the seven focus groups.

Prior to the focus groups, DRC collaborated with PDE to select the number and design of the score-report mock-ups that were presented at the focus group meetings.

- Two mock-up designs were selected to give participants an opportunity to visualize key differences ("Sample Student #1" and "Sample Student #2"):
    - Use of the Strength Profile versus a Just-Proficient Mean
    - Reading "Text Types" reported between Reading and Writing versus after Writing
    - ELA dual reporting footnote versions

Focus groups were scheduled for 90 minutes (with the exception of a 120-minute session with the Harrisburg educator group).

- PDE opened each focus group with an overview of the purpose.
- DRC facilitated each session using a survey-question approach (see attached).
    - Participants used the survey to record their individual feedback on particular elements of the report and were also encouraged to share their feedback during the subsequent group discussions.
    - The survey approach ultimately allowed participants to compare and contrast all elements of the two mock-up designs.
    - All written survey feedback was collected and all verbal feedback was recorded by DRC staff.

Some of the main themes of the feedback included (see table on page 4 for additional detail):

- Favorable opinion of the first page with some requests to make information easier to read (larger font, more white space)
    - There were recurring comments against the use of "superior," "satisfactory," "marginal," and "inadequate" in the Performance Level descriptors.

- Consistent input that the information became "overwhelming" with the reporting category definitions appearing within the Score reporting tables
    - There were multiple requests to rewrite the descriptions or move them away from the student's score.
- Majority of the participants preferred the Strength Profile to the Just Proficient Mean
    - Those who preferred the Just Proficient Mean were often still misinterpreting its meaning.
- Majority of the participants preferred to have the Reading Text Types reported after Writing
    - This location was perceived to provide better delineation that the text type score is additional information rather than a direct element of the total ELA score.

After the focus groups were completed, DRC compiled the feedback for PDE to review and make recommendations. A summary of the feedback is found in the table below.

Focus Group	Strength Profile	Just Proficient Mean	Other, Both, or NR	Text Types Table Placed Directly After the Reading Table	Text Types Table Placed After the Entire ELA Reporting Table	Neither, Other, or NR	ELA Dual Reporting Footnote – Version 1	ELA Dual Reporting Footnote – Version 2	Neither, Other, or NR
IU #4 – Educators (13)	11	2	0	1	8	4	2	9	2
IU #4 – Parents (4)	1	3	0	0	4	0	0	4	0
IU #10 – Educators (12)	9	2	1	1	8	3	1	8	3
IU #10 – Parents (10)	8	2	0	2	8	0	2	7	1
Philadelphia – Educators (8)	4	4	0	3	5	0	3	5	0
Philadelphia – Parents (8)	3	2	3	0	5	3	0	4	4
Harrisburg – Educators (23)	17	4	2	0	22	1	0	21	2
Total	53	19	6	7	60	11	8	58	12

A single, revised mock-up was produced to reflect the following PDE recommendations ("Sample Student 3"):

- Minor changes to Page 1 (re-arrangement, spacing, font size)
- Just Proficient Mean eliminated
- Reading Text Types reported after Writing
- All subjects reported on pages 2 and 3 with Reporting Category definitions moved to page 4

The educator focus group participants were invited to a WebEx to view the revised mock-up, provide input, and respond to a survey question about removing the Strength Profile altogether.

- DRC highlighted the changes on the revised mock up and reviewed an alternate design with the Strength Profile removed.
    - All final changes were viewed favorably by the WebEx attendees (especially the new placement of the Reporting Category definitions on page 4).
    - All-but one attendee voted to retain the Strength Profile.

The final mock-up reviewed at the WebEx was used as a basis for the development and production of the 2015 student reports. The following materials are found on the next several pages of this appendix.

- The Focus Group Survey (Parent version – Educator differed only in the "Participant Information")
- Student 1 Score Report (reviewed at the focus groups)
- Student 2 Score Report (reviewed at the focus groups)
- Student 3 Score Report (reviewed with the educators at the follow-up WebEx)

SURVEY QUESTIONS FROM PARENT FOCUS GROUP

PARTICIPANT INFORMATION

Name of student's school _____

Is this school ____ rural _____ urban ____ suburban?

Grade(s) of your student(s) _____

STUDENT REPORT VERSION 1–PAGE 1

After reviewing page 1 of the PSSA Student Report version 1, please respond to questions 1–2. A group discussion will follow.

1. How easy/difficult is it to determine how the sample student performed on the PSSA for Mathematics, English Language Arts (ELA), and Science?

   _____ very difficult
   _____ somewhat difficult
   _____ somewhat easy
   _____ very easy

   Please briefly explain why you rated this item as you did.
   _____

   _____

   _____

2. How would you rate the **readability** of page 1 of the PSSA report (e.g., font size, placement of student information, performance level definitions)?

   _____ not readable
   _____ somewhat readable
   _____ mostly readable
   _____ very readable

   Please briefly explain why you rated this item as you did.
   _____

   _____

   _____

REPORTING TABLES VERSION 1–PAGES 2, 3, AND 4

After reviewing pages 2–4 of the PSSA Student Report version 1, please respond to questions 3–7. A group discussion will follow.

3. Overall, how easy/difficult is it to understand the information in the tables (e.g., descriptions of reporting categories, the student's points, total points possible, strength profile)?

   _____ very difficult
   _____ somewhat difficult
   _____ somewhat easy
   _____ very easy

   Please briefly explain why you rated this item as you did.
   _____
   _____
   _____

4. How well did you understand the Strength Profile (high, medium, or low) ratings and the footnote information for the Strength Profile?

   _____ not understandable
   _____ somewhat understandable
   _____ mostly understandable
   _____ very understandable

   Please briefly explain why you rated this item as you did.
   _____
   _____
   _____

5. In the ELA table on page 3, points are reported for both the Reading Reporting Categories and the Reading Text Types Reporting Categories. How clear is this section of dual reporting?

   _____ not clear
   _____ somewhat clear
   _____ mostly clear
   _____ very clear

   Please briefly explain why you rated this item as you did.
   _____
   _____

OVERALL REPORT FEEDBACK VERSION 1

6. How easy/difficult was it to read and move through the report, find the next section, and find supporting material to understand the student-score information?

   _____ very difficult
   _____ somewhat difficult
   _____ somewhat easy
   _____ very easy

   Please briefly explain why you rated this item as you did.

   _____

   _____

   _____

7. How well did you understand the contents of the report (e.g., performance levels, footnotes, graphics)?

   _____ not understandable
   _____ somewhat understandable
   _____ mostly understandable
   _____ very understandable

   Please briefly explain why you rated this item as you did.

   _____

   _____

   _____

STUDENT REPORT VERSION 2–PAGES 2, 3, AND 4

After reviewing the PSSA Student Report version 2, please respond to questions 1–5. A group discussion will follow.

1. How well did you understand the Just Proficient Mean results on pages 2–4 and the footnote information for the Just Proficient Mean?

   _____ not understandable
   _____ somewhat understandable
   _____ mostly understandable
   _____ very understandable

   Please briefly explain why you rated this item as you did.

   _____

   _____

   _____

2. The reporting tables on pages 2–4 include a Just Proficient Mean for each reporting category. Now look at pages 2–4 of version 1. The reporting tables include a Strength Profile (high, medium, or low) for each reporting category. Which version of the information do you prefer and why?

   _____ version 1
   _____ version 2

   Please explain.

   _____

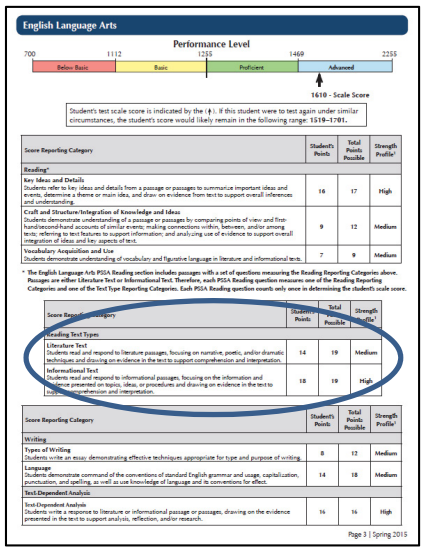
   _____

   _____

ELA REPORT TABLE–PAGE 3 OF VERSION 1 OR VERSION 2?

3. Look at version 1. The Text Types Reporting Category information follows the Reading Reporting Category information. Now look at version 2. The Text Types Reporting Category information is placed at the end of the ELA table. Which version of the order of information do you prefer and why?

_____ version 1 _____ version 2


English Language Arts

Performance Level

700 1112 1255 1469 2255

Below Basic | Basic | Proficient | Advanced

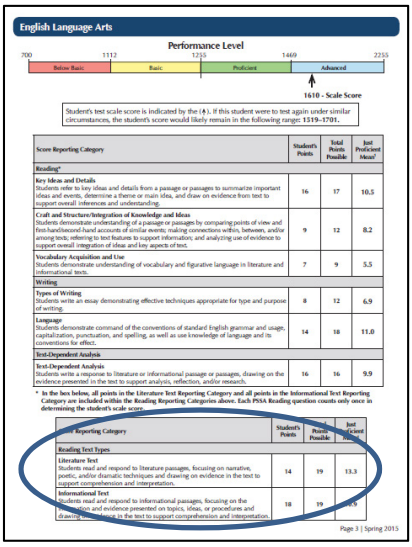
1610 - Scale Score

Student's test scale score is indicated by the (▲). If this student were to test again under similar circumstances, the student's score would likely remain in the following range: 1519–1701.

