ISAT

Idaho Standards Achievement Tests

Spring 2011 Technical Report

DATA RECOGNITION

DRC

CORPORATION

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1. Background

Article IX, Section 2 of the Idaho Constitution vests general supervision of the state educational institutions and the public school system in the Idaho State Board of Education (Board). School districts, including specially chartered school districts, are under the supervision and control of the Board (Section 33-116, Idaho Code). The Board is responsible to prescribe minimum curriculum requirements and determine how textbooks and other curricular materials are adopted (Section 33-118, Idaho Code). In addition, the Board is required by Section 33-1612 to adopt rules establishing a thorough system of public schools. These rules are published through the requirements of the Idaho Administrative Procedures Act (IDAPA) process and have the force of law.

IDAPA 08.02.03.111.01 sets out the philosophy for assessment in Idaho.

> **Philosophy.** Acquiring the basic skills is essential to realization of full educational, vocational, and personal/social development. Since Idaho schools are responsible for instruction in the basic scholastic skills, the State Board of Education has a vested interest in regularly surveying student skill acquisition as an index of the effectiveness of the educational program. This information can best be secured through objective assessment of student growth. A statewide student assessment program consisting of standardized achievement testing and performance appraisal activities in the fundamental basic skills will be conducted annually. The State Board of Education will provide oversight for all components of the comprehensive assessment program…

The Idaho State Department of Education (SDE) carries out the administrative duties of the Board.

Consequent to the passage of 2001 reauthorization of the federal Elementary and Secondary Education Act (ESEA), known as No Child Left Behind (NCLB), in January 2002 the Board of Education entered into a contract with Northwest Evaluation Association (NWEA) to develop and administer the Idaho Standards Achievement Tests (ISAT), which are a component of an overall student testing program in the state. The purpose of this test was to meet the requirements of NCLB. The contract was for two years with three one-year optional extensions available. The first pilot of the ISAT occurred in the spring of 2002, and the first full administration delivered for the purpose of determining adequate yearly progress (AYP) took place in the spring of 2003.

All three options to extend the contract were accepted. During the final year of the contract (2006), in accordance with a recommendation from the Idaho Technical Advisory Committee, plans included publishing a request for proposal early in the year so that a new contract could be awarded by mid-year. This mid-year award was intended to provide an overlap in contracts to assure a smooth transition in the event that the same vendor was not awarded a second contract.

As required by NCLB, the Board contracted with a third party in the spring of 2005 to conduct a study of the alignment, reliability, and validity of the ISAT. This work was accomplished by the Human Resources Research Organization (HumRRO). The report of this study indicated that the ISAT had issues in all three areas. The test was not aligned to the structure of the Idaho content standards, items for the test were selected on the basis of item response theory difficulty values without benefit of data that reflected the quality of the items, data provided indicated significant problems with items used, normative averages by grade level not aligned with the goal of accountability systems intended to improve student achievement, and the reporting of scores should be aligned to the standards. (See HumRRO, *Idaho Standards Achievement Test: Review of Evidence of Content Validity*, Released May 2005.)

In September of 2005, the assessment system underwent a federal peer review as required by NCLB. In December the Board was notified that the assessment system not only did not meet the requirements of NCLB, but also did not meet the requirements of the prior authorization of the ESEA for which Idaho was under a compliance agreement. The state was fined for failure to comply with the requirements of the prior authorization and ordered to move forward to make corrections for compliance with NCLB. The first requirement was to develop a timeline for compliance, and the second requirement was to undergo a second peer review in September 2006. Corrections that needed to be made were to set cut scores by a technically sound methodology, to align tests to the Idaho content standards, to conduct an alignment study of the spring 2007 core forms, to revisit the cut scores to validate them based on the new test following the spring 2007 administration, and to assure year to year comparability of tests and scores.

By June 2006, the Division of Purchasing, Idaho Department of Administration, the independent purchasing arm of the state system, had determined that a new vendor would be awarded the contract for continuing ISAT. NWEA would continue its contract through the end of the year and deliver the fall 2006 ISAT. The new vendor, Data Recognition Corporation (DRC) along with its partner Computerized Assessments and Learning (CAL), began to bring Idaho's test into compliance with nationally recognized standards for large-scale assessment and federal requirements. The current contract runs through July 2012 with one possible 2-year extension.

In July 2006, DRC brought together Idaho educators to set new cut scores by an acceptable methodology. The new cut scores were included in the Board's documentation for the peer review in the fall of 2006. With commitments to complete the tasks begun according to the original timeline, the U.S. Department of Education approved with recommendations Idaho's assessment system in November 2006. When test items were provided by NWEA to DRC for the transition, two facts became clear: 1) All of Idaho's items were jointly owned by NWEA so Idaho would have only temporary use of them; and 2) there were insufficient numbers of test items that were aligned to Idaho standards to complete the 2007 administration of ISAT. Test development activities began in earnest. A field test of items for grades 3–8 and 10 was conducted in December 2006. Since then over 700 Idaho educators have been involved in various aspects of test development: item review; bias and sensitivity review; form development; development of performance level descriptors by content, by grade, and by performance level; an alignment study; and achievement standard setting. The first administration of Idaho's revised ISAT took place in the spring of 2007.

The ISAT measures academic content standards in reading, mathematics, and language usage for students in grades 3–8 and 10 and in science for grades 5, 7, and 10. All test items are in a multiple-choice format. The reading test includes selected passages with associated items. The ISAT is administered by computer, although special accommodated versions of the test are provided in large print, Braille, and paper-pencil. Audio versions are available by computer and for the paper versions.

The tests administered to students in grades 3–8 and 10 provide ongoing monitoring of individual, school, district, and state progress. One component of the ISAT required for high school graduation (since 2006) is the grade 10 test in reading, language usage, and mathematics. Proficiency on the grade 10 ISAT verifies that a student has met Idaho standards in these content areas. In accordance with No Child Left Behind, the ISAT measures proficiency in four key areas—reading, language usage, mathematics, and science. Achieving competency in these content areas is the goal for every child.

Components of the ISAT

The ISAT is composed of reading, language usage, and mathematics tests for grades 3–8 and 10 and science tests for grades 5, 7, and 10. Multiple-choice items are used to assess what a student knows and is expected to do on the Idaho content standards. These items are used to assess a variety of skill levels, from short-term recall of facts to problem solving.

Language Arts (Reading and Language Usage) Assessments

The language arts assessments of the ISAT are composed of items that address standards, goals, and objectives for grades 3–8 and 10 in two separate assessments, reading and language usage. The reading goals and objectives for each grade are distributed between two reporting categories: Reading Process and Comprehension/Interpretation. The language usage goals and objectives for each grade are distributed between two reporting categories: Writing Process and Writing Components.

Mathematics Assessment

The mathematics assessment of the ISAT is composed of items that address standards, goals, and objectives for grades 3–8 and 10. The goals and objectives for each grade are distributed among five reporting categories: Number and Operations; Concepts and Principles of Measurement; Concepts and Language of Algebra and Functions; Concepts and Principles of Geometry; and Data Analysis, Probability, and Statistics.

Science Assessment

The science assessment of the ISAT is composed of items that address standards, goals, and objectives for grades 5, 7, and 10. The goals and objectives for each grade are distributed among five reporting categories: Nature of Science, Physical Science, Biology, Earth and Space Systems, and Personal and Social Perspectives; Technology.

More detailed information regarding the Idaho content standards can be found at www.sde.idaho.gov.

This technical manual documents Idaho's development and administration of an assessment that is technically sound and that meets the requirements set for a statewide assessment system.

2. Purpose of the Technical Report

The purpose of this report is to provide the Idaho SDE, educators, citizens, researchers, and other interested parties with technical documentation for the development, administration, and reporting of the Spring 2011 ISAT including evidence of the reliability, validity, and the appropriate use and interpretation of test scores.

This technical report primarily covers the Spring 2011 administration of the ISAT. However, Chapter 18 and Appendix U cover the Exit Exam for the period Fall 2010–Spring 2011. A technical report will be produced each spring which will cover that spring's administration of the ISAT along with the previous year's Exit Exam administrations.

3. Technical Advisory Committee

The technical advisory committee (TAC) for the Idaho assessment programs convenes in person three times per year. As needed, conference calls may be used to bridge the gap as issues arise between regularly scheduled meetings. Its current members include:

- Dr. Thomas Fisher

  Dr. Fisher holds a BS in Mathematics from Middle Tennessee State University, a M.Ed. in Secondary Administration from the University of Toledo, and an Ed.D. in Curriculum Development from Wayne State University in Detroit, Michigan. He was a mathematics teacher for eight years, a school district program evaluation specialist for two years, and the Coordinator of Dissemination and Training for the Michigan Educational Assessment Program for four years. He served 26 years as the Florida Department of Education's Educational Testing and Evaluation Administrator responsible for K–12 student testing programs, college-level testing programs, and professional licensure examination programs.

  Dr. Fisher has served as an advisor on assessment and accountability issues to the U.S. Department of Education and several state education agencies. He has published over 60 articles in professional journals and made many presentations at national and regional professional meetings.

- Dr. William Erpenbach

  Dr. Erpenbach holds a Ph.D. in counseling and guidance with a minor in educational administration at the University of Wisconsin, Madison. He was a senior administrator with the Wisconsin Department of Public Instruction (WDPI) and has served as an advisor on assessment and accountability issues to the U.S. Department of Education and several state education agencies. Dr. Erpenbach has written extensively regarding critical issues related to NCLB and how states and the U. S. Department of Education (ED) have implemented the law; served as a peer reviewer for the U. S. Department of Education for numerous examinations of states' standards, assessments, and accountability systems. He currently serves on technical advisory committees for four states and the World-Class Instructional Design and Assessment Consortium.

- Dr. Edward Roeber

  Dr. Roeber holds a BA in Psychology from University of Michigan, a MA in Educational Psychology from University of Michigan, and a Ph.D. in Measurement and Evaluation from University of Michigan. He is currently professor, Measurement and Quantitative Methods, with an adjunct appointment in the College of Education, Michigan State University. Dr. Roeber has served as executive director for assessment and accountability for the Michigan Department of Education; vice-president for external relations, Measured Progress; and, director, student assessment programs, Council of Chief State School Officers.

- Dr. Joseph Ryan

  Dr. Ryan holds an AB in mathematics, M.Ed. in Educational Psychology from Boston College, and a Ph.D. in Measurement, Evaluation, and Statistical Analysis from the University of Chicago. He has been an assessment advisor and measurement consultant for more than 20 years. He has worked with schools, school districts, state departments of education, and many test developers and is currently a member of several Technical Advisory Committees. Dr. Ryan's areas of technical expertise include scaling, equating, standard setting, and bias or DIF analyses.

The role of the TAC is to advise and provide recommendations to SDE on the ongoing technical issues in the Idaho assessment programs. At the request of SDE, TAC members may also be asked to provide recommendations or author papers as relevant to their expertise or role as advisors. The regularly scheduled meetings include SDE and state assessment staff, along with vendor staff.

The meetings typically involve presentations of technical information related to the assessment programs by test vendors and an overview of recent and forthcoming Board actions. Issues range from test administration, item and test development, accommodations and special populations, NCLB requirements, state policy, and psychometrics (reliability, validity, linking). Examples of topics from previous meetings related to the ISAT include:

- Review and Evaluation of the Spring ISAT Technical Report
- Review of the Fall Field Test Sample Plan
- Standard Setting, Standards Validation, and Development of the Performance Level Descriptors
- Replication Study Results
- Linking the New ISAT to the Old ISAT
- Goal and Purpose of the Computer Adaptive Testing Extender Session
- Design of the Fall, Winter, and Summer Test Administrations

An agenda is available before each meeting, along with technical documentation and specific questions that will be presented to the TAC. A report of the meeting is compiled and distributed soon after the close of the meeting. Its contents are reviewed for accuracy before it is finalized. As a means of providing continuity across meetings, the report of the meeting from the previous TAC is included in the current TAC materials.

4. Communication Plan

DRC and CAL believe that there is great value that may be gathered from Idaho district and school personnel on various aspects of the ISAT administration. DRC and CAL communicated with districts and schools with the approval of the SDE Contract Manager. Training sessions were held in preparation for the Spring 2011 administration. Summaries of these training sessions are presented below.

4.1 ISAT Overview Workshops

In March 2011, DRC and SDE conducted regional training sessions for district and school test coordinators at five locations throughout the state. The purpose of these sessions was to introduce the DRC/CAL system and familiarize district and school personnel with the policies and procedures for the Spring 2011 ISAT administration. Topics covered at these sessions included system requirements, roles and responsibilities, test preparation, test security, test administration, accommodated materials, post test procedures, and important dates. The PowerPoint presentation presented at these sessions is provided in Appendix A. It is also available on the internet at http://www.sde.idaho.gov.

4.2 Report Content, Use, and Interpretation Webex Sessions

In past ISAT administrations, DRC has held several Webex training sessions on ISAT score report content, use, and interpretation for district and school personnel throughout the state. Each district was encouraged to invite all personnel involved with the ISAT spring testing to participate in a Webex training session. The purpose was to present the format and content of the DRC-generated score reports as well as to increase public awareness of the technical issues in measurement. Since score reports have not changed since Spring 2008, Webex sessions were not held in Spring 2011. The PowerPoint found in Appendix B was presented by DRC program management staff in Spring 2008. Participants had the opportunity to ask questions from a chat room setting following the session. Frequently asked questions based on these sessions were documented and posted to the ISAT website. The PowerPoint presentation and Frequently Asked Questions are both posted on the internet at http://www.sde.idaho.gov.

5. New Item Development

The ISAT is designed to assess the content of the Idaho Content Standards in reading, mathematics, and language usage in grades 3–8 and 10 and in science in grades 5, 7, and 10. The Idaho Content Standards are divided into a three-tier hierarchical structure of 1) Content Standards, 2) Goals, and 3) Objectives with content limits. The Idaho Content Standards are the overarching statements that describe in the very broadest terms what all students should know and be able to do as a result of the program. The Goals are the subset of the Idaho Content Standards setting forth a particular item of knowledge or skill(s) to be met by a student, and the Objectives (grade-level expectations) are the measurable demonstrations of a skill or item of knowledge required by a content goal or specifically what students should know and be able to do. The Idaho Objectives show progression from concrete to abstract over a sequence of years and serve as checkpoints that monitor progress toward students' mastery of the Idaho Content Standards. The Idaho Objectives for each content area and grade also serve to build understanding of the essential ideas across the years without a lot of repetition, and they attend to the prerequisite skills at a given grade level. Working in tandem with the Idaho Objectives are the contents limits which specify the skill or skills that are assessed and to what degree. In addition, they indicate whether an objective is assessed in the classroom only and not on the ISAT. The Idaho Content Standards may be viewed online at http://www.sde.idaho.gov.

Language Arts (Reading and Language Usage) Assessments Measures

The ISAT language arts assessment is composed of items that address standards, goals, and objectives for grades 3–8 and 10 in two separate assessments: reading and language usage.

Reading

The reading goals and objectives for each grade are distributed between two reporting categories: reading process and comprehension/interpretation.

- **Reading Process:** vocabulary including context clues, affixes, synonyms, antonyms, use of headings and graphics
- **Comprehension/Interpretation:** main idea, relevant details, inference, conclusion of literary and expository texts, literary devices and figurative language, plot structure and text organization

Language Usage

The language usage goals and objectives for each grade are distributed between two reporting categories: writing process and writing components.

- **Writing Process:** writing for a specific purpose and audience; selecting a main idea and supporting the main idea with relevant details; organizing ideas into paragraphs/essays which have a logical sequence and a clear beginning, middle, and an end; revising to clarify meaning by rearranging words or sentences, adding precise word choices, and/or eliminating irrelevant details; using a variety of sentences to create flow
- **Writing Components:** using correct sentence structure; editing for correct spelling, capitalization, punctuation, and grammar

Mathematics Assessment Measures

The ISAT mathematics assessment is composed of items that address standards, goals, and objectives for grades 3–8 and 10. The goals and objectives for each grade are distributed among five reporting categories—Number and Operations, Concepts and Principles of Measurement, Concepts and Language of Algebra and Functions, Concepts and Principles of Geometry, and Data Analysis, Probability, and Statistics.

- **Number and Operations:** understanding the properties of numbers; using numbers; computation; and estimation

- **Concepts and Principles of Measurement:** U.S. customary, metric, and time measurement, estimation, and conversion; two- and three-dimensional measurement computations; and use of rates, ratios, and proportions

- **Concepts and Language of Algebra and Functions:** using algebraic symbolism to represent mathematical relationships; using algebraic properties; evaluating algebraic expressions; solving equations; describing, extending, and using patterns

- **Concepts and Principles of Geometry:** applying concepts of size, shape, and spatial relationships; applying concepts related to the Cartesian coordinate system; and graphing

- **Data Analysis, Probability, and Statistics:** analyzing, organizing, and displaying data in various formats; applying simple statistical measurements; determining and using probability; and making predictions based on data

Science Assessment Measures

The ISAT science assessment is composed of items that address standards, goals, and objectives for grades 5, 7, and 10. The goals and objectives for each grade are distributed among five reporting categories—Nature of Science; Physical Science; Biology; Earth and Space Systems; and Personal and Social Perspectives; Technology.

- **Nature of Science:** concepts of form and function, understanding of systems, processes of science, and interpretation of technical communication

- **Physical Science:** structure and properties of matter, molecules and atoms, and chemical reactions

- **Biology:** adaptations of plants and animals to their environment, cell forms and functions for all living things, and the relationship between matter and energy in living systems

- **Earth and Space Systems:** scientific theories of origin and changes in the Universe and Earth Systems, geo-chemical cycles, and energy in the earth system

- **Personal and Social Perspectives; Technology:** relationships between science, society, natural resources, and technology

5.1 Multiple-Choice Items

Multiple-choice items were used to assess the content objectives with content limits. For grades 3–8 and 10, students are required to select a correct answer from four response choices with a single correct answer. Each multiple-choice item is scored as right or wrong and has a value of one raw score point. Multiple-choice items are used to assess a variety of skill levels, from short-term recall of facts to problem solving. The selection of incorrect response choices, or distractors, by a student commonly can result from, but is not limited to, the following:

- misunderstood concepts
- incorrect logic, invalid application of an algorithm, or computation errors
- misinterpretation
- unsound reasoning
- superficial reading

5.2 Sampling of the Content Domain

The reading, mathematics, language usage, and science content area reporting categories (or standards) are subdivided for specificity and eligible content or limits. Reading, mathematics, language usage, and science reporting categories are subdivided into one or more goals. Assessable and usable in statewide assessment, each respective goal is further subdivided into one or more objectives. Objectives that are not assessable and usable on the statewide assessment are identified for classroom assessment on the item specifications document per content and grade. Test items were not written for these classroom assessable objectives.

The number of objectives within each reporting category by content area and grade are listed in Tables 5.1–5.4.

Table 5.1. Number of Assessable Reading Objectives by Reporting Category and Grade

Standard	Grades						
	3	**4**	**5**	**6**	**7**	**8**	**10**
Reading Process	5	4	4	4	4	4	3
Comprehension/ Interpretation	9	13	13	12	10	11	8
Total	14	17	17	16	14	15	11

Table 5.2. Number of Assessable Mathematics Objectives by Reporting Category and Grade

Standard	Grades						
	3	4	5	6	7	8	10
Number and Operation	8	10	10	8	11	12	6
Concepts and Principals of Measurement	6	6	8	6	6	7	6
Concepts and Language of Algebra and Functions	8	7	8	9	9	11	7
Concepts and Principals of Geometry	3	4	6	4	5	6	8
Data Analysis, Probability, and Statistics	2	5	6	6	6	5	7
Total	27	32	38	33	37	41	34

Table 5.3. Number of Assessable Language Usage Objectives by Reporting Category and Grade

Standard	Grades						
	3	4	5	6	7	8	10
Writing Process	7	7	8	8	8	8	8
Writing Components	6	6	6	6	6	6	4
Total	13	13	14	14	14	14	12

Table 5.4. Number of Assessable Science Objectives by Reporting Category and Grade

Standard	Grades		
	5	7	10
Nature of Science	12	16	13
Physical Science	3	6	9
Biology	3	9	11
Earth and Space Systems	2	3	4
Personal and Social Perspectives; Technology	4	3	5
Total	24	37	42

Test Development Process

Aligning the items to the content standards and content limits; determining the grade-level appropriateness (reading level/interest level, etc.); depth of knowledge; cognitive level; item/task level of complexity; estimated difficulty level; relevancy of context for each item; providing rationales for distractors; and determining style, accuracy, and correct terminology were major considerations in the item and test development process. *The Standards for Educational and Psychological Testing* (AERA, APA, NCME, 1999) and the *Principles of Universal Design* (Thompson, Johnstone, & Thurlow, 2002) guided the following steps in the item and test development process.

1. Analyze the content standards and develop a preliminary test blueprint, including the standards to be assessed per content area and grade arranged by the relative importance of the content to be assessed (domains of content)
2. Develop preliminary item specifications and style guides
3. Develop preliminary proficiency-level descriptors
4. Select qualified item writers
5. Develop item-writing workshop training materials
6. Train test development specialists and item writers to write test questions
7. Write test questions that match the Idaho content standards and that are free of sensitivity concerns
8. Conduct and monitor internal test question reviews and quality processes
9. Prepare passages and test questions for review by the SDE and committees of Idaho educators
10. Select and assemble test questions into test forms
11. Conduct field test
12. Review test questions and associated statistics after field testing
13. Select and assemble operational test forms (test construction)

5.3 Test Blueprints

Each content test blueprint includes a list of all the standards, goals, and objectives to be assessed, organized by reporting categories. The test blueprint also contains the range of test items to be developed per goal and objective, with an indication of the relative importance of the content to be assessed. The content test blueprint for each content area and grade level were developed and approved in Fall 2006. High-level test blueprints are provided in Appendix S. Please see the Spring 2007 ISAT Technical Report for more information.

5.4 Item Writing

The test questions are written by professional test question writers at DRC and professional writers from across the country who have successfully written test questions for large-scale assessment programs. All writers are experienced writers and teachers (current and former elementary and secondary) who have a great deal of specialized knowledge in the content area of their expertise. In addition, all writers possess good technical writing skills. The qualifications used to select writers include the following:

- A bachelor's degree or higher in reading, mathematics, language arts, science, curriculum and instruction, or related field
- In-depth understanding and knowledge of the special considerations involving the writing of criterion-referenced, multiple-choice test questions, including an understanding of cognitive levels, estimated difficulty levels, grade-level appropriateness, readability, and sensitivity considerations

All item writers were provided with an in-depth training coupled with one-on-one writing sessions with DRC test development specialists and lead item writers. Prior to developing items for the ISAT the cadre of item writers were trained with regard to:

- Idaho content standards, goals, and objectives
- Cognitive levels, including Webb's depth of knowledge
- Principles of universal design
- Skill-specific and balanced test items for the grade level
- Contextual relevance
- Developmentally appropriate structure and content
- Item-writing technical quality issues
- Style considerations and item specifications approved by the SDE

To ensure that all test items met the requirements of the approved content test blueprint and item specifications and were adequately distributed across subcategories and levels of difficulty, item writers were asked to document the following specific information as each item was written.

- **Alignment to the Idaho Standards, Goals, and Objectives:** There must be a high degree of match between a particular question and the objective it is intended to measure. Item writers were asked to clearly indicate what objective each item was measuring.
- **Estimated Difficulty Level:** Prior to field testing items, the item difficulties were not known, and writers could only make approximations as to how difficult an item might be. The estimated difficulty level was based upon the writer's own judgment as directly related to his or her classroom teaching and knowledge of the curriculum for a given content area and grade level. The purpose for indicating estimated difficulty levels as items were written was to help ensure that the

pool of items prepared for review by Idaho educators and SDE and subsequent field testing would include a range of difficulty (easy, medium, and challenging).

- **Appropriate Grade Level, Item Context, and Assumed Student Knowledge:** Item writers were asked to consider the conceptual and cognitive level of each item. They were asked to review each item to determine whether or not the item was measuring something that was important and could be successfully taught and learned in the classroom. In addition, item writers indicated the appropriate grade level of the item.

- **Multiple-Choice Item Options:** Writers were instructed to make sure that each item had only one clearly correct answer. Item writers submitted the answer key with the item. All distractors were plausible choices that represented common errors and misconceptions in student reasoning.

- **Face Validity and Distribution of Complexity Levels:** Writers were instructed to write items to reflect various levels of cognitive complexity using Bloom et. al.'s *Taxonomy of Educational Objectives, Handbook I: The Cognitive Domain* (1956). As each item was written, the writer classified one of four cognition levels: recall, application, analysis, or evaluation for each item. The writers were instructed to write items so that the pool of items would represent a distribution of items across cognitive levels, as required by the test and item specifications.

- **Face Validity and Distribution of Items Based Upon Depth of Knowledge:** Writers were asked to classify the depth of knowledge of each item, using a model based on Norman Webb's work on depth of knowledge (Webb, 2006). Items were classified as one of four depths of knowledge categories: recall, basic application of skill/concept, strategic thinking, and extended thinking.

- **Readability:** For mathematics and science item development, writers were instructed to pay careful attention to the readability of each item to ensure that the focus was upon the concepts, not upon reading comprehension. As a result, the goal for each writer was to write items that were, to the greatest degree possible, independent of the assessment of reading. Content areas such as mathematics contain many content-specific vocabulary terms. These terms make it impossible to use the standard methods available for determining the reading level of test questions. Wherever it was practical and reasonable, every effort was made to keep the vocabulary one grade level below the tested grade level. Resources writers used to verify the vocabulary level were the *EDL Core Vocabularies* (Taylor et.al., 1989) and the *Children's Writer's Word Book* (Mogilner, 1992). In addition, every mathematics test question was taken before several different committees comprised of Idaho grade-level experts in the field of mathematics education. They reviewed each question from the perspective of the students they teach, and they determined the appropriateness of the vocabulary used.

- **Curriculum-specific Issues:** All items were written to be curriculum independent with respect to both content and vocabulary. As items were written, writers were asked to document any specific curriculum issues.

- **Grammar and Structure for Item Stems and Item Options:** All items were written to meet technical quality, including correct grammar, syntax, and usage in all items, as well as parallel construction and structure of text associated with each multiple-choice item.

Editorial Review of Items

After items were written, DRC test development specialists and editorial staff reviewed each item for item quality, making sure that the test items were in compliance with industry guidelines for clarity, style, accuracy, and appropriateness for Idaho students. While there are many published guidelines for reviewing assessment items, the list below serves to summarize some of the major considerations DRC test development specialists and editors followed when reviewing items to make sure they conformed to standard item quality for good, reliable, fair test questions.

Guidelines for Reviewing Assessment Items

A good item should:

- have only one clear correct answer and contain answer choices that are reasonably parallel in length and structure.
- have a correctly assigned content code (item map).
- measure one main idea or problem.
- measure the objective or curriculum content standard it is designed to measure.
- be at the appropriate level of difficulty.
- be simple, direct, and free of ambiguity.
- make use of vocabulary and sentence structure that is appropriate to the grade level of the student being tested.
- be based on content that is accurate and current.
- when appropriate, contain stimulus material that are clear and concise and provide all of the information that is needed.
- when appropriate, contain graphics that are clearly labeled.
- contain answer choices that are plausible and reasonable in terms of the requirements of the question, as well as the students' level of knowledge.
- contain distractors that relate to the question in the same way and can be supported by a rationale.
- reflect current teaching and learning practices in the content area.
- be free of gender, ethnic, cultural, socioeconomic, and regional bias.

5.5 Passage Selection and Readability

All reading items in the reading assessment were derived from a selection of literary and expository passages. Passages acquired were "authentic" in that they were culled from published materials or commissioned from experienced passage writers. To be used in the ISAT, approval to reprint published materials was secured from the publisher.

Passage finders and reading content specialists who have teaching experience at specific grade levels were given formal training on the specific requirements of the Idaho assessments. Passages were submitted to DRC's reading test development team for screening and editing internally. The team screened and edited passages for:

- Interest and accuracy of information in a passage to a particular grade level
- Grade-level appropriateness of passage topic and vocabulary
- Rich passage content to support the development of high-quality test questions
- Bias, sensitivity, and fairness issues
- Readability considerations and concerns

Passages that survived this extensive screening process were prepared for review by the Idaho reading curriculum specialists for approval. Passages that were approved moved forward for the development of test questions.

The readability of a passage was a judgmental process made by Idaho educators, Idaho reading curriculum specialists, DRC's reading content specialists, and other individuals who understand each particular grade level and children of a particular age group. In addition, formal readability programs were also used by DRC to provide a "snapshot" of a passage's reading difficulty based on sentence structure, length of words, etc. All of this information, along with the classroom context and content appropriateness of a passage, was taken into consideration when placing a passage at a particular grade.

5.6 Universal Design

As test questions were written and reviewed, the developers of the Idaho tests adhered closely to the principles of universal design. Item writing training included assuring that writers and reviewers have a clear understanding of Idaho's content standards and of universal design guidelines. During all phases of test development, test questions were presented with the content standard to ensure that each question measures what it is intended to measure.

Test questions must have concise and readable text. Linguistic demands of stimuli and test questions can interfere with a student's ability to demonstrate knowledge of the construct being assessed. Test questions were written to adhere to the following guidelines:

- Simple, clear, commonly used words are used whenever possible.
- Unnecessary words and extraneous text are omitted.
- Vocabulary and sentence complexity is appropriate for the grade level assessed.
- Technical terms and abbreviations are used only if they are related to the content being measured.
- Definitions and examples are clear and understandable.
- Idioms are avoided unless idiomatic speech is being assessed.

In addition, for the assessment to be fair to all students, test questions must also be clear in format. Images, pictures, and text that may not be necessary (e.g., sidebars, overlays, callout boxes, visual crowding, and shading) are distracting to students and are avoided. Pictures, illustrations, and graphics are used *only* if they provide essential information that contributes to the understanding of the constructs that test questions are intended to measure. The assessment must have an overall appearance that is clean and organized. In addition, minimal use of shading increases readability for students with visual difficulties. All test questions were presented in a way that allows for maximum readability for all students. For example, text presented in italics is far less legible and is read considerably more slowly than standard typeface, so it is used sparingly.

5.7 Depth of Knowledge

Writers were asked to classify the depth of knowledge of each item using a model based on Norman Webb's research on depth of knowledge. To facilitate discussion and execution of this task, writers used the Cognitive Level Comparison Matrix in Appendix C, Table C.2 that presented side-by-side comparisons of the depth of knowledge categories of Bloom (1956) and Webb (2006). This at-a-glance summary provided definitions and examples at each category level. With Webb's work being the central focus, writers determined the language that best described Webb's four depth-of-knowledge categories: (1.0) recall; (2.0) basic application of skill/concept; (3.0) strategic thinking; and (4.0) extended thinking. By having access to the work of Bloom, writers could formulate more accurate descriptions of the depth-of-knowledge levels for ISAT items.

5.8 Item Content Review

All newly developed test items were submitted to content committees for review. The content committees consisted of Idaho educators from school districts throughout Idaho. The primary responsibility of the content committees was to evaluate items with regard to quality and content classification, including grade-level appropriateness, estimated difficulty, depth of knowledge, and correct answer. They also suggested revisions and made recommendations for reclassification of items to different grade levels, if appropriate. The committees also reviewed the items for adherence to the principles of universal design, including language demand and issues of bias, fairness, and sensitivity. At the culmination of the item content review, all items that were presented to the committees for review were either accepted as presented or were revised.

The content review meeting was held in Boise, Idaho on October 12–15, 2010. The committee consisted of 58 educators, approximately 15 educators for each content area (mathematics, reading, language usage, and science) across the grade spans of 3 through 8 and 10. The committees represented the state of Idaho both geographically and demographically, including ELL and Special Education teachers. For demographics of the committee members, see Appendix I. The meeting commenced with an overview of the test development process. Training was provided by DRC senior staff members using a PowerPoint presentation found in Appendix C. It included how to review items for both technical quality and content quality, including adherence to principles of universal design and depth-of-knowledge. In addition, reviewers were provided with a checklist of Universal Design Principles and a matrix comparing Bloom and Webb cognitive levels. See Appendix C for these materials.

DRC test development specialists in reading, mathematics, language usage, and science facilitated the review of items. Committee members, grouped by grade span and content area, reviewed the items for quality and content, as well as for the following categories designated on the item tracking review form. An example of this form is found in Appendix D.

1. Standard/Goal/Objective Alignment (classified as Full, Partial, or No)
2. Complexity/Rigor (Bloom's Taxonomy/Webb's Depth of Knowledge)
3. Correct Answer (classified as Yes or No for MC items)
4. Graphics (classified as Yes or No, if graphics were acceptable)
5. Appropriate Language (classified as Yes or No)
6. Bias (classified as Yes or No)
7. Status/Overall Judgment (classified as Accept, Accept with Revisions, Revise or Rewrite, Drop)

Tables 5.5–5.8 show the number of items reviewed by content area/grade level and the number of items accepted by the item content review committees.

Table 5.5. Number of Reading Items Reviewed and Accepted

October 2010 Item Review		
Grade	**Items Developed (reviewed at item review)***	**Items Accepted**
3	60	57
4	73	70
5	84	82
6	73	73
7	97	97
8	72	71
10	74	73

Table 5.6. Number of Mathematics Items Reviewed and Accepted

October 2010 Item Review		
Grade	**Items Developed (reviewed at item review)**	**Items Accepted**
3	60	60
4	60	60
5	77	70
6	70	70
7	70	70
8	70	70
10	90	89

Table 5.7. Number of Language Usage Items Reviewed and Accepted

October 2010 Item Review		
Grade	**Items Developed (reviewed at item review)**	**Items Accepted**
3	60	60
4	60	60
5	61	60
6	60	55
7	60	56
8	60	57
10	60	55

Table 5.8. Number of Science Items Reviewed and Accepted

October 2010 Item Review		
Grade	**Items Developed (reviewed at item review)**	**Items Accepted**
5	165	161
7	165	161
10	166	160

5.9 Sensitivity and Bias Review

Prior to field testing, all newly developed test items for grades 3–8 and 10 were also submitted to a Sensitivity and Bias Committee for review. This took place in October 2010. The committee consisted of 11 educators. The committees represented the state of Idaho both geographically and demographically, including ELL and Special Education teachers. For demographics of the committee members see Appendix I. The committee was trained by a DRC test development sensitivity specialist to review items for sensitivity issues using a PowerPoint presentation and Fairness in Testing Manual developed by DRC, found in Appendix E. The committee's primary responsibility was to evaluate passages and items as to acceptability with regard to sensitivity issues. They also made recommendations for changes or deletion of items in order to remove the area of concern. At the culmination of the sensitivity review, all items that were presented to the committee for review were either accepted as presented or were revised prior to the embedded field test.

All reading, mathematics, language usage, and science items were read by some of the committee members and some items were read by a cross section of members. Each member noted sensitivity comments on the Sensitivity Review Form found in Appendix F. All comments were then compiled and the actions taken on these items were recorded by DRC.

5.10 Forms Approval Committee

After DRC test development specialists constructed the operational forms, the forms were reviewed with a committee of Idaho educators on January 11–12, 2011, in Boise, Idaho. DRC psychometricians provided preliminary approval for all forms before they were presented to the committee. As indicated in Appendix I, 32 Idaho educators once again confirmed the items' alignment to standard, goal, and objective and approved the use of the items in the operational administration. Items that the committee members did not approve were replaced, and the form was then reviewed and approved by DRC psychometricians during the meeting. The committee members used a tracking sheet (Appendix G) to record the alignment of items to standard, goal, and objective.

5.11 Security

Security was addressed by adhering to a strict set of procedures. Items in binders did not leave the meeting rooms and all were accounted for at the end of each day before attendees were dismissed. All attendees, with the exception of SDE staff, were required to sign a Confidentiality Agreement (Appendix H). All materials not in use at any time were kept in secure meeting rooms. During lunch and breaks, if meeting rooms were unused, they were locked or closely monitored by DRC personnel. While not in use

by DRC, the meeting rooms were locked and unavailable to anyone other than the Project Director or designee. Rooms were attended to only under strict supervision by DRC personnel. Secure materials that did not need to be retained after the meeting were deposited in secure containers, and their contents were shredded under supervision of a DRC employee.

5.12 Maintenance of the Item Bank

DRC maintains an item bank (IDEAS) that includes a record of all newly created items together with item data information from each field test. IDEAS also includes all data from the operational administration if the items appeared on an operational test form. For IDEAS maintenance, DRC:

- Updates the Idaho item bank after each administration
- Updates the Idaho item bank to include newly developed items
- Monitors the Idaho item bank to ensure an appropriate balance of items aligned with content standards, goals, and objectives
- Monitors item history statistics
- Monitors the Idaho item bank for an appropriate balance of DOK levels

Summary of Field Test Items

The 2011 ISAT administration for reading, mathematics, language usage, and science was composed of one operational core form with ten embedded field test items for grades 3–8 and 10. The ten field test items were randomly selected from the total pool of field test items. They appeared on the test form in fixed positions. The remaining form positions were occupied by core items which were presented in random order.

The ISAT mathematics field test consisted of non-calculator and calculator items except for grades 3 and 4. Those students received non-calculator field test items only.

Tables 5.9–5.12 provide the total number of field test items administered for reading, mathematics, language usage, and science.

Table 5.9. Field Test Items for Reading

Grade	Items
3	50
4	50
5	50
6	50
7	50
8	50
10	60

Table 5.10. Field Test Items for Mathematics

Grade	Multiple-Choice Items		Items
	Non-calculator	Calculator	
3	0	55	55
4	0	55	55
5	10	50	60
6	53	7	60
7	44	16	60
8	53	7	60
10	73	2	75

Table 5.11. Field Test Items for Language Usage

Grade	Items
3	60
4	60
5	60
6	55
7	55
8	55
10	55

Table 5.12. Field Test Items for Science

Grade	Items
5	150
7	150
10	150

6. Spring 2011 Embedded Field Test

6.1 Purpose

Field test items were administered to all grades and content areas as part of the operational administration. The primary purpose of these items was to build the next year's operational forms. These items were presented within the core section so that student performance was as much like the operational test as possible. In this manner, the student was not aware of whether they were taking an operational item or a field test item. This ensures that psychometric analysis produces item difficulties that can be easily and directly translated onto the operational scale or metric. This process, commonly referred to as pre-equating, allows for immediate scoring and reporting. As part of the embedded field test, a minimum of 50 items were administered for all grades and content areas.

6.2 Distractor Analysis

As with the operational assessment, the embedded field test consisted solely of multiple-choice items with four response options. Each multiple-choice item was scored as right or wrong. For each item, DRC calculated the percentage of students who selected each option and the option-total correlation for each of the options. Items with percent correct values between 37.5 and 95.0 are generally accepted as appropriate on statistical grounds, as are positive option-total correlations for the correct response and negative option-total correlations for the incorrect responses. Items that did not perform as expected were flagged for additional review by DRC test development experts. In addition, these items were reviewed by an external committee composed of Idaho educators. See section 6.5 for more information regarding external data review meetings.

Table 6.1 shows an example for Grade 5 Reading. A complete set of distractor analyses for all grades and contents are presented in Appendix J.

Table 6.1. Grade 5 Reading Field Test: Multiple-Choice Distractor Analysis

		Response Options								
		A		B		C		D		Omit
Item ID	Key	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]
630144	C	11.45	-0.26	9.24	-0.11	76.51	0.36	2.70	-0.25	0.09
630145	A	72.75	0.52	6.42	-0.34	4.42	-0.18	16.39	-0.29	0.02
630142	B	6.89	-0.28	80.27	0.53	8.51	-0.29	4.30	-0.29	0.02
630140	D	4.58	-0.30	29.60	-0.13	11.80	-0.24	53.94	0.41	0.07
630148	B	32.26	0.00	57.51	0.20	4.68	-0.22	5.48	-0.21	0.07
.	.	.	.	.	.	.	.	.	.	.
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627822	D	21.86	-0.07	7.74	-0.28	12.21	-0.27	58.16	0.39	0.02
627820	C	7.38	-0.27	3.79	-0.28	83.29	0.46	5.51	-0.20	0.02
627818	A	71.34	0.39	5.06	-0.32	11.57	-0.20	12.00	-0.14	0.02
627821	C	1.92	-0.23	26.15	-0.26	69.85	0.39	2.06	-0.24	0.02
627813	C	3.10	-0.27	2.34	-0.29	91.95	0.48	2.51	-0.24	0.09

[1] Percentage of response options

Summary p-value information across all grades for each content area is shown in Tables 6.2–6.5. The p-values are collapsed into blocks of deciles. Information in the table includes, for each grade, the p-value mean, median, standard deviation, minimum, and maximum. As one can see from the tables, most of the items fall into the .40 to .89 range, appropriate for a criterion-referenced assessment, and broad and deep enough (sufficient) to build strong core forms for the next assessment cycle. Science p-values are somewhat lower across the board, but well within an acceptable range; for mathematics, p-values are somewhat higher in grades 3 and 4, and lower in grades 7, 8, and 10.

Table 6.2. Reading Field Test: P-value Counts by Grade

		Grade						
		3	4	5	6	7	8	10
Range	0.0–0.09	0	0	0	0	0	0	1
	0.10–0.19	0	0	1	0	0	0	0
	0.20–0.29	1	0	0	2	0	0	1
	0.30–0.39	1	1	2	3	2	2	2
	0.40–0.49	9	3	2	1	2	5	2
	0.50–0.59	7	6	5	6	3	4	5
	0.60–0.69	9	13	10	10	8	4	8
	0.70–0.79	15	12	11	12	13	13	13
	0.80–0.89	8	12	16	11	19	15	21
	0.90–0.99	0	3	3	5	3	7	7
Summary	Total	50	50	50	50	50	50	60
	Mean	0.65	0.71	0.72	0.70	0.74	0.75	0.73
	Median	0.68	0.71	0.74	0.73	0.76	0.79	0.78
	Stnd. Dev.	0.15	0.14	0.16	0.18	0.14	0.17	0.18
	Minimum	0.26	0.35	0.16	0.26	0.36	0.33	0.07
	Maximum	0.87	0.91	0.93	0.96	0.93	0.96	0.96

Table 6.3. Mathematics Field Test: P-value Counts by Grade

		Grade						
		3	**4**	**5**	**6**	**7**	**8**	**10**
Range	0.0–0.09	0	0	0	0	0	0	1
	0.10–0.19	0	0	0	0	1	1	0
	0.20–0.29	2	0	1	0	1	1	3
	0.30–0.39	1	2	2	2	5	0	3
	0.40–0.49	1	1	4	6	11	9	10
	0.50–0.59	3	2	10	7	9	11	15
	0.60–0.69	4	10	4	11	7	14	10
	0.70–0.79	13	9	10	13	9	7	19
	0.80–0.89	18	17	12	14	12	11	10
	0.90–0.99	13	14	17	7	5	6	4
Summary	Total	55	55	60	60	60	60	75
	Mean	0.79	0.79	0.74	0.71	0.64	0.66	0.64
	Median	0.86	0.83	0.78	0.72	0.66	0.64	0.66
	Stnd. Dev.	0.17	0.14	0.19	0.16	0.21	0.18	0.19
	Minimum	0.23	0.37	0.27	0.37	0.13	0.18	0.09
	Maximum	0.99	0.97	0.98	0.98	0.97	0.97	0.96

Table 6.4. Language Usage Field Test: P-value Counts by Grade

		Grade						
		3	**4**	**5**	**6**	**7**	**8**	**10**
Range	0.0–0.09	0	0	0	0	0	0	0
	0.10–0.19	0	0	0	0	0	0	0
	0.20–0.29	0	2	3	0	4	1	1
	0.30–0.39	2	1	2	0	0	2	2
	0.40–0.49	8	3	3	3	3	7	9
	0.50–0.59	7	4	9	12	10	6	5
	0.60–0.69	8	14	15	13	14	9	12
	0.70–0.79	16	15	12	6	10	11	9
	0.80–0.89	16	14	13	13	11	11	11
	0.90–0.99	3	7	3	8	3	8	6
Summary	Total	60	60	60	55	55	55	55
	Mean	0.70	0.72	0.67	0.72	0.66	0.69	0.68
	Median	0.72	0.74	0.68	0.70	0.68	0.72	0.69
	Stnd. Dev.	0.15	0.16	0.17	0.15	0.17	0.18	0.18
	Minimum	0.32	0.25	0.24	0.44	0.25	0.20	0.21
	Maximum	0.97	0.95	0.99	0.96	0.97	0.95	0.95

Table 6.5. Science Field Test: P-value Counts by Grade

		Grade		
		5	**7**	**10**
Range	0.0–0.09	0	0	1
	0.10–0.19	3	8	4
	0.20–0.29	8	11	14
	0.30–0.39	19	20	19
	0.40–0.49	31	26	29
	0.50–0.59	29	28	28
	0.60–0.69	26	22	24
	0.70–0.79	16	24	19
	0.80–0.89	15	10	11
	0.90–0.99	3	1	1
Summary	Total	150	150	150
	Mean	0.56	0.54	0.53
	Median	0.56	0.54	0.54
	Stnd. Dev.	0.18	0.19	0.18
	Minimum	0.11	0.12	0.10
	Maximum	0.94	0.94	0.90

Summary item-total information across all grades for each content area is shown in Tables 6.6–6.9. The item-totals are collapsed into blocks of deciles. Information in the table includes, for each grade, the item-total correlation mean, median, standard deviation, minimum, and maximum. As one can see from the tables, most of the items fall into the .20 to .59 range, appropriate for a criterion-referenced assessment, with sufficient items in this range to build strong core forms for the next assessment cycle. Science has lower mean values than reading, mathematics, and language usage, a typical pattern in large-scale assessment.

Table 6.6. Reading Field Test: Item-Total Correlation Counts by Grade

		Grade						
		3	**4**	**5**	**6**	**7**	**8**	**10**
Range	<0.0	0	0	1	1	0	0	0
	0.0–0.09	0	0	0	1	0	2	1
	0.10–0.19	2	2	1	3	2	3	1
	0.20–0.29	8	3	9	6	4	4	12
	0.30–0.39	12	20	10	17	21	17	15
	0.40–0.49	20	15	21	21	21	22	27
	0.50–0.59	8	10	8	1	2	2	4
	0.60–0.69	0	0	0	0	0	0	0
	0.70–0.79	0	0	0	0	0	0	0
	0.80–0.89	0	0	0	0	0	0	0
	0.90–0.99	0	0	0	0	0	0	0
Summary	Total	50	50	50	50	50	50	60
	Mean	0.40	0.40	0.39	0.36	0.38	0.37	0.38
	Median	0.41	0.40	0.42	0.39	0.39	0.39	0.40
	Stnd. Dev.	0.10	0.09	0.11	0.11	0.09	0.11	0.10
	Minimum	0.13	0.14	-0.08	-0.01	0.12	0.01	0.10
	Maximum	0.55	0.54	0.55	0.50	0.54	0.50	0.55

Table 6.7. Mathematics Field Test: Item-Total Correlation Counts by Grade

		Grade						
		3	**4**	**5**	**6**	**7**	**8**	**10**
Range	<0.0	1	1	0	0	1	1	2
	0.0–0.09	0	0	1	1	0	0	0
	0.10–0.19	2	0	5	2	6	7	4
	0.20–0.29	6	16	18	11	13	8	14
	0.30–0.39	21	22	26	18	24	19	28
	0.40–0.49	24	16	9	23	12	20	22
	0.50–0.59	1	0	1	5	4	5	5
	0.60–0.69	0	0	0	0	0	0	0
	0.70–0.79	0	0	0	0	0	0	0
	0.80–0.89	0	0	0	0	0	0	0
	0.90–0.99	0	0	0	0	0	0	0
Summary	Total	55	55	60	60	60	60	75
	Mean	0.37	0.34	0.32	0.38	0.33	0.35	0.36
	Median	0.38	0.36	0.32	0.39	0.34	0.38	0.37
	Stnd. Dev.	0.10	0.10	0.09	0.10	0.11	0.12	0.11
	Minimum	-0.03	-0.18	0.10	0.08	-0.01	-0.13	-0.05
	Maximum	0.50	0.50	0.52	0.55	0.55	0.53	0.56

Table 6.8. Language Usage Field Test: Item-Total Correlation Counts by Grade

		Grade						
		3	**4**	**5**	**6**	**7**	**8**	**10**
Range	<0.0	0	0	0	0	0	0	0
	0.0–0.09	0	3	0	1	1	1	1
	0.10–0.19	1	1	5	3	8	3	3
	0.20–0.29	12	12	19	15	15	19	11
	0.30–0.39	22	26	28	27	24	25	34
	0.40–0.49	25	18	8	9	7	7	5
	0.50–0.59	0	0	0	0	0	0	1
	0.60–0.69	0	0	0	0	0	0	0
	0.70–0.79	0	0	0	0	0	0	0
	0.80–0.89	0	0	0	0	0	0	0
	0.90–0.99	0	0	0	0	0	0	0
Summary	Total	60	60	60	55	55	55	55
	Mean	0.37	0.34	0.31	0.32	0.31	0.32	0.32
	Median	0.38	0.36	0.32	0.34	0.32	0.34	0.32
	Stnd. Dev.	0.08	0.10	0.08	0.09	0.09	0.08	0.08
	Minimum	0.15	0.03	0.11	0.08	0.08	0.09	0.03
	Maximum	0.49	0.47	0.47	0.50	0.47	0.45	0.54

Table 6.9. Science Field Test: Item-Total Correlation Counts by Grade

		Grade		
		5	**7**	**10**
Range	<0.0	3	3	5
	0.0–0.09	8	9	11
	0.10–0.19	26	29	20
	0.20–0.29	46	39	37
	0.30–0.39	55	47	36
	0.40–0.49	12	23	35
	0.50–0.59	0	0	6
	0.60–0.69	0	0	0
	0.70–0.79	0	0	0
	0.80–0.89	0	0	0
	0.90–0.99	0	0	0
Summary	Total	150	150	150
	Mean	0.27	0.27	0.29
	Median	0.29	0.29	0.31
	Stnd. Dev.	0.11	0.12	0.14
	Minimum	-0.23	-0.11	-0.13
	Maximum	0.47	0.48	0.56

6.3 Item Analysis — Differential Item Functioning (DIF)

Overview

Bias can present itself in a variety of ways in test items: through the language, the format, or the content. It can result from membership in a specific subpopulation or from factors correlated to the subpopulation. It can affect all members of the subpopulation, or it may affect only those in specific ranges of ability. Understanding how bias arises and how it presents itself has an impact on how best to detect and correct it in test construction.

No statistical procedure should be used as a substitute for rigorous, hands-on reviews by content and bias specialists. The statistical results can help to frame and organize the review so the effort is concentrated on the most problematic cases; however, no items should be automatically rejected simply because a statistical method flagged them, nor automatically accepted because they were not flagged. In the case where large values of DIF do occur, the item is flagged for additional review by DRC test development specialists and external item review committees.

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

A fundamental shortcoming of all of the statistical methods is that each is intrinsic to the test being evaluated. If a test is, overall, unbiased, but has one or two biased items, any method will locate the problem items. If, however, all items on the test are consistently biased against a subpopulation, a statistical analysis of the items will not be able to separate bias effects from true differences in achievement.

Mantel-Haenszel (M-H) Procedure for Differential Item Functioning

The *M-H* procedure (Mantel and Haenszel, 1959) for detecting differential item functioning is the most commonly used procedure in educational testing. It does not depend on the application or the fit of any specific measurement model. However, it does have some philosophical overlap with the Rasch model given that it uses total score to organize the analysis.

Differential item functioning is present when examinees of equal ability do not have the same probability of passing the item. If this inequity is associated with gender, ethnicity, or socioeconomic status, the item could be described as potentially biased.

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 focal and which as reference, the protected class or the group most apt to be disadvantaged by a biased measurement is typically defined as the focal group. The Mantel-Haenszel statistic (MH) for each item is computed from a two-by-two-by-four contingency table. It has two groups (focal and reference), two outcomes (right or wrong), and four ability groupings. The ability groups are defined by the quartiles of the 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.

To assist in interpreting the results, the items are assigned severity classifications based on National Assessment of Educational Progress (NAEP) and Educational Testing Service (ETS) guidelines for dichotomous items (Allen, Carlson & Zelenak, 1999). Items classified as A+ or A- have no statistical indication of differential item functioning. Items classified as B+ or B- have some potential indication. Items classified as C+ or C- have strong potential evidence of a problem and should be carefully reviewed. As a convention, the plus sign indicates the item favors the focal group and a minus sign indicates the item favors the reference group. The formulas (and description of the variables) for the MH statistic and the DIF categorization rules are included in Appendix K.

Below is an example of the item level DIF statistics for Grade 3 Mathematics for the embedded field test portion of the Spring 2011 operational administration. The table includes an item identifier, the MH-delta, and the category designation for each pair-wise comparison. Items with insufficient numbers of students have blank cells. The complete set of item level DIF statistics may be found in Appendix L.

Table 6.10. Grade 3 Mathematics Field Test: Differential Item Functioning Analysis

	Male/Female DIF		White/Hispanic DIF		No Aid/Lunch Aid DIF	
Item ID	MH delta	NAEP Cat.	MH delta	NAEP Cat.	MH delta	NAEP Cat.
624864	0.194	A+	0.719	A+	0.107	A+
624865	-0.719	A-	-0.133	A-	-0.730	A-
626506	0.040	A+	-0.452	A-	-0.362	A-
626673	-0.442	A-	0.381	A+	0.327	A+
627911	0.176	A+	-0.868	A-	-0.325	A-
627127	0.482	A+	-0.561	A-	-0.354	A-
627298	-0.189	A-	0.469	A+	0.126	A+
627299	0.888	A+	0.601	A+	-0.606	A-
627137	0.112	A+	-0.324	A-	-0.523	A-
627138	0.351	A+	-0.042	A-	-0.064	A-
624866	1.260	B+	0.079	A+	-0.416	A-
624867	0.274	A+	0.150	A+	0.076	A+
625816	0.009	A+	-0.108	A-	-0.246	A-
625818	1.012	B+	0.203	A+	-0.149	A-
626680	-0.623	A-	-1.584	B-	-0.217	A-
626681	0.462	A+	-0.933	A-	-0.270	A-
627912	-1.941	C-	-0.431	A-	-0.616	A-
.	.	.	.	.	.	.
.	.	.	.	.	.	.
.	.	.	.	.	.	.
.	.	.	.	.	.	.
625826	-0.457	A-	-0.338	A-	0.047	A+
625827	-0.430	A-	-0.393	A-	-0.551	A-
626678	-0.230	A-	0.363	A+	0.023	A+
626679	0.484	A+	0.224	A+	0.112	A+
627146	-0.511	A-	-0.727	A-	-0.301	A-

Reference groups = Male, White, and No lunch aid.
Focal groups = Female, Hispanic or Latino, and Lunch Aid
Negative values reflect better reference group performance on the item and positive values reflect better focal group performance.

A summary of the counts of the number of items from each grade and content area that were assigned to each severity code is shown below in Tables 6.11–6.13. The tables include DIF summaries for male versus female, white versus Hispanic, and non lunch aid versus lunch aid.

Table 6.11. DIF Counts by Content and Grade – Male/Female

Subject	Grade	A+	A-	B+	B-	C+	C-	N/A	Total A	Total B	Total C
Reading	3	30	20	0	0	0	0	0	50	0	0
Reading	4	36	13	0	0	0	1	0	49	0	1
Reading	5	35	13	1	1	0	0	0	48	2	0
Reading	6	24	16	7	2	1	0	0	40	9	1
Reading	7	31	15	2	2	0	0	0	46	4	0
Reading	8	31	9	8	1	1	0	0	40	9	1
Reading	10	37	15	4	1	3	0	0	52	5	3
Mathematics	3	22	27	2	3	0	1	0	49	5	1
Mathematics	4	28	22	2	3	0	0	0	50	5	0
Mathematics	5	28	27	2	2	1	0	0	55	4	1
Mathematics	6	36	19	3	2	0	0	0	55	5	0
Mathematics	7	36	20	2	2	0	0	0	56	4	0
Mathematics	8	22	28	6	4	0	0	0	50	10	0
Mathematics	10	30	39	2	4	0	0	0	69	6	0
Lang. Usage	3	35	25	0	0	0	0	0	60	0	0
Lang. Usage	4	34	21	5	0	0	0	0	55	5	0
Lang. Usage	5	30	28	2	0	0	0	0	58	2	0
Lang. Usage	6	38	15	2	0	0	0	0	53	2	0
Lang. Usage	7	35	13	7	0	0	0	0	48	7	0
Lang. Usage	8	43	11	0	0	1	0	0	54	0	1
Lang. Usage	10	39	13	2	1	0	0	0	52	3	0
Science	5	56	87	1	6	0	0	0	143	7	0
Science	7	67	69	2	10	0	2	0	136	12	2
Science	10	55	74	6	9	2	4	0	129	15	6

Table 6.12. DIF Counts by Content and Grade – White/Hispanic or Latino

Subject	Grade	A+	A-	B+	B-	C+	C-	N/A	Total A	Total B	Total C
Reading	3	12	34	0	4	0	0	0	46	4	0
Reading	4	17	31	0	1	0	1	0	48	1	1
Reading	5	23	26	0	0	0	1	0	49	0	1
Reading	6	18	27	0	3	0	2	0	45	3	2
Reading	7	13	34	0	2	0	1	0	47	2	1
Reading	8	15	31	2	2	0	0	0	46	4	0
Reading	10	22	33	1	2	0	2	0	55	3	2
Mathematics	3	17	33	0	4	0	1	0	50	4	1
Mathematics	4	23	29	0	3	0	0	0	52	3	0
Mathematics	5	21	33	1	4	0	1	0	54	5	1
Mathematics	6	21	34	1	2	0	2	0	55	3	2
Mathematics	7	16	40	2	2	0	0	0	56	4	0
Mathematics	8	18	38	1	3	0	0	0	56	4	0
Mathematics	10	26	47	1	1	0	0	0	73	2	0
Lang. Usage	3	12	44	1	1	0	2	0	56	2	2
Lang. Usage	4	23	34	1	2	0	0	0	57	3	0
Lang. Usage	5	20	36	1	3	0	0	0	56	4	0
Lang. Usage	6	15	40	0	0	0	0	0	55	0	0
Lang. Usage	7	19	35	0	1	0	0	0	54	1	0
Lang. Usage	8	12	42	0	1	0	0	0	54	1	0
Lang. Usage	10	16	36	0	3	0	0	0	52	3	0
Science	5	52	85	2	9	0	0	2	137	11	0
Science	7	43	90	0	8	0	1	8	133	8	1
Science	10	51	81	1	9	0	1	7	132	10	1

Table 6.13. DIF Counts by Content and Grade – No Lunch Aid/Lunch Aid

Subject	Grade	A+	A-	B+	B-	C+	C-	N/A	Total A	Total B	Total C
Reading	3	1	49	0	0	0	0	0	50	0	0
Reading	4	6	44	0	0	0	0	0	50	0	0
Reading	5	7	42	0	1	0	0	0	49	1	0
Reading	6	8	42	0	0	0	0	0	50	0	0
Reading	7	4	44	0	2	0	0	0	48	2	0
Reading	8	12	38	0	0	0	0	0	50	0	0
Reading	10	0	59	0	1	0	0	0	59	1	0
Mathematics	3	17	36	0	1	0	1	0	53	1	1
Mathematics	4	7	47	0	1	0	0	0	54	1	0
Mathematics	5	15	43	0	2	0	0	0	58	2	0
Mathematics	6	13	45	0	2	0	0	0	58	2	0
Mathematics	7	12	47	0	1	0	0	0	59	1	0
Mathematics	8	12	48	0	0	0	0	0	60	0	0
Mathematics	10	25	49	0	1	0	0	0	74	1	0
Lang. Usage	3	9	49	0	2	0	0	0	58	2	0
Lang. Usage	4	7	52	0	1	0	0	0	59	1	0
Lang. Usage	5	7	53	0	0	0	0	0	60	0	0
Lang. Usage	6	13	42	0	0	0	0	0	55	0	0
Lang. Usage	7	16	38	0	1	0	0	0	54	1	0
Lang. Usage	8	10	45	0	0	0	0	0	55	0	0
Lang. Usage	10	14	41	0	0	0	0	0	55	0	0
Science	5	47	100	0	2	0	1	0	147	2	1
Science	7	48	98	0	4	0	0	0	146	4	0
Science	10	47	101	0	2	0	0	0	148	2	0

6.4 Rasch Item Analysis

Scale scores for the ISAT were developed using the family of Rasch (1960) measurement models for scaling and equating. The advantage of using Rasch models in scaling is that all of the items measuring performance in a particular content area can be placed on a common difficulty scale, allowing the Rasch difficulty values for the individual items to be used in computing a Rasch logit for any raw score point on any test constructed from scaled items. This has the desirable properties of having the difficulty of the items and the student scores on a single scale. This allows for easier interpretation of the scores than is possible with more complex item response theory models that estimate more item parameters than difficulty (e.g., item discrimination and guessing).

Rather than percent correct, the Rasch model expresses item difficulty (and student proficiency) in units commonly referred to as logits. In the simplest case, a logit is a transformed p-value with the average value represented by a logit of zero. The logit metric has several mathematical advantages over p-values. It is an interval scale, meaning two items with logits of 0 and +1 are the same distance apart as items with logits of +3 and +4. Logits are independent of the ability distribution of the students taking a particular test. A specific form can have a mean logit of zero, whether the average p-value of the test is .80 or .30. The Rasch model also allows person measures and item measures to be placed on a common scale. This allows the comparison of person proficiency and item difficulty to determine the probability that a person will respond correctly to any given test item.

The standard Rasch calibration procedure sets the mean difficulty of the items on any unanchored calibration at zero. Any item with a p-value lower than the mean receives a positive logit and any item with a p-value higher than the mean receives a negative logit. Consequently, the logits for any calibration, whether it is a third grade reading test or a high school mathematics test, relate to an arbitrary origin defined by the average of item difficulties for that form. The average third grade reading item will have a logit of zero; the average high school mathematics item will have a logit of zero in unanchored calibrations. This logit scale applies to both item difficulties and student abilities.

The unconditional, joint maximum likelihood (UCON) estimation procedure estimates the person parameters (i.e., ability) simultaneously with the item parameters (i.e., difficulty). The UCON procedure was accomplished using WINSTEPS Version 3.68 (Linacre, 2009). This calibration software is commercially available and widely used in the testing industry and is considered the industry standard for Rasch calibration.

While the p-value summaries presented in section 6.2 provide useful within-grade information regarding the breadth and depth of the field test p-values, they do not provide useful information to compare across grades. Given that the ISAT is vertically scaled (a single interval-level scale that allows for comparisons across grades), a more useful way to review item summaries is to use the underlying vertical scale that preserves the same properties of the scale score metric that is used for final reporting. Tables 6.14–6.17 show the Rasch item difficulties in summary form across grades. These values are presented in logits, which for all intents and purposes are in the final scale metric save for a linear transformation. That is, multiplying the logits by 10 and adding 200 places the logit in the final scale score metric. Large negative logits represent easier items while large positive logits represent more difficult items.

The summary item difficulties are presented in groups of .5 logits from less than -3.0 to 6.0 logits and above. For reading, most of the items fall into the -2.0 to 1.99 range for grade 3 and slowly become more difficult as grades increase to the right, an expected result. At the bottom of each table is the mean, median, standard deviation, minimum, and maximum for each grade. As can be expected, the values for all descriptive statistics except the standard deviation increase as the grades increase. The notable exception can be found in the reading table where the mean and median of the item difficulties for grade 10 is slightly smaller than the mean and median for grade 8. Without the aforementioned exception, the following tables for mathematics, language usage, and science follow the same pattern that is shown in reading. Individual Rasch item parameters and fit statistics may be found in Appendix M.

Table 6.14. Reading Field Test: Item Difficulty Summary by Grade

		Grade						
		3	**4**	**5**	**6**	**7**	**8**	**10**
Range	< -3.000	0	0	0	0	0	0	0
	-3.00 to -2.51	0	0	0	0	0	0	0
	-2.50 to -2.01	0	0	0	0	0	0	0
	-2.00 to -1.51	3	3	0	1	0	0	0
	-1.50 to -1.01	5	6	3	1	0	0	0
	-1.00 to -0.51	11	6	7	3	0	1	0
	-0.50 to -0.01	7	9	5	6	3	3	3
	0.00 to 0.49	11	12	10	7	10	4	3
	0.50 to 0.99	6	6	10	9	10	10	10
	1.00 to 1.49	6	6	8	8	12	7	11
	1.50 to 1.99	0	1	3	8	8	9	10
	2.00 to 2.49	1	1	2	1	3	5	8
	2.50 to 2.99	0	0	1	3	2	2	5
	3.00 to 3.49	0	0	0	3	2	7	4
	3.50 to 3.99	0	0	1	0	0	1	4
	4.00 to 4.49	0	0	0	0	0	1	1
	4.50 to 4.99	0	0	0	0	0	0	0
	5.00 to 5.49	0	0	0	0	0	0	0
	5.50 to 5.99	0	0	0	0	0	0	0
	>= 6.000	0	0	0	0	0	0	1
Summary	Total	50	50	50	50	50	50	60
	Mean	-0.133	-0.003	0.560	0.938	1.116	1.564	1.787
	Median	-0.238	0.062	0.526	0.890	1.142	1.471	1.655
	Stnd. Dev.	0.883	0.917	1.053	1.149	0.902	1.169	1.221
	Minimum	-1.605	-1.646	-1.248	-1.756	-0.483	-0.775	-0.370
	Maximum	2.045	2.034	3.943	3.416	3.251	4.062	6.280

Table 6.15. Mathematics Field Test: Item Difficulty Summary by Grade

		Grade						
		3	**4**	**5**	**6**	**7**	**8**	**10**
Range	< -3.000	3	0	0	0	0	0	0
	-3.00 to -2.51	4	1	0	0	0	0	0
	-2.50 to -2.01	6	2	2	0	0	0	0
	-2.00 to -1.51	13	6	1	0	0	0	0
	-1.50 to -1.01	5	10	5	1	0	0	0
	-1.00 to -0.51	11	9	6	0	1	0	0
	-0.50 to -0.01	5	8	5	5	2	0	0
	0.00 to 0.49	2	7	10	4	1	1	0
	0.50 to 0.99	2	8	5	8	5	3	0
	1.00 to 1.49	1	1	7	11	8	4	2
	1.50 to 1.99	1	2	9	6	4	4	1
	2.00 to 2.49	2	1	5	11	11	5	5
	2.50 to 2.99	0	0	3	7	5	7	5
	3.00 to 3.49	0	0	2	5	11	16	11
	3.50 to 3.99	0	0	0	2	8	9	14
	4.00 to 4.49	0	0	0	0	2	9	8
	4.50 to 4.99	0	0	0	0	1	0	15
	5.00 to 5.49	0	0	0	0	0	1	7
	5.50 to 5.99	0	0	0	0	1	1	3
	>= 6.000	0	0	0	0	0	0	4
Summary	Total	55	55	60	60	60	60	75
	Mean	-1.191	-0.398	0.629	1.608	2.348	2.991	4.042
	Median	-1.481	-0.507	0.640	1.702	2.359	3.265	3.987
	Stnd. Dev.	1.330	1.080	1.374	1.116	1.324	1.171	1.235
	Minimum	-4.338	-2.739	-2.381	-1.352	-0.661	0.068	1.087
	Maximum	2.310	2.067	3.463	3.640	5.509	5.886	7.993

Table 6.16. Language Usage Field Test: Item Difficulty Summary by Grade

		Grade						
		3	**4**	**5**	**6**	**7**	**8**	**10**
Range	< -3.000	1	0	0	0	0	0	0
	-3.00 to -2.51	1	0	1	0	0	0	0
	-2.50 to -2.01	1	0	0	0	0	0	0
	-2.00 to -1.51	8	2	1	0	0	0	0
	-1.50 to -1.01	13	6	0	1	1	0	0
	-1.00 to -0.51	12	5	3	6	1	2	0
	-0.50 to -0.01	7	11	8	3	1	3	1
	0.00 to 0.49	7	12	7	7	2	6	2
	0.50 to 0.99	8	14	10	7	12	4	6
	1.00 to 1.49	2	3	16	9	6	10	7
	1.50 to 1.99	0	4	6	14	13	9	5
	2.00 to 2.49	0	1	3	6	10	6	11
	2.50 to 2.99	0	2	3	2	4	9	8
	3.00 to 3.49	0	0	2	0	1	3	5
	3.50 to 3.99	0	0	0	0	4	2	8
	4.00 to 4.49	0	0	0	0	0	0	1
	4.50 to 4.99	0	0	0	0	0	1	0
	5.00 to 5.49	0	0	0	0	0	0	1
	5.50 to 5.99	0	0	0	0	0	0	0
	>= 6.000	0	0	0	0	0	0	0
Summary	Total	60	60	60	55	55	55	55
	Mean	-0.651	0.259	0.852	0.969	1.629	1.677	2.261
	Median	-0.671	0.255	0.989	1.261	1.666	1.679	2.378
	Stnd. Dev.	0.985	1.007	1.130	1.015	1.062	1.178	1.139
	Minimum	-3.470	-1.827	-2.905	-1.269	-1.346	-0.586	-0.159
	Maximum	1.490	2.889	3.326	2.615	3.941	4.544	5.003

Table 6.17. Science Field Test: Item Difficulty Summary by Grade

		Grade		
		5	**7**	**10**
Range	< -3.000	0	0	0
	-3.00 to -2.51	0	0	0
	-2.50 to -2.01	1	0	0
	-2.00 to -1.51	2	0	0
	-1.50 to -1.01	6	1	0
	-1.00 to -0.51	9	5	0
	-0.50 to -0.01	13	8	1
	0.00 to 0.49	22	20	8
	0.50 to 0.99	28	19	5
	1.00 to 1.49	36	29	18
	1.50 to 1.99	21	27	22
	2.00 to 2.49	7	21	30
	2.50 to 2.99	2	12	27
	3.00 to 3.49	2	5	20
	3.50 to 3.99	1	3	12
	4.00 to 4.49	0	0	5
	4.50 to 4.99	0	0	1
	5.00 to 5.49	0	0	1
	5.50 to 5.99	0	0	0
	>= 6.000	0	0	0
Summary	Total	150	150	150
	Mean	0.789	1.355	2.341
	Median	0.835	1.373	2.333
	Stnd. Dev.	1.008	1.026	1.036
	Minimum	-2.066	-1.495	-0.040
	Maximum	3.554	3.895	5.132

6.5 Item Field Test Data Review

Field test item analyses results were reviewed to determine if each item was performing as expected or not. Most items were determined to have good statistical characteristics and regarded as statistically acceptable. In cases where items were not performing as expected, psychometricians flagged the items for test development specialists to review. It was then determined which of these items to remove from the item bank and which items to bring to an external review committee made up of Idaho educators. Those items removed from the bank exhibited poor statistical quality and were considered unacceptable.

Items were flagged for further review by the data review committees for one of the following reasons:

- High and low p-values
- Low proportion of students selecting a distractor
- More students selecting a distractor than the key
- Low item-total correlation
- A distractor has a higher item-total correlation than the key

- The average student measure of students selecting a distractor is similar to the average student measure of those selecting the key
- Large values of DIF

At the data review meetings, committee members are trained regarding the statistical indices used in item evaluation. Examples are provided concerning potential reasons why an item might be retained regardless of the statistics. The committee review process involves a brief exploration of possible reasons for the statistical profile of an item (such as possible bias, grade appropriateness, and instructional issues) and a decision regarding acceptance. DRC test development specialists facilitate the statistical review of the items.