Score Reporting Category	Student's Points	Total Points Possible	Strength Profile*
Reading*			
Key Ideas and Details Students refer to key ideas and details from a passage or passages to summarize important ideas and events, determine a theme or main idea, and draw on evidence from text to support overall inferences and understanding.	16	17	High
Craft and Structure/Integration of Knowledge and Ideas Students demonstrate understanding of a passage or passages by: comparing points of view and first-hand/second-hand accounts of similar events; making connections within, between, and/or among texts; referring to text features to support information; and analyzing use of evidence to support overall integration of ideas and key aspects of text.	9	12	Medium
Vocabulary Acquisition and Use Students demonstrate understanding of vocabulary and figurative language in literature and informational texts.	7	9	Medium
Reading Text Types			
Literature Text Students read and respond to literature passages, focusing on narrative, poetic, and/or dramatic techniques and drawing on evidence in the text to support comprehension and interpretation.	14	19	Medium
Informational Text Students read and respond to informational passages, focusing on the information and evidence presented on topics, ideas, or procedures and drawing on evidence in the text to support comprehension and interpretation.	18	19	High
Writing			
Types of Writing Students write an essay demonstrating effective techniques appropriate for type and purpose of writing.	8	12	Medium
Language Students demonstrate command of the conventions of standard English grammar and usage, capitalization, punctuation, and spelling, as well as use knowledge of language and its conventions for effect.	14	18	Medium
Text-Dependent Analysis			
Text-Dependent Analysis Students write a response to literature or informational passage or passages, drawing on the evidence presented in the text to support analysis, reflection, and/or research.	16	16	High

* The English Language Arts PSSA Reading section includes passages with a set of questions measuring the Reading Reporting Categories above. Passages are either Literature Text or Informational Text. Therefore, each PSSA Reading question measures one of the Reading Reporting Categories and one of the Text Type Reporting Categories. Each PSSA Reading question counts only once in determining the student's scale score.

Page 3 | Spring 2015


English Language Arts

Performance Level

700 1112 1255 1469 2255

Below Basic | Basic | Proficient | Advanced

1610 - Scale Score

Student's test scale score is indicated by the (▲). If this student were to test again under similar circumstances, the student's score would likely remain in the following range: 1519–1701.

Score Reporting Category	Student's Points	Total Points Possible	Just Proficient Mean*
Reading*			
Key Ideas and Details Students refer to key ideas and details from a passage or passages to summarize important ideas and events, determine a theme or main idea, and draw on evidence from text to support overall inferences and understanding.	16	17	10.5
Craft and Structure/Integration of Knowledge and Ideas Students demonstrate understanding of a passage or passages by comparing points of view and first-hand/second-hand accounts of similar events; making connections within, between, and/or among texts; referring to text features to support information; and analyzing use of evidence to support overall integration of ideas and key aspects of text.	9	12	8.2
Vocabulary Acquisition and Use Students demonstrate understanding of vocabulary and figurative language in literature and informational texts.	7	9	5.5
Writing			
Types of Writing Students write an essay demonstrating effective techniques appropriate for type and purpose of writing.	8	12	6.9
Language Students demonstrate command of the conventions of standard English grammar and usage, capitalization, punctuation, and spelling, as well as use knowledge of language and its conventions for effect.	14	18	11.0
Text-Dependent Analysis			
Text-Dependent Analysis Students write a response to literature or informational passage or passages, drawing on the evidence presented in the text to support analysis, reflection, and/or research.	16	16	9.9

* In the box below, all points in the Literature Text Reporting Category and all points in the Informational Text Reporting Category are included within the Reading Reporting Categories above. Each PSSA Reading question counts only once in determining the student's scale score.

Reporting Category	Student's Points	Points Possible	Just Proficient Mean
Reading Text Types			
Literature Text Students read and respond to literature passages, focusing on narrative, poetic, and/or dramatic techniques and drawing on evidence in the text to support comprehension and interpretation.	14	19	13.3
Informational Text Students read and respond to informational passages, focusing on the information and evidence presented on topics, ideas, or procedures and drawing on evidence in the text to support comprehension and interpretation.	18	19	13.3

Page 3 | Spring 2015

Please explain.

_____

_____

_____

_____

_____

_____

_____

_____

_____

4. Which version of the ELA dual reporting footnote do you prefer and why?

_____ version 1

The English Language Arts PSSA Reading section includes passages with a set of questions measuring the Reading Reporting Categories above. Passages are either Literature Text or Informational Text. Therefore, each PSSA Reading question measures one of the Reading Reporting Categories and one of the Text Type Reporting Categories. Each PSSA Reading question counts only once in determining the student's scale score.

_____ version 2

In the box below, all points in the Literature Text Reporting Category and all points in the Informational Text Reporting Category are included within the Reading Reporting Categories above. Each PSSA Reading question counts only once in determining the student's scale score.

Please explain.

_____

_____

_____

REPORT OPTIONS–VERSION 1 OR VERSION 2?

5. Now that you have reviewed the two reports, please select the preferred option from each group below.

_____ Strength Profile information
_____ Just Proficient Mean information

_____ Reading Text Type table placement directly after the Reading score reporting table
_____ Reading Text Type table placement directly after the entire ELA score reporting table

_____ ELA dual reporting footnote – version 1
_____ ELA dual reporting footnote – version 2

Additional Comments and Recommendations

_____

_____

_____

_____

_____

APPENDIX S: MODE STUDY

The PSSA tests in mathematics, English language arts, and science are administered in both paper- and computer-based formats. In the Standards for Educational and Psychological Testing (AERA et al., 2014) comparability of scores across testing conditions is emphasized as a means to support fairness in testing, stating that, "Comparability of scores enables test users to make comparable inferences based on the scores for all test takers" (AERA et al., 2014, p. 59). As PSSA scores are intended be interpreted in the same manner across test modes, it is important to assess the invariance of measurement across modes and subgroups of examinees.

An important consideration in evaluating mode effects is sample size. Online participation rates in the PSSAs remain under 5%, making it challenging to assess score comparability across modes due to the likely limitations in the generalizability of results of any such study to the full population of examinees. Table 1 displays the counts and percentages of paper-based and online test administration in 2017.

Table 1 Final N-Counts and Percent by Mode, 2017

Subject	Grade	N-Counts Paper	N-Counts CBT	Proportion (%) Paper	Proportion (%) CBT
Mathematics	3	123705	1500	98.80	1.20
Mathematics	4	124011	1564	98.75	1.25
Mathematics	5	121689	2716	97.82	2.18
Mathematics	6	119728	3384	97.25	2.75
Mathematics	7	121143	4441	96.46	3.54
Mathematics	8	118509	4762	96.14	3.86
ELA	3	123451	1472	98.82	1.18
ELA	4	123653	1547	98.76	1.24
ELA	5	121940	2243	98.19	1.81
ELA	6	119617	3553	97.12	2.88
ELA	7	120922	4822	96.17	3.83
ELA	8	118434	5219	95.78	4.22
Science	4	122666	2822	97.75	2.25
Science	8	117690	5026	95.90	4.10

Until such time that online participation reaches a sufficiently large sample size, any true population differences between scores on the paper- and computer-based modes may be difficult to distinguish from differences that are attributable to sampling and random error. In the interim, however, this exploration of person fit statistics was conducted to both set up a framework for analysis, and to gain some initial insight into whether evidence of mode effects due to conditions other than examinee ability exists. The question investigated here is, does the online testing mode measure the PSSA constructs for the population of students overall and by gender, ethnicity, IEP, and ELL status in a way that is invariant from the paper and pencil mode of administration? Results of this exploration do not suggest that mode effects are present for online versus paper. Nor does this study suggest the presence of effects by subgroup across modes. Note that some categories for ethnicity did not have sufficient cases for analyses. Accordingly, results are presented for Black, Hispanic, and White examinees.

METHOD

The data used in this study are from the final calibration samples for the 2017 administration of the PSSAs. Case counts for each of the 14 assessments, for online and paper are provided in Table 1.

Englehard (2009) provides a framework and methods for defining measurement quality in terms of measurement invariance across conditions and sub-populations as measured by model fit (by item—differential item function or "DIF," and by person—differential person functioning or "DPF"). The method employed used residual analysis to explore differences between observed and expected responses by individuals and groups, under different conditions, and given a specified item response theory (IRT) model. Although they are not exact tests of fit, these methods allow for insight into the invariance properties of an assessment through these types of fit analyses. In this study, the preliminary focus is on person fit at the test level. Item level analyses were conducted for each of these tests, but are not reported here in detail as no item showed a mode interaction effect size greater than 0.00.

The IRT model used for the PSSA is based on the work of Georg Rasch. The Rasch partial credit model (RPCM; Wright and Masters, 1982) was used to calibrate PSSA items because both multiple-choice (MC) and open-ended (OE) items were part of the assessment. The RPCM extends the Rasch model (Rasch, 1960) for dichotomous (0, 1) items so that it accommodates the polytomous OE item data. Under the RPCM, for a given item i with mi score categories, the probability of person n scoring x (x = 0, 1, 2,... m_i) is given by:

$$P_{ni}(X = x) = \frac{\exp \sum_{j=0}^{x} (\theta_n - D_{ij})}{\sum_{k=0}^{m_i} \exp \sum_{j=0}^{k} (\theta_n - D_{ij})},$$

where θ_n represents a student's proficiency (ability) level, and D_{ij} is the step difficulty of the j^{th} step on item i. For dichotomous MC items, the RPCM reduces to the standard Rasch model and the single step difficulty is referred to as the item's difficulty. The Rasch model predicts the probability of person n getting item i correct as follows:

$$P_{ni}(X = 1) = \frac{\exp(\theta_n - D_{ij})}{1 + \exp(\theta_n - D_{ij})}.$$

The Rasch model places both student ability and item difficulty (estimated in terms of log-odds or logits) on the same continuum. When the model assumptions are met, the Rasch model provides estimates of a person's ability which are independent of the items employed in the assessment, and conversely, estimates item difficulty independently of the sample of examinees. Item calibration was implemented via WINSTEPS 3.81.00 computer program (Wright and Linacre, 2014), which employs unconditional (UCON), joint-maximum-likelihood estimation (JMLE).

To produce person fit values, residuals of IRT model (essentially the differences between observed and expected responses) are summarized to create the mean square error statistics (MSE) of Infit and Outfit for items and persons. In this study, we use the unstandardized measures of Infit and Outfit, which are essentially MSE residuals and have expected values of 1.0 and a standard deviation of about 0.2 (Bond, & Fox, 2007). Such values represent adequate fit, whereas values greater than 2.0 represent more variability than expected, and less than 1.0 can mean students did not independently respond to items. In this study, Infit and Outfit values for persons were produced in WINSTEPS and the main, and interaction effects by condition (mode and item) and group (student groups) were produced by SAS® PROC GLM. The student groups examined are by:

- Gender (male or female)
- Ethnicity (dummy variables created for: Black, Hispanic, and White)
- English language learner status (ELL, yes or no)
- Individualized education plan (IEP, yes or no)

The proportion of variance (η^2) explained by condition, group, and condition by group interaction in the person fit measure was also computed.

RESULTS

A summary of person fit means, standard deviations, effect sizes is provided in this section. Findings suggest that main group effects are present in most tests for IEP students, and in some tests for ELL, Black, and Hispanic students. Although many of the between groups main and interaction effects were statistically significant, the overwhelming majority of effect sizes were <.0001. The absence of interactions effects between mode and subgroup does provide initial evidence that measurement invariance across the two modes appears to hold for each of the subgroups included in the model.

There is some consistency to the pattern of significant small to medium effects sizes for the IEP group which is more often than not showing small to moderate effect sizes, particularly for Outfit values. This means that the calibration model is fitting slightly less well for IEP students, however, it is important to also note that the fit values for IEP students are still within reasonably well-fitting ranges. Additionally, a similar, but slightly less consistent pattern is noted for ELL, Black, and Hispanic students, particularly in Mathematics and science.

Refer to Tables 2 and 3 for the mode and group effects for factors with η^2 => 0.01, and corresponding infit and outfit means and standard deviations. All interaction effects and item level effects were < 0.01 so are not included in the table.

Table 2 Significant Infit Group Effects Equal to or Greater than 0.01

Content	Grade	Subgroup	N	Infit Mean	Infit Std. Dev.	η^2
Mathematics	5	IEP (non-IEP)	20254 (104798)	1.05 (0.99)	0.17 (0.19)	0.01
Mathematics	5	Black (non-Black)	18025 (107027)	1.04 (1.00)	0.16 (0.19)	0.01
Mathematics	6	IEP (non-IEP)	19703 (103915)	1.06 (0.99)	0.18 (0.14)	0.02
Mathematics	6	Black (non-Black)	17615 (106003)	1.03 (0.99)	0.14 (0.18)	0.01
Mathematics	7	IEP (non-IEP)	19383 (106386)	1.05 (0.98)	0.12 (0.17)	0.02
Mathematics	8	IEP (non-IEP)	18601 (104622)	1.05 (0.98)	0.13 (0.16)	0.02
Mathematics	8	Black (non-Black)	17115 (106108)	1.03 (0.98)	0.13 (0.16)	0.01
Science	4	ELL (non-ELL)	3775 (122444)	1.06 (1.00)	0.11 (0.10)	0.01
Science	4	IEP (non-IEP)	20080 (106139)	1.03 (0.99)	0.11 (0.10)	0.02
Science	4	Black (non-Black)	18584 (107635)	1.03 (0.99)	0.11 (0.10)	0.02
Science	8	ELL (non-ELL)	3030 (119716)	1.04 (1.00)	0.08 (0.10)	0.01
Science	8	IEP (non-IEP)	18513 (104233)	1.03 (0.99)	0.09 (0.10)	0.02
Science	8	Black (non-Black)	1708 (105738)	1.02 (0.99)	0.09 (0.10)	0.01

Table 3 Significant Outfit Effects Equal to or Greater than 0.01

Content	Grade	Subgroup	N	Infit Mean	Infit Std. Dev.	η^2
ELA	3	IEP (non-IEP)	18228 (107646)	1.12 (0.96)	0.33 (0.28)	0.04
ELA	3	Black (non-Black)	18815 (107059)	1.07 (0.97)	0.30 (0.29)	0.02
ELA	3	Hispanic (non-Hisp.)	14501 (111373)	1.06 (0.98)	0.31 (0.29)	0.01
ELA	4	IEP (non-IEP)	20024 (105887)	1.14 (1.00)	0.04 (0.37)	0.02
ELA	4	Black (non-Black)	18503 (107408)	1.10 (1.01)	0.37 (0.37)	0.01
ELA	5	IEP (non-IEP)	20203 (104555)	1.11 (1.01)	0.34 (0.37)	0.05
ELA	6	IEP (non-IEP)	19720(103905)	1.10 (1.01)	0.30 (0.33)	0.01
ELA	7	IEP (non-IEP)	19446 (106475)	1.14 (1.00)	0.37 (0.38)	0.02
ELA	8	ELL (non-ELL)	3032 (120555)	1.29 (1.02)	0.52 (0.37)	0.01

Content	Grade	Subgroup	N	Infit Mean	Infit Std. Dev.	η^2
ELA	8	IEP (non-IEP)	18683 (104904)	1.16 (1.01)	0.40 (0.37)	0.02
Mathematics	3	IEP (non-IEP)	18300 (107872)	1.07 (0.99)	0.24 (0.24)	0.01
Mathematics	3	Black (non-Black)	18904 (107268)	1.05 (0.99)	0.22 (0.25)	0.01
Mathematics	4	IEP (non-IEP)	20084 (106197)	1.08 (0.99)	0.24 (0.24)	0.02
Mathematics	4	Black (non-Black)	18604 (107677)	1.05 (0.99)	0.21 (0.24)	0.01
Mathematics	5	Male (Female)	63492 (61189)	1.02 (0.98)	0.28 (0.24)	0.01
Mathematics	5	ELL (non-ELL)	3415 (121637)	1.18 (1.00)	0.28 (0.26)	0.01
Mathematics	5	IEP (non-IEP)	20254 (104798)	1.14 (0.98)	0.30 (0.25)	0.05
Mathematics	5	Black (non-Black)	18025 (107027)	1.13 (0.98)	0.09 (0.10)	0.04
Mathematics	5	Hispanic (non-Hisp.)	14019 (111033)	1.07 (0.99)	0.26 (0.26)	0.01
Mathematics	6	Gender	62848 (60418)	1.01 (0.98)	0.09 (0.10)	0.01
Mathematics	6	ELL (non-ELL)	3092 (120526)	1.14 (0.99)	0.22 (0.22)	0.01
Mathematics	6	IEP (non-IEP)	19703 (103915)	1.13 (0.97)	0.22 (0.21)	0.06
Mathematics	6	Black (non-Black)	17615 (106003)	1.08 (0.98)	0.21 (0.22)	0.02
Mathematics	6	Hispanic (non-Hisp.)	13406 (110212)	1.06 (0.99)	0.21 (0.22)	0.01
Mathematics	7	ELL (non-ELL)	2991 (122778)	1.12 (0.99)	0.16 (0.20)	0.01
Mathematics	7	IEP (non-IEP)	19383 (106386)	1.10 (0.97)	0.17 (0.20)	0.05
Mathematics	7	Black (non-Black)	17359 (108410)	1.06 (0.98)	0.17 (0.20)	0.02
Mathematics	7	Hispanic (non-Hisp.)	13214 (112555)	1.04 (0.98)	0.17 (0.20)	0.01
Mathematics	8	ELL (non-ELL)	3032 (120191)	1.13 (1.00)	0.21 (0.20)	0.01
Mathematics	8	IEP (non-IEP)	18601 (104622)	1.12 (0.98)	0.21 (0.19)	0.05
Mathematics	8	Black (non-Black)	17115 (106108)	1.08 (0.99)	0.21 (0.20)	0.02
Mathematics	8	Hispanic (non-Hisp.)	12357 (110866)	1.05 (0.99)	0.20 (0.20)	0.01
Science	4	ELL (non-ELL)	3775 (122444)	1.10 (1.00)	0.16 (0.13)	0.02
Science	4	IEP (non-IEP)	20080 (106139)	1.06 (0.99)	0.15 (0.12)	0.04
Science	4	Black (non-Black)	18584 (107635)	1.06 (0.99)	0.15 (0.12)	0.04
Science	4	Hispanic (non-Hisp.)	14432 (111787)	1.04 (1.00)	0.14 (0.13)	0.01
Science	8	ELL (non-ELL)	3030 (119716)	1.09 (1.00)	0.12 (0.11)	0.02
Science	8	IEP (non-IEP)	18513 (104233)	1.06 (0.99)	0.12 (0.11)	0.04
Science	8	Black (non-Black)	17008 (105738)	1.04 (0.99)	0.12 (0.11)	0.02
Science	8	Hispanic (non-Hisp.)	12307 (110439)	1.03 (0.99)	0.12 (0.11)	0.01

APPENDIX T: SUPPLEMENTAL VALIDITY EVIDENCE SUBMITTED FOR PEER REVIEW

As defined in the Standards (AERA, APA, & NCME, 2014), validity is defined as, "the degree to which evidence and theory support the interpretations of test scores for proposed uses of tests." The 2015 and 2016 Pennsylvania System of School Assessment (PSSA) tests in mathematics, English language arts (ELA) Technical Reports Chapter Nineteen document detailed validity arguments based on 5 sources of evidence—evidence related to 1) content, 2) response processes, 3) internal test structure, 4) relation to other variables, and 5) testing consequences.

As multiple measures to provide ongoing evidence within these five sources are desired, several additional analyses were conducted, including 1) an analysis of how well the PSSA scores predict performance (predictive validity) on high school exams in Algebra I and Literature (Keystone exams), and 2) multiple comparisons of PSSA mathematics and ELA results with other external criteria. These studies provide additional evidence in support of arguments for the convergent and discriminant validity of the PSSA test results detailed in the 2015 and 2016 PSSA Technical Reports referenced above. This report provides a summary of these seven additional analyses and results:

- Keystone predictions
- PSSA relation to other variables:
    - PSSA mathematics and ELA relationship with NAEP
    - PSSA mathematics and ELA relationship with Classroom Diagnostic Tools (CDT)
    - PSSA ELA relationship with GRADE (Group Reading Assessment and Diagnostic Evaluation) literacy assessments
    - PSSA mathematics and ELA relationship with Terra Nova Complete Battery ELA and mathematics
    - PSSA mathematics and ELA relationship with teacher ratings of student proficiency
    - PSSA mathematics and ELA subscore correlations

The results of these analyses provide reasonably strong evidence of the convergent and discriminant validity of the PSSA, as well its relationship with college and career readiness expectations.