7. Operational Test Forms Construction

The test forms construction process involves a very specific set of guidelines relative to the selection of multiple-choice items for the operational forms. DRC believes a key factor in forms construction is a solid understanding of the ISAT test/item specifications as well as blueprints and content limits for each content area as established by the SDE, Idaho educators, and DRC test development specialists. By using a series of systematic steps to determine the technical quality of each item, including reviewing each item for alignment to standard, only items that reflect the full depth of knowledge and cognitive demands of the Idaho-adopted curriculum are used to construct the operational forms.

DRC's Steps in the Forms Construction Process

1. DRC test development specialists review the test design blueprint, including the number of items per reporting category (standard) for each academic content area test.
2. DRC psychometricians analyze item data and flag potential problems.
3. DRC psychometricians provide test development specialists with an overview of the psychometric guidelines for forms construction.
4. DRC test development specialists and measurement experts receive training in forms construction, with a focus on requisite content validity and psychometric properties.
5. DRC test development specialists review all items in the operational pool and make an initial selection of items according to test blueprint guidelines, psychometric guidelines, and technical guidelines.
7. Items selected for forms construction are reviewed by DRC senior-level test development specialists and measurement experts.
8. DRC test development specialists facilitate the Idaho Forms Approval Committee to review and make replacements, if needed. If replacements are made, the form is reviewed again by DRC psychometricians.
9. Final sign-off takes place by DRC and SDE, as required by the program.

7.1 2011 Operational Plan

The 2011 ISAT in reading, mathematics, language usage, and science were comprised of one operational core form with items randomly presented to students. All students in the same grade received identical core operational items. In addition, each form included a set of ten field test items that were randomly embedded in fixed positions throughout the form. The embedded field test items' primary purpose is to produce enough items to build the following year's operational (core) form. After completing the core and embedded field test items, all students took an extender set of items. The purpose of the extender set is additional information and greater measurement precision at the reporting category level.

Grades 3–8 and 10 reading, language usage, mathematics, and grades 5, 7, and 10 science forms were built using mostly items field tested in Spring 2010 and approved by the forms approval meeting in January 2011.

Table 7.1 displays the design for the reading tests for grades 3–8 and 10 indicating the total number of items for each purpose. For example, students in grade 6 reading took a total of 66 items: 42 core items, 10 embedded field test items, and 14 extender items.

Table 7.1. 2011 Reading Operational Test Plan

Grade	Multiple-Choice Items		Total Operational Points	Extender Items*	Items
	Core	FT			
3	40	10	40	14	64
4	40	10	40	15	65
5	42	10	42	15	67
6	42	10	42	15	67
7	44	10	44	15	69
8	44	10	44	14	68
10	45	10	45	15	70

*Average number of items in extender set.

Table 7.2 displays the design for the mathematics tests for grades 3–8 and 10.

Table 7.2. 2011 Mathematics Operational Test Plan

Grade	Multiple-Choice Items		Total Operational Points	Extender Items*	Items
	Core	FT			
3	40	10	40	15	65
4	40	10	40	15	65
5	45	10	45	15	70
6	45	10	45	15	70
7	45	10	45	15	70
8	45	10	45	15	70
10	45	10	45	15	70

*Average number of items in extender set.

Table 7.3 displays the design for the language usage tests for grades 3–8 and 10.

Table 7.3. 2011 Language Usage Operational Test Plan

Grade	Multiple-Choice Items		Total Operational Points	Extender Items*	Items
	Core	FT			
3	40	10	40	11	61
4	40	10	40	11	61
5	42	10	42	14	66
6	42	10	42	14	66
7	45	10	45	15	70
8	45	10	45	15	70
10	45	10	45	14	69

*Average number of items in extender set.

Table 7.4 displays the design for the science tests for grades 5, 7, and 10.

Table 7.4. 2011 Science Operational Test Plan

Grade	Multiple-Choice Items		Total Operational Points	Extender Items*	Items
	Core	FT			
5	42	10	42	12	64
7	48	10	48	12	70
10	50	10	50	15	75

*Average number of items in extender set.

7.2 Forms Construction Tools and Documentation

DRC's content specialists collaborated with DRC's psychometricians and Idaho educators as part of the item selection and form construction process. The goal of this process was to select the core items for the operational forms and submit them to Idaho educators for their review and approval and then to SDE for final review and approval.

Throughout the process, DRC content specialists monitored the content distribution described by the test specifications and blueprints, ensuring that there are no potential problems related to developmental appropriateness, item cueing, or redundant content. DRC psychometricians examined the statistical quality of the preliminary form, paying specific attention to logits, p-values, fit statistics, and potential item bias. Any items found to be suspect from a statistical standpoint are reported to the content specialists for review and possible replacement. This process is repeated until a form satisfies the Idaho educators and the SDE.

The items used to build the Spring 2011 operational ISAT test forms were selected from a pool of items garnered from the Spring 2010 embedded field test. Therefore, the statistics associated with the items were on the operational scale or metric. Based on this, specific difficulty targets were used in building the Spring 2011 ISAT test forms.

8. Test Administration

DRC, along with the online test delivery vendor, CAL, were the providers of the Spring 2011 ISAT. The tests were administered April 11–May 6, 2011 with make-up testing taking place May 9–12, 2011.

Reading, mathematics, and language usage tests were administered to students in grades 3–8 and 10. Science tests were administered to students in grades 5, 7, and 10. Students were encouraged to review the ISAT Tutorial and take the ISAT Practice Tests prior to the administration of the online test. Test Administrators were provided with detailed procedures on how to administer the tests. The Spring 2011 ISAT *Test Administration Manual* is provided in Appendix N. Over 500,000 tests were administered online for this administration.

8.1 Sessions

Each content area was divided into "parts" or test sessions.

Table 8.1

Grades	Content Area	Part 1	Part 2
Grades 3–8, 10	Reading	NCLB* and field test items	Extender** items
Grades 3–8, 10	Mathematics	NCLB* and field test items	Extender** items
Grades 3–8, 10	Language Usage	NCLB* and field test items	Extender** items
Grades 5, 7, 10	Science	NCLB* and field test items	Extender** items

*No Child Left Behind (NCLB) federally mandated test
**Extender (adaptive) section required by the Idaho State Board of Education

The students accessed the test with a Test Session Ticket. These tickets were printed by the Test Administrator or School Test Coordinator prior to testing. The Test Session Ticket is a secure method to ensure students receive the correct grade level and content area test. Upon completion of part 1, students could continue on to part 2 without the use of a second Test Session Ticket or they could end part 1 and access part 2 later with a second Test Session Ticket.

8.2 Accommodations

Paper, large print, Braille, and audio CD versions of the NCLB portion and Extender portion of the tests were available for those students whose Individualized Education Plan (IEP) required them. Districts ordered accommodated materials via email and NCLB materials were delivered to districts no more than 10 calendar days before the test window began. Students using the paper version marked their answers in an answer document. Students using the large print version marked their answers directly in the test booklet and Test Administrators were responsible for transcribing the responses into an answer document. Students using the Braille version used a Brailler to mark their responses and Test Administrators were responsible for transcribing the responses into an answer document.

Districts had the option of administering targeted or on-grade Extender materials to their students. NCLB materials were required to be returned on April 18, 2011 in order to receive targeted Extender materials. If NCLB materials were not returned by that date, districts received on-grade Extender materials. Districts were required to return all remaining materials on May 6, 2011. Scores for students from districts who did not return materials by the deadline were not included in the score reports released on June 2, 2011. Approximately 120 students used accommodated paper versions of the test.

Online audio versions of the tests were available in language usage, mathematics, and science for students whose IEP required it. The audio accommodation for online testing was designed only to work with the Cepstral David voice. In addition, the Cepstral David voice was used to produce the audio CDs provided for use with paper, large print, and Braille versions. Therefore, all students with the audio accommodation heard the same standard voice while taking the tests, as recommended by the Technical Advisory Committee.

8.3 Test Security

Security of Test Content and Student Data

Transmissions between the school districts' servers and the CAL application were encrypted using Secure Socket Layer (SSL) protocol. Only upon valid authentication (using Test Session Tickets) was the specific test and student data transmitted to students' computers. Once data were received and decrypted in local computers, it was loaded into the computer's memory, and no test or student data was ever written to hard disk. Once a student finished a test, data were completely deleted from memory. As soon as a student ended a test or if the test was interrupted (power failure, lost Internet signal, etc.), test data was completely removed from the local computers' memory.

The CAL application maintained total control of the student's computer during testing. Students taking the ISAT could not access other applications: printing, coping-and-pasting, screen capturing, keyboard shortcuts, and right-mouse clicks were all deactivated. There were no security breaches during the Spring 2011 administration.

Security at the District and School Level

District Test Coordinators (DTCs), School Test Coordinators, and Test Administrators shared the responsibility for ensuring that all test materials and student responses were handled securely and confidentially and in accordance with security procedures. The ISAT was to be administered by professional staff members who had been oriented in the proper test administration procedures for the ISAT used in the school.

A Test Security Agreement was provided in the *Test Administration Manual* and was required to be signed by all district and school personnel with access to the ISAT. DTCs were required to keep the agreements on file for two years. SDE may audit these documents at any time.

All test booklets and answer documents, both used and unused, were inventoried by DRC upon receipt for scoring. There were no missing secure materials for this administration.

9. Quality Control Processing

As students completed their tests online, CAL's system stored the responses. CAL securely transmitted student response data to DRC daily for processing. DRC's student level processing system generated raw scores by applying the approved answer key to student responses. For the NCLB session (part 1), raw-to-scale conversion tables were applied to raw scores to determine scale scores and proficiency levels for generation of score reports. For the Extender session (part 2), scores were generated using adaptive scoring algorithms.

The responses for students who used an accommodated version (paper-pencil, large print, or Braille) were marked on answer documents. Upon return to DRC, answer documents were key entered via a dual entry process. Throughout the dual key entry process, documents were checked for quality and accuracy. After key entry was complete, the file containing student responses followed the same student level processing system that was used for the computer responses.

DRC's Quality Assurance department incorporated rigorous quality assurance activities throughout processing of student responses to ensure the highest level of quality and data integrity. Upon completion of the thorough data verification process, quality checks were performed on the data placement and report file formatting for each field on the reports. All reporting data elements were verified back to the live data file and the reporting processing rules. Additional quality cross-checks were performed to ensure accuracy and consistency across all reporting mediums for the assessment, including PDF files, CSV files, CDs, and the state's SQL database.

Similar programmatic routines were used to validate the data at the school, district, and state level. DRC's Senior Quality Assurance Analysts conducted a second review of each quality step to ensure the methodology, processes, and procedures were followed and to verify that the reports are approved for production generation.

To ensure the accuracy and reliability of the Report Delivery System, DRC's Software Quality Assurance Analysts validated that each Website page, link, and image displayed properly. They ensured that the system followed Graphical User Interface (GUI) standards and functioned as designed.

For this project, DRC adhered to the 33 Quality Control checkpoints for processing, scoring, and reporting described by the State Collaborative on Assessment and Student Standards (SCASS) on Technical Issues in Large Scale Assessments (TILSA). As added assurance, our Vice President of Quality conducted regular, formal, documented audits of our quality processes to ensure compliance to procedures. TILSA-approved quality checks were executed to verify that district and school content was correct and report data was 100-percent accurate.

Psychometric Quality Control

In addition to quality control in processing and scoring, this year DRC conducted quality checks on the delivery and scoring of the tests. DRC's Psychometric Services Quality team performed checks and verified the integrity of the computer testing algorithm. These checks included verifying that the following integral components of the testing algorithm functioned as specified:

- Scoring routine (e.g., computation of raw and scale scores for core and extender sections)
- Item selection routine (e.g., proper sequence of operational and field-test items)

Additionally, Research Analysts on the Psychometric Services Quality team verified the creation of the raw-to-scale score tables, the application of those tables, and the integrity of the data files used for all psychometric analyses.

10. Student Demographic Summary—Census

Student demographic breakdowns for the census population for the Spring 2011 ISAT are presented for each grade in Tables 10.1–10.7. Within grade, across contents, the numbers should be expected to be quite similar, as students are required to test all of these contents as part of NCLB. Any differences in the counts and percentages across contents should be expected to be small. Counts and percents are presented for gender, ethnicity, lunch aid, limited English proficient, Title I, migrant status, gifted/talented, neglected/delinquent, homeless, special education, and 504 plan.

Table 10.1. Grade 3: Summary of Student Demographics

	Reading		Mathematics		Lang. Usage	
	N	%	N	%	N	%
ALL STUDENTS	21588	100.0	21635	100.0	21587	100.0
GENDER						
Male	10949	50.7	10978	50.7	10947	50.7
Female	10639	49.3	10657	49.3	10640	49.3
ETHNICITY						
American Indian/Alaskan Native	315	1.5	314	1.5	315	1.5
Asian	277	1.3	291	1.3	277	1.3
Black/African American	202	.9	204	.9	202	.9
Hawaiian/Other Pacific Islander	90	.4	91	.4	90	.4
White	16947	78.5	16959	78.4	16939	78.5
Hispanic or Latino	3431	15.9	3448	15.9	3438	15.9
Two or More Races	326	1.5	328	1.5	326	1.5
FREE OR REDUCED LUNCH						
No	10188	47.2	10199	47.1	10190	47.2
Yes	11400	52.8	11436	52.9	11397	52.8
LIMITED ENGLISH PROFICIENCY						
Not LEP	19772	91.6	19778	91.4	19762	91.5
LEP	1205	5.6	1214	5.6	1214	5.6
LEP in first year of school	25	.1	57	.3	25	.1
LEP exited in past 1 year	313	1.4	314	1.5	313	1.4
LEP exited in past 2 years	273	1.3	272	1.3	273	1.3
TITLE I						
No	11481	53.2	11493	53.1	11476	53.2
Yes	10107	46.8	10142	46.9	10111	46.8
MIGRANT STATUS						
No	21392	99.1	21438	99.1	21393	99.1
Yes	196	.9	197	.9	194	.9
GIFTED AND TALENTED						
No	20854	96.6	20903	96.6	20853	96.6
Yes	734	3.4	732	3.4	734	3.4
NEGLECTED OR DELINQUENT						
No	21588	100.0	21635	100.0	21587	100.0
Yes	0	.0	0	.0	0	.0
HOMELESS						
No	21265	98.5	21311	98.5	21262	98.5
Yes	323	1.5	324	1.5	325	1.5
SPECIAL EDUCATION						
No	19462	90.2	19499	90.1	19458	90.1
Yes	1928	8.9	1938	9.0	1930	8.9
SPE exited in past 1 year	127	.6	127	.6	128	.6
SPE exited in past 2 years	71	.3	71	.3	71	.3
504 PLAN						
No	21353	98.9	21400	98.9	21352	98.9
Yes	235	1.1	235	1.1	235	1.1

Table 10.2. Grade 4: Summary of Student Demographics

	Reading		Mathematics		Lang. Usage	
	N	%	N	%	N	%
ALL STUDENTS	21538	100.0	21577	100.0	21555	100.0
GENDER						
Male	10907	50.6	10931	50.7	10923	50.7
Female	10631	49.4	10646	49.3	10632	49.3
ETHNICITY						
American Indian/Alaskan Native	309	1.4	308	1.4	310	1.4
Asian	275	1.3	289	1.3	275	1.3
Black/African American	248	1.2	253	1.2	248	1.2
Hawaiian/Other Pacific Islander	83	.4	82	.4	82	.4
White	16872	78.3	16879	78.2	16879	78.3
Hispanic or Latino	3433	15.9	3450	16.0	3444	16.0
Two or More Races	318	1.5	316	1.5	317	1.5
FREE OR REDUCED LUNCH						
No	10367	48.1	10380	48.1	10368	48.1
Yes	11171	51.9	11197	51.9	11187	51.9
LIMITED ENGLISH PROFICIENCY						
Not LEP	19972	92.7	19965	92.5	19981	92.7
LEP	1056	4.9	1059	4.9	1064	4.9
LEP in first year of school	10	.0	53	.2	10	.0
LEP exited in past 1 year	257	1.2	257	1.2	257	1.2
LEP exited in past 2 years	243	1.1	243	1.1	243	1.1
TITLE I						
No	11566	53.7	11579	53.7	11568	53.7
Yes	9972	46.3	9998	46.3	9987	46.3
MIGRANT STATUS						
No	21343	99.1	21378	99.1	21359	99.1
Yes	195	.9	199	.9	196	.9
GIFTED AND TALENTED						
No	20634	95.8	20674	95.8	20652	95.8
Yes	904	4.2	903	4.2	903	4.2
NEGLECTED OR DELINQUENT						
No	21536	100.0	21575	100.0	21553	100.0
Yes	2	.0	2	.0	2	.0
HOMELESS						
No	21237	98.6	21274	98.6	21254	98.6
Yes	301	1.4	303	1.4	301	1.4
SPECIAL EDUCATION						
No	19341	89.8	19381	89.8	19353	89.8
Yes	1991	9.2	1990	9.2	1996	9.3
SPE exited in past 1 year	121	.6	121	.6	121	.6
SPE exited in past 2 years	85	.4	85	.4	85	.4
504 PLAN						
No	21245	98.6	21284	98.6	21262	98.6
Yes	293	1.4	293	1.4	293	1.4

Table 10.3. Grade 5: Summary of Student Demographics

	Reading		Mathematics		Lang. Usage		Science	
	N	%	N	%	N	%	N	%
ALL STUDENTS	21303	100.0	21327	100.0	21314	100.0	21333	100.0
GENDER								
Male	10934	51.3	10948	51.3	10939	51.3	10939	51.3
Female	10369	48.7	10379	48.7	10375	48.7	10394	48.7
ETHNICITY								
American Indian/Alaskan Native	295	1.4	296	1.4	295	1.4	295	1.4
Asian	277	1.3	285	1.3	276	1.3	284	1.3
Black/African American	217	1.0	220	1.0	217	1.0	219	1.0
Hawaiian/Other Pacific Islander	75	.4	76	.4	75	.4	75	.4
White	16721	78.5	16721	78.4	16728	78.5	16725	78.4
Hispanic or Latino	3378	15.9	3389	15.9	3382	15.9	3396	15.9
Two or More Races	340	1.6	340	1.6	341	1.6	339	1.6
FREE OR REDUCED LUNCH								
No	10446	49.0	10442	49.0	10445	49.0	10441	48.9
Yes	10857	51.0	10885	51.0	10869	51.0	10892	51.1
LIMITED ENGLISH PROFICIENCY								
Not LEP	19938	93.6	19927	93.4	19946	93.6	19931	93.4
LEP	894	4.2	897	4.2	896	4.2	902	4.2
LEP in first year of school	16	.1	46	.2	15	.1	43	.2
LEP exited in past 1 year	247	1.2	247	1.2	247	1.2	247	1.2
LEP exited in past 2 years	208	1.0	210	1.0	210	1.0	210	1.0
TITLE I								
No	11647	54.7	11644	54.6	11643	54.6	11639	54.6
Yes	9656	45.3	9683	45.4	9671	45.4	9694	45.4
MIGRANT STATUS								
No	21138	99.2	21157	99.2	21151	99.2	21163	99.2
Yes	165	.8	170	.8	163	.8	170	.8
GIFTED AND TALENTED								
No	20254	95.1	20278	95.1	20265	95.1	20284	95.1
Yes	1049	4.9	1049	4.9	1049	4.9	1049	4.9
NEGLECTED OR DELINQUENT								
No	21302	100.0	21326	100.0	21313	100.0	21332	100.0
Yes	1	.0	1	.0	1	.0	1	.0
HOMELESS								
No	21039	98.8	21063	98.8	21050	98.8	21066	98.7
Yes	264	1.2	264	1.2	264	1.2	267	1.3
SPECIAL EDUCATION								
No	19159	89.9	19179	89.9	19169	89.9	19181	89.9
Yes	1907	9.0	1911	9.0	1908	9.0	1915	9.0
SPE exited in past 1 year	142	.7	142	.7	142	.7	142	.7
SPE exited in past 2 years	95	.4	95	.4	95	.4	95	.4
504 PLAN								
No	20972	98.4	20996	98.4	20982	98.4	21002	98.4
Yes	331	1.6	331	1.6	332	1.6	331	1.6

Table 10.4. Grade 6: Summary of Student Demographics

	Reading		Mathematics		Lang. Usage	
	N	%	N	%	N	%
ALL STUDENTS	21316	100.0	21324	100.0	21317	100.0
GENDER						
Male	10795	50.6	10798	50.6	10790	50.6
Female	10521	49.4	10526	49.4	10527	49.4
ETHNICITY						
American Indian/Alaskan Native	325	1.5	327	1.5	326	1.5
Asian	286	1.3	296	1.4	286	1.3
Black/African American	197	.9	200	.9	198	.9
Hawaiian/Other Pacific Islander	74	.3	74	.3	74	.3
White	16838	79.0	16821	78.9	16829	78.9
Hispanic or Latino	3252	15.3	3262	15.3	3259	15.3
Two or More Races	344	1.6	344	1.6	345	1.6
FREE OR REDUCED LUNCH						
No	10673	50.1	10677	50.1	10683	50.1
Yes	10643	49.9	10647	49.9	10634	49.9
LIMITED ENGLISH PROFICIENCY						
Not LEP	20050	94.1	20028	93.9	20048	94.0
LEP	868	4.1	872	4.1	871	4.1
LEP in first year of school	18	.1	48	.2	17	.1
LEP exited in past 1 year	226	1.1	225	1.1	227	1.1
LEP exited in past 2 years	154	.7	151	.7	154	.7
TITLE I						
No	13804	64.8	13814	64.8	13809	64.8
Yes	7512	35.2	7510	35.2	7508	35.2
MIGRANT STATUS						
No	21141	99.2	21147	99.2	21142	99.2
Yes	175	.8	177	.8	175	.8
GIFTED AND TALENTED						
No	20265	95.1	20272	95.1	20266	95.1
Yes	1051	4.9	1052	4.9	1051	4.9
NEGLECTED OR DELINQUENT						
No	21314	100.0	21322	100.0	21315	100.0
Yes	2	.0	2	.0	2	.0
HOMELESS						
No	21043	98.7	21056	98.7	21047	98.7
Yes	273	1.3	268	1.3	270	1.3
SPECIAL EDUCATION						
No	19312	90.6	19321	90.6	19308	90.6
Yes	1767	8.3	1765	8.3	1771	8.3
SPE exited in past 1 year	132	.6	132	.6	132	.6
SPE exited in past 2 years	105	.5	106	.5	106	.5
504 PLAN						
No	20954	98.3	20961	98.3	20954	98.3
Yes	362	1.7	363	1.7	363	1.7

Table 10.5. Grade 7: Summary of Student Demographics

	Reading		Mathematics		Lang. Usage		Science	
	N	%	N	%	N	%	N	%
ALL STUDENTS	20804	100.0	20821	100.0	20809	100.0	20803	100.0
GENDER								
Male	10746	51.7	10760	51.7	10756	51.7	10756	51.7
Female	10058	48.3	10061	48.3	10053	48.3	10047	48.3
ETHNICITY								
American Indian/Alaskan Native	295	1.4	293	1.4	292	1.4	291	1.4
Asian	256	1.2	264	1.3	259	1.2	263	1.3
Black/African American	239	1.1	246	1.2	239	1.1	244	1.2
Hawaiian/Other Pacific Islander	81	.4	82	.4	81	.4	82	.4
White	16399	78.8	16394	78.7	16396	78.8	16386	78.8
Hispanic or Latino	3209	15.4	3216	15.4	3216	15.5	3210	15.4
Two or More Races	325	1.6	326	1.6	326	1.6	327	1.6
FREE OR REDUCED LUNCH								
No	10712	51.5	10719	51.5	10715	51.5	10709	51.5
Yes	10092	48.5	10102	48.5	10094	48.5	10094	48.5
LIMITED ENGLISH PROFICIENCY								
Not LEP	19649	94.4	19634	94.3	19648	94.4	19629	94.4
LEP	807	3.9	813	3.9	809	3.9	806	3.9
LEP in first year of school	14	.1	40	.2	18	.1	35	.2
LEP exited in past 1 year	183	.9	183	.9	183	.9	183	.9
LEP exited in past 2 years	151	.7	151	.7	151	.7	150	.7
TITLE I								
No	15495	74.5	15501	74.4	15491	74.4	15482	74.4
Yes	5309	25.5	5320	25.6	5318	25.6	5321	25.6
MIGRANT STATUS								
No	20649	99.3	20661	99.2	20652	99.2	20646	99.2
Yes	155	.7	160	.8	157	.8	157	.8
GIFTED AND TALENTED								
No	19854	95.4	19871	95.4	19860	95.4	19853	95.4
Yes	950	4.6	950	4.6	949	4.6	950	4.6
NEGLECTED OR DELINQUENT								
No	20795	100.0	20812	100.0	20800	100.0	20794	100.0
Yes	9	.0	9	.0	9	.0	9	.0
HOMELESS								
No	20578	98.9	20590	98.9	20579	98.9	20574	98.9
Yes	226	1.1	231	1.1	230	1.1	229	1.1
SPECIAL EDUCATION								
No	18918	90.9	18932	90.9	18925	90.9	18919	90.9
Yes	1647	7.9	1652	7.9	1645	7.9	1645	7.9
SPE exited in past 1 year	149	.7	148	.7	149	.7	149	.7
SPE exited in past 2 years	90	.4	89	.4	90	.4	90	.4
504 PLAN								
No	20387	98.0	20403	98.0	20392	98.0	20386	98.0
Yes	417	2.0	418	2.0	417	2.0	417	2.0

Table 10.6. Grade 8: Summary of Student Demographics

	Reading		Mathematics		Lang. Usage	
	N	%	N	%	N	%
ALL STUDENTS	20356	100.0	20359	100.0	20346	100.0
GENDER						
Male	10478	51.5	10481	51.5	10480	51.5
Female	9878	48.5	9878	48.5	9866	48.5
ETHNICITY						
American Indian/Alaskan Native	301	1.5	299	1.5	297	1.5
Asian	269	1.3	280	1.4	268	1.3
Black/African American	231	1.1	234	1.1	230	1.1
Hawaiian/Other Pacific Islander	66	.3	67	.3	66	.3
White	16077	79.0	16063	78.9	16072	79.0
Hispanic or Latino	3134	15.4	3139	15.4	3136	15.4
Two or More Races	278	1.4	277	1.4	277	1.4
FREE OR REDUCED LUNCH						
No	10759	52.9	10759	52.8	10763	52.9
Yes	9597	47.1	9600	47.2	9583	47.1
LIMITED ENGLISH PROFICIENCY						
Not LEP	19333	95.0	19302	94.8	19328	95.0
LEP	763	3.7	759	3.7	757	3.7
LEP in first year of school	13	.1	49	.2	12	.1
LEP exited in past 1 year	157	.8	159	.8	159	.8
LEP exited in past 2 years	90	.4	90	.4	90	.4
TITLE I						
No	15584	76.6	15579	76.5	15574	76.5
Yes	4772	23.4	4780	23.5	4772	23.5
MIGRANT STATUS						
No	20203	99.2	20204	99.2	20193	99.2
Yes	153	.8	155	.8	153	.8
GIFTED AND TALENTED						
No	19449	95.5	19453	95.5	19439	95.5
Yes	907	4.5	906	4.5	907	4.5
NEGLECTED OR DELINQUENT						
No	20343	99.9	20345	99.9	20332	99.9
Yes	13	.1	14	.1	14	.1
HOMELESS						
No	20178	99.1	20180	99.1	20169	99.1
Yes	178	.9	179	.9	177	.9
SPECIAL EDUCATION						
No	18628	91.5	18649	91.6	18627	91.6
Yes	1524	7.5	1507	7.4	1515	7.4
SPE exited in past 1 year	115	.6	114	.6	115	.6
SPE exited in past 2 years	89	.4	89	.4	89	.4
504 PLAN						
No	19927	97.9	19929	97.9	19917	97.9
Yes	429	2.1	430	2.1	429	2.1

Table 10.7. Grade 10: Summary of Student Demographics

	Reading		Mathematics		Lang. Usage		Science	
	N	%	N	%	N	%	N	%
ALL STUDENTS	19671	100.0	19688	100.0	19671	100.0	19527	100.0
GENDER								
Male	9928	50.5	9933	50.5	9929	50.5	9854	50.5
Female	9743	49.5	9755	49.5	9742	49.5	9673	49.5
ETHNICITY								
American Indian/Alaskan Native	312	1.6	314	1.6	316	1.6	310	1.6
Asian	293	1.5	302	1.5	291	1.5	298	1.5
Black/African American	241	1.2	242	1.2	242	1.2	239	1.2
Hawaiian/Other Pacific Islander	70	.4	70	.4	70	.4	70	.4
White	15753	80.1	15755	80.0	15755	80.1	15628	80.0
Hispanic or Latino	2796	14.2	2795	14.2	2789	14.2	2777	14.2
Two or More Races	206	1.0	210	1.1	208	1.1	205	1.0
FREE OR REDUCED LUNCH								
No	11783	59.9	11787	59.9	11787	59.9	11675	59.8
Yes	7888	40.1	7901	40.1	7884	40.1	7852	40.2
LIMITED ENGLISH PROFICIENCY								
Not LEP	18678	95.0	18672	94.8	18682	95.0	18516	94.8
LEP	707	3.6	706	3.6	707	3.6	703	3.6
LEP in first year of school	23	.1	50	.3	21	.1	47	.2
LEP exited in past 1 year	122	.6	121	.6	121	.6	120	.6
LEP exited in past 2 years	141	.7	139	.7	140	.7	141	.7
TITLE I								
No	17667	89.8	17676	89.8	17670	89.8	17533	89.8
Yes	2004	10.2	2012	10.2	2001	10.2	1994	10.2
MIGRANT STATUS								
No	19536	99.3	19554	99.3	19537	99.3	19395	99.3
Yes	135	.7	134	.7	134	.7	132	.7
GIFTED AND TALENTED								
No	18882	96.0	18898	96.0	18882	96.0	18739	96.0
Yes	789	4.0	790	4.0	789	4.0	788	4.0
NEGLECTED OR DELINQUENT								
No	19615	99.7	19633	99.7	19616	99.7	19476	99.7
Yes	56	.3	55	.3	55	.3	51	.3
HOMELESS								
No	19513	99.2	19531	99.2	19515	99.2	19376	99.2
Yes	158	.8	157	.8	156	.8	151	.8
SPECIAL EDUCATION								
No	18195	92.5	18210	92.5	18189	92.5	18065	92.5
Yes	1338	6.8	1339	6.8	1344	6.8	1325	6.8
SPE exited in past 1 year	79	.4	80	.4	79	.4	78	.4
SPE exited in past 2 years	59	.3	59	.3	59	.3	59	.3
504 PLAN								
No	19302	98.1	19316	98.1	19300	98.1	19162	98.1
Yes	369	1.9	372	1.9	371	1.9	365	1.9

11. Operational Item and Form Summary

11.1 Distribution of P-values and Item-Total Correlations by Grade

Summary p-value information across all grades for each content area is shown in Tables 11.1–11.4 for each operational core form. The p-values are collapsed into blocks of deciles. Information in the table includes, for each grade, the p-value mean, median, standard deviation, minimum, and maximum. Most of the items fall into the .40 to .89 range, appropriate for a criterion-referenced assessment. The mean p-value was somewhat lower for reading in grade 4 than for the other grades, somewhat higher in mathematics for grade 3, somewhat higher in language arts for grade 4, and in science, generally lower than the other content areas.

Summary item-total correlation information across all grades for each content area is shown in Tables 11.5–11.8 for each operational core form. The item-totals are collapsed into blocks of deciles. Information in the table includes, for each grade, the item-total mean, median, standard deviation, minimum, and maximum. As can be seen from the tables, most of the items fall into the .20 to .59 range, appropriate for a criterion-referenced assessment.

The multiple-choice distractor analysis for individual items on the core form may be found in Appendix O.

Table 11.1. Reading Core Test: P-value Counts by Grade

		Grade						
		3	**4**	**5**	**6**	**7**	**8**	**10**
Range	0.0–0.09	0	0	0	0	0	0	0
	0.10–0.19	0	0	0	0	0	0	0
	0.20–0.29	0	0	0	0	0	0	0
	0.30–0.39	0	0	0	0	0	0	1
	0.40–0.49	1	2	3	4	1	2	3
	0.50–0.59	1	7	5	2	4	5	5
	0.60–0.69	10	6	7	8	10	4	7
	0.70–0.79	16	13	9	9	9	13	10
	0.80–0.89	11	11	15	17	17	14	17
	0.90–0.99	1	1	3	2	3	6	2
Summary	Total	40	40	42	42	44	44	45
	Mean	0.74	0.71	0.74	0.74	0.76	0.76	0.73
	Median	0.74	0.74	0.77	0.77	0.80	0.79	0.75
	Stnd. Dev.	0.10	0.13	0.13	0.14	0.12	0.13	0.14
	Minimum	0.42	0.41	0.47	0.42	0.45	0.42	0.35
	Maximum	0.91	0.91	0.94	0.93	0.93	0.93	0.91

Table 11.2. Mathematics Core Test: P-value Counts by Grade

		Grade						
		3	**4**	**5**	**6**	**7**	**8**	**10**
Range	0.0–0.09	0	0	0	0	0	0	0
	0.10–0.19	0	0	0	0	0	0	0
	0.20–0.29	0	0	1	0	1	0	0
	0.30–0.39	0	2	2	2	2	0	0
	0.40–0.49	1	2	2	2	1	5	4
	0.50–0.59	3	3	4	8	8	5	4
	0.60–0.69	4	5	6	6	11	13	10
	0.70–0.79	10	15	10	16	13	11	14
	0.80–0.89	20	12	20	10	9	10	11
	0.90–0.99	2	1	0	1	0	1	2
Summary	Total	40	40	45	45	45	45	45
	Mean	0.78	0.73	0.72	0.70	0.67	0.69	0.72
	Median	0.83	0.76	0.78	0.73	0.70	0.67	0.78
	Stnd. Dev.	0.12	0.14	0.15	0.14	0.15	0.13	0.13
	Minimum	0.47	0.36	0.27	0.33	0.25	0.42	0.43
	Maximum	0.93	0.91	0.89	0.90	0.86	0.90	0.93

Table 11.3. Language Usage Core Test: P-value Counts by Grade

		Grade						
		3	**4**	**5**	**6**	**7**	**8**	**10**
Range	0.0–0.09	0	0	0	0	0	0	0
	0.10–0.19	0	0	0	0	0	0	0
	0.20–0.29	0	0	0	0	0	1	1
	0.30–0.39	1	0	1	2	1	1	2
	0.40–0.49	2	3	1	2	1	4	4
	0.50–0.59	6	2	4	4	11	9	6
	0.60–0.69	10	5	9	8	6	9	7
	0.70–0.79	10	18	15	12	14	8	10
	0.80–0.89	9	8	11	14	11	11	14
	0.90–0.99	2	4	1	0	1	2	1
Summary	Total	40	40	42	42	45	45	45
	Mean	0.70	0.75	0.72	0.72	0.70	0.69	0.69
	Median	0.72	0.77	0.74	0.74	0.73	0.68	0.74
	Stnd. Dev.	0.13	0.13	0.12	0.15	0.13	0.15	0.17
	Minimum	0.38	0.43	0.35	0.33	0.36	0.28	0.23
	Maximum	0.92	0.93	0.92	0.89	0.92	0.93	0.92

Table 11.4. Science Core Test: P-value Counts by Grade

		Grade		
		5	**7**	**10**
Range	0.0–0.09	0	0	0
	0.10–0.19	0	0	0
	0.20–0.29	0	0	0
	0.30–0.39	2	0	1
	0.40–0.49	3	7	2
	0.50–0.59	4	10	9
	0.60–0.69	16	14	14
	0.70–0.79	6	10	15
	0.80–0.89	10	6	9
	0.90–0.99	1	1	0
Summary	Total	42	48	50
	Mean	0.68	0.65	0.68
	Median	0.68	0.65	0.70
	Stnd. Dev.	0.14	0.13	0.12
	Minimum	0.37	0.43	0.39
	Maximum	0.90	0.93	0.88

Table 11.5. Reading Core Test: Item-Total Correlation Counts by Grade

		Grade						
		3	**4**	**5**	**6**	**7**	**8**	**10**
Range	<0.0	0	0	0	0	0	0	0
	0.0–0.09	0	0	0	0	0	0	0
	0.10–0.19	0	0	0	0	0	0	0
	0.20–0.29	0	1	1	3	0	2	2
	0.30–0.39	12	6	6	10	11	14	13
	0.40–0.49	20	23	22	23	25	20	26
	0.50–0.59	8	10	13	6	8	8	4
	0.60–0.69	0	0	0	0	0	0	0
	0.70–0.79	0	0	0	0	0	0	0
	0.80–0.89	0	0	0	0	0	0	0
	0.90–0.99	0	0	0	0	0	0	0
Summary	Total	40	40	42	42	44	44	45
	Mean	0.45	0.46	0.46	0.42	0.44	0.43	0.42
	Median	0.47	0.47	0.47	0.43	0.44	0.42	0.43
	Stnd. Dev.	0.07	0.06	0.07	0.07	0.06	0.07	0.07
	Minimum	0.31	0.30	0.30	0.26	0.30	0.26	0.28
	Maximum	0.58	0.55	0.59	0.55	0.56	0.56	0.55

Table 11.6. Mathematics Core Test: Item-Total Correlation Counts by Grade

		Grade						
		3	**4**	**5**	**6**	**7**	**8**	**10**
Range	<0.0	0	0	0	0	0	0	0
	0.0–0.09	0	0	0	0	0	0	0
	0.10–0.19	0	0	0	0	0	0	0
	0.20–0.29	0	0	1	0	1	0	0
	0.30–0.39	8	12	15	13	8	13	3
	0.40–0.49	24	19	26	24	25	26	25
	0.50–0.59	8	9	3	7	10	6	17
	0.60–0.69	0	0	0	1	1	0	0
	0.70–0.79	0	0	0	0	0	0	0
	0.80–0.89	0	0	0	0	0	0	0
	0.90–0.99	0	0	0	0	0	0	0
Summary	Total	40	40	45	45	45	45	45
	Mean	0.45	0.44	0.42	0.44	0.45	0.44	0.48
	Median	0.45	0.44	0.42	0.43	0.46	0.43	0.48
	Stnd. Dev.	0.06	0.07	0.06	0.07	0.07	0.05	0.06
	Minimum	0.34	0.33	0.24	0.33	0.26	0.33	0.36
	Maximum	0.57	0.58	0.54	0.65	0.60	0.57	0.59

Table 11.7. Language Usage Core Test: Item-Total Correlation Counts by Grade

		Grade						
		3	**4**	**5**	**6**	**7**	**8**	**10**
Range	<0.0	0	0	0	0	0	0	0
	0.0–0.09	0	0	0	0	0	0	0
	0.10–0.19	0	0	0	0	0	0	0
	0.20–0.29	0	0	0	1	0	1	1
	0.30–0.39	8	11	12	14	13	17	10
	0.40–0.49	24	21	26	25	29	22	30
	0.50–0.59	8	8	4	2	3	5	4
	0.60–0.69	0	0	0	0	0	0	0
	0.70–0.79	0	0	0	0	0	0	0
	0.80–0.89	0	0	0	0	0	0	0
	0.90–0.99	0	0	0	0	0	0	0
Summary	Total	40	40	42	42	45	45	45
	Mean	0.45	0.45	0.43	0.42	0.42	0.42	0.43
	Median	0.46	0.46	0.42	0.42	0.43	0.42	0.43
	Stnd. Dev.	0.06	0.06	0.05	0.06	0.04	0.06	0.05
	Minimum	0.34	0.33	0.32	0.30	0.33	0.26	0.28
	Maximum	0.57	0.54	0.51	0.59	0.52	0.56	0.53

Table 11.8. Science Core Test: Item-Total Correlation Counts by Grade

		Grade		
		5	**7**	**10**
Range	<0.0	0	0	0
	0.0–0.09	0	0	0
	0.10–0.19	0	1	0
	0.20–0.29	4	4	1
	0.30–0.39	10	19	13
	0.40–0.49	27	16	28
	0.50–0.59	1	8	7
	0.60–0.69	0	0	1
	0.70–0.79	0	0	0
	0.80–0.89	0	0	0
	0.90–0.99	0	0	0
Summary	Total	42	48	50
	Mean	0.41	0.40	0.44
	Median	0.42	0.40	0.45
	Stnd. Dev.	0.06	0.09	0.06
	Minimum	0.27	0.14	0.26
	Maximum	0.51	0.55	0.60

11.2 Rasch Summaries for the Core Form

Item calibrations for the core test were performed using Rasch analysis. A more useful comparison across grades may be made with item difficulties than with p-values given that the item difficulties for all grades within content are on the same scale. Tables 11.9–11.12 show the Rasch item difficulties in summary form across grades. These values are presented in logits, which are in the final scale metric save for a linear transformation. That is, multiplying the logits by 10 and adding 200 places the logit in the final scale score metric. Large negative logits represent easier items while large positive logits represent more difficult items.

The summary item difficulties are presented in groups of one half logit from less than -3.0, and thereafter in .5 logit blocks, with the final block at 6.0 logits and above. As you can see from the table of the difficulties for reading, most of the items fall into the -2.0 to -.01 range for grade 3 and slowly increase in difficulty as grades increase to the right, an expected result. The last column on the right for grade 10 shows that most of the items fall into the 0.5 to 2.99 range. At the bottom of each table is the mean, median, standard deviation, minimum, and maximum for each grade. As can be expected, these descriptive values increase as the grades increase. Note that the one descriptive statistic that does not follow this progression is the standard deviation. The following tables for mathematics, language usage, and science follow the same pattern that is shown in reading.

Rasch item parameters and fit statistics for individual items on the core form may be found in Appendix P.

Table 11.9. Reading Core Test: Item Difficulty Summary by Grade

		Grade						
		3	**4**	**5**	**6**	**7**	**8**	**10**
Range	< -3.000	0	0	0	0	0	0	0
	-3.00 to -2.51	0	0	0	0	0	0	0
	-2.50 to -2.01	2	0	0	0	0	0	0
	-2.00 to -1.51	1	1	0	0	0	0	0
	-1.50 to -1.01	8	6	2	0	0	0	0
	-1.00 to -0.51	13	5	4	2	0	0	0
	-0.50 to -0.01	12	8	8	7	2	1	0
	0.00 to 0.49	2	9	8	11	9	5	2
	0.50 to 0.99	1	5	11	7	12	5	8
	1.00 to 1.49	1	4	3	7	9	10	9
	1.50 to 1.99	0	1	5	3	10	12	7
	2.00 to 2.49	0	1	1	4	0	5	8
	2.50 to 2.99	0	0	0	1	2	5	6
	3.00 to 3.49	0	0	0	0	0	1	5
	3.50 to 3.99	0	0	0	0	0	0	0
	4.00 to 4.49	0	0	0	0	0	0	0
	4.50 to 4.99	0	0	0	0	0	0	0
	5.00 to 5.49	0	0	0	0	0	0	0
	5.50 to 5.99	0	0	0	0	0	0	0
	>= 6.000	0	0	0	0	0	0	0
Summary	Total	40	40	42	42	44	44	45
	Mean	-0.674	-0.017	0.417	0.717	1.031	1.530	1.847
	Median	-0.638	0.008	0.396	0.525	0.952	1.559	1.925
	Stnd. Dev.	0.648	0.871	0.834	0.864	0.740	0.835	0.884
	Minimum	-2.080	-1.561	-1.299	-0.787	-0.401	-0.025	0.429
	Maximum	1.128	2.033	2.036	2.509	2.773	3.472	3.480

Table 11.10. Mathematics Core Test: Item Difficulty Summary by Grade

		Grade						
		3	**4**	**5**	**6**	**7**	**8**	**10**
Range	< -3.000	0	0	0	0	0	0	0
	-3.00 to -2.51	0	0	0	0	0	0	0
	-2.50 to -2.01	10	0	0	0	0	0	0
	-2.00 to -1.51	6	1	0	0	0	0	0
	-1.50 to -1.01	8	5	0	0	0	0	0
	-1.00 to -0.51	6	6	0	0	0	0	0
	-0.50 to -0.01	5	14	9	0	0	0	0
	0.00 to 0.49	2	6	10	4	0	0	0
	0.50 to 0.99	3	3	10	6	4	0	0
	1.00 to 1.49	0	2	7	15	9	2	1
	1.50 to 1.99	0	1	4	6	10	7	2
	2.00 to 2.49	0	2	2	7	9	8	3
	2.50 to 2.99	0	0	2	4	7	11	11
	3.00 to 3.49	0	0	1	1	2	8	9
	3.50 to 3.99	0	0	0	2	2	5	5
	4.00 to 4.49	0	0	0	0	1	4	8
	4.50 to 4.99	0	0	0	0	1	0	4
	5.00 to 5.49	0	0	0	0	0	0	2
	5.50 to 5.99	0	0	0	0	0	0	0
	>= 6.000	0	0	0	0	0	0	0
Summary	Total	40	40	45	45	45	45	45
	Mean	-1.173	-0.080	0.793	1.602	2.079	2.762	3.391
	Median	-1.412	-0.214	0.657	1.356	1.971	2.713	3.139
	Stnd. Dev.	0.915	0.909	0.898	0.877	0.886	0.819	0.872
	Minimum	-2.484	-1.614	-0.427	0.113	0.832	1.445	1.317
	Maximum	0.812	2.226	3.141	3.828	4.675	4.395	5.110

Table 11.11. Language Usage Core Test: Item Difficulty Summary by Grade

		Grade						
		3	**4**	**5**	**6**	**7**	**8**	**10**
Range	< -3.000	0	0	0	0	0	0	0
	-3.00 to -2.51	0	0	0	0	0	0	0
	-2.50 to -2.01	3	0	0	0	0	0	0
	-2.00 to -1.51	5	0	0	0	0	0	0
	-1.50 to -1.01	8	8	1	0	0	0	0
	-1.00 to -0.51	13	5	1	0	0	0	0
	-0.50 to -0.01	3	13	9	6	1	0	0
	0.00 to 0.49	6	5	11	8	4	2	0
	0.50 to 0.99	2	4	11	11	11	10	5
	1.00 to 1.49	0	3	6	8	10	8	8
	1.50 to 1.99	0	2	1	5	9	9	10
	2.00 to 2.49	0	0	1	0	9	8	6
	2.50 to 2.99	0	0	1	4	0	6	6
	3.00 to 3.49	0	0	0	0	1	1	6
	3.50 to 3.99	0	0	0	0	0	1	3
	4.00 to 4.49	0	0	0	0	0	0	1
	4.50 to 4.99	0	0	0	0	0	0	0
	5.00 to 5.49	0	0	0	0	0	0	0
	5.50 to 5.99	0	0	0	0	0	0	0
	>= 6.000	0	0	0	0	0	0	0
Summary	Total	40	40	42	42	45	45	45
	Mean	-0.801	-0.092	0.477	0.907	1.329	1.680	2.135
	Median	-0.794	-0.091	0.405	0.771	1.253	1.827	1.836
	Stnd. Dev.	0.807	0.855	0.751	0.838	0.722	0.863	0.951
	Minimum	-2.245	-1.434	-1.296	-0.247	-0.233	0.049	0.716
	Maximum	0.931	1.953	2.552	2.823	3.265	3.741	4.484

Table 11.12. Science Core Test: Item Difficulty Summary by Grade

		Grade		
		5	**7**	**10**
Range	< -3.000	0	0	0
	-3.00 to -2.51	0	0	0
	-2.50 to -2.01	0	0	0
	-2.00 to -1.51	2	0	0
	-1.50 to -1.01	6	1	0
	-1.00 to -0.51	3	3	0
	-0.50 to -0.01	9	6	0
	0.00 to 0.49	10	6	4
	0.50 to 0.99	6	16	7
	1.00 to 1.49	4	11	15
	1.50 to 1.99	2	5	13
	2.00 to 2.49	0	0	9
	2.50 to 2.99	0	0	1
	3.00 to 3.49	0	0	1
	3.50 to 3.99	0	0	0
	4.00 to 4.49	0	0	0
	4.50 to 4.99	0	0	0
	5.00 to 5.49	0	0	0
	5.50 to 5.99	0	0	0
	>= 6.000	0	0	0
Summary	Total	42	48	50
	Mean	0.022	0.636	1.445
	Median	0.121	0.805	1.469
	Stnd. Dev.	0.865	0.729	0.658
	Minimum	-1.617	-1.402	0.143
	Maximum	1.746	1.847	3.049

Table 11.13 summarizes the distribution of students and items, which is provided by WINSTEPS Version 3.68 (Linacre, 2009). The logit scale is laid out vertically with the highest performing students and most difficult items on top. In the table, groups of students are represented by the # symbol. The number in each group is defined at the bottom of the table. In this Grade 10 Science example, there are 57 students in each group. Items are represented on the right half of the table with an X.

The left-hand column locates the person ability measures along the scale. The item difficulty measures along the variable are located on the right-hand side. Items generally spread along the vertical axis and students often are normally distributed. The TSMST found along either side of the vertical axis summarize the distributions. The “M” represents the location of the mean measure. The “S” is located one sample standard deviation away from the mean and “T” is placed two sample standard deviations from the mean.

Distribution maps for the core forms may be found in Appendix Q.

Table 11.13. Grade 10 Science Core Test: Item and Student Distribution Map

```
        MAP OF Students AND Sciences
MEASURE                                  |                                MEASURE
  <more> --------------------- Students-+- Sciences----------------- <rare>
    6                               .##  +                                   6
                                         |
                                         |
                                 .#####  |
                                         |
                                         |
                                         |
    5                                    +                                   5
                            .#########  |
                                      T|
                                         |
                         .############  |
                                         |
                                         |
    4                   .##############  +                                   4
                       .###############  |
                                         |
                       .############### S|
                     .################## |
                     .################## |
                     .################## |
    3                 .################  +  X                                3
                      .################  |  X
                       .###############  |T
                        .##############  |
          .############################ M|  XX
                         .#############  |  XX
                         .#############  |S XXX
    2          .######################## +  XXX                              2
                .#####################   |  XXXX
                            .#########  |  X
                      .##################  |  XXXXXXX
                                .########  |M XX
                       .############### S|  XXXXX
                        .##############  |  XXX
    1                           .######  +  XXXXX                            1
                           .###########  |S XXX
                                 .#####  |  XX
                            .##########  |  XX
                                  .####  |  XX
                                   .###  |  X
                                    .## T|T X
    0                              .###  +                                   0
                                      .  |
                                      .  |
                                         |
                                      .  |
                                      .  |
                                      .  |
   -1                                    +                                  -1
                                      .  |
                                         |
                                         |
                                         |
                                         |
                                         |
   -2                                    +                                  -2
  <less> --------------------- Students-+- Sciences----------------- <frequent>
 EACH '#' IN THE Student COLUMN IS  48 Students: EACH '.' IS 1 TO  47
```

11.3 Raw and Scale Score Descriptive Information for the Core Forms

Descriptive statistics are provided in Tables 11.14–11.37 for each content and grade. These statistics are presented for the raw score total, the scale score total, and each of the subscores in the raw score metric. The statistics include:

- number of students taking each assessment
- minimum
- maximum
- mean
- median
- standard deviation
- variance
- skewness, and
- kurtosis.

Table 11.14. Grade 3 Descriptive Statistics for Reading

Reading	N	Minimum	Maximum	Mean	Median	Std. Deviation	Variance	Skewness	Kurtosis
Raw Score	21588	0	40	29.588	31	7.586	57.552	-0.926	0.172
Scale Score	21588	142	244	207.506	207	12.760	162.818	0.198	0.220
Reading Process	21588	0	14	10.214	11	2.893	8.370	-0.823	0.069
Comprehension/ Interpretation	21588	0	26	19.374	21	5.166	26.684	-0.924	0.143

Table 11.15. Grade 4 Descriptive Statistics for Reading

Reading	N	Minimum	Maximum	Mean	Median	Std. Deviation	Variance	Skewness	Kurtosis
Raw Score	21538	3	40	28.484	30	7.822	61.180	-0.762	-0.194
Scale Score	21538	172	252	212.901	212	13.192	174.034	0.192	0.107
Reading Process	21538	0	11	7.888	8	2.306	5.319	-0.716	-0.054
Comprehension/ Interpretation	21538	2	29	20.596	22	5.960	35.522	-0.766	-0.212

Table 11.16. Grade 5 Descriptive Statistics for Reading

Reading	N	Minimum	Maximum	Mean	Median	Std. Deviation	Variance	Skewness	Kurtosis
Raw Score	21303	0	42	31.189	33	7.929	62.870	-0.991	0.341
Scale Score	21303	152	257	219.098	219	13.064	170.659	0.080	0.234
Reading Process	21303	0	11	8.088	9	2.408	5.799	-0.808	-0.025
Comprehension/ Interpretation	21303	0	31	23.101	25	5.933	35.204	-1.050	0.494

Table 11.17. Grade 6 Descriptive Statistics for Reading

Reading	N	Minimum	Maximum	Mean	Median	Std. Deviation	Variance	Skewness	Kurtosis
Raw Score	21316	2	42	31.056	33	7.263	52.746	-0.935	0.392
Scale Score	21316	174	260	221.599	222	11.891	141.399	0.093	0.280
Reading Process	21316	0	11	8.164	9	2.230	4.974	-0.829	0.201
Comprehension/ Interpretation	21316	1	31	22.892	24	5.446	29.663	-0.934	0.402

Table 11.18. Grade 7 Descriptive Statistics for Reading

Reading	N	Minimum	Maximum	Mean	Median	Std. Deviation	Variance	Skewness	Kurtosis
Raw Score	20804	2	44	33.418	35	7.717	59.556	-1.043	0.601
Scale Score	20804	178	263	226.055	225	12.463	155.315	0.168	0.324
Reading Process	20804	0	12	8.994	9	2.368	5.609	-0.904	0.443
Comprehension/ Interpretation	20804	2	32	24.423	26	5.763	33.208	-1.046	0.570

Table 11.19. Grade 8 Descriptive Statistics for Reading

Reading	N	Minimum	Maximum	Mean	Median	Std. Deviation	Variance	Skewness	Kurtosis
Raw Score	20356	5	44	33.593	35	7.554	57.068	-0.975	0.447
Scale Score	20356	192	268	231.582	231	12.527	156.920	0.215	0.223
Reading Process	20356	0	9	7.333	8	1.646	2.709	-1.233	1.447
Comprehension/ Interpretation	20356	2	35	26.261	28	6.305	39.757	-0.896	0.214

Table 11.20. Grade 10 Descriptive Statistics for Reading

Reading	N	Minimum	Maximum	Mean	Median	Std. Deviation	Variance	Skewness	Kurtosis
Raw Score	19671	3	45	33.037	35	7.734	59.821	-0.991	0.568
Scale Score	19671	189	272	232.423	233	11.472	131.618	0.025	0.522
Reading Process	19671	0	10	6.923	7	2.140	4.578	-0.660	-0.092
Comprehension/ Interpretation	19671	2	35	26.114	27	6.030	36.366	-1.045	0.739

Table 11.21. Grade 3 Descriptive Statistics for Mathematics

Mathematics	N	Minimum	Maximum	Mean	Median	Std. Deviation	Variance	Skewness	Kurtosis
Raw Score	21635	3	40	31.227	33	7.130	50.835	-1.074	0.585
Scale Score	21635	160	242	207.044	206	14.441	208.535	0.188	-0.068
Number and Operation	21635	0	15	12.055	13	3.014	9.086	-1.247	1.047
Concepts and Principles of Measurement	21635	0	7	5.305	6	1.464	2.143	-0.880	0.404
Concepts and Language of Algebra and Functions	21635	0	6	4.593	5	1.370	1.878	-0.883	0.144
Concepts and Principles of Geometry	21635	0	6	5.011	5	1.235	1.526	-1.353	1.426
Data Analysis, Probability, and Statistics	21635	0	6	4.262	5	1.523	2.319	-0.628	-0.460

Table 11.22. Grade 4 Descriptive Statistics for Mathematics

Mathematics	N	Minimum	Maximum	Mean	Median	Std. Deviation	Variance	Skewness	Kurtosis
Raw Score	21577	2	40	29.126	31	7.398	54.735	-0.843	0.056
Scale Score	21577	167	253	213.186	213	13.016	169.428	0.223	0.222
Number and Operation	21577	0	14	10.508	11	3.029	9.172	-0.936	0.225
Concepts and Principles of Measurement	21577	0	7	5.139	5	1.522	2.316	-0.845	0.245
Concepts and Language of Algebra and Functions	21577	0	7	4.935	5	1.542	2.378	-0.700	0.045
Concepts and Principles of Geometry	21577	0	6	4.215	4	1.441	2.076	-0.616	-0.310
Data Analysis, Probability, and Statistics	21577	0	6	4.329	5	1.445	2.088	-0.798	-0.040

Table 11.23. Grade 5 Descriptive Statistics for Mathematics

Mathematics	N	Minimum	Maximum	Mean	Median	Std. Deviation	Variance	Skewness	Kurtosis
Raw Score	21327	3	45	32.483	34	7.874	61.996	-0.689	-0.147
Scale Score	21327	179	263	221.330	221	12.381	153.285	0.415	0.463
Number and Operation	21327	0	13	9.209	10	2.792	7.797	-0.663	-0.283
Concepts and Principles of Measurement	21327	0	7	4.795	5	1.579	2.493	-0.502	-0.330
Concepts and Language of Algebra and Functions	21327	0	10	6.825	7	2.198	4.833	-0.615	-0.243
Concepts and Principles of Geometry	21327	0	8	5.936	6	1.618	2.617	-0.663	-0.047
Data Analysis, Probability, and Statistics	21327	0	7	5.717	6	1.419	2.014	-1.237	1.157

Table 11.24. Grade 6 Descriptive Statistics for Mathematics

Mathematics	N	Minimum	Maximum	Mean	Median	Std. Deviation	Variance	Skewness	Kurtosis
Raw Score	21324	3	45	31.448	33	8.677	75.283	-0.532	-0.503
Scale Score	21324	187	270	228.232	228	13.415	179.961	0.501	0.371
Number and Operation	21324	0	13	8.935	9	2.880	8.295	-0.512	-0.547
Concepts and Principles of Measurement	21324	0	7	4.850	5	1.690	2.855	-0.612	-0.381
Concepts and Language of Algebra and Functions	21324	0	10	7.286	8	2.221	4.931	-0.808	0.014
Concepts and Principles of Geometry	21324	0	8	5.663	6	1.816	3.296	-0.617	-0.268
Data Analysis, Probability, and Statistics	21324	0	7	4.714	5	1.686	2.844	-0.460	-0.539

Table 11.25. Grade 7 Descriptive Statistics for Mathematics

Mathematics	N	Minimum	Maximum	Mean	Median	Std. Deviation	Variance	Skewness	Kurtosis
Raw Score	20821	1	45	30.343	32	8.930	79.748	-0.557	-0.501
Scale Score	20821	180	276	231.141	231	12.832	164.653	0.336	0.349
Number and Operation	20821	0	12	8.603	9	2.905	8.440	-0.734	-0.395
Concepts and Principles of Measurement	20821	0	7	4.160	4	1.599	2.555	-0.308	-0.454
Concepts and Language of Algebra and Functions	20821	0	10	7.033	7	2.278	5.191	-0.660	-0.287
Concepts and Principles of Geometry	20821	0	8	5.492	6	1.791	3.209	-0.544	-0.281
Data Analysis, Probability, and Statistics	20821	0	8	5.054	5	2.016	4.064	-0.386	-0.683

Table 11.26. Grade 8 Descriptive Statistics for Mathematics

Mathematics	N	Minimum	Maximum	Mean	Median	Std. Deviation	Variance	Skewness	Kurtosis
Raw Score	20359	0	45	31.058	32	8.631	74.493	-0.483	-0.524
Scale Score	20359	175	281	239.170	238	13.055	170.429	0.572	0.594
Number and Operation	20359	0	11	7.942	8	2.318	5.373	-0.589	-0.349
Concepts and Principles of Measurement	20359	0	6	3.913	4	1.586	2.514	-0.464	-0.611
Concepts and Language of Algebra and Functions	20359	0	12	7.981	8	2.579	6.649	-0.436	-0.401
Concepts and Principles of Geometry	20359	0	8	5.929	6	1.792	3.210	-0.827	0.110
Data Analysis, Probability, and Statistics	20359	0	8	5.295	6	2.044	4.179	-0.464	-0.690

Table 11.27. Grade 10 Descriptive Statistics for Mathematics

Mathematics	N	Minimum	Maximum	Mean	Median	Std. Deviation	Variance	Skewness	Kurtosis
Raw Score	19688	0	45	32.539	34	9.067	82.211	-0.731	-0.211
Scale Score	19688	180	288	248.351	247	14.881	221.455	0.435	0.264
Number and Operation	19688	0	7	4.695	5	1.830	3.348	-0.480	-0.681
Concepts and Principles of Measurement	19688	0	7	4.958	5	1.711	2.929	-0.642	-0.346
Concepts and Language of Algebra and Functions	19688	0	13	9.393	10	2.806	7.872	-0.720	-0.137
Concepts and Principles of Geometry	19688	0	9	6.798	7	2.046	4.187	-0.919	0.171
Data Analysis, Probability, and Statistics	19688	0	9	6.695	7	2.035	4.141	-0.841	0.060

Table 11.28. Grade 3 Descriptive Statistics for Language Usage

Language Usage	N	Minimum	Maximum	Mean	Median	Std. Deviation	Variance	Skewness	Kurtosis
Raw Score	21587	0	40	28.175	30	7.789	60.666	-0.659	-0.380
Scale Score	21587	140	244	204.270	204	12.893	166.224	0.325	0.328
Writing Process	21587	0	21	15.773	17	4.380	19.187	-0.912	0.013
Writing Components	21587	0	19	12.402	13	3.922	15.384	-0.360	-0.633

Table 11.29. Grade 4 Descriptive Statistics for Language Usage

Language Usage	N	Minimum	Maximum	Mean	Median	Std. Deviation	Variance	Skewness	Kurtosis
Raw Score	21555	3	40	29.909	32	7.315	53.507	-0.910	0.195
Scale Score	21555	171	252	214.579	215	13.285	176.499	0.255	0.231
Writing Process	21555	0	17	12.485	13	3.378	11.409	-0.793	0.014
Writing Components	21555	1	23	17.424	19	4.388	19.257	-0.964	0.336

Table 11.30. Grade 5 Descriptive Statistics for Language Usage

Language Usage	N	Minimum	Maximum	Mean	Median	Std. Deviation	Variance	Skewness	Kurtosis
Raw Score	21314	3	42	30.333	32	7.644	58.434	-0.776	0.011
Scale Score	21314	177	257	217.926	218	12.236	149.714	0.316	0.400
Writing Process	21314	1	22	16.285	17	4.225	17.849	-0.865	0.180
Writing Components	21314	1	20	14.048	15	3.904	15.238	-0.659	-0.166

Table 11.31. Grade 6 Descriptive Statistics for Language Usage

Language Usage	N	Minimum	Maximum	Mean	Median	Std. Deviation	Variance	Skewness	Kurtosis
Raw Score	21317	1	42	30.112	31	7.417	55.014	-0.750	0.007
Scale Score	21317	169	262	221.765	221	11.837	140.123	0.321	0.559
Writing Process	21317	1	22	16.419	17	4.200	17.643	-0.922	0.266
Writing Components	21317	0	20	13.693	14	3.741	13.996	-0.529	-0.233

Table 11.32. Grade 7 Descriptive Statistics for Language Usage

Language Usage	N	Minimum	Maximum	Mean	Median	Std. Deviation	Variance	Skewness	Kurtosis
Raw Score	20809	2	45	31.539	33	8.341	69.580	-0.587	-0.400
Scale Score	20809	180	266	225.005	224	11.916	141.984	0.421	0.484
Writing Process	20809	0	25	17.687	19	4.673	21.839	-0.629	-0.276
Writing Components	20809	0	20	13.851	14	4.186	17.522	-0.538	-0.485

Table 11.33. Grade 8 Descriptive Statistics for Language Usage

Language Usage	N	Minimum	Maximum	Mean	Median	Std. Deviation	Variance	Skewness	Kurtosis
Raw Score	20346	4	45	30.861	32	8.215	67.479	-0.520	-0.441
Scale Score	20346	191	270	227.598	227	11.703	136.967	0.392	0.504
Writing Process	20346	1	27	18.660	19	4.999	24.991	-0.599	-0.229
Writing Components	20346	0	18	12.201	13	3.696	13.661	-0.444	-0.566

Table 11.34. Grade 10 Descriptive Statistics for Language Usage

Language Usage	N	Minimum	Maximum	Mean	Median	Std. Deviation	Variance	Skewness	Kurtosis
Raw Score	19671	1	45	31.092	32	8.243	67.944	-0.566	-0.335
Scale Score	19671	180	276	232.845	232	12.268	150.505	0.383	0.478
Writing Process	19671	0	29	21.051	22	5.437	29.559	-0.770	-0.009
Writing Components	19671	0	16	10.041	10	3.310	10.954	-0.218	-0.674

Table 11.35. Grade 5 Descriptive Statistics for Science

Science	N	Minimum	Maximum	Mean	Median	Std. Deviation	Variance	Skewness	Kurtosis
Raw Score	21333	1	42	28.457	30	7.511	56.419	-0.511	-0.427
Scale Score	21333	160	253	210.490	211	11.125	123.757	0.319	0.560
Nature of Science	21333	0	16	11.158	12	3.284	10.783	-0.555	-0.434
Physical Science	21333	0	7	4.723	5	1.687	2.846	-0.475	-0.537
Biology	21333	0	6	4.031	4	1.377	1.896	-0.442	-0.351
Earth and Space Systems	21333	0	6	3.613	4	1.425	2.031	-0.209	-0.584
Personal and Social Perspectives; Technology	21333	0	7	4.932	5	1.566	2.452	-0.754	0.065

Table 11.36. Grade 7 Descriptive Statistics for Science

Science	N	Minimum	Maximum	Mean	Median	Std. Deviation	Variance	Skewness	Kurtosis
Raw Score	20803	1	48	31.312	32	8.716	75.961	-0.371	-0.723
Scale Score	20803	165	259	214.747	214	10.262	105.314	0.289	0.141
Nature of Science	20803	0	21	13.474	14	4.205	17.684	-0.327	-0.689
Physical Science	20803	0	7	4.111	4	1.737	3.018	-0.198	-0.730
Biology	20803	0	8	5.509	6	1.903	3.620	-0.567	-0.456
Earth and Space Systems	20803	0	6	3.715	4	1.409	1.986	-0.329	-0.495
Personal and Social Perspectives; Technology	20803	0	6	4.504	5	1.306	1.705	-0.762	0.056

Table 11.37. Grade 10 Descriptive Statistics for Science

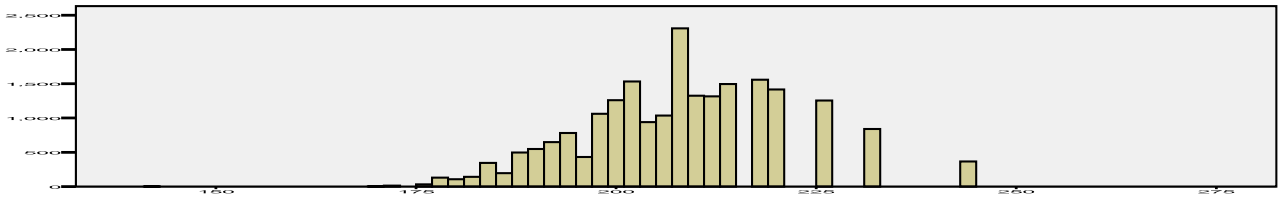
Science	N	Minimum	Maximum	Mean	Median	Std. Deviation	Variance	Skewness	Kurtosis
Raw Score	19527	4	50	33.973	36	9.883	97.678	-0.527	-0.632
Scale Score	19527	188	268	224.761	225	12.043	145.043	0.321	0.218
Nature of Science	19527	1	20	13.840	15	4.148	17.203	-0.530	-0.560
Physical Science	19527	0	7	4.242	4	1.700	2.891	-0.250	-0.641
Biology	19527	0	8	5.634	6	1.909	3.643	-0.676	-0.292
Earth and Space Systems	19527	0	7	4.766	5	1.802	3.246	-0.599	-0.487
Personal and Social Perspectives; Technology	19527	0	8	5.491	6	1.915	3.667	-0.599	-0.388

11.4 Student Scale Score Distributions Across Grades

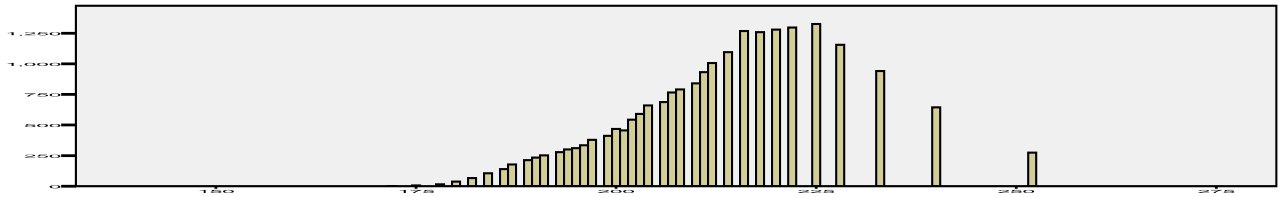
Figures 11.1–11.4 present the student scale score distributions across grades for each content area. As expected, the origins or centers of each distribution move progressively from left to right as they move from grade 3 to grade 10. These "centers" represent the approximate location of the mean or median of the performance of each grade. The figures also reveal the degree of overlap across grades. For example, in reading, one can see that high performing students in grade 4 are in about the same location as the average grade 8 students. A caution to the reader is made here given that the experiences in terms of development and instruction in content varies greatly from grade to grade and student to student. Thus, comparisons such as the above should be treated with caution, in particular when non-adjacent grades are involved. The reader may note that in grades 7 and 10 science, there is a "blip" visible in the plot. For this case, two raw scores "mapped" to the same scale score. Thus, the same scale score represents students from two raw score points.