KEYSTONE PREDICTIONS

Predictive validity indicates the extent to which an individual's future level on a criterion is predicted from prior test performance. The predictive validity of the PSSA assessments of future high school and college and career readiness was evaluated using grade 8 PSSA scores from 2015 matched at the student level to their respective Keystone scores for Algebra I and Literature from 2016 to construct and validate an empirical link between the grade 8 PSSA tests and Keystone performance. The total matched sample size for ELA and literature was 7,143 and was 92,885 for mathematics and algebra I.

First, correlations between PSSA and Keystone scores to assess the nature and strength of the relationship between these variables were examined. Correlations between ELA and Literature and mathematics and algebra I were both 0.83, showing strong relationships between the PSSA and Keystone scores. Second, simple linear regression models for each content area (mathematics and ELA) using corresponding Keystone scores as the criterion, and PSSA grade 8 scores as the predictor variables were constructed using a random split half procedure (SAS® Survey Procedure) to establish training and validation data sets.

The amount of variability in the Keystone scores explained by the PSSA scores was 0.68 for both algebra I and literature. The regression constants (intercept and slope, noted in Tables 1 and 2) were used to predict scores for the validation set, and correlations between observed and predicted Keystone scores were evaluated. Correlations between the observed and predicted Keystone scores in the validation data set was 0.83 for both algebra I and literature. Figures 1 and 2 show scatter plots for observed versus predicted scores, where predictions along most of the score range are very good, with some degradation of predictability at higher score levels. The total sample size for the training model for ELA was 3,572 and 46,443 for mathematics to Algebra.

Table 1 Parameter Estimates of Prediction Model for ELA to Literature

Variable	DF	Parameter Estimate	Standard Error	t Value	Pr > ltl
Intercept	1	1107.89	4.71	235.28	<.0001
Slope	1	0.40	0.00	86.79	<.0001

Table 2 Parameter Estimates of Prediction Model for Mathematics to Algebra I

Variable	DF	Parameter Estimate	Standard Error	t Value	Pr > ltl
Intercept	1	1017.40	1.55	658.48	<.0001
Slope	1	0.51	0.00	317.12	<.0001

Figure 1 Relationship of Observed v. Predicted Scores – Keystone Algebra I

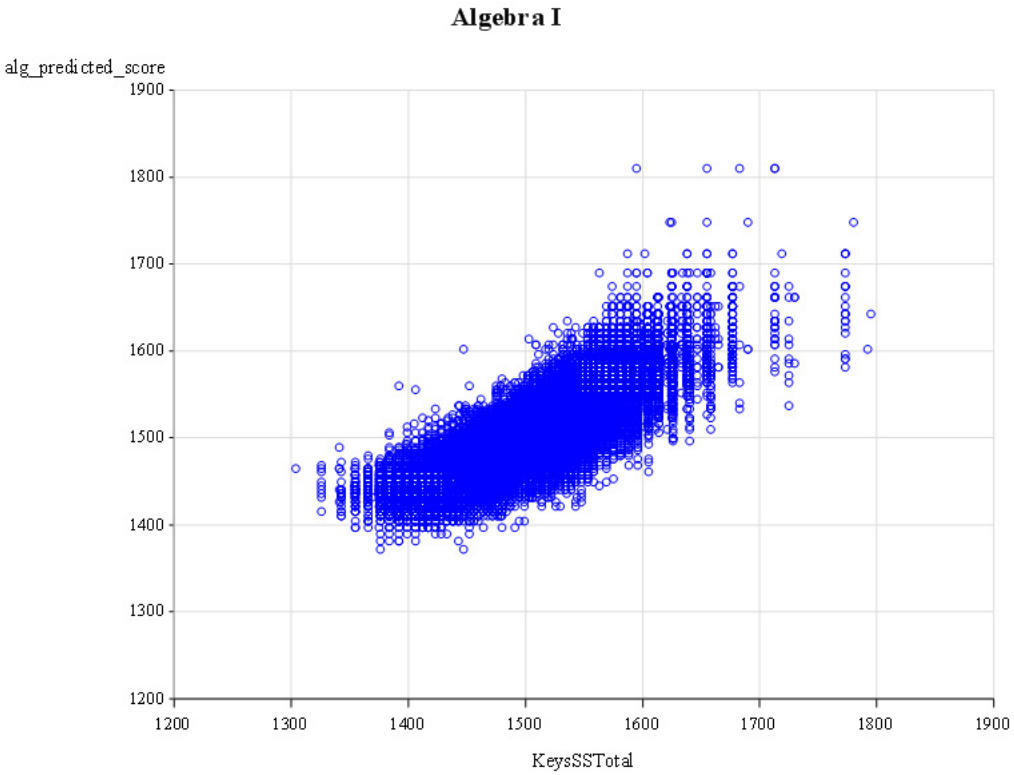
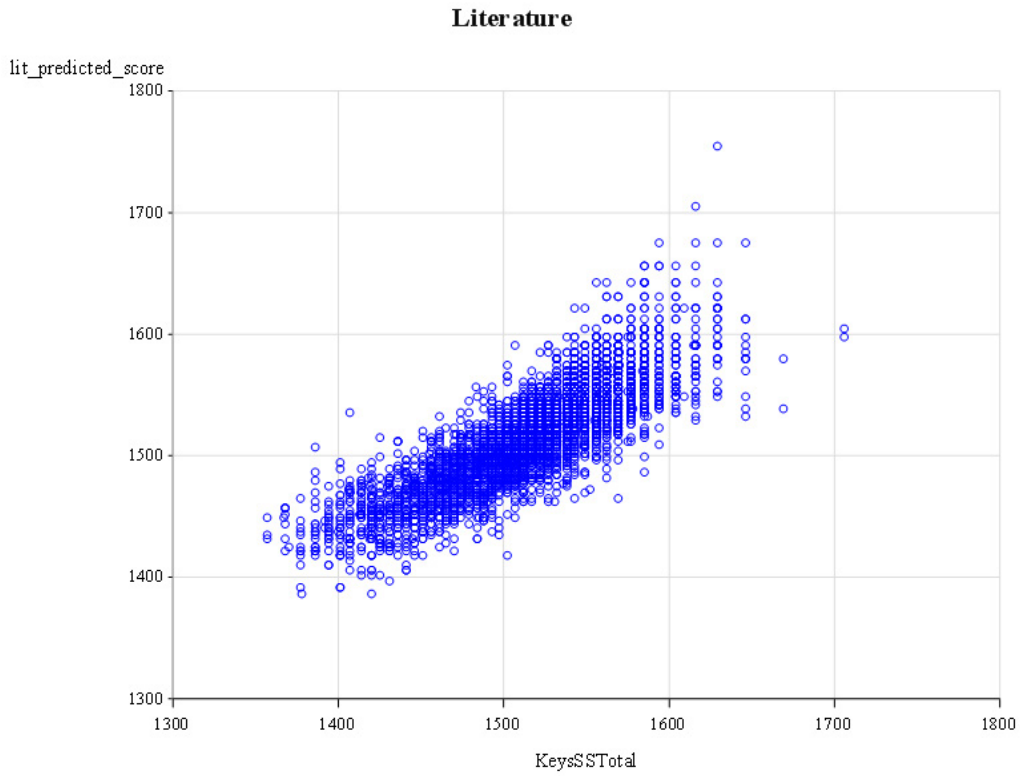


Figure 2 Relationship of Observed v. Predicted Scores – Keystone Literature



Both prediction models showed good fit. Figures 3 and 4 display residual plots for Keystone Algebra and Literature, respectively.

Figure 3 Model Fit Residual Plot – Keystone Algebra I

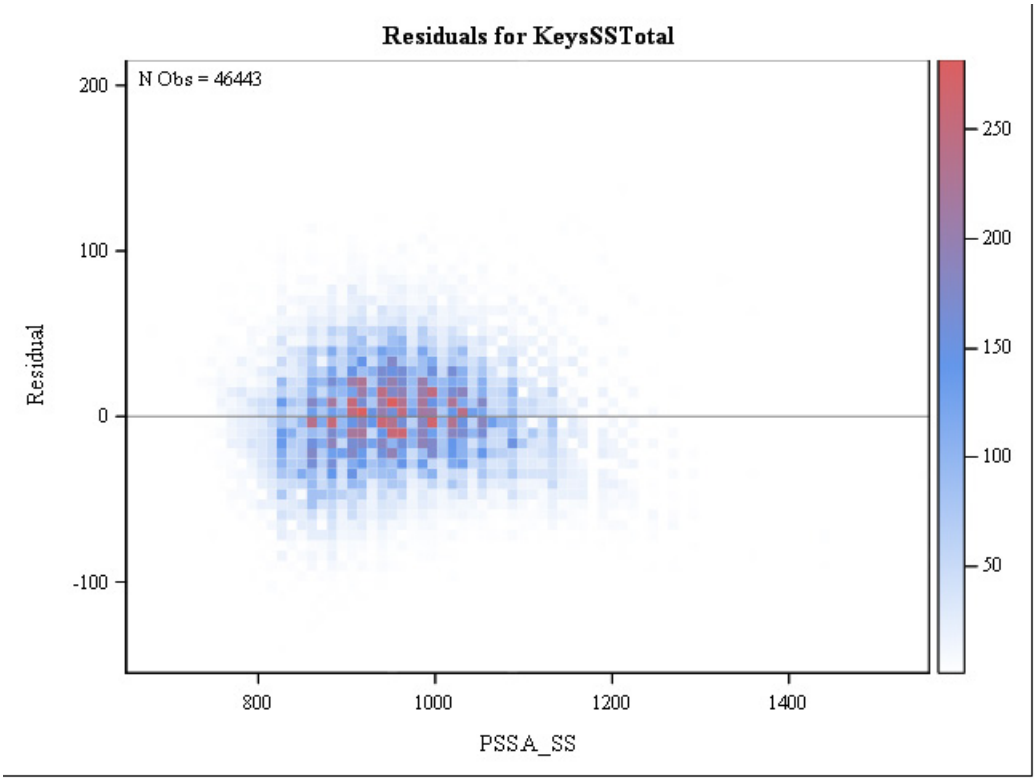
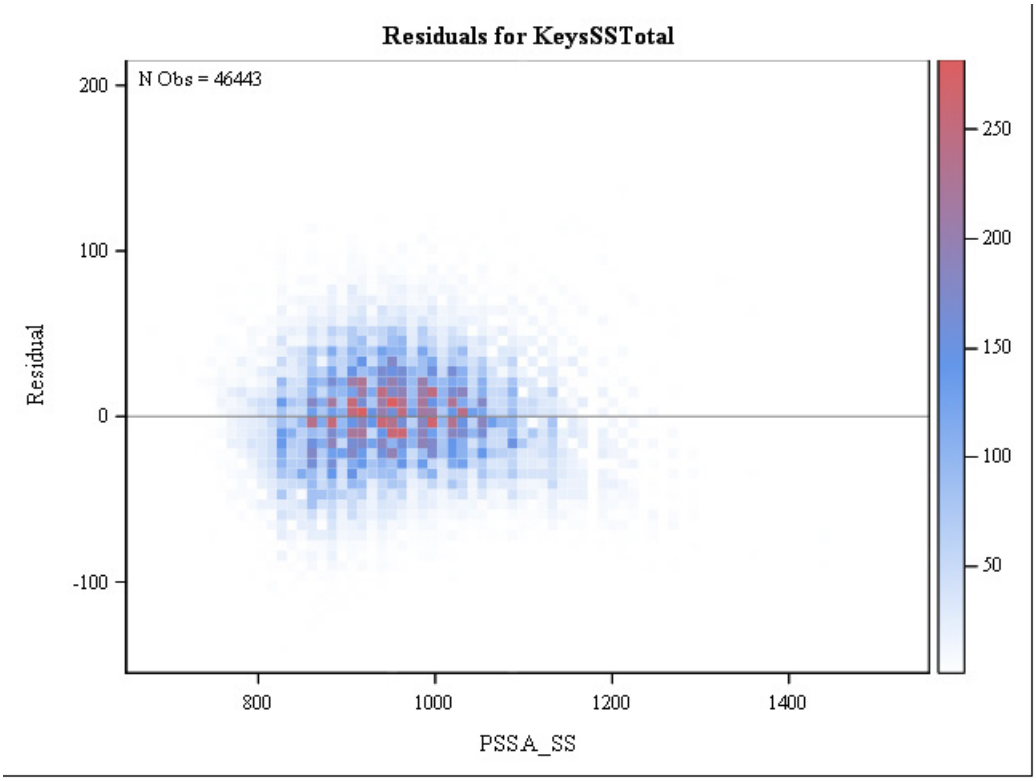


Figure 4 Model Fit Residual Plot – Keystone Literature



As longitudinal data to track post-secondary performance of PSSA and Keystone examinees is not available, the empirical prediction results provided here rely on both the content based articulation of performance expectations in grades 3-8 ELA and mathematics, as well as the participation of experts on college and career readiness during the Keystone standard setting process.

Although the grades 3-8 PSSA tests are not scaled on a common vertical scale, they are constructed to be closely aligned with the construct embodied in the Pennsylvania Core Standards which is well articulated from grade to grade. Refer to the Pennsylvania Core Standards and Chapters Two and Three of the 2015 and 2016 technical reports which describe this articulation and corresponding content development procedures in detail. The PSSA Standard Setting 2015 Report provides a detailed description of the articulation of performance level descriptors across grades 3 through 8 as well. Refer to the PSSA 2015 Standard Setting Report for details.

Additionally, learning progressions were developed by PDE and its curriculum consultants to show the developmental sequences or building blocks of content/skills students need to master as they progress toward career and college readiness. The progressions were developed for each content area (i.e., English language arts, mathematics, and science.) They served and continue to serve as roadmaps or the pathways (K-12) that students travel as they progress toward mastery of the skills needed for career and college readiness. As such, each learning progression was developed to provide teachers with the opportunity to determine whether students have navigated successfully through the building blocks and are able to move forward along the road to career and college readiness for a given content area. Each progression also provides teachers with the opportunity to identify students who may need additional instruction in a given content area, as well as to identify students who have navigated successfully beyond the building blocks or mileposts for each grade and/or course and are in need of accelerated curriculum. The learning progressions are based upon the Pennsylvania Core Standards, the Assessment Anchors, and the Eligible Contents and as such also provide evidence of the linkage between PSSA and Keystone addressing career and college readiness success with interpretations.

The learning progressions were developed by PDE and its curriculum experts in 2009. Upon the initial development of the learning progression, the progressions were reviewed by Pennsylvania educators to confirm alignment to the Pennsylvania Standards and to confirm that the progressions, do, in fact, serve to show the development sequences of content/skills students need to master as they progress toward career and college readiness. At this meeting with educators, PDE and its vendor provided information about the development of the learning

progressions, the purpose of the progressions, and the actual progressions for each content area. The committees of Pennsylvania educators reviewed the progressions, which serve to show the vertical articulation of the Pennsylvania Standards, Assessment Anchors and Eligible Content across grades within a given subject area. Pennsylvania educators were asked to confirm that the progressions were an accurate representation of how the content/skills included in the Pennsylvania Standards progressed across grades and provided a broad description of the essential content and general sequencing for student learning and skill development as each student progresses toward college and career readiness.

Beginning 2010, the learning progressions have continued to be used during item reviews. For example, during each subsequent review of items for potential use on the PSSA assessments, Pennsylvania educators, in addition to reviewing items for alignment to the standards, cognitive complexity, technical quality, etc. also review items for alignment to the learning progressions. The learning progressions demonstrate the content/skills linkage between the PSSA and Keystone and to show their relationship with career and college readiness success.

Last, during the Keystone Standard Setting in 2011, Pennsylvania students' performance on the PSSA, NAEP, and SAT, was investigated. The results were presented to panelists during the Keystone Standard Setting process before making their final cut score judgments. The results presented were as follows:

- PSSA and NAEP results were based on students' performance in 2009. The PSSA results were from grades 6–8 and 11. The NAEP results were from grade 8.
- All students in grades 6–8 and 11 in Pennsylvania took the PSSA. A sample that represents the Pennsylvania grade 8 students took the NAEP tests.
- The SAT results were based on the performance of students who took the SAT in 2010 or prior years.
- About 99% of students in the 2010 SAT data file indicated their expected graduation dates were in 2010; most of these students were in grade 11 in 2009. Therefore, the 2010 SAT data and the 2009 PSSA data were matched.
- Based on the matched sample, it was found that students with higher PSSA scores were more likely to take the SAT. To represent the full population in terms of demographics and PSSA scores, the matched sample was weighted by students' demographics and PSSA scores when calculating the impacts.

While discussing the external data, panelists were reminded that all these tests were created for different purposes and might cover different content standards. Before panelists provided their final judgments, they were instructed to fill out the readiness form to make sure they understood how to adjust their placements (if they desired to do so) based on external impact data. Final cut scores were established through application of the Bookmark Standard Setting Method (Lewis, Mitzel, Green, & Patz, 1999) on the Keystone tests by panelists that included CCR experts from colleges and universities, providing a non-empirical link between panelist expectations when evaluating college student performance and their respective decisions about PSSA performance expectations. Full details on method and results are documented in the Keystone Standard Setting Technical report: Algebra I, Biology, and Literature. Refer to Spring 2011 Keystone Standard-Setting Report.

RELATIONSHIP BETWEEN PSSA MATHEMATICS AND NAEP PERFORMANCE

To provide evidence of the convergent validity of PSSA mathematics and ELA performance level classifications with a rigorous established measure, the percentages of proficient and above as established by the PSSA cut scores for mathematics and ELA were compared to the NAEP Pennsylvania State and US Nation level results using 2015 test results. Tables 3 through 6 show these comparisons.

Although the percentages in each performance level vary somewhat between the PSSA and NAEP Pennsylvania-specific results, the percent of proficient and above in mathematics is nearly identical in grade 4 with 44% of students classified as proficient and above on the PSSA, and 45% with the same classification on NAEP. In grade 8, 59% of students were classified as proficient and above, compared with 42% on NAEP.

The correspondence between PSSA and NAEP percentages of proficient and above for ELA is not as strong as mathematics, but this might be expected due to the differences in the constructs measured. The PSSA ELA tests target both reading and writing domains, where NAEP assesses reading only. The percent proficient for grade 4 was 59% for PSSA ELA, and 42 for NAEP reading in Pennsylvania, showing reasonable alignment given the difference in constructs measured.

Writing was not tested in the 2015 NAEP administration, so the 2011 percentages are included for the national level as reference only. The 2011 NAEP administration pre-dates the development of the current PSSA tests in ELA and mathematics.

These results show reasonably strong support for the convergent validity of PSSA performance classifications, considering the good construct alignment between PSSA and NAEP mathematics and the weaker alignment between PSSA ELA and NAEP reading.

Table 3. PSSA and NAEP Mathematics Grade 4 Comparison, 2015 (% Impact)

Performance Level	PSSA	NAEP PA*	NAEP Nation*
Below Basic	25	17	19
Basic	31	38	42
Proficient	28	35	32
Advanced	17	10	7
Prof. + Adv.	44	45	41

*Retrieved at: http://www.education.pa.gov/K-12/Assessment%20and%20Accountability/Pages/National-Assessment.aspx#tab-1

Table 4. PSSA and NAEP Mathematics Grade 8 Comparison, 2015 (% Impact)

Performance Level	PSSA	NAEP PA*	NAEP Nation*
Below Basic	38	28	30
Basic	33	36	38
Proficient	22	27	24
Advanced	8	10	8
Prof. + Adv.	30	37	32

*Retrieved at: http://www.education.pa.gov/K-12/Assessment%20and%20Accountability/Pages/National-Assessment.aspx#tab-1

Table 5. PSSA ELA and NAEP Grade 4 Comparison (% Impact)

Performance Level	PSSA	NAEP PA (Reading, 2015)*	NAEP Nation (Reading, 2015)*
Below Basic	13	26	32
Basic	29	32	33
Proficient	37	31	27
Advanced	22	11	8
Prof. + Adv.	59	42	35

*Retrieved at: http://www.education.pa.gov/K-12/Assessment%20and%20Accountability/Pages/National-Assessment.aspx#tab-1

Table 6. PSSA ELA and NAEP Grade 8 Comparison (% Impact)

Performance Level	PSSA	NAEP PA (Reading, 2015)*	NAEP Nation (Reading, 2015)*	NAEP Nation (Writing, 2011)*
Below Basic	11	22	25	20
Basic	31	38	42	53
Proficient	44	35	29	24
Advanced	15	5	3	3
Prof. + Adv.	59	40	32	27

*Retrieved at: http://www.education.pa.gov/K-12/Assessment%20and%20Accountability/Pages/National-Assessment.aspx#tab-1

RELATIONSHIP BETWEEN PSSA ELA AND MATHEMATICS AND CLASSROOM DIAGNOSTIC TOOLS (CDT)

The relationship between the 2015 and 2016 PSSA and Classroom Diagnostic Tools (CDT) was examined in terms of concurrent validity. The relationship between the 2017 PSSA and Classroom Diagnostic Tools (CDT) was examined in terms of both concurrent and discriminant validity The CDT is a set of online assessments (literacy, mathematics, and science) and is designed to provide diagnostic information to guide instruction in support of intervention and enrichment. Both the PSSA and the CDT testing programs are constructed to be explicitly aligned to the same Pennsylvania Core Standards and Assessment Anchors and Eligible Content, making the CDT a good candidate with which to assess the strength of the PSSA's relationship to other established measures over time, with the caveat that current CDT participation rates may not yet be fully representative of student populations in the Commonwealth of Pennsylvania as the CDT is optional.