Figure 11.1

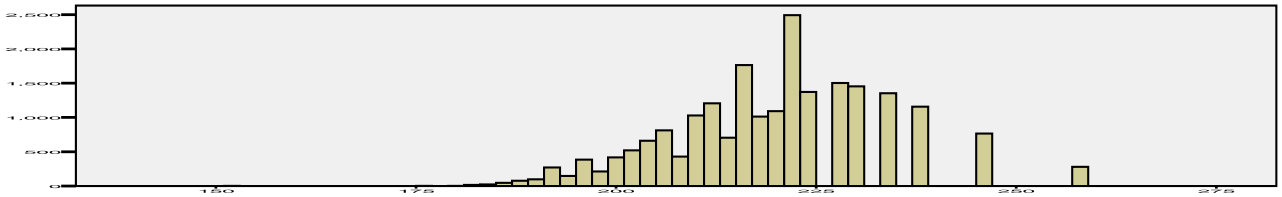
Grade 3 Reading



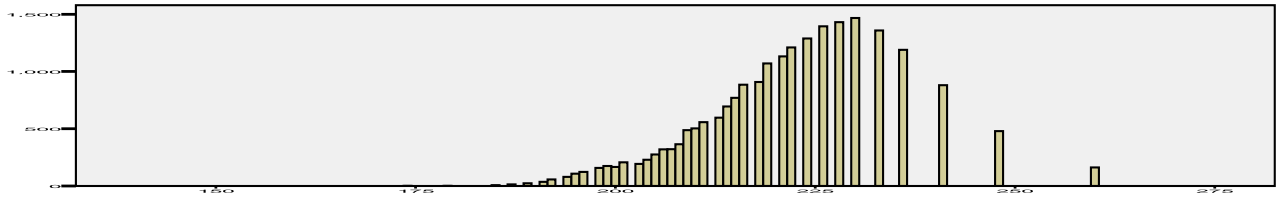
Grade 4 Reading



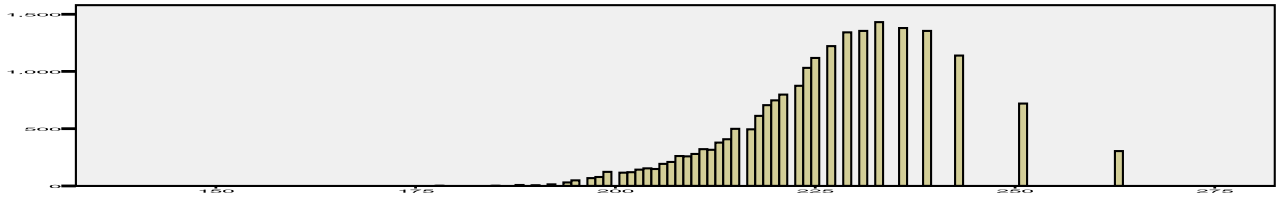
Grade 5 Reading



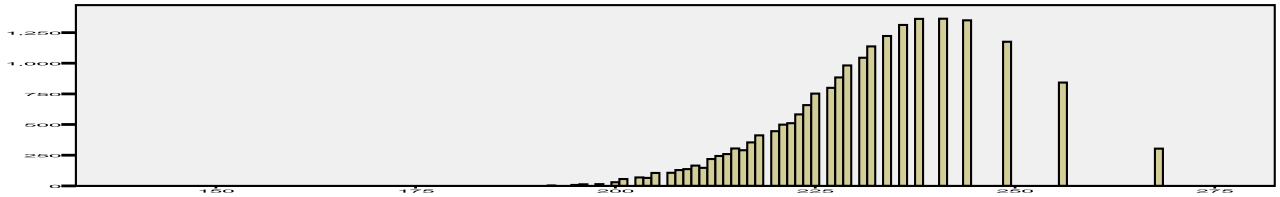
Grade 6 Reading



Grade 7 Reading



Grade 8 Reading



Grade 10 Reading

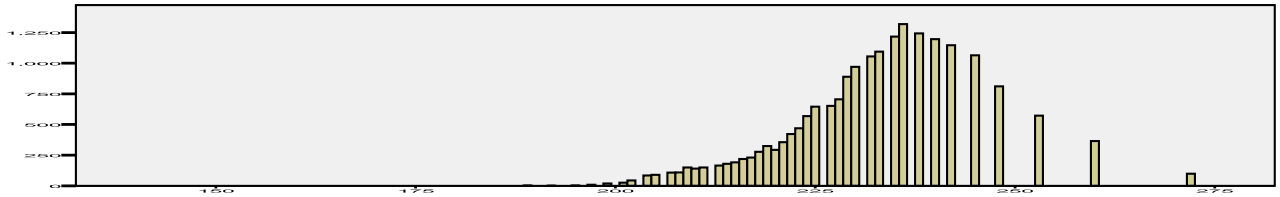
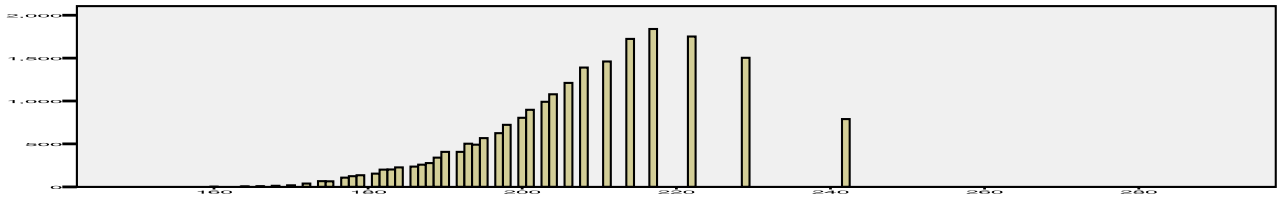
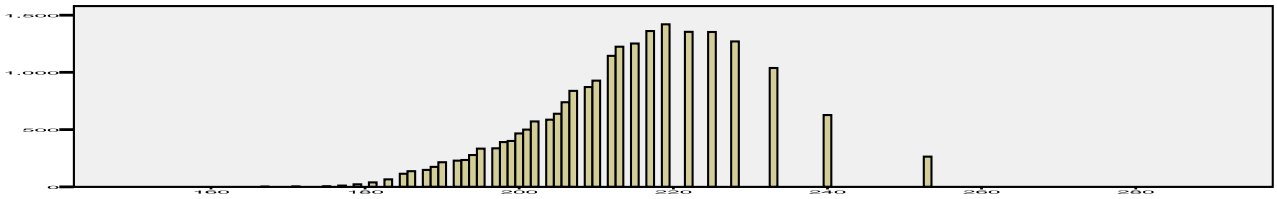


Figure 11.2

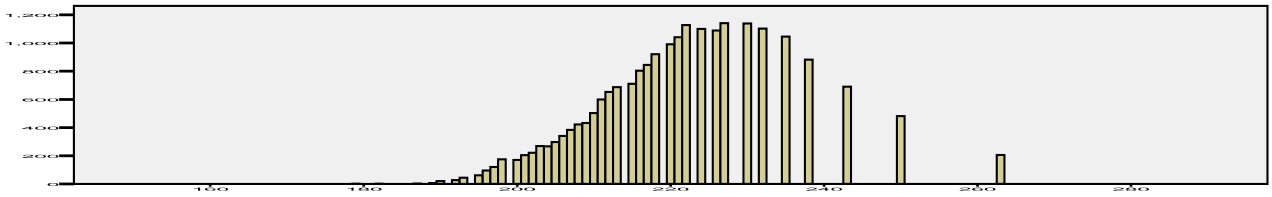
Grade 3 Mathematics



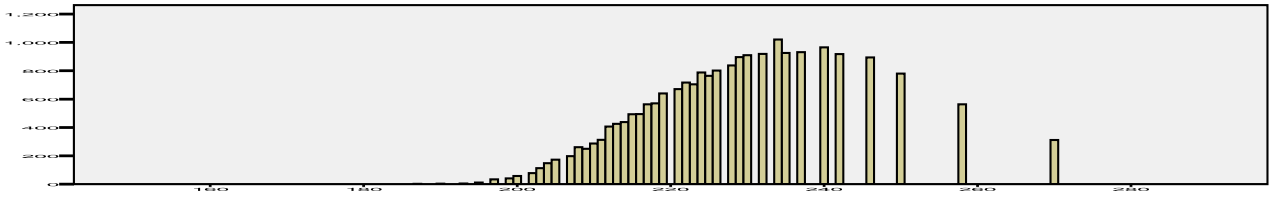
Grade 4 Mathematics



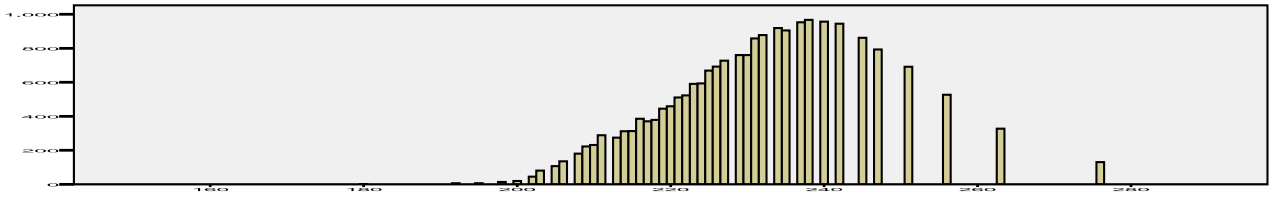
Grade 5 Mathematics



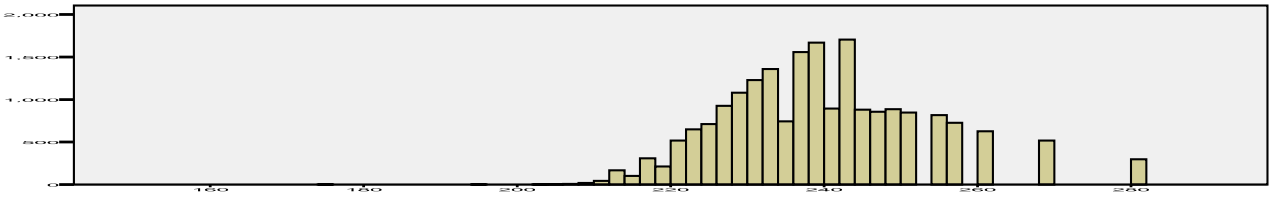
Grade 6 Mathematics



Grade 7 Mathematics



Grade 8 Mathematics



Grade 10 Mathematics

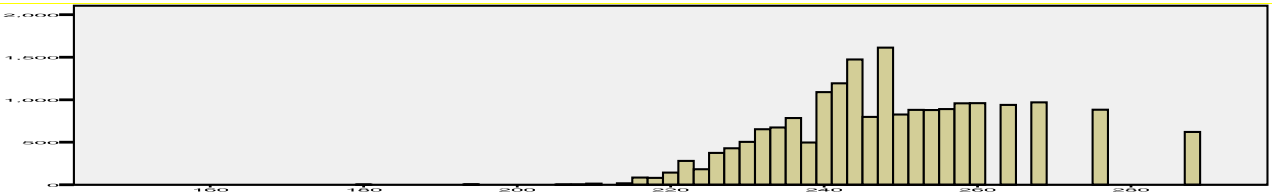
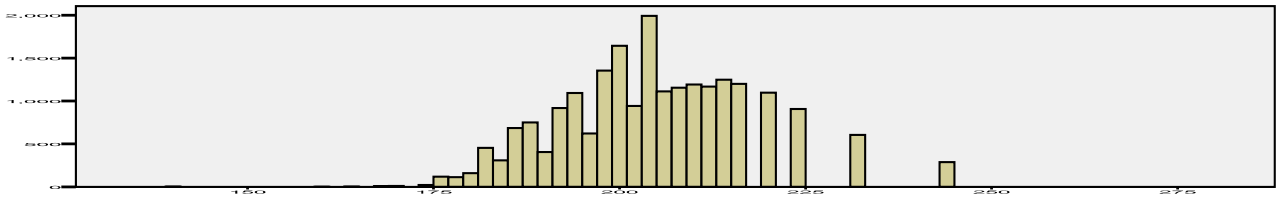
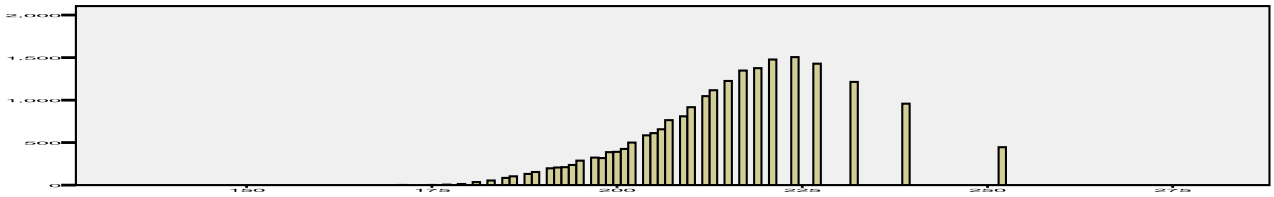


Figure 11.3

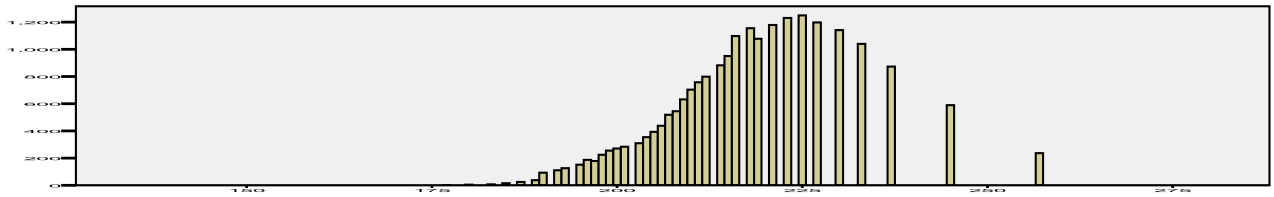
Grade 3 Language Usage



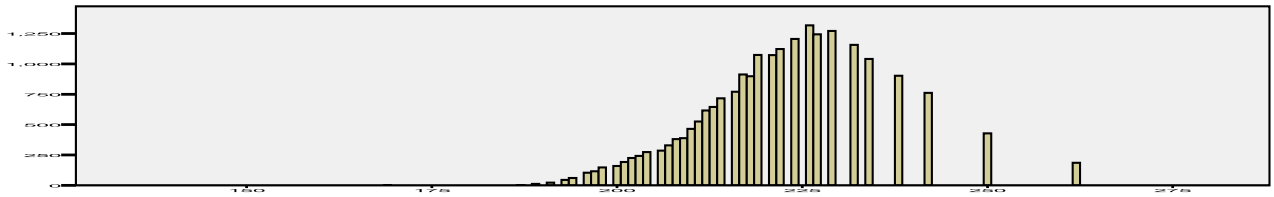
Grade 4 Language Usage



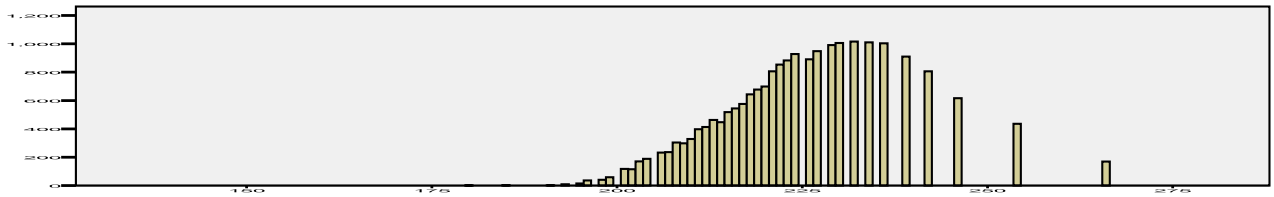
Grade 5 Language Usage



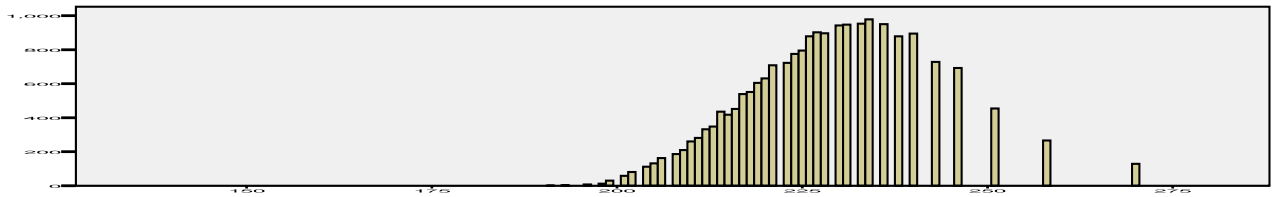
Grade 6 Language Usage



Grade 7 Language Usage



Grade 8 Language Usage



Grade 10 Language Usage

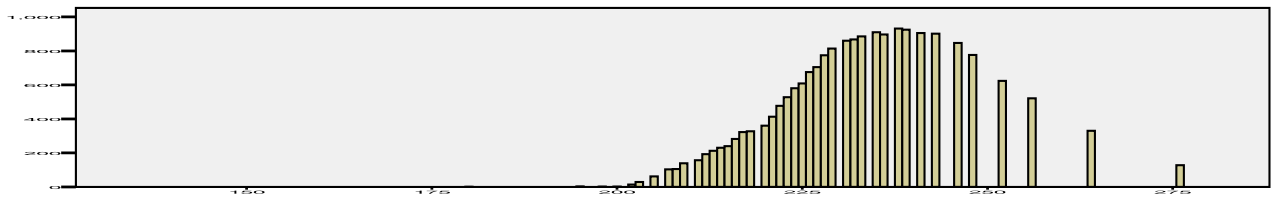
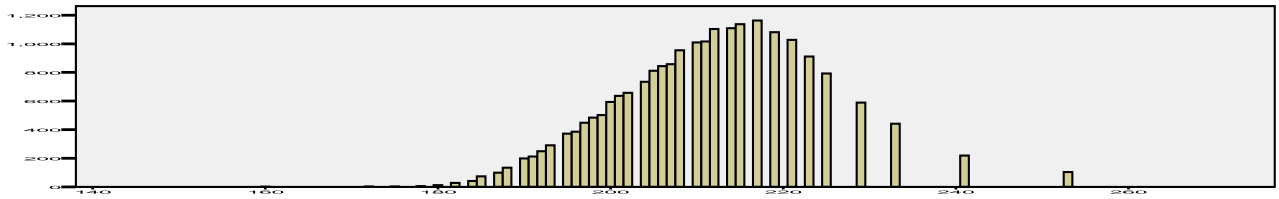
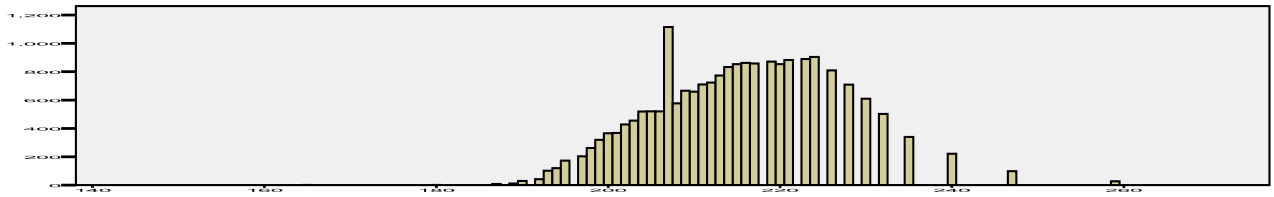


Figure 11.4

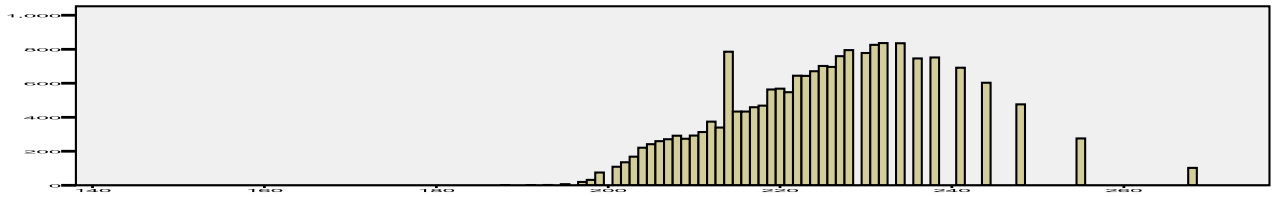
Grade 5 Science



Grade 7 Science



Grade 10 Science



12. Reliability

The classical view of measurement considers all measures as having a "true" component and an error component. Errors occur as a natural part of the measurement process and can never be eliminated entirely. For example, uncontrollable factors such as differences in the testing environment and examinee disposition may increase error and decrease reliability. This is the fundamental premise of true-score reliability analysis and measurement theory. Stated explicitly, this relationship can be seen as the following:

$$X = T + E,$$

where X represents the observed test score, T, the student's true score, and E, random error.

If the variance of the observed measures is denoted by σ_X^2 and the variance of error by σ_E^2 then the reliability (ρ_{xx}) is given by:

$$\rho_{XX} = \frac{\sigma_X^2 - \sigma_E^2}{\sigma_X^2}.$$

When there is no error, the reliability index is the true score variance divided by the true score variance, which is one. The variance of the observed measures can be estimated from the variance of the raw scores using the usual variance formula and the error variance can be estimated by:

$$\Sigma\, p(1\text{-}p),$$

where p is the proportion correct for each item.

The reliability index used for the 2011 administration of the ISAT was the Coefficient Alpha (Cronbach, 1951):

$$\alpha = \left(\frac{k}{k-1}\right)\left(1 - \frac{\sum \sigma_i^2}{\sigma_X^2}\right),$$

where k is the number of items, σ_i^2 is the variance of the set of scores associated with item i, and σ_X^2 is the variance of the set of observed total scores.

Acceptable α values generally range in the mid to high 0.80s to low 0.90s. Table 12.1 provides the total test Coefficient Alpha for each grade and academic content area combination. Overall, these α values provide evidence of good reliability. Tables 12.2–12.5 present α for the content standards. Given that α is a function of test length, the smaller item counts for the content standards result in lower values of α which is to be expected. Overall, these two values provide evidence of good reliability.

Table 12.1. Total Test Reliabilities by Grade

	Reading			Mathematics			Language Usage			Science		
Grade	**# Item**	**N**	**Alpha**	**# Item**	**N**	**Alpha**	**# Item**	**N**	**Alpha**	**# Item**	**N**	**Alpha**
3	40	21588	.896	40	21635	.899	40	21587	.896			
4	40	21538	.900	40	21577	.892	40	21555	.893			
5	42	21303	.905	45	21327	.891	42	21314	.887	42	21333	.873
6	42	21316	.883	45	21324	.906	42	21317	.882			
7	44	20804	.896	45	20821	.908	45	20809	.894	48	20803	.885
8	44	20356	.893	45	20359	.901	45	20346	.891			
10	45	19671	.888	45	19688	.920	45	19671	.897	50	19527	.913

Tables 12.2–12.5 contain the Coefficient Alphas for the academic content area standards.

Table 12.2. Reading Content Standard Reliabilities by Grade

		Reading Process		Comprehension/Interpretation	
Grade	Number of Students	Number of Items	Alpha	Number of Items	Alpha
3	21588	14	.749	26	.855
4	21538	11	.672	29	.877
5	21303	11	.729	31	.875
6	21316	11	.671	31	.847
7	20804	12	.695	32	.865
8	20356	9	.617	35	.873
10	19671	10	.664	35	.858

Table 12.3. Mathematics Content Standard Reliabilities by Grade

		Number and Operation		Concepts and Principles of Measurement		Concepts and Language of Algebra and Functions		Concepts and Principles of Geometry		Data Analysis, Probability, and Statistics	
Grade	Number of Students	Number of Items	Alpha	Number of Items	Alpha	Number of Items	Alpha	Number of Items	Alpha	Number of Items	Alpha
3	21635	15	.805	7	.560	6	.578	6	.564	6	.621
4	21577	14	.787	7	.579	7	.542	6	.528	6	.583
5	21327	13	.754	7	.549	10	.685	8	.515	7	.572
6	21324	13	.754	7	.639	10	.699	8	.612	7	.583
7	20821	12	.788	7	.542	10	.701	8	.582	8	.652
8	20359	11	.683	6	.596	12	.710	8	.610	8	.666
10	19688	7	.676	7	.649	13	.759	9	.699	9	.694

Table 12.4. Language Usage Content Standard Reliabilities by Grade

		Writing Process		Writing Components	
Grade	Number of Students	Number of Items	Alpha	Number of Items	Alpha
3	21587	21	.845	19	.788
4	21555	17	.786	23	.832
5	21314	22	.810	20	.792
6	21317	22	.821	20	.765
7	20809	25	.818	20	.810
8	20346	27	.821	18	.789
10	19671	29	.851	16	.769

Table 12.5. Science Content Standard Reliabilities by Grade

		Nature of Science		Physical Science		Biology		Earth and Space Systems		Personal and Social Perspectives; Technology	
Grade	Number of Students	Number of Items	Alpha	Number of Items	Alpha	Number of Items	Alpha	Number of Items	Alpha	Number of Items	Alpha
5	21333	16	.747	7	.571	6	.468	6	.475	7	.565
7	20803	21	.783	7	.540	8	.634	6	.372	6	.468
10	19527	20	.807	7	.537	8	.645	7	.660	8	.623

Reliabilities by NCLB Subgroups

Tables 12.6–12.12 contain the Coefficient Alphas for each of the NCLB student subgroups. Coefficient Alpha is not reported if the number of students is fewer than fifteen.

Table 12.6. Grade 3: Reliability

	Reading		Mathematics		Lang. Usage	
	N	Alpha	N	Alpha	N	Alpha
ALL STUDENTS	21588	0.896	21635	0.899	21587	0.896
GENDER						
Male	10949	0.899	10978	0.901	10947	0.895
Female	10639	0.891	10657	0.897	10640	0.894
ETHNICITY						
American Indian/Alaskan Native	315	0.880	314	0.897	315	0.888
Asian	277	0.918	291	0.928	277	0.915
Black/African American	202	0.893	204	0.901	202	0.890
Hawaiian/Other Pacific Islander	90	0.901	91	0.895	90	0.887
White	16947	0.892	16959	0.893	16939	0.894
Hispanic or Latino	3431	0.882	3448	0.898	3438	0.880
Two or More Races	326	0.884	328	0.888	326	0.895
FREE OR REDUCED LUNCH						
No	10188	0.884	10199	0.885	10190	0.889
Yes	11400	0.894	11436	0.900	11397	0.891
LIMITED ENGLISH PROFICIENCY						
Not LEP	19772	0.891	19778	0.894	19762	0.894
LEP	1205	0.853	1214	0.886	1214	0.840
LEP in first year of school	25	0.906	57	0.921	25	0.914
LEP exited in past 1 year	313	0.796	314	0.836	313	0.811
LEP exited in past 2 years	273	0.758	272	0.834	273	0.817
TITLE I						
No	11481	0.889	11493	0.895	11476	0.894
Yes	10107	0.899	10142	0.901	10111	0.896
MIGRANT STATUS						
No	21392	0.895	21438	0.899	21393	0.896
Yes	196	0.869	197	0.899	194	0.890
GIFTED AND TALENTED						
No	20854	0.894	20903	0.898	20853	0.894
Yes	734	0.699	732	0.740	734	0.756
NEGLECTED OR DELINQUENT						
No	21588	0.896	21635	0.899	21587	0.896
Yes	0	N/A	0	N/A	0	N/A
HOMELESS						
No	21265	0.895	21311	0.899	21262	0.896
Yes	323	0.903	324	0.903	325	0.905
SPECIAL EDUCATION						
No	19462	0.878	19499	0.882	19458	0.884
Yes	1928	0.901	1938	0.908	1930	0.880
SPE exited in past 1 year	127	0.888	127	0.901	128	0.882
SPE exited in past 2 years	71	0.872	71	0.866	71	0.854
504 PLAN						
No	21353	0.896	21400	0.899	21352	0.897
Yes	235	0.888	235	0.890	235	0.879

Table 12.7. Grade 4: Reliability

	Reading		Mathematics		Lang. Usage	
	N	Alpha	N	Alpha	N	Alpha
ALL STUDENTS	21538	0.900	21577	0.892	21555	0.893
GENDER						
Male	10907	0.904	10931	0.896	10923	0.896
Female	10631	0.893	10646	0.888	10632	0.886
ETHNICITY						
American Indian/Alaskan Native	309	0.893	308	0.901	310	0.899
Asian	275	0.920	289	0.927	275	0.920
Black/African American	248	0.916	253	0.908	248	0.909
Hawaiian/Other Pacific Islander	83	0.914	82	0.899	82	0.902
White	16872	0.894	16879	0.885	16879	0.888
Hispanic or Latino	3433	0.886	3450	0.890	3444	0.883
Two or More Races	318	0.889	316	0.888	317	0.892
FREE OR REDUCED LUNCH						
No	10367	0.887	10380	0.875	10368	0.877
Yes	11171	0.896	11197	0.893	11187	0.892
LIMITED ENGLISH PROFICIENCY						
Not LEP	19972	0.895	19965	0.887	19981	0.889
LEP	1056	0.829	1059	0.863	1064	0.850
LEP in first year of school	10	N/A	53	0.890	10	N/A
LEP exited in past 1 year	257	0.815	257	0.853	257	0.783
LEP exited in past 2 years	243	0.814	243	0.830	243	0.785
TITLE I						
No	11566	0.897	11579	0.885	11568	0.889
Yes	9972	0.899	9998	0.898	9987	0.894
MIGRANT STATUS						
No	21343	0.899	21378	0.892	21359	0.893
Yes	195	0.867	199	0.881	196	0.861
GIFTED AND TALENTED						
No	20634	0.896	20674	0.889	20652	0.890
Yes	904	0.720	903	0.725	903	0.660
NEGLECTED OR DELINQUENT						
No	21536	0.900	21575	0.892	21553	0.893
Yes	2	N/A	2	N/A	2	N/A
HOMELESS						
No	21237	0.899	21274	0.891	21254	0.893
Yes	301	0.901	303	0.902	301	0.892
SPECIAL EDUCATION						
No	19341	0.881	19381	0.872	19353	0.876
Yes	1991	0.891	1990	0.893	1996	0.881
SPE exited in past 1 year	121	0.898	121	0.897	121	0.894
SPE exited in past 2 years	85	0.881	85	0.858	85	0.849
504 PLAN						
No	21245	0.900	21284	0.892	21262	0.894
Yes	293	0.894	293	0.875	293	0.885

Table 12.8. Grade 5: Reliability

	Reading		Mathematics		Lang. Usage		Science	
	N	Alpha	N	Alpha	N	Alpha	N	Alpha
ALL STUDENTS	21303	0.905	21327	0.891	21314	0.887	21333	0.873
GENDER								
Male	10934	0.910	10948	0.895	10939	0.888	10939	0.880
Female	10369	0.897	10379	0.886	10375	0.882	10394	0.865
ETHNICITY								
American Indian/Alaskan Native	295	0.903	296	0.888	295	0.881	295	0.871
Asian	277	0.923	285	0.916	276	0.895	284	0.905
Black/African American	217	0.924	220	0.904	217	0.901	219	0.873
Hawaiian/Other Pacific Islander	75	0.925	76	0.901	75	0.901	75	0.889
White	16721	0.899	16721	0.886	16728	0.882	16725	0.864
Hispanic or Latino	3378	0.891	3389	0.877	3382	0.874	3396	0.850
Two or More Races	340	0.904	340	0.899	341	0.880	339	0.872
FREE OR REDUCED LUNCH								
No	10446	0.887	10442	0.879	10445	0.870	10441	0.854
Yes	10857	0.903	10885	0.886	10869	0.883	10892	0.868
LIMITED ENGLISH PROFICIENCY								
Not LEP	19938	0.899	19927	0.887	19946	0.882	19931	0.866
LEP	894	0.858	897	0.850	896	0.836	902	0.785
LEP in first year of school	16	0.887	46	0.876	15	N/A	43	0.751
LEP exited in past 1 year	247	0.786	247	0.793	247	0.735	247	0.744
LEP exited in past 2 years	208	0.792	210	0.842	210	0.772	210	0.789
TITLE I								
No	11647	0.900	11644	0.889	11643	0.883	11639	0.865
Yes	9656	0.907	9683	0.892	9671	0.889	9694	0.877
MIGRANT STATUS								
No	21138	0.904	21157	0.890	21151	0.887	21163	0.872
Yes	165	0.886	170	0.879	163	0.877	170	0.824
GIFTED AND TALENTED								
No	20254	0.902	20278	0.887	20265	0.883	20284	0.868
Yes	1049	0.667	1049	0.745	1049	0.675	1049	0.699
NEGLECTED OR DELINQUENT								
No	21302	0.905	21326	0.891	21313	0.887	21332	0.873
Yes	1	N/A	1	N/A	1	N/A	1	N/A
HOMELESS								
No	21039	0.904	21063	0.891	21050	0.887	21066	0.873
Yes	264	0.908	264	0.886	264	0.875	267	0.871
SPECIAL EDUCATION								
No	19159	0.883	19179	0.872	19169	0.866	19181	0.858
Yes	1907	0.898	1911	0.880	1908	0.864	1915	0.865
SPE exited in past 1 year	142	0.892	142	0.883	142	0.871	142	0.855
SPE exited in past 2 years	95	0.874	95	0.863	95	0.830	95	0.820
504 PLAN								
No	20972	0.905	20996	0.891	20982	0.887	21002	0.873
Yes	331	0.889	331	0.875	332	0.863	331	0.857

Table 12.9. Grade 6: Reliability

	Reading		Mathematics		Lang. Usage	
	N	Alpha	N	Alpha	N	Alpha
ALL STUDENTS	21316	0.883	21324	0.906	21317	0.882
GENDER						
Male	10795	0.888	10798	0.911	10790	0.883
Female	10521	0.874	10526	0.901	10527	0.875
ETHNICITY						
American Indian/Alaskan Native	325	0.894	327	0.905	326	0.891
Asian	286	0.909	296	0.929	286	0.904
Black/African American	197	0.904	200	0.901	198	0.885
Hawaiian/Other Pacific Islander	74	0.892	74	0.912	74	0.898
White	16838	0.876	16821	0.903	16829	0.877
Hispanic or Latino	3252	0.873	3262	0.888	3259	0.864
Two or More Races	344	0.864	344	0.895	345	0.878
FREE OR REDUCED LUNCH						
No	10673	0.863	10677	0.899	10683	0.867
Yes	10643	0.883	10647	0.899	10634	0.877
LIMITED ENGLISH PROFICIENCY						
Not LEP	20050	0.875	20028	0.903	20048	0.876
LEP	868	0.816	872	0.816	871	0.790
LEP in first year of school	18	0.872	48	0.868	17	0.840
LEP exited in past 1 year	226	0.802	225	0.847	227	0.798
LEP exited in past 2 years	154	0.776	151	0.815	154	0.718
TITLE I						
No	13804	0.878	13814	0.905	13809	0.879
Yes	7512	0.887	7510	0.907	7508	0.883
MIGRANT STATUS						
No	21141	0.882	21147	0.906	21142	0.881
Yes	175	0.846	177	0.866	175	0.829
GIFTED AND TALENTED						
No	20265	0.879	20272	0.902	20266	0.877
Yes	1051	0.654	1052	0.788	1051	0.690
NEGLECTED OR DELINQUENT						
No	21314	0.883	21322	0.906	21315	0.882
Yes	2	N/A	2	N/A	2	N/A
HOMELESS						
No	21043	0.882	21056	0.906	21047	0.881
Yes	273	0.894	268	0.904	270	0.877
SPECIAL EDUCATION						
No	19312	0.856	19321	0.892	19308	0.861
Yes	1767	0.882	1765	0.880	1771	0.849
SPE exited in past 1 year	132	0.850	132	0.895	132	0.874
SPE exited in past 2 years	105	0.868	106	0.891	106	0.846
504 PLAN						
No	20954	0.883	20961	0.906	20954	0.882
Yes	362	0.880	363	0.887	363	0.868

Table 12.10. Grade 7: Reliability

	Reading		Mathematics		Lang. Usage		Science	
	N	Alpha	N	Alpha	N	Alpha	N	Alpha
ALL STUDENTS	20804	0.896	20821	0.908	20809	0.894	20803	0.885
GENDER								
Male	10746	0.904	10760	0.913	10756	0.894	10756	0.892
Female	10058	0.886	10061	0.902	10053	0.890	10047	0.877
ETHNICITY								
American Indian/Alaskan Native	295	0.904	293	0.911	292	0.888	291	0.881
Asian	256	0.922	264	0.941	259	0.929	263	0.908
Black/African American	239	0.921	246	0.924	239	0.903	244	0.890
Hawaiian/Other Pacific Islander	81	0.901	82	0.907	81	0.878	82	0.870
White	16399	0.888	16394	0.903	16396	0.889	16386	0.878
Hispanic or Latino	3209	0.884	3216	0.892	3216	0.872	3210	0.857
Two or More Races	325	0.887	326	0.910	326	0.892	327	0.882
FREE OR REDUCED LUNCH								
No	10712	0.876	10719	0.897	10715	0.883	10709	0.869
Yes	10092	0.895	10102	0.903	10094	0.886	10094	0.879
LIMITED ENGLISH PROFICIENCY								
Not LEP	19649	0.888	19634	0.904	19648	0.889	19629	0.879
LEP	807	0.833	813	0.833	809	0.771	806	0.718
LEP in first year of school	14	N/A	40	0.880	18	0.803	35	0.796
LEP exited in past 1 year	183	0.791	183	0.847	183	0.788	183	0.828
LEP exited in past 2 years	151	0.823	151	0.865	151	0.800	150	0.795
TITLE I								
No	15495	0.893	15501	0.906	15491	0.892	15482	0.880
Yes	5309	0.899	5320	0.911	5318	0.893	5321	0.891
MIGRANT STATUS								
No	20649	0.895	20661	0.908	20652	0.894	20646	0.885
Yes	155	0.890	160	0.880	157	0.862	157	0.835
GIFTED AND TALENTED								
No	19854	0.893	19871	0.904	19860	0.890	19853	0.880
Yes	950	0.593	950	0.745	949	0.661	950	0.725
NEGLECTED OR DELINQUENT								
No	20795	0.896	20812	0.908	20800	0.894	20794	0.885
Yes	9	N/A	9	N/A	9	N/A	9	N/A
HOMELESS								
No	20578	0.896	20590	0.908	20579	0.894	20574	0.885
Yes	226	0.888	231	0.893	230	0.881	229	0.875
SPECIAL EDUCATION								
No	18918	0.871	18932	0.893	18925	0.879	18919	0.874
Yes	1647	0.887	1652	0.872	1645	0.841	1645	0.848
SPE exited in past 1 year	149	0.872	148	0.914	149	0.863	149	0.882
SPE exited in past 2 years	90	0.872	89	0.891	90	0.873	90	0.862
504 PLAN								
No	20387	0.896	20403	0.908	20392	0.894	20386	0.885
Yes	417	0.868	418	0.899	417	0.882	417	0.890

Table 12.11. Grade 8: Reliability

	Reading		Mathematics		Lang. Usage	
	N	Alpha	N	Alpha	N	Alpha
ALL STUDENTS	20356	0.893	20359	0.901	20346	0.891
GENDER						
Male	10478	0.900	10481	0.906	10480	0.890
Female	9878	0.884	9878	0.896	9866	0.887
ETHNICITY						
American Indian/Alaskan Native	301	0.894	299	0.890	297	0.882
Asian	269	0.926	280	0.933	268	0.922
Black/African American	231	0.907	234	0.915	230	0.900
Hawaiian/Other Pacific Islander	66	0.886	67	0.872	66	0.869
White	16077	0.886	16063	0.897	16072	0.886
Hispanic or Latino	3134	0.887	3139	0.883	3136	0.875
Two or More Races	278	0.900	277	0.891	277	0.886
FREE OR REDUCED LUNCH						
No	10759	0.877	10759	0.895	10763	0.881
Yes	9597	0.892	9600	0.892	9583	0.883
LIMITED ENGLISH PROFICIENCY						
Not LEP	19333	0.886	19302	0.897	19328	0.886
LEP	763	0.832	759	0.816	757	0.764
LEP in first year of school	13	N/A	49	0.915	12	N/A
LEP exited in past 1 year	157	0.808	159	0.787	159	0.743
LEP exited in past 2 years	90	0.798	90	0.849	90	0.797
TITLE I						
No	15584	0.889	15579	0.900	15574	0.888
Yes	4772	0.899	4780	0.900	4772	0.893
MIGRANT STATUS						
No	20203	0.892	20204	0.901	20193	0.890
Yes	153	0.894	155	0.865	153	0.850
GIFTED AND TALENTED						
No	19449	0.890	19453	0.896	19439	0.886
Yes	907	0.629	906	0.788	907	0.704
NEGLECTED OR DELINQUENT						
No	20343	0.893	20345	0.901	20332	0.891
Yes	13	N/A	14	N/A	14	N/A
HOMELESS						
No	20178	0.893	20180	0.901	20169	0.891
Yes	178	0.879	179	0.865	177	0.879
SPECIAL EDUCATION						
No	18628	0.872	18649	0.888	18627	0.876
Yes	1524	0.882	1507	0.860	1515	0.835
SPE exited in past 1 year	115	0.895	114	0.895	115	0.859
SPE exited in past 2 years	89	0.875	89	0.893	89	0.861
504 PLAN						
No	19927	0.893	19929	0.901	19917	0.891
Yes	429	0.895	430	0.886	429	0.872

Table 12.12. Grade 10: Reliability

	Reading		Mathematics		Lang. Usage		Science	
	N	Alpha	N	Alpha	N	Alpha	N	Alpha
ALL STUDENTS	19671	0.888	19688	0.920	19671	0.897	19527	0.913
GENDER								
Male	9928	0.893	9933	0.926	9929	0.896	9854	0.924
Female	9743	0.881	9755	0.914	9742	0.895	9673	0.900
ETHNICITY								
American Indian/Alaskan Native	312	0.880	314	0.922	316	0.890	310	0.911
Asian	293	0.935	302	0.949	291	0.934	298	0.943
Black/African American	241	0.918	242	0.929	242	0.905	239	0.916
Hawaiian/Other Pacific Islander	70	0.868	70	0.916	70	0.876	70	0.907
White	15753	0.878	15755	0.916	15755	0.892	15628	0.908
Hispanic or Latino	2796	0.879	2795	0.909	2789	0.882	2777	0.894
Two or More Races	206	0.860	210	0.908	208	0.879	205	0.890
FREE OR REDUCED LUNCH								
No	11783	0.871	11787	0.915	11787	0.888	11675	0.907
Yes	7888	0.891	7901	0.916	7884	0.892	7852	0.910
LIMITED ENGLISH PROFICIENCY								
Not LEP	18678	0.879	18672	0.917	18682	0.892	18516	0.909
LEP	707	0.837	706	0.868	707	0.786	703	0.796
LEP in first year of school	23	0.775	50	0.913	21	0.780	47	0.775
LEP exited in past 1 year	122	0.753	121	0.855	121	0.783	120	0.817
LEP exited in past 2 years	141	0.744	139	0.851	140	0.764	141	0.846
TITLE I								
No	17667	0.885	17676	0.918	17670	0.895	17533	0.911
Yes	2004	0.900	2012	0.926	2001	0.902	1994	0.919
MIGRANT STATUS								
No	19536	0.887	19554	0.920	19537	0.897	19395	0.913
Yes	135	0.888	134	0.903	134	0.877	132	0.902
GIFTED AND TALENTED								
No	18882	0.886	18898	0.918	18882	0.894	18739	0.911
Yes	789	0.702	790	0.845	789	0.795	788	0.850
NEGLECTED OR DELINQUENT								
No	19615	0.888	19633	0.920	19616	0.897	19476	0.913
Yes	56	0.911	55	0.911	55	0.899	51	0.905
HOMELESS								
No	19513	0.887	19531	0.920	19515	0.897	19376	0.913
Yes	158	0.902	157	0.918	156	0.881	151	0.899
SPECIAL EDUCATION								
No	18195	0.867	18210	0.909	18189	0.884	18065	0.906
Yes	1338	0.882	1339	0.895	1344	0.834	1325	0.878
SPE exited in past 1 year	79	0.885	80	0.919	79	0.882	78	0.908
SPE exited in past 2 years	59	0.836	59	0.889	59	0.819	59	0.889
504 PLAN								
No	19302	0.888	19316	0.920	19300	0.898	19162	0.913
Yes	369	0.871	372	0.913	371	0.871	365	0.909

12.1 Standard Error of Measurement

The standard error of measurement (SEM) uses the information from the test along with an estimate of reliability to make statements about the degree to which error affects individual scores. It is based on the premise that underlying traits, such as academic achievement, cannot be measured exactly. The standard error expresses unreliability in the raw score metric. Using the standard error of measurement, an error band can be placed around an individual score indicating the degree to which error might be affecting that score. In true-score test theory, the SEM can be calculated by:

$$SEM = \sigma_X \sqrt{1 - \rho_{XX}} \ ,$$

where σ_X is the standard deviation of the total test (observed measure scores), and ρ_{XX} is the Coefficient Alpha reliability estimate for the test.

Table 12.13 shows the traditional SEMs after converting them from the raw score metric into the scale score metric.

Table 12.13. Standard Error of Measurement (SEM) by Grade and Content Area

Standard Error of Measurement (SEM) by Grade and Content				
Grade	**Reading**	**Math**	**Language Usage**	**Science**
3	4.120	4.587	4.150	
4	4.179	4.282	4.337	
5	4.036	4.094	4.109	3.962
6	4.075	4.113	4.069	
7	4.022	3.892	3.875	3.481
8	4.101	4.107	3.868	
10	3.842	4.201	3.929	3.543

The true-score test theory approach to judging a test's consistency (SEM) can be useful for making overall comparisons between alternate forms. However, it is not very useful for judging the precision with which a specific student's score is known. A more useful measure within the Rasch measurement model is the asymptotic or conditional standard error that pertains to each unique ability estimate. In general, ability estimates from scores near the center of the test are known with greater precision than are abilities associated with extremely high or low scores.

Specific to criterion-referenced tests, like the ISAT, these conditional standards errors (CSEs) are most informative at the decision points (i.e., cutpoints) that define whether students are placed into Below Basic, Basic, Proficient, or Advanced. These values are shown in Tables 12.14–12.17 in the scale score metric. In most cases, the CSEs at the Basic/Below Basic cutpoint and the Proficient/Basic cutpoint are lower than the traditional SEM values. However, the Advanced/Proficient values are somewhat higher. This is due to less precise measurement at the extremes of the score distribution. The complete set of conditional standard errors for every obtainable score can be found in Appendix R as part of the raw to scale score conversions.

Table 12.14. Reading Conditional Standard Error of Measurement at the Cut Points

Content	Grade	Cut Point	CSEM
Reading	3	Basic/Below Basic	3.45
Reading	3	Proficient/Basic	3.31
Reading	3	Advanced/Proficient	4.08
Reading	4	Basic/Below Basic	3.55
Reading	4	Proficient/Basic	3.42
Reading	4	Advanced/Proficient	4.03
Reading	5	Basic/Below Basic	3.43
Reading	5	Proficient/Basic	3.31
Reading	5	Advanced/Proficient	3.98
Reading	6	Basic/Below Basic	3.40
Reading	6	Proficient/Basic	3.34
Reading	6	Advanced/Proficient	4.18
Reading	7	Basic/Below Basic	3.30
Reading	7	Proficient/Basic	3.21
Reading	7	Advanced/Proficient	4.08
Reading	8	Basic/Below Basic	3.45
Reading	8	Proficient/Basic	3.24
Reading	8	Advanced/Proficient	3.81
Reading	10	Basic/Below Basic	3.35
Reading	10	Proficient/Basic	3.25
Reading	10	Advanced/Proficient	3.96

Table 12.15. Mathematics Conditional Standard Error of Measurement at the Cut Points

Content	Grade	Cut Point	SEM
Mathematics	3	Basic/Below Basic	3.55
Mathematics	3	Proficient/Basic	3.47
Mathematics	3	Advanced/Proficient	4.26
Mathematics	4	Basic/Below Basic	3.49
Mathematics	4	Proficient/Basic	3.44
Mathematics	4	Advanced/Proficient	4.49
Mathematics	5	Basic/Below Basic	3.28
Mathematics	5	Proficient/Basic	3.28
Mathematics	5	Advanced/Proficient	4.03
Mathematics	6	Basic/Below Basic	3.32
Mathematics	6	Proficient/Basic	3.24
Mathematics	6	Advanced/Proficient	3.99
Mathematics	7	Basic/Below Basic	3.27
Mathematics	7	Proficient/Basic	3.24
Mathematics	7	Advanced/Proficient	4.02
Mathematics	8	Basic/Below Basic	3.36
Mathematics	8	Proficient/Basic	3.21
Mathematics	8	Advanced/Proficient	3.93
Mathematics	10	Basic/Below Basic	3.25
Mathematics	10	Proficient/Basic	3.26
Mathematics	10	Advanced/Proficient	4.11

Table 12.16. Language Usage Conditional Standard Error of Measurement at the Cut Points

Content	Grade	Cut Point	SEM
Language Usage	3	Basic/Below Basic	3.42
Language Usage	3	Proficient/Basic	3.45
Language Usage	3	Advanced/Proficient	4.15
Language Usage	4	Basic/Below Basic	3.42
Language Usage	4	Proficient/Basic	3.47
Language Usage	4	Advanced/Proficient	4.42
Language Usage	5	Basic/Below Basic	3.29
Language Usage	5	Proficient/Basic	3.32
Language Usage	5	Advanced/Proficient	4.33
Language Usage	6	Basic/Below Basic	3.33
Language Usage	6	Proficient/Basic	3.42
Language Usage	6	Advanced/Proficient	4.39
Language Usage	7	Basic/Below Basic	3.21
Language Usage	7	Proficient/Basic	3.21
Language Usage	7	Advanced/Proficient	4.26
Language Usage	8	Basic/Below Basic	3.25
Language Usage	8	Proficient/Basic	3.28
Language Usage	8	Advanced/Proficient	4.31
Language Usage	10	Basic/Below Basic	3.27
Language Usage	10	Proficient/Basic	3.34
Language Usage	10	Advanced/Proficient	4.65

Table 12.17. Language Usage Conditional Standard Error of Measurement at the Cut Points

Content	Grade	Cut Point	SEM
Science	5	Basic/Below Basic	3.43
Science	5	Proficient/Basic	3.41
Science	5	Advanced/Proficient	4.13
Science	7	Basic/Below Basic	3.06
Science	7	Proficient/Basic	3.16
Science	7	Advanced/Proficient	3.46
Science	10	Basic/Below Basic	2.97
Science	10	Proficient/Basic	3.02
Science	10	Advanced/Proficient	3.66

12.2 Indicators of Consistency

When criterion-referenced tests are used to place the examinees into two or more performance classifications, it is useful to have some indication of how consistent such classifications are. Decision consistency indices can provide information about accuracy of placement over and above the information provided by conditional standard errors.

Decision Consistency Index

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

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

which transforms the original raw score random variable from $X = 0,...,K$ into a new random variable $X' = 0,...,n$, where n is the number of dichotomous, locally independent, equally difficult items required to produce a raw score of the same reliability. Then, using the transformed observed distribution X', parameters are estimated for a four parameter beta-binomial model where the conditional error distribution is assumed to be binomial. The X' distribution is then converted back onto the original X scale using interpolation. It is a single administration decision consistency method that estimates the consistency of the decisions on alternate forms of a test and the accuracy of those decisions relative to the examinees' true score. It is designed only to estimate a contingency table, not a full bivariate distribution, which means the probability of a consistent decision by chance, and subsequently kappa, cannot be estimated.

The results of the consistency analyses are presented in Table 12.18.

Table 12.18. Decision Consistency Indices

Reliability of Performance Levels for the 2011 ISAT			
		Decision Consistency Index	
Grade	Content Area	Two Performance Levels (Proficient versus Not Proficient)	Four Performance Levels
3	Reading	0.94	0.78
	Mathematics	0.94	0.79
	Language Usage	0.90	0.70
4	Reading	0.93	0.76
	Mathematics	0.92	0.73
	Language Usage	0.91	0.73
5	Reading	0.94	0.78
	Mathematics	0.91	0.73
	Language Usage	0.90	0.71
	Science	0.87	0.67
6	Reading	0.93	0.75
	Mathematics	0.90	0.74
	Language Usage	0.89	0.69
7	Reading	0.94	0.76
	Mathematics	0.90	0.72
	Language Usage	0.89	0.71
	Science	0.87	0.66
8	Reading	0.95	0.81
	Mathematics	0.90	0.74
	Language Usage	0.88	0.70
10	Reading	0.93	0.75
	Mathematics	0.92	0.75
	Language Usage	0.89	0.71
	Science	0.90	0.71

13. Performance Levels

Tables 13.1–13.4 show the percent of students who were categorized as Below Basic, Basic, Proficient, and Advanced based on their 2011 Spring ISAT scores. The tables are presented by grade for each content area. The process used to establish the cutpoints that define how students are categorized may be found in Appendix T.

Table 13.1. Reading Performance Level Percentages

		Percentage of Students			
Content Area	**Grade**	**Advanced**	**Proficient**	**Basic**	**Below Basic**
Reading	3	49.9	39.3	6.2	4.5
Reading	4	48.9	37.8	7.4	5.8
Reading	5	53.8	34.3	6.8	5.0
Reading	6	45.3	43.1	7.2	4.4
Reading	7	49.3	38.4	8.7	3.6
Reading	8	59.4	33.2	5.6	1.8
Reading	10	45.9	41.3	8.8	4.0

Table 13.2. Mathematics Performance Level Percentages

		Percentage of Students			
Content Area	**Grade**	**Advanced**	**Proficient**	**Basic**	**Below Basic**
Mathematics	3	58.9	29.7	8.8	2.7
Mathematics	4	40.3	43.1	11.3	5.4
Mathematics	5	41.6	39.3	14.7	4.4
Mathematics	6	38.6	38.9	17.2	5.3
Mathematics	7	34.4	40.1	16.3	9.3
Mathematics	8	35.9	43.6	16.3	4.3
Mathematics	10	40.5	38.0	12.1	9.4

Table 13.3. Language Usage Performance Level Percentages

		Percentage of Students			
Content Area	**Grade**	**Advanced**	**Proficient**	**Basic**	**Below Basic**
Language Usage	3	41.1	32.6	16.0	10.3
Language Usage	4	45.2	35.9	12.2	6.7
Language Usage	5	35.4	43.3	13.3	7.9
Language Usage	6	32.8	42.6	17.1	7.5
Language Usage	7	28.7	44.8	19.2	7.3
Language Usage	8	24.5	46.7	19.6	9.2
Language Usage	10	21.0	51.6	16.8	10.7

Table 13.4. Science Performance Level Percentages

		Percentage of Students			
Content Area	**Grade**	**Advanced**	**Proficient**	**Basic**	**Below Basic**
Science	5	29.7	37.7	26.4	6.3
Science	7	37.1	20.1	23.9	18.9
Science	10	35.5	33.8	15.0	15.8

14. Equating

For the Spring 2011 test administration, DRC used the embedded field test items from previous spring administrations to achieve comparable scales. This process is commonly referred to as pre-equating. It allows for the new test form's difficulty level to be equated to previous administrations by utilizing a form of common item equating where the entire operational form serves as the common link. It also allows for immediate reporting of scores, given that the item parameter values are known rather than re-estimated (i.e., post-equating). This produces a high quality of equating from administration to administration (due to the large number of equating items). Another strength of this equating scheme is that the embedded field test items are administered to a motivated sample within the same spring operational test administration that is used to calculate adequate yearly progress (AYP) under NCLB.

15. Scaling

To allow for ease of interpretation, the logit scale is transformed into scale score units. The equation used to translate the logit abilities to the scale score metric is 10 times the logit plus 200. This eliminates the confusion of having negative scores that may carry negative connotations. The 10 represents the standard deviation of the scale and 200 represents the origin or center. Given that the ISAT is a vertically developed scale, this equation is applied for all grades. As a convention, the same equation is used to translate reading, mathematics, language usage, and science.

15.1 Raw to Scale Score Conversions

Table 15.1 is an example of the raw score to Rasch logit ability to scale score conversion for grade 5 mathematics. In addition, the conditional standard error and actual student frequencies for each raw score are shown. The complete set of conversion tables can be found in Appendix R.

Table 15.1. Grade 5 Mathematics Core Test: Raw to Scale Conversion

Raw Score	Ability	Scale Score	SEM	Frequency	Percent Below
0	-4.518	155	18.35	0	<1
1	-3.291	167	10.16	0	<1
2	-2.564	174	7.31	0	<1
3	-2.124	179	6.07	1	<1
4	-1.802	182	5.34	1	<1
5	-1.543	185	4.86	0	<1
6	-1.324	187	4.51	3	<1
7	-1.133	189	4.25	6	<1
8	-0.961	190	4.04	21	<1
9	-0.805	192	3.88	27	<1
10	-0.659	193	3.75	44	<1
11	-0.523	195	3.64	61	<1
12	-0.394	196	3.55	96	1
13	-0.271	197	3.47	121	2
14	-0.153	198	3.41	175	3
15	-0.039	200	3.36	171	3
16	0.073	201	3.32	205	4
17	0.182	202	3.28	222	5
18	0.288	203	3.26	269	7
19	0.394	204	3.24	267	8
20	0.498	205	3.23	298	9
21	0.602	206	3.22	341	11
22	0.706	207	3.22	384	13
23	0.809	208	3.22	422	15
24	0.914	209	3.24	433	17
25	1.019	210	3.25	503	19
26	1.125	211	3.28	599	22
27	1.233	212	3.31	653	25
28	1.344	213	3.34	687	28
29	1.457	215	3.39	711	32
30	1.574	216	3.44	804	35
31	1.694	217	3.50	845	39
32	1.819	218	3.58	921	44
33	1.950	220	3.66	991	48
34	2.088	221	3.76	1041	53
35	2.234	222	3.88	1127	58
36	2.390	224	4.03	1100	64
37	2.559	226	4.20	1089	69
38	2.744	227	4.41	1141	74
39	2.951	230	4.68	1139	79
40	3.186	232	5.03	1102	84
41	3.463	235	5.52	1046	89
42	3.806	238	6.24	882	94
43	4.267	243	7.46	690	97
44	5.018	250	10.29	482	>99
45	6.263	263	18.42	206	>99

16. Validity

16.1 External Third-Party Content Alignment Study

External third-party content alignment studies were conducted for language usage, mathematics, reading, and science. Final reports of the studies' results consisted of a description of the four criteria used to judge the alignment between Idaho content objectives and the test questions on the ISAT for each particular subject area. Each report included tables listing the results from the review process.

The content alignment group consisted of national content experts and content experts from the state of Idaho. The State of Idaho reviewers have extensive teaching experience in the state and expertise in the content area, while the national reviewers have extensive expertise in the content area, and/or assessment design. Participants analyzed the alignment between the state's ISAT Content Standards and Objectives and the test questions on the ISAT. A national psychometrician reviewed the final results of each alignment study. The results indicated that there is alignment between the content standards, goals, and objectives, and the test questions for each content area.

For more information on the mathematics, reading, or science alignment study please see the Spring 2007 Technical Report. For more information on the language usage alignment study please see the Spring 2008 Technical Report.

16.2 Content Validity

Content/Curricular

The ISAT is composed of criterion-referenced assessments based on an extensive definition of the content assessed. Because it is content-based and aligned directly to the Idaho statewide content standards, it should demonstrate good content validity. Content validity addresses whether the test adequately samples the relevant material it purports to cover.

Relation to Statewide Content Standards

From the inception of the ISAT, committees of educators, item development experts, assessment experts, and SDE staff have met periodically to review new and field tested items. A sequential review process has been put in place by SDE. This provides many opportunities for these professionals to offer suggestions for improving or eliminating items as well as offer insights into the interpretation of the statewide content standards for the ISAT. These review committees participate in this process to ensure test content validity of the ISAT.

In addition to providing information on the difficulty, appropriateness, and sensitivity of these items, committee members provide a needed check on the alignment between the items and the content standards they are intended to measure. When items are judged relevant, that is, representative of the content defined by the standards, this judgment provides evidence to support the validity of inferences made (regarding knowledge of this content) with ISAT results. When items are judged to be inappropriate for any reason, the committee can either suggest revisions (e.g., reclassification, rewording) or elect to eliminate the item from the field test item pool. Items that are approved by the review committee are later embedded in the operational ISAT form to allow for the collection of performance data. In essence, these committees review and verify the alignment of the test items with the objectives and measurement specifications to ensure that the items measure appropriate content. The nature and specificity of these review procedures provide strong evidence for the content validity of the ISAT.

Educator Input

Idaho educators provide valuable input on the alignment of the items and the statewide content standards. Items are written specifically to measure the objectives and specifications of the content standards for the ISAT. Using a varied source of item writers provides a system of checks-and-balances for item development and review that reduces single source bias. Because many different people with different backgrounds write the items, it is less likely that items will suffer from a bias that might occur if items were written by a single author. This direct input from educators offers evidence regarding the content validity of the ISAT.

Developer Input

For the items included in the 2011 form, SDE and DRC staff provided a history of test building experience, including content-related expertise. The input and review by these assessment professionals provided further support of the item being an accurate measure of the intended objective. Thus, these reviews offer additional evidence for the content-validity of the ISAT.

Item to Content Area Match

Expert judgments from educators, test developers, and assessment specialists provide support for the alignment of the ISAT with the statewide content standards. In addition, because expert teachers in the content areas were involved in establishing the content standards, the judgments of these same expert teachers in the review process provide a measure of content validity. A match between the content standards and the components of the ISAT provides evidence that the assessment measures the content standards. A table showing the number of assessment components, tasks, or items matching each content-standard is often used to provide documentation of the content validity of an assessment. The ISAT test blueprint provides this documentation. The blueprints for reading, mathematics, language usage, and science are presented in Appendix S.

16.3 Intercorrelations-Convergent/Divergent Validity

Tables 16.1–16.7 show the scale score intercorrelations for reading, mathematics, language usage, and science (grades 5, 7, and 10) for each grade. Disattenuated correlations are also presented, which account for the unreliability of the measures. A consistent pattern in the data is evident: reading and mathematics correlate the lowest of the pairs and reading and language usage correlate the highest. The latter pair shows even higher for the disattenuated correlation, primarily because of the somewhat lower reliability of language usage. Science pairs tend to fall in the middle.

Table 16.1. Grade 3: Scale Score Correlation and Disattenuated Correlation

Grade 3 Scale Score Correlation	Reading	Mathematics	Language Usage
Reading	1.000	0.707	0.786
Mathematics	0.707	1.000	0.733
Language Usage	0.786	0.733	1.000

Grade 3 Scale Score Disattenuated Correlation	Reading	Mathematics	Language Usage
Reading	1.000	0.788	0.877
Mathematics	0.788	1.000	0.817
Language Usage	0.877	0.817	1.000

Table 16.2. Grade 4: Scale Score Correlation and Disattenuated Correlation

Grade 4 Scale Score Correlation	Reading	Mathematics	Language Usage
Reading	1.000	0.694	0.785
Mathematics	0.694	1.000	0.729
Language Usage	0.785	0.729	1.000

Grade 4 Scale Score Disattenuated Correlation	Reading	Mathematics	Language Usage
Reading	1.000	0.775	0.876
Mathematics	0.775	1.000	0.817
Language Usage	0.876	0.817	1.000

Table 16.3. Grade 5: Scale Score Correlation and Disattenuated Correlation

Grade 5 Scale Score Correlation	Reading	Mathematics	Language Usage	Science
Reading	1.000	0.688	0.779	0.775
Mathematics	0.688	1.000	0.727	0.701
Language Usage	0.779	0.727	1.000	0.736
Science	0.775	0.701	0.736	1.000

Grade 5 Scale Score Disattenuated Correlation	Reading	Mathematics	Language Usage	Science
Reading	1.000	0.767	0.870	0.872
Mathematics	0.767	1.000	0.818	0.795
Language Usage	0.870	0.818	1.000	0.836
Science	0.872	0.795	0.836	1.000

Table 16.4. Grade 6: Scale Score Correlation and Disattenuated Correlation

Grade 6 Scale Score Correlation	Reading	Mathematics	Language Usage
Reading	1.000	0.707	0.788
Mathematics	0.707	1.000	0.736
Language Usage	0.788	0.736	1.000

Grade 6 Scale Score Disattenuated Correlation	Reading	Mathematics	Language Usage
Reading	1.000	0.791	0.893
Mathematics	0.791	1.000	0.823
Language Usage	0.893	0.823	1.000

Table 16.5. Grade 7: Scale Score Correlation and Disattenuated Correlation

Grade 7 Scale Score Correlation	Reading	Mathematics	Language Usage	Science
Reading	1.000	0.717	0.782	0.780
Mathematics	0.717	1.000	0.741	0.746
Language Usage	0.782	0.741	1.000	0.746
Science	0.780	0.746	0.746	1.000

Grade 7 Scale Score Disattenuated Correlation	Reading	Mathematics	Language Usage	Science
Reading	1.000	0.795	0.874	0.876
Mathematics	0.795	1.000	0.822	0.832
Language Usage	0.874	0.822	1.000	0.839
Science	0.876	0.832	0.839	1.000

Table 16.6. Grade 8: Scale Score Correlation and Disattenuated Correlation

Grade 8 Scale Score Correlation	Reading	Mathematics	Language Usage
Reading	1.000	0.706	0.791
Mathematics	0.706	1.000	0.738
Language Usage	0.791	0.738	1.000

Grade 8 Scale Score Disattenuated Correlation	Reading	Mathematics	Language Usage
Reading	1.000	0.787	0.887
Mathematics	0.787	1.000	0.824
Language Usage	0.887	0.824	1.000

Table 16.7. Grade 10: Scale Score Correlation and Disattenuated Correlation

Grade 10 Scale Score Correlation	Reading	Mathematics	Language Usage	Science
Reading	1.000	0.701	0.782	0.751
Mathematics	0.701	1.000	0.746	0.755
Language Usage	0.782	0.746	1.000	0.729
Science	0.751	0.755	0.729	1.000

Grade 10 Scale Score Disattenuated Correlation	Reading	Mathematics	Language Usage	Science
Reading	1.000	0.776	0.876	0.834
Mathematics	0.776	1.000	0.821	0.823
Language Usage	0.876	0.821	1.000	0.805
Science	0.834	0.823	0.805	1.000

Tables 16.8–16.11 show the raw score intercorrelations for the content standard subscores. While the subscore correlation is shown for each subscore with the total raw score, given the overlap, these correlations are spuriously inflated.

For reading, the correlations all fall in the low-70's to mid-70's, indicating that the two subscores share approximately half of their variance. This indicates some evidence that the two subscores are not measuring the same thing. That is, there is a fair amount of unique variance.

For mathematics, the correlations are lower than those for reading, falling into a range from the mid-40's to the high 60's. The correlations tend to be the lowest for Concepts and Principles of Measurement with Concepts and Principles of Geometry in grade 3 through 8 and highest for Number and Operation with Concepts and Language of Algebra and Functions. In general, the intercorrelations tend to be higher in the upper grades than in the lower grades.

For language usage, the correlations between writing process and writing components ranges from .744 in grade 6 to .780 in grade 8.

For all grades of science, Nature of Science paired with each other subscore correlates higher than the other pair-wise correlation (Physical Science, Biology, Earth and Space Systems, and Personal and Social perspectives; Technology).

All of the correlations suggest that each subscore contributes significantly and uniquely to its respective total score.

Table 16.8. Reading Intercorrelations

Grade 3 Reading	Total	Reading Process	Comprehension/Interpretation
Total	1.000	.894	.968
Reading Process	.894	1.000	.753
Comprehension/Interpretation	.968	.753	1.000

Grade 4 Reading	Total	Reading Process	Comprehension/Interpretation
Total	1.000	.859	.980
Reading Process	.859	1.000	.740
Comprehension/Interpretation	.980	.740	1.000

Grade 5 Reading	Total	Reading Process	Comprehension/Interpretation
Total	1.000	.876	.981
Reading Process	.876	1.000	.765
Comprehension/Interpretation	.981	.765	1.000

Grade 6 Reading	Total	Reading Process	Comprehension/Interpretation
Total	1.000	.866	.979
Reading Process	.866	1.000	.745
Comprehension/Interpretation	.979	.745	1.000

Grade 7 Reading	Total	Reading Process	Comprehension/Interpretation
Total	1.000	.874	.980
Reading Process	.874	1.000	.760
Comprehension/Interpretation	.980	.760	1.000

Grade 8 Reading	Total	Reading Process	Comprehension/Interpretation
Total	1.000	.805	.988
Reading Process	.805	1.000	.703
Comprehension/Interpretation	.988	.703	1.000

Table 16.8 (continued). Reading Intercorrelations

Grade 10 Reading	Total	Reading Process	Comprehension/Interpretation
Total	1.000	.847	.982
Reading Process	.847	1.000	.732
Comprehension/Interpretation	.982	.732	1.000

Table 16.9. Mathematics Intercorrelations

Grade 3 Mathematics	Total	Number and Operation	Concepts and Principles of Measurement	Concepts and Language of Algebra and Functions	Concepts and Principles of Geometry	Data Analysis, Probability, and Statistics
Total	1.000	.921	.780	.799	.745	.785
Number and Operation	.921	1.000	.631	.678	.598	.632
Concepts and Principles of Measurement	.780	.631	1.000	.545	.523	.527
Concepts and Language of Algebra and Functions	.799	.678	.545	1.000	.524	.552
Concepts and Principles of Geometry	.745	.598	.523	.524	1.000	.519
Data Analysis, Probability, and Statistics	.785	.632	.527	.552	.519	1.000

Table 16.9 (continued). Mathematics Intercorrelations

Grade 4 Mathematics	Total	Number and Operation	Concepts and Principles of Measurement	Concepts and Language of Algebra and Functions	Concepts and Principles of Geometry	Data Analysis, Probability, and Statistics
Total	1.000	.918	.792	.786	.738	.788
Number and Operation	.918	1.000	.660	.649	.571	.645
Concepts and Principles of Measurement	.792	.660	1.000	.529	.507	.549
Concepts and Language of Algebra and Functions	.786	.649	.529	1.000	.496	.544
Concepts and Principles of Geometry	.738	.571	.507	.496	1.000	.523
Data Analysis, Probability, and Statistics	.788	.645	.549	.544	.523	1.000

Grade 5 Mathematics	Total	Number and Operation	Concepts and Principles of Measurement	Concepts and Language of Algebra and Functions	Concepts and Principles of Geometry	Data Analysis, Probability, and Statistics
Total	1.000	.887	.770	.852	.748	.774
Number and Operation	.887	1.000	.604	.672	.557	.606
Concepts and Principles of Measurement	.770	.604	1.000	.568	.494	.526
Concepts and Language of Algebra and Functions	.852	.672	.568	1.000	.548	.599
Concepts and Principles of Geometry	.748	.557	.494	.548	1.000	.515
Data Analysis, Probability, and Statistics	.774	.606	.526	.599	.515	1.000

Table 16.9 (continued). Mathematics Intercorrelations

Grade 6 Mathematics	Total	Number and Operation	Concepts and Principles of Measurement	Concepts and Language of Algebra and Functions	Concepts and Principles of Geometry	Data Analysis, Probability, and Statistics
Total	1.000	.904	.829	.860	.775	.804
Number and Operation	.904	1.000	.696	.710	.605	.658
Concepts and Principles of Measurement	.829	.696	1.000	.654	.569	.599
Concepts and Language of Algebra and Functions	.860	.710	.654	1.000	.574	.622
Concepts and Principles of Geometry	.775	.605	.569	.574	1.000	.553
Data Analysis, Probability, and Statistics	.804	.658	.599	.622	.553	1.000

Grade 7 Mathematics	Total	Number and Operation	Concepts and Principles of Measurement	Concepts and Language of Algebra and Functions	Concepts and Principles of Geometry	Data Analysis, Probability, and Statistics
Total	1.000	.905	.772	.871	.777	.838
Number and Operation	.905	1.000	.626	.737	.620	.689
Concepts and Principles of Measurement	.772	.626	1.000	.610	.519	.574
Concepts and Language of Algebra and Functions	.871	.737	.610	1.000	.588	.660
Concepts and Principles of Geometry	.777	.620	.519	.588	1.000	.583
Data Analysis, Probability, and Statistics	.838	.689	.574	.660	.583	1.000

Table 16.9 (continued). Mathematics Intercorrelations

Grade 8 Mathematics	Total	Number and Operation	Concepts and Principles of Measurement	Concepts and Language of Algebra and Functions	Concepts and Principles of Geometry	Data Analysis, Probability, and Statistics
Total	1.000	.870	.790	.867	.781	.844
Number and Operation	.870	1.000	.615	.686	.599	.674
Concepts and Principles of Measurement	.790	.615	1.000	.601	.552	.618
Concepts and Language of Algebra and Functions	.867	.686	.601	1.000	.582	.644
Concepts and Principles of Geometry	.781	.599	.552	.582	1.000	.581
Data Analysis, Probability, and Statistics	.844	.674	.618	.644	.581	1.000

Grade 10 Mathematics	Total	Number and Operation	Concepts and Principles of Measurement	Concepts and Language of Algebra and Functions	Concepts and Principles of Geometry	Data Analysis, Probability, and Statistics
Total	1.000	.852	.841	.905	.871	.859
Number and Operation	.852	1.000	.667	.719	.682	.658
Concepts and Principles of Measurement	.841	.667	1.000	.690	.683	.670
Concepts and Language of Algebra and Functions	.905	.719	.690	1.000	.719	.703
Concepts and Principles of Geometry	.871	.682	.683	.719	1.000	.698
Data Analysis, Probability, and Statistics	.859	.658	.670	.703	.698	1.000

Table 16.10. Language Usage Intercorrelations

Grade 3 Language Usage	Total	Writing Process	Writing Components
Total	1.000	.945	.931
Writing Process	.945	1.000	.759
Writing Components	.931	.759	1.000

Grade 4 Language Usage	Total	Writing Process	Writing Components
Total	1.000	.924	.956
Writing Process	.924	1.000	.770
Writing Components	.956	.770	1.000

Grade 5 Language Usage	Total	Writing Process	Writing Components
Total	1.000	.945	.935
Writing Process	.945	1.000	.768
Writing Components	.935	.768	1.000

Grade 6 Language Usage	Total	Writing Process	Writing Components
Total	1.000	.941	.926
Writing Process	.941	1.000	.744
Writing Components	.926	.744	1.000

Grade 7 Language Usage	Total	Writing Process	Writing Components
Total	1.000	.948	.935
Writing Process	.948	1.000	.772
Writing Components	.935	.772	1.000

Table 16.10 (continued). Language Usage Intercorrelations

Grade 8 Language Usage	Total	Writing Process	Writing Components
Total	1.000	.960	.925
Writing Process	.960	1.000	.780
Writing Components	.925	.780	1.000

Grade 10 Language Usage	Total	Writing Process	Writing Components
Total	1.000	.966	.904
Writing Process	.966	1.000	.762
Writing Components	.904	.762	1.000

Table 16.11. Science Intercorrelations

Grade 5 Science	Total	Nature of Science	Physical Science	Biology	Earth and Space Systems	Personal and Social Perspectives; Technology
Total	1.000	.914	.791	.719	.684	.775
Nature of Science	.914	1.000	.638	.561	.513	.637
Physical Science	.791	.638	1.000	.486	.455	.536
Biology	.719	.561	.486	1.000	.433	.472
Earth and Space Systems	.684	.513	.455	.433	1.000	.425
Personal and Social Perspectives; Technology	.775	.637	.536	.472	.425	1.000

Table 16.11 (continued). Science Intercorrelations

Grade 7 Science	Total	Nature of Science	Physical Science	Biology	Earth and Space Systems	Personal and Social Perspectives; Technology
Total	1.000	.938	.775	.820	.676	.698
Nature of Science	.938	1.000	.645	.699	.542	.579
Physical Science	.775	.645	1.000	.564	.443	.467
Biology	.820	.699	.564	1.000	.476	.504
Earth and Space Systems	.676	.542	.443	.476	1.000	.403
Personal and Social Perspectives; Technology	.698	.579	.467	.504	.403	1.000

Grade 10 Science	Total	Nature of Science	Physical Science	Biology	Earth and Space Systems	Personal and Social Perspectives; Technology
Total	1.000	.941	.756	.834	.839	.831
Nature of Science	.941	1.000	.639	.720	.734	.713
Physical Science	.756	.639	1.000	.554	.560	.550
Biology	.834	.720	.554	1.000	.651	.643
Earth and Space Systems	.839	.734	.560	.651	1.000	.655
Personal and Social Perspectives; Technology	.831	.713	.550	.643	.655	1.000

16.4 Relationship Between the Core and Extender Scale Scores

Descriptives

For each grade and content area combination, Table 16.12 shows the average scale scores of the core and core-plus-extender, and the correlation between the two. Given that the items in the core make up from approximately 73 percent (grade 4 mathematics) to 80 percent (grade 7 science) of the core-plus-extender item set, the correlations are expected to be high. As for the differences between means of the two scores, these should be randomly distributed around zero.

Table 16.12. Core and Extender Scale Scores Summary

Content Area	Grade	Average Scale Score Core	Average Scale Score Extender	Correlation
Reading	3	207.5	205.7	.953
Reading	4	212.9	211.5	.960
Reading	5	219.1	217.4	.962
Reading	6	221.6	220.3	.964
Reading	7	226.1	224.5	.966
Reading	8	231.6	230.0	.968
Reading	10	232.4	232.2	.980
Mathematics	3	207.0	205.4	.949
Mathematics	4	213.2	213.0	.958
Mathematics	5	221.3	221.2	.962
Mathematics	6	228.2	228.0	.967
Mathematics	7	231.1	231.7	.970
Mathematics	8	239.2	238.8	.967
Mathematics	10	248.4	247.1	.970
Language Usage	3	204.3	203.6	.966
Language Usage	4	214.6	212.4	.957
Language Usage	5	217.9	216.9	.961
Language Usage	6	221.8	220.9	.964
Language Usage	7	225.0	224.3	.969
Language Usage	8	227.6	227.1	.971
Language Usage	10	232.8	231.8	.978
Science	5	210.5	210.2	.974
Science	7	214.7	214.4	.979
Science	10	224.8	223.7	.976

Decision Consistency

Another way to look at the impact of the extender section on a criterion-referenced test is to evaluate the consistency of the placement of students into the four proficiency levels. Note that for student and AYP reporting purposes, the core set alone was used. In this sense, the "what if" is not whether an alternate form might produce a different result as is the case with many of these types of comparisons. Rather, it is whether a longer test with more of the same items might produce a different classification. For all intents and purposes, this comparison has little application in terms of the assessment. As stated in a previous section, the reliability of the ISAT is sufficiently high without the extender. However, the extent to which the decision consistency is high lends some degree of validity to the extender in terms of it measuring the same construct as the core.

Tables 16.13–16.36 show four-by-four contingency tables, with each cell representing the cross between the core proficiency level and the core-plus-extender proficiency level. The diagonals represent agreement and the adjacent-to-diagonals represent adjacent agreement (within one level). Any non-zero cells outside of these represent changes in the categorization under the two models (core versus core-plus-extender) of two levels of more. The percent perfect agreement is presented at the bottom of each table, along with Cohen's Kappa (Cohen, 1960). Kappa may be interpreted as the proportion of agreement after chance agreement has been excluded.

Clearly, the exact agreement is quite high, ranging from 87.8 to 90.3 for reading, 87.1 to 90.5 for mathematics, 86.6 to 89.3 for language usage, and 87.3 to 87.5 for science. The kappas, ranging from .792 to .840, also show a strong association.

Table 16.13. Grade 3 Reading – Core Scale Score vs. Extender Scale Score

		Extender				
		Below Basic	**Basic**	**Proficient**	**Advanced**	**Total**
Core	**Below Basic**	928	44	0	0	972
	Basic	257	856	227	0	1340
	Proficient	0	236	7956	295	8487
	Advanced	0	0	1031	9746	10777
	Total	1185	1136	9214	10041	

Agreement = 90.3%
Cohen Kappa = 0.837

Table 16.14. Grade 4 Reading – Core Scale Score vs. Extender Scale Score

		Extender				
		Below Basic	**Basic**	**Proficient**	**Advanced**	**Total**
Core	**Below Basic**	1145	101	0	0	1246
	Basic	394	867	343	0	1604
	Proficient	0	167	7582	393	8142
	Advanced	0	0	818	9717	10535
	Total	1539	1135	8743	10110	

Agreement = 89.7%
Cohen Kappa = 0.831

Table 16.15. Grade 5 Reading – Core Scale Score vs. Extender Scale Score

		Extender				
		Below Basic	**Basic**	**Proficient**	**Advanced**	**Total**
Core	**Below Basic**	914	148	0	0	1062
	Basic	147	1138	165	0	1450
	Proficient	0	244	6693	370	7307
	Advanced	0	0	1163	10302	11465
	Total	1061	1530	8021	10672	

Agreement = 89.5%
Cohen Kappa = 0.823

Table 16.16. Grade 6 Reading – Core Scale Score vs. Extender Scale Score

		Extender				
		Below Basic	**Basic**	**Proficient**	**Advanced**	**Total**
Core	**Below Basic**	843	98	0	0	941
	Basic	158	1188	197	0	1543
	Proficient	0	403	8063	713	9179
	Advanced	0	0	938	8710	9648
	Total	1001	1689	9198	9423	

Agreement = 88.2%
Cohen Kappa = 0.806

Table 16.17. Grade 7 Reading – Core Scale Score vs. Extender Scale Score

		Extender				
		Below Basic	**Basic**	**Proficient**	**Advanced**	**Total**
Core	**Below Basic**	691	62	0	0	753
	Basic	169	1449	200	0	1818
	Proficient	0	227	7463	290	7980
	Advanced	0	0	1582	8661	10243
	Total	860	1738	9245	8951	

Agreement = 87.8%
Cohen Kappa = 0.800

Table 16.18. Grade 8 Reading – Core Scale Score vs. Extender Scale Score

		Extender				
		Below Basic	Basic	Proficient	Advanced	Total
Core	Below Basic	346	9	0	0	355
	Basic	256	741	143	0	1140
	Proficient	0	210	6343	198	6751
	Advanced	0	0	1218	10872	12090
	Total	602	960	7704	11070	

Agreement = 90.0%
Cohen Kappa = 0.817

Table 16.19. Grade 10 Reading – Core Scale Score vs. Extender Scale Score

		Extender				
		Below Basic	Basic	Proficient	Advanced	Total
Core	Below Basic	724	52	0	0	776
	Basic	115	1403	210	0	1728
	Proficient	0	222	7593	287	8102
	Advanced	0	0	1078	7949	9027
	Total	839	1677	8881	8236	

Agreement = 90.0%
Cohen Kappa = 0.836

Table 16.20. Grade 3 Mathematics – Core Scale Score vs. Extender Scale Score

		Extender				
		Below Basic	Basic	Proficient	Advanced	Total
Core	Below Basic	481	91	0	0	572
	Basic	137	1513	242	0	1892
	Proficient	0	260	5587	569	6416
	Advanced	0	0	749	11995	12744
	Total	618	1864	6578	12564	

Agreement = 90.5%
Cohen Kappa = 0.831

Table 16.21. Grade 4 Mathematics – Core Scale Score vs. Extender Scale Score

		Extender				
		Below Basic	Basic	Proficient	Advanced	Total
Core	Below Basic	1076	80	0	0	1156
	Basic	221	1879	338	0	2438
	Proficient	0	269	7899	1126	9294
	Advanced	0	0	603	8082	8685
	Total	1297	2228	8840	9208	

Agreement = 87.8%
Cohen Kappa = 0.808

Table 16.22. Grade 5 Mathematics – Core Scale Score vs. Extender Scale Score

		Extender				
		Below Basic	**Basic**	**Proficient**	**Advanced**	**Total**
Core	**Below Basic**	883	44	0	0	927
	Basic	242	2477	418	0	3137
	Proficient	0	210	7398	770	8378
	Advanced	0	0	618	8259	8877
	Total	1125	2731	8434	9029	

Agreement = 89.2%
Cohen Kappa = 0.833

Table 16.23. Grade 6 Mathematics – Core Scale Score vs. Extender Scale Score

		Extender				
		Below Basic	**Basic**	**Proficient**	**Advanced**	**Total**
Core	**Below Basic**	1052	69	0	0	1121
	Basic	247	2977	441	0	3665
	Proficient	0	272	7014	1013	8299
	Advanced	0	0	305	7925	8230
	Total	1299	3318	7760	8938	

Agreement = 89.0%
Cohen Kappa = 0.835

Table 16.24. Grade 7 Mathematics – Core Scale Score vs. Extender Scale Score

		Extender				
		Below Basic	**Basic**	**Proficient**	**Advanced**	**Total**
Core	**Below Basic**	1766	158	0	0	1924
	Basic	241	2706	437	0	3384
	Proficient	0	260	7449	642	8351
	Advanced	0	0	547	6605	7152
	Total	2007	3124	8433	7247	

Agreement = 89.0%
Cohen Kappa = 0.840

Table 16.25. Grade 8 Mathematics – Core Scale Score vs. Extender Scale Score

		Extender				
		Below Basic	**Basic**	**Proficient**	**Advanced**	**Total**
Core	**Below Basic**	840	24	0	0	864
	Basic	465	2548	312	0	3325
	Proficient	0	454	7771	640	8865
	Advanced	0	0	484	6811	7295
	Total	1305	3026	8567	7451	

Agreement = 88.3%
Cohen Kappa = 0.822

Table 16.26. Grade 10 Mathematics – Core Scale Score vs. Extender Scale Score

		Extender				
		Below Basic	**Basic**	**Proficient**	**Advanced**	**Total**
Core	**Below Basic**	1779	57	0	0	1836
	Basic	386	1869	123	0	2378
	Proficient	0	740	6355	388	7483
	Advanced	0	0	841	7131	7972
	Total	2165	2666	7319	7519	

Agreement = 87.1%
Cohen Kappa = 0.810

Table 16.27. Grade 3 Language Usage – Core Scale Score vs. Extender Scale Score

		Extender				
		Below Basic	**Basic**	**Proficient**	**Advanced**	**Total**
Core	**Below Basic**	1938	287	0	0	2225
	Basic	176	2713	556	0	3445
	Proficient	0	333	6072	639	7044
	Advanced	0	0	635	8228	8863
	Total	2114	3333	7263	8867	

Agreement = 87.8%
Cohen Kappa = 0.823

Table 16.28. Grade 4 Language Usage – Core Scale Score vs. Extender Scale Score

		Extender				
		Below Basic	**Basic**	**Proficient**	**Advanced**	**Total**
Core	**Below Basic**	1351	86	0	0	1437
	Basic	236	2079	319	0	2634
	Proficient	0	397	7008	327	7732
	Advanced	0	0	1339	8410	9749
	Total	1587	2562	8666	8737	

Agreement = 87.5%
Cohen Kappa = 0.808

Table 16.29. Grade 5 Language Usage – Core Scale Score vs. Extender Scale Score

		Extender				
		Below Basic	**Basic**	**Proficient**	**Advanced**	**Total**
Core	**Below Basic**	1532	150	0	0	1682
	Basic	173	2304	364	0	2841
	Proficient	0	464	8314	455	9233
	Advanced	0	0	1038	6517	7555
	Total	1705	2918	9716	6972	

Agreement = 87.6%
Cohen Kappa = 0.813

Table 16.30. Grade 6 Language Usage – Core Scale Score vs. Extender Scale Score

		Extender				
		Below Basic	**Basic**	**Proficient**	**Advanced**	**Total**
Core	**Below Basic**	1509	91	0	0	1600
	Basic	297	2880	456	0	3633
	Proficient	0	400	8240	450	9090
	Advanced	0	0	1104	5884	6988
	Total	1806	3371	9800	6334	

Agreement = 86.9%
Cohen Kappa = 0.805

Table 16.31. Grade 7 Language Usage – Core Scale Score vs. Extender Scale Score

		Extender				
		Below Basic	**Basic**	**Proficient**	**Advanced**	**Total**
Core	**Below Basic**	1409	115	0	0	1524
	Basic	363	3367	252	0	3982
	Proficient	0	544	8434	349	9327
	Advanced	0	0	782	5186	5968
	Total	1772	4026	9468	5535	

Agreement = 88.4%
Cohen Kappa = 0.829

Table 16.32. Grade 8 Language Usage – Core Scale Score vs. Extender Scale Score

		Extender				
		Below Basic	**Basic**	**Proficient**	**Advanced**	**Total**
Core	**Below Basic**	1644	222	0	0	1866
	Basic	264	3165	547	0	3976
	Proficient	0	373	8881	245	9499
	Advanced	0	0	1074	3920	4994
	Total	1908	3760	10502	4165	

Agreement = 86.6%
Cohen Kappa = 0.798

Table 16.33. Grade 10 Language Usage – Core Scale Score vs. Extender Scale Score

		Extender				
		Below Basic	**Basic**	**Proficient**	**Advanced**	**Total**
Core	**Below Basic**	1911	181	0	0	2092
	Basic	181	2906	204	0	3291
	Proficient	0	597	9322	228	10147
	Advanced	0	0	722	3405	4127
	Total	2092	3684	10248	3633	

Agreement = 89.3%
Cohen Kappa = 0.834

Table 16.34. Grade 5 Science – Core Scale Score vs. Extender Scale Score

		Extender				
		Below Basic	**Basic**	**Proficient**	**Advanced**	**Total**
Core	**Below Basic**	1123	220	0	0	1343
	Basic	140	5032	452	0	5624
	Proficient	0	632	6807	595	8034
	Advanced	0	0	661	5667	6328
	Total	1263	5884	7920	6262	

Agreement = 87.3%
Cohen Kappa = 0.818

Table 16.35. Grade 7 Science – Core Scale Score vs. Extender Scale Score

		Extender				
		Below Basic	**Basic**	**Proficient**	**Advanced**	**Total**
Core	**Below Basic**	3661	260	0	0	4434
	Basic	379	4179	413	0	4999
	Proficient	0	466	3422	293	4035
	Advanced	0	0	791	6928	6902
	Total	4040	4905	4626	7221	

Agreement = 87.5%
Cohen Kappa = 0.829

Table 16.36. Grade 10 Science – Core Scale Score vs. Extender Scale Score

		Extender				
		Below Basic	**Basic**	**Proficient**	**Advanced**	**Total**
Core	**Below Basic**	2926	153	0	0	3079
	Basic	457	2136	329	0	2922
	Proficient	0	406	6051	133	6590
	Advanced	0	0	1301	5622	6923
	Total	3383	2695	7681	5755	

Agreement = 85.8%
Cohen Kappa = 0.801

17. Proficiency Level Descriptors and Standards Validation

17.1 Proficiency Level Descriptors

The proficiency level descriptors for reading and mathematics were developed by a group of Idaho educators facilitated by DRC content area specialists in July 2006. Committee members were provided initial training that included background information about the Idaho content standards, goals, and objectives; the purpose and use of the proficiency level descriptors; and the process that would be used to develop the descriptors. Following the training, the committee members were divided into subcommittees by content area for reading and mathematics. Each content committee consisted of 35 Idaho educators and one DRC content specialist. The content committees first worked together on the grade 6 proficiency level descriptors and were then divided into two groups – fifth grade and below and seventh grade and above. The subcommittees reviewed and revised draft preliminary proficiency level descriptors that had been prepared by DRC's content leads using the Idaho content standards, goals, and objectives. The draft preliminary proficiency level descriptors were revised to:

- clearly define what students in Idaho should know and be able to do based on the goals and objectives,
- clearly show how students would demonstrate this knowledge and skill based on the goals and objectives, and
- clearly define the level of knowledge and skill necessary for each proficiency level.

Afterwards, the content subcommittees reconvened as a whole group to review the recommended changes of each subcommittee, and the committees approved the final proficiency level descriptors.

The proficiency level descriptors for reading and mathematics were revisited by a committee of Idaho educators in March 2007. Again the committee of Idaho educators reviewed and revised the preliminary proficiency level descriptors. In addition, language usage and science draft preliminary proficiency level descriptors were prepared by DRC's content leads and were reviewed and revised at the meeting. Group training was provided that included background information about the content standards, goals, and objectives; the purpose and use of the proficiency level descriptors; and the process that was used to develop the descriptors. After the training, the committee members were divided into subcommittees by content area of reading, mathematics, language usage, and science. The subcommittees reviewed and revised the draft preliminary proficiency level descriptors.

17.2 Standards Validation

See Appendix T for the *Standards Validation Report*.

18. Exit Exam

The Grade 10 ISAT serves as the high school graduation test, or Exit Exam, for the state of Idaho. Each student shall achieve a proficient or advanced score on the Exit Exam in mathematics, reading, and language usage in order to graduate. A student who does not attain at least a proficient score prior to graduation may appeal to the school district or Local Education Agency (LEA) and may be given an opportunity to demonstrate proficiency of the content standards through some other locally established mechanism. The requirement to pass the Exit Exam in order to earn a high school diploma has been in effect since January 1, 2006.

Beginning with the Spring 2006 administration, grade 10 students could bank proficiency by content area beginning in the spring of their 10th grade school year. If students have banked "proficiency" on the Exit Exam in any content area, they do not re-test in that content area on subsequent Exit Exam Retest opportunities. If a student has taken the Exit Exam and not scored proficient in one or more content areas, that student will continue to re-take the test until they pass or meet alternate graduation requirements.

The Exit Exam was offered two times in the 2010–2011 school year – Fall and Spring.

Appendix U contains Raw to Scale Score Frequencies, Scale Score Descriptive Statistics, and a Summary of Demographics by grade for the Fall 2010 and Spring 2011 Exit Exam administrations.

19. Grade 9 Practice Exam

Beginning with the Spring 2010 administration, grade 9 students were given the opportunity to take the Exit Exam. This opportunity was voluntary and for practice only. Students were not allowed to bank a proficiency score.

Appendix V contains Raw to Scale Score Frequencies, Scale Score Descriptive Statistics, and a Summary of Demographics by grade for the Spring 2011 grade 9 practice exam administrations.

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Appendix A: Overview Workshop PowerPoint Presentation

ISAT

Idaho Standards Achievement Tests

Regional Training Sessions
Spring 2011 Administration

DATA RECOGNITION DRC CORPORATION

CAL COMPUTERIZED ASSESSMENTS & LEARNING

Agenda

- SDE Updates/Reminders
- Overview
- Spring 2011 ISAT
- System Requirements
- Roles and Responsibilities
- Prepare for Testing
- Accommodated Versions – Audio Online
- Accommodated Materials
- Test Security
- Test Administration
- Post Test
- Important Dates
- Future Testing Windows
- Operation Systems Support
- ISAT Contact Information

SDE Updates/Reminders

9th Grade

- 9th graders will test again this Spring in ISAT Reading, Math, and Language Usage using the 10th grade NCLB core (only as a pretest) filling in the previous gap in assessment.

Final Score Reports

- NEW: ISAT score reports must be sent out to students/parents within 3 weeks of receipt of final results.

SDE Updates/Reminders (cont)

Science

- NEW: ISAT grade 10 Science is no longer a graduation requirement for the class of 2013
  - ISAT science will continue to be assessed at grades 5,7,10 – NCLB requires this

EOC Resource Tool

- NEW: EOC Resource Tool provides sample tests and item banks for Pre-Algebra, Algebra 1, Geometry, Biology, Earth Science, and Physical Science
  - Permissioned on ISEE for DTCs and Superintendents
  - Use of this tool is strictly voluntary, not mandated by SDE

SDE Updates/Reminders (cont)

New State Data Analysis System Powered by schoolnet®

- Introducing a comprehensive tool to distribute and analyze Idaho student state assessment performance. Now you can securely access interactive Key Performance Indicator (KPI) dashboards that give at-a-glance views of meaningful data through the **ISEE State Portal**.

IDAHO SYSTEM FOR EDUCATIONAL EXCELLENCE
IDAHO STATE DEPARTMENT OF EDUCATION

- District Superintendents, Campus Principals and Teachers can see aggregated performance data on the *ISAT*, *ACT*, *IRI*, and *IELA*, as well as review related reports and drill down from district level views to each student's Digital Backpack in just a few clicks.

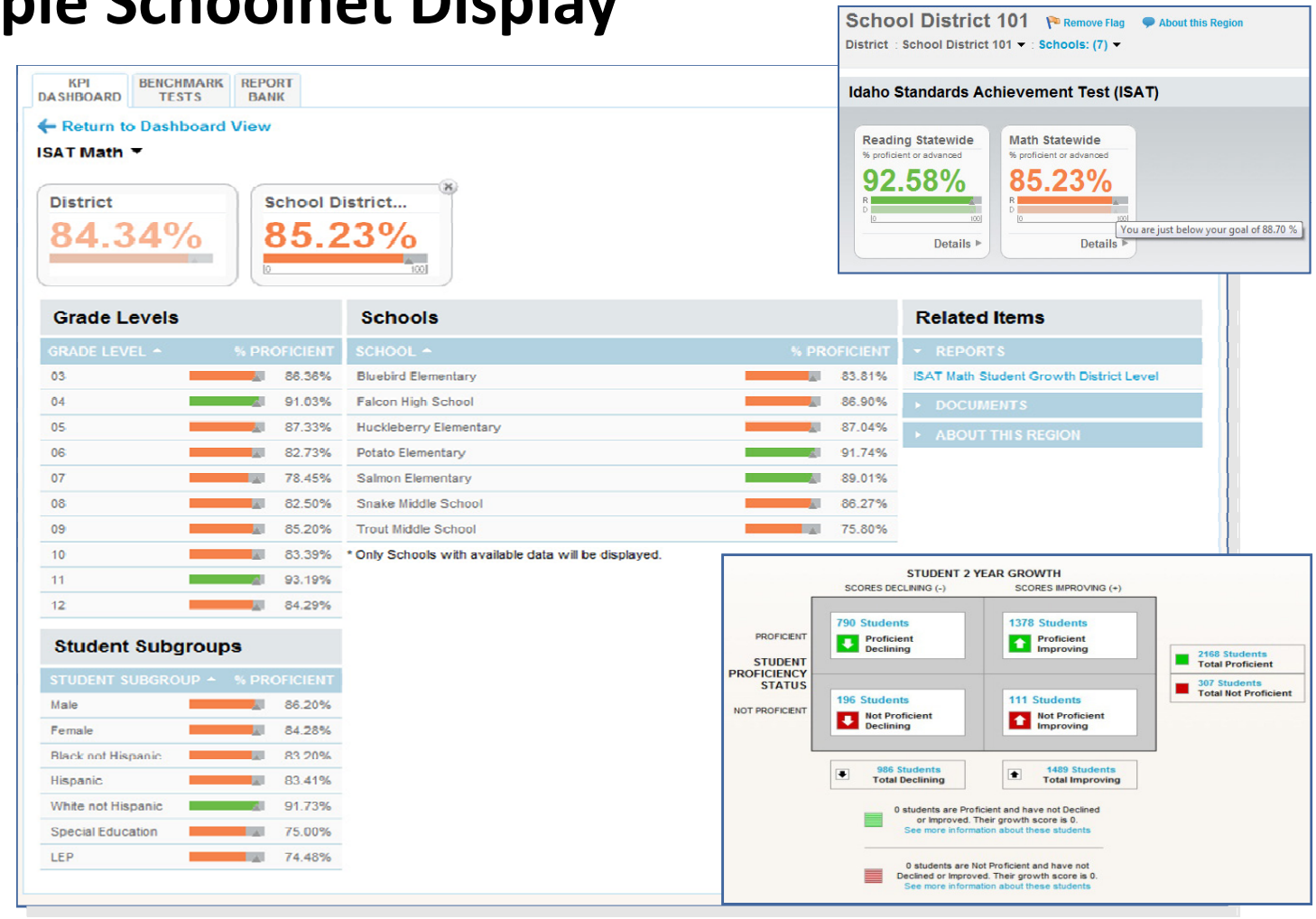
SDE Update/Reminders (cont)

New State Data Analysis System Powered by schoolnet®

- Teachers have access to a student roster with current and up to three years of historical state assessment information for each student.
- Principals have easy access to aggregated state assessment information summarized by class section, grade, and demographic sub groups.
- Superintendents can view student state assessment information by building, class sections, grades and demographic groups.
- Training and deployment has begun. To gain access to the ISEE system and start using the state assessment reporting tool sign up a district user for Training. After a district user has completed training they can provide district staff access to the system. To review the upcoming training dates please review the ISEE Schoolnet deployment plan at http://www.sde.idaho.gov/site/isee

SDE Update/Reminders (cont)

Sample Schoolnet Display



SDE Update/Reminders (cont)

Important Reminders

- Reactivations
  - For prior approval of overnight test reactivations: Send one list of all students in district requiring multiple day reactivation due to documented special needs
    - ISAT District Reactivation Form
      - *SDE/Assessment/ISAT/Test Admin: bottom of page*
  - For other reactivation policies and procedures, see page 29 and 30 of the *Test Coordinator's Guide for Federal and Local Assessments*
    - *SDE/Assessment: link to right of ISAT*

SDE Update/Reminders (cont)

Accounting for Not Tested Students

- You own the data on the SEF upload!
- Use the **Audit Spreadsheet** to see who has tested and who has not.
- Use **Student Editor** to check and change specific data on your students without scores or upload an updated **SEF**.
- Common errors
  - ISAT-Alt coding
  - Withdrawn Students (transfer, drop out, expelled) not exited
- Periodic checks needed to capture student movement
- Use Current Enrollment dates.

Thanks for the help!

Overview

Spring 2011 ISAT

Online Test Administration

April 11th – May 6th, 2011

Makeups allowed May 9th – 12th, 2011

Accommodated Materials Test Administration

April 11th – May 5th, 2011

Overview (cont.)

Reading

Language Usage

Mathematics

(Grades 3-10 and Retest)

SUBJECTS TESTED

Science

(Grades 5, 7, and 10)

NCLB (Part 1)

All tests have 50 – 60 multiple choice questions

TWO PARTS

Extender (Part 2)

Based on student's NCLB score, student will receive up to 15 additional questions

No time limit – plan for 90 minutes to complete both parts of the test

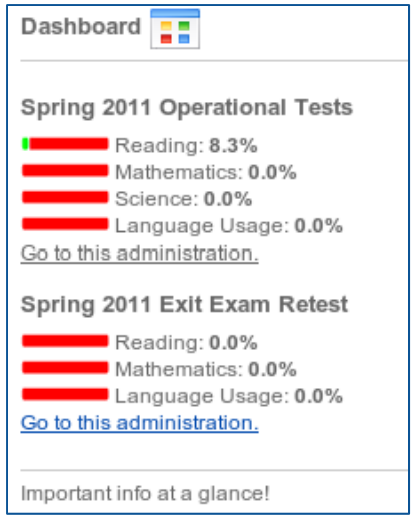
Spring 2011 ISAT

RSS Feed

- Click on the orange RSS icon on the Management Tools Home Page to subscribe to announcements via an RSS feed. Updates posted in Announcements will appear in your feed reader of choice.

Dashboard

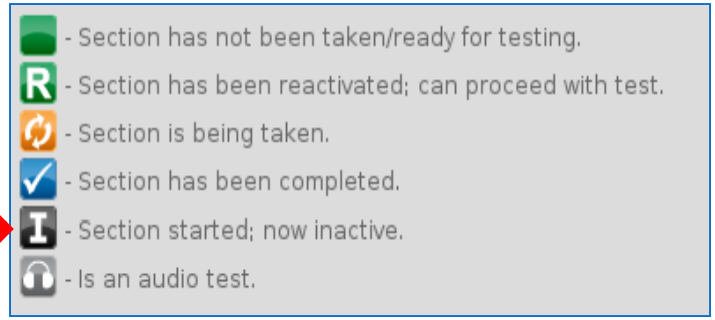
- The dashboard shows percentage of tests ended for your district/school.



Spring 2011 ISAT

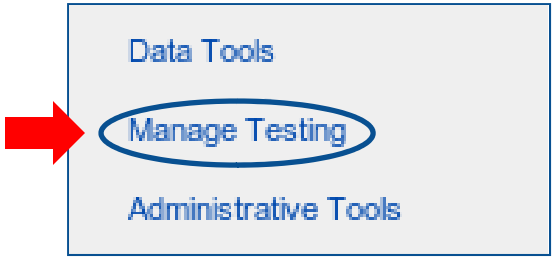
New Monitor Status Icons

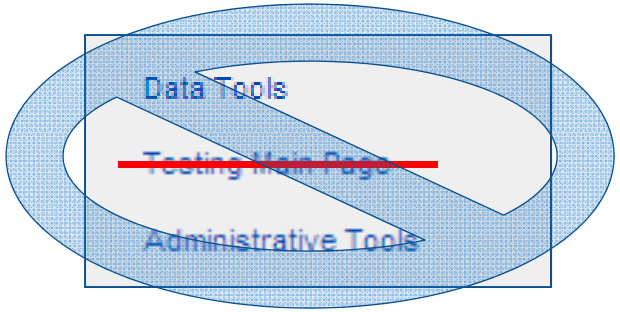
- The icons on the Monitor Status page have been updated and now include an Inactive icon.



Manage Testing

- Testing Main Page has been changed to **Manage Testing**





Spring 2011 ISAT

9th Grade Test

- Reading, Language Usage, and Mathematics
- Only one part – no Extender
- Grade 9 tickets are located by clicking on "Spring 2011 Exit Exam Retest" and choosing "HS" for the grade in Management Tools.

SEF/Student Editor Updates

- State ID field is required.
- 9 digits, numeric **only**
- SEF uploads can only be done through 12 pm Mountain time on **May 6th**.
- Updates can be made manually via Student Editor until 4 pm Mountain time on May 12th.

Spring 2011 ISAT

Accommodated Materials Testing Window

- Tests administered April 11th – May 5th
  - Complete one week prior to regular test window
- No makeup window for students testing with Accommodated Materials.

Early Reporting

- Final reports for Spring 2011 will be released on Thursday, June 2nd

System Requirements

System Requirements	
Browser	Microsoft Internet Explorer 5.5 or higher
Operating System	Windows NT/ME/2000/XP/2003/Vista/2008/7 Mac 10.3 with Java 1.4/10.4 and above *Linux is NOT supported for the CAL software, but is supported for the Local Caching Software (LCS).*
Processor	200 MHz or higher
RAM	64 MB, 128 MB recommended
Display	Resolution at least 800 x 600
Internet Connection	Able to connect to the Internet or to a local school server via http(s) on ports 80 and 443

System Requirements (cont.)

- Mac OS X 10.5.8
  - CAL's Automatic Update feature requires Java 1.4
  - Mac 10.5.8 has option to get "Java for Mac OS X 10.5 Update 6" which disables Java 1.4
  - Manually enable use of Java 1.4 – see handout

- Mac OS X 10.6
  - CAL's Automatic Update feature is <u>not</u> available
  - CAL is currently working on a solution

Roles & Responsibilities – Technology Coordinator

- Configure student computers to support testing
- Update all student computers with release of testing engine (CAL 6.5)
  - **CAL 6.5** is the same version that was used for Fall 2010
    - Automatic update when students log in (depending on administrator setups – see handout)
- Update Local Caching Software with new release (LCS 5.1)
  - Release date: March 14th, 2011
    - LCS is an option, not required

Roles & Responsibilities – Technology Coordinator (cont.)

- Audio Configurations
  - Decide which computers will be used for testing students who need the audio accommodation
  - Configure computers for Audio (see handout).
  - Computers configured for Audio CAN be used for <u>all</u> students (not just students needing Audio).
  - The Cepstral David voice and CAL testing engine need to be downloaded locally to computer(s) that will be used for audio.

Roles and Responsibilities – District/School Test Coordinator

- Update district and school contacts
  - Update the information in Management Tools/Administrative Tools/Update Contact Info
    - District Test Coordinator and Technology Coordinator will receive email notifications of the status SEF upload processing
  - Email these updates to the ISAT Project Team
- Manage all usernames and passwords within the Management Tools
  - DTC/STC decision on levels of access in schools
- Verify and edit all student data
- Print Test Session Tickets
- Monitor all testing; ensure test security

Roles and Responsibilities – Teacher/Proctor

- Administer Student Tutorials and Practice Tests prior to testing
  - Practice Test and Tutorials currently available
- Print student Test Session Tickets for only their students (with DTC/STC approval)
- Ensure students have correct Test Session Tickets for each test
- Communicate a sense of responsibility and test security to students

Roles and Responsibilities – Teacher/Proctor (cont.)

- Monitor all students during testing
- Identify any testing irregularities and report to STC
- Use Audit Spreadsheet to verify all students have tested
  - Updated nightly and provides status of all students
- View **immediate** scores
  - View Results (PDF and Excel)
  - Audit Spreadsheet

Prepare for Testing

Coordinator/Administrator Tutorial

- Provides information to all administrators who are involved with ISAT

Test Administration Manual

- Spring 2011 TAM posted March 7th on the ISAT Website under "Documentation"
- Provides information for test preparation and teacher directions for testing day
- Should be reviewed prior to testing to ensure a better understanding of processes

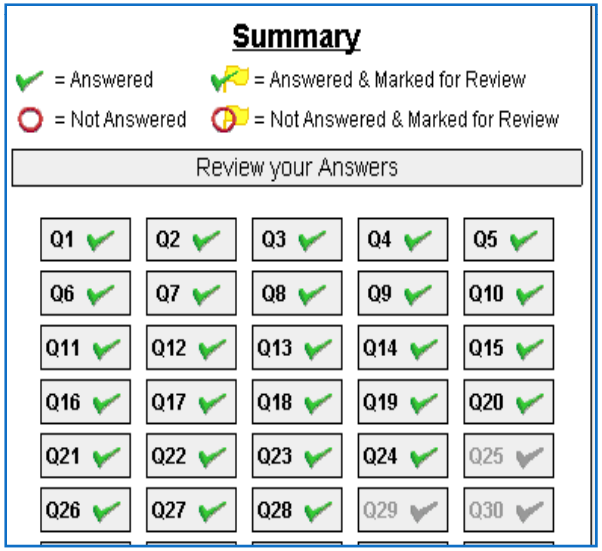
Prepare for Testing (cont.)

Student Tutorials and Practice Tests

- NEW Student Tutorial will be released on March 14th
- Grades 3 –10 are currently available (Practice Test).
- Audio is currently available (Practice Test).
- Students with an audio accommodation should practice listening to the Cepstral David voice by using the **Practice Tests**.
- Practice with testing tools.
- Teachers/Proctors should discuss test procedures with students.
  - Test Session Tickets - test security
  - **NCLB** (Part 1) allows students to move/skip questions.
  - **Extender** (Part 2) requires student to answer a question before moving to next question.

Prepare for Testing (cont.)

- Students should review final **Summary** page to confirm all answers are complete
- Review page: **GREEN** checkmarks indicate "question answered" – NOT a correct answer
- Shaded **GRAY** questions – those questions students may not review (Math only)



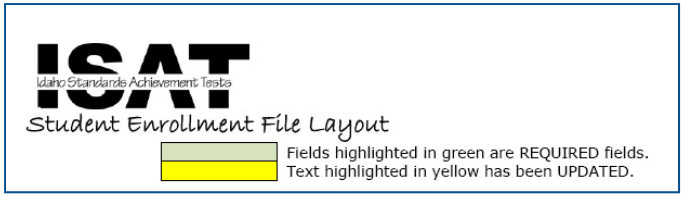
Prepare for Testing (cont.)

Management Tools

- Management Tools available **March 14th**
- Management Tools User Level Access (see handout)
- District Coordinators have access to all district and school data.
- School Coordinators have access to all school data.
- Teachers/Proctors have access to Test Session Tickets, Class Rosters, and immediate scores for their students only (no student demographic data).
- Test Administrators have access to **immediate** scores.

Prepare for Testing (cont.)

Student Enrollment File (SEF)/Student Editor



- Districts may choose to upload new Student Enrollment File (SEF).
- Existing student data may be edited through Student Editor.
- Student information from Fall 2010 currently exists in the Student Editor with the exception of accommodation codes (including Audio) and Not Tested codes.
- New students can be added at any time; ticket will be available immediately.
- Students can be exited by submitting an updated SEF or manually (by subject) in Student Editor.

Prepare for Testing (cont.)

SEF/Student Editor (cont.)

- Uploading a new SEF will update current student data and add new students. Removing students from the SEF and uploading the new SEF will not delete a student.
- Once students begin testing, the grade and/or audio code **cannot** be changed through SEF upload or Student Editor.
- No SEF uploads will be processed after 12PM Mountain time on May 6th.
- Edits are allowed manually via Student Editor through the end of the testing window (May 12th).
  - **NOTE:** The testing window will close on May 12, 2011 at **4PM Mountain time (3PM Pacific)**. ALL of your data should be clean before this time.

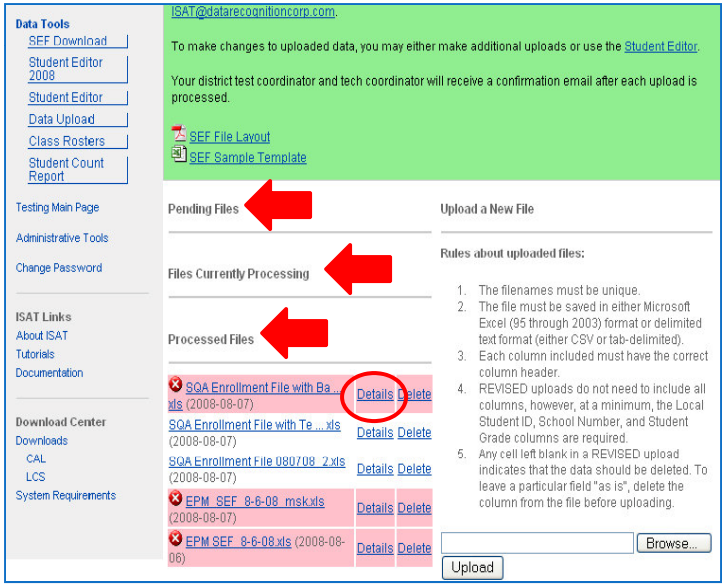
Prepare for Testing (cont.)

SEF Upload – Processing

- **Pending Files**
  - After clicking “Upload”, your file will display in this section.

- **Files Currently Processing**
  - Files are processed twice daily. While your file is processing, it will display in this section.

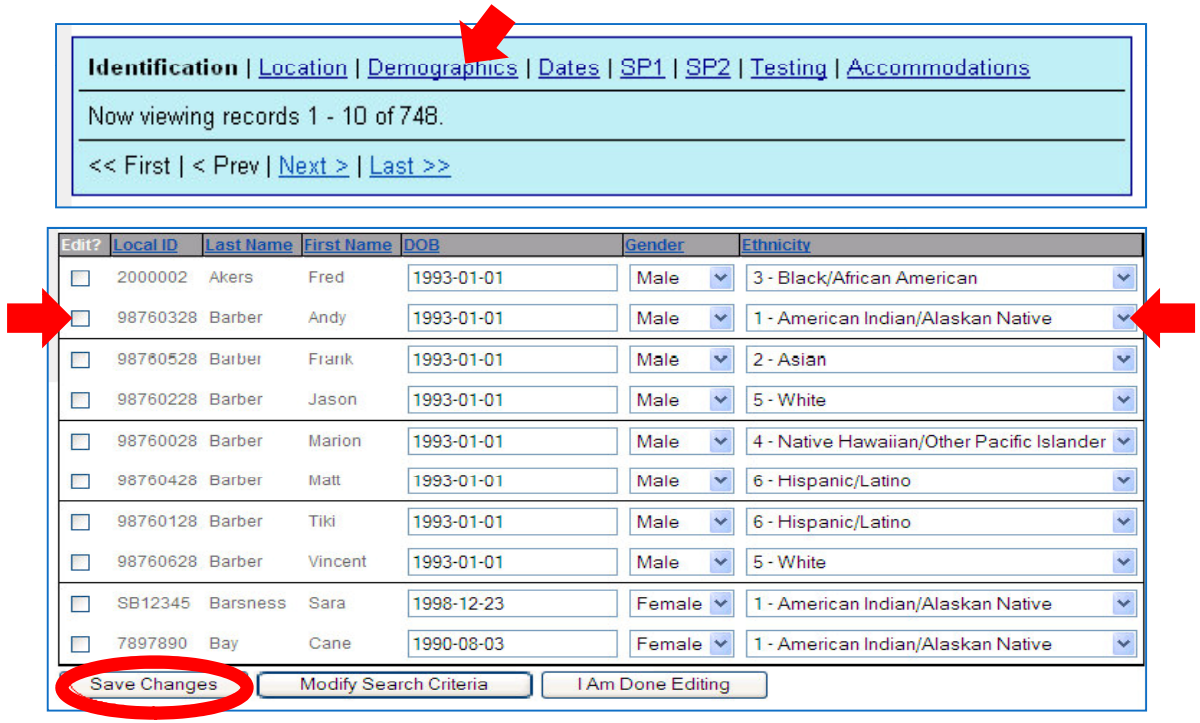
- **Processed Files**
  - Once your file is completely processed, it will display in this section.
  - ERRORS: If your file has errors, it will be highlighted in pink. Click on the **Details** link to view the errors. Errors must be corrected by submitting a new file with a different file name than your original file.



Prepare for Testing (cont.)

Student Demographics

- Student Demographics can be edited via the Student Editor



Prepare for Testing (cont.)

Student Test Session Tickets

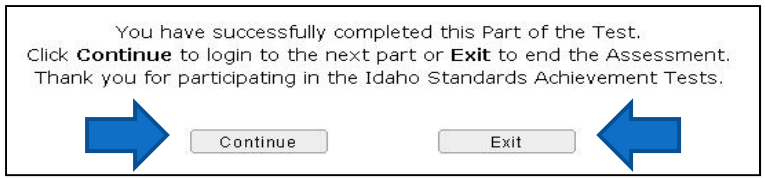
- Tickets available to print March 28th
- Teachers/Proctors may print tickets for their students only
- A Test Session Ticket is required for each part
- Each ticket is used for **one** subject only. Students taking multiple subjects will need multiple tickets.
- Tickets for new students – immediate availability
- Students coded Exited, Alt. Assessment, or with Accommodated Materials – tickets will not print
- Tickets can be imported and printed on labels, card stock, etc.
- Test Session Tickets are live, secure materials and must be distributed and collected as such

Prepare for Testing (cont.)

Student Test Session Tickets (cont.)

- Students can move to Part 2 without using second ticket

The last page of Part 1 has option of continuing into Part 2. If student clicks "**Continue**" the test will move into Part 2 (Extender) and the student <u>will not</u> need the second ticket



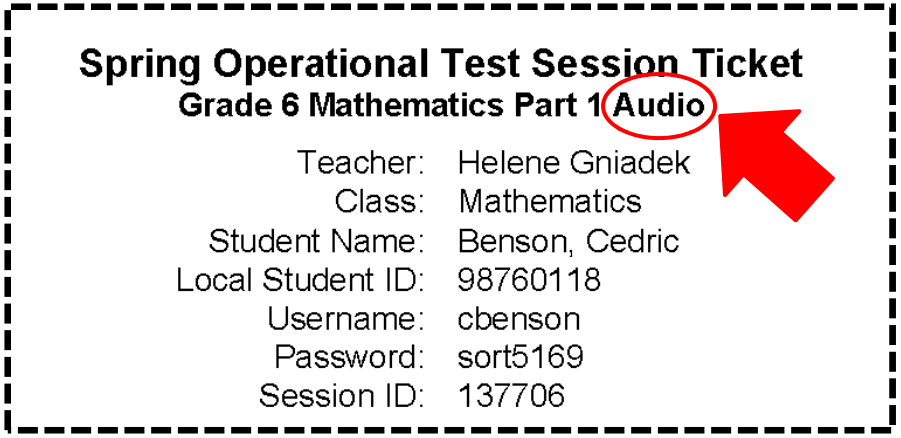
If student clicks "**Exit**" the Part will close and the student <u>will</u> need the Part 2 Ticket to log into the Extender.

- <u>DRC/SDE recommendation</u>: Print both Part 1 and 2 tickets. Administrators should distribute ONLY Part 1 tickets to students, holding Part 2 until (if) needed. (Assuming students will attempt to complete NCLB and Extender sections at one time.)

Prepare for Testing (cont.)

Test Session Tickets – Audio

- Students using Audio Online will have an Audio indicator on the Test Session Tickets
- Students using the **Audio** accommodation must be coded for Audio Online in the Student Editor. If coded properly, the student's ticket will indicate "**Audio**" as shown here. All students using audio must be coded appropriately before beginning a test.



Accommodated Versions – Audio Online

Audio <u>Online</u>

- Available for Mathematics, Language Usage, and Science
  - **No human readers allowed**
    - Important Note: Reading the Reading test to a student results in test invalidation.
- Reading – no audio online, no human readers allowed

- **Reminder for Technology Coordinators:** Preparing computers to use the Audio Online accommodation will require additional setup prior to testing (see handout).

Accommodated Materials

Accommodated Materials

- Available for those students whose IEP requires an assessment not presented on a computer
- Large Print, Braille, and Paper versions
- Braille levels – 17 levels for Reading and Language Usage; Nemeth (Contracted) for Mathematics and Science
- Audio CDs in Mathematics, Language Usage, and Science
  - Can be used with any of the above versions for students who require a read aloud administration in addition to accommodated materials

Accommodated Materials (cont.)

Extender

- Districts are required to administer the Extender set to all students
- Same accommodated version as NCLB materials; however, all Braille Extender materials are Contracted
- NCLB materials must be returned no later than April 18th in order to receive targeted Extender materials
- If NCLB materials are returned after April 18th, student will receive **on-grade** Extender materials on April 29th

Accommodated Materials (cont.)

Ordering Materials – Deadline was February 18th

Note: Only Contracted Braille (no levels) will be available at this time

Step 1: Email ALL of the following information to the ISAT Project Team (ISAT@datarecognitioncorp.com) ASAP:

- District Number
- School Number
- Student Name
- Student ID
- Student Grade
- Subject(s)
- Type of Material Needed (Paper, Large Print, Braille, Audio CD)
  - Audio CDs can be ordered in addition to any other type of material: Paper, Large Print, or Braille

Accommodated Materials (cont.)

Step 2: Identify the accommodated materials needed for each student in the Student Editor.

- Students using accommodated materials must be manually entered or uploaded into Student Editor **no later than March 28th**.
- The accommodation codes MUST be entered into the Student Editor **by April 15th for those materials returned on April 18th**.
- The accommodation codes must be entered into the Student Editor **by May 5th for those materials returned after April 18th**.

- If you order for new students **before** April 8th, you will receive NCLB materials in your initial shipment, and will receive Extender materials on April 30th.
- If you order for new students **after** April 8th, you will receive NCLB **and** on-grade Extender materials in **one shipment**.
- No orders will be accepted after April 28th.

Accommodated Materials (cont.)

- Accommodation codes from Fall 2010 have been removed from the Student Editor.
  - Be sure to code students accordingly for Spring 2011!
- Precode labels containing student name and demographic information will be shipped with your order. Any changes made to this data in the Student Editor before **May 12th** will be reflected on the score reports and data files.
  - Reminder: No demographic bubbles on answer documents
- Schools are responsible for transcribing student responses to answer document if necessary.

Accommodated Materials (cont.)

Returning Materials

Two Earlier Return Shipping Deadlines	
April 18th	For NCLB materials in order to receive **targeted** Extender materials
May 5th	For all remaining materials

- UPS Return Service (UPS-RS) labels will be included with test materials
- DTCs must affix the UPS-RS labels to box(es) and schedule a pickup with UPS or drop off at any UPS location
- Materials must be picked up on or before the dates indicated above

Test Security

Test Security

- Test Security guidelines - *Test Coordinator's Guide to State and Federal Assessments*
- All Administrators, Teachers, and Proctors must complete the Test Security Agreement (found in TAM) prior to each administration.
- Completed agreements must be filed in district office for two years
- All Test Session Tickets, Math Reference Sheets, periodic tables, and scratch paper are secure materials and must be collected after testing is completed.

Test Security (cont.)

- Pause Function – used for brief emergencies (restroom break)
- Inactivity for longer than 15 minutes during testing will cause the system to log off the test.
- Teachers/Proctors are not allowed to login students without students being in the room to verify attendance
- If student becomes locked out of the system after multiple login attempts:
  - Close out of the ISAT testing engine
  - Reopen ISAT testing engine
  - Log in using same Test Session Ticket

Test Administration

NCLB (Part 1)

- Reading/Language Usage/Science - may go back to previous questions
- 3rd and 4th grade Mathematics - may go back to previous questions
- 5th –10th grade & Retest Mathematics - limitations on returning to questions
  - Non-calculator questions are presented first.
  - Student must answer these questions before moving to calculator questions.
  - Student may not return to non-calculator questions.
- Reading layout – Student may choose to see one question, all questions, or no questions with the passage. Default will be one question with passage.

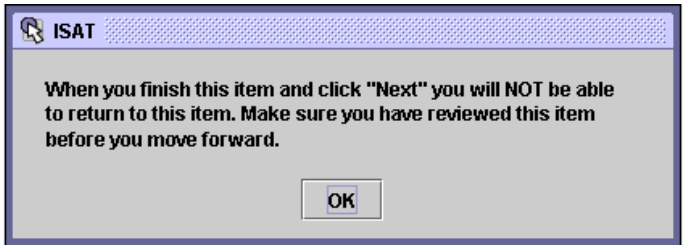
Test Administration (cont.)

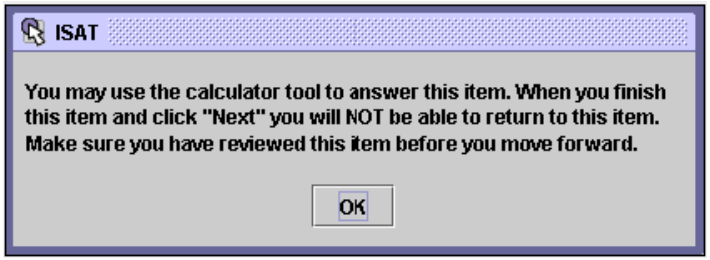
Extender (Part 2)

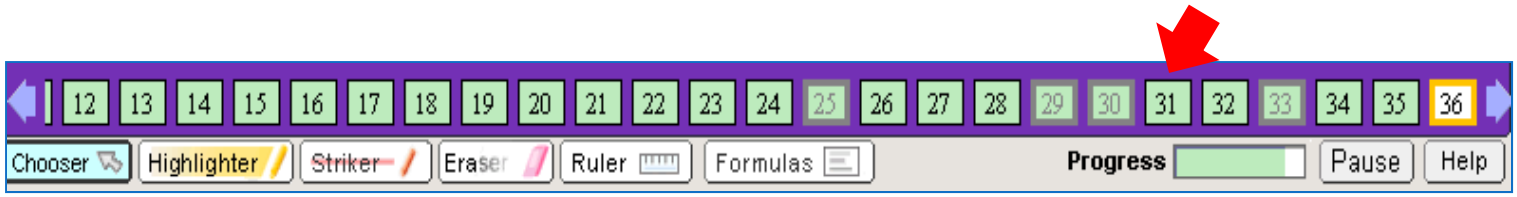
- Available to grades 3-8 & 10
  - **NO** Extender for grade 9
- Based on student's NCLB score, student will receive up to 15 additional questions
- Student must answer the question before going to the next question.
- Reading/Language Usage/Science - may go back to previous questions
- Mathematics - limitations on returning to questions
  - For the lower performing (3rd or 4th grade levels) students, those questions will be the calculator questions
  - For the higher performing (5th grade and above) students, those questions will be the non-calculator questions

Test Administration (cont.)

- Mathematics - limitations on returning to questions
  - When the student reaches the end of these restricted areas, he will see a warning before he is able to go to the next question.
  - The student may choose to return to the question for further review or move on to the next question. Once the student moves on to the next question, the restricted question is no longer available for review and will be shaded gray in the status bar in the top left corner.







Test Administration (cont.)

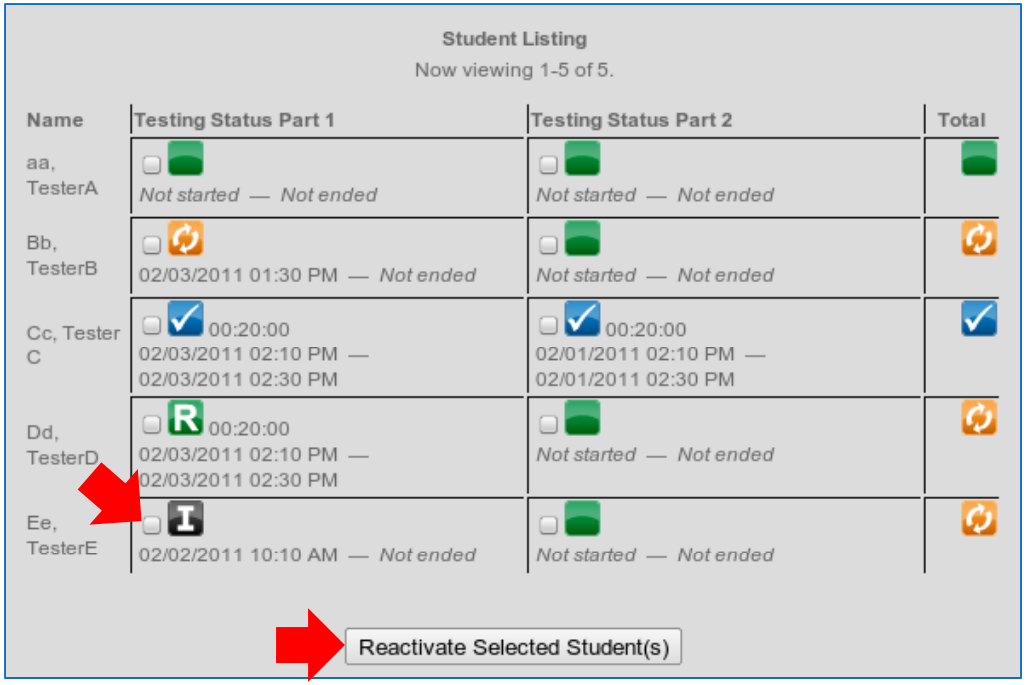
- Monitor Status and Reactivations
  - Students can log back in using same Test Session Ticket within 90 minutes of initial login.
  - All students must complete a test within one school day. Under no circumstances should a test be started unless there is enough time to complete it.
  - Additional time must be given as an extension of the same testing period, not at a different time (unless required by a student's IEP).
  - Teachers/Proctors must confirm online audio is available for those identified students and students have the correct ticket **PRIOR** to testing.

Test Administration (cont.)

- Monitor Status and Reactivations
  - A test may be **reactivated during the school day** with approval from the School Test Coordinator (no SDE approval needed). If a student leaves the computer lab/classroom during a test, that student must be monitored by an adult until the student returns to the lab to continue testing.
  - If, for any reason, a test should be **reactivated the next day**, the DTC must **obtain SDE approval**. The School or District Test Coordinator must contact SDE and receive approval prior to the reactivation:
    - ***Email: Assessment@SDE.IDAHO.GOV***

Test Administration (cont.)

- Reactivations



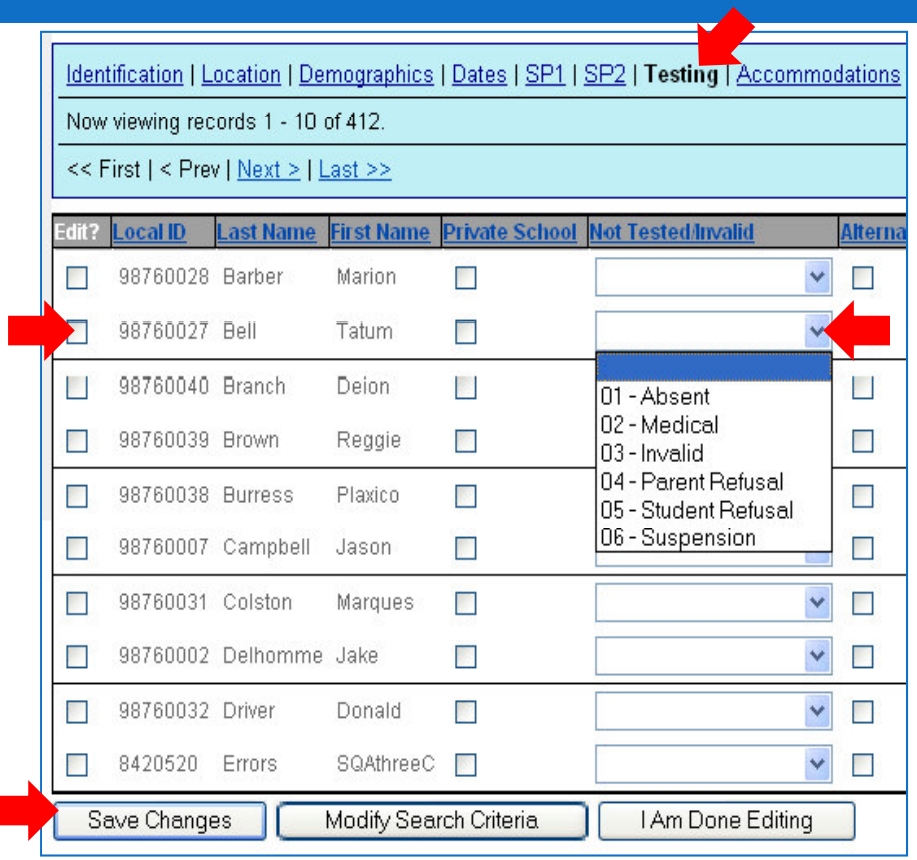
To reactivate a student's test part, click on the box next to the monitor screen and click "Reactivate Selected Student(s)". After reactivation, the original Test Session Ticket will be valid again. **Please note:** Once a student has completed a test part (answered all questions) the system will not allow that test part to be reactivated. Please make sure the student has had time to review all questions during the time scheduled.

Post Test

Student Invalidations

Possible reasons for invalidations are found in the *Test Coordinator's Guide to State and Federal Assessments*

The school principal must determine if test should be invalidated



Coding under ***Testing*** in the Student Editor

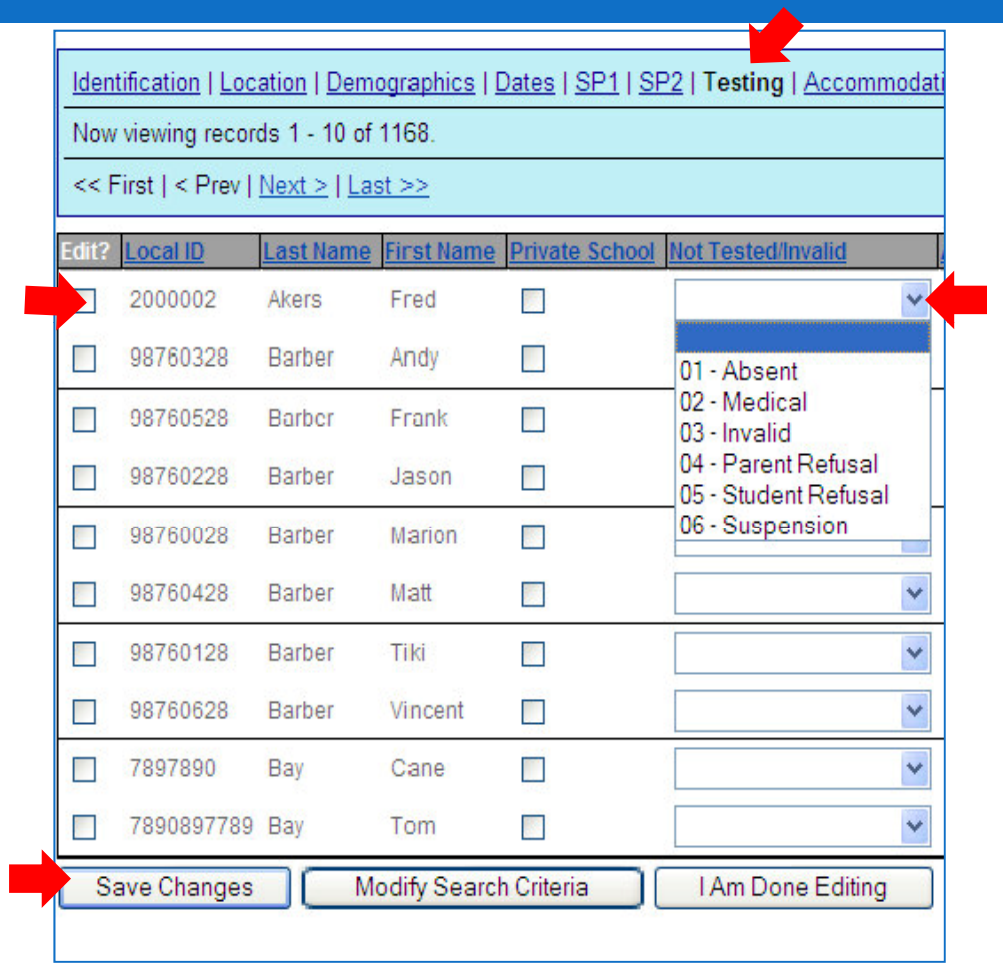
Invalidations are made in the Student Editor by subject

Post Test (cont.)

Not Tested Codes

Students who are unable to test due to absence, medical reasons, parent refusal, student refusal, or suspension must be coded in the Student Editor

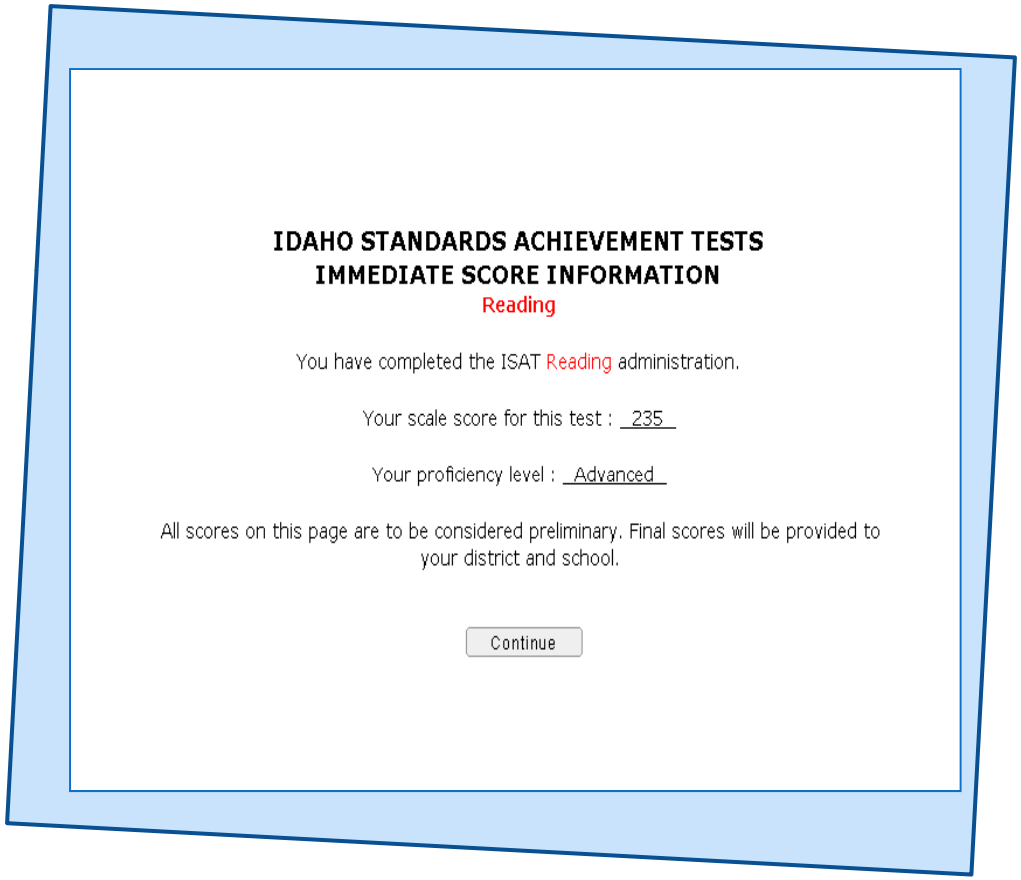
Not Tested Codes are **required** for all students who are unable to test



Same location as invalidations

Post Test (cont.)

- Immediate scores for students – after completion of Part 2
- The score reported will be the NCLB score
- Grade 9 students & Retesters will receive an immediate score after completion of Part 1, as the Retest has only one part.
- This page can not be printed.
- **These scores are to be considered preliminary.**
- Immediate score screen can be turned off by DTC/STC. This is a district and/or school decision and must be communicated prior to testing.
  - Default: ON



IDAHO STANDARDS ACHIEVEMENT TESTS
IMMEDIATE SCORE INFORMATION
Reading

You have completed the ISAT Reading administration.

Your scale score for this test : 235

Your proficiency level : Advanced

All scores on this page are to be considered preliminary. Final scores will be provided to your district and school.

Continue

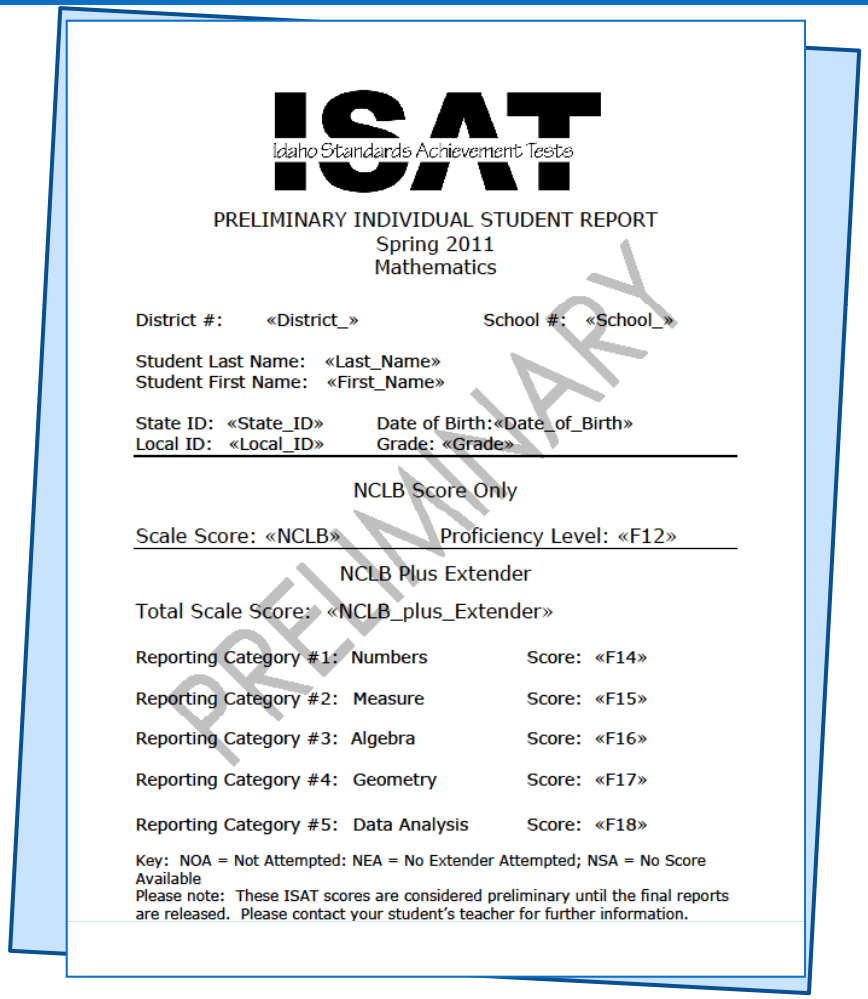
Post Test (cont.)