For each content area, PSSA results for the Spring 2015, 2016, and 2017 administrations were matched to CDT results from the 2014–2015, 2015-2016, and 2016-2017 school years, respectively. The correlations between students' total scale scores on the CDT and the PSSA are presented in Tables 7 through 9.

Table 7 Correlation between CDT and PSSA Exams Scores, Within Subjects

Student Grade	CDT Test	PSSA Test	*N*	Correlation of Total Scale Scores
3	Mathematics Lower Grades	PSSA Mathematics Grade 3	25,615	0.785
4	Mathematics Lower Grades	PSSA Mathematics Grade 4	26,535	0.797
5	Mathematics Lower Grades	PSSA Mathematics Grade 5	27,661	0.811
6	Mathematics	PSSA Mathematics Grade 6	33,762	0.832
7	Mathematics	PSSA Mathematics Grade 7	32,577	0.812
8	Mathematics	PSSA Mathematics Grade 8	24,986	0.770
3	Reading Lower Grades	PSSA ELA Grade 3	25,589	0.789
4	Reading Lower Grades	PSSA ELA Grade 4	27,096	0.816
5	Reading Lower Grades	PSSA ELA Grade 5	27,220	0.821
6	Reading/Literature	PSSA ELA Grade 6	31,539	0.815
7	Reading/Literature	PSSA ELA Grade 7	33,154	0.804
8	Reading/Literature	PSSA ELA Grade 8	33,626	0.783
4	Science Lower Grades	PSSA Science Grade 4	9,233	0.782
8	Science	PSSA Science Grade 8	26,227	0.801
3	Writing Lower Grades	PSSA ELA Grade 3	3,261	0.771
4	Writing Lower Grades	PSSA ELA Grade 4	3,314	0.799
5	Writing Lower Grades	PSSA ELA Grade 5	5,075	0.796
6	Writing/English Composition	PSSA ELA Grade 6	6,288	0.797
7	Writing/English Composition	PSSA ELA Grade 7	6,907	0.786
8	Writing/English Composition	PSSA ELA Grade 8	7,584	0.767

Table 8 Correlation between CDT and PSSA Exams Scores 2016, Within Subjects

Student Grade	CDT	PSSA Test	*N*	Correlation of Total Scale Scores
3	Math Grades 3-5	PSSA Math Grade 3	26,490	0.801
4	Math Grades 3-5	PSSA Math Grade 4	28,700	0.819
5	Math Grades 3-5	PSSA Math Grade 5	30,542	0.821
6	Math Grades 6-8	PSSA Math Grade 6	32,675	0.840
7	Math Grades 6-8	PSSA Math Grade 7	32,557	0.832
8	Math Grades 6-8	PSSA Math Grade 8	26,795	0.807
3	Reading Grades 3-5	PSSA ELA Grade 3	23,381	0.804
4	Reading Grades 3-5	PSSA ELA Grade 4	25,180	0.808
5	Reading Grades 3-5	PSSA ELA Grade 5	26,057	0.830
6	Reading/Lit Grades 6-HS	PSSA ELA Grade 6	31,607	0.808
7	Reading/Lit Grades 6-HS	PSSA ELA Grade 7	33,000	0.796
8	Reading/Lit Grades 6-HS	PSSA ELA Grade 8	32,151	0.782
4	Science Grades 3-5	PSSA Science Grade 4	8,969	0.799
8	Science Grades 6-HS	PSSA Science Grade 8	25,068	0.782
3	Writing Grades 3-5	PSSA ELA Grade 3	3,727	0.795
4	Writing Grades 3-5	PSSA ELA Grade 4	4,031	0.788
5	Writing Grades 3-5	PSSA ELA Grade 5	4,100	0.793
6	Writing/Eng Comp Gr 6-HS	PSSA ELA Grade 6	7,061	0.792
7	Writing/Eng Comp Gr 6-HS	PSSA ELA Grade 7	7,535	0.780
8	Writing/Eng Comp Gr 6-HS	PSSA ELA Grade 8	7,713	0.749

Table 9 Correlation between CDT and PSSA Exams Scores 2017, Within and Across Subjects

Student Grade	CDT	PSSA Test	*N*	Correlation of Total Scale Scores
3	Mathematics - Lower Grades	PSSA ELA Grade 3	22755	0.721
4	Mathematics - Lower Grades	PSSA ELA Grade 4	26002	0.732
5	Mathematics - Lower Grades	PSSA ELA Grade 5	28034	0.741
6	Mathematics	PSSA ELA Grade 6	35516	0.744
7	Mathematics	PSSA ELA Grade 7	34642	0.747
8	Mathematics	PSSA ELA Grade 8	29887	0.732
3	Reading - Lower Grades	PSSA ELA Grade 3	19668	0.808
4	Reading - Lower Grades	PSSA ELA Grade 4	21778	0.815
5	Reading - Lower Grades	PSSA ELA Grade 5	24070	0.819
6	Reading/Literature	PSSA ELA Grade 6	30280	0.808
7	Reading/Literature	PSSA ELA Grade 7	32426	0.799
8	Reading/Literature	PSSA ELA Grade 8	31568	0.783
3	Science - Lower Grades	PSSA ELA Grade 3	2457	0.774
4	Science - Lower Grades	PSSA ELA Grade 4	11830	0.755
5	Science - Lower Grades	PSSA ELA Grade 5	2312	0.737
6	Science	PSSA ELA Grade 6	10358	0.736
7	Science	PSSA ELA Grade 7	16817	0.724
8	Science	PSSA ELA Grade 8	26724	0.704
3	Writing - Lower Grades	PSSA ELA Grade 3	3193	0.789
4	Writing - Lower Grades	PSSA ELA Grade 4	3486	0.806
5	Writing - Lower Grades	PSSA ELA Grade 5	4788	0.802
6	Writing - English Comp	PSSA ELA Grade 6	7538	0.821
7	Writing - English Comp	PSSA ELA Grade 7	9531	0.796
8	Writing - English Comp	PSSA ELA Grade 8	9792	0.773
3	Mathematics - Lower Grades	PSSA Math Grade 3	22784	0.800
4	Mathematics - Lower Grades	PSSA Math Grade 4	26058	0.816
5	Mathematics - Lower Grades	PSSA Math Grade 5	28062	0.822
6	Mathematics	PSSA Math Grade 6	35481	0.836
7	Mathematics	PSSA Math Grade 7	34653	0.839
8	Mathematics	PSSA Math Grade 8	29835	0.815
3	Reading - Lower Grades	PSSA Math Grade 3	19693	0.712
4	Reading - Lower Grades	PSSA Math Grade 4	21824	0.724
5	Reading - Lower Grades	PSSA Math Grade 5	24109	0.719
6	Reading/Literature	PSSA Math Grade 6	30244	0.737
7	Reading/Literature	PSSA Math Grade 7	32417	0.719
8	Reading/Literature	PSSA Math Grade 8	31486	0.700
3	Science - Lower Grades	PSSA Math Grade 3	2462	0.700

Student Grade	CDT	PSSA Test	*N*	Correlation of Total Scale Scores
4	Science - Lower Grades	PSSA Math Grade 4	11860	0.699
5	Science - Lower Grades	PSSA Math Grade 5	2312	0.678
6	Science	PSSA Math Grade 6	10358	0.694
7	Science	PSSA Math Grade 7	16819	0.701
8	Science	PSSA Math Grade 8	26667	0.677
3	Writing - Lower Grades	PSSA Math Grade 3	3195	0.691
4	Writing - Lower Grades	PSSA Math Grade 4	3492	0.710
5	Writing - Lower Grades	PSSA Math Grade 5	4797	0.707
6	Writing - English Comp	PSSA Math Grade 6	7524	0.734
7	Writing - English Comp	PSSA Math Grade 7	9522	0.712
8	Writing - English Comp	PSSA Math Grade 8	9778	0.685
4	Mathematics - Lower Grades	PSSA Science	25984	0.738
8	Mathematics	PSSA Science	29763	0.751
4	Reading - Lower Grades	PSSA Science	21747	0.779
8	Reading/Literature	PSSA Science	31421	0.754
4	Science - Lower Grades	PSSA Science	11782	0.778
8	Science	PSSA Science	26591	0.779
4	Writing - Lower Grades	PSSA Science	3487	0.727
8	Writing - English Comp	PSSA Science	9753	0.724

Note. Similar subject correlations are shaded in grey

The within subject correlations are strong, ranging from 0.749 to 0.840 across all three years. This illustrates a strong positive relationship between the PSSA and the CDT where the subjects are the same or similar. Conversely, the correlations between different content areas in 2017 are noticeable lower, ranging from 0.677 to 0.779, where most cross-subject correlations fall below 0.75. These patterns demonstrate reasonable convergent and discriminant validity of PSSA scores.

RELATIONSHIP BETWEEN PSSA ELA AND GRADE ASSESSMENTS

To provide additional evidence of convergent validity for the ELA assessments, PSSA 2016 scores were merged with data from the GRADE, which was administered to a self-selected sample participating in a literacy improvement program in Pennsylvania schools in 2016. About 8,000 to 9,000 examinees participated in the GRADE in each of grades 3-8 in 2016. The total sample size for analysis included all merged records for students who took both the GRADE and the PSSA. Final case counts (N) for merged records are noted in Table 10.

The GRADE is a norm referenced assessment with content that is similar to the PSSA ELA assessments (although not formally aligned to the Pennsylvania State Standards), and is intended to provide information about the reading strengths and needs of each student. Please refer to the GRADE technical manual for details regarding GRADE. Both Pearson Correlation Coefficients and disattenuated correlations of total test scores (in scale score units) are provided in Table 10. These results show strong evidence of the convergent validity between the PSSA ELA and GRADE test scores, with correlations ranging from 0.81 and 0.85.

Table 10 Correlation between PSSA and GRADE Scores

Grade	*N*	Correlation	Disattenuated Correlation
3	6777	0.85	0.91
4	7577	0.85	0.90
5	7795	0.85	0.91
6	8059	0.84	0.89
7	5810	0.82	0.88
8	5148	0.81	0.87

RELATIONSHIP BETWEEN PSSA ELA AND MATHEMATICS AND TERRA NOVA™, THIRD EDITION

To provide additional evidence of convergent and discriminant validity, PSSA 2016 scores were merged with data from two Pennsylvania School Districts (Hempfield Area School District and Upper Mooreland School District) that administered Terra Nova™, Third Edition Complete Battery assessments in mathematics and reading in grades 3, 5, and 7. Correlations were run between similar content areas to provide convergent validity evidence. Discriminant validity evidence can be found in correlations between different content areas that are lower than the correlations between the same or similar content areas, so these correlations were also computed.

Terra Nova™, Third Edition Complete Battery is a norm referenced assessment with content that is similar to the PSSA mathematics and ELA assessments (although not formally aligned to the Pennsylvania State Standards), and is intended to provide information about examinees' mathematics and reading achievement. Please refer to the Terra Nova 3 technical manual for details regarding the assessment.

Both Pearson Correlation Coefficients and disattenuated correlations of total test scores (in scale score units) are provided in Table 11. As the districts participating in Terra Nova assessments tended to be higher performing, showing some range restriction, interpretation of the disattenuated correlations may be more appropriate in this case. Results provide strong evidence of convergent validity between the PSSA and Terra Nova scores with disattenuated correlations ranging from 0.81 to 0.86. Discriminant validity evidence is provided by the systematically lower correlations and disattenuated correlations for cross content correlations, with disattenuated correlations ranging from 0.71 to 0.76.

Table 11 Correlation of PSSA and Terra Nova™, Third Edition Scores

Content	Grade	*N*	Correlation	Disattenuated Correlation
Mathematics	3	449	0.76	0.81
Mathematics	5	504	0.75	0.80
Mathematics	7	331	0.80	0.86
ELA/Reading	3	448	0.75	0.81
ELA/Reading	5	504	0.75	0.81
ELA/Reading	7	332	0.74	0.81
PSSA Mathematics/TN Reading	3	448	0.67	0.72
PSSA Mathematics/TN Reading	5	504	0.65	0.71
PSSA Mathematics/TN Reading	7	332	0.69	0.75
PSSA ELA/TN Mathematics	3	448	0.66	0.72
PSSA ELA/TN Mathematics	5	504	0.71	0.76
PSSA ELA/TN Mathematics	7	332	0.66	0.72

RELATIONSHIP BETWEEN PSSA ELA AND MATHEMATICS AND TEACHER RATINGS OF STUDENT PROFICIENCY

To better understand the strength of the relationship between PSSA test performance classifications and student performance in the classroom, a special study was conducted where teacher ratings of student performance were compared to PSSA results for 2017. In this case, classroom performance, as represented by teacher classifications, is an additional external criteria on which the PSSA relationship with other variables was measured.

In this study, a representative sample of at least 800 examinees was identified for each test, with a target of at least 100 students in the lowest and highest proficiency levels. Sampling occurred at the school level to reduce the potential burden on schools that may occur when sampling occurs at the student or teacher level. A random sample of 32 schools was drawn, followed by an additional selection of eight schools based on the following:

- Two elementary schools with highest percent of basic students
- Two elementary schools with highest percent of advanced students
- Two middle/high schools with highest percent of basic students
- Two middle/high schools with highest percent of advanced students

This extra layer of sampling was implemented to ensure a sufficiently robust sample of students at the highest and lowest levels of achievement. A list of 40 schools was ultimately generated in the manner described, and all teachers were invited to provide their ratings of performance for all students with whom they were sufficiently familiar. Assuming an average of two teachers per grade and content area (with elementary teachers rating both ELA and mathematics), the targeted number of teacher participants was approximately 30 for each PSSA test.

Four weeks prior to the first day of the Spring 2017 PSSA administration cycle, participating teachers attended training via Webex and then had three weeks prior to administration of the PSSA to respond to a brief online survey where they classified each eligible student in their respective classrooms into one of the four Pennsylvania performance categories (below basic, basic, proficient, and advanced) using the PSSA Performance Level Descriptors. Students in a teacher's classroom less than one-quarter of the school year were excluded from the study, as were any students who were ineligible to take the PSSA due to Pennsylvania State Policy, e.g. English language learners not in Pennsylvania schools for a sufficient period of time. Teachers were instructed to make classification decisions based on their observations of the in-class performance of each student. Data were then merged by the examinees' Pennsylvania secure IDs with their corresponding PSSA test scores.

A total of 101 teachers across 19 school districts provided a total of 7,698 ratings across mathematics and ELA, grades 3-8. Tables 12-19 provide demographic details for the participating teachers, as well as their feedback on the process itself.

Table 12 Frequency of Teachers by Gender

Gender	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Female	74	73.27	74	73.27
Male	25	24.75	99	98.02
Prefer Not to Answer	2	1.98	101	100.00

Table 13 Frequency of Teachers by Ethnicity

Ethnicity	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Black/African American (not Hispanic)	1	0.99	1	0.99
No ethnicity marked	3	2.97	4	3.96
White/Caucasian (not Hispanic)	97	96.04	101	100.00

Table 14 Frequency of Teachers by Role

Role	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Classroom Teacher	94	93.07	94	93.07
Special Education Instructor	7	6.93	101	100.00

Table 15 Frequency of Teachers by Geography

Geo	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Rural	50	49.50	50	49.50
Suburban	17	16.83	67	66.34
Urban	34	33.66	101	100.00

Table 16 Frequency of Teachers by Years of Experience

Years of Teaching	Frequency	Percent	Cumulative Frequency	Cumulative Percent
0-5 years	30	29.70	30	29.70
11-15 years	20	19.80	50	49.50
16-20 years	21	20.79	71	70.30
20 or more years	15	14.85	86	85.15
6-10 years	15	14.85	101	100.00

Table 17 Frequency of Teachers Responding to Question of Process Clarity

Was the study process clear to you as you conducted your ratings?	Frequency	Percent	Cumulative Frequency	Cumulative Percent
No	11	10.89	11	10.89
Yes	90	89.11	101	100.00

Table 18 Frequency of Teachers Responding to Question of Consistency of Performance Level Descriptors and Classroom Performance Expectations

Did you find the Performance Level Descriptors to be consistent with classroom performance expectations?	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Consistent	52	51.49	52	51.49
Not consistent	6	5.94	58	57.43
Somewhat consistent	43	42.57	101	100.00

Table 19 Frequency of Teachers Responding to Question of How Well Performance Level Descriptors Describe Students

Overall, how well do the Performance Level Descriptors describe your students?	Frequency	Percent	Cumulative Frequency	Cumulative Percent
1-Not at all	1	0.99	1	0.99
2	14	13.86	15	14.85
3-Satisfactory	65	64.36	80	79.21
4	17	16.83	97	96.04
5-Very well	4	3.96	101	100.00

Teacher performance level classifications were then compared to PSSA classifications based on the cut scores for each of the PSSA exams, noting that any correspondence was affected not only by the examinees earned scaled scores, but also by the established cut scores on the PSSAs. Table 20 provides the percentages of perfect, perfect +adjacent, and discrepant agreement, as well as the quadratic weighted kappa values between teacher ratings and PSSA classifications for each test. QWK is used here as a measure beyond basic percentages of agreement as it takes both chance and degree of disagreement into account. Generally, the rates of perfect and perfect +adjacent agreement are slightly higher for ELA than for mathematics. The quadratic weighted kappas range from 0.46 to 0.62.

Table 20 Rates of Agreement and Quadratic Weighted Kappa

Content	Grade	*N*	Percent Perfect Agreement	Percent Perfect +Adjacent Agreement	Percent Discrepant Agreement	Quadratic Weighted Kappa
Mathematics	3	505	52.67	92.67	7.33	0.53
Mathematics	4	516	50.00	94.96	5.04	0.51
Mathematics	5	532	47.37	91.92	8.08	0.47
Mathematics	6	708	59.46	97.60	2.40	0.60
Mathematics	7	923	59.26	97.50	2.49	0.62
Mathematics	8	762	50.92	94.62	5.38	0.53
ELA	3	493	55.17	96.95	3.04	0.53
ELA	4	547	57.40	97.25	2.74	0.56
ELA	5	457	47.05	96.94	3.06	0.46
ELA	6	855	60.00	98.71	1.29	0.54
ELA	7	705	60.14	98.72	7.28	0.54
ELA	8	695	60.86	98.70	1.29	0.54

As the rates of perfect and adjacent agreement are quite close, inspection of the direction of disagreement is important. The contingency tables (Tables 21-32) for mathematics show an overall pattern of teachers classifying students into higher performance levels than the PSSA classifications, where the opposite tends to be true for ELA. This shows a tendency for teachers to be generally more lenient in their mathematics ratings than the PSSA standards, and stricter than the PSSA standards for ELA.