- Immediate results available
- Audit Spreadsheet (Excel format only) includes all scores and can be used to download scores for all students.
  - Note: Audit Spreadsheet has reporting category key.
- Available in PDF or MS Excel
- These rosters can be printed.
- **These scores are to be considered preliminary.**

District #	School #	Content Area	Student Last Name	State First Name	Student ID	Grade	Date of Birth	NCLB		NCLB plus Extender					
								Total Score	Proficiency Level	Total Score	Numbers	Measure	Algebra	Geometry	Data Analysis
001	001002	Mathematics	Barnes	Mykel	1010813019	10	1991-01-06	243	Proficient	252	NSA	200	NSA	231	NSA
001	001002	Mathematics	Barnes	Mykel	1010813019	10	1991-01-06	243	Proficient	NEA	NSA	NSA	NSA	NSA	NSA
001	001002	Mathematics	Barnes	Mykel	1010813019	10	1991-01-06	243	Proficient	252	125	200	212	231	222
001	001002	Mathematics	Barnes	Mykel	1010813019	10	1991-01-06	243	Proficient	Audio	125	200	212	231	222

Post Test (cont.)

- Preliminary Student Report Template
  - Preliminary reports available to send home to parents
  - Template and instructions will be posted on SDE and ISAT Websites
  - One report for each subject



ISAT
Idaho Standards Achievement Tests

PRELIMINARY INDIVIDUAL STUDENT REPORT
Spring 2011
Mathematics

District #: «District_» School #: «School_»

Student Last Name: «Last_Name»
Student First Name: «First_Name»

State ID: «State_ID» Date of Birth:«Date_of_Birth»
Local ID: «Local_ID» Grade: «Grade»

NCLB Score Only

Scale Score: «NCLB» Proficiency Level: «F12»

NCLB Plus Extender

Total Scale Score: «NCLB_plus_Extender»

Reporting Category #1: Numbers Score: «F14»

Reporting Category #2: Measure Score: «F15»

Reporting Category #3: Algebra Score: «F16»

Reporting Category #4: Geometry Score: «F17»

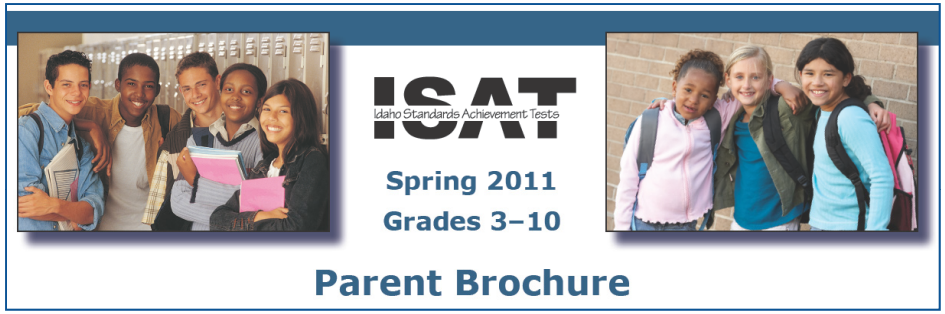
Reporting Category #5: Data Analysis Score: «F18»

Key: NOA = Not Attempted: NEA = No Extender Attempted; NSA = No Score Available
Please note: These ISAT scores are considered preliminary until the final reports are released. Please contact your student's teacher for further information.

PRELIMINARY

Post Test (cont.)

- Parent Brochures



  - English and Spanish versions (PDF) will be posted on SDE website **March 28th**
  - Printed versions (English only) to be delivered to districts <u>after</u> testing on or before June 2nd
  - Districts are <u>required</u> to distribute brochures to all parents of students in grades 3 –10
  - Delivery date and method of delivery are district decisions

Post Test (cont.)

- Final Score Reports
  - Individual Student Reports
    - NCLB Report
    - NCLB plus Extender Report
    - Growth Report (no Fall/Spring growth – NA will appear on report)
  - NCLB requires the NCLB Report to be sent to all parents
    - NCLB Report may be sent home along with the Parent Brochure
  - Grade 9 students receive Exit Exam Retest Reports
    - No Test History page
- Final Score Reports available **Thursday, June 2nd**

Important Dates

Important Dates – Spring 2011 ISAT	
March 7, 2011	Spring 2011 TAM available
March 14, 2011	Release of new LCS (CAL version still 6.5) & NEW Student Tutorial
March 28, 2011	Test Session Tickets available
March 28, 2011	Spring 2011 Parent Brochures (English and Spanish posted to SDE Website
March 28, 2011	Recommended deadline for all student data to be uploaded
April 11 – May 6, 2011	Spring 2011 testing window
May 6, 2011, 2011	Deadline for uploading data via SEF
May 9 – May 12, 2011	Makeup window
May 12, 2011	Deadline for updating all student data

Future Testing Windows

Fall 2011 Administration

November 14 – December 16, 2011

Retest only (11th and 12th graders)

Operation Systems Support - Windows

Windows

- Currently, the CAL testing engine supports the following versions of Windows:
  - Windows 98, NT, ME, 2000, XP, 2003, Vista, 2008, and 7
- Due to Microsoft ending support of Windows 98, ME, and NT, the CAL testing engine will not support these versions of Windows after the Spring 2011 administration.
- Beginning with the Fall 2011 test administration (and Spring 2012 thereafter) the supported versions of Windows will be as follows:
  - Windows 2000, XP, 2003, Vista, 2008, and 7
- Due to significant updates to the CAL testing engine expected for the 2011-2012, a *fresh* installation will be required. That is, the automatic updates feature of the CAL system will not be sufficient and schools will need to do a fresh install of the application.
  - Please note: If a fresh install of the testing engine is done for Fall 2011, it will not need to be done again for Spring 2012.

Operation Systems Support - Mac

Mac

- Currently, the CAL testing engine supports the following versions of Mac:
  - Mac OS 10.3 (with Java 1.4) and OS 10.4 & above
- Due to Apple ending support for Mac 10.3, the CAL testing engine will not support this version of Mac after the Spring 2011 administration.
- Beginning with the Fall 2011 test administration (and Spring 2012 thereafter), the supported versions of Mac will be as follows:
  - Mac OS 10.4 & above
- Due to significant updates to the CAL testing engine expected for the 2011-2012, a *fresh* installation will be required. That is, the automatic updates feature of the CAL system will not be sufficient and schools will need to do a fresh install of the application.
  - Please note: If a fresh install of the testing engine is done for Fall 2011, it will not need to be done again for Spring 2012.

Operation Systems Support

Windows	
Current (2010-2011)	**Next Year (2011-2012)**
98	2000
NT	XP
ME	2003
2000	Vista
XP	2008
2003	7
Vista	
2008	
7	

Mac	
Current (2010-2011)	**Next Year (2011-2012)**
10.3 (with Java 1.4)	10.4 & above
10.4 & above	

SDE Contact Information

Scott Cook

ISAT Coordinator

208-332-6976

scook@SDE.idaho.gov

ISAT Contact Information

ISAT Project Team

1-866-572-2050

ISAT@datarecognitioncorp.com

Questions

Appendix B: Score Report PowerPoint Presentation

ISAT

Idaho Standards Achievement Tests

Spring 2008 Score Reports

Logistics of the Presentation

- Webex presentation followed by questions
- Audio will be on mute except for the presenter
- Questions may be submitted via the chat area at any time
  - Start your question with your district name
  - If necessary, your district can ask direct questions during the Question and Answer period.
- This presentation and FAQs will be posted to the following locations
  - ISAT website: http://isat.caltesting.org/ under "Documentation"
  - OSBE website: http://www.boardofed.idaho.gov/saa/index.asp
  - Audio version available 6/6/08 (same locations)

Agenda

- Immediate Score Rosters
- Preliminary Score Reports
- Discuss the ISAT
  - Purpose
  - Design
  - NCLB Scale Scores & Proficiency Levels
  - NCLB plus Extender Scale Scores
- Final Score Reports
- Delivery of Score Reports
- Delivery of Student Data Files
- Parent Brochure
- Questions
- ISAT Contact Information

Immediate Score Rosters

- Immediate Score Rosters available
  - ISAT Management Tools/View Results (http://isat.caltesting.org)
  - Download/print Excel or PDF files
  - Scale Scores provided at reporting categories for NCLB plus Extender only
  - Available until June 13th
- Scores are considered preliminary but can be shared with Teachers/Parents/Students

Preliminary Score Reports

- Preliminary Score Report Template
  - Instructions and templates on Documentation page under Forms at http://isat.caltesting.org
  - Can be used in conjunction with immediate rosters in Excel format

ISAT
Idaho Standards Achievement Tests

PRELIMINARY INDIVIDUAL STUDENT REPORT
Spring 2008
Reading

District #: «District_» School #: «School_»

Student Last Name: «Student_Last_Name»
Student First Name: «Student_First_Name»

Student ID: «Student_ID» Date of Birth:«Date_of_Birth»
Grade: «Grade»

NCLB Score Only

Scale Score: «NCLB» Proficiency Level: «F10»

NCLB Plus Extender

Total Scale Score: «NCLB_plus_Extender»

Reporting Category #1:	Reading Process	Score: «F12»
Reporting Category #2:	Comprehension	Score: «F13»
Reporting Category #3:	Expository Analysis	Score: «F14»
Reporting Category #4:	Literary Analysis	Score: «F15»

Key: NEA = No Extender Attempted; NSA = No Score Available

Please note: These ISAT scores are considered preliminary until the final reports are released. Please contact your student's teacher for further information.

PRELIMINARY

Discuss the ISAT: Purpose

- The Spring ISAT serves as the NCLB assessment. In addition to the NCLB portion, the assessment has an adaptive extender portion.
- The Spring Exit Exam Retest is another opportunity for 11th and 12th graders to pass the graduation requirement.

Discuss the ISAT: Design

- Spring ISAT
  - Reading, Mathematics, Language Usage and Science
  - Part 1: NCLB, on grade level only
  - Part 2: Extender, adaptive, off grade level (except Science) if a student is performing either below or above grade level
- Exit Exam Retest
  - Reading, Mathematics, Language Usage
  - One part: Graduation requirement

Discuss the ISAT: NCLB Scale Scores & Proficiency Levels

- Final Spring NCLB reports will contain:
  - Scale scores and proficiency levels for the total test (Part 1 only)
  - Percent correct for standards
    - Can be used to show relative strengths and weaknesses
- Scale scores and proficiency levels for the Spring NCLB (Part 1 only) are used for calculating AYP
- Goal is proficiency for on-grade material

Discuss the ISAT: NCLB plus Extender Scale Scores

- Final Spring NCLB plus Extender reports will contain:
  - Scale scores for the total test (Parts 1 and 2 combined)
  - Scale scores for each reporting category
    - Can be used to show relative strengths and weaknesses
- Scores for the Spring NCLB plus Extender (Parts 1and 2) are <u>NOT</u> used for calculating AYP
- Scale scores on the Spring NCLB plus Extender (Parts 1 and 2) can be compared to the Fall Interim scores

Final Score Reports

- Spring ISAT Grades 3-8 & 10 Reports – School Level
  - Three Individual Student Reports
    - NCLB Individual Student Report (with PLDs)
    - NCLB plus Extender Individual Student Report
    - Individual Student Growth Report
  - NCLB & NCLB plus Extender School/Class Student Rosters
  - NCLB plus Extender School Scale Score Summary
  - NCLB School Proficiency Level Summary
  - NCLB School Report of ISAT Participation Rates
  - School Student Data File (csv format)

Final Score Reports (cont.)

- Spring ISAT Grades 3-8 & 10 Reports – District Level
  - NCLB District Proficiency Level Summary
  - NCLB District Report of School Proficiency
  - NCLB plus Extender District Scale Score Summary
  - NCLB plus Extender District Summary of School Scale Scores
  - District Student Data File (csv format)

Final Score Reports (cont.)

- Spring Exit Exam Retest Reports
  - Individual Student Report (includes page of graduation test history)
  - School/Class Student Rosters
  - District & School Graduation Test Summaries
  - District & School Student Data (included with the Grades 3-8 & 10 data files)

Final Score Reports (cont.)

- Final Score Reports do NOT include:
  - Percentile ranks
    - Spring 2008 percentiles will be computed by Dr. Bert Stoneberg and will be made available by OSBE before school begins in Fall 2008
    - OSBE and DRC are discussing the possibility of including percentiles on score reports for the Spring 2009 administration
  - Lexile scores
  - Specific growth targets

NCLB Individual Student Report

ISAT
Idaho Standards Achievement Tests

IDAHO STANDARDS ACHIEVEMENT TESTS (ISAT)
NCLB INDIVIDUAL STUDENT REPORT
SPRING 2008

STUDENT NAME : **Last Name, First Name**
BIRTH DATE : **99/99/9999**

DISTRICT : **IDAHO DISTRICT 999**
SCHOOL : **IDAHO MIDDLE SCHOOL 999**

GRADE : **07**
STUDENT ID : **999999**

Your Student's Overall Performance

	Student's Scale Score	Student's Proficiency Level	Proficient Scale Score
Reading	209	Basic	212
Mathematics	223	Proficient	223
Language Usage	234	Advanced	218

This report provides a record of your student's test results on the ISAT in reading, mathematics, and language usage.

Proficiency Levels
The ISAT is designed to measure knowledge against state standards. Scores on these tests are grouped into four proficiency levels. The proficiency level chart (found on the right) shows the scale score ranges associated with each level.

Scale Score
A student's points earned (or raw score) has comparable meaning only for those students who take the exact same set of questions. A student's scale score is a transformed version of the raw score. It provides comparable meaning across grades and across years, but only within the same subject area.

Skills Performance
Reading, mathematics, and language usage are composed of different standards. The chart on the right shows how your student did on these standards.

Interpretation of Chart
For each subject, the chart displays where the proficient cut score lies within the possible scale score range. Scale scores are represented by the diamond (♦).
For example, your student's scale score in reading is 209. Note that the diamond representing this score falls in the Basic scale score range. If your student were to take a similar test multiple times, the range of these scores would be expected to fall between 206 and 212 (as represented by the line) 68% of the time.

Your Student's Performance by Content Standard
PROFICIENCY LEVELS AND PROBABLE SCALE SCORE RANGES
(BB = Below Basic, B = Basic, P = Proficient, A = Advanced)

140 160 180 200 220 240 260 280

Subject	Points Possible	Points Earned	Student's Scale Score	BB	B	P	A
Reading	44	21	209			♦	

	Standard	Total Number of Questions	Student % Correct	District % Correct	State % Correct
1	Reading Process	12	58.3	76.8	78.4
2	Comprehension/Interpretation	32	43.8	62.4	64.5

140 160 180 200 220 240 260 280

Subject	Points Possible	Points Earned	Student's Scale Score	BB	B	P	A
Mathematics	45	25	223			♦	

	Standard	Total Number of Questions	Student % Correct	District % Correct	State % Correct
1	Number and Operation	12	41.7	65.1	69.5
2	Concepts and Principles of Measurement	7	71.4	58.1	62.3
3	Concepts and Language of Algebra and Functions	11	36.4	63.1	62.7
4	Concepts and Principles of Geometry	8	75.0	63.9	60.3
5	Data Analysis, Probability, and Statistics	7	71.4	72.3	73.8

140 160 180 200 220 240 260 280

Subject	Points Possible	Points Earned	Student's Scale Score	BB	B	P	A
Language Usage	45	39	234			♦	

	Standard	Total Number of Questions	Student % Correct	District % Correct	State % Correct
3	Writing Process	27	85.2	65.2	68.7
5	Writing Components	18	88.9	60.8	63.0

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C.L. "Butch" Otter, Governor

IDISR1

999-999 99/99/9999

NCLB Individual Student Report

Your Student's Overall Performance

	Student's Scale Score	Student's Proficiency Level	Proficient Scale Score
Reading	209	Basic	212
Mathematics	223	Proficient	223
Language Usage	234	Advanced	218

- This box displays the students' scale score and proficiency level in each subject. To be considered proficient, the student must score at or above the Proficient Scale Score displayed to the right of the Student's Proficiency Level.

NCLB Individual Student Report

Your Student's Performance by Content Standard
PROFICIENCY LEVELS AND PROBABLE SCALE SCORE RANGES
(BB = Below Basic, B = Basic, P = Proficient, A = Advanced)

Subject	Points Possible	Points Earned	Student's Scale Score	140 160 180 200 220 240 260 280
Reading	44	21	209	BB B P A

	Standard	Total Number of Questions	Student % Correct	District % Correct	State % Correct
1	Reading Process	12	58.3	76.8	78.4
2	Comprehension/Interpretation	32	43.8	62.4	64.5

Subject	Points Possible	Points Earned	Student's Scale Score	140 160 180 200 220 240 260 280
Mathematics	45	25	223	BB B P A

	Standard	Total Number of Questions	Student % Correct	District % Correct	State % Correct
1	Number and Operation	12	41.7	65.1	69.5
2	Concepts and Principles of Measurement	7	71.4	58.1	62.3
3	Concepts and Language of Algebra and Functions	11	36.4	63.1	62.7
4	Concepts and Principles of Geometry	8	75.0	63.9	60.3
5	Data Analysis, Probability, and Statistics	7	71.4	72.3	73.8

Subject	Points Possible	Points Earned	Student's Scale Score	140 160 180 200 220 240 260 280
Language Usage	45	39	234	BB B P A

	Standard	Total Number of Questions	Student % Correct	District % Correct	State % Correct
3	Writing Process	27	85.2	65.2	68.7
5	Writing Components	18	88.9	60.8	63.0

"Idaho's public schools are the foundation of Idaho's success."

- This shows the student's scale score (represented by the diamond) and the probable score range (represented by the line through the diamond).
- The line through the diamond is the error band. The error band indicates the expected range of scores a student may receive 68 % of the time if he/she took the test multiple times.
- This lists the total number of questions in each standard along with the student, district, and state percent correct.

NCLB Individual Student Report

This report provides a record of your student's test results on the ISAT in reading, mathematics, and language usage.

Proficiency Levels

The ISAT is designed to measure knowledge against state standards. Scores on these tests are grouped into four proficiency levels. The proficiency level chart (found on the right) shows the scale score ranges associated with each level.

Scale Score

A student's points earned (or raw score) has comparable meaning only for those students who take the exact same set of questions. A student's scale score is a transformed version of the raw score. It provides comparable meaning across grades and across years, but only within the same subject area.

Skills Performance

Reading, mathematics, and language usage are composed of different standards. The chart on the right shows how your student did on these standards.

Interpretation of Chart

For each subject, the chart displays where the proficient cut score lies within the possible scale score range. Scale scores are represented by the diamond (♦).

For example, your student's scale score in reading is 209. Note that the diamond representing this score falls in the Basic scale score range. If your student were to take a similar test multiple times, the range of these scores would be expected to fall between 206 and 212 (as represented by the line) 68% of the time.

- This box is in the lower left corner of the NCLB ISR and provides useful descriptions of proficiency levels, scale scores, skills performance, and how to interpret the chart.
- The scale score earned by the student determines the student's proficiency level. The points earned are converted into a scale score, which takes into consideration the fact that some questions on the test are more difficult than others.

NCLB Individual Student Report

Proficiency Level Descriptors – 7th Grade

Proficiency Level	Scale Score Ranges	Reading	Mathematics	Language Usage
Advanced	Reading >226 Mathematics >236 Language Usage >231	Seventh grade students typically performing at the Advanced level demonstrate a thorough understanding of reading skills expected of all students in the areas of reading process, and comprehension and interpretation at this grade level. Students consistently use complex strategies to interpret and comprehend a wide variety of grade-level text, including, but not limited to, determining meaning of complex words in context, making inferences, drawing conclusions and citing evidence from text to support, and analyzing themes of various genres.	Seventh grade students typically performing at the Advanced level consistently demonstrate a thorough understanding of grade-level mathematics. They use the numeration system and estimation, measurement concepts related to two-dimensional figures, complex numeric and algebraic expressions, and probability concepts involving complex situations in order to solve real-world problems. Students model real-world situations using challenging patterns in multiple formats, geometric concepts, and data displays. Students show the ability to consistently perform challenging calculations, convert units of measurement, and solve complex equations as a way to demonstrate their understanding of the relationships between mathematics and the world around them.	Teachers observe that seventh grade students typically performing at the Advanced level of language usage demonstrate an in-depth understanding of grade-level skills and the writing process and can effectively relate the writing task to purpose and audience. On the ISAT Language Usage Test, seventh grade students typically performing at the Advanced level consistently identify a thesis statement and clear topic sentences, specific details, and a relevant conclusion. These students also consistently recognize that a variety of organizational strategies can be used to clarify and support the purpose of writing and that clear transition, precise language, and sentence variety improve meaning, clarity, fluency, and style. Students at this level demonstrate regular command of grade-level sentence structure, spelling, grammar, capitalization, and punctuation.
Proficient	Reading 212-226 Mathematics 223-236 Language Usage 218-231	Seventh grade students typically performing at the Proficient level demonstrate a satisfactory understanding of reading skills expected of all students in the areas of reading process, and comprehension and interpretation at this grade level. Students routinely utilize a variety of reading strategies to interpret and understand grade-level text, including, but not limited to, explaining relationships among words including connotation and denotation, summarizing the main idea and critical details of expository text, and analyzing characterization, plot, and theme.	Seventh grade students typically performing at the Proficient level demonstrate a general understanding of grade-level mathematics. They use the numeration system and estimation, measurement concepts related to two-dimensional figures, numeric and algebraic expressions, and probability in order to solve real-world problems. Students model real-world situations using patterns, geometric concepts, and data displays. Students show the ability to adequately perform calculations, convert units of measurement, work with unit rates and dimensional analysis, plot points on a coordinate grid, solve equations, and determine statistical measures as a way to demonstrate their understanding of the relationships between mathematics and the world around them.	Teachers observe that seventh grade students typically performing at the Proficient level of language usage demonstrate an understanding of grade-level skills and the writing process and can generally relate the writing task to purpose and audience. On the ISAT Language Usage Test, seventh grade students typically performing at the Proficient level identify a thesis statement and clear topic sentences, specific details, and a relevant conclusion. These students also recognize that a variety of organizational strategies can be used to clarify and support the purpose of writing and that clear transition, precise language, and sentence variety improve meaning, clarity, fluency, and style. Students at this level demonstrate command of grade-level sentence structure, spelling, grammar, capitalization, and punctuation.
Basic	Reading 204-211 Mathematics 215-222 Language Usage 209-217	Seventh grade students typically performing at the Basic level demonstrate a limited understanding of reading skills expected of all students in the areas of reading process, and comprehension and interpretation at this grade level. Students may have partial knowledge of reading skills within more explicit and concrete text with familiar content on a literal level, but are inconsistent in performance. Students at the basic level may apply root words, prefixes, and suffixes to decode some unknown words, make inferences with limited support from text, and identify some types of conflict in literature.	Seventh grade students typically performing at the Basic level demonstrate a limited understanding of grade-level mathematics. They demonstrate limited use of the numeration system, measurement concepts related to two-dimensional figures, simple numeric and algebraic expressions, and rudimentary concepts of probability in an attempt to solve real-world problems. Students model basic real-world situations using simple patterns, some geometric concepts, and simple data displays. Students show the ability to perform simple calculations, convert some units of measurement, work with simple unit rates and dimensional analysis, plot some points on a coordinate grid, solve some equations, and determine simple statistical measures in an attempt to demonstrate their understanding of the relationships between mathematics and the world around them.	Teachers observe that seventh grade students typically performing at the Basic level of language usage demonstrate a limited understanding of grade-level skills and the writing process and can occasionally relate the writing task to purpose and audience. On the ISAT Language Usage Test, seventh grade students typically performing at the Basic level rarely identify a thesis statement and clear topic sentences, specific details, and a relevant conclusion. These students also rarely recognize that a variety of organizational strategies can be used to clarify and support the purpose of writing and that clear transition, precise language, and sentence variety improve meaning, clarity, fluency, and style. Students at this level demonstrate an underdeveloped command of grade-level sentence structure, spelling, grammar, capitalization, and punctuation.
Below Basic	Reading <204 Mathematics <215 Language Usage <209	Seventh grade students typically performing at the Below Basic level demonstrate a significant lack of reading skills and knowledge. There is need for additional instructional opportunities to achieve the Basic level in the areas of reading process, and comprehension and interpretation at this grade level.	Seventh grade students typically performing at the Below Basic level demonstrate a significant lack of mathematics skills and knowledge. There is need for additional instructional opportunities to achieve the Basic level of grade-level mathematics.	Teachers observe that seventh grade students typically performing at the Below Basic level of language usage demonstrate a significant lack of grade-level skills and the writing process. There is need for additional instructional opportunities to achieve the Basic level.

For more information about the ISAT testing program, the curriculum standards, and what you can do to help your child, contact your local school or visit the Idaho State Board Of Education website at www.boardofed.idaho.gov.

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FINAL

- Back page of NCLB ISR
- Contains the scale score ranges for each proficiency level, along with a detailed description of what a student should be able to do within each level

NCLB Individual Student Report

- These reports include *percent correct* scores for the following standards:
  - Reading
    - Reading Process
    - Comprehension/Interpretation
  - Mathematics
    - Number and Operation
    - Concepts and Principles of Measurement
    - Concepts and Language of Algebra and Functions
    - Concepts and Principles of Geometry
    - Data Analysis, Probability, and Statistics
  - Language Usage
    - Writing Process
    - Writing Components
  - Science
    - Nature of Science
    - Physical Science
    - Biology
    - Earth and Space Systems
    - Personal and Social Perspectives; Technology

NCLB plus Extender Individual Student Report

ISAT
Idaho Standards Achievement Tests

IDAHO STANDARDS ACHIEVEMENT TESTS (ISAT)
NCLB plus EXTENDER INDIVIDUAL STUDENT REPORT
SPRING 2008

STUDENT NAME : **Last Name, First Name**
BIRTH DATE : **99/99/9999**

DISTRICT : **IDAHO DISTRICT 999**
SCHOOL : **IDAHO MIDDLE SCHOOL 999**

GRADE : **07**
STUDENT ID : **999999**

Your Student's Overall Performance

	Student's Scale Score
Reading	208
Mathematics	229
Language Usage	240

This report provides a record of your student's result on the spring NCLB test plus additional items. The purpose of the additional items is to provide more detailed information at the reporting category level.

Scale Score
The scores in this report are provided as scale scores rather than as points correct or raw scores. Scale scores are transformed raw scores that allow for valid comparisons across students, grades, and administrations, but only within the same subject.

Proficiency Levels
The ISAT is designed to measure knowledge against state standards. Scores on these tests are grouped into four proficiency levels. The proficiency level chart (found on the right) shows the scale score ranges associated with each level.

Reporting Category
Each subject is divided into reporting categories. The chart on the right shows the total scale score and how your student performed in each reporting category.

Interpretation of Chart
For each subject, the chart displays where the proficient cut score lies within the possible scale score range. Scale scores are represented by the diamond (♦). For example, your student's scale score in reading is 208. This score falls in the Basic scale score range. If your student were to take a similar test multiple times, the range of these scores would be expected to fall between 204 and 212 (represented by the line that crosses through the diamond) 68% of the time.
The line around the reporting category scale scores is wider than that for the total score. This is because reporting categories contain fewer questions than the total test. As a result, reporting category scale scores are less precise than those for total scale scores.

Your Student's Performance by Reporting Categories

PROFICIENCY LEVELS AND PROBABLE SCALE SCORE RANGES
(BB = Below Basic, B = Basic, P = Proficient, A = Advanced)

Reading

	Reporting Category	Scale Score
	Total	208
1	Reading Process	220
2a	Comprehension	201
2b	Expository Analysis	214
2c	Literary Analysis	206

Mathematics

	Reporting Category	Scale Score
	Total	229
1	Number and Operation	225
2	Concepts and Principles of Measurement	230
3	Concepts and Language of Algebra and Functions	235
4	Concepts and Principles of Geometry	229
5	Data Analysis, Probability, and Statistics	223

Language Usage

	Reporting Category	Scale Score
	Total	240
3a	Prewriting	251
3b	Revising and Editing	249
5a	Sentence Structure	238
5b	Conventions	230
5c	Spelling	245

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C.L. "Butch" Otter, Governor

NCLB plus Extender Individual Student Report

Your Student's Performance by Reporting Categories

PROFICIENCY LEVELS AND PROBABLE SCALE SCORE RANGES

(BB = Below Basic, B = Basic, P = Proficient, A = Advanced)

Reading

	Reporting Category	Scale Score
	Total	208
1	Reading Process	220
2a	Comprehension	201
2b	Expository Analysis	214
2c	Literary Analysis	206

Mathematics

	Reporting Category	Scale Score
	Total	229
1	Number and Operation	225
2	Concepts and Principles of Measurement	230
3	Concepts and Language of Algebra and Functions	235
4	Concepts and Principles of Geometry	229
5	Data Analysis, Probability, and Statistics	223

Language Usage

	Reporting Category	Scale Score
	Total	240
3a	Prewriting	251
3b	Revising and Editing	249
5a	Sentence Structure	238
5b	Conventions	230
5c	Spelling	245

"Idaho's public schools are the foundation of Idaho's success."
C.L. "Butch" Otter, Governor

- This box contains the student's NCLB plus Extender (Parts 1 and 2) total scale score and scale scores by reporting category.
- Note that each reporting category may have different numbers of questions of various difficulties. Therefore, the total scale score is not the average of the reporting category scale scores.
- The diamonds and error bands indicate where the student's score fell for the total and for each reporting category.
- Note that the error bands are wider for the reporting categories than for the total score. This is because there are less items in the reporting categories, and therefore, a less precise measurement.
- The error bands also help identify where there is a significant difference in knowledge from one reporting category to the next (relative strengths and weaknesses). For example, Language Usage reports no overlap between the error bands for the categories Revising and Editing (strength) and Conventions (weakness).

NCLB plus Extender Individual Student Report

- These reports will include *scale scores* for the following reporting categories:
  - Reading
    - Reading Process
    - Comprehension
    - Expository Analysis
    - Literary Analysis
  - Mathematics
    - Number and Operation
    - Concepts and Principles of Measurement
    - Concepts and Language of Algebra and Functions
    - Concepts and Principles of Geometry
    - Data Analysis, Probability, and Statistics
  - Language Usage
    - Prewriting
    - Revising and Editing
    - Sentence Structure
    - Conventions
    - Spelling
  - Science
    - Nature of Science
    - Physical Science
    - Biology
    - Earth and Space Systems
    - Personal and Social Perspectives; Technology

Individual Student Growth Report

ISAT
Idaho Standards Achievement Tests

IDAHO STANDARDS ACHIEVEMENT TESTS (ISAT)
INDIVIDUAL STUDENT GROWTH REPORT
SPRING 2008

STUDENT NAME : **Last Name, First Name**
BIRTH DATE : **99/99/9999**

DISTRICT : **IDAHO DISTRICT 999**
SCHOOL : **IDAHO MIDDLE SCHOOL 999**

GRADE : **07**
STUDENT ID : **999999**

Your Student's Growth

	Spring to Spring Growth		Fall to Spring Growth	
	Actual	Average	Actual	Average
Reading	3	4.2	2	2.3
Mathematics	11	5.1	7	3.5
Language Usage	12	4.7	4	2.8

This report provides a historical record of your student's test results on the ISAT, beginning with Spring 2007, up to a maximum of the four most recent administrations.

The spring scores are based on the NCLB test plus additional items. For more detail on the current spring NCLB plus additional items, see "NCLB plus Extender Individual Student Report".

Growth Scores

The information in the box above indicates your student's growth in scale score units from 1) the previous spring to the most current spring and 2) from the previous fall to the most current spring. For comparison, the average amount of growth between administrations is provided. The average is based on all the students who took the particular test. Average growth does not predict progress toward any particular cut score or growth target.

Performance by Test Administration

The boxes to the right indicate the test administration, grade, and total scale score for each subject. Further to the right, there are charts that display the total score on the ISAT proficiency scale. Scale scores are represented by the diamond(♦). For example, your student's scale score in reading for the Spring 2007 administration is 205. This score falls in the Basic scale score range. If your student were to take a similar test multiple times, the range of these scores would be expected to fall between 202 and 208 (represented by the line that crosses through the diamond) 68% of the time.

The shaded boxes include vertical lines that define the four proficiency levels: Below Basic, Basic, Proficient, or Advanced, for the specified grades. Within each subject, the lower shaded box has higher scores (lines more to the right) for the same proficiency level. The difference between the two lines for the same proficiency level represents the growth required to maintain the same level of proficiency in the next grade.

Your Student's Performance by Test Administration

PROFICIENCY LEVELS AND PROBABLE SCALE SCORE RANGES
(BB = Below Basic, B = Basic, P = Proficient, A = Advanced)

Reading

Test Administration	Grade	Scale Score
Spring 2007	6	205
Fall 2007	7	206
Spring 2008	7	208

Mathematics

Test Administration	Grade	Scale Score
Spring 2007	6	218
Fall 2007	7	222
Spring 2008	7	229

Language Usage

Test Administration	Grade	Scale Score
Spring 2007	6	228
Fall 2007	7	236
Spring 2008	7	240

"Idaho's public schools are the foundation of Idaho's success."
C.L. "Butch" Otter, Governor

Individual Student Growth Report

Your Student's Growth

	Spring to Spring Growth		Fall to Spring Growth	
	Actual	Average	Actual	Average
Reading	3	4.2	2	2.3
Mathematics	11	5.1	7	3.5
Language Usage	12	4.7	4	2.8

- The Growth Report provides a historical account of the student's performance on the NCLB plus Extender portions.
- Actual growth is calculated as the student's change in scale score from Spring to Spring and Fall to Spring.
- Average growth is calculated based on the average amount of growth for all students ***in the state***.

Individual Student Growth Report

Your Student's Performance by Test Administration

PROFICIENCY LEVELS AND PROBABLE SCALE SCORE RANGES

(BB = Below Basic, B = Basic, P = Proficient, A = Advanced)

Reading

Test Administration	Grade	Scale Score
Spring 2007	6	205
Fall 2007	7	206
Spring 2008	7	208

Mathematics

Test Administration	Grade	Scale Score
Spring 2007	6	218
Fall 2007	7	222
Spring 2008	7	229

Language Usage

Test Administration	Grade	Scale Score
Spring 2007	6	228
Fall 2007	7	236
Spring 2008	7	240

- Shows a historical account of scores across administrations and grade levels. Up to four administrations will be reported on the Growth Report.
- The gray bars differentiate between grade levels.
- Note that grade level cut points are different.

Individual Student Growth Report

This report provides a historical record of your student's test results on the ISAT, beginning with Spring 2007, up to a maximum of the four most recent administrations.

The spring scores are based on the NCLB test plus additional items. For more detail on the current spring NCLB plus additional items, see "NCLB plus Extender Individual Student Report".

Growth Scores

The information in the box above indicates your student's growth in scale score units from 1) the previous spring to the most current spring and 2) from the previous fall to the most current spring. For comparison, the average amount of growth between administrations is provided. The average is based on all the students who took the particular test. Average growth does not predict progress toward any particular cut score or growth target.

Performance by Test Administration

The boxes to the right indicate the test administration, grade, and total scale score for each subject. Further to the right, there are charts that display the total score on the ISAT proficiency scale. Scale scores are represented by the diamond(◆). For example, your student's scale score in reading for the Spring 2007 administration is 205. This score falls in the Basic scale score range. If your student were to take a similar test multiple times, the range of these scores would be expected to fall between 202 and 208 (represented by the line that crosses through the diamond) 68% of the time.

The shaded boxes include vertical lines that define the four proficiency levels: Below Basic, Basic, Proficient, or Advanced, for the specified grades. Within each subject, the lower shaded box has higher scores (lines more to the right) for the same proficiency level. The difference between the two lines for the same proficiency level represents the growth required to maintain the same level of proficiency in the next grade.

- This box is in the lower left corner of the Growth Report and provides useful descriptions of growth scores and performance by test administration.

Individual Student Growth Report

- Spring – based on the NCLB plus Extender (adaptive) score

  (Parts 1 and 2)

- Fall – based on the Interim score

NCLB Class Student Roster

ISAT Idaho Standards Achievement Tests

IDAHO STANDARDS ACHIEVEMENT TESTS (ISAT)
<NCLB or EXIT EXAM RETEST based on GR> CLASS STUDENT ROSTER
SPRING 2008

DISTRICT: <DISTRICT NAME> <DISTRICT #>
SCHOOL: <SCHOOL NAME> <SCHOOL #>
CLASS: <TEACHER (NAME)> <CLASS DESCRIPTION>

GRADE 11

PAGE: 1 OF #

Proficiency Level Ranges

A = Advanced, P = Proficient, B = Basic, BB = Below Basic

	Reading	Mathematics	Language Usage
A	>228	>238	>238
P	208-228	224-238	224-238
B	200-207	214-238	214-238
BB	<200	<214	<214

	Reading				Mathematics							Language Usage			
			% Correct				% Correct							% Correct	
	Proficiency Level	Scale Score	1 Reading Process	2 Comprehension/ Interpretation	Proficiency Level	Scale Score	1 Number and Operation	2 Concepts and Principles of Measurement	3 Concepts and Language of Algebra and Functions	4 Concepts and Principles of Geometry	5 Data Analysis, Probability, and Statistics	Proficiency Level	Scale Score	3 Writing Process	5 Writing Components
State Average		999	99.9	99.9		999	99.9	99.9	99.9	99.9	99.9		999	99.9	99.9
District Average		999	99.9	99.9		999	99.9	99.9	99.9	99.9	99.9		999	99.9	99.9
School Average		999	99.9	99.9		999	99.9	99.9	99.9	99.9	99.9		999	99.9	99.9
Total Number of Questions			99	99			99	99	99	99	99			99	99
STUDENT'S LAST,FIRST MIDDLE INITIAL 123456789	X	999	99.9	99.9	X	999	99.9	99.9	99.9	99.9	99.9	X	999	99.9	99.9
STUDENT'S LAST,FIRST MIDDLE INITIAL 123456789	XX	999	99.9	99.9	XX	999	99.9	99.9	99.9	99.9	99.9	XX	999	99.9	99.9
STUDENT'S LAST,FIRST MIDDLE INITIAL 123456789	X	999	99.9	99.9	X	999	99.9	99.9	99.9	99.9	99.9	X	999	99.9	99.9
STUDENT'S LAST,FIRST MIDDLE INITIAL 123456789	X	999	99.9	99.9	X	999	99.9	99.9	99.9	99.9	99.9	X	999	99.9	99.9
STUDENT'S LAST,FIRST MIDDLE INITIAL 123456789	X	999	99.9	99.9	X	999	99.9	99.9	99.9	99.9	99.9	X	999	99.9	99.9
STUDENT'S LAST,FIRST MIDDLE INITIAL 123456789	X	999	99.9	99.9	X	999	99.9	99.9	99.9	99.9	99.9	X	999	99.9	99.9
STUDENT'S LAST,FIRST MIDDLE INITIAL 123456789	X	999	99.9	99.9	X	999	99.9	99.9	99.9	99.9	99.9	X	999	99.9	99.9
STUDENT'S LAST,FIRST MIDDLE INITIAL 123456789	X	999	99.9	99.9	X	999	99.9	99.9	99.9	99.9	99.9	X	999	99.9	99.9
STUDENT'S LAST,FIRST MIDDLE INITIAL 123456789	X	999	99.9	99.9	X	999	99.9	99.9	99.9	99.9	99.9	X	999	99.9	99.9
STUDENT'S LAST,FIRST MIDDLE INITIAL 123456789	X	999	99.9	99.9	X	999	99.9	99.9	99.9	99.9	99.9	X	999	99.9	99.9
STUDENT'S LAST,FIRST MIDDLE INITIAL 123456789	X	999	99.9	99.9	X	999	99.9	99.9	99.9	99.9	99.9	X	999	99.9	99.9
STUDENT'S LAST,FIRST MIDDLE INITIAL 123456789	X	999	99.9	99.9	X	999	99.9	99.9	99.9	99.9	99.9	X	999	99.9	99.9
STUDENT'S LAST,FIRST MIDDLE INITIAL 123456789	X	999	99.9	99.9	X	999	99.9	99.9	99.9	99.9	99.9	X	999	99.9	99.9

IDSSR1

999-999 99/99/999

FINAL

NCLB School Student Roster

ISAT Idaho Standards Achievement Tests

IDAHO STANDARDS ACHIEVEMENT TESTS (ISAT)
<NCLB or EXIT EXAM RETEST based on GR> SCHOOL STUDENT ROSTER
SPRING 2008

DISTRICT: <DISTRICT NAME> <DISTRICT #>
SCHOOL: <SCHOOL NAME> <SCHOOL #>

GRADE 11

PAGE: 1 OF #

Proficiency Level Ranges

A = Advanced, P = Proficient, B = Basic, BB = Below Basic

	Reading	Mathematics	Language Usage
A	>228	>238	>238
P	208-228	224-238	224-238
B	200-207	214-238	214-238
BB	<200	<214	<214

	Reading				Mathematics							Language Usage			
			% Correct				% Correct							% Correct	
	Proficiency Level	Scale Score	1 Reading Process	2 Comprehension/ Interpretation	Proficiency Level	Scale Score	1 Number and Operation	2 Concepts and Principles of Measurement	3 Concepts and Language of Algebra and Functions	4 Concepts and Principles of Geometry	5 Data Analysis, Probability, and Statistics	Proficiency Level	Scale Score	3 Writing Process	5 Writing Components
State Average		999	99.9	99.9		999	99.9	99.9	99.9	99.9	99.9		999	99.9	99.9
District Average		999	99.9	99.9		999	99.9	99.9	99.9	99.9	99.9		999	99.9	99.9
School Average		999	99.9	99.9		999	99.9	99.9	99.9	99.9	99.9		999	99.9	99.9
Total Number of Questions			99	99			99	99	99	99	99			99	99
STUDENT'S LAST,FIRST MIDDLE INITIAL 123456789	X	999	99.9	99.9	X	999	99.9	99.9	99.9	99.9	99.9	X	999	99.9	99.9
STUDENT'S LAST,FIRST MIDDLE INITIAL 123456789	XX	999	99.9	99.9	XX	999	99.9	99.9	99.9	99.9	99.9	XX	999	99.9	99.9
STUDENT'S LAST,FIRST MIDDLE INITIAL 123456789	X	999	99.9	99.9	X	999	99.9	99.9	99.9	99.9	99.9	X	999	99.9	99.9
STUDENT'S LAST,FIRST MIDDLE INITIAL 123456789	X	999	99.9	99.9	X	999	99.9	99.9	99.9	99.9	99.9	X	999	99.9	99.9
STUDENT'S LAST,FIRST MIDDLE INITIAL 123456789	X	999	99.9	99.9	X	999	99.9	99.9	99.9	99.9	99.9	X	999	99.9	99.9
STUDENT'S LAST,FIRST MIDDLE INITIAL 123456789	X	999	99.9	99.9	X	999	99.9	99.9	99.9	99.9	99.9	X	999	99.9	99.9
STUDENT'S LAST,FIRST MIDDLE INITIAL 123456789	X	999	99.9	99.9	X	999	99.9	99.9	99.9	99.9	99.9	X	999	99.9	99.9
STUDENT'S LAST,FIRST MIDDLE INITIAL 123456789	X	999	99.9	99.9	X	999	99.9	99.9	99.9	99.9	99.9	X	999	99.9	99.9
STUDENT'S LAST,FIRST MIDDLE INITIAL 123456789	X	999	99.9	99.9	X	999	99.9	99.9	99.9	99.9	99.9	X	999	99.9	99.9
STUDENT'S LAST,FIRST MIDDLE INITIAL 123456789	X	999	99.9	99.9	X	999	99.9	99.9	99.9	99.9	99.9	X	999	99.9	99.9
STUDENT'S LAST,FIRST MIDDLE INITIAL 123456789	X	999	99.9	99.9	X	999	99.9	99.9	99.9	99.9	99.9	X	999	99.9	99.9
STUDENT'S LAST,FIRST MIDDLE INITIAL 123456789	X	999	99.9	99.9	X	999	99.9	99.9	99.9	99.9	99.9	X	999	99.9	99.9
STUDENT'S LAST,FIRST MIDDLE INITIAL 123456789	X	999	99.9	99.9	X	999	99.9	99.9	99.9	99.9	99.9	X	999	99.9	99.9
STUDENT'S LAST,FIRST MIDDLE INITIAL 123456789	X	999	99.9	99.9	X	999	99.9	99.9	99.9	99.9	99.9	X	999	99.9	99.9

IDSSR1

999-999 99/99/9999

NCLB Class and School Rosters

- Proficiency levels for each subject in the upper left corner
- Total scale score and percent correct for each standard
- State, district, and school total average scale scores followed by the total scale scores and percent correct by standard for each student in the class/school

NCLB plus Extender Class Roster

IDAHO STANDARDS ACHIEVEMENT TESTS (ISAT)
NCLB plus EXTENDER CLASS STUDENT ROSTER REPORT
SPRING 2008

GRADE 6

PAGE: 1 OF #

DISTRICT: **<DISTRICT NAME> <DISTRICT #>**
SCHOOL: **<SCHOOL NAME> <SCHOOL #>**
CLASS: **<TEACHER (NAME)> <CLASS DESCRIPTION>**

	Reading					Mathematics						Language Usage					
	Scale Scores					Scale Scores						Scale Scores					
Student's Name ID Number	**Total**	1 Reading Process	2a Comprehension	2b Expository Analysis	2c Literary Analysis	**Total**	1 Number and Operation	2 Concepts and Principles of Measurement	3 Concepts and Language of Algebra and Functions	4 Concepts and Principles of Geometry	5 Data Analysis, Probability, and Statistics	**Total**	3a Prewriting	3b Revising and Editing	5a Sentence Structure	5b Conventions	5c Spelling
STUDENT'S LAST, FIRST MIDDLE INITIAL 123456789	**xxx**	999	999	999	999	**xxx**	999	999	999	999	999	**xxx**	999	999	999	999	999
STUDENT'S LAST, FIRST MIDDLE INITIAL 123456789	**xxx**	999	999	999	999	**xxx**	999	999	999	999	999	**xxx**	999	999	999	999	999
STUDENT'S LAST, FIRST MIDDLE INITIAL 123456789	**xxx**	999	999	999	999	**xxx**	999	999	999	999	999	**xxx**	999	999	999	999	999
STUDENT'S LAST, FIRST MIDDLE INITIAL 123456789	**xxx**	999	999	999	999	**xxx**	999	999	999	999	999	**xxx**	999	999	999	999	999
STUDENT'S LAST, FIRST MIDDLE INITIAL 123456789	**xxx**	999	999	999	999	**xxx**	999	999	999	999	999	**xxx**	999	999	999	999	999
STUDENT'S LAST, FIRST MIDDLE INITIAL 123456789	**xxx**	999	999	999	999	**xxx**	999	999	999	999	999	**xxx**	999	999	999	999	999
STUDENT'S LAST, FIRST MIDDLE INITIAL 123456789	**xxx**	999	999	999	999	**xxx**	999	999	999	999	999	**xxx**	999	999	999	999	999
STUDENT'S LAST, FIRST MIDDLE INITIAL 123456789	**xxx**	999	999	999	999	**xxx**	999	999	999	999	999	**xxx**	999	999	999	999	999
STUDENT'S LAST, FIRST MIDDLE INITIAL 123456789	**xxx**	999	999	999	999	**xxx**	999	999	999	999	999	**xxx**	999	999	999	999	999
STUDENT'S LAST, FIRST MIDDLE INITIAL 123456789	**xxx**	999	999	999	999	**xxx**	999	999	999	999	999	**xxx**	999	999	999	999	999
STUDENT'S LAST, FIRST MIDDLE INITIAL 123456789	**xxx**	999	999	999	999	**xxx**	999	999	999	999	999	**xxx**	999	999	999	999	999
STUDENT'S LAST, FIRST MIDDLE INITIAL 123456789	**xxx**	999	999	999	999	**xxx**	999	999	999	999	999	**xxx**	999	999	999	999	999
STUDENT'S LAST, FIRST MIDDLE INITIAL 123456789	**xxx**	999	999	999	999	**xxx**	999	999	999	999	999	**xxx**	999	999	999	999	999
STUDENT'S LAST, FIRST MIDDLE INITIAL 123456789	**xxx**	999	999	999	999	**xxx**	999	999	999	999	999	**xxx**	999	999	999	999	999
STUDENT'S LAST, FIRST MIDDLE INITIAL 123456789	**xxx**	999	999	999	999	**xxx**	999	999	999	999	999	**xxx**	999	999	999	999	999

FINAL

IDSSR3

999-999 99/99/9999

NCLB plus Extender School Roster

IDAHO STANDARDS ACHIEVEMENT TESTS (ISAT)
NCLB plus EXTENDER SCHOOL STUDENT ROSTER REPORT
SPRING 2008

DISTRICT: **<DISTRICT NAME> <DISTRICT #>**
SCHOOL: **<SCHOOL NAME> <SCHOOL #>**

GRADE 6

PAGE: 1 OF #

	Reading					Mathematics						Language Usage					
	Scale Scores					Scale Scores						Scale Scores					
Student's Name ID Number	**Total**	1 Reading Process	2a Comprehension	2b Expository Analysis	2c Literary Analysis	**Total**	1 Number and Operation	2 Concepts and Principles of Measurement	3 Concepts and Language of Algebra and Functions	4 Concepts and Principles of Geometry	5 Data Analysis, Probability, and Statistics	**Total**	3a Prewriting	3b Revising and Editing	5a Sentence Structure	5b Conventions	5c Spelling
STUDENT'S LAST, FIRST MIDDLE INITIAL 123456789	xxx	999	999	999	999	xxx	999	999	999	999	999	xxx	999	999	999	999	999
STUDENT'S LAST, FIRST MIDDLE INITIAL 123456789	xxx	999	999	999	999	xxx	999	999	999	999	999	xxx	999	999	999	999	999
STUDENT'S LAST, FIRST MIDDLE INITIAL 123456789	xxx	999	999	999	999	xxx	999	999	999	999	999	xxx	999	999	999	999	999
STUDENT'S LAST, FIRST MIDDLE INITIAL 123456789	xxx	999	999	999	999	xxx	999	999	999	999	999	xxx	999	999	999	999	999
STUDENT'S LAST, FIRST MIDDLE INITIAL 123456789	xxx	999	999	999	999	xxx	999	999	999	999	999	xxx	999	999	999	999	999
STUDENT'S LAST, FIRST MIDDLE INITIAL 123456789	xxx	999	999	999	999	xxx	999	999	999	999	999	xxx	999	999	999	999	999
STUDENT'S LAST, FIRST MIDDLE INITIAL 123456789	xxx	999	999	999	999	xxx	999	999	999	999	999	xxx	999	999	999	999	999
STUDENT'S LAST, FIRST MIDDLE INITIAL 123456789	xxx	999	999	999	999	xxx	999	999	999	999	999	xxx	999	999	999	999	999
STUDENT'S LAST, FIRST MIDDLE INITIAL 123456789	xxx	999	999	999	999	xxx	999	999	999	999	999	xxx	999	999	999	999	999
STUDENT'S LAST, FIRST MIDDLE INITIAL 123456789	xxx	999	999	999	999	xxx	999	999	999	999	999	xxx	999	999	999	999	999
STUDENT'S LAST, FIRST MIDDLE INITIAL 123456789	xxx	999	999	999	999	xxx	999	999	999	999	999	xxx	999	999	999	999	999
STUDENT'S LAST, FIRST MIDDLE INITIAL 123456789	xxx	999	999	999	999	xxx	999	999	999	999	999	xxx	999	999	999	999	999
STUDENT'S LAST, FIRST MIDDLE INITIAL 123456789	xxx	999	999	999	999	xxx	999	999	999	999	999	xxx	999	999	999	999	999
STUDENT'S LAST, FIRST MIDDLE INITIAL 123456789	xxx	999	999	999	999	xxx	999	999	999	999	999	xxx	999	999	999	999	999
STUDENT'S LAST, FIRST MIDDLE INITIAL 123456789	xxx	999	999	999	999	xxx	999	999	999	999	999	xxx	999	999	999	999	999
STUDENT'S LAST, FIRST MIDDLE INITIAL 123456789	xxx	999	999	999	999	xxx	999	999	999	999	999	xxx	999	999	999	999	999

FINAL

IDSSR3

999-999 99/99/9999

NCLB plus Extender Class & School Rosters

- Total scale score and scale scores for each reporting category for each student in the class/school

Scale Score Summaries

ISAT Idaho Standards Achievement Tests

IDAHO STANDARDS ACHIEVEMENT TESTS (ISAT)
NCLB plus EXTENDER SCHOOL SCALE SCORE SUMMARY
SPRING 2008

DISTRICT: <DISTRICT NAME> <DISTRICT #>
SCHOOL: <SCHOOL NAME> <SCHOOL #>

GRADE 5

PAGE: 1

	Reading						Mathematics							Language Usage						
		Average Scale Scores^						Average Scale Scores^							Average Scale Scores^					
	Number of Students Who Received a Total Sale Score	Total	1 Reading Process	2a Comprehension	2b Expository Analysis	2c Literary Analysis	Number of Students Who Received a Total Sale Score	Total	1 Number and Operation	2 Concepts and Principles of Measurement	3 Concepts and Language of Algebra and Functions	4 Concepts and Principles of Geometry	5 Data Analysis, Probability, and Statistics	Number of Students Who Received a Total Sale Score	Total	3a Prewriting	3b Revising and Editing	5a Sentence Structure	5b Conventions	5c Spelling
State Summary	xxx,xxx	xxx	xxx	xxx	xxx	xxx	xxx,xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx,xxx	xxx	xxx	xxx	xxx	xxx	xxx
All Students	xx,xxx	xxx	xxx	xxx	xxx	xxx	xx,xxx	xxx	xxx	xxx	xxx	xxx	xxx	xx,xxx	xxx	xxx	xxx	xxx	xxx	xxx
Male																				
Female																				
American Indian / Alaskan Native																				
Asian																				
Black / African American																				
Native Hawaiian / Other Pacific Islander																				
White																				
Hispanic or Latino Ethnicity																				
Other / Unknown																				
Economically Disadvantaged																				
LEP																				
Migrant																				
Special Education																				
Title I A																				

FINAL

IDSPR3

^Students with insufficient number of items are not included in calculations of average scale scores

999-999 99/99/9999

Scale Score Summaries

- Provides NCLB plus Extender average scale scores for entire state and various demographic subgroups
- Scale scores are listed for total test and reporting category for each subject
- Includes only students with a valid scale score – students who received a NEA (No Extender Attempted) or NSA (No Score Available) are not included
- Provided at district and school level
- Based on NCLB plus Extender (Parts 1 and 2) scores

Proficiency Level Summaries

ISAT Idaho Standards Achievement Tests

IDAHO STANDARDS ACHIEVEMENT TESTS (ISAT)
SCHOOL PROFICIENCY LEVEL SUMMARY
SPRING 2008

DISTRICT: **<DISTRICT NAME> <DISTRICT #>**
SCHOOL: **<SCHOOL NAME> <SCHOOL #>**

GRADE 5

PAGE: **1**

Proficiency Level Ranges

A = Advanced, **P** = Proficient, **B** = Basic, **BB** = Below Basic

	Reading	Mathematics	Language Usage
A	>228	>238	>238
P	208-228	224-238	224-238
B	200-207	214-238	214-238
BB	<200	<214	<214

	Reading					Mathematics					Language Usage				
	Number Tested	% Below Basic (BB)	% Basic (B)	% Proficient (P)	% Advanced (A)	Number Tested	% Below Basic (BB)	% Basic (B)	% Proficient (P)	% Advanced (A)	Number Tested	% Below Basic (BB)	% Basic (B)	% Proficient (P)	% Advanced (A)
All Students	xxx,xxx	xx.x	xx.x	xx.x	xx.x	xxx,xxx	xx.x	xx.x	xx.x	xx.x	xxx,xxx	xx.x	xx.x	xx.x	xx.x
Male															
Female															
American Indian / Alaskan Native															
Asian															
Black / African American															
Native Hawaiian / Other Pacific Islander															
White															
Hispanic or Latino Ethnicity															
Other / Unknown															
Economically Disadvantaged															
LEP															
Migrant															
Special Education															
Title I A															

IDSPR1

999-999 99/99/9999

FINAL

Proficiency Level Summaries

- Provides total number tested and the percentage at each NCLB proficiency level
- Also provides information for various demographic subgroups
- Provided at district and school level
- Based on NCLB scores (Part 1) only

Participation Rate Reports

ISAT
Idaho Standards Achievement Tests

IDAHO STANDARDS ACHIEVEMENT TESTS (ISAT)
NCLB SCHOOL REPORT OF PARTICIPATION RATES
SPRING 2008

DISTRICT: <DISTRICT NAME> <DISTRICT #>
SCHOOL: <SCHOOL NAME> <SCHOOL #>

PAGE: 1

	Reading				Mathematics				Language Usage			
	Number Enrolled	Number Testec	Number Not Tested	% Tested	Number Enroled	Number Tested	Number Not Tested	% Tested	Number Enrolled	Number Tested	Number Not Tested	% Tested
All Students	XXX,XXX	XXX,XXX	X,XXX	XX.X	XXX,XXX	XXX,XXX	X,XXX	XX.X	XXX,XXX	XXX,XXX	X,XXX	XX.X
Grade 3												
Grade 4												
Grade 5												
Grade 6												
Grade 7												
Grade 8												
Grade 9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Grade 10												
Male												
Female												
American Indian/Alaskan Native												
Asian												
Black / African American												
Native Hawaiian / Other Pacific Islander												
White												
Hispanic or Latino Ethricity												
Other / Unknown												
Economically Disadvantaged												
LEP												
Migrant												
Special Education												
Title I A												

Participation Rate Reports

- Provides total number tested and percentage tested across all grades, by grade and various demographic subgroups
- All enrolled students are included in the "Number Enrolled" count, even those coded as Alt. Assessment (AA)
- This report is **not** used for AYP
- Provided at district and school level
- Based on NCLB scores (Part 1) only

District Report of School Proficiency

ISAT
Idaho Standards Achievement Tests

IDAHO STANDARDS ACHIEVEMENT TESTS (ISAT)
NCLB DISTRICT REPORT OF SCHOOL PROFICIENCY
SPRING 2008

DISTRICT: **<DISTRICT NAME> <DISTRICT #>**

GRADE 3

PAGE: **1 OF #**

Proficiency Level Ranges

A = Advanced, **P** = Proficient, **B** = Basic, **BB** = Below Basic

	Reading	Mathematics	Language Usage
A	>228	>238	>238
P	208-228	224-238	224-238
B	200-207	214-238	214-238
BB	<200	<214	<214

	Reading						Mathematics						Language Usage					
	Average Scale Score	Number Tested	% Below Basic (BB)	% Basic (B)	% Proficient (P)	% Advanced (A)	Average Scale Score	Number Tested	% Below Basic (BB)	% Basic (B)	% Proficient (P)	% Advanced (A)	Average Scale Score	Number Tested	% Below Basic (BB)	% Basic (B)	% Proficient (P)	% Advanced (A)
DISTRICT SUMMARY	xxx	xx,xxx	xx.x	xx.x	xx.x	xx.x	xxx	xx,xxx	xx.x	xx.x	xx.x	xx.x	xxx	xx,xxx	xx.x	xx.x	xx.x	xx.x
<SCHOOL NAME> <SCHOOL #>																		
<SCHOOL NAME> <SCHOOL #>																		
<SCHOOL NAME> <SCHOOL #>																		
<SCHOOL NAME> <SCHOOL #>																		
<SCHOOL NAME> <SCHOOL #>																		
<SCHOOL NAME> <SCHOOL #>																		
<SCHOOL NAME> <SCHOOL #>																		
<SCHOOL NAME> <SCHOOL #>																		
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<SCHOOL NAME> <SCHOOL #>																		
<SCHOOL NAME> <SCHOOL #>																		
<SCHOOL NAME> <SCHOOL #>																		
<SCHOOL NAME> <SCHOOL #>																		
<SCHOOL NAME> <SCHOOL #>																		

FINAL

IDDRR1

999-999 99/99/9999

District Report of School Proficiency

- Provides NCLB average scale score, number tested and percentage at each NCLB proficiency level for each school in district
- Provided at district level only
- Based on NCLB scores (Part 1) only

District Summary of School Scale Scores

IDAHO STANDARDS ACHIEVEMENT TESTS (ISAT)
DISTRICT SUMMARY OF SCHOOL SCALE SCORES
SPRING 2008

DISTRICT: **<DISTRICT NAME> <DISTRICT #>** **GRADE 3** PAGE: **1 OF #**

	Reading						Mathematics							Language Usage						
		Average Scale Scores^						Average Scale Scores^							Average Scale Scores^					
	Number of Stucents Who Received a Total Scale Sccre	Total	1 Reading Process	2a Comprehension	2b Expository Analysis	2c Literary Analysis	Number of Stucents Who Received a Total Scale Sccre	Total	1 Number and Operation	2 Concepts and Principles of Measurement	3 Concepts and Language of Algebra and Functions	4 Concepts and Principles of Geometry	5 Data Analysis, Probability, and Statistics	Number of Stucents Who Received a Total Scale Sccre	Total	3a Prewriting	3b Revising and Editing	5a Sentence Structure	5b Conventions	5c Spelling
STATE SUMMARY	xxx,xxx	xxx	xxx	xxx	xxx	xxx	xxx,xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx,xxx	xxx	xxx	xxx	xxx	xxx	xxx
DISTRICT SUMMARY	xx,xxx	xxx	xxx	xxx	xxx	xxx	xx,xxx	xxx	xxx	xxx	xxx	xxx	xxx	xx,xxx	xxx	xxx	xxx	xxx	xxx	xxx
<SCHOOL NAME> <SCHOOL #>	x,xxx	xxx	xxx	xxx	xxx	xxx	x,xxx	xxx	xxx	xxx	xxx	xxx	xxx	x,xxx	xxx	xxx	xxx	xxx	xxx	xxx
<SCHOOL NAME> <SCHOOL #>																				
<SCHOOL NAME> <SCHOOL #>																				
<SCHOOL NAME> <SCHOOL #>																				
<SCHOOL NAME> <SCHOOL #>																				
<SCHOOL NAME> <SCHOOL #>																				
<SCHOOL NAME> <SCHOOL #>																				
<SCHOOL NAME> <SCHOOL #>																				
<SCHOOL NAME> <SCHOOL #>																				
<SCHOOL NAME> <SCHOOL #>																				
<SCHOOL NAME> <SCHOOL #>																				
<SCHOOL NAME> <SCHOOL #>																				
<SCHOOL NAME> <SCHOOL #>																				
<SCHOOL NAME> <SCHOOL #>																				

FINAL

IDDRR3 ^Students with insufficient number of items are not included in calculations of average scale scores 999 99/99/9999

District Summary of School Scale Scores

- Provides the NCLB plus Extender average scale scores at the state, district and school levels
- Includes only students with a valid score – students who received a NEA or NSA are not included
- Provided at district level only
- Based on NCLB plus Extender (Parts 1 and 2) scores

Exit Exam Retest Individual Student Report/Test History

ISAT Idaho Standards Achievement Tests

IDAHO STANDARDS ACHIEVEMENT TESTS (ISAT)
INDIVIDUAL STUDENT REPORT
SPRING 2008

STUDENT NAME : **<L NAME, F NAME MI.>**
BIRTH DATE : **99/99/9999**

DISTRICT : **<DISTRICT NAME> <DISTRICT #>**
SCHOOL : **<SCHOOL NAME> <SCHOOL #>**

GRADE : **12**
STUDENT ID : **99999999999999**

<Student's First Name>'s Highest Achieved Performance

	Student's Scale Score	Student's Proficiency Level	Student's Status
Reading	222	Proficient	Passed/Banked
Mathematics	241	Advanced	Passed/Banked
Language Usage	240	Proficient	Passed/Banked

This report provides a record of <Student's First name>'s historical test results on the ISAT Exit Exam in reading, mathematics, and language usage.

Proficiency Levels
The ISAT is designed to measure knowledge against state standards. Scores on these tests are grouped into four proficiency levels.

Scale Score
A student's raw score has comparable meaning only for those students who take the exact same set of questions. A student's scale score is a transformed version of the raw score. It provides comparable meaning across years, but only within the same subject area.

Historical Performance
The chart on the right shows how <Student's First Name> did on each administration of the reading, mathematics, and language usage exit exams.

<Student's First Name>'s Performance by Test Administration and Content Area

Test Administration	Reading		Mathematics		Language Usage	
	Scale Score	Proficiency Level	Scale Score	Proficiency Level	Scale Score	Proficiency Level
Spring 2007	212	Basic	224	Below Basic	220	Basic
Summer 2007	NOA	NOA	NOA	NOA	INV	INV
Fall 2007	222	Proficient	230	Basic	225	Basic
Winter 2008	P/B	P/B	241	Advanced	240	Proficient
Spring 2008	P/B	P/B	P/B	P/B	P/B	P/B

(variable footnote text)
P/B = Previously Passed/Banked
NOA = Not Attempted
INV = Invalid
MED = Medical
SUS = Suspension
PRF = Parent Refusal
SRF = Student Refusal
ABS = Absent

FINAL

IDISR1

999-999 99/99/9999

Exit Exam Retest Individual Student Report/Test History

- Provides highest achieved performance and test history on the graduation test since Spring 2007
- Students will receive the Individual Student Report plus this Test History page
- Provided at the school level only
- Based on the NCLB (Part 1) scores only

Graduation Test Summaries

ISAT Idaho Standards Achievement Tests

IDAHO STANDARDS ACHIEVEMENT TESTS (ISAT)
SCHOOL GRADUATION TEST SUMMARY
SPRING 2008

DISTRICT: **<DISTRICT NAME> <DISTRICT #>**
SCHOOL: **<SCHOOL NAME> <SCHOOL #>**

PAGE: **1**

		Grade 10 Class of 2010			Grade 11 Class of 2009			Grade 12 Class of 2008		
		Reading	Mathematics	Language Usage	Reading	Mathematics	Language Usage	Reading	Mathematics	Language Usage
All Students	Number Tested	xxx,xxx	xxx,xxx	xxx,xxx	xxx,xxx	xxx,xxx	xxx,xxx	xxx,xxx	xxx,xxx	xxx,xxx
	% Passed	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x
Male	Number Tested	xxx,xxx	xxx,xxx	xxx,xxx	xxx,xxx	xxx,xxx	xxx,xxx	xxx,xxx	xxx,xxx	xxx,xxx
	% Passed	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x
Female	Number Tested	xxx,xxx	xxx,xxx	xxx,xxx	xxx,xxx	xxx,xxx	xxx,xxx	xxx,xxx	xxx,xxx	xxx,xxx
	% Passed	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x
American Indian / Alaskan Native	Number Tested	xxx,xxx	xxx,xxx	xxx,xxx	xxx,xxx	xxx,xxx	xxx,xxx	xxx,xxx	xxx,xxx	xxx,xxx
	% Passed	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x
Asian	Number Tested	xxx,xxx	xxx,xxx	xxx,xxx	xxx,xxx	xxx,xxx	xxx,xxx	xxx,xxx	xxx,xxx	xxx,xxx
	% Passed	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x
Black / African American	Number Tested	xxx,xxx	xxx,xxx	xxx,xxx	xxx,xxx	xxx,xxx	xxx,xxx	xxx,xxx	xxx,xxx	xxx,xxx
	% Passed	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x
Native Hawaiian / Other Pacific Islander	Number Tested	xxx,xxx	xxx,xxx	xxx,xxx	xxx,xxx	xxx,xxx	xxx,xxx	xxx,xxx	xxx,xxx	xxx,xxx
	% Passed	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x
White	Number Tested	xxx,xxx	xxx,xxx	xxx,xxx	xxx,xxx	xxx,xxx	xxx,xxx	xxx,xxx	xxx,xxx	xxx,xxx
	% Passed	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x
Hispanic or Latino Ethnicity	Number Tested	xxx,xxx	xxx,xxx	xxx,xxx	xxx,xxx	xxx,xxx	xxx,xxx	xxx,xxx	xxx,xxx	xxx,xxx
	% Passed	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x
Other / Unknown	Number Tested	xxx,xxx	xxx,xxx	xxx,xxx	xxx,xxx	xxx,xxx	xxx,xxx	xxx,xxx	xxx,xxx	xxx,xxx
	% Passed	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x
Economically Disadvantaged	Number Tested	xxx,xxx	xxx,xxx	xxx,xxx	xxx,xxx	xxx,xxx	xxx,xxx	xxx,xxx	xxx,xxx	xxx,xxx
	% Passed	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x
LEP	Number Tested	xxx,xxx	xxx,xxx	xxx,xxx	xxx,xxx	xxx,xxx	xxx,xxx	xxx,xxx	xxx,xxx	xxx,xxx
	% Passed	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x
Migrant	Number Tested	xxx,xxx	xxx,xxx	xxx,xxx	xxx,xxx	xxx,xxx	xxx,xxx	xxx,xxx	xxx,xxx	xxx,xxx
	% Passed	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x
Special Education	Number Tested	xxx,xxx	xxx,xxx	xxx,xxx	xxx,xxx	xxx,xxx	xxx,xxx	xxx,xxx	xxx,xxx	xxx,xxx
	% Passed	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x
Title I A	Number Tested	xxx,xxx	xxx,xxx	xxx,xxx	xxx,xxx	xxx,xxx	xxx,xxx	xxx,xxx	xxx,xxx	xxx,xxx
	% Passed	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x

FINAL

IDGSR1

999-999 99/99/9999

Graduation Test Summaries

- Provides total number tested and the percent passed in each content area
- Also provides information for various demographic subgroups
- Provided at district and school level
- Based on NCLB scores (Part 1) only

Delivery of Score Reports

- Score reports will be available June 13th, 2008 at www.drc-web.com/reportdelivery.
- District Test Coordinators will receive an email with information on how to access the score reports.
- Individual Student Reports are split into 2 links per grade on the report delivery website.
  - NCLB with PLDs
  - Growth and NCLB plus Extender
- Reports are in PDF format. No paper versions are provided.
- Districts will only receive ISRs for home school students. Home school students are not included in any district/school summary reports or rosters.

Delivery of Student Data Files

- Student data files will be available June 13th, 2008 at www.drc-web.com/reportdelivery.
- Districts and schools will receive a data file with all student data. The NEW file layout can be found:
  - ISAT website: http://isat.caltesting.org/ under "Documentation"
  - OSBE website: http://www.boardofed.idaho.gov/saa/index.asp
  - DRC Web Reporting System beginning June 13th: www.drc-web.com/reportdelivery

Parent Brochures

- Districts are required to distribute Parent Brochures to parents of students in grades 3-8 & 10.
- Printed English versions of the Parent Brochure (one per student enrolled) were shipped to districts in March.
- A Spanish version (in PDF format only) is available on the OSBE website at http://www.boardofed.idaho.gov/saa/index.asp.

Questions

- Please use the chat area on the right side of your computer screen to ask a question.
- We can un-mute your phone line if we need further clarification on your question.