Generally, the results show a moderate correspondence between teacher ratings and PSSA performance levels as might be expected due given natural differences in classroom practices and teacher relationships with students. Such circumstances can be expected to influence teacher ratings of the students with whom they work on a daily basis. Attrition of the targeted sample can also introduce some inconsistency of the results by reducing the number of teachers participating and, consequently, increasing the weight of any one teacher's ratings on the overall results. In this case, attrition from the targeted sample size ranged from about 30-50% for students rated, and about 50-60% for the number of teachers participating.

Table 21 Contingency Table – PSSA Performance by Teacher Rating of Performance, Math Grade 3

	Teacher Rating 1	Teacher Rating 2	Teacher Rating 3	Teacher Rating 4	Total
PSSA Performance 1	94	62	24	2	182
Frequency Percent	18.61	12.28	4.75	0.40	36.04
PSSA Performance 2	15	44	39	7	105
Frequency Percent	2.97	8.71	7.72	1.39	20.79
PSSA Performance 3	3	23	91	9	126
Frequency Percent	0.59	4.55	18.02	1.78	24.95
PSSA Performance 4	0	1	54	37	92
Frequency Percent	0.00	0.20	10.69	7.33	18.22
Total	112	130	208	55	505
Frequency Percent	22.18	25.74	41.19	10.89	100.00

Note. Frequency Missing = 2

Table 22 Contingency Table – PSSA Performance by Teacher Rating of Performance, Math Grade 4

	Teacher Rating 1	Teacher Rating 2	Teacher Rating 3	Teacher Rating 4	Total
PSSA Performance 1	104	74	20	0	198
Frequency Percent	20.16	14.34	3.88	0.00	38.37
PSSA Performance 2	19	65	78	6	168
Frequency Percent	3.68	12.60	15.12	1.16	32.56
PSSA Performance 3	0	15	60	34	109
Frequency Percent	0.00	2.91	11.63	6.59	21.12
PSSA Performance 4	0	0	12	29	41
Frequency Percent	0.00	0.00	2.33	5.62	7.95
Total	123	154	170	69	516
Frequency Percent	23.84	29.84	32.95	13.37	100.00

Note. Frequency Missing = 4

Table 23 Contingency Table – PSSA Performance by Teacher Rating of Performance, Math Grade 5

	Teacher Rating 1	Teacher Rating 2	Teacher Rating 3	Teacher Rating 4	Total
PSSA Performance 1	71	74	28	0	173
Frequency Percent	13.35	13.91	5.26	0.00	32.52
PSSA Performance 2	15	69	72	15	171
Frequency Percent	2.82	12.97	13.53	2.82	32.14
PSSA Performance 3	0	16	72	43	131
Frequency Percent	0.00	3.01	13.53	8.08	24.62
PSSA Performance 4	0	0	17	40	57
Frequency Percent	0.00	0.00	3.20	7.52	10.71
Total	86	159	189	98	532
Frequency Percent	16.17	29.89	35.53	18.42	100.00

Note. Frequency Missing = 6

Table 24 Contingency Table – PSSA Performance by Teacher Rating of Performance, Math Grade 6

	Teacher Rating 1	Teacher Rating 2	Teacher Rating 3	Teacher Rating 4	Total
PSSA Performance 1	71	53	12	0	136
Frequency Percent	10.03	7.49	1.69	0.00	19.21
PSSA Performance 2	23	130	65	2	220
Frequency Percent	3.25	18.36	9.18	0.28	31.07
PSSA Performance 3	0	33	135	67	235
Frequency Percent	0.00	4.66	19.07	9.46	33.19
PSSA Performance 4	0	3	29	85	117
Frequency Percent	0.00	0.42	4.10	12.01	16.53
Total	94	219	241	154	708
Frequency Percent	13.28	30.93	34.04	21.75	100.00

Note. Frequency Missing = 12

Table 25 Contingency Table – PSSA Performance by Teacher Rating of Performance, Math Grade 7

	Teacher Rating 1	Teacher Rating 2	Teacher Rating 3	Teacher Rating 4	Total
PSSA Performance 1	165	103	15	0	283
Frequency Percent	17.88	11.16	1.63	0.00	30.66
PSSA Performance 2	30	142	96	2	270
Frequency Percent	3.25	15.38	10.40	0.22	29.25
PSSA Performance 3	2	41	146	31	220
Frequency Percent	0.22	4.44	15.82	3.36	23.84
PSSA Performance 4	0	4	52	94	150
Frequency Percent	0.00	0.43	5.63	10.18	16.25
Total	197	290	309	127	923
Frequency Percent	21.34	31.42	33.48	13.76	100.00

Note. Frequency Missing = 29

Table 26 Contingency Table – PSSA Performance by Teacher Rating of Performance, Math Grade 8

	Teacher Rating 1	Teacher Rating 2	Teacher Rating 3	Teacher Rating 4	Total
PSSA Performance 1	117	91	24	1	233
Frequency Percent	15.35	11.94	3.15	0.13	30.58
PSSA Performance 2	15	80	117	16	228
Frequency Percent	1.97	10.50	15.35	2.10	29.92
PSSA Performance 3	0	21	121	57	199
Frequency Percent	0.00	2.76	15.88	7.48	26.12
PSSA Performance 4	0	0	32	70	102
Frequency Percent	0.00	0.00	4.20	9.19	13.39
Total	132	192	294	144	762
Frequency Percent	17.32	25.20	38.58	18.90	100.00

Note. Frequency Missing = 15

Table 27 Contingency Table – PSSA Performance by Teacher Rating of Performance, ELA Grade 3

	Teacher Rating 1	Teacher Rating 2	Teacher Rating 3	Teacher Rating 4	Total
PSSA Performance 1	56	26	6	0	88
Frequency Percent	11.36	5.27	1.22	0.00	17.85
PSSA Performance 2	44	70	37	3	154
Frequency Percent	8.92	14.20	7.51	0.61	31.24
PSSA Performance 3	6	37	125	36	204
Frequency Percent	1.22	7.51	25.35	7.30	41.38
PSSA Performance 4	0	0	26	21	47
Frequency Percent	0.00	0.00	5.27	4.26	9.53
Total	106	133	194	60	493
Frequency Percent	21.50	26.98	39.35	12.17	100.00

Note. Frequency Missing = 4

Table 28 Contingency Table – PSSA Performance by Teacher Rating of Performance, ELA Grade 4

	Teacher Rating 1	Teacher Rating 2	Teacher Rating 3	Teacher Rating 4	Total
PSSA Performance 1	62	12	3	0	77
Frequency Percent	11.33	2.19	0.55	0.00	14.08
PSSA Performance 2	52	91	64	6	213
Frequency Percent	9.51	16.64	11.70	1.10	38.94
PSSA Performance 3	5	36	118	20	179
Frequency Percent	0.91	6.58	21.57	3.66	32.72
PSSA Performance 4	0	1	34	43	78
Frequency Percent	0.00	0.18	6.22	7.86	14.26
Total	119	140	219	69	547
Frequency Percent	21.76	25.59	40.04	12.61	100.00

Note. Frequency Missing = 12

Table 29 Contingency Table – PSSA Performance by Teacher Rating of Performance, ELA Grade 5

	Teacher Rating 1	Teacher Rating 2	Teacher Rating 3	Teacher Rating 4	Total
PSSA Performance 1	35	24	9	0	68
Frequency Percent	7.66	5.25	1.97	0.00	14.88
PSSA Performance 2	35	70	66	3	174
Frequency Percent	7.66	15.32	14.44	0.66	38.07
PSSA Performance 3	1	26	75	57	159
Frequency Percent	0.22	5.69	16.41	12.47	34.79
PSSA Performance 4	0	1	20	35	56
Frequency Percent	0.00	0.22	4.38	7.66	12.25
Total	71	121	170	95	457
Frequency Percent	15.54	26.48	37.20	20.79	100.00

Note: Frequency Missing = 11

Table 30 Contingency Table – PSSA Performance by Teacher Rating of Performance, ELA Grade 6

	Teacher Rating 1	Teacher Rating 2	Teacher Rating 3	Teacher Rating 4	Total
PSSA Performance 1	28	10	0	0	38
Frequency Percent	3.27	1.17	0.00	0.00	4.44
PSSA Performance 2	42	115	45	0	202
Frequency Percent	4.91	13.45	5.26	0.00	23.63
PSSA Performance 3	8	96	259	39	402
Frequency Percent	0.94	11.23	30.29	4.56	47.02
PSSA Performance 4	0	3	99	111	213
Frequency Percent	0.00	0.35	11.58	12.98	24.91
Total	78	224	403	150	855
Frequency Percent	9.12	26.20	47.13	17.54	100.00

Note. Frequency Missing = 13

Table 31 Contingency Table – PSSA Performance by Teacher Rating of Performance, ELA Grade 7

	Teacher Rating 1	Teacher Rating 2	Teacher Rating 3	Teacher Rating 4	Total
PSSA Performance 1	8	4	1	0	13
Frequency Percent	1.13	0.57	0.14	0.00	1.84
PSSA Performance 2	56	143	67	4	270
Frequency Percent	7.94	20.28	9.50	0.57	38.30
PSSA Performance 3	3	45	193	45	286
Frequency Percent	0.43	6.38	27.38	6.38	40.57
PSSA Performance 4	0	1	55	80	136
Frequency Percent	0.00	0.14	7.80	11.35	19.29
Total	67	193	316	129	705
Frequency Percent	9.50	27.38	44.82	18.30	100.00

Note. Frequency Missing = 12

Table 32 Contingency Table – PSSA Performance by Teacher Rating of Performance, ELA Grade 8

	Teacher Rating 1	Teacher Rating 2	Teacher Rating 3	Teacher Rating 4	Total
PSSA Performance 1	35	28	6	0	69
Frequency Percent	5.04	4.03	0.86	0.00	9.93
PSSA Performance 2	28	128	94	1	251
Frequency Percent	4.03	18.42	13.53	0.14	36.12
PSSA Performance 3	2	53	207	30	292
Frequency Percent	0.29	7.63	29.78	4.32	42.01
PSSA Performance 4	0	0	30	53	83
Frequency Percent	0.00	0.00	4.32	7.63	11.94
Total	65	209	337	84	695
Frequency Percent	9.35	30.07	48.49	12.09	100.00

Note. Frequency Missing = 16

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