ISAT Contact Information

- Email: ISAT@datarecognitioncorp.com
- Toll Free: 866-572-2050
- http://isat.caltesting.org/

Appendix C: Item Review Materials

Universal Design Principles Checklist

Table C.1. Key Checkpoints for Accessibility Item Review Form

Meets general criteria for measuring what it is intended to measure a. Reflects the intended content standard (reviewers have information about content being measured) b. Minimal skills required that are extraneous to those being measured
Respects the diversity of the assessment population a. Accessible to test takers (consider gender, ethnicity, and socio-economic level) b. Avoids content that might unfairly advantage or disadvantage any student subgroup
Has a clear format for text a. Standard typeface b. Font size appropriate for age group (12 point minimum for all print, including captions, footnotes, and graphs) c. Sufficient spacing between letters, words, and lines d. Staggered right margins (no right justification) e. Blank space around paragraphs and between columns
Has clear pictures and graphics (when essential to item) a. Clear, non-fuzzy pictures b. Dark lines (minimum use of gray scale and shading) c. Sufficient contrast between background and text d. Color is not relied on to convey important information or distinctions
Has concise and readable text a. Commonly used words b. Vocabulary appropriate for grade level c. Minimum use of unnecessary words d. Idioms avoided unless idiomatic speech is being measured e. Technical terms and abbreviations avoided (or defined) if not related to the content being measured f. Sentence complexity is appropriate for grade level g. Question to be answered is clearly identifiable
Allows changes to its format without changing its meaning or difficulty (including visual or memory load) a. Allows for the use of Braille or other tactile format b. Allows for signing to a student c. Allows for the use of oral presentation to a student d. Allows for the use of assistive technology e. Allows for translation into another language

Table C.1 (continued). Key Checkpoints for Accessibility Item Review Form

The test has an overall appearance that is clean and organized a. All images, pictures, and text provide information necessary to respond to the item b. Information is organized in a manner that is consistent with an academic English framework (left-right, top-bottom flow)

Cognitive Level Comparison Matrix: Bloom and Webb

Table C.2. Cognitive Level Comparison Matrix: Bloom and Webb

CATEGORIES			
BLOOM		**WEBB**	
1.0	Knowledge	**1.0**	Recall
2.0	Comprehension	**2.0**	Basic Application of Skill/ Concept
3.0	Application		
4.0	Analysis	**3.0**	Strategic Thinking
5.0	Synthesis	**4.0**	Extended Thinking
6.0	Evaluation		

DEFINITIONS			
BLOOM		**WEBB**	
1.0	Student remembers or recalls appropriate previously learned information	**1.0**	Student recalls facts, information, procedures, or definitions
2.0	Student translates, comprehends, or interprets information based on prior learning	**2.0**	Student uses information, conceptual knowledge, and procedures
3.0	Student selects, transfers, and uses data and principles to complete a task or problem with a minimum of direction		
4.0	Student distinguishes, classifies, and relates the assumptions, hypotheses, evidence, or structure of a statement or question	**3.0**	Student uses reasoning and develops a plan or sequence of steps; process has some complexity (Generally takes 10 minutes or more to do)
5.0	Student originates, integrates, and combines ideas into a product, plan or proposal that is new	**4.0**	Student conducts an investigation, needs time to think and process multiple conditions of problem or task (Requires more than 10 minutes to do non-routine manipulations)
6.0	Student appraises, assesses, or critiques on a basis of specific standards and criteria		

ACTION WORDS			
BLOOM		**WEBB**	
1.0	define, identify, name, select, state, order (involves a one-step process)	**1.0**	define, identify, name, select, state, order (involves a one-step process)
2.0	convert, estimate, explain, express, factor, generalize, give example, identify, indicate, locate, picture graphically (involves a two-step process)	**2.0**	apply, choose, compute, employ, interpret, graph, modify, operate, plot, practice, solve, use, (involves a two-step process)
3.0	apply, choose, compute, employ, interpret, graph, modify, operate, plot, practice, solve, use, (involves a three-or-more-step process)		
4.0	compare, contrast, correlate, differentiate, discriminate, examine, infer, maximize, minimize, prioritize, subdivide, test	**3.0**	compare, contrast, correlate, differentiate, discriminate, examine, infer, maximize, minimize, prioritize, subdivide, test
5.0	arrange, collect, construct, design, develop, formulate, organize, set up, prepare, plan, propose, create, experiment and record data	**4.0**	arrange, collect, construct, design, develop, formulate, organize, set up, prepare, plan, propose, create, experiment and record data
6.0	appraise, assess, defend, estimate, evaluate, judge, predict, rate, validate, verify		

ISAT Item Review Presentation

Welcome to

ISAT Item Review

October 12–15, 2010

ISAT
Idaho Standards Achievement Tests

Meeting Goal

Review, approve, or make recommended revisions to reading, mathematics, language usage, and science items to be field tested in Spring 2011.

Idaho Standards Achievement Tests

- Measure student achievement on Idaho Content Standards

- Measure student achievement in
  - reading, mathematics, and language usage in grades 3 – 8 & 10
  - science in grades 5, 7, and 10

Test Development Process

- Analyze Idaho standards, goals, and objectives
- Analyze blueprints and item specifications
- Write items aligned to Idaho standards, goals, and objectives
- Committee review of newly developed items - mathematics, reading, language usage, and science
- Data review

Item Review Process (continued)

- Forms Approval

  January 2011

Content Alignment

- Items must measure what they are intended to measure

Content Alignment (continued)

- Careful consideration of the standards, objectives, and goals is important in determining
  - which skills involved in responding to a question are extraneous
  - which skills are relevant to what is being tested

Complexity of Alignment

- Bloom's Taxonomy
- Webb's Depth of Knowledge

Bloom's Taxonomy

1.0 *Knowledge:* remembers or recalls learned information
2.0 *Comprehension:* translates, comprehends, or interprets learned information
3.0 *Application:* selects, transfers, and uses
4.0 *Analysis:* distinguishes, classifies, and relates the assumptions, hypotheses, evidence, or structure of a statement or question
5.0 *Synthesis:* originates, integrates, and combines ideas into a product, plan, or proposal that is new
6.0 *Evaluation:* appraises, assesses, or critiques on the basis of specific standards and criteria

Webb's Depth-of-Knowledge

1.0 *Recall:* Recall of a fact, information, or procedure

2.0 *Basic Application of Skill/Concept:* Use of information, conceptual knowledge, procedures, two or more steps, etc.

3.0 *Strategic Thinking:* Requires reasoning, developing a plan or sequence of steps; has some complexity; more than one possible answer; generally takes less than 10 minutes to do.

4.0 *Extended Thinking:* Requires an investigation; time to think and process multiple conditions of the problem or task; more than 10 minutes to do non-routine manipulations

Rigor

- Grade-level appropriateness
- Estimated difficulty level
  (low, medium, high)

Technical Design

- Multiple-choice items
  - stem
  - distractors
  - answer
  - graphics/artwork

Technical Design: Stems

- Each stem should
  - be clear and concise
  - use active voice
  - use grade-level-appropriate vocabulary
  - include only what is necessary
  - not cue the answer or miscue a distractor

Technical Design: Distractors and Answer

- Distractors (Options) should
  - include only what is necessary
  - be parallel in structure and content
  - not contradict or negate the stem
  - be as brief as possible
  - fit grammatically and syntactically with the stem
  - all be plausible

- Answer
  - only one answer should be correct

Unclear Stem and Distractors

What does Bill do on Tuesday, and how does it benefit him?

A. He shares his lunch with Martha, and she give Bill a drawing.
B. He waits for Paul, and Paul helps Bill clean his room.
C. He saves a seat for Anne, and she invites Bill to a picnic.*
D. He carries Jamal's books, and Jamal lets Bill borrow one.

Clear and Concise Stem and Distractors

Anne invites Bill to a picnic to thank him for

A. sharing his lunch.
B. waiting for her.
C. saving her seat. *
D. carrying her books.

Technical Design: Graphics/Artwork

- Graphics/Artwork
  - are necessary and functional
  - are clear, simple, and considerate of students with special needs
  - are properly labeled
  - are complete
  - contain current and accurate content
  - are parallel in style and layout when used as options

Ensuring Fairness for All Students

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.

Standards for Educational and Psychological Testing (AERA, APA, NCME, 1999)

Types of Sensitivity

- Stereotyping
- Gender
- Regional
- Racial, Ethnic or Cultural
- Class or Socioeconomic
- Religious
- Age
- Persons with Disabilities
- Experiential

Universal Design

Universally designed assessments are based on the premise that each student 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.

Universal Design

- Test questions have concise and readable text
  - simple, clear, commonly used words are used whenever possible
  - unnecessary words and extraneous text are omitted
  - vocabulary and sentence complexity is appropriate for the grade level assessed
  - technical terms and abbreviations are used only if they are related to the content being measured
  - definitions and examples are clear and understandable

Item Review Process

- Processes and Procedures
  - scope and breakdown of task
  - pacing
  - specifics to each content area
  - division into groups
  - roles of content area facilitators
  - follow-up and ongoing training/consultation

Content Rooms

- Mathematics – Room 211 and 201
- Reading – Room 212 and 213
- Language Usage – Clearwater and Cattails (3rd floor)
- Science – Room 214 and 218

Questions

Appendix D: Item Review Tracking Form

Table D.1. ISAT Item Quality Tally Form

Content Area: Mathematics

ISAT Item Review Form

Content Area: Mathematics October 2009
Grade: 3

Page #	Unique Item ID Number	Status	Alignment						Technical Design		Universal Design	
			Content			Complexity / Rigor						
		Overall Judgment	Standard Objective Goal	Grade	Cognitive Level	Bloom's Taxonomy	Webb's Depth of Knowledge	Porter's Cognitive Demand	Correct Answer (MC)	Graphics	Appro. Lang.	Sensitivity
		A = Accept **AR** = Accept w/ Revisions **R** = Rev./Rewrite **D** = Drop	**Alignment is:** **F** = Full **P** = Partial **N** = None	(=) At Grade Level (-) Below (+) Above	1 (Low) 2 (Medium) 3 (High)	**1** = recall **2** = comprehen **3** = application **4** = analysis **5** = synthesis **6** = evaluation	**1** = recall **2** = application **3** = strategic thinking **4** = extended thinking	**B** = recall **C** = application **D** = explains **E** = analyzes **F** = generalizes	**Y** = Yes **N** = No	**Y** = Yes **N** = No	**Y** = Yes **N** = No	**Y** = Yes **N** = No
1												
2												
3												
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Appendix E: Sensitivity Review Materials

Fairness in Testing

Guidelines for Training Bias, Fairness, and Sensitivity Issues

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Introduction

The most important part of the development of any new test is to ensure balanced treatment and control of potential bias, stereotyping, and insensitivity in the items or in the test-related materials. Data Recognition Corporation (DRC) understands that the presence of any type of bias in a test is undesirable not only from a civil rights point of view, but also from a measurement point of view. Issues of bias, fairness, and sensitivity in testing can have a direct impact on test scores. Our test developers are committed to the development of items and tests that are fair for all students. At every stage of the item and test development process, we employ procedures that are designed to ensure that our items and tests meet Standard 7.4 of the *Standards for Educational and Psychological Testing* (AERA, APA, NCME, 1999).

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

In meeting Standard 7.4, DRC employs a series of internal quality steps that we believe are among some of the best in the industry. We provide specific training for our test developers, item writers, and reviewers on how to write, review, revise, and edit items for issues of bias, fairness, and sensitivity, as well as for technical quality. Our training also includes an awareness of and sensitivity to issues of cultural diversity.

In addition to providing *internal* training in reviewing items in order to eliminate potential bias, we also provide *external* training to our clients, including state departments of education, review panels of minority experts, teachers, and other stakeholders. DRC understands the importance of having external panels with a wide variety of expertise in reviewing items and tests for potential bias. External panels of professionals provide a review of items for subtle forms of bias that often can be perceived only by individuals who possess a wide variety of appropriate expertise and represent specific constituencies.

This manual has been prepared to summarize DRC's guidelines for bias, fairness, and sensitivity, including how to eliminate language, symbols, words, phrases, and content that might be considered offensive by members of racial, ethnic, gender, or other groups. Our guidelines may be modified to meet client's requirements and/or state-specific guidelines.

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Definition of Bias

While there are many definitions of bias, the following definition is provided on page 76 of the *Standards for Educational and Psychological Testing* (AERA, APA, NCME, 1999):

> The term *bias* in tests and testing refers to construct-irrelevant components that result in systematically lower or higher scores for identifiable groups of examinees. In other words, **bias is the presence of some characteristic of an item and/or test that results in two individuals of the same ability but from different subgroups performing differently on the item and/or test.** Therefore, it is most important that there are no ambiguities in the test items (questions and responses), passages, prompts, stimulus materials, artwork, graphs, charts, and test-related ancillaries.

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Types of Bias

There are many types of bias. They include stereotyping and discriminating against people because of gender, regional or geographical differences, ethnicity or culture, socioeconomic or class status, religion, or age, as well as bias against other groups of people, including those with disabilities. Another form of bias involves the use of questions and/or activities in the items or on a test as a whole that are not relevant to the life experiences of the students responding to the items or test. A definition of each type of bias, along with samples, is provided below.

Stereotyping

"Stereotype is an image formed by ascribing certain characteristics (e.g., physical, cultural, personal, occupational, historical) to all members of a group" (National Evaluation Systems, Inc. page 2). Stereotyping in test items and tests might include physical characteristics, intellectual characteristics, emotions, careers, activities, and domestic or social roles. In writing or reviewing test items, it is very important that all groups are portrayed fairly, without stereotyping. As a result, there should be a range of characteristics, careers, and social roles across all groups, and no one group should be characterized by any one particular attribute or characteristic. Following are examples of stereotyping.

Stereotype	***Examples***
Physical characteristics	Males are strong and capable leaders. Females are weak. The elderly are feeble and sickly. Children are healthy and full of energy. The elderly are dependent upon others. People with disabilities are dependent upon others. Females worry about their hair.
Intellectual characteristics	Males do better in mathematics and science. Females do better in reading and language arts. Asian Americans excel in academics.
Emotions	Males are aggressive, courageous, and strong. Females are weak, weepy, tender, and fearful.

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Types of Bias
Stereotyping (continued)

Stereotyping	*Examples*
Careers	Females are nurses, teachers, and secretaries. Males are doctors, principals, superintendents, lawyers, and skilled laborers (e.g., plumbers, construction workers, painters). African-Americans are athletes. Hispanics operate lawn care businesses. Asian-Americans own dry cleaning businesses.
Activities	Females play with dolls and read books. Females do domestic chores (e.g., clean house, cook, sew). Females spend money. Males play sports and work with tools. Boys are rowdy. Girls are quiet.
Domestic and/or Social Roles	Females are responsible for childcare. Men work outside of the home and are the breadwinners.
Community	Asian-Americans live in ethnic neighborhoods. African-Americans live in high-rise apartment buildings located in urban areas. American Indians live on reservations.
Leadership	Men are leaders and rulers. Women are followers. Women are dependent on men. Men are elected to political positions. Females in leadership roles are aggressive and pushy.

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Gender Bias

Gender bias involves items (questions and responses), passages, prompts, stimulus materials, artwork, graphs, charts, and test-related ancillaries that show members of either sex in stereotypical activities, emotions, occupations, characteristics, and/or situations. Gender bias also involves the use of demeaning labels.

Examples of gender bias

Titles and specific terms referring to humanity at large, such as

- Mankind
- Manhood
- Manpower
- Man of the hour
- Man-hours
- Man-made

Use of gender specific terms for occupations, such as

- Fireman
- Workman
- Chairman
- Policeman
- Mailman
- Salesman
- Insurance man
- Businessman
- Congressman

Use of pronouns that imply a stereotype, such as

- The nurse went to the hospital, and *she* was able to talk with the patient.
- The factory worker needed to earn more money for *his* family.
- When the lawyer delivered *his* closing remarks, the jury listened carefully.
- A politician must give a lot of speeches when *he* runs for office.

Use of phrases that identify genders in terms of their roles or occupations, such as

- Men and girls were invited to the lecture.
- The travelers took their wives and children with them.
- The happy couple was introduced as man and wife.

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Types of Bias
Gender Bias (continued)

Use of phrases or words with an emphasis on marital status, such as

- Abraham Lincoln and Mrs. Lincoln attended the play.
- George Washington and Martha visited the new building.
- Dr. and Mrs. Jones attended the opening of the new warehouse.
- The admirable Dr. George Halstead and his wife, Maria, visited the library.

Use of words that identify genders in the salutation of a business letter, such as

- Dear Sir:
- Dear Madam:
- Dear Gentlemen:

Use of words or phases that are not parallel, such as

- The girls' restroom is down the hall, and the men's restroom is on the second floor.
- The boys' locker room door is painted green, and the women's locker room door is painted yellow.
- The men's department is on the right; the ladies' department is on the left.

Use of figures of speech, such as

- Old wives' tale
- Right-hand man
- Man versus nature
- The best man for the job
- The better half

Use of gender-specific terms or diminutive words, such as

- Sweet young thing
- Usherette
- Housewife
- Maid
- Cleaning lady
- Little woman
- Career girl
- Houseboy
- Steward

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Regional or Geographical Bias

Regional and/or geographical bias involves items (questions and responses), passages, prompts, stimulus materials, artwork, graphs, charts, and test-related ancillaries that include terms that are not commonly used nationwide or within a particular region or state to which the test will be given. It also involves the use of terms that have different connotations in different parts of the country and/or geographical regions. It is important to note that some experiences may not be common to all students. For example, within a given geographic area not all students might be familiar with snow, so questions involving sleds and toboggans, for example, may well reflect a regional or geographical bias.

Examples of regional or geographical bias

- She ordered a new davenport (couch or sofa).
- Go get your toboggan (hat or type of sled).
- The students stood in line at the bubbler (water fountain or drinking fountain).
- Turn left at the berm (curb).
- Take the pike (road).

Ethnic or Cultural Bias

Ethnic bias involves items (questions and responses), passages, prompts, stimulus materials, artwork, graphs, charts, and test-related ancillaries that include terms that are demeaning and/or offensive to a particular ethnic group or culture. In addition, no minority group should be portrayed as being uneducated or poor.

Examples of ethnic or cultural bias

- Maria was in the kitchen making tacos.
- The Chinese owned a laundry in our area.
- Native Americans are very close to nature.

Terminology

Terms that have a negative connotation or that reinforce negative judgments should also be avoided. Following is a list of **acceptable** terms.

- African-American
- Asian-American or Pacific Island American
- Latino, Mexican-American, Hispanic
- Tribal name (preferred), Native American, American Indian
- European-American

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Socioeconomic or Class Bias

Socioeconomic or class bias involves items (questions and responses), passages, prompts, stimulus materials, artwork, graphs, charts, and test-related ancillaries that include activities, possessions, or ideas that may not be common to all students within a given area. For example, not all students in a given area own CD players or video games, nor do all students in a given area participate in certain sports activities, such as golf, snow skiing, or sailing. In addition, not all students in a given area take expensive vacations or attend expensive schools.

Examples of socioeconomic or class bias

- They were members of the country club.
- Boarding school.
- How many golf balls landed in the lake?
- The club members plan to go snow skiing over the holidays.
- My great aunt lives in a town house overlooking Lake Michigan.

Religious Bias

Religious bias involves items (questions and responses), passages, prompts, stimulus materials, artwork, graphs, charts, and test-related ancillaries that include terms that are demeaning and/or offensive to a particular religious group.

Examples of religious bias

- The house on Smith Street is decorated for Halloween.
- There were several Christmas trees in the window.
- The students in the class will stand and say the *Pledge of Allegiance*.
- The high school students will be attending a rock-and-roll dance at the community center.

It is also important to note that no religious belief or practice should be portrayed as a universal norm or as inferior or superior to any other.

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Types of Bias

Ageism (Bias Against a Particular Age Group)

There are other subtle forms of bias, including bias against the elderly or ageism. Ageism involves items (questions and responses), passages, prompts, stimulus materials, artwork, graphs, charts, and test-related ancillaries that include terms that are demeaning and/or offensive to the elderly or older persons (65 years or older). Ageism can also involve issues of bias with other age groups, including teenagers and young children.

It is important to note, however, that representing older persons or any age group fairly does not mean that the content of the items has to be revised or rewritten to seem unrealistic. Rather, as a whole, the items and the test should show older people or any age group in a variety of roles and activities whenever they appear naturally in the test content.

Examples of ageism (bias against a particular age group)

- Despite the fact that she was very old, she was able to walk down the stairs.
- The child's grandfather seemed senile.
- They were acting like typical irresponsible teenagers.

Bias Against Persons with Disabilities

Another form of subtle bias involves issues of bias related to persons with disabilities. This type of bias involves items (questions and responses), passages, prompts, stimulus materials, artwork, graphs, charts, and test-related ancillaries that include terms that are demeaning and/or offensive to persons with disabilities. It is important to note, however, that representing persons with disabilities does not mean that the content of the items has to be revised or rewritten to seem unrealistic. Rather, as a whole, the items and the test should show people with disabilities in a variety of roles and activities whenever they appear naturally in the test content.

Examples of bias against persons with disabilities

- After the car accident, the student was confined to a wheelchair.
- He became a successful writer despite his disability.
- She is a blind person.
- The student is handicapped.
- The child made great strides in overcoming her disability.

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Terminology

Terms that have a negative connotation or that reinforce negative judgments (crippled, victim, afflicted, confined, etc.) should also be avoided. It is also important that no one with a disability should be pictured as helpless or portrayed as pitiful.

Do not use	*Use*
Retarded	Developmentally delayed
Hard of hearing	Hearing impaired
Deaf and Dumb or Deaf-mute	Deaf or hard-of-hearing used accurately
Learning-disabled	Person with a learning disability
Handicap	Disability
	Visually-impaired or Blind used accurately

Experiential Bias

The questions and activities reflected in the items or test, as a whole, should also be relevant to the life experiences of the students responding to the items. In other words, for a student to respond sensibly to the test questions, he or she must know what the question is about. In addition, culturally specific knowledge should be avoided, along with the use of difficult words and figures of speech.

Examples of experiential bias

- Pat knew she would win the race as she had an ace up her sleeve.
- Put the pedal to the metal and clean up your room.
- I needed change for the subway turnstile.
- The arroyos filled quickly during the storm.
- The super takes care of cleaning the foyer.

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Maintaining Balance

Bias may also occur as a result of having a lack of balance through underrepresentation of a particular ethnic group and/or gender. Therefore, whenever possible, tests and test-related materials should contain content that is balanced across ethnic groups and across gender. The content of the pool of items and/or test, as a whole, should also reflect cultural diversity. In order to achieve balance, the test developers at DRC review the pool of items or the test, as a whole, to determine whether or not there is an adequate representation of

- Females and males in both traditional and nontraditional roles
- Female and male names
- Minority groups in various environments and occupations
- Minority groups, including the use of names

The issue of fairness also involves content inclusiveness. Subtle forms of bias can result from omitting certain areas of information and/or from omitting certain topics. Wherever possible, the content should show people in everyday situations and groups should be depicted as fully integrated in the society, reflecting the diverse multicultural composition of society as a whole (NES, page 9).

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Topics to Avoid

Because issues of bias, fairness, and sensitivity in testing can have a direct impact on the test scores, it is also important that sensitive and offensive topics be avoided. A topic might be considered offensive or controversial if it offends teachers, students, parents, or the community at large. This includes highly charged and controversial topics such as abortion, the death penalty, and evolution. Unacceptable content might also include less controversial topics, such as the use of tobacco or topics that could evoke unpleasant emotions on the part of a given student. In addition, topics that appear to promote or defend a particular set of values should be avoided. It is important to remember that the ability of the student to take the test should never be undermined. Following are examples of topics generally to be avoided.

Examples of topics to be generally avoided

- Abortion
- Alcohol, including beer and wine
- Behaviors that are inappropriate, including stealing, cheating, lying, and other criminal and/or anti-social behaviors and activities
- Biographies of controversial figures whether or not they are still alive
- Birthdays
- Cancer and other diseases that might be considered fatal (HIV, AIDS)
- Criticism of democracy or capitalism
- Dangerous behavior
- Death of animals or animals dying or being mistreated
- Death, murder, and suicide
- Disasters, including tornadoes, hurricanes, etc. (unless treated as scientific subjects)
- Disrespect of any mainstream racial or religious group
- Double meanings of words that have sexually suggestive meanings
- Evolution
- Family experiences that may be upsetting, including divorce or loss of a job
- Feminist or chauvinistic topics
- Gambling
- Guns and gun control
- Holidays of religious origin (e.g., Halloween, Christmas, Easter)
- Junk food, including candy, gum, chips
- Left- or right-wing politics
- Luxuries (homes with swimming pools, expensive clothes, expensive vacations, and sports activities that typically require the purchase of expensive equipment such as snow skiing)
- Parapsychology
- Physical, emotional, and/or mental abuse, including animal, child, and/or spousal abuse

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- Religions, except in appropriate historical context; mythology, folk tales, and fables may contain religious elements as part of appropriately presented literary excerpts.
- Sex, including kissing and dating
- Slavery (unless presented in an historical context and presented appropriately)
- Tobacco
- Violence against a particular group of people or animals
- Rock music, including rap and heavy metal
- Wars
- Witchcraft, sorcery, or magic
- Words that might be problematic to a specific ethnic group

Special Circumstances

In certain subject areas, a sensitive topic may be acceptable because the topic is a part of the course of study or may be required in order to measure the specific curriculum content standards and/or test objectives. For example, it may be appropriate to have test questions dealing with hurricanes. However, the questions should not focus unduly upon the destruction of property or the deaths of human beings. Other special circumstances include historical and literary contexts. A discussion of these special circumstances is provided below.

Historical Contexts

In order to measure the content curriculum standards, social studies tests often include topics that might otherwise be deemed as controversial. For example, in a history test, the topic of slavery might be used. The student would know that such a controversial topic is used to access knowledge of a particular curriculum content standard and/or set of objectives and, therefore, the topic would not reflect the views of the test developer.

Literary Contexts

Today's tests often require the use of authentic or previously published passages. As a result, sometimes a given passage or prompt might contain controversial material, including sentences, phrases, and/or words. If the overall passage or prompt is acceptable, it may be possible to edit and or delete the objectionable sentences, phrases, words, and/or references in order to eliminate the potential bias. In such cases, DRC test developers request permission from the publisher to make such edits and/or changes, and they would do so only if permission is granted.

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Points to Remember

When reviewing items (questions and responses), passages prompts, stimulus materials, artwork, graphs, charts, and test-related ancillaries for issues of bias, fairness, and sensitivity, the following questions should be asked.

1. Do the items (questions and responses), passages, prompts, stimulus materials, artwork, graphs, charts, and test-related ancillaries:

   Demean any religious, ethnic, cultural, or social group?
   Portray anyone or any group in a stereotypical manner?
   Contain any other forms of bias, including gender, regional or geographical, ethnic or cultural, socioeconomic or class, religious, age-related bias, or bias against persons with disabilities?

2. Are there any topics that might disadvantage a student for any reason?

3. Are there any culturally specific sets of knowledge, terms, difficult words and/or figures of speech that might disadvantage a group of students?

4. Are the questions and activities reflected in the items or test, as a whole, relevant to the life experiences of the students responding to the items?

5. As a whole, does the test or pool of items have a balance across ethnic groups and across genders, including an adequate representation of:

   Females and males in both traditional and nontraditional roles
   Female and male names
   Minority groups in various environments and occupations
   Minority groups, including the use of ethnic names

6. Wherever possible, does the content show minority groups in everyday situations and groups depicted as fully integrated in the society, reflecting the multicultural composition of society as a whole?

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Sample Review Form

Name: _____

Date: _____

Subject Area: _____ **Grade Level:** _____

Item No.	Type of Bias							
	Gender	Regional	Ethnic	Socio-economic	Religious	Age	Exper-iential	Other

Comments:

_____

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Sample Items with Bias, Fairness, and/or Sensitivity Concerns

1. Franco Piccione cooked spaghetti for his family. When he placed 6 ounces of pasta into the water, the water temperature was $160°$ F. After 3 minutes the water temperature reached $212°$ F. What information is **not** needed to find the mean (average) rate that the water temperature changed?

A. 6 ounces of pasta

B. $160°$ water temperature

C. 3 minutes

D. $212°$ water temperature

Type of Bias: _____

2. For a community service project, Amanda's class spent 2 hours at a retirement home. They spent $\frac{1}{2}$ of the time doing jigsaw puzzles, $\frac{1}{4}$ of the time reading, and the rest of the time watching television. How long did they spend watching television?

A. 30 minutes

B. 45 minutes

C. 60 minutes

D. 90 minutes

Type of Bias: _____

3. Which of the following items did Kathleen buy at the fair?

A. a pretzel

B. a snowball

C. a slice of pizza

D. a piece of pie

Type of Bias: _____

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4. On July 1 the price of a share of Jolter Corporation stock was $123.38. On January 1, the price of a share was $97.41. What is the percent of decrease in the price of a share of Jolter Corporation stock between July 1 and January 1? (Round to the nearest hundredth.)

A. 1.27%

B. 21.05%

C. 25.97%

D. 26.67%

Type of Bias: _____

5. What is the main idea of the article?

A. Doctors work long hours and neglect their wives and children.

B. Doctors deal with many pressures in modern American society.

C. Doctors pay a large amount of money to attend medical school.

D. Doctors leave the profession more now than ten years ago.

Type of Bias: _____

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6. What is the main conflict in the story?

A. man versus man

B. man versus nature

C. man versus society

D. man versus self

Type of Bias: _____

7. What did Eduardo learn from the visit with his grandfather?

A. Age does not affect one's personality.

B. Older people need help with everyday tasks.

C. Age lessens one's appreciation for life.

D. Older people often have special medical needs.

Type of Bias: _____

8. Compare Ken's experience with playing golf with a time when you played golf. Support your comparison with details from the story.

Type of Bias: _____

9. What does Kim enjoy most about summer?

A. celebrating her birthday

B. swimming at the lake

C. playing softball at the park

D. reading her favorite books

Type of Bias: _____

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10. What could someone learn from reading the article?

A. Mexican people often wear sombreros and eat tacos.

B. Mexico has become a popular tourist destination.

C. Mexican people are very friendly and helpful.

D. Mexico produces many different kinds of fruit.

Type of Bias: _____

11. The Wampanoag people and the Pilgrims both lived in the same environment at the same time. Which is an example of a way the Indians used their environment **before** the Pilgrims arrived?

A. dug wells

B. grew corn, squash, and beans

C. raised sheep for wool

D. sawed trees into boards to build houses

Type of Bias: _____

12. According to the article, how is Marie different from the other children in her class?

A. She likes to play the piano.

B. She is a blind person.

C. She is a tall person.

D. She likes to work alone.

Type of Bias: _____

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13. Samantha entered an ice-fishing contest. She drilled an 8-inch hole. What is the circumference of the hole Samantha drilled?

Use $\pi = 3.14$.

A. 12.56 inches

B. 25.12 inches

C. 32 inches

D. 50.24 inches

Type of Bias: _____

Use the table to answer question 14.

Favorite Sports	
Sport	**Number of Members**
Golf	13
Polo	9
Rugby	5
Sailing	21

14. Melissa conducted a survey at the Morningside Country Club. She asked members to name their two favorite sports. The table above shows the results. How many members are included in Melissa's survey?

A. 12

B. 21

C. 24

D. 48

Type of Bias: _____

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15. In the story, Charlie says to Mia, "You can kill two birds with one stone." What does this phrase mean? Use details from the story to support your answer.

Type of Bias: _____

16. Mrs. Sanders ordered new windows for her house. The salesman told her that each window would be made from 4 sections of glass. Which expression represents the number of sections of glass necessary to make *W* windows for Mrs. Sanders' house?

A. $w + 4$

B. $w - 4$

C. $w \div 4$

D. $w \bullet 4$

Type of Bias: _____

Use the table to answer question 17.

Science Test Scores	
Student	**Test Score**
John	93
Susan	61
Tyson	96
Tao	93
Jessica	55
Takisha	70

17. The science test scores of six students in a lab group in Mr. Parker's class are shown in the table above. What is the mean (average) score of the test scores in the lab group?

A. 41

B. 77.5

C. 80.5

D. 93

Type of Bias: _____

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18. Animals are adapted to survive in their specific environments. Which breed of livestock would be best suited for meat production in the grassland prairies of the Great Plains?

A. angora goat

B. buffalo

C. Hereford cattle

D. Suffolk sheep

Type of Bias: _____

19. Scientists studying the fossil record have observed gradual changes in the structural morphology of numerous organisms that occurred over millions of years. These changes are most likely the result of

A. accidents from cloning experiments.

B. adaptive responses to environmental change.

C. God's little mistakes leading to his creation of mankind.

D. hallucinations of an occupant of the H.M.S. Beetle.

Type of Bias: _____

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ISAT

Idaho Standards Achievement Tests

Sensitivity Review Meeting

October 12, 2010

Types of Sensitivity

- Stereotype
- Gender
- Regional
- Racial, Ethnic or Cultural
- Class or Socioeconomic
- Religious
- Age
- Persons with Disabilities
- Experiential

Stereotyping Sensitivity

Items demonstrate stereotype sensitivity when they depict members of either gender

- experiencing stereotyped emotions,
- participating in stereotyped activities,
- working in stereotyped occupations,
- portraying stereotyped characteristics,
- portraying stereotyped situations,
- using demeaning labels, or
- being stereotyped through pictures.

Gender Sensitivity

Items demonstrate gender sensitivity when they include

- gender–specific terms and titles referring to humanity in general
  - manpower
- gender–specific terms for occupations
  - fireman
- pronouns that imply a stereotype
  - "The nurse went to the hospital, and she was able to talk with the patient."
- phrases that identify gender in terms of their roles or occupations
  - "The travelers took their wives and children with them."

Gender Sensitivity (continued)

- words and phrases that are not parallel
  - “The men’s department is on the right; the girl’s department is on the left.”
- figures of speech
  - “Old wives' tale”
  - “Man versus nature”
- gender–specific terms
  - “Career girl”

Regional Sensitivity

Item demonstrate regional sensitivity when they include

- terms not commonly used nationwide or used only within a particular region of the state
  - davenport
  - toboggan
  - bubbler
  - pike
  - soda

Racial, Ethnic, or Cultural Sensitivity

Items demonstrate racial, ethnic or cultural sensitivity when they include

- terms that are demeaning and/or offensive to a particular racial, ethnic group or culture
- terms that depict a particular group as poor or uneducated

Class or Socioeconomic Sensitivity

Item demonstrate class or socioeconomic sensitivity when they include

- activities, possessions, or ideas that are not common to all students within a given strata
  - country club
  - snow skiing
  - town home or loft
  - European vacations
  - private swimming pool

Religious Sensitivity

Items demonstrate religious or cultural sensitivity when they include

- terms that are demeaning and/or offensive to a particular religious group
  - Halloween
  - rock–and–roll dance
- terms that portray a particular belief or practice as the norm or as inferior or superior to any other

Age/Persons with Disabilities

Items can demonstrate age/disability sensitivity

- age (sensitivity against a particular age group)
  - "irresponsible teens"
- sensitivity against persons with disabilities
  - "Despite disability, she was able to . . ."

Content should show people with disabilities in everyday situations, and groups should be depicted as fully integrated into society.

Experiential Sensitivity

Items can demonstrate experiential sensitivity when they include

- questions and activities that are not relevant to the life experiences of the students responding to the items

  For a student to respond sensibly to test questions, s/he must know what the question is talking about.

Experiential Sensitivity (continued)

- one under par
- tossed hat in the ring
- subway turnstile
- took the skyway
- running neck–and–neck

Sensitivity Concerns

- Sensitive and offensive topics should be avoided:
  - highly charged or controversial topics
  - topics and/or items that appear to promote or defend a particular set of values
  - references to tragedies or hardships, such as floods, hurricanes, or tornadoes

Special Circumstances

- Historical Contexts
- Literary Contexts

Appendix F: Sensitivity Review Form

Figure F.1. ISAT Sensitivity Review Form

Content Area: Mathematics

Name (Please Print): _____ **Date:** _____ **Grade:** _____

Pg.	Item ID	Type of Sensitivity								
		Gender	Regional	Ethnic	Socio-economic	Religious	Ageism	Experi-ential	Other	Comment
1										
2										
3										
4										
5										
6										
7										
8										
9										
10										
11										
12										

Appendix G: Forms Approval Tracking Form

Table G.1. ISAT Spring 2011 Item Approval Form

Content Area: Mathematics

Seq	Unique Item ID Number	Key	Standard	Comment
1				
2				
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26				

page 1 of 2

Table G.1 (continued). ISAT Spring 2011 Item Approval Form

27				
28				
29				
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43				
44				
45				

Signatures:

DRC Content Lead: _____ **Date:** _____

page 2 of 2

Appendix H: Confidentiality Agreement

This agreement is made as of the _____ day of _____, 2010 by the following: **Item/Data/Sensitivity Review Participant ("Participant") and Office of the State Department of Education ("SDE")/Data Recognition Corporation ("DRC").**

This Agreement shall govern the conditions of disclosure by **SDE/DRC** to **Participant** of certain "Confidential Information." **SDE/DRC** have provided **Participant** with test items from Item Banks aligned to Idaho State Content Standards. With regard to this Confidential Information, **Participant** hereby agrees:

1. To hold in confidence all confidential or proprietary information and to use the information therein only for the intended purpose of participating in Item/Data/Sensitivity Review activities.
2. To not copy or make written record of any confidential or proprietary information supplied during the meeting.
3. To leave all materials in the meeting room at the close of each meeting day.
4. To take all necessary steps to safeguard the information against disclosure to others.
5. To not disclose the information to others for any purpose.

Idaho State Department of Education

_____
Signature

Scott Cook
Name

ISAT Program Manager
Title

_____
Date

Data Recognition Corporation

_____
Signature

Helene Gniadek
Name

Director, Statewide Assessments
Title

_____
Date

Item/Data/Sensitivity Review Participant

_____
Signature

_____
Date

_____
Printed name

_____
Email address

_____
School name

_____
School District name and number

Appendix I: Committee Meeting Details

Meeting	Dates	Total # of Participants	Gender		Ethnicity				
			Male	Female	Hispanic	Native American	African American	White	Unknown
Item and Data Review Meetings	October 10	57	9	48	2	0	0	55	0
Bias/Sensitivity Review Meeting	October 10	11	4	7	1	0	0	10	0
Forms Approval Meeting	January 11	32	6	26	2	0	0	30	0

Meeting	Dates	Total # of Participants	Years of Experience					Region		
			0–4 years	5–9 years	10–14 years	15+ years	Unknown	Rural	Urban	Unknown
Item and Data Review Meetings	October 10	57	8	8	9	32	0	39	16	2
Bias/Sensitivity Review Meeting	October 10	11	0	5	1	3	2	4	4	3
Forms Approval Meeting	January 11	32	1	4	9	17	1	22	10	0

Meeting	Dates	Total # of Participants	Position						
			Teacher	Principal	Superintendent	District Test Coordinator	LEP	Special Ed	Other
Item and Data Review Meetings	October 10	57	46	0	1	1	0	4	1
Bias/Sensitivity Review Meeting	October 10	11	5	1	0	1	0	1	3
Forms Approval Meeting	January 11	32	28	3	0	1	0	0	0

Appendix J: Field Test Multiple-Choice Distractor Analysis

Table J.1. Grade 3 Reading Field Test: Multiple-Choice Distractor Analysis

		Response Options								
		A		B		C		D		Omit
Item ID	Key	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]
633423	C	18.26	-0.27	9.60	-0.20	60.59	0.35	11.53	-0.02	0.02
633417	A	68.00	0.48	6.76	-0.22	12.07	-0.25	13.10	-0.25	0.07
633421	B	6.83	-0.26	79.08	0.42	10.02	-0.20	4.04	-0.22	0.02
633415	A	70.92	0.50	10.49	-0.25	10.61	-0.30	7.93	-0.21	0.05
633416	A	42.84	0.19	26.17	-0.01	9.58	-0.19	21.31	-0.08	0.09
633418	D	5.59	-0.25	3.83	-0.24	12.84	-0.03	77.65	0.28	0.09
633419	B	22.04	-0.15	68.19	0.39	3.59	-0.28	6.13	-0.26	0.05
633424	C	8.50	-0.27	7.98	-0.21	74.25	0.41	9.23	-0.16	0.05
633414	B	19.30	-0.30	72.28	0.49	5.42	-0.26	2.93	-0.24	0.07
633413	C	19.32	-0.20	16.97	-0.16	56.55	0.35	7.04	-0.11	0.12
633964	D	7.26	-0.25	4.03	-0.18	45.03	-0.13	43.60	0.33	0.07
633967	B	7.69	-0.20	67.55	0.40	7.43	-0.13	17.24	-0.26	0.09
633971	B	14.67	-0.24	70.88	0.51	8.46	-0.30	5.95	-0.24	0.05
633965	A	76.52	0.46	8.97	-0.35	8.04	-0.15	6.42	-0.21	0.05
633966	B	26.24	-0.16	46.88	0.29	11.55	-0.19	15.28	-0.03	0.05
633968	C	12.65	-0.30	7.01	-0.23	57.26	0.41	23.03	-0.10	0.05
633969	B	13.05	-0.19	48.81	0.24	28.16	0.00	9.91	-0.19	0.07
633970	C	8.27	-0.30	22.09	-0.11	60.75	0.43	8.79	-0.29	0.09
633962	D	8.67	-0.21	15.98	-0.09	18.67	-0.10	56.63	0.26	0.05
633963	A	86.46	0.38	2.04	-0.19	2.11	-0.22	9.33	-0.24	0.07
628078	D	21.89	-0.24	11.54	-0.21	3.93	-0.25	62.57	0.45	0.07
628094	C	8.03	-0.16	33.17	-0.04	51.57	0.22	7.19	-0.18	0.05
628079	B	17.47	-0.21	46.89	0.37	16.70	-0.23	18.86	-0.06	0.07
628073	B	5.35	-0.27	78.18	0.47	8.63	-0.24	7.75	-0.23	0.09
628077	A	78.51	0.49	8.72	-0.28	8.51	-0.26	4.16	-0.23	0.09
628076	A	59.34	0.36	15.68	-0.09	10.56	-0.24	14.38	-0.20	0.05
628075	C	14.31	-0.17	14.79	-0.13	62.25	0.38	8.61	-0.29	0.05
628071	A	74.83	0.46	5.54	-0.31	12.86	-0.21	6.72	-0.23	0.05
628070	D	28.05	-0.14	20.07	-0.24	9.51	-0.13	42.27	0.40	0.09
628072	D	19.80	-0.16	46.22	0.14	8.33	-0.23	25.59	0.13	0.07
627400	C	25.63	-0.20	6.23	-0.32	59.59	0.47	8.48	-0.23	0.07
627399	D	7.55	-0.28	8.36	-0.23	3.38	-0.24	80.63	0.46	0.07
627396	D	7.51	-0.29	5.12	-0.28	10.29	-0.29	77.02	0.54	0.07
627394	A	78.89	0.55	6.95	-0.32	7.25	-0.22	6.84	-0.33	0.07
627398	B	17.35	-0.30	61.01	0.49	7.67	-0.23	13.86	-0.18	0.12
627393	D	36.98	-0.11	5.61	-0.25	10.98	-0.20	46.36	0.35	0.07
627397	C	5.28	-0.25	5.40	-0.27	83.69	0.50	5.56	-0.28	0.07
627395	B	3.34	-0.28	86.05	0.53	5.54	-0.32	5.00	-0.27	0.07
627402	D	11.70	-0.29	10.06	-0.23	33.09	-0.03	45.09	0.36	0.07
627390	A	53.85	0.22	14.02	-0.15	10.03	-0.12	22.01	-0.05	0.09
628924	B	14.00	-0.31	61.72	0.38	16.95	-0.07	7.29	-0.20	0.05
628923	D	4.38	-0.31	16.77	-0.13	6.46	-0.26	72.35	0.40	0.05
628919	B	4.85	-0.31	82.75	0.55	9.21	-0.33	3.12	-0.26	0.07
628922	C	45.46	0.05	4.85	-0.25	43.12	0.23	6.48	-0.33	0.09
628916	C	6.70	-0.22	4.04	-0.29	86.82	0.44	2.39	-0.23	0.05

Table J.1 (continued). Grade 3 Reading Field Test: Multiple-Choice Distractor Analysis

		Response Options								
		A		B		C		D		Omit
Item ID	Key	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]
628912	B	5.91	-0.23	72.71	0.45	11.04	-0.25	10.27	-0.21	0.07
628914	D	7.22	-0.27	7.09	-0.28	3.70	-0.34	81.94	0.54	0.05
628920	A	78.89	0.54	8.65	-0.31	6.28	-0.25	6.09	-0.29	0.09
628917	D	5.28	-0.28	9.55	-0.25	3.27	-0.28	81.78	0.48	0.11
628911	D	10.97	-0.14	30.70	-0.02	18.76	-0.21	39.48	0.28	0.09

[1] Percentage of response options

Table J.2. Grade 4 Reading Field Test: Multiple-Choice Distractor Analysis

		Response Options								
		A		B		C		D		Omit
Item ID	Key	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]
631162	A	62.87	0.48	4.99	-0.20	23.13	-0.24	8.96	-0.31	0.05
631165	C	23.27	-0.31	7.19	-0.28	66.17	0.51	3.37	-0.22	0.00
635996	A	35.03	0.14	43.90	0.18	6.15	-0.23	14.90	-0.29	0.02
631161	A	53.33	0.34	31.31	-0.17	8.53	-0.16	6.79	-0.20	0.05
631160	A	69.34	0.36	10.67	-0.18	5.66	-0.27	14.33	-0.14	0.00
631163	B	7.62	-0.27	65.55	0.34	14.88	-0.14	11.92	-0.13	0.02
631169	D	30.64	-0.17	10.56	-0.14	5.24	-0.26	53.42	0.36	0.14
631164	D	11.65	-0.23	2.43	-0.25	9.98	-0.21	75.85	0.41	0.09
631166	D	11.48	-0.19	5.06	-0.31	18.05	-0.16	65.25	0.40	0.16
631167	C	7.53	-0.15	13.49	-0.28	66.34	0.35	12.52	-0.09	0.12
631186	D	10.06	-0.35	7.83	-0.22	10.83	-0.22	71.23	0.51	0.05
631179	D	20.22	-0.28	4.29	-0.26	7.64	-0.26	67.83	0.50	0.02
631185	A	87.58	0.44	3.66	-0.26	3.82	-0.22	4.91	-0.25	0.02
631184	D	17.49	-0.21	4.26	-0.28	5.22	-0.27	72.98	0.45	0.05
631188	C	14.05	-0.16	5.94	-0.27	60.28	0.40	19.66	-0.19	0.07
631178	B	5.10	-0.26	77.29	0.41	3.91	-0.27	13.65	-0.18	0.05
631187	D	3.12	-0.24	8.27	-0.21	6.36	-0.25	82.23	0.42	0.02
631180	A	78.69	0.35	6.48	-0.19	5.08	-0.19	9.74	-0.18	0.02
631183	A	71.51	0.54	8.57	-0.31	7.97	-0.30	11.93	-0.24	0.02
639470	C	3.49	-0.24	12.79	-0.16	61.40	0.40	22.27	-0.23	0.05
628163	C	0.72	-0.19	7.73	-0.22	90.47	0.31	1.04	-0.17	0.05
628162	D	5.77	-0.27	8.98	-0.26	8.08	-0.21	77.18	0.46	0.00
628159	C	13.29	-0.14	2.38	-0.25	81.93	0.30	2.40	-0.19	0.00
628154	A	85.69	0.38	8.63	-0.27	2.86	-0.20	2.82	-0.14	0.00
628161	A	74.57	0.42	6.88	-0.25	13.94	-0.20	4.59	-0.23	0.02
628156	C	24.74	-0.17	3.28	-0.29	70.85	0.31	1.11	-0.18	0.02
628167	D	24.44	-0.01	22.48	-0.13	10.78	-0.19	42.26	0.23	0.05
628164	B	30.81	-0.20	62.96	0.38	1.87	-0.27	4.29	-0.26	0.07
628160	B	3.35	-0.31	91.28	0.47	3.55	-0.26	1.78	-0.22	0.05
628166	D	0.88	-0.17	8.01	-0.27	4.32	-0.19	86.75	0.38	0.05
631289	C	3.94	-0.19	32.19	-0.29	58.63	0.40	5.24	-0.11	0.00
631292	C	25.79	-0.24	5.82	-0.27	65.65	0.41	2.73	-0.16	0.00
631287	B	10.01	-0.23	74.04	0.46	5.59	-0.28	10.31	-0.23	0.05
631290	C	3.78	-0.32	2.83	-0.28	88.20	0.50	5.19	-0.24	0.00
631285	D	9.76	-0.25	15.64	-0.20	23.71	0.08	50.87	0.23	0.02
631293	B	23.41	-0.13	46.58	0.33	8.32	-0.28	21.67	-0.08	0.02
631284	C	5.89	-0.29	10.31	-0.25	76.18	0.46	7.60	-0.20	0.02
631288	C	7.23	-0.28	5.70	-0.30	80.28	0.52	6.77	-0.27	0.02
631282	A	73.33	0.43	7.79	-0.22	7.16	-0.21	11.70	-0.23	0.02
631283	A	81.76	0.52	5.63	-0.30	6.30	-0.24	6.30	-0.31	0.00
631092	A	88.28	0.37	3.41	-0.27	3.31	-0.23	4.91	-0.12	0.09
631094	B	32.60	-0.07	54.16	0.33	10.97	-0.35	2.18	-0.13	0.09
631086	B	18.44	-0.15	65.29	0.34	13.74	-0.18	2.47	-0.24	0.07
631089	A	90.77	0.49	2.94	-0.27	3.01	-0.25	3.22	-0.30	0.07
631093	B	28.70	-0.12	57.49	0.28	7.44	-0.18	6.29	-0.15	0.07

Table J.2 (continued). Grade 4 Reading Field Test: Multiple-Choice Distractor Analysis

		Response Options								
		A		B		C		D		Omit
Item ID	Key	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]
631087	D	3.52	-0.25	13.36	-0.36	13.67	-0.23	69.35	0.54	0.09
631091	B	4.13	-0.28	84.83	0.52	4.86	-0.31	6.11	-0.26	0.07
631095	C	4.20	-0.29	3.90	-0.34	87.93	0.53	3.88	-0.25	0.09
631085	A	46.78	0.18	12.54	-0.08	30.79	-0.05	9.79	-0.14	0.09
631084	B	6.06	-0.19	88.54	0.33	1.29	-0.15	4.04	-0.21	0.07

[1] Percentage of response options

Table J.3. Grade 5 Reading Field Test: Multiple-Choice Distractor Analysis

		Response Options								
		A		B		C		D		Omit
Item ID	Key	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]
630144	C	11.45	-0.26	9.24	-0.11	76.51	0.36	2.70	-0.25	0.09
630145	A	72.75	0.52	6.42	-0.34	4.42	-0.18	16.39	-0.29	0.02
630142	B	6.89	-0.28	80.27	0.53	8.51	-0.29	4.30	-0.29	0.02
630140	D	4.58	-0.30	29.60	-0.13	11.80	-0.24	53.94	0.41	0.07
630148	B	32.26	0.00	57.51	0.20	4.68	-0.22	5.48	-0.21	0.07
630138	D	6.94	-0.14	2.23	-0.28	2.85	-0.22	87.96	0.35	0.02
630143	A	71.53	0.50	7.90	-0.24	15.45	-0.29	5.10	-0.26	0.02
635997	D	12.18	-0.24	11.22	-0.20	12.51	-0.25	64.00	0.47	0.09
630136	D	3.17	-0.21	3.88	-0.26	3.62	-0.21	89.28	0.41	0.05
630137	B	2.89	-0.28	92.59	0.47	1.88	-0.24	2.52	-0.26	0.12
633488	C	11.96	-0.26	6.52	-0.20	76.92	0.40	4.51	-0.18	0.09
633489	B	2.17	-0.26	92.41	0.46	2.83	-0.27	2.52	-0.24	0.07
633492	D	27.64	-0.16	10.98	-0.25	3.88	-0.15	57.41	0.36	0.09
633487	B	7.99	-0.12	38.90	0.29	48.97	-0.13	4.04	-0.22	0.09
633493	A	87.55	0.52	6.50	-0.36	3.74	-0.27	2.15	-0.21	0.07
633485	B	9.42	-0.29	77.43	0.53	9.23	-0.28	3.81	-0.27	0.12
633491	B	2.71	-0.23	87.15	0.51	5.30	-0.29	4.77	-0.31	0.07
633490	C	15.16	-0.16	5.40	-0.23	63.04	0.30	16.29	-0.10	0.12
633494	D	3.04	-0.27	12.69	-0.17	16.03	-0.09	68.18	0.29	0.07
633495	C	22.92	-0.10	11.54	-0.08	58.29	0.28	7.13	-0.28	0.12
632320	B	18.91	-0.02	66.32	0.24	12.36	-0.21	2.40	-0.23	0.00
632324	C	2.24	-0.24	28.78	-0.29	49.98	0.33	18.94	0.00	0.07
632314	B	12.90	-0.13	33.49	0.26	4.71	-0.30	48.88	-0.03	0.02
632316	D	5.90	-0.22	13.95	-0.26	11.43	-0.18	68.66	0.43	0.07
632317	B	8.33	-0.32	80.25	0.55	6.23	-0.33	5.18	-0.23	0.02
634308	A	15.74	-0.08	70.85	0.26	9.19	-0.22	4.17	-0.13	0.05
632318	C	13.18	-0.25	23.06	-0.18	47.64	0.44	16.09	-0.16	0.02
632322	A	87.52	0.44	5.15	-0.26	3.17	-0.25	4.13	-0.22	0.02
632321	B	14.81	-0.15	67.58	0.21	3.22	-0.28	14.34	0.02	0.05
632313	B	5.46	-0.18	82.86	0.30	3.45	-0.28	8.19	-0.07	0.05
632343	A	83.31	0.43	5.56	-0.25	9.67	-0.26	1.39	-0.20	0.07
632340	C	2.05	-0.20	3.37	-0.25	83.07	0.28	11.44	-0.09	0.07
632336	B	3.42	-0.30	87.43	0.50	5.68	-0.31	3.40	-0.21	0.07
632338	B	7.26	-0.27	74.86	0.44	14.08	-0.24	3.73	-0.18	0.07
632335	D	4.46	-0.20	3.14	-0.28	3.47	-0.29	88.87	0.46	0.07
632339	A	63.31	0.39	9.36	-0.28	10.16	-0.14	17.05	-0.16	0.12
632341	C	5.31	-0.23	6.27	-0.31	83.31	0.48	5.02	-0.24	0.09
632334	C	8.25	-0.28	6.74	-0.07	69.49	0.28	15.44	-0.09	0.07
632344	D	2.36	-0.25	4.76	-0.25	32.61	-0.25	60.20	0.43	0.07
632333	B	9.22	-0.18	75.48	0.39	7.76	-0.20	7.40	-0.22	0.14
627817	A	73.62	0.43	15.07	-0.25	9.25	-0.22	2.06	-0.23	0.00
627814	C	6.06	-0.25	7.55	-0.30	81.00	0.51	5.40	-0.27	0.00
627819	B	4.57	-0.22	79.37	0.48	10.25	-0.28	5.80	-0.28	0.02
627816	B	4.26	-0.29	71.08	0.41	21.46	-0.21	3.17	-0.23	0.02
627815	C	4.52	-0.27	11.43	-0.22	81.24	0.43	2.79	-0.25	0.02

Table J.3 (continued). Grade 5 Reading Field Test: Multiple-Choice Distractor Analysis

		Response Options								
		A		B		C		D		Omit
Item ID	Key	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]
627822	D	21.86	-0.07	7.74	-0.28	12.21	-0.27	58.16	0.39	0.02
627820	C	7.38	-0.27	3.79	-0.28	83.29	0.46	5.51	-0.20	0.02
627818	A	71.34	0.39	5.06	-0.32	11.57	-0.20	12.00	-0.14	0.02
627821	C	1.92	-0.23	26.15	-0.26	69.85	0.39	2.06	-0.24	0.02
627813	C	3.10	-0.27	2.34	-0.29	91.95	0.48	2.51	-0.24	0.09

[1] Percentage of response options

Table J.4. Grade 6 Reading Field Test: Multiple-Choice Distractor Analysis

		Response Options								
		A		B		C		D		Omit
Item ID	Key	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]
628898	C	33.33	-0.11	3.48	-0.23	54.58	0.21	8.54	-0.03	0.07
628907	B	22.68	-0.08	57.87	0.26	7.74	-0.14	11.69	-0.18	0.02
628901	D	4.99	-0.33	2.82	-0.27	5.43	-0.19	86.69	0.47	0.07
628902	D	7.32	-0.26	3.51	-0.28	11.97	-0.18	77.18	0.43	0.02
628904	A	74.99	0.41	10.68	-0.27	10.66	-0.16	3.65	-0.25	0.02
628909	B	9.36	-0.26	82.85	0.43	3.79	-0.25	3.98	-0.20	0.02
628905	C	13.67	-0.20	5.93	-0.21	69.35	0.41	11.01	-0.23	0.05
628900	C	5.46	-0.24	6.14	-0.28	85.39	0.44	2.96	-0.19	0.05
628908	D	2.87	-0.28	1.67	-0.25	4.94	-0.13	90.47	0.37	0.05
628899	A	96.42	0.35	1.34	-0.21	1.27	-0.24	0.94	-0.14	0.02
628878	C	6.89	-0.25	10.04	-0.23	76.03	0.40	6.96	-0.14	0.07
628881	A	70.82	0.34	8.32	-0.16	9.67	-0.23	11.14	-0.13	0.05
628879	B	19.41	-0.21	60.10	0.38	10.93	-0.14	9.51	-0.20	0.05
628875	B	6.61	-0.23	65.20	0.34	16.33	-0.21	11.82	-0.09	0.05
628873	C	23.57	-0.18	18.48	-0.09	54.71	0.29	3.20	-0.21	0.05
628874	A	67.37	0.41	7.69	-0.22	6.68	-0.26	18.22	-0.17	0.05
628877	D	4.11	-0.18	20.21	-0.32	2.29	-0.19	73.35	0.43	0.05
628883	B	8.01	-0.18	77.46	0.41	7.08	-0.22	7.40	-0.25	0.05
628880	C	16.54	-0.20	33.31	0.09	41.74	0.20	8.32	-0.25	0.09
628872	D	16.09	-0.24	5.89	-0.18	14.30	-0.07	63.58	0.32	0.14
628866	C	6.83	-0.23	3.02	-0.25	80.71	0.47	9.30	-0.29	0.14
628871	B	1.59	-0.20	90.54	0.47	4.23	-0.28	3.54	-0.29	0.10
628867	C	26.78	-0.10	12.10	-0.18	56.62	0.26	4.42	-0.14	0.07
628868	D	8.16	-0.41	1.21	-0.21	1.90	-0.18	88.68	0.50	0.05
628865	D	15.32	-0.20	4.59	-0.26	7.23	-0.21	72.79	0.41	0.07
628863	C	4.95	-0.32	2.88	-0.19	85.04	0.50	7.09	-0.30	0.05
628864	C	3.28	-0.24	21.93	-0.08	36.43	-0.01	38.31	0.17	0.05
628870	C	2.45	-0.22	3.71	-0.30	91.32	0.47	2.47	-0.27	0.05
628860	B	6.71	-0.15	85.02	0.28	1.95	-0.24	6.25	-0.12	0.07
628861	C	7.82	-0.18	3.92	-0.20	58.22	0.32	29.94	-0.15	0.10
632234	D	6.08	-0.21	28.25	-0.02	13.86	-0.28	51.70	0.32	0.12
632235	A	72.47	0.35	7.20	-0.16	13.32	-0.14	7.01	-0.26	0.00
632236	D	7.71	-0.23	26.18	-0.26	3.21	-0.25	62.90	0.46	0.00
632237	D	8.83	-0.27	36.47	0.03	16.98	-0.08	37.73	0.20	0.00
632238	C	7.06	-0.22	8.10	-0.23	79.83	0.40	5.01	-0.18	0.00
632240	C	23.29	-0.13	8.76	-0.28	61.02	0.38	6.94	-0.19	0.00
632242	B	17.05	-0.14	61.29	0.36	7.62	-0.16	14.02	-0.22	0.02
632243	B	40.96	0.00	30.76	0.15	18.03	-0.01	10.22	-0.22	0.02
632244	D	5.92	-0.21	20.21	-0.15	8.59	-0.26	65.25	0.38	0.02
632245	B	9.66	-0.17	67.35	0.40	10.36	-0.27	12.58	-0.15	0.05
630758	D	4.03	-0.21	7.49	-0.28	2.71	-0.27	85.75	0.45	0.02
630759	B	8.12	-0.31	79.22	0.44	4.98	-0.21	7.68	-0.17	0.00
630761	D	26.56	-0.09	28.22	0.00	18.04	-0.08	27.10	0.16	0.07
630760	A	80.29	0.46	8.66	-0.29	4.89	-0.25	6.13	-0.20	0.02
630755	C	1.31	-0.22	2.18	-0.28	94.15	0.46	2.34	-0.28	0.02

Table J.4 (continued). Grade 6 Reading Field Test: Multiple-Choice Distractor Analysis

		Response Options								
		A		B		C		D		Omit
Item ID	Key	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]
630762	B	13.76	-0.05	25.81	0.03	19.56	-0.13	40.81	0.11	0.05
630764	A	88.77	0.43	2.29	-0.16	4.91	-0.32	4.00	-0.21	0.02
630765	C	9.97	-0.17	6.39	-0.28	75.94	0.39	7.68	-0.18	0.02
630756	A	73.88	0.43	5.62	-0.25	10.18	-0.18	10.25	-0.26	0.07
630754	C	4.40	-0.19	3.07	-0.19	85.40	0.36	7.02	-0.22	0.12

[1] Percentage of response options

Table J.5. Grade 7 Reading Field Test: Multiple-Choice Distractor Analysis

		Response Options								
		A		B		C		D		Omit
Item ID	Key	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]
628982	A	61.14	0.15	12.93	-0.13	24.54	-0.02	1.27	-0.15	0.12
628976	B	12.65	-0.17	73.60	0.40	8.02	-0.24	5.67	-0.24	0.07
628983	B	15.12	-0.21	79.34	0.39	3.10	-0.23	2.37	-0.28	0.07
628981	A	85.66	0.45	3.71	-0.27	8.46	-0.27	2.09	-0.21	0.07
628980	D	12.98	-0.21	3.74	-0.21	7.50	-0.33	75.72	0.47	0.07
628975	B	5.78	-0.19	80.84	0.40	7.48	-0.24	5.83	-0.20	0.07
630766	D	3.78	-0.26	5.69	-0.20	6.89	-0.24	83.54	0.44	0.09
628974	D	2.28	-0.20	8.09	-0.22	2.73	-0.22	86.79	0.38	0.12
628973	C	13.94	-0.22	9.57	-0.29	65.12	0.41	11.28	-0.09	0.09
628972	A	83.54	0.49	5.45	-0.25	8.58	-0.31	2.26	-0.22	0.16
633956	C	14.51	-0.33	0.76	-0.11	83.83	0.39	0.86	-0.20	0.05
633961	B	20.65	-0.19	73.51	0.33	3.55	-0.20	2.24	-0.20	0.05
633960	C	16.27	-0.10	10.15	-0.26	57.96	0.34	15.60	-0.14	0.02
633955	C	21.51	-0.14	1.72	-0.21	72.84	0.25	3.91	-0.13	0.02
633957	A	85.95	0.45	3.48	-0.24	7.88	-0.28	2.67	-0.25	0.02
633954	A	62.93	0.37	1.62	-0.26	25.54	-0.14	9.89	-0.28	0.02
633953	B	8.31	-0.28	81.56	0.49	8.03	-0.31	2.05	-0.19	0.05
633959	C	0.55	-0.14	0.91	-0.17	84.44	0.34	14.05	-0.28	0.05
633952	B	1.76	-0.24	92.78	0.43	4.45	-0.28	0.98	-0.22	0.02
633951	B	23.75	-0.10	56.41	0.34	12.82	-0.22	6.93	-0.21	0.10
628085	D	4.17	-0.19	2.47	-0.25	25.48	-0.19	67.88	0.34	0.00
628091	B	29.26	-0.11	58.84	0.29	4.27	-0.27	7.61	-0.14	0.02
628082	D	5.92	-0.21	4.29	-0.29	1.62	-0.27	88.17	0.44	0.00
628087	B	24.24	-0.03	48.00	0.37	17.60	-0.29	10.16	-0.22	0.00
628088	A	75.37	0.35	10.40	-0.18	5.79	-0.19	8.44	-0.19	0.00
628089	A	91.85	0.30	4.68	-0.13	1.96	-0.21	1.50	-0.22	0.00
628086	D	4.10	-0.14	5.92	-0.22	1.77	-0.22	88.19	0.34	0.02
628090	B	5.55	-0.17	70.74	0.24	2.69	-0.15	20.99	-0.11	0.02
628083	C	7.52	-0.26	20.41	-0.27	70.42	0.43	1.65	-0.13	0.00
628084	D	1.87	-0.21	3.78	-0.32	2.88	-0.23	91.42	0.46	0.05
629243	D	3.53	-0.26	8.31	-0.33	5.15	-0.29	82.91	0.54	0.10
629232	C	13.09	-0.24	8.06	-0.27	73.50	0.48	5.32	-0.27	0.02
629233	C	2.56	-0.20	11.47	-0.27	75.67	0.41	10.23	-0.20	0.07
629240	D	6.92	-0.35	18.51	-0.13	11.12	-0.20	63.42	0.42	0.02
629235	C	7.54	-0.21	10.30	-0.26	64.64	0.37	17.49	-0.10	0.02
629242	B	2.79	-0.18	80.19	0.48	12.99	-0.35	3.98	-0.22	0.05
629238	C	3.56	-0.24	5.92	-0.30	88.13	0.48	2.34	-0.27	0.05
629239	A	81.71	0.41	4.53	-0.24	4.23	-0.26	9.48	-0.19	0.05
629236	D	4.33	-0.29	4.23	-0.21	3.86	-0.30	87.56	0.48	0.02
629237	A	87.76	0.50	2.91	-0.27	5.15	-0.29	4.13	-0.27	0.05
628888	D	10.19	-0.20	9.26	-0.26	19.74	-0.07	60.76	0.33	0.05
628895	B	43.64	-0.09	45.05	0.28	6.88	-0.20	4.38	-0.21	0.05
628887	C	24.79	-0.11	25.02	-0.15	39.21	0.33	10.95	-0.16	0.02
628885	B	4.10	-0.21	88.31	0.41	4.74	-0.25	2.83	-0.23	0.02
628896	C	33.50	-0.06	24.64	0.01	36.36	0.12	5.48	-0.16	0.02

Table J.5 (continued). Grade 7 Reading Field Test: Multiple-Choice Distractor Analysis

		Response Options								
		A		B		C		D		Omit
Item ID	Key	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]
628889	C	8.24	-0.15	2.67	-0.24	86.57	0.32	2.50	-0.19	0.02
628890	A	75.31	0.41	9.88	-0.21	6.24	-0.22	8.55	-0.22	0.02
628894	B	5.81	-0.15	68.81	0.35	13.00	-0.21	12.29	-0.18	0.10
628891	B	16.67	-0.18	70.71	0.39	3.05	-0.30	9.55	-0.20	0.02
628884	A	76.07	0.39	8.52	-0.26	13.79	-0.20	1.60	-0.20	0.02

[1] Percentage of response options

Table J.6. Grade 8 Reading Field Test: Multiple-Choice Distractor Analysis

		Response Options								
		A		B		C		D		Omit
Item ID	Key	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]
632220	B	3.29	-0.26	85.54	0.32	10.09	-0.16	0.99	-0.17	0.10
632212	B	3.41	-0.20	86.82	0.35	3.63	-0.22	6.11	-0.16	0.02
632209	A	88.92	0.48	4.00	-0.25	2.99	-0.32	4.05	-0.24	0.02
632214	A	87.66	0.48	6.80	-0.28	3.07	-0.30	2.45	-0.22	0.02
632210	B	2.15	-0.25	92.36	0.43	2.25	-0.27	3.21	-0.21	0.02
632213	A	69.84	0.24	15.72	-0.11	2.40	-0.18	11.99	-0.13	0.05
632219	A	47.52	0.34	4.33	-0.26	33.99	-0.19	14.09	-0.08	0.07
632217	C	7.76	-0.17	9.37	-0.12	56.51	0.17	26.33	-0.01	0.02
632208	A	74.54	0.15	5.09	-0.21	2.52	-0.22	17.82	0.04	0.02
632211	D	8.55	-0.12	21.43	0.08	24.47	-0.12	45.44	0.11	0.10
630120	D	7.72	-0.30	6.03	-0.23	2.25	-0.20	83.90	0.45	0.10
630115	B	8.41	-0.26	85.07	0.36	1.74	-0.23	4.73	-0.13	0.05
630113	B	5.07	-0.28	89.46	0.46	3.46	-0.25	1.96	-0.24	0.05
630110	C	0.81	-0.15	4.29	-0.20	93.48	0.32	1.37	-0.21	0.05
630114	B	7.11	-0.22	82.70	0.46	1.69	-0.22	8.46	-0.31	0.05
630118	C	5.66	-0.30	4.63	-0.30	85.15	0.50	4.49	-0.22	0.07
630116	B	3.65	-0.29	89.17	0.50	4.07	-0.32	3.04	-0.21	0.07
630121	B	4.44	-0.21	74.93	0.36	9.95	-0.24	10.59	-0.13	0.10
630112	A	44.88	0.01	35.07	0.11	15.66	-0.06	4.34	-0.17	0.05
630109	D	10.27	-0.18	32.79	-0.21	4.17	-0.20	52.62	0.38	0.15
632260	A	32.58	0.07	23.14	-0.09	33.88	0.08	10.29	-0.12	0.10
632259	A	73.54	0.42	9.63	-0.28	13.39	-0.17	3.39	-0.24	0.05
632258	D	8.72	-0.26	8.30	-0.25	8.45	-0.24	74.47	0.48	0.05
632261	D	25.04	-0.19	32.97	0.04	5.58	-0.22	36.36	0.24	0.05
632262	A	80.61	0.46	6.02	-0.28	9.04	-0.24	4.28	-0.22	0.05
632264	B	6.86	-0.21	79.51	0.45	5.75	-0.26	7.84	-0.24	0.05
632265	A	52.68	0.36	13.05	-0.20	14.30	-0.28	19.88	-0.03	0.10
632268	C	8.67	-0.25	7.74	-0.22	76.12	0.48	7.40	-0.29	0.07
632267	C	11.33	-0.22	9.95	-0.27	70.61	0.40	8.06	-0.13	0.05
632263	B	10.74	-0.14	77.52	0.36	7.10	-0.23	4.59	-0.22	0.05
627806	C	2.56	-0.26	3.87	-0.31	84.54	0.33	9.01	-0.07	0.02
627805	A	94.67	0.45	1.59	-0.23	1.86	-0.29	1.84	-0.25	0.05
627810	B	8.24	-0.23	79.66	0.37	4.22	-0.26	7.84	-0.12	0.05
627798	D	3.65	-0.17	8.86	-0.29	10.15	-0.09	77.30	0.34	0.05
627804	D	2.23	-0.28	3.62	-0.23	1.22	-0.23	92.88	0.42	0.05
627808	B	18.68	0.00	49.86	0.31	15.85	-0.23	15.53	-0.19	0.07
627802	D	1.46	-0.25	2.68	-0.24	2.85	-0.29	92.93	0.46	0.07
627803	C	7.17	-0.22	10.05	-0.12	54.87	0.27	27.83	-0.09	0.07
627801	A	94.84	0.38	1.71	-0.22	2.56	-0.22	0.79	-0.21	0.10
627799	C	1.31	-0.23	1.22	-0.24	96.40	0.39	0.92	-0.20	0.15
634343	C	24.34	-0.13	9.80	-0.25	63.55	0.33	2.23	-0.18	0.07
634344	A	89.93	0.40	1.99	-0.20	3.37	-0.32	4.61	-0.17	0.10
634339	B	8.10	-0.14	67.29	0.44	18.51	-0.28	6.07	-0.25	0.02
634338	C	20.50	-0.12	3.88	-0.29	45.38	0.21	30.21	0.00	0.02
634335	A	85.17	0.40	8.27	-0.25	5.63	-0.24	0.90	-0.18	0.02

Table J.6 (continued). Grade 8 Reading Field Test: Multiple-Choice Distractor Analysis

		Response Options								
		A		B		C		D		Omit
Item ID	Key	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]
634340	D	6.58	-0.29	6.72	-0.24	2.01	-0.23	84.66	0.46	0.02
634341	C	3.01	-0.26	14.44	-0.25	78.11	0.40	4.42	-0.17	0.02
634345	A	75.76	0.50	13.27	-0.32	3.25	-0.28	7.69	-0.21	0.02
634346	D	11.50	-0.19	15.65	-0.13	5.34	-0.23	67.46	0.34	0.05
634336	B	12.79	-0.33	79.57	0.46	4.51	-0.22	3.06	-0.17	0.07

[1] Percentage of response options

Table J.7. Grade 10 Reading Field Test: Multiple-Choice Distractor Analysis

		Response Options								
		A		B		C		D		Omit
Item ID	Key	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]
628931	A	88.47	0.42	2.39	-0.21	3.50	-0.27	5.50	-0.21	0.15
628934	C	3.05	-0.24	6.40	-0.28	80.10	0.48	10.33	-0.26	0.12
628928	A	63.41	0.38	10.11	-0.35	21.20	-0.07	5.16	-0.19	0.12
628925	B	9.09	-0.27	82.46	0.40	6.04	-0.20	2.26	-0.17	0.15
628937	C	17.06	-0.24	23.73	0.01	53.29	0.28	5.80	-0.22	0.12
628932	D	8.45	-0.15	6.58	-0.30	6.52	-0.24	78.32	0.43	0.12
628927	D	2.05	-0.13	3.68	-0.22	2.90	-0.24	91.24	0.36	0.12
628933	C	6.88	-0.21	4.95	-0.29	83.06	0.40	4.98	-0.15	0.12
628929	B	5.71	-0.27	88.22	0.47	3.86	-0.26	2.05	-0.24	0.15
628926	C	12.65	-0.23	2.11	-0.19	77.45	0.45	7.61	-0.30	0.18
628853	C	37.44	0.00	16.60	-0.10	27.15	0.10	18.57	-0.01	0.24
628852	B	28.73	0.02	39.02	0.22	10.44	-0.14	21.72	-0.18	0.09
628850	C	2.34	-0.29	5.70	-0.34	82.10	0.54	9.74	-0.28	0.12
628849	B	16.38	-0.19	64.59	0.38	10.62	-0.26	8.28	-0.11	0.12
628855	D	4.98	-0.22	4.00	-0.30	23.42	-0.06	67.48	0.28	0.12
628851	D	5.76	-0.20	16.44	-0.13	18.51	-0.10	59.16	0.27	0.12
628858	B	10.62	-0.21	71.72	0.37	10.22	-0.16	7.22	-0.21	0.21
628857	D	7.46	-0.21	4.07	-0.22	3.94	-0.16	84.38	0.36	0.15
628859	C	4.64	-0.35	3.00	-0.27	86.07	0.32	6.13	0.05	0.15
628848	A	82.10	0.43	10.07	-0.28	5.64	-0.22	2.03	-0.21	0.15
634103	D	2.21	-0.16	3.90	-0.21	8.36	-0.16	85.41	0.31	0.12
634100	C	6.67	-0.21	9.82	-0.24	72.56	0.47	10.94	-0.27	0.00
634106	A	83.38	0.37	1.25	-0.22	13.97	-0.27	1.37	-0.17	0.03
634102	C	1.43	-0.18	3.02	-0.23	94.57	0.35	0.97	-0.19	0.00
634101	C	6.92	-0.22	9.14	-0.14	76.89	0.36	7.02	-0.22	0.03
634098	D	1.56	-0.24	6.11	-0.28	26.41	-0.24	65.86	0.43	0.06
634105	C	2.99	-0.28	8.76	-0.37	84.47	0.55	3.65	-0.23	0.12
634097	D	2.81	-0.29	16.65	-0.25	2.09	-0.24	78.33	0.43	0.12
634095	A	51.95	0.22	2.74	-0.23	41.60	-0.07	3.59	-0.22	0.12
634096	A	74.34	0.43	0.44	-0.15	0.81	-0.20	24.26	-0.36	0.16
631148	C	9.21	-0.28	14.68	-0.19	75.18	0.38	0.77	-0.16	0.15
631147	B	16.65	-0.27	75.98	0.41	2.09	-0.26	5.22	-0.15	0.06
631156	D	3.04	-0.25	1.29	-0.21	5.84	-0.26	89.77	0.43	0.06
631153	B	2.67	-0.20	89.93	0.46	2.09	-0.21	5.25	-0.33	0.06
631154	A	92.84	0.46	3.50	-0.28	2.61	-0.29	0.98	-0.20	0.06
631151	D	10.38	-0.30	4.05	-0.27	13.57	-0.29	71.93	0.55	0.06
631152	B	3.78	-0.20	93.18	0.36	0.86	-0.21	2.09	-0.22	0.09
631157	D	3.10	-0.31	1.44	-0.25	1.54	-0.25	93.86	0.48	0.06
631149	B	5.10	-0.24	82.28	0.45	9.43	-0.24	3.10	-0.27	0.09
631146	B	8.26	-0.24	73.03	0.39	14.31	-0.24	4.24	-0.13	0.15
631135	B	7.22	-0.12	87.63	0.26	1.22	-0.24	3.91	-0.15	0.03
631142	C	0.78	-0.17	0.75	-0.16	95.53	0.27	2.92	-0.15	0.03
631136	D	31.78	0.07	43.65	-0.04	17.26	-0.10	7.22	0.10	0.09
631139	A	38.76	0.29	29.34	-0.11	14.97	0.00	16.82	-0.23	0.12
631138	C	24.15	-0.23	5.16	-0.30	66.49	0.44	4.14	-0.22	0.06

Table J.7 (continued). Grade 10 Reading Field Test: Multiple-Choice Distractor Analysis

		Response Options								
		A		B		C		D		Omit
Item ID	Key	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]
631137	C	4.83	-0.24	9.09	-0.23	79.19	0.46	6.80	-0.27	0.09
631144	A	90.01	0.46	3.67	-0.30	4.17	-0.26	2.09	-0.20	0.06
631145	C	13.95	-0.28	9.81	-0.20	42.55	0.23	33.63	0.09	0.06
631140	A	89.12	0.40	3.85	-0.22	1.43	-0.23	5.55	-0.24	0.06
631134	D	16.10	-0.37	11.84	0.03	28.83	-0.18	43.11	0.42	0.12
596885	D	8.83	-0.12	18.24	-0.24	1.60	-0.28	71.17	0.36	0.15
599556	A	86.70	0.43	4.41	-0.25	3.83	-0.24	5.00	-0.21	0.06
596887	B	2.65	-0.23	83.43	0.47	11.05	-0.28	2.81	-0.28	0.06
596888	D	2.44	-0.25	6.64	-0.30	3.70	-0.33	87.16	0.53	0.06
599557	B	25.96	-0.09	52.44	0.31	17.50	-0.19	4.04	-0.21	0.06
599558	A	54.72	0.23	11.51	-0.27	23.70	-0.03	10.00	-0.05	0.06
599560	B	14.94	-0.03	63.64	0.30	9.88	-0.23	11.42	-0.20	0.12
599561	D	8.77	-0.26	14.20	-0.08	12.84	-0.28	64.10	0.41	0.09
599562	B	4.72	-0.15	62.84	0.24	28.52	-0.08	3.77	-0.24	0.15
596880	C	5.40	-0.24	5.15	-0.27	87.99	0.43	1.30	-0.21	0.15

[1] Percentage of response options

Table J.8. Grade 3 Mathematics Field Test: Multiple-Choice Distractor Analysis

		Response Options								
		A		B		C		D		Omit
Item ID	Key	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]
624864	D	1.29	-0.21	17.36	-0.16	3.78	-0.22	77.55	0.30	0.03
624865	D	4.89	-0.32	4.77	-0.22	3.47	-0.20	86.87	0.45	0.00
626506	C	1.37	-0.13	2.22	-0.17	89.70	0.45	6.71	-0.39	0.00
626673	C	4.53	-0.28	5.27	-0.17	87.16	0.41	3.05	-0.23	0.00
627911	C	33.89	-0.21	0.48	-0.08	54.17	0.41	11.46	-0.30	0.00
627127	A	83.24	0.31	4.56	-0.26	10.98	-0.14	1.22	-0.19	0.00
627298	A	69.76	0.50	14.97	-0.21	6.20	-0.26	9.05	-0.31	0.03
627299	D	3.40	-0.22	5.81	-0.17	4.95	-0.23	85.84	0.37	0.00
627137	C	1.13	-0.18	3.13	-0.19	93.30	0.34	2.43	-0.20	0.00
627138	C	1.51	-0.22	6.94	-0.15	88.86	0.34	2.69	-0.26	0.00
624866	B	0.75	-0.20	96.87	0.33	1.59	-0.20	0.75	-0.17	0.03
624867	B	1.42	-0.23	95.39	0.40	1.83	-0.21	1.36	-0.24	0.00
625816	C	18.80	-0.44	7.34	-0.16	69.19	0.49	4.67	-0.06	0.00
625818	C	2.36	-0.23	5.20	-0.26	89.40	0.43	3.00	-0.24	0.03
626680	B	2.74	-0.16	93.59	0.32	1.76	-0.20	1.90	-0.19	0.00
626681	D	0.70	-0.19	2.90	-0.22	1.41	-0.17	94.99	0.33	0.00
627912	B	1.20	-0.15	41.55	0.31	23.94	-0.15	33.31	-0.15	0.00
627913	D	3.39	-0.20	62.27	0.16	10.89	-0.10	23.44	-0.03	0.00
627300	C	2.38	-0.20	3.22	-0.27	91.81	0.38	2.57	-0.15	0.03
627301	B	4.41	-0.11	87.47	0.34	3.92	-0.16	4.17	-0.28	0.03
627508	D	12.91	-0.13	4.26	-0.13	5.95	-0.27	76.85	0.32	0.03
627509	B	15.35	-0.12	27.38	0.16	35.96	0.03	21.28	-0.09	0.03
624868	A	94.62	0.41	1.66	-0.24	1.91	-0.24	1.77	-0.22	0.03
624869	A	87.14	0.43	4.29	-0.20	6.93	-0.29	1.63	-0.25	0.00
625819	B	3.01	-0.26	94.27	0.42	1.29	-0.22	1.43	-0.24	0.00
625821	A	88.31	0.42	2.63	-0.19	4.21	-0.24	4.85	-0.27	0.00
626674	C	13.53	-0.39	1.92	-0.22	79.72	0.50	4.80	-0.18	0.03
626675	B	11.07	-0.32	76.47	0.42	3.17	-0.17	9.26	-0.15	0.03
627130	A	86.23	0.35	4.48	-0.26	5.55	-0.13	3.72	-0.19	0.03
627131	D	12.73	-0.11	22.34	0.04	33.73	-0.20	31.19	0.25	0.00
627302	D	8.74	-0.31	1.95	-0.14	2.62	-0.18	86.68	0.41	0.00
627303	D	6.22	-0.28	5.71	-0.29	5.30	-0.18	82.77	0.46	0.00
627141	C	23.34	-0.14	8.63	-0.22	57.84	0.36	10.16	-0.18	0.03
627142	A	75.87	0.41	7.73	-0.25	9.44	-0.20	6.93	-0.19	0.03
624870	C	4.17	-0.16	5.04	-0.24	76.68	0.28	14.08	-0.10	0.03
624871	B	3.72	-0.29	93.43	0.37	1.56	-0.17	1.30	-0.14	0.00
625822	C	11.32	-0.26	11.85	-0.15	72.86	0.37	3.98	-0.16	0.00
625824	C	2.72	-0.24	6.25	-0.23	86.62	0.42	4.39	-0.23	0.03
626676	A	55.44	0.44	11.71	-0.20	12.18	-0.23	20.67	-0.20	0.00
626677	A	82.19	0.49	5.97	-0.20	6.29	-0.27	5.55	-0.31	0.00
627133	C	0.93	-0.13	1.07	-0.18	92.63	0.39	5.38	-0.31	0.00
627134	C	2.22	-0.20	3.24	-0.22	93.05	0.37	1.50	-0.20	0.00
627135	B	1.03	-0.07	87.94	0.27	4.07	-0.20	6.96	-0.15	0.00
627460	D	16.24	-0.17	1.51	-0.04	10.06	-0.14	72.16	0.25	0.03
627143	A	96.04	0.25	1.45	-0.17	1.62	-0.14	0.89	-0.11	0.00

Table J.8 (continued). Grade 3 Mathematics Field Test: Multiple-Choice Distractor Analysis

		Response Options								
		A		B		C		D		Omit
Item ID	Key	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]
627144	C	29.97	-0.12	2.06	-0.16	61.31	0.26	6.62	-0.20	0.03
624872	B	8.01	-0.24	73.97	0.47	3.25	-0.20	14.77	-0.30	0.00
624873	B	6.36	-0.14	77.63	0.45	5.53	-0.23	10.46	-0.32	0.03
627136	B	5.85	-0.29	85.69	0.50	3.63	-0.22	4.83	-0.29	0.00
627307	D	0.11	-0.06	0.71	-0.13	0.40	-0.09	98.77	0.17	0.00
625826	C	17.63	-0.28	6.56	-0.17	69.56	0.47	6.19	-0.27	0.06
625827	A	89.69	0.38	1.89	-0.22	4.53	-0.33	3.86	-0.08	0.03
626678	D	6.47	-0.23	9.75	-0.17	6.73	-0.22	77.06	0.38	0.00
626679	A	77.28	0.50	11.53	-0.38	6.53	-0.25	4.67	-0.12	0.00
627146	B	8.87	-0.15	74.78	0.48	6.04	-0.15	10.31	-0.44	0.00

[1] Percentage of response options

Table J.9. Grade 4 Mathematics Field Test: Multiple-Choice Distractor Analysis

		Response Options								
		A		B		C		D		Omit
Item ID	Key	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]
626393	D	2.82	-0.24	1.67	-0.21	2.67	-0.21	92.85	0.39	0.00
626394	C	5.80	-0.15	3.59	-0.19	89.92	0.28	0.65	-0.15	0.03
626313	B	1.41	-0.17	78.46	0.34	13.00	-0.19	7.13	-0.22	0.00
626300	C	10.12	-0.18	13.15	-0.22	66.29	0.41	10.44	-0.21	0.00
626301	C	9.37	-0.31	5.49	-0.19	78.29	0.44	6.85	-0.18	0.00
626852	B	4.69	-0.18	79.27	0.50	1.34	-0.07	14.70	-0.44	0.00
626853	B	0.48	-0.07	89.37	0.29	5.90	-0.12	4.25	-0.28	0.00
628280	C	5.67	-0.15	5.01	-0.10	88.85	0.20	0.46	-0.10	0.00
628281	A	97.39	0.22	0.99	-0.11	1.19	-0.13	0.40	-0.14	0.03
627883	C	2.50	-0.19	5.79	-0.17	90.15	0.30	1.53	-0.16	0.03
627884	A	83.34	0.40	9.52	-0.20	2.85	-0.20	4.29	-0.27	0.00
626395	B	12.43	-0.18	61.78	0.37	13.03	-0.25	12.73	-0.11	0.03
626396	B	11.63	-0.22	69.48	0.43	8.83	-0.20	10.04	-0.24	0.03
627520	D	1.38	-0.18	2.09	-0.14	11.68	-0.28	84.85	0.37	0.00
626302	B	3.50	-0.09	72.48	0.46	13.42	-0.36	10.60	-0.22	0.00
626303	C	2.15	-0.19	4.45	-0.13	90.94	0.33	2.46	-0.25	0.00
626854	D	1.19	-0.18	1.79	-0.22	1.60	-0.20	95.43	0.35	0.00
626855	A	84.87	0.40	2.73	-0.16	4.83	-0.33	7.53	-0.17	0.03
628282	A	88.47	0.28	0.62	-0.17	2.71	-0.17	8.19	-0.18	0.00
628283	B	7.65	-0.17	86.65	0.25	3.41	-0.12	2.24	-0.12	0.05
627885	D	22.56	-0.19	2.89	-0.17	4.36	-0.02	70.19	0.24	0.00
627886	C	5.26	-0.24	0.51	-0.14	81.88	0.21	12.35	-0.06	0.00
626397	D	10.30	-0.21	2.07	-0.13	10.67	-0.13	76.96	0.29	0.00
626398	B	3.89	-0.23	79.73	0.29	13.98	-0.12	2.40	-0.20	0.00
626317	A	72.13	0.36	16.27	-0.15	5.68	-0.29	5.90	-0.16	0.03
626318	B	8.11	-0.09	39.71	0.36	19.54	-0.18	32.64	-0.17	0.00
626304	B	6.50	-0.34	81.83	0.48	4.87	-0.17	6.80	-0.26	0.00
626305	A	64.30	0.47	12.04	-0.20	13.18	-0.22	10.48	-0.29	0.00
626856	B	8.94	-0.22	61.29	0.24	23.02	-0.07	6.72	-0.10	0.03
626857	A	69.99	0.45	7.50	-0.18	5.75	-0.23	16.76	-0.28	0.00
628284	C	32.38	-0.15	2.04	-0.21	64.06	0.25	1.51	-0.17	0.00
627887	D	3.57	-0.17	5.14	-0.14	6.75	-0.29	84.54	0.38	0.00
626399	C	2.63	-0.18	8.77	-0.25	87.83	0.33	0.77	-0.10	0.00
626849	D	3.74	-0.20	6.55	-0.26	4.77	-0.24	84.94	0.42	0.00
626306	A	92.66	0.30	5.14	-0.22	1.85	-0.17	0.32	-0.09	0.03
626307	C	0.25	-0.07	3.68	-0.16	95.61	0.20	0.44	-0.09	0.03
626858	A	92.61	0.41	4.12	-0.28	2.14	-0.23	1.10	-0.17	0.03
626859	A	90.28	0.42	4.67	-0.29	2.92	-0.26	2.12	-0.13	0.00
631344	B	0.85	-0.17	94.80	0.38	1.89	-0.17	2.46	-0.29	0.00
631345	D	2.52	-0.18	4.11	-0.17	4.84	-0.25	88.50	0.37	0.03
627888	B	21.21	-0.14	70.27	0.30	4.77	-0.21	3.75	-0.17	0.00
628290	D	27.12	-0.12	13.91	-0.02	18.54	-0.30	40.44	0.35	0.00
626400	D	2.88	-0.14	15.33	-0.32	1.19	-0.12	80.57	0.39	0.03
626310	D	0.54	-0.05	12.77	-0.05	49.40	0.21	37.29	-0.18	0.00
626311	C	0.92	-0.12	1.31	-0.12	58.62	0.29	39.15	-0.24	0.00

Table J.9 (continued). Grade 4 Mathematics Field Test: Multiple-Choice Distractor Analysis

		Response Options								
		A		B		C		D		Omit
Item ID	Key	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]
626309	A	67.41	0.25	30.41	-0.17	0.86	-0.15	1.32	-0.21	0.00
626860	A	92.11	0.39	2.26	-0.16	2.73	-0.18	2.87	-0.31	0.03
626861	C	4.25	-0.33	0.86	-0.11	90.81	0.32	4.05	-0.07	0.03
628287	C	3.46	-0.22	1.12	-0.17	92.21	0.35	3.21	-0.21	0.00
628288	D	2.75	-0.20	2.67	-0.26	3.09	-0.27	91.43	0.43	0.06
627890	A	63.51	0.41	9.75	-0.04	12.87	-0.32	13.86	-0.23	0.00
627891	B	5.30	-0.04	67.74	0.41	7.65	-0.18	19.31	-0.34	0.00
626401	A	85.38	0.41	8.85	-0.28	2.72	-0.19	3.02	-0.20	0.03
628289	B	28.73	-0.12	59.67	0.32	6.55	-0.27	5.05	-0.18	0.00
627892	C	5.90	-0.09	3.09	-0.19	82.94	0.38	8.07	-0.32	0.00

[1] Percentage of response options

Table J.10. Grade 5 Mathematics Field Test: Multiple-Choice Distractor Analysis

		Response Options								
		A		B		C		D		Omit
Item ID	Key	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]
626357	D	1.45	-0.14	3.63	-0.18	1.07	-0.10	93.85	0.25	0.00
626358	B	2.02	-0.15	92.47	0.23	2.76	-0.15	2.76	-0.10	0.00
627337	D	4.92	-0.27	11.87	-0.14	2.54	-0.22	80.66	0.35	0.00
626887	A	58.39	0.52	15.53	-0.23	14.66	-0.12	11.43	-0.42	0.00
626888	B	15.97	-0.13	42.98	0.34	10.78	-0.35	30.27	-0.03	0.00
626877	B	31.47	-0.21	50.57	0.27	14.31	-0.06	3.65	-0.11	0.00
626878	C	30.71	-0.20	24.39	-0.32	43.14	0.50	1.75	-0.11	0.00
626729	D	30.24	-0.07	10.62	-0.17	2.38	-0.22	56.76	0.23	0.00
627786	A	88.22	0.33	5.16	-0.15	4.67	-0.27	1.96	-0.12	0.00
629067	D	0.28	-0.09	2.59	-0.10	2.26	-0.15	94.87	0.20	0.00
627894	D	5.59	-0.27	5.23	-0.13	3.35	-0.16	85.84	0.34	0.00
626360	C	0.21	-0.08	7.83	-0.30	91.73	0.31	0.23	-0.06	0.00
627338	B	0.37	-0.04	98.15	0.19	1.07	-0.15	0.42	-0.11	0.00
627339	C	0.59	-0.12	0.98	-0.10	94.60	0.19	3.82	-0.12	0.00
627504	B	16.38	-0.21	72.40	0.46	9.28	-0.34	1.93	-0.22	0.00
626879	D	0.58	-0.15	1.46	-0.16	0.68	-0.13	97.27	0.26	0.00
626884	B	0.23	-0.11	93.03	0.27	4.96	-0.21	1.75	-0.13	0.03
626761	C	1.99	-0.18	1.06	-0.15	90.77	0.30	6.18	-0.19	0.00
626762	A	70.82	0.10	2.55	-0.13	26.25	-0.04	0.38	-0.13	0.00
627788	C	3.82	-0.21	0.38	-0.12	95.13	0.25	0.67	-0.07	0.00
627895	C	19.67	-0.10	7.22	-0.33	68.57	0.38	4.54	-0.23	0.00
627896	B	13.33	-0.16	72.33	0.32	8.92	-0.21	5.42	-0.13	0.00
626361	B	14.54	-0.29	77.13	0.31	0.72	-0.09	7.61	-0.08	0.00
626362	C	7.64	-0.34	20.69	-0.29	70.23	0.47	1.43	-0.06	0.00
626284	C	9.14	-0.09	17.08	-0.24	62.80	0.36	10.97	-0.18	0.00
626285	B	16.04	0.08	35.15	0.29	29.61	-0.25	19.20	-0.13	0.00
626891	A	84.08	0.29	2.95	-0.12	11.83	-0.24	1.13	-0.09	0.00
627506	C	23.62	-0.40	4.40	-0.05	58.66	0.50	13.31	-0.19	0.00
626885	C	14.62	-0.29	6.87	-0.25	69.04	0.42	9.47	-0.10	0.00
626886	C	15.26	-0.20	19.44	-0.10	59.57	0.23	5.73	0.01	0.00
626732	C	69.84	-0.24	2.29	-0.12	27.18	0.29	0.69	-0.03	0.00
626733	D	66.28	-0.28	1.83	-0.17	0.79	-0.13	31.09	0.36	0.00
627789	A	86.14	0.35	5.47	-0.33	1.64	-0.17	6.75	-0.10	0.00
627898	A	94.32	0.17	2.86	-0.08	1.97	-0.10	0.85	-0.13	0.00
626363	D	3.15	-0.10	4.99	-0.12	42.84	-0.40	49.02	0.48	0.00
626364	D	2.75	-0.15	3.68	-0.15	18.49	-0.37	75.08	0.46	0.00
627340	A	86.69	0.34	5.32	-0.21	4.32	-0.19	3.67	-0.16	0.00
626893	A	90.91	0.33	2.92	-0.25	1.88	-0.20	4.29	-0.13	0.00
626880	B	4.86	-0.19	90.31	0.30	2.61	-0.16	2.22	-0.16	0.00
626881	D	6.39	-0.22	5.00	-0.24	2.88	-0.21	85.74	0.40	0.00
626734	A	50.76	0.36	38.49	-0.27	5.62	-0.14	5.13	-0.08	0.00
627323	B	28.05	-0.30	56.55	0.43	3.11	-0.14	12.29	-0.17	0.00
627790	A	85.00	0.29	9.14	-0.23	2.81	-0.09	3.05	-0.12	0.00
627899	A	90.73	0.32	6.56	-0.26	1.72	-0.11	0.99	-0.14	0.00
626365	C	1.53	-0.14	12.82	-0.21	77.25	0.32	8.41	-0.17	0.00

Table J.10 (continued). Grade 5 Mathematics Field Test: Multiple-Choice Distractor Analysis

		Response Options								
		A		B		C		D		Omit
Item ID	Key	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]
626366	D	5.84	-0.12	8.87	-0.21	6.64	-0.20	78.65	0.34	0.00
627342	D	20.14	-0.16	16.01	-0.24	3.67	-0.10	60.18	0.35	0.00
626895	C	8.97	-0.19	14.78	-0.08	59.78	0.20	16.47	-0.04	0.00
626882	D	0.41	-0.08	0.63	-0.16	0.57	-0.10	98.36	0.21	0.03
626883	C	0.10	-0.09	17.39	-0.29	82.44	0.30	0.06	-0.03	0.00
626736	A	91.95	0.35	3.19	-0.21	3.61	-0.24	1.25	-0.13	0.00
627324	C	6.25	-0.16	7.84	-0.23	84.71	0.32	1.20	-0.15	0.00
629068	D	2.90	-0.23	15.85	-0.16	3.00	-0.21	78.24	0.33	0.00
627900	A	72.18	0.20	10.44	-0.08	9.58	-0.10	7.80	-0.14	0.00
626738	D	12.88	-0.07	10.69	-0.10	23.50	-0.26	52.93	0.33	0.00
626896	C	20.52	-0.01	14.53	-0.13	46.09	0.31	18.86	-0.27	0.00
627794	A	82.86	0.34	12.23	-0.23	2.37	-0.16	2.54	-0.19	0.00
629069	A	82.23	0.37	4.10	-0.19	9.55	-0.24	4.13	-0.18	0.00
629066	C	5.44	-0.15	17.22	-0.27	58.88	0.44	18.46	-0.20	0.00
627795	C	1.15	-0.07	0.78	-0.08	94.82	0.27	3.24	-0.26	0.00

[1] Percentage of response options

Table J.11. Grade 6 Mathematics Field Test: Multiple-Choice Distractor Analysis

		Response Options								
		A		B		C		D		Omit
Item ID	Key	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]
627825	D	14.67	-0.21	15.09	-0.08	22.44	-0.30	47.78	0.45	0.03
627826	D	11.21	-0.07	10.04	-0.12	26.90	-0.33	51.79	0.41	0.06
627828	A	62.34	0.38	11.55	-0.15	12.83	-0.32	13.28	-0.10	0.00
627829	D	16.06	-0.33	2.96	-0.17	8.45	-0.19	72.51	0.46	0.03
627846	C	6.73	-0.10	4.53	-0.21	78.38	0.39	10.36	-0.31	0.00
627848	D	9.70	-0.12	13.02	-0.14	25.02	-0.30	52.21	0.43	0.06
627849	A	53.92	0.37	18.56	-0.30	10.68	-0.22	16.81	0.01	0.03
627851	D	7.10	-0.17	15.24	-0.17	18.41	-0.10	59.16	0.29	0.09
627852	D	8.07	-0.25	11.39	-0.26	23.89	-0.23	56.66	0.51	0.00
627854	B	10.27	-0.36	83.61	0.48	3.38	-0.16	2.75	-0.23	0.00
627855	C	3.24	-0.18	4.06	-0.17	79.27	0.32	13.40	-0.18	0.03
628525	A	84.88	0.46	6.07	-0.30	5.09	-0.20	3.93	-0.25	0.03
628526	D	22.46	-0.24	5.30	-0.08	28.82	-0.08	43.43	0.31	0.00
629281	B	4.30	-0.21	93.63	0.29	0.83	-0.15	1.21	-0.11	0.03
629283	A	81.37	0.29	3.17	-0.13	15.10	-0.24	0.34	-0.08	0.03
629284	D	4.06	-0.23	5.18	-0.24	13.90	-0.25	76.83	0.44	0.03
629285	C	7.25	-0.29	8.46	-0.31	70.32	0.45	13.91	-0.12	0.06
629286	B	31.88	-0.18	45.05	0.45	8.95	-0.17	14.13	-0.25	0.00
629287	B	24.19	-0.01	49.91	0.28	20.87	-0.19	4.99	-0.25	0.03
629288	D	2.09	-0.11	9.62	-0.28	8.25	-0.11	80.04	0.32	0.00
630674	C	13.81	-0.14	10.79	-0.24	71.13	0.32	4.27	-0.11	0.00
630675	B	4.15	-0.13	82.79	0.38	3.56	-0.13	9.49	-0.32	0.00
630676	C	5.20	-0.21	10.59	-0.32	80.85	0.45	3.33	-0.16	0.03
630677	B	3.16	-0.16	84.50	0.29	0.74	-0.12	11.60	-0.21	0.00
630678	A	89.91	0.38	3.87	-0.21	3.56	-0.23	2.63	-0.19	0.03
630679	D	1.80	-0.13	0.60	-0.11	4.95	-0.14	92.58	0.22	0.06
631346	C	14.87	-0.13	34.95	-0.48	36.73	0.55	13.45	0.03	0.00
631347	C	13.54	0.08	37.66	-0.52	41.14	0.55	7.65	-0.18	0.00
631348	C	1.51	-0.15	3.41	-0.16	68.02	0.17	27.06	-0.07	0.00
631351	D	6.53	-0.15	6.67	-0.13	8.28	-0.29	78.46	0.37	0.06
631354	D	4.56	-0.06	17.12	-0.33	14.17	-0.22	64.14	0.45	0.00
631355	A	63.74	0.48	4.61	-0.22	16.36	-0.29	15.26	-0.22	0.03
631942	C	3.13	-0.07	7.68	-0.10	63.80	0.38	25.33	-0.33	0.06
631943	C	40.59	-0.13	6.33	-0.29	52.12	0.28	0.93	-0.10	0.03
631944	A	61.43	0.52	7.61	-0.27	4.62	-0.21	26.34	-0.31	0.00
631945	B	22.05	-0.42	71.45	0.51	4.20	-0.16	2.24	-0.14	0.06
631946	B	5.47	-0.29	83.66	0.47	1.37	-0.13	9.50	-0.31	0.00
631947	C	6.79	-0.25	4.14	-0.25	87.39	0.40	1.65	-0.15	0.03
631949	A	70.38	0.27	15.40	-0.28	2.86	-0.04	11.36	-0.05	0.00
631950	D	11.90	-0.26	7.40	-0.25	3.93	-0.22	76.75	0.46	0.03
631951	C	10.36	-0.23	5.09	-0.24	79.11	0.42	5.39	-0.20	0.06
631953	A	66.94	0.43	11.43	-0.28	9.85	-0.17	11.78	-0.19	0.00
631954	D	3.88	-0.18	1.25	-0.21	1.34	-0.16	93.50	0.31	0.03
631955	A	88.89	0.41	3.81	-0.25	2.31	-0.26	4.87	-0.18	0.12
631956	A	91.14	0.40	2.93	-0.21	2.75	-0.27	3.17	-0.20	0.00

Table J.11 (continued). Grade 6 Mathematics Field Test: Multiple-Choice Distractor Analysis

		Response Options								
		A		B		C		D		Omit
Item ID	Key	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]
631957	A	94.19	0.32	2.25	-0.17	3.04	-0.23	0.49	-0.13	0.03
631958	D	8.28	-0.15	22.29	-0.16	2.87	-0.16	66.46	0.29	0.09
632125	C	3.68	-0.19	36.08	0.04	38.64	0.08	21.60	-0.04	0.00
632126	B	17.49	-0.21	47.24	0.34	15.84	-0.07	19.35	-0.16	0.09
632185	B	0.85	-0.11	76.52	0.41	19.99	-0.35	2.63	-0.16	0.00
632186	A	92.66	0.30	4.20	-0.23	2.75	-0.17	0.39	-0.11	0.00
632187	B	11.01	-0.35	62.99	0.46	23.68	-0.24	2.27	-0.07	0.06
632188	B	1.03	-0.09	97.64	0.17	0.21	-0.07	1.12	-0.12	0.00
632189	C	10.01	-0.36	12.00	-0.18	76.21	0.40	1.75	-0.03	0.03
632190	B	10.17	-0.30	65.09	0.46	24.20	-0.28	0.49	-0.11	0.06
632191	B	6.38	-0.20	83.81	0.42	7.23	-0.30	2.53	-0.16	0.06
632192	C	9.61	0.00	27.52	-0.26	53.24	0.22	9.64	0.01	0.00
632194	B	0.39	-0.11	83.00	0.34	0.88	-0.15	15.67	-0.29	0.06
632511	B	4.54	-0.20	89.78	0.30	4.21	-0.17	1.37	-0.11	0.09
632512	D	15.19	-0.28	10.78	-0.18	7.03	-0.17	66.97	0.43	0.03

[1] Percentage of response options

Table J.12. Grade 7 Mathematics Field Test: Multiple-Choice Distractor Analysis

		Response Options								
		A		B		C		D		Omit
Item ID	Key	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]
626653	C	13.23	-0.12	11.11	-0.20	60.50	0.51	15.15	-0.41	0.00
626260	A	79.55	0.46	15.01	-0.42	2.74	-0.13	2.70	-0.10	0.00
626261	B	24.39	-0.42	56.78	0.55	7.99	-0.13	10.84	-0.19	0.00
627630	D	3.59	-0.18	11.10	0.00	50.65	-0.15	34.65	0.23	0.00
627631	B	17.41	-0.08	40.23	0.16	40.44	-0.07	1.93	-0.11	0.00
627456	C	0.60	-0.10	2.46	-0.18	95.63	0.25	1.29	-0.14	0.03
627457	B	3.03	-0.21	95.66	0.27	0.74	-0.12	0.57	-0.10	0.00
627199	C	51.42	-0.28	4.36	-0.19	40.54	0.39	3.65	-0.08	0.03
627200	B	9.50	-0.16	71.28	0.27	6.92	-0.29	12.30	0.00	0.00
627574	D	4.65	-0.17	20.29	-0.23	4.97	-0.23	70.09	0.39	0.00
627575	C	3.28	-0.17	3.86	-0.22	84.60	0.33	8.23	-0.17	0.03
627746	C	3.30	-0.17	23.95	-0.49	72.05	0.55	0.70	-0.09	0.00
626321	D	0.55	-0.12	11.27	-0.41	2.82	-0.16	85.37	0.47	0.00
626322	C	0.37	-0.11	11.69	-0.38	87.21	0.42	0.74	-0.15	0.00
626262	C	1.35	-0.08	5.91	-0.25	52.57	0.34	40.17	-0.20	0.00
626385	B	17.49	-0.08	54.92	0.34	14.69	-0.31	12.90	-0.09	0.00
626386	C	21.50	-0.34	21.46	-0.19	47.64	0.41	9.39	0.04	0.00
627454	C	39.77	0.00	4.60	-0.16	47.36	0.16	8.27	-0.16	0.00
627403	C	8.08	-0.28	2.92	-0.23	86.05	0.41	2.96	-0.16	0.00
627201	B	9.25	0.00	84.90	0.15	1.78	-0.13	4.04	-0.18	0.03
627208	D	1.38	-0.14	14.13	-0.19	2.04	-0.11	82.39	0.26	0.06
627328	B	18.78	-0.33	42.67	0.30	28.06	-0.04	10.47	-0.01	0.03
627753	D	5.24	-0.28	8.01	-0.34	8.94	-0.25	77.76	0.55	0.06
626323	D	8.00	-0.10	19.45	-0.29	23.75	-0.14	48.77	0.40	0.03
626324	B	8.37	-0.19	50.25	0.39	23.42	-0.17	17.93	-0.18	0.03
626263	A	67.25	0.40	18.01	-0.13	9.12	-0.27	5.56	-0.25	0.06
626264	C	6.47	-0.18	3.61	-0.21	87.63	0.33	2.28	-0.16	0.00
626387	B	28.45	-0.11	33.70	0.15	21.17	-0.08	16.68	0.03	0.00
626388	D	26.73	0.04	24.75	-0.15	25.12	0.01	23.39	0.10	0.00
627407	B	2.87	-0.26	90.32	0.42	1.72	-0.18	5.09	-0.27	0.00
627207	A	53.97	0.40	17.50	-0.23	20.98	-0.16	7.52	-0.17	0.03
627202	B	8.30	-0.17	64.18	0.32	19.71	-0.14	7.78	-0.18	0.03
627329	C	14.17	-0.20	21.83	0.00	45.16	0.28	18.81	-0.17	0.03
627330	C	18.80	-0.13	22.40	-0.31	38.18	0.33	20.57	0.05	0.06
627754	A	68.96	0.37	9.95	-0.26	14.17	-0.14	6.92	-0.17	0.00
627755	D	15.48	-0.24	2.74	-0.20	2.22	-0.13	79.56	0.35	0.00
626654	A	41.00	0.30	19.13	-0.33	11.56	-0.16	28.32	0.07	0.00
626696	C	6.91	-0.17	9.64	-0.23	74.65	0.37	8.80	-0.17	0.00
626507	B	17.14	-0.25	65.41	0.43	8.61	-0.16	8.84	-0.23	0.00
627632	C	28.81	-0.10	9.03	-0.20	53.18	0.27	8.95	-0.10	0.03
626390	B	20.35	-0.14	58.29	0.39	19.39	-0.29	1.97	-0.15	0.00
627404	D	7.37	-0.12	7.20	-0.14	15.47	-0.27	69.96	0.36	0.00
627405	D	24.27	-0.10	16.09	-0.20	14.94	-0.15	44.67	0.34	0.03
627204	B	4.17	-0.26	83.53	0.28	4.69	-0.18	7.61	-0.06	0.00
627331	C	31.84	-0.01	16.72	-0.18	37.96	0.20	13.42	-0.07	0.06

Table J.12 (continued). Grade 7 Mathematics Field Test: Multiple-Choice Distractor Analysis

		Response Options								
		A		B		C		D		Omit
Item ID	Key	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]
627749	A	92.80	0.30	4.99	-0.19	1.22	-0.15	0.94	-0.17	0.06
626697	A	86.38	0.21	5.76	-0.14	4.39	-0.08	3.46	-0.12	0.00
626328	C	25.42	-0.16	12.80	-0.12	41.69	0.31	20.06	-0.10	0.03
626508	A	13.14	-0.01	10.92	-0.27	46.87	0.03	29.08	0.16	0.00
626391	D	12.40	-0.29	1.69	-0.18	2.28	-0.13	83.64	0.38	0.00
626392	A	88.60	0.26	8.70	-0.17	1.53	-0.16	1.13	-0.14	0.03
627720	B	8.15	-0.23	67.85	0.23	10.41	-0.11	13.59	-0.03	0.00
627205	D	3.54	-0.13	2.34	-0.23	4.45	-0.17	89.64	0.31	0.03
627206	A	96.58	0.25	0.80	-0.08	1.58	-0.19	0.95	-0.13	0.09
627333	B	15.74	-0.22	44.56	0.41	32.47	-0.18	7.20	-0.15	0.03
627751	B	6.22	-0.19	72.15	0.38	7.25	-0.20	14.38	-0.21	0.00
627752	B	25.68	-0.32	71.04	0.40	1.95	-0.19	1.34	-0.12	0.00
626329	C	41.92	-0.30	4.31	-0.20	50.71	0.41	3.03	-0.08	0.03
626267	C	10.76	-0.11	40.15	-0.18	33.16	0.29	15.90	-0.05	0.03
627458	B	13.03	-0.17	59.08	0.37	15.07	-0.23	12.77	-0.12	0.06

[1] Percentage of response options

Table J.13. Grade 8 Mathematics Field Test: Multiple-Choice Distractor Analysis

		Response Options								
		A		B		C		D		Omit
Item ID	Key	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]
628323	D	4.01	-0.09	2.85	-0.17	10.09	-0.26	83.05	0.33	0.00
628324	C	26.40	-0.47	5.32	-0.09	63.34	0.52	4.92	-0.10	0.03
629084	C	4.68	-0.17	12.98	-0.29	61.88	0.39	20.43	-0.14	0.03
629085	C	18.47	-0.07	19.98	-0.35	60.17	0.36	1.38	-0.06	0.00
631314	C	7.49	-0.18	16.05	-0.24	56.39	0.37	20.04	-0.12	0.03
631315	C	3.64	-0.11	4.45	-0.12	83.34	0.38	8.53	-0.34	0.03
631357	B	10.93	-0.14	65.78	0.43	19.13	-0.31	4.16	-0.20	0.00
631358	D	7.88	-0.23	11.16	-0.23	9.14	-0.21	71.80	0.44	0.03
631334	C	24.81	-0.28	9.22	-0.27	61.34	0.42	4.64	-0.04	0.00
631335	C	45.00	-0.25	6.59	-0.18	40.25	0.34	8.16	0.00	0.00
629090	C	2.20	-0.16	2.99	-0.24	92.32	0.35	2.48	-0.18	0.00
628556	D	25.53	-0.14	26.69	0.03	7.25	-0.15	40.50	0.18	0.03
632298	C	9.53	-0.30	1.98	-0.22	84.72	0.41	3.77	-0.15	0.00
632299	B	4.05	-0.27	89.90	0.41	2.13	-0.14	3.92	-0.26	0.00
632182	B	6.10	-0.10	59.80	0.48	14.24	-0.21	19.86	-0.35	0.00
632183	C	1.42	-0.10	3.28	-0.09	94.55	0.14	0.75	-0.06	0.00
629086	C	5.10	-0.26	8.54	-0.26	83.39	0.39	2.97	-0.09	0.00
629080	B	7.43	-0.32	89.71	0.35	1.29	-0.11	1.57	-0.08	0.00
631316	B	24.43	-0.29	70.74	0.38	3.17	-0.18	1.66	-0.12	0.00
631317	A	82.09	0.33	4.55	-0.17	11.76	-0.24	1.60	-0.12	0.00
631359	D	0.93	-0.15	4.28	-0.31	3.44	-0.20	91.32	0.41	0.03
631360	B	2.23	-0.14	74.47	0.36	5.86	-0.25	17.42	-0.21	0.03
631336	C	3.91	-0.16	3.72	-0.18	43.68	-0.13	48.69	0.26	0.00
629091	A	64.08	0.36	24.53	-0.18	3.19	-0.22	8.18	-0.21	0.03
628558	B	0.40	-0.11	96.83	0.18	2.11	-0.11	0.65	-0.09	0.00
632294	B	29.01	-0.18	42.59	0.51	12.96	-0.32	15.43	-0.17	0.00
632295	A	59.40	0.53	7.96	-0.17	26.21	-0.42	6.39	-0.14	0.03
628327	B	21.06	-0.04	53.27	0.38	9.47	-0.28	16.20	-0.25	0.00
628328	D	6.04	-0.30	4.63	-0.27	6.01	-0.25	83.30	0.51	0.03
629081	C	7.83	-0.25	11.91	-0.28	54.82	0.43	25.44	-0.13	0.00
629082	C	9.28	-0.30	8.90	-0.20	48.65	0.43	33.17	-0.15	0.00
631318	D	3.86	-0.18	3.49	-0.23	18.70	-0.35	73.94	0.49	0.00
628325	B	4.75	-0.08	93.97	0.16	0.70	-0.13	0.58	-0.14	0.00
628326	A	68.05	0.42	20.02	-0.37	9.60	-0.09	2.31	-0.15	0.03
631337	D	30.32	-0.05	29.15	-0.16	22.78	0.06	17.76	0.19	0.00
629092	C	2.17	-0.23	4.59	-0.30	92.45	0.40	0.75	-0.11	0.03
632300	D	2.63	-0.17	9.05	-0.17	20.09	-0.21	68.20	0.34	0.03
628332	B	9.83	-0.23	56.74	0.25	9.12	-0.22	24.30	0.02	0.00
629150	C	7.56	-0.18	13.57	-0.33	59.32	0.34	19.55	-0.02	0.00
629087	C	6.86	-0.18	23.99	-0.35	61.44	0.50	7.71	-0.18	0.00
631320	B	4.56	-0.29	87.84	0.41	4.88	-0.22	2.69	-0.15	0.03
631363	A	48.97	0.40	23.68	-0.30	21.72	-0.08	5.60	-0.16	0.03
631338	B	18.01	-0.01	45.21	0.22	17.76	-0.21	19.02	-0.07	0.00
628561	A	44.35	0.27	16.46	0.08	30.68	-0.28	8.51	-0.13	0.00
632296	A	54.45	0.39	8.37	-0.23	33.44	-0.19	3.75	-0.23	0.00

Table J.13 (continued). Grade 8 Mathematics Field Test: Multiple-Choice Distractor Analysis

		Response Options								
		A		B		C		D		Omit
Item ID	Key	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]
629083	A	73.99	0.24	12.70	-0.15	5.72	-0.11	7.56	-0.12	0.03
631321	D	12.35	-0.10	24.02	-0.10	6.25	0.01	57.38	0.15	0.00
632184	B	10.89	-0.19	71.16	0.40	5.54	-0.07	12.39	-0.32	0.03
631340	D	18.98	-0.16	31.37	-0.03	2.71	-0.21	46.93	0.23	0.00
631341	D	4.40	-0.22	2.83	-0.15	32.77	-0.29	60.00	0.42	0.00
628563	A	51.78	0.30	8.70	-0.21	16.99	-0.19	22.53	-0.04	0.00
632301	B	22.23	-0.11	27.46	0.29	19.02	-0.14	31.26	-0.06	0.03
632302	B	2.45	-0.12	61.68	0.40	14.97	-0.21	20.90	-0.25	0.00
628330	A	85.14	0.15	1.01	-0.10	12.62	-0.10	1.20	-0.07	0.03
629088	B	8.25	-0.12	73.43	0.43	12.04	-0.29	6.28	-0.25	0.00
632303	D	5.62	-0.19	1.37	-0.17	5.65	-0.14	87.35	0.29	0.00
632297	B	15.32	-0.28	51.54	0.41	27.67	-0.19	5.47	-0.08	0.00
631343	D	13.74	-0.25	6.96	-0.24	11.52	-0.25	67.77	0.49	0.00
628565	C	12.95	-0.25	18.99	-0.21	61.25	0.42	6.77	-0.14	0.03
628331	B	7.98	-0.24	64.89	0.36	21.00	-0.25	6.09	-0.02	0.03

[1] Percentage of response options

Table J.14. Grade 10 Mathematics Field Test: Multiple-Choice Distractor Analysis

		Response Options								
		A		B		C		D		Omit
Item ID	Key	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]
627292	D	8.32	-0.37	6.50	-0.08	8.81	-0.26	76.32	0.46	0.04
627293	B	8.60	-0.24	86.45	0.35	4.43	-0.22	0.52	-0.11	0.00
626739	C	7.10	-0.12	7.80	-0.16	35.98	0.29	49.09	-0.13	0.04
626740	D	19.22	-0.27	5.33	-0.24	15.07	-0.17	60.38	0.45	0.00
627116	A	71.19	0.27	26.03	-0.18	2.39	-0.25	0.39	-0.09	0.00
627117	C	15.94	-0.29	6.52	-0.14	57.73	0.49	19.81	-0.26	0.00
627510	B	0.39	-0.12	95.04	0.35	2.15	-0.25	2.37	-0.20	0.04
628689	B	8.09	-0.03	33.29	0.44	35.25	-0.25	23.37	-0.19	0.00
630927	C	32.94	-0.23	7.11	-0.25	49.05	0.39	10.89	-0.07	0.00
630928	B	8.26	-0.21	76.33	0.36	11.66	-0.23	3.75	-0.13	0.00
629071	A	63.46	0.38	19.24	-0.13	13.01	-0.26	4.28	-0.22	0.00
632052	B	8.24	-0.08	56.51	0.46	16.77	-0.26	18.48	-0.28	0.00
626741	B	13.95	-0.19	55.32	0.38	11.64	-0.04	19.05	-0.29	0.04
630213	C	23.76	-0.22	10.36	-0.26	59.80	0.35	5.98	0.01	0.09
631324	C	1.77	-0.04	17.70	-0.28	70.18	0.46	10.36	-0.32	0.00
631325	B	18.54	0.19	29.62	0.26	15.98	-0.20	35.86	-0.24	0.00
627512	C	18.47	-0.24	20.22	-0.25	50.44	0.47	10.87	-0.13	0.00
632426	A	87.37	0.37	6.45	-0.29	2.22	-0.25	3.87	-0.07	0.09
632427	C	2.69	-0.09	2.39	-0.15	87.97	0.28	6.90	-0.20	0.04
630929	D	7.33	-0.24	10.91	-0.35	12.09	-0.27	69.68	0.56	0.00
627379	C	32.78	-0.11	8.15	-0.12	54.90	0.24	4.08	-0.16	0.09
626294	C	10.46	-0.33	14.38	-0.30	70.30	0.52	4.82	-0.14	0.04
629072	D	2.73	-0.27	14.74	-0.11	6.12	-0.29	76.41	0.36	0.00
626743	C	16.02	-0.19	35.38	-0.04	40.87	0.26	7.65	-0.12	0.08
627418	C	9.37	-0.06	12.42	-0.07	69.26	0.26	8.94	-0.28	0.00
627322	B	21.49	-0.11	45.78	0.39	19.14	-0.13	13.50	-0.28	0.09
627513	C	6.04	-0.23	3.97	-0.28	73.72	0.35	16.27	-0.12	0.00
631326	D	14.30	-0.29	6.29	-0.20	22.58	-0.26	56.83	0.53	0.00
631327	B	6.67	-0.30	89.67	0.42	1.19	-0.18	2.34	-0.18	0.13
630931	B	22.78	-0.09	42.21	0.41	14.44	-0.26	20.53	-0.18	0.05
632428	B	20.31	0.09	46.47	0.24	23.10	-0.23	9.98	-0.18	0.13
629073	B	4.28	-0.26	86.52	0.43	5.23	-0.31	3.88	-0.11	0.09
627120	C	8.90	-0.14	11.42	-0.20	49.37	0.34	30.26	-0.14	0.04
627121	C	37.97	-0.04	11.45	-0.22	44.79	0.28	5.75	-0.19	0.04
631328	B	12.93	-0.19	70.93	0.39	13.28	-0.28	2.85	-0.11	0.00
631329	A	79.38	0.51	11.34	-0.32	4.07	-0.24	5.18	-0.25	0.04
632430	B	2.95	-0.21	88.49	0.36	5.80	-0.23	2.77	-0.16	0.00
632431	B	19.53	-0.11	55.22	0.28	17.21	-0.16	7.95	-0.12	0.09
627295	A	55.69	0.41	22.76	-0.06	13.13	-0.35	8.42	-0.22	0.00
632054	B	11.27	-0.07	82.96	0.24	3.70	-0.18	1.98	-0.21	0.09
626744	B	34.06	-0.13	57.05	0.31	4.45	-0.21	4.45	-0.22	0.00
626745	A	71.55	0.42	16.16	-0.31	8.21	-0.16	4.04	-0.15	0.04
627123	C	1.34	-0.16	2.95	-0.19	81.05	0.34	14.66	-0.23	0.00
627516	C	8.59	-0.25	10.59	-0.23	70.98	0.42	9.84	-0.17	0.00
632432	C	7.37	-0.29	19.11	-0.15	54.94	0.50	18.50	-0.29	0.09

Table J.14 (continued). Grade 10 Mathematics Field Test: Multiple-Choice Distractor Analysis

		Response Options								
		A		B		C		D		Omit
Item ID	Key	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]
630934	D	4.30	-0.13	10.75	-0.04	14.04	-0.05	70.92	0.12	0.00
630935	C	1.95	-0.24	6.68	-0.30	90.19	0.41	1.18	-0.13	0.00
629077	A	95.84	0.33	1.39	-0.24	1.99	-0.17	0.74	-0.15	0.04
629078	D	22.44	-0.09	3.58	-0.22	7.60	-0.24	66.30	0.31	0.09
629079	D	5.94	-0.17	13.40	-0.24	6.48	-0.21	74.18	0.39	0.00
630217	D	11.22	-0.22	8.04	-0.24	9.32	-0.26	71.38	0.46	0.04
630218	A	52.09	0.26	33.65	-0.02	7.81	-0.22	6.32	-0.24	0.13
626746	B	7.74	-0.17	79.52	0.39	6.63	-0.26	6.06	-0.19	0.04
631330	B	11.85	-0.09	40.47	-0.01	32.91	0.14	14.77	-0.10	0.00
631331	C	2.23	-0.15	3.27	-0.18	93.15	0.29	1.35	-0.17	0.00
631332	A	53.80	0.51	21.97	-0.19	12.01	-0.35	12.23	-0.18	0.00
632433	C	11.73	-0.20	12.50	-0.22	68.86	0.37	6.87	-0.13	0.04
632434	B	45.93	0.04	23.78	0.18	12.98	-0.18	17.18	-0.09	0.13
632435	C	5.38	-0.27	5.43	-0.33	86.59	0.50	2.51	-0.19	0.09
627297	B	14.47	-0.17	76.86	0.39	4.29	-0.20	4.38	-0.31	0.00
626291	A	36.44	0.16	14.34	-0.14	32.07	0.01	17.16	-0.08	0.00
626748	D	5.68	-0.16	5.81	-0.12	1.88	-0.20	86.64	0.27	0.00
627756	D	10.75	-0.19	2.19	-0.21	10.93	-0.21	76.13	0.37	0.00
627124	B	7.35	-0.26	61.78	0.34	23.48	-0.13	7.39	-0.15	0.00
627125	C	10.23	-0.33	5.87	-0.17	79.31	0.47	4.59	-0.24	0.00
627517	D	12.38	-0.09	29.02	-0.24	10.03	-0.15	48.54	0.37	0.04
628691	B	4.02	-0.10	51.97	0.34	22.01	-0.01	21.96	-0.35	0.04
628692	A	62.30	0.39	21.49	-0.16	10.94	-0.21	5.27	-0.25	0.00
630936	C	35.11	-0.20	33.55	0.00	23.20	0.18	8.09	0.07	0.04
630937	D	3.77	-0.20	10.47	-0.28	15.90	-0.20	69.68	0.45	0.17
630938	A	8.74	-0.05	13.13	0.00	75.25	0.08	2.84	-0.12	0.04
629075	C	15.06	-0.21	22.81	-0.21	43.36	0.32	18.63	0.01	0.13
629076	B	10.78	-0.28	57.78	0.41	19.35	-0.13	12.04	-0.20	0.04
630220	B	6.90	-0.21	62.17	0.47	16.83	-0.29	14.06	-0.19	0.04
632373	C	15.96	-0.35	6.48	-0.22	73.95	0.47	3.57	-0.10	0.04

[1] Percentage of response options

Table J.15. Grade 3 Language Usage Field Test: Multiple-Choice Distractor Analysis

		Response Options								
		A		B		C		D		Omit
Item ID	Key	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]
628540	B	26.04	-0.34	56.11	0.49	7.52	-0.20	10.30	-0.14	0.03
628541	C	4.74	-0.20	2.18	-0.20	85.02	0.35	8.06	-0.20	0.00
628542	A	92.14	0.38	2.93	-0.22	2.63	-0.24	2.30	-0.18	0.00
628543	B	3.04	-0.28	86.09	0.46	3.75	-0.26	7.09	-0.24	0.03
628544	C	10.58	-0.23	18.94	-0.28	65.41	0.46	5.07	-0.18	0.00
628545	B	6.15	-0.28	81.82	0.39	4.13	-0.23	7.90	-0.14	0.00
628546	B	8.56	-0.29	75.72	0.48	8.23	-0.28	7.49	-0.18	0.00
628547	B	3.29	-0.18	88.62	0.34	4.03	-0.22	4.06	-0.16	0.00
628548	D	14.47	-0.22	12.70	-0.15	2.08	-0.22	70.76	0.35	0.00
628549	C	16.13	-0.11	1.62	-0.23	81.40	0.20	0.85	-0.09	0.00
628550	B	2.36	-0.23	87.06	0.27	9.68	-0.14	0.90	-0.16	0.00
628551	B	3.27	-0.17	81.18	0.46	3.67	-0.22	11.89	-0.33	0.00
628552	C	28.59	-0.36	6.39	-0.18	54.93	0.44	10.08	-0.04	0.00
628553	A	96.99	0.29	1.24	-0.23	1.30	-0.15	0.48	-0.11	0.00
628554	A	46.91	0.25	15.63	-0.12	20.59	-0.17	16.87	-0.04	0.00
628555	C	5.30	-0.28	4.32	-0.21	83.56	0.43	6.83	-0.21	0.00
628693	B	38.03	0.07	44.14	0.22	7.64	-0.19	10.20	-0.31	0.00
628694	B	19.73	-0.22	70.67	0.36	5.45	-0.16	4.15	-0.21	0.00
628695	B	8.14	-0.20	70.19	0.42	9.41	-0.20	12.26	-0.24	0.00
628696	A	84.24	0.36	5.79	-0.27	6.20	-0.21	3.77	-0.09	0.00
628697	C	4.08	-0.27	1.95	-0.25	92.48	0.43	1.45	-0.21	0.03
628698	B	7.15	-0.25	43.77	0.15	13.56	-0.18	35.49	0.11	0.03
628699	B	11.24	-0.29	72.25	0.45	7.50	-0.24	8.97	-0.16	0.03
628700	C	10.69	-0.33	12.52	-0.20	71.99	0.47	4.76	-0.19	0.03
628701	A	31.96	0.26	8.86	-0.05	6.67	-0.11	52.47	-0.16	0.03
628702	C	26.67	-0.34	8.02	-0.06	54.56	0.36	10.76	-0.05	0.00
628703	C	11.72	-0.27	1.94	-0.14	83.45	0.35	2.89	-0.15	0.00
628704	C	4.98	-0.22	14.43	-0.14	45.07	0.37	35.52	-0.18	0.00
628705	B	4.69	-0.19	78.48	0.29	3.66	-0.18	13.17	-0.13	0.00
628706	B	3.63	-0.13	73.35	0.43	6.15	-0.21	16.86	-0.31	0.00
628707	A	80.76	0.40	4.55	-0.19	9.62	-0.23	5.07	-0.24	0.00
628708	D	11.03	-0.29	5.07	-0.21	6.30	-0.24	77.56	0.47	0.03
628724	B	9.39	-0.24	65.97	0.34	3.71	-0.26	20.91	-0.10	0.03
628725	C	19.83	-0.24	11.19	-0.13	59.69	0.42	9.29	-0.24	0.00
628726	A	57.35	0.26	30.19	-0.12	7.13	-0.15	5.33	-0.16	0.00
628727	A	74.06	0.41	6.71	-0.27	3.09	-0.22	16.14	-0.21	0.00
628728	C	5.69	-0.22	2.64	-0.24	87.81	0.39	3.86	-0.20	0.00
628729	B	2.89	-0.20	86.34	0.29	2.20	-0.23	8.58	-0.12	0.00
628730	C	9.23	-0.16	16.45	-0.26	67.87	0.39	6.45	-0.16	0.00
628731	D	6.99	-0.25	6.24	-0.23	4.74	-0.24	82.03	0.45	0.00
628732	D	11.77	-0.27	9.87	-0.23	6.34	-0.18	72.03	0.44	0.00
628733	C	5.45	-0.26	12.82	-0.20	78.87	0.37	2.86	-0.15	0.00
628734	A	63.83	0.37	15.05	-0.16	8.42	-0.24	12.69	-0.17	0.00
628735	B	6.62	-0.24	77.51	0.45	3.54	-0.26	12.29	-0.25	0.03
628736	A	48.60	0.28	16.41	-0.08	24.46	-0.16	10.50	-0.14	0.03

Table J.15 (continued). Grade 3 Language Usage Field Test: Multiple-Choice Distractor Analysis

		Response Options								
		A		B		C		D		Omit
Item ID	Key	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]
628737	C	7.98	-0.10	3.16	-0.13	68.78	0.25	20.05	-0.17	0.03
628738	D	17.79	-0.12	11.10	-0.30	8.52	-0.27	62.56	0.44	0.03
628739	D	15.10	-0.19	28.27	-0.11	9.46	-0.18	47.13	0.34	0.03
628800	D	8.96	-0.15	18.74	-0.05	24.88	-0.09	47.39	0.21	0.03
628801	A	70.52	0.34	11.09	-0.24	6.54	-0.20	11.84	-0.10	0.00
628802	D	5.21	-0.24	6.91	-0.32	10.09	-0.21	77.79	0.48	0.00
628803	C	23.70	-0.19	1.96	-0.26	56.89	0.32	17.43	-0.11	0.03
628804	A	69.87	0.41	9.32	-0.27	16.08	-0.17	4.72	-0.22	0.00
628805	C	19.50	-0.08	17.72	-0.11	48.24	0.32	14.51	-0.24	0.03
628806	D	5.01	-0.25	49.53	-0.18	6.16	-0.18	39.29	0.39	0.00
628807	A	68.55	0.37	4.80	-0.30	20.57	-0.11	6.05	-0.27	0.03
628808	D	14.66	-0.26	6.38	-0.14	3.86	-0.23	75.10	0.40	0.00
628809	D	11.54	-0.20	5.53	-0.29	2.17	-0.25	80.73	0.42	0.03
628810	D	4.83	-0.28	3.50	-0.26	6.13	-0.25	85.53	0.48	0.00
628811	B	26.51	-0.18	58.44	0.42	8.91	-0.24	6.11	-0.24	0.03

[1] Percentage of response options

Table J.16. Grade 4 Language Usage Field Test: Multiple-Choice Distractor Analysis

		Response Options								
		A		B		C		D		Omit
Item ID	Key	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]
628440	D	10.47	-0.22	11.86	-0.26	8.48	-0.22	69.19	0.46	0.00
628441	D	23.19	-0.12	5.30	-0.21	6.14	-0.21	65.37	0.31	0.00
628442	C	4.52	-0.21	2.59	-0.23	85.38	0.31	7.45	-0.11	0.06
628443	D	12.62	-0.21	4.35	-0.27	3.31	-0.27	79.72	0.43	0.00
628444	D	5.89	-0.24	6.97	-0.27	4.25	-0.25	82.89	0.46	0.00
628445	C	3.65	-0.18	4.30	-0.24	75.00	0.33	17.05	-0.16	0.00
628446	D	1.44	-0.20	3.77	-0.29	4.42	-0.22	90.37	0.42	0.00
628447	C	16.76	-0.23	13.58	-0.12	64.20	0.30	5.46	-0.07	0.00
628448	C	7.67	-0.22	7.73	-0.21	81.49	0.39	3.10	-0.21	0.00
628449	C	19.88	-0.12	2.87	-0.22	68.56	0.29	8.69	-0.18	0.00
628450	A	48.81	0.40	11.17	-0.14	19.53	-0.19	20.49	-0.20	0.00
628451	C	10.17	-0.22	57.00	0.17	26.25	0.08	6.58	-0.20	0.00
628452	B	10.49	-0.19	63.23	0.32	13.44	-0.12	12.84	-0.16	0.00
628453	A	70.02	0.27	3.78	-0.21	18.97	-0.10	7.23	-0.17	0.00
628454	A	65.78	0.24	6.28	-0.16	11.11	-0.10	16.83	-0.12	0.00
628455	B	2.51	-0.23	92.83	0.39	2.08	-0.25	2.57	-0.19	0.00
628638	C	4.40	-0.05	2.04	-0.26	76.63	0.34	16.93	-0.25	0.00
628639	D	16.02	-0.28	3.06	-0.21	2.12	-0.18	78.76	0.41	0.03
628640	C	10.07	-0.07	2.71	-0.23	84.82	0.27	2.37	-0.24	0.03
628641	A	92.26	0.38	2.64	-0.25	1.83	-0.20	3.23	-0.19	0.03
628642	B	7.87	-0.25	81.80	0.45	4.05	-0.23	6.27	-0.25	0.00
628643	C	4.23	-0.17	10.70	-0.28	70.18	0.38	14.88	-0.15	0.00
628644	B	5.57	-0.25	69.97	0.38	18.53	-0.15	5.93	-0.24	0.00
628645	D	1.48	-0.19	9.73	-0.26	8.44	-0.26	80.35	0.44	0.00
628646	D	3.19	-0.17	18.33	-0.26	15.36	-0.21	63.10	0.43	0.03
628647	C	29.08	-0.09	10.03	-0.13	57.48	0.23	3.41	-0.18	0.00
628648	A	51.50	0.21	37.57	-0.05	6.28	-0.20	4.64	-0.16	0.00
628649	B	11.67	-0.10	42.66	0.24	29.49	-0.04	16.14	-0.18	0.03
628650	A	58.15	0.23	15.24	-0.13	17.50	-0.10	9.05	-0.08	0.06
628651	A	70.57	0.29	7.11	-0.12	6.23	-0.21	16.09	-0.15	0.00
628652	B	13.47	-0.25	65.03	0.39	9.68	-0.18	11.82	-0.14	0.00
628653	A	76.90	0.24	13.58	-0.16	7.31	-0.13	2.20	-0.11	0.00
628740	D	7.59	-0.20	5.81	-0.22	1.66	-0.20	84.94	0.36	0.00
628741	B	32.06	0.01	45.68	0.13	8.36	-0.07	13.90	-0.15	0.00
628742	C	3.54	-0.30	3.72	-0.23	90.79	0.42	1.92	-0.15	0.03
628743	A	75.38	0.41	13.81	-0.22	3.98	-0.23	6.83	-0.24	0.00
628744	D	1.74	-0.21	5.61	-0.26	8.05	-0.25	84.60	0.43	0.00
628745	B	4.58	-0.27	82.03	0.42	3.24	-0.24	10.13	-0.20	0.03
628746	D	15.11	-0.30	6.94	-0.17	3.58	-0.26	74.37	0.46	0.00
628747	C	12.68	-0.27	9.70	-0.22	69.77	0.43	7.85	-0.15	0.00
628748	C	1.44	-0.20	2.76	-0.20	89.54	0.33	6.26	-0.19	0.00
628749	B	11.66	-0.16	76.49	0.35	4.74	-0.21	7.10	-0.20	0.00
628750	A	38.28	0.03	6.60	-0.20	9.75	-0.13	45.37	0.15	0.00
628751	B	2.23	-0.28	94.63	0.41	2.32	-0.26	0.82	-0.14	0.00
628752	C	16.43	-0.11	12.66	-0.18	50.62	0.30	20.29	-0.12	0.00

Table J.16 (continued). Grade 4 Language Usage Field Test: Multiple-Choice Distractor Analysis

		Response Options								
		A		B		C		D		Omit
Item ID	Key	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]
628753	C	7.20	-0.19	23.21	-0.21	60.75	0.36	8.84	-0.14	0.00
628754	B	21.18	-0.22	25.35	0.03	6.38	-0.22	47.09	0.27	0.00
628755	D	2.91	-0.19	8.45	-0.16	14.76	-0.19	73.89	0.33	0.00
628812	A	67.94	0.36	19.12	-0.22	5.67	-0.25	7.27	-0.10	0.00
628813	D	22.69	-0.20	2.93	-0.24	3.36	-0.24	71.02	0.37	0.00
628814	B	10.21	-0.22	81.62	0.47	3.40	-0.27	4.76	-0.30	0.00
628815	D	8.62	-0.16	2.00	-0.19	4.43	-0.17	84.95	0.30	0.00
628816	C	0.91	-0.20	4.97	-0.25	92.48	0.35	1.64	-0.16	0.00
628817	D	1.59	-0.18	2.30	-0.21	3.95	-0.26	92.13	0.39	0.03
628818	A	81.34	0.32	2.44	-0.17	5.00	-0.24	11.22	-0.15	0.00
628819	A	70.36	0.27	9.91	-0.15	2.19	-0.25	17.54	-0.11	0.00
628820	D	19.54	-0.13	10.58	-0.22	1.55	-0.18	68.33	0.30	0.00
628821	A	78.20	0.41	5.12	-0.25	10.09	-0.23	6.56	-0.17	0.03
628822	D	17.43	-0.19	4.97	-0.23	8.70	-0.20	68.89	0.38	0.00
628823	B	5.55	-0.22	81.10	0.43	8.38	-0.27	4.94	-0.18	0.03

[1] Percentage of response options

Table J.17. Grade 5 Language Usage Field Test: Multiple-Choice Distractor Analysis

		Response Options								
		A		B		C		D		Omit
Item ID	Key	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]
539939	D	9.25	-0.16	16.19	-0.10	9.22	-0.22	65.34	0.31	0.00
628456	C	31.51	-0.04	14.15	-0.11	46.37	0.18	7.92	-0.12	0.06
628457	C	9.69	-0.14	6.19	-0.17	73.30	0.31	10.82	-0.17	0.00
628458	B	6.84	-0.13	44.33	0.30	4.93	-0.21	43.89	-0.14	0.00
628459	C	11.88	-0.06	19.12	-0.26	57.13	0.31	11.88	-0.09	0.00
628460	A	82.06	0.41	8.72	-0.26	3.88	-0.21	5.34	-0.19	0.00
628461	D	22.32	-0.22	5.93	-0.13	8.63	-0.13	63.13	0.33	0.00
628462	B	7.70	-0.10	55.70	0.24	17.25	-0.12	19.35	-0.12	0.00
628463	C	16.98	-0.10	2.15	-0.12	76.28	0.22	4.58	-0.18	0.00
628464	B	12.45	-0.18	73.05	0.34	7.57	-0.22	6.94	-0.12	0.00
628465	A	74.44	0.45	18.38	-0.30	4.58	-0.25	2.60	-0.19	0.00
628466	C	3.83	-0.24	2.90	-0.21	88.58	0.40	4.69	-0.22	0.00
628467	B	10.37	-0.12	60.37	0.34	13.88	-0.18	15.38	-0.18	0.00
628468	A	35.29	0.22	31.05	-0.05	21.67	-0.12	11.99	-0.11	0.00
628469	B	7.51	-0.26	83.89	0.35	2.42	-0.11	6.19	-0.18	0.00
628493	B	26.84	-0.10	69.16	0.21	1.77	-0.22	2.23	-0.15	0.00
628494	B	8.38	-0.13	86.53	0.26	2.92	-0.22	2.17	-0.09	0.00
628495	A	68.72	0.43	6.51	-0.23	17.98	-0.26	6.79	-0.17	0.00
628496	A	86.08	0.20	2.00	-0.10	11.03	-0.15	0.89	-0.12	0.00
628497	B	4.31	-0.08	62.45	0.47	21.01	-0.33	12.23	-0.25	0.00
628498	C	13.73	-0.20	36.01	-0.04	29.81	0.29	20.45	-0.12	0.00
628499	C	5.48	-0.17	3.95	-0.18	85.52	0.35	5.05	-0.21	0.00
628500	A	65.58	0.29	12.48	-0.15	19.08	-0.16	2.85	-0.16	0.00
628501	D	15.07	-0.12	26.75	-0.10	17.27	-0.09	40.91	0.25	0.00
628502	C	7.12	-0.20	25.38	0.01	57.85	0.19	9.65	-0.16	0.00
628503	C	14.15	-0.17	13.04	-0.16	66.36	0.30	6.46	-0.13	0.00
628504	B	5.47	-0.23	53.08	0.29	35.61	-0.11	5.84	-0.18	0.00
628756	B	27.78	-0.08	65.66	0.22	2.91	-0.22	3.65	-0.18	0.00
628757	D	12.00	-0.19	7.11	-0.24	14.47	-0.22	66.42	0.42	0.00
628758	D	5.70	-0.16	6.78	-0.12	16.34	-0.23	71.17	0.34	0.00
628759	B	6.54	-0.23	80.37	0.28	5.19	-0.11	7.89	-0.11	0.00
628760	A	57.02	0.41	16.06	-0.15	13.73	-0.24	13.18	-0.19	0.00
628762	C	13.34	-0.20	29.64	-0.18	51.85	0.37	5.18	-0.17	0.00
628763	B	5.00	-0.22	85.15	0.34	7.20	-0.22	2.64	-0.09	0.00
628764	C	6.31	-0.26	2.72	-0.22	88.01	0.37	2.97	-0.14	0.00
628765	B	3.33	-0.14	61.05	0.33	19.65	-0.21	15.97	-0.13	0.00
628766	D	6.14	-0.30	9.78	-0.22	8.60	-0.20	75.49	0.45	0.00
628767	A	59.00	0.35	16.93	-0.19	10.60	-0.18	13.46	-0.14	0.00
628768	C	2.85	-0.19	32.93	-0.23	62.06	0.34	2.16	-0.18	0.00
628769	B	0.81	-0.12	96.90	0.21	0.56	-0.13	1.74	-0.12	0.00
628770	D	2.87	-0.17	10.78	-0.16	6.27	-0.27	80.08	0.35	0.00
628824	C	2.86	-0.22	6.12	-0.26	87.77	0.41	3.26	-0.20	0.00
628825	B	6.52	-0.13	71.45	0.29	3.43	-0.21	18.60	-0.16	0.00
628826	D	1.51	-0.22	3.57	-0.14	4.66	-0.20	90.26	0.33	0.00
628827	A	89.75	0.34	3.95	-0.16	3.23	-0.23	3.07	-0.19	0.00

Table J.17 (continued). Grade 5 Language Usage Field Test: Multiple-Choice Distractor Analysis

		Response Options								
		A		B		C		D		Omit
Item ID	Key	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]
628828	C	33.63	-0.14	4.27	-0.29	59.99	0.30	2.11	-0.14	0.00
628829	B	9.02	-0.21	75.09	0.38	8.44	-0.22	7.45	-0.17	0.00
628830	C	7.58	-0.12	3.54	-0.23	60.61	0.29	28.27	-0.15	0.00
628831	D	13.39	-0.18	52.62	-0.01	8.00	-0.04	26.00	0.19	0.00
628832	B	16.08	-0.18	60.65	0.32	18.93	-0.16	4.35	-0.13	0.00
628833	D	0.40	-0.09	0.34	-0.13	0.64	-0.08	98.63	0.17	0.00
628834	D	17.47	-0.19	20.33	-0.12	24.44	0.04	37.77	0.22	0.00
628835	C	9.51	-0.26	3.73	-0.19	83.28	0.39	3.48	-0.19	0.00
628836	C	17.15	-0.06	12.82	-0.17	62.48	0.23	7.55	-0.12	0.00
628837	A	54.66	0.34	6.35	-0.18	38.22	-0.23	0.77	-0.16	0.00
628838	B	4.53	-0.18	79.64	0.32	4.78	-0.19	11.05	-0.17	0.00
628839	A	23.69	0.11	11.63	-0.16	16.52	-0.14	48.17	0.11	0.00
628840	A	70.37	0.32	7.63	-0.18	15.76	-0.19	6.24	-0.11	0.00
628841	B	7.52	-0.24	76.45	0.40	9.31	-0.24	6.73	-0.13	0.00
628842	A	79.64	0.30	3.50	-0.27	1.84	-0.15	15.02	-0.15	0.00

[1] Percentage of response options

Table J.18. Grade 6 Language Usage Field Test: Multiple-Choice Distractor Analysis

		Response Options								
		A		B		C		D		Omit
Item ID	Key	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]
631493	A	91.75	0.34	3.48	-0.21	2.67	-0.23	2.08	-0.11	0.03
631498	D	3.95	-0.19	6.16	-0.25	2.77	-0.27	87.12	0.42	0.00
631407	D	2.33	-0.19	10.46	-0.22	7.13	-0.21	80.09	0.38	0.00
631443	A	77.33	0.36	6.27	-0.19	6.87	-0.22	9.54	-0.17	0.00
631408	D	7.11	-0.23	1.92	-0.21	9.44	-0.17	81.54	0.36	0.00
631494	D	2.89	-0.22	1.94	-0.21	2.48	-0.24	92.68	0.39	0.00
631503	D	1.64	-0.22	3.55	-0.26	7.25	-0.30	87.56	0.47	0.00
631456	B	8.86	-0.12	64.57	0.33	10.79	-0.23	15.74	-0.15	0.03
631409	B	10.50	-0.24	83.88	0.36	4.02	-0.19	1.61	-0.15	0.00
631410	D	3.29	-0.21	6.56	-0.23	9.68	-0.21	80.46	0.40	0.00
631411	B	4.13	-0.26	82.85	0.42	5.47	-0.22	7.51	-0.21	0.03
631499	A	80.53	0.36	8.76	-0.18	6.44	-0.21	4.25	-0.19	0.03
631504	D	3.89	-0.08	11.12	-0.23	11.84	-0.13	73.15	0.29	0.00
631413	A	95.80	0.22	1.12	-0.16	2.44	-0.10	0.64	-0.14	0.00
593729	A	57.31	0.12	19.00	-0.16	8.81	-0.11	14.89	0.11	0.00
631500	C	2.04	-0.26	2.02	-0.22	86.09	0.32	9.85	-0.15	0.00
631488	B	29.97	-0.03	54.49	0.21	6.89	-0.20	8.66	-0.14	0.00
631458	C	10.01	-0.18	5.32	-0.21	62.90	0.36	21.77	-0.17	0.00
631447	A	66.30	0.25	6.32	-0.05	13.16	-0.28	14.22	-0.04	0.00
631414	C	2.08	-0.18	11.02	-0.21	83.62	0.35	3.25	-0.20	0.03
631415	A	90.85	0.32	2.56	-0.15	3.83	-0.20	2.73	-0.17	0.03
631459	D	15.46	-0.10	5.90	-0.18	1.56	-0.10	77.08	0.22	0.00
631460	C	17.45	-0.18	14.83	-0.08	49.11	0.31	18.61	-0.16	0.00
631505	C	16.18	-0.14	12.13	-0.11	54.58	0.27	17.12	-0.12	0.00
631501	B	15.44	-0.16	69.46	0.33	7.77	-0.19	7.33	-0.17	0.00
631448	C	3.96	-0.16	6.17	-0.16	82.11	0.27	7.76	-0.12	0.00
631449	A	69.60	0.37	6.37	-0.18	22.07	-0.24	1.96	-0.18	0.00
631417	D	12.14	-0.24	9.17	-0.19	12.99	-0.31	65.67	0.50	0.03
631418	C	15.87	-0.12	14.52	-0.17	54.35	0.32	15.26	-0.16	0.00
631506	D	13.60	-0.21	14.24	-0.15	17.77	-0.19	54.39	0.40	0.00
631496	B	7.37	-0.28	88.97	0.44	2.14	-0.25	1.51	-0.21	0.00
631490	B	12.86	0.03	68.55	0.08	6.69	-0.10	11.89	-0.07	0.00
631507	B	31.40	-0.18	57.46	0.34	4.13	-0.14	7.01	-0.23	0.00
631419	C	1.02	-0.18	43.24	-0.17	51.96	0.27	3.78	-0.17	0.00
631420	D	34.83	-0.02	9.52	-0.23	10.92	-0.13	44.74	0.24	0.00
631450	B	6.48	-0.14	43.55	0.33	21.23	-0.11	28.72	-0.18	0.03
631461	B	2.81	-0.20	86.88	0.35	5.80	-0.19	4.51	-0.20	0.00
631462	C	3.59	-0.24	1.08	-0.21	93.30	0.34	2.02	-0.13	0.00
631463	C	33.12	-0.20	3.04	-0.15	62.08	0.28	1.76	-0.15	0.00
631451	C	29.95	-0.25	5.63	-0.19	58.75	0.41	5.66	-0.19	0.00
631502	D	4.10	-0.19	6.00	-0.23	26.60	-0.17	63.27	0.35	0.03
631423	C	21.79	-0.29	4.95	-0.22	68.39	0.46	4.86	-0.20	0.00
631464	A	61.93	0.32	21.50	-0.17	11.25	-0.14	5.29	-0.17	0.03
511287	A	59.13	0.26	13.60	-0.09	13.32	-0.20	13.96	-0.08	0.00
516612	B	4.33	-0.18	55.90	0.11	36.40	0.01	3.36	-0.13	0.00

Table J.18 (continued). Grade 6 Language Usage Field Test: Multiple-Choice Distractor Analysis

		Response Options								
		A		B		C		D		Omit
Item ID	Key	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]
631405	C	2.03	-0.18	0.79	-0.16	93.14	0.28	4.05	-0.16	0.00
631412	B	2.00	-0.21	93.99	0.26	0.71	-0.12	3.29	-0.13	0.00
631421	C	9.01	-0.19	14.54	-0.30	69.96	0.42	6.46	-0.13	0.03
631445	B	6.40	-0.24	79.03	0.34	11.25	-0.17	3.32	-0.13	0.00
631452	A	73.06	0.42	7.99	-0.23	8.19	-0.28	10.73	-0.16	0.03
631489	A	57.06	0.19	6.54	-0.13	21.29	-0.05	15.12	-0.12	0.00
631491	D	8.13	-0.19	6.24	-0.20	20.15	-0.21	65.45	0.39	0.03
631495	C	5.92	-0.16	3.32	-0.17	72.48	0.23	18.28	-0.08	0.00
631497	B	7.31	-0.17	56.83	0.36	12.38	-0.14	23.49	-0.20	0.00
511265	C	1.57	-0.16	2.16	-0.18	94.42	0.30	1.85	-0.16	0.00

[1] Percentage of response options

Table J.19. Grade 7 Language Usage Field Test: Multiple-Choice Distractor Analysis

		Response Options								
		A		B		C		D		Omit
Item ID	Key	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]
631623	D	13.08	-0.15	3.54	-0.24	6.77	-0.29	76.58	0.39	0.03
631657	B	15.02	-0.23	81.24	0.32	2.11	-0.17	1.64	-0.15	0.00
631669	A	67.95	0.37	21.16	-0.18	2.79	-0.21	8.11	-0.23	0.00
539956	D	6.24	-0.19	25.56	-0.09	6.50	-0.21	61.65	0.28	0.06
520081	C	4.89	-0.22	3.78	-0.25	82.64	0.40	8.68	-0.20	0.00
631671	C	9.52	-0.17	12.74	-0.21	66.86	0.38	10.89	-0.19	0.00
631678	B	9.58	-0.13	44.43	0.20	19.88	-0.13	26.10	-0.01	0.00
631629	B	1.95	-0.14	72.17	0.16	4.00	-0.16	21.86	-0.05	0.03
631679	B	13.10	-0.15	63.13	0.25	8.14	-0.12	15.63	-0.10	0.00
631656	C	14.66	-0.17	6.37	-0.21	69.84	0.39	9.05	-0.23	0.08
631672	A	25.10	0.27	33.48	0.00	18.98	-0.28	22.44	-0.02	0.00
631654	B	31.98	-0.11	57.65	0.27	5.28	-0.21	5.08	-0.17	0.00
631643	D	20.95	-0.04	15.99	-0.10	5.96	-0.18	57.09	0.19	0.00
631630	A	73.58	0.43	12.88	-0.23	10.06	-0.26	3.49	-0.20	0.00
631632	A	53.24	0.16	15.44	-0.12	20.74	-0.01	10.56	-0.11	0.03
631665	A	79.74	0.37	8.30	-0.16	6.12	-0.25	5.84	-0.19	0.00
631653	B	4.16	-0.15	79.37	0.34	8.35	-0.23	8.10	-0.16	0.03
631660	C	12.59	-0.21	8.02	-0.24	70.72	0.37	8.68	-0.12	0.00
595103	B	10.60	-0.13	79.58	0.24	4.16	-0.15	5.63	-0.10	0.03
631645	A	93.32	0.32	4.08	-0.22	1.10	-0.17	1.50	-0.15	0.00
631634	B	9.52	-0.25	83.74	0.37	2.95	-0.22	3.74	-0.13	0.06
631635	B	19.06	-0.09	76.16	0.18	3.64	-0.18	1.11	-0.09	0.03
516706	B	16.18	-0.16	61.49	0.35	13.84	-0.22	8.41	-0.14	0.09
631649	C	13.35	-0.08	13.06	-0.14	53.76	0.17	19.83	-0.03	0.00
631650	A	64.09	0.45	9.13	-0.21	13.36	-0.23	13.42	-0.22	0.00
536051	B	12.40	-0.18	67.85	0.38	10.62	-0.22	9.10	-0.18	0.03
631636	D	7.26	-0.28	4.83	-0.22	4.86	-0.21	83.03	0.44	0.03
631639	A	54.11	0.36	13.14	-0.23	24.51	-0.15	8.23	-0.14	0.00
631651	C	1.08	-0.20	1.31	-0.20	96.97	0.30	0.64	-0.10	0.00
631646	B	16.07	-0.20	63.05	0.43	9.33	-0.25	11.55	-0.19	0.00
631676	C	9.70	-0.11	31.92	-0.20	29.13	0.08	29.22	0.19	0.03
631682	C	8.45	-0.21	1.72	-0.23	88.92	0.32	0.85	-0.14	0.06
631666	B	29.04	-0.14	50.31	0.27	7.83	-0.15	12.78	-0.09	0.03
511241	D	4.10	-0.21	23.43	-0.16	14.66	-0.13	57.82	0.31	0.00
631641	D	5.59	-0.27	12.65	-0.24	0.67	-0.16	81.09	0.40	0.00
631652	C	24.07	-0.14	22.36	-0.18	49.10	0.29	4.47	-0.03	0.00
631677	C	7.85	-0.15	53.65	0.01	28.90	0.15	9.60	-0.10	0.00
537853	D	3.81	-0.15	32.42	-0.11	7.85	-0.22	55.89	0.29	0.03
631624	D	8.08	-0.14	2.46	-0.14	5.91	-0.18	83.53	0.28	0.03
631625	B	4.72	-0.22	65.14	0.41	5.21	-0.22	24.87	-0.24	0.06
631626	D	8.79	-0.21	3.92	-0.15	2.55	-0.19	84.73	0.33	0.00
631633	A	83.61	0.39	6.20	-0.22	7.72	-0.26	2.39	-0.12	0.08
631637	C	2.87	-0.16	16.11	-0.24	73.21	0.39	7.78	-0.22	0.03
631638	D	0.74	-0.14	1.58	-0.24	4.55	-0.27	93.13	0.39	0.00
631647	B	2.95	-0.17	80.83	0.35	9.32	-0.20	6.86	-0.20	0.03

Table J.19 (continued). Grade 7 Language Usage Field Test: Multiple-Choice Distractor Analysis

		Response Options								
		A		B		C		D		Omit
Item ID	Key	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]
631655	C	29.84	0.05	11.74	-0.19	24.85	0.19	33.54	-0.09	0.03
631658	A	40.74	0.27	11.13	-0.23	25.08	-0.03	23.05	-0.12	0.00
631662	C	3.35	-0.07	16.66	-0.18	65.60	0.26	14.37	-0.12	0.03
631663	C	34.23	-0.08	3.90	-0.26	52.82	0.29	9.02	-0.19	0.03
631668	C	7.88	-0.21	13.52	-0.24	73.43	0.36	5.14	-0.09	0.03
631670	B	16.83	-0.17	69.51	0.34	7.55	-0.22	6.11	-0.15	0.00
631673	D	7.59	-0.18	23.31	-0.18	18.84	-0.12	50.25	0.34	0.00
631674	C	11.30	-0.07	7.79	-0.18	65.68	0.24	15.24	-0.12	0.00
631675	D	10.35	-0.02	12.35	-0.18	15.28	-0.21	61.99	0.30	0.03
631680	D	1.15	-0.13	11.25	-0.41	1.20	-0.16	86.34	0.47	0.06

[1] Percentage of response options

Table J.20. Grade 8 Language Usage Field Test: Multiple-Choice Distractor Analysis

		Response Options								
		A		B		C		D		Omit
Item ID	Key	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]
631688	B	11.53	-0.15	65.73	0.40	13.04	-0.23	9.67	-0.21	0.03
631713	C	9.76	-0.26	6.63	-0.27	81.13	0.45	2.45	-0.20	0.03
631684	C	3.34	-0.17	8.22	-0.25	82.99	0.37	5.45	-0.17	0.00
631703	B	13.43	-0.10	79.75	0.27	4.02	-0.24	2.80	-0.16	0.00
631689	C	1.17	-0.18	5.94	-0.15	91.38	0.26	1.51	-0.13	0.00
631690	B	20.39	-0.19	72.09	0.34	6.30	-0.24	1.22	-0.16	0.00
631691	A	88.06	0.40	3.72	-0.24	2.72	-0.22	5.50	-0.21	0.00
631685	C	3.31	-0.16	2.32	-0.22	78.97	0.33	15.38	-0.21	0.03
631724	D	7.54	-0.16	14.70	-0.18	8.52	-0.30	69.24	0.41	0.00
631742	B	7.61	-0.21	88.56	0.29	2.60	-0.14	1.23	-0.11	0.00
631692	D	0.73	-0.15	3.59	-0.30	6.88	-0.29	88.80	0.45	0.00
631693	B	11.08	-0.13	80.95	0.28	6.03	-0.19	1.93	-0.17	0.00
631709	D	9.24	-0.27	5.58	-0.25	1.36	-0.19	83.80	0.43	0.03
631719	C	2.42	-0.17	6.62	-0.12	90.27	0.21	0.69	-0.08	0.00
631736	C	8.53	-0.11	22.38	-0.12	50.38	0.25	18.62	-0.11	0.09
631694	D	10.29	-0.17	12.37	-0.17	13.08	-0.22	64.26	0.38	0.00
631704	A	61.19	0.34	25.10	-0.16	9.82	-0.22	3.88	-0.15	0.00
631705	B	9.13	-0.23	76.13	0.35	10.06	-0.14	4.68	-0.20	0.00
631716	D	2.80	-0.15	3.14	-0.24	6.62	-0.18	87.45	0.33	0.00
631726	B	37.39	-0.05	41.84	0.32	3.60	-0.22	17.17	-0.25	0.00
631740	D	3.14	-0.10	1.91	-0.14	19.19	-0.28	75.76	0.34	0.00
631727	B	38.12	0.05	20.10	0.18	17.81	-0.16	23.97	-0.08	0.00
631696	C	3.03	-0.11	3.17	-0.18	92.77	0.23	1.01	-0.09	0.03
631697	C	39.41	-0.04	2.39	-0.10	54.58	0.12	3.62	-0.13	0.00
631720	D	7.10	-0.13	9.40	-0.15	9.03	-0.19	74.42	0.30	0.06
631741	A	86.05	0.25	6.24	-0.14	5.90	-0.17	1.78	-0.09	0.03
631698	C	2.14	-0.21	1.65	-0.24	93.41	0.40	2.77	-0.23	0.03
631710	D	4.57	-0.23	3.80	-0.19	9.87	-0.28	81.76	0.43	0.00
631717	D	43.10	-0.10	2.03	-0.22	6.39	-0.21	48.45	0.27	0.03
631729	D	9.99	-0.16	10.22	-0.21	11.28	-0.22	68.51	0.39	0.00
631730	D	13.19	-0.12	9.17	-0.15	14.47	-0.27	63.16	0.38	0.00
631700	A	43.35	0.09	20.34	-0.02	20.82	-0.04	15.46	-0.05	0.03
631687	D	5.41	-0.11	19.54	-0.14	22.92	-0.26	52.13	0.38	0.00
631721	A	95.15	0.35	1.47	-0.20	2.06	-0.23	1.32	-0.17	0.00
631737	D	28.97	-0.25	5.39	-0.16	4.63	-0.16	60.98	0.38	0.03
631701	B	15.51	-0.30	74.57	0.37	8.02	-0.15	1.87	-0.11	0.03
631731	D	6.04	-0.11	2.82	-0.21	18.84	-0.18	72.31	0.29	0.00
631732	B	37.77	-0.08	48.19	0.24	6.13	-0.19	7.87	-0.12	0.03
631712	B	11.55	-0.12	47.72	0.32	22.79	-0.15	17.94	-0.15	0.00
631722	C	2.05	-0.23	3.43	-0.19	92.96	0.34	1.52	-0.17	0.03
631683	B	16.07	-0.22	76.06	0.39	4.09	-0.26	3.78	-0.18	0.00
631695	A	32.48	0.22	4.74	-0.15	32.71	-0.07	30.02	-0.08	0.06
631699	D	17.60	-0.13	24.02	-0.03	25.90	-0.07	32.48	0.21	0.00
631707	B	1.49	-0.12	95.26	0.18	2.52	-0.09	0.70	-0.11	0.03
631708	D	8.72	-0.22	9.59	-0.26	34.07	-0.10	47.59	0.37	0.03

Table J.20 (continued). Grade 8 Language Usage Field Test: Multiple-Choice Distractor Analysis

		Response Options								
		A		B		C		D		Omit
Item ID	Key	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]
631711	A	51.66	0.35	10.03	-0.25	24.13	-0.11	14.15	-0.15	0.03
631715	D	7.26	-0.14	10.09	-0.17	23.36	-0.13	59.28	0.29	0.00
631718	B	5.35	-0.23	77.93	0.44	8.40	-0.27	8.29	-0.21	0.03
631723	A	90.46	0.25	3.02	-0.19	4.99	-0.13	1.50	-0.11	0.03
631728	C	13.56	-0.21	10.31	-0.19	66.73	0.35	9.28	-0.11	0.11
631733	D	9.90	-0.17	14.54	-0.14	5.11	-0.13	70.46	0.28	0.00
631734	A	68.51	0.25	27.31	-0.15	2.71	-0.20	1.46	-0.14	0.00
631735	C	7.83	-0.09	18.14	-0.15	56.33	0.28	17.70	-0.14	0.00
631739	C	11.90	-0.32	2.17	-0.12	82.20	0.39	3.70	-0.14	0.03
631738	A	40.54	0.39	18.26	-0.07	11.22	-0.14	29.98	-0.26	0.00

[1] Percentage of response options

Table J.21. Grade 10 Language Usage Field Test: Multiple-Choice Distractor Analysis

		Response Options								
		A		B		C		D		Omit
Item ID	Key	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]
631744	C	10.58	-0.14	5.31	-0.20	80.54	0.31	3.57	-0.19	0.00
631747	C	2.63	-0.12	22.01	-0.13	74.56	0.19	0.80	-0.12	0.00
631746	C	11.56	-0.12	8.08	-0.28	72.72	0.35	7.65	-0.15	0.00
631796	B	8.24	-0.09	87.77	0.19	3.87	-0.18	0.12	-0.06	0.00
539928	C	2.44	-0.16	20.73	-0.17	71.45	0.27	5.38	-0.11	0.00
631745	D	1.58	-0.21	3.31	-0.14	0.90	-0.19	94.21	0.30	0.00
631749	D	5.11	-0.15	4.43	-0.27	6.11	-0.18	84.35	0.36	0.00
631797	C	7.14	-0.07	3.98	-0.20	67.59	0.36	21.30	-0.27	0.00
631763	D	4.20	-0.16	5.31	-0.22	6.50	-0.20	83.99	0.35	0.00
631769	B	4.71	-0.19	59.67	0.34	29.00	-0.22	6.63	-0.11	0.00
631750	B	1.12	-0.14	91.91	0.39	3.45	-0.28	3.52	-0.23	0.00
535709	A	56.66	0.39	25.45	-0.17	12.44	-0.27	5.42	-0.13	0.03
631752	D	5.89	-0.32	22.26	-0.16	22.90	-0.17	48.92	0.42	0.03
631778	A	78.48	0.26	1.64	-0.20	5.22	-0.24	14.63	-0.08	0.03
631785	B	5.36	-0.22	92.55	0.32	1.26	-0.20	0.84	-0.15	0.00
631773	D	8.97	-0.23	7.55	-0.19	16.34	-0.17	67.14	0.38	0.00
631753	C	3.68	-0.17	18.29	-0.19	68.53	0.32	9.50	-0.14	0.00
631754	D	12.93	-0.15	7.30	-0.16	13.26	-0.24	66.52	0.37	0.00
631755	C	8.02	-0.19	16.71	-0.11	65.34	0.24	9.93	-0.06	0.00
631771	B	20.60	-0.15	43.33	0.31	30.21	-0.17	5.86	-0.07	0.00
631756	C	0.73	-0.15	2.65	-0.18	90.87	0.36	5.75	-0.26	0.00
631786	A	69.64	0.36	19.53	-0.32	1.75	-0.20	9.05	-0.05	0.03
631787	B	2.22	-0.11	20.53	0.03	43.76	0.08	33.46	-0.07	0.03
631788	B	6.60	-0.15	68.31	0.32	18.58	-0.21	6.48	-0.13	0.03
631789	B	2.34	-0.15	50.04	0.30	4.38	-0.27	43.20	-0.15	0.03
631757	D	5.21	-0.24	7.31	-0.29	10.54	-0.31	76.91	0.54	0.03
631758	D	6.32	-0.17	5.70	-0.22	24.53	-0.26	63.39	0.42	0.06
631790	A	43.55	0.35	23.54	-0.17	16.74	-0.19	16.14	-0.09	0.03
631779	D	3.11	-0.18	5.95	-0.26	1.85	-0.22	89.09	0.39	0.00
631759	B	9.11	-0.26	74.50	0.44	11.83	-0.22	4.56	-0.21	0.00
558958	C	1.61	-0.13	2.38	-0.22	82.72	0.35	13.29	-0.25	0.00
558961	B	23.87	-0.10	41.52	0.26	18.67	-0.11	15.94	-0.11	0.00
558965	D	3.99	-0.12	4.87	-0.21	21.05	-0.34	70.05	0.46	0.03
631766	C	9.23	-0.18	16.21	-0.14	45.69	0.23	28.86	-0.01	0.00
631762	A	66.99	0.33	6.31	-0.20	20.30	-0.16	6.40	-0.17	0.00
516191	B	10.15	-0.17	61.80	0.31	14.82	-0.25	13.22	-0.03	0.00
536158	B	3.16	-0.14	44.65	0.25	43.47	-0.10	8.72	-0.17	0.00
538317	C	18.91	0.06	12.28	-0.23	37.59	0.17	31.22	-0.06	0.00
539984	C	11.62	-0.18	11.12	-0.17	64.98	0.40	12.22	-0.23	0.06
555718	B	15.61	-0.18	45.05	0.41	21.39	-0.16	17.95	-0.19	0.00
558954	C	11.01	-0.12	8.88	-0.27	78.31	0.32	1.77	-0.13	0.03
631748	B	10.01	-0.11	84.67	0.25	2.27	-0.20	3.02	-0.16	0.03
631760	A	45.24	0.31	6.20	-0.12	23.94	-0.17	24.61	-0.12	0.00
631761	A	34.48	0.33	6.55	-0.04	7.15	-0.13	51.79	-0.23	0.03
631765	C	7.59	-0.13	19.06	-0.14	56.79	0.39	16.57	-0.28	0.00

Table J.21 (continued). Grade 10 Language Usage Field Test: Multiple-Choice Distractor Analysis

		Response Options								
		A		B		C		D		Omit
Item ID	Key	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]
631767	B	5.43	-0.16	88.64	0.27	4.93	-0.15	1.00	-0.16	0.00
631768	B	19.00	-0.04	66.15	0.21	6.24	-0.21	8.58	-0.12	0.03
631772	A	48.55	0.34	13.72	-0.24	16.60	-0.17	21.13	-0.06	0.00
631775	C	4.19	-0.21	9.03	-0.22	75.30	0.28	11.44	-0.04	0.03
631777	B	3.49	-0.09	91.63	0.31	3.93	-0.26	0.94	-0.17	0.00
631781	D	1.23	-0.19	1.79	-0.22	13.33	-0.19	83.61	0.31	0.03
631783	D	4.37	-0.12	3.16	-0.25	3.40	-0.23	89.04	0.36	0.03
631791	C	14.76	-0.13	19.68	-0.13	59.03	0.31	6.53	-0.22	0.00
631795	A	83.11	0.36	9.38	-0.24	4.08	-0.21	3.39	-0.11	0.03
631925	D	1.39	-0.15	2.12	-0.21	1.06	-0.14	95.39	0.31	0.03

[1] Percentage of response options

Table J.22. Grade 5 Science Field Test: Multiple-Choice Distractor Analysis

		Response Options								
		A		B		C		D		Omit
Item ID	Key	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]
628350	A	58.52	0.29	9.19	-0.12	16.50	-0.14	15.79	-0.16	0.00
628333	D	12.99	-0.16	12.92	-0.22	8.13	-0.30	65.96	0.44	0.00
628334	D	21.87	-0.13	7.37	-0.26	12.13	-0.24	58.56	0.41	0.08
635733	C	13.27	-0.07	10.37	-0.21	59.80	0.31	16.55	-0.17	0.00
635734	C	18.45	-0.03	5.16	-0.22	50.34	0.10	26.04	0.03	0.00
636407	C	16.54	-0.16	5.33	-0.28	38.02	0.30	40.03	-0.05	0.08
636441	B	11.57	-0.22	56.48	0.39	10.80	-0.25	21.14	-0.11	0.00
628337	D	9.85	-0.19	6.23	-0.25	38.69	-0.04	45.23	0.27	0.00
628338	C	1.19	-0.15	6.40	-0.26	86.88	0.33	5.53	-0.14	0.00
628339	C	6.24	-0.15	24.56	0.09	60.97	0.05	8.24	-0.08	0.00
628343	A	28.94	0.12	18.06	-0.17	32.57	0.03	20.36	0.01	0.07
628344	C	7.61	-0.16	36.41	0.01	41.85	0.14	14.13	-0.09	0.00
628345	D	3.72	-0.27	2.29	-0.22	7.20	-0.29	86.79	0.47	0.00
629725	C	42.17	0.15	8.46	-0.12	10.76	-0.23	38.60	0.06	0.00
628346	D	35.23	0.06	9.56	0.00	9.00	-0.17	46.21	0.05	0.00
628348	D	15.03	-0.12	9.79	-0.19	13.96	-0.27	61.22	0.39	0.00
628335	D	6.52	-0.11	6.37	-0.23	26.63	-0.16	60.48	0.32	0.00
628336	D	11.60	-0.13	9.79	-0.17	14.44	-0.09	64.17	0.26	0.00
628351	D	16.27	-0.11	14.35	-0.25	19.78	0.01	49.60	0.26	0.00
628623	B	20.39	-0.13	31.02	0.18	29.69	-0.04	18.91	-0.03	0.00
628624	C	16.57	-0.16	15.58	-0.21	46.12	0.31	21.73	-0.05	0.00
628625	C	10.36	-0.16	12.31	-0.19	57.96	0.28	19.37	-0.07	0.00
628626	C	38.01	0.05	14.03	-0.17	37.39	0.20	10.56	-0.20	0.00
628627	B	9.99	-0.11	47.22	0.31	7.40	-0.24	35.32	-0.11	0.08
628629	B	12.27	-0.15	65.62	0.19	16.84	-0.08	5.27	-0.04	0.00
628630	B	22.29	-0.16	70.51	0.27	4.41	-0.15	2.79	-0.15	0.00
628631	D	15.10	-0.16	25.85	-0.13	6.84	-0.16	52.22	0.31	0.00
628632	B	3.18	-0.12	59.81	0.35	35.30	-0.28	1.71	-0.14	0.00
628634	A	86.07	0.12	5.02	-0.09	7.09	-0.04	1.83	-0.08	0.00
628635	C	23.83	-0.07	7.36	-0.21	47.43	0.28	21.38	-0.14	0.00
628636	C	4.61	-0.12	12.38	-0.08	79.78	0.17	3.23	-0.09	0.00
628637	D	15.58	-0.10	30.34	-0.24	6.29	-0.21	47.79	0.40	0.00
629151	C	16.90	-0.06	17.42	-0.09	48.92	0.23	16.75	-0.16	0.00
629152	D	2.29	-0.20	3.59	-0.26	8.17	-0.29	85.95	0.46	0.00
629153	A	61.63	0.33	11.14	-0.20	7.40	-0.17	19.83	-0.14	0.00
629154	D	5.31	-0.22	12.73	-0.12	4.06	-0.19	77.81	0.32	0.08
629155	D	6.44	-0.24	18.56	-0.12	20.45	-0.18	54.55	0.36	0.00
629165	B	24.93	-0.04	58.58	0.24	2.37	-0.20	14.13	-0.20	0.00
629166	B	47.05	0.08	36.67	0.09	6.57	-0.19	9.71	-0.12	0.00
629167	A	82.03	0.34	2.63	-0.20	7.29	-0.17	8.05	-0.20	0.00
629168	C	4.14	-0.13	1.23	-0.15	83.60	0.33	11.03	-0.25	0.00
629169	B	7.39	-0.13	63.59	0.31	6.00	-0.24	23.02	-0.15	0.00
629156	D	12.19	-0.18	11.15	-0.15	5.43	-0.24	71.15	0.35	0.07
629157	C	8.70	-0.18	10.72	-0.26	70.24	0.40	10.33	-0.17	0.00
629158	B	9.60	-0.22	72.50	0.36	13.56	-0.15	4.34	-0.21	0.00

Table J.22 (continued). Grade 5 Science Field Test: Multiple-Choice Distractor Analysis

		Response Options								
		A		B		C		D		Omit
Item ID	Key	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]
636193	C	13.58	-0.15	13.27	-0.15	66.98	0.32	6.17	-0.22	0.00
636206	D	6.21	-0.26	4.31	-0.29	7.19	-0.23	82.29	0.47	0.00
629163	B	10.38	-0.19	76.06	0.39	5.63	-0.25	7.93	-0.19	0.00
629164	D	4.23	-0.21	50.64	-0.02	5.67	-0.16	39.46	0.19	0.00
635735	C	3.59	-0.24	4.49	-0.29	80.90	0.42	11.02	-0.19	0.00
629726	D	6.54	-0.14	11.11	-0.18	13.55	-0.29	68.80	0.41	0.00
629727	A	53.89	0.39	15.89	-0.26	14.88	-0.17	15.34	-0.11	0.00
629729	B	22.55	-0.12	37.05	0.21	19.84	-0.06	20.56	-0.07	0.00
629730	A	94.37	0.30	1.80	-0.17	0.90	-0.13	2.85	-0.20	0.08
629731	C	8.73	-0.18	9.26	-0.21	58.19	0.29	23.81	-0.07	0.00
629178	D	14.01	-0.03	20.43	-0.07	30.73	-0.15	34.83	0.22	0.00
629179	B	24.78	-0.02	14.90	-0.08	35.47	0.06	24.85	0.02	0.00
629173	D	10.86	-0.10	16.29	-0.13	23.38	-0.14	49.40	0.28	0.08
629174	A	40.99	0.29	20.61	-0.08	24.47	-0.18	13.85	-0.10	0.08
629175	B	16.96	-0.03	38.65	0.21	21.22	-0.14	23.16	-0.08	0.00
629176	D	20.75	-0.15	26.57	-0.09	15.47	-0.14	37.14	0.32	0.08
629177	D	35.85	-0.04	12.23	-0.15	18.23	-0.12	33.69	0.24	0.00
636408	B	19.92	0.03	21.88	0.10	27.29	-0.13	30.90	0.01	0.00
629180	A	75.02	0.38	5.43	-0.24	11.09	-0.14	8.45	-0.24	0.00
629181	A	28.51	0.21	10.15	-0.26	9.91	-0.30	51.43	0.15	0.00
629182	C	12.71	-0.28	3.53	-0.18	66.17	0.45	17.59	-0.23	0.00
629184	C	7.32	-0.26	2.86	-0.16	84.17	0.38	5.65	-0.18	0.00
629185	C	61.14	0.00	8.02	-0.22	26.60	0.23	4.09	-0.19	0.15
629186	B	34.73	-0.03	35.78	0.24	15.94	-0.18	13.47	-0.09	0.07
629187	A	28.23	0.20	23.34	-0.12	27.76	-0.06	20.66	-0.03	0.00
629188	D	32.92	-0.02	9.94	-0.23	13.12	-0.28	44.02	0.35	0.00
630473	A	53.60	0.22	19.30	-0.11	12.86	-0.19	14.17	-0.01	0.08
630475	A	66.75	0.35	5.05	-0.17	11.99	-0.22	16.21	-0.16	0.00
630476	A	67.19	0.19	8.40	-0.07	3.53	-0.12	20.88	-0.12	0.00
630477	B	1.40	-0.17	15.40	-0.03	79.63	0.18	3.58	-0.23	0.00
630478	B	24.53	-0.12	20.36	0.15	7.27	-0.19	47.84	0.08	0.00
630479	C	2.67	-0.04	7.72	-0.14	52.37	0.03	37.24	0.05	0.00
630480	A	58.24	0.34	7.71	-0.25	24.20	-0.06	9.85	-0.24	0.00
630481	A	72.18	0.27	1.78	-0.08	15.30	-0.20	10.74	-0.12	0.00
630780	B	4.94	-0.10	83.35	0.28	3.80	-0.19	7.91	-0.17	0.00
630781	D	5.82	-0.11	3.65	-0.18	15.14	-0.18	75.39	0.29	0.00
630782	A	74.13	0.09	3.02	-0.07	6.35	-0.18	16.50	0.05	0.00
630783	B	14.63	-0.08	81.33	0.18	2.82	-0.16	1.22	-0.14	0.00
630784	B	9.98	-0.06	45.60	0.39	10.14	-0.10	34.28	-0.31	0.00
630786	C	1.65	-0.08	23.71	-0.32	62.94	0.35	11.70	-0.08	0.00
630787	B	19.69	-0.12	52.00	0.19	16.08	-0.09	12.24	-0.03	0.00
630788	C	10.99	-0.13	6.51	-0.22	77.00	0.36	5.42	-0.25	0.08
630789	D	10.06	-0.15	9.98	-0.17	19.74	-0.13	60.14	0.30	0.08
630790	C	19.92	-0.09	20.78	-0.16	39.69	0.28	19.53	-0.08	0.08
630791	D	27.74	-0.13	11.58	-0.20	17.17	-0.06	43.51	0.29	0.00

Table J.22 (continued). Grade 5 Science Field Test: Multiple-Choice Distractor Analysis

		Response Options								
		A		B		C		D		Omit
Item ID	Key	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]
630792	A	64.04	0.23	12.39	-0.15	19.44	-0.10	4.13	-0.10	0.00
630793	B	6.91	-0.12	45.42	0.34	18.25	-0.25	29.42	-0.10	0.00
632091	D	7.35	-0.10	13.77	-0.08	34.42	-0.11	44.39	0.21	0.08
632092	B	16.85	-0.08	55.51	0.33	11.03	-0.26	16.62	-0.14	0.00
632093	B	32.78	-0.07	33.33	0.12	12.60	-0.04	21.29	-0.02	0.00
636210	B	30.55	0.11	43.09	0.13	15.38	-0.22	10.90	-0.11	0.07
630768	B	17.75	-0.20	63.77	0.38	3.90	-0.27	14.49	-0.16	0.08
630769	B	7.03	-0.21	73.78	0.45	14.39	-0.27	4.72	-0.21	0.08
630770	A	91.50	0.34	2.07	-0.14	3.98	-0.21	2.45	-0.23	0.00
630775	A	76.32	0.36	9.13	-0.13	10.99	-0.23	3.56	-0.23	0.00
631425	D	11.13	-0.18	13.23	-0.21	9.96	-0.21	65.68	0.40	0.00
631426	A	56.72	0.14	12.28	-0.08	13.81	-0.08	17.19	-0.04	0.00
631430	D	16.03	-0.14	10.74	-0.14	28.20	-0.16	45.02	0.33	0.00
632436	A	69.41	0.25	3.38	-0.11	8.15	-0.13	18.99	-0.15	0.08
632437	B	15.32	-0.05	43.91	0.21	31.89	-0.10	8.88	-0.15	0.00
632438	D	34.16	-0.23	10.40	-0.06	3.49	-0.21	51.94	0.34	0.00
632439	A	32.93	0.27	13.70	-0.21	31.79	-0.04	21.50	-0.09	0.08
632441	D	19.71	-0.15	6.72	-0.19	22.57	-0.09	50.93	0.30	0.08
632442	C	20.53	-0.18	13.99	-0.16	44.22	0.19	21.26	0.08	0.00
632443	B	33.54	0.01	41.50	0.20	13.49	-0.18	11.39	-0.13	0.08
632444	D	14.83	-0.10	19.64	0.05	29.35	-0.12	36.18	0.15	0.00
632445	C	2.65	-0.12	8.20	-0.16	73.15	0.34	15.93	-0.23	0.08
632446	D	17.40	-0.11	14.93	-0.08	25.56	-0.09	42.11	0.22	0.00
632454	D	11.01	-0.19	4.63	-0.27	5.32	-0.25	79.04	0.43	0.00
632471	B	13.82	-0.17	58.61	0.22	12.97	-0.06	14.52	-0.08	0.08
632472	C	3.81	-0.15	8.16	-0.24	56.25	0.25	31.78	-0.07	0.00
632473	D	5.59	-0.18	11.11	-0.23	13.64	-0.20	69.66	0.40	0.00
632474	B	15.33	-0.24	52.40	0.32	12.46	-0.16	19.81	-0.06	0.00
632475	C	22.35	-0.24	18.99	-0.11	42.94	0.32	15.71	-0.03	0.00
632476	D	18.55	-0.13	26.29	-0.02	18.15	-0.14	36.94	0.24	0.08
632477	A	35.57	0.25	18.55	-0.09	20.69	-0.04	25.19	-0.16	0.00
632478	A	29.31	0.12	29.60	-0.08	13.72	-0.15	27.37	0.08	0.00
632479	D	16.96	-0.20	31.05	-0.14	23.04	0.01	28.95	0.29	0.00
632480	A	44.66	0.28	32.93	-0.15	10.67	-0.12	11.73	-0.11	0.00
628347	B	16.33	-0.07	45.90	0.35	14.01	-0.20	23.76	-0.19	0.00
632448	C	10.81	-0.10	13.02	-0.13	61.92	0.32	14.24	-0.22	0.00
632449	A	63.65	0.19	15.34	-0.06	7.24	-0.22	13.77	-0.05	0.00
632450	A	47.59	0.39	16.80	-0.16	14.15	-0.20	21.38	-0.16	0.08
632451	C	1.82	-0.15	6.45	-0.23	89.45	0.36	2.20	-0.20	0.08
632452	C	8.08	-0.16	17.67	-0.20	64.65	0.38	9.52	-0.20	0.08
632453	C	26.20	-0.16	6.98	-0.26	59.69	0.35	7.13	-0.14	0.00
632520	D	27.83	-0.14	12.26	-0.10	14.83	-0.18	45.08	0.32	0.00
632521	C	38.33	0.05	5.05	-0.15	50.65	0.14	5.97	-0.27	0.00
632522	D	1.76	-0.15	6.13	-0.17	4.29	-0.09	87.82	0.24	0.00
632523	D	4.61	-0.22	4.31	-0.16	4.09	-0.28	87.00	0.40	0.00

Table J.22 (continued). Grade 5 Science Field Test: Multiple-Choice Distractor Analysis

		Response Options								
		A		B		C		D		Omit
Item ID	Key	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]
632525	B	40.88	-0.04	38.05	0.18	12.81	-0.11	8.25	-0.09	0.00
632526	A	44.64	0.12	17.93	-0.09	20.93	-0.06	16.50	0.00	0.00
632527	C	10.37	-0.16	3.87	-0.20	81.81	0.34	3.94	-0.22	0.00
632528	C	3.46	-0.20	23.50	-0.12	66.13	0.27	6.91	-0.15	0.00
633521	A	50.66	0.22	0.85	-0.12	36.23	-0.14	12.18	-0.10	0.08
633522	A	59.74	0.29	7.55	-0.17	23.34	-0.13	9.37	-0.14	0.00
633523	C	6.67	-0.21	14.88	-0.29	65.89	0.45	12.56	-0.18	0.00
633524	D	5.83	-0.24	0.61	-0.13	0.61	-0.15	92.88	0.30	0.08
633525	A	44.04	0.18	13.73	0.00	41.12	-0.16	1.03	-0.10	0.08
632529	C	3.75	-0.05	5.93	-0.04	67.92	0.13	22.33	-0.09	0.08
632531	B	11.76	-0.13	45.86	0.36	9.20	-0.13	33.18	-0.21	0.00
632532	D	13.02	-0.10	16.05	-0.20	11.02	-0.12	59.90	0.30	0.00
632534	A	57.70	0.11	9.17	-0.05	8.78	-0.10	24.35	-0.03	0.00
634503	A	41.67	0.08	10.42	-0.08	9.23	-0.13	38.69	0.05	0.00
634504	C	19.18	-0.03	21.19	0.05	38.21	0.04	21.34	-0.06	0.08

[1] Percentage of response options

Table J.23. Grade 7 Science Field Test: Multiple-Choice Distractor Analysis

		Response Options								
		A		B		C		D		Omit
Item ID	Key	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]
631962	A	79.78	0.34	2.40	-0.14	14.31	-0.24	3.52	-0.17	0.00
636409	B	19.98	-0.10	23.26	0.30	42.15	-0.03	14.60	-0.20	0.00
636410	A	53.62	0.25	14.49	-0.13	28.34	-0.13	3.54	-0.10	0.00
630682	A	50.28	0.31	22.14	-0.02	16.06	-0.18	11.52	-0.25	0.00
630683	D	20.76	-0.05	8.76	-0.14	21.07	0.01	49.41	0.11	0.00
630684	B	4.71	-0.08	55.36	0.21	19.81	-0.14	20.13	-0.08	0.00
630686	D	12.14	-0.10	20.61	-0.05	15.73	-0.23	51.52	0.27	0.00
630687	D	16.97	-0.12	20.51	-0.17	37.56	0.14	24.96	0.10	0.00
630688	B	9.20	-0.17	65.88	0.41	8.65	-0.30	16.19	-0.16	0.08
630689	B	17.45	0.00	41.28	0.21	18.68	-0.17	22.60	-0.09	0.00
631963	C	2.78	-0.19	4.09	-0.22	73.73	0.42	19.39	-0.28	0.00
636411	B	13.10	-0.24	44.22	0.30	24.04	-0.09	18.64	-0.08	0.00
630690	A	63.28	0.39	13.40	-0.33	15.41	-0.09	7.82	-0.16	0.08
630692	C	10.93	-0.07	30.80	-0.24	34.98	0.34	23.29	-0.07	0.00
630693	B	18.72	-0.12	44.68	0.41	13.17	-0.19	23.42	-0.21	0.00
630694	B	4.04	-0.12	61.93	0.32	11.97	-0.17	21.99	-0.19	0.07
630695	D	9.08	-0.12	2.52	-0.21	4.65	-0.28	83.75	0.34	0.00
630696	B	6.52	-0.19	74.75	0.48	6.82	-0.26	11.90	-0.29	0.00
630697	B	12.11	-0.09	60.62	0.37	23.55	-0.24	3.71	-0.25	0.00
630698	A	49.24	0.09	7.44	0.00	17.60	-0.04	25.72	-0.06	0.00
630699	C	7.86	-0.29	37.63	-0.15	53.02	0.34	1.49	-0.14	0.00
630700	D	8.44	-0.15	10.05	-0.22	8.59	-0.25	72.93	0.40	0.00
630706	A	77.78	0.31	12.63	-0.14	4.72	-0.16	4.88	-0.22	0.00
630707	B	4.77	-0.16	60.23	0.43	29.83	-0.28	5.17	-0.22	0.00
630701	C	6.94	-0.17	12.82	-0.16	54.22	0.34	26.02	-0.17	0.00
630702	D	0.81	-0.09	0.59	-0.10	10.49	-0.27	88.11	0.30	0.00
630703	B	7.65	-0.12	79.86	0.26	9.99	-0.19	2.50	-0.09	0.00
630705	D	23.75	0.15	32.49	-0.09	23.91	-0.22	19.85	0.19	0.00
631465	D	9.11	-0.19	12.32	-0.29	15.31	-0.23	63.27	0.48	0.00
631481	D	12.91	-0.11	24.27	-0.07	22.41	-0.19	40.42	0.29	0.00
631964	B	2.12	-0.10	81.10	0.19	6.59	-0.05	10.12	-0.16	0.08
631965	C	16.69	-0.10	2.46	-0.15	75.99	0.28	4.85	-0.27	0.00
631966	D	6.79	-0.26	6.88	-0.16	6.79	-0.25	79.54	0.42	0.00
631967	B	6.67	-0.18	47.96	0.31	6.36	-0.24	39.01	-0.10	0.00
631482	A	93.84	0.25	2.05	-0.24	3.27	-0.08	0.84	-0.12	0.00
631483	B	20.52	-0.12	65.35	0.19	9.55	-0.06	4.58	-0.11	0.00
631466	C	9.54	-0.16	15.54	-0.24	47.95	0.22	26.89	0.06	0.08
631467	D	11.73	-0.27	6.06	-0.30	8.21	-0.19	74.00	0.48	0.00
631468	D	3.06	-0.10	24.39	-0.16	46.43	0.04	26.12	0.14	0.00
631469	A	85.60	0.41	3.42	-0.16	7.73	-0.27	3.25	-0.25	0.00
631470	B	2.88	-0.15	75.52	0.33	14.64	-0.18	6.88	-0.21	0.08
631485	A	68.00	0.24	11.07	-0.10	13.39	-0.11	7.54	-0.17	0.00
631486	B	42.44	-0.07	39.51	0.26	7.48	-0.23	10.57	-0.11	0.00
631471	B	22.58	-0.09	75.00	0.17	0.55	-0.13	1.80	-0.19	0.08
631472	C	17.10	-0.11	9.92	-0.26	63.39	0.34	9.60	-0.15	0.00

Table J.23 (continued). Grade 7 Science Field Test: Multiple-Choice Distractor Analysis

		Response Options								
		A		B		C		D		Omit
Item ID	Key	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]
631473	A	72.27	0.40	3.46	-0.22	17.36	-0.23	6.91	-0.20	0.00
631474	C	17.07	-0.06	21.34	-0.03	38.03	0.15	23.48	-0.09	0.08
631475	B	9.00	-0.08	40.32	0.28	23.98	-0.02	26.61	-0.24	0.08
631476	D	23.73	0.04	17.33	-0.18	8.98	-0.23	49.96	0.24	0.00
631477	C	11.67	-0.20	9.00	-0.20	44.39	0.29	34.94	-0.04	0.00
631478	D	35.53	0.14	29.41	-0.12	15.90	-0.18	19.16	0.14	0.00
631480	D	10.14	-0.13	46.17	0.14	10.62	-0.31	33.07	0.15	0.00
631508	C	12.28	-0.07	20.17	-0.23	48.08	0.22	19.39	0.01	0.08
631509	B	16.09	-0.04	37.06	0.07	14.23	-0.20	32.62	0.11	0.00
631510	A	53.66	0.31	23.72	-0.11	6.54	-0.22	16.08	-0.14	0.00
631515	D	11.69	-0.19	21.02	-0.14	19.92	-0.17	47.37	0.37	0.00
631511	B	8.14	-0.09	45.74	0.23	12.14	-0.32	33.97	0.04	0.00
631512	C	9.87	-0.21	25.02	-0.13	54.70	0.30	10.42	-0.10	0.00
631513	C	6.07	-0.17	8.54	-0.21	75.21	0.32	10.19	-0.14	0.00
631514	C	9.57	0.01	11.01	-0.12	70.10	0.21	9.32	-0.20	0.00
631969	C	4.30	-0.10	4.77	-0.26	86.80	0.37	3.91	-0.24	0.23
631970	A	41.08	0.31	42.33	-0.18	7.25	-0.09	9.33	-0.13	0.00
631971	D	3.90	-0.12	39.42	-0.15	14.82	-0.13	41.86	0.29	0.00
632871	B	6.52	-0.19	54.65	0.17	12.41	-0.05	26.41	-0.05	0.00
632872	C	25.02	0.02	12.31	-0.19	47.83	0.20	14.84	-0.12	0.00
632873	A	16.18	0.13	18.47	-0.11	37.71	0.00	27.63	0.00	0.00
632874	D	16.80	-0.14	30.25	-0.01	33.20	0.03	19.75	0.11	0.00
635736	B	31.71	-0.03	31.25	0.04	15.11	-0.18	21.93	0.14	0.00
632886	A	30.02	0.13	52.36	0.00	7.67	-0.11	9.88	-0.10	0.08
632887	B	24.40	-0.04	24.09	0.05	29.98	0.00	21.53	-0.02	0.00
632888	B	7.85	-0.13	71.74	0.33	12.01	-0.21	8.40	-0.16	0.00
632889	A	62.97	0.47	11.40	-0.28	15.28	-0.17	10.35	-0.26	0.00
632876	A	64.11	0.41	8.79	-0.17	19.76	-0.27	7.34	-0.16	0.00
636415	B	28.05	-0.02	36.38	0.20	25.97	-0.11	9.52	-0.12	0.07
636416	A	41.48	0.37	4.42	-0.19	51.29	-0.23	2.73	-0.16	0.08
632890	D	14.90	-0.10	30.94	-0.11	25.90	-0.18	28.27	0.36	0.00
632891	C	31.15	-0.10	16.24	-0.17	38.80	0.19	13.82	0.04	0.00
632892	D	6.52	-0.11	5.17	-0.25	15.66	-0.22	72.66	0.36	0.00
632893	B	10.96	-0.10	59.97	0.31	14.54	-0.19	14.46	-0.15	0.08
632879	D	56.64	0.30	20.14	-0.11	11.61	-0.22	11.61	-0.11	0.00
632880	D	14.74	-0.23	4.83	-0.23	41.97	0.12	38.47	0.15	0.00
632881	D	5.26	-0.17	22.99	-0.07	12.47	-0.18	59.28	0.26	0.00
632875	D	23.54	-0.10	13.51	-0.15	51.14	0.24	11.73	-0.08	0.07
632882	B	13.10	-0.20	19.77	0.00	58.47	0.17	8.66	-0.07	0.00
632883	D	22.17	-0.21	7.70	-0.09	7.93	-0.17	62.20	0.32	0.00
632894	D	8.11	-0.05	40.78	-0.08	12.17	-0.25	38.94	0.27	0.00
632895	B	5.99	-0.20	29.95	-0.07	59.14	0.22	4.93	-0.12	0.00
630778	B	12.91	-0.23	59.07	0.41	17.10	-0.22	10.93	-0.15	0.00
630779	B	9.33	-0.27	47.91	0.39	18.81	-0.23	23.95	-0.06	0.00
630794	D	26.29	-0.15	24.76	-0.04	13.42	-0.15	35.53	0.28	0.00

Table J.23 (continued). Grade 7 Science Field Test: Multiple-Choice Distractor Analysis

		Response Options								
		A		B		C		D		Omit
Item ID	Key	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]
636417	A	26.14	0.12	11.24	-0.14	27.49	-0.01	35.14	0.00	0.00
631431	D	15.80	-0.06	14.81	-0.18	24.19	-0.16	45.12	0.31	0.08
631432	B	12.02	-0.20	44.30	0.27	26.43	-0.07	17.26	-0.11	0.00
631433	B	3.63	-0.22	78.81	0.22	10.72	-0.11	6.85	-0.05	0.00
631440	C	8.27	-0.16	10.51	-0.28	69.66	0.45	11.56	-0.24	0.00
631441	C	6.28	-0.08	13.29	-0.30	74.64	0.35	5.80	-0.14	0.00
631442	C	13.96	-0.16	6.39	-0.29	72.48	0.36	7.18	-0.13	0.00
631435	C	10.84	-0.18	14.51	-0.25	46.96	0.17	27.69	0.14	0.00
631436	B	14.79	-0.19	50.25	0.24	25.74	0.01	9.23	-0.21	0.00
631437	D	20.74	0.02	25.27	-0.07	16.90	-0.07	37.01	0.10	0.08
631438	D	10.18	-0.24	13.94	-0.11	30.62	-0.07	45.26	0.28	0.00
632095	C	19.29	-0.02	8.26	-0.26	59.91	0.25	12.54	-0.13	0.00
632097	C	3.01	-0.20	6.59	-0.11	87.06	0.29	3.25	-0.20	0.08
632098	B	5.64	-0.15	87.51	0.29	3.71	-0.22	3.14	-0.11	0.00
632099	A	69.21	0.37	7.85	-0.24	17.34	-0.20	5.61	-0.14	0.00
632100	C	14.62	-0.11	3.44	-0.19	57.08	0.30	24.86	-0.18	0.00
632113	C	5.76	-0.15	7.69	-0.20	68.21	0.35	18.33	-0.19	0.00
632101	D	3.18	-0.21	22.53	-0.14	18.63	-0.09	55.65	0.27	0.00
632102	D	12.84	-0.24	17.86	-0.21	16.83	-0.15	52.47	0.44	0.00
632103	A	60.63	0.32	9.72	-0.25	6.10	-0.18	23.48	-0.09	0.08
632104	B	11.44	-0.08	69.20	0.33	14.36	-0.21	4.99	-0.23	0.00
628349	A	55.47	0.26	13.87	-0.23	22.80	0.03	7.86	-0.24	0.00
636418	C	9.49	-0.10	28.00	-0.07	52.61	0.21	9.90	-0.16	0.00
632105	B	15.29	-0.19	53.21	0.34	11.54	-0.27	19.95	-0.04	0.00
632107	B	3.37	-0.18	26.62	0.03	48.39	0.07	21.61	-0.03	0.00
632109	A	53.97	0.35	33.46	-0.22	7.48	-0.17	5.09	-0.12	0.00
632110	D	14.89	-0.18	6.53	-0.12	20.21	-0.14	58.36	0.31	0.00
632111	A	76.92	0.38	5.09	-0.15	9.78	-0.23	8.22	-0.21	0.00
632645	D	15.45	-0.17	8.34	-0.13	17.91	-0.19	58.30	0.34	0.00
632638	A	14.38	0.13	35.82	-0.01	32.74	-0.12	17.06	0.04	0.00
632639	D	11.33	-0.19	13.67	-0.16	16.99	-0.13	58.01	0.33	0.00
632640	D	7.45	-0.11	27.48	-0.01	25.83	-0.09	39.23	0.15	0.00
632641	A	43.20	0.30	19.69	-0.08	20.39	-0.21	16.72	-0.09	0.00
632644	D	6.27	-0.21	12.46	-0.27	14.55	-0.20	66.56	0.45	0.15
632927	D	12.33	-0.05	16.16	-0.02	26.31	-0.13	45.20	0.16	0.00
632919	A	28.03	0.16	18.94	-0.08	49.22	-0.04	3.80	-0.10	0.00
632920	C	23.83	-0.23	5.07	-0.20	60.33	0.43	10.77	-0.21	0.00
632921	B	3.10	-0.10	64.47	0.21	9.29	-0.11	23.15	-0.12	0.00
632922	D	6.02	-0.12	10.45	-0.12	26.44	-0.09	57.09	0.21	0.00
632923	C	13.61	-0.11	14.09	-0.10	31.08	0.00	41.14	0.15	0.08
632924	C	14.18	-0.01	29.81	-0.13	27.56	0.08	28.45	0.07	0.00
632925	D	17.23	-0.16	27.62	-0.18	18.52	-0.08	36.55	0.36	0.08
632926	C	31.03	0.11	7.36	-0.23	51.29	0.13	10.32	-0.18	0.00
630461	A	54.68	0.44	16.29	-0.24	20.78	-0.22	8.18	-0.14	0.07
630462	D	15.87	0.04	26.36	-0.06	25.87	-0.09	31.90	0.11	0.00

Table J.23 (continued). Grade 7 Science Field Test: Multiple-Choice Distractor Analysis

		Response Options								
		A		B		C		D		Omit
Item ID	Key	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]
630463	A	31.97	0.30	18.15	-0.14	17.44	-0.21	32.36	-0.01	0.08
630464	A	37.48	0.12	11.64	-0.18	10.35	-0.13	40.53	0.08	0.00
630465	A	33.95	0.14	11.26	-0.20	28.12	0.01	26.66	-0.01	0.00
630467	A	66.45	0.34	15.56	-0.15	8.06	-0.25	9.92	-0.12	0.00
630469	C	4.26	-0.18	39.26	0.11	29.10	0.06	27.38	-0.10	0.00
630471	C	12.81	0.01	23.85	-0.06	58.66	0.12	4.67	-0.17	0.00
630472	D	21.59	-0.12	16.00	-0.02	15.92	-0.17	46.49	0.24	0.00
631530	B	7.62	-0.22	80.64	0.28	4.04	-0.16	7.62	-0.09	0.08
631532	A	75.51	0.34	6.18	-0.27	10.90	-0.15	7.40	-0.14	0.00
631533	C	4.98	-0.22	3.32	-0.21	77.57	0.47	14.14	-0.31	0.00
631534	D	7.58	-0.24	4.85	-0.23	4.70	-0.21	82.87	0.42	0.00
631535	D	11.34	-0.28	6.06	-0.21	5.44	-0.25	77.16	0.47	0.00
631536	C	8.46	-0.21	9.08	-0.21	73.54	0.40	8.92	-0.20	0.00
631537	A	87.74	0.40	1.81	-0.19	2.75	-0.22	7.70	-0.26	0.00
631538	D	6.42	-0.20	10.44	-0.22	14.85	-0.27	68.29	0.45	0.00

[1] Percentage of response options

Table J.24. Grade 10 Science Field Test: Multiple-Choice Distractor Analysis

		Response Options								
		A		B		C		D		Omit
Item ID	Key	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]
631516	C	4.70	-0.22	20.20	-0.08	70.40	0.29	4.70	-0.26	0.00
631517	A	26.11	0.15	7.88	-0.19	49.18	0.15	16.83	-0.23	0.00
631518	A	74.04	0.53	7.74	-0.26	8.60	-0.31	9.62	-0.25	0.00
631519	C	4.72	-0.20	15.89	-0.09	52.40	0.24	26.99	-0.11	0.00
634505	D	25.77	-0.12	7.06	-0.13	8.50	-0.38	58.67	0.39	0.00
634506	B	19.75	-0.06	42.79	0.28	23.43	-0.12	14.03	-0.18	0.00
634508	B	13.08	-0.01	69.36	0.37	11.45	-0.30	6.11	-0.29	0.00
634509	B	46.69	0.12	27.21	0.13	17.03	-0.16	9.07	-0.19	0.00
636412	C	11.83	-0.21	29.58	-0.05	41.33	0.22	17.26	-0.05	0.00
631521	B	5.67	-0.20	74.94	0.43	8.75	-0.29	10.64	-0.19	0.00
631522	D	12.74	-0.08	29.78	0.10	31.35	-0.10	26.05	0.07	0.08
631525	B	18.53	-0.06	25.96	0.18	6.63	-0.23	48.88	0.00	0.00
631580	C	3.40	-0.18	52.57	0.10	30.91	0.04	13.12	-0.10	0.00
631526	D	11.90	-0.20	7.13	-0.24	20.32	-0.21	60.65	0.44	0.00
631527	A	64.09	0.40	7.32	-0.28	7.80	-0.22	20.78	-0.14	0.00
631559	B	5.45	-0.22	65.28	0.33	18.12	-0.23	11.15	-0.07	0.00
631560	A	38.39	0.25	43.34	-0.10	15.36	-0.14	2.91	-0.16	0.00
631561	C	6.71	-0.21	7.95	-0.23	79.62	0.42	5.72	-0.23	0.00
631562	C	10.39	-0.09	35.73	-0.14	44.92	0.26	8.95	-0.13	0.00
631563	D	3.76	-0.19	5.07	-0.33	9.72	-0.35	81.45	0.55	0.00
631564	A	27.64	0.26	42.43	0.11	22.65	-0.30	7.27	-0.16	0.00
631565	D	11.76	-0.16	11.18	-0.34	5.14	-0.30	71.92	0.50	0.00
631566	B	11.56	-0.16	65.96	0.41	10.75	-0.25	11.73	-0.21	0.00
631567	A	65.40	0.45	11.53	-0.21	10.35	-0.37	12.72	-0.10	0.00
631569	D	13.37	-0.27	14.81	-0.19	23.43	-0.10	48.39	0.40	0.00
631570	B	31.20	-0.10	39.38	0.34	19.61	-0.22	9.81	-0.11	0.00
631571	C	4.00	-0.14	14.03	-0.06	66.07	0.24	15.91	-0.17	0.00
631573	D	6.72	-0.07	5.48	-0.21	11.20	-0.21	76.60	0.31	0.00
631574	C	18.77	-0.06	4.34	-0.15	54.69	0.18	22.19	-0.09	0.00
631575	B	1.67	-0.14	83.46	0.35	3.51	-0.22	11.36	-0.23	0.00
631576	C	6.05	-0.18	9.74	-0.22	70.86	0.26	13.28	-0.02	0.08
631577	C	3.62	-0.13	4.26	-0.29	87.94	0.41	4.18	-0.26	0.00
631578	D	5.23	-0.16	9.46	-0.27	20.33	-0.19	64.98	0.40	0.00
631581	A	88.09	0.44	3.59	-0.32	6.28	-0.21	2.04	-0.22	0.00
631582	B	2.03	-0.21	88.48	0.41	6.49	-0.26	3.00	-0.22	0.00
631583	B	9.73	-0.20	71.28	0.50	11.18	-0.28	7.80	-0.29	0.00
631584	D	29.20	0.06	28.47	-0.11	18.98	-0.07	23.36	0.11	0.00
631585	C	3.24	-0.17	4.23	-0.24	90.12	0.38	2.41	-0.22	0.00
631586	D	8.74	-0.18	16.22	-0.19	4.93	-0.17	70.11	0.35	0.00
631587	C	11.07	-0.26	13.63	-0.35	57.66	0.51	17.64	-0.13	0.00
631588	C	6.79	-0.18	29.48	-0.12	59.05	0.28	4.68	-0.18	0.00
631589	B	17.18	-0.06	45.68	0.40	10.59	-0.25	26.55	-0.22	0.00
631590	B	20.73	-0.17	70.02	0.41	6.17	-0.29	3.09	-0.27	0.00
631593	D	11.92	-0.23	7.57	-0.22	12.72	-0.28	67.79	0.49	0.00
631595	A	65.39	0.41	3.18	-0.25	25.41	-0.25	5.94	-0.17	0.08

Table J.24 (continued). Grade 10 Science Field Test: Multiple-Choice Distractor Analysis

		Response Options								
		A		B		C		D		Omit
Item ID	Key	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]
636413	A	40.88	0.34	17.51	-0.11	25.19	-0.16	16.43	-0.15	0.00
634501	B	8.14	-0.20	77.57	0.44	7.42	-0.32	6.87	-0.17	0.00
634502	B	6.06	-0.18	57.04	0.28	32.49	-0.13	4.42	-0.18	0.00
632121	D	7.32	-0.18	43.66	0.02	6.99	-0.28	41.95	0.22	0.08
632122	A	85.01	0.51	7.92	-0.34	5.79	-0.32	1.28	-0.13	0.00
632123	D	10.86	-0.17	7.63	-0.25	43.70	-0.10	37.65	0.35	0.17
632124	A	22.55	0.17	8.64	-0.24	16.21	-0.25	52.59	0.18	0.00
632115	C	10.37	-0.03	17.22	-0.23	46.04	0.13	26.37	0.07	0.00
632116	B	10.87	-0.20	53.09	0.42	14.97	-0.27	21.07	-0.13	0.00
632118	A	35.58	0.36	8.02	-0.28	30.66	-0.18	25.73	-0.03	0.00
632119	D	14.07	-0.13	8.85	-0.24	16.76	-0.10	60.24	0.31	0.08
632120	D	5.75	-0.20	5.25	-0.26	10.07	-0.10	78.93	0.33	0.00
636420	B	9.58	-0.05	52.50	0.15	30.47	-0.08	7.45	-0.07	0.00
636421	A	61.56	0.00	12.50	-0.17	20.60	0.21	5.35	-0.14	0.00
626591	A	57.85	0.17	17.31	-0.05	4.57	-0.15	20.27	-0.08	0.00
626593	A	57.04	0.35	24.84	-0.12	7.20	-0.26	10.84	-0.17	0.08
631129	A	70.29	0.36	8.87	-0.21	9.80	-0.15	10.96	-0.20	0.08
631130	A	53.31	0.48	16.24	-0.21	17.29	-0.31	13.17	-0.13	0.00
626594	C	5.64	-0.09	7.88	-0.19	49.71	0.13	36.76	0.01	0.00
626596	C	15.37	-0.09	21.93	-0.08	32.12	0.19	30.50	-0.04	0.08
626598	C	20.06	-0.23	13.27	-0.06	42.23	0.27	24.35	-0.04	0.08
626599	A	57.98	0.44	17.90	-0.24	16.85	-0.21	7.26	-0.18	0.00
626602	A	39.48	0.22	20.64	-0.10	36.28	-0.06	3.52	-0.21	0.08
626603	C	34.29	0.16	16.99	-0.16	32.61	0.00	16.03	-0.04	0.08
632928	C	29.14	-0.20	20.16	-0.10	42.34	0.36	8.36	-0.16	0.00
631133	B	28.21	0.09	31.99	0.20	20.80	-0.19	18.91	-0.13	0.08
626600	D	12.99	-0.04	30.56	0.05	23.37	-0.17	33.01	0.14	0.08
626605	B	20.88	0.06	28.15	0.28	22.28	-0.24	28.62	-0.11	0.08
636423	C	28.21	-0.09	14.30	-0.24	44.27	0.29	13.15	-0.06	0.08
636424	B	16.72	-0.10	31.31	0.31	38.36	-0.10	13.61	-0.18	0.00
626616	B	17.81	-0.14	29.00	0.19	19.36	-0.07	33.82	-0.01	0.00
626606	C	12.13	-0.26	9.10	-0.17	72.54	0.39	6.23	-0.15	0.00
626607	C	4.42	-0.19	8.35	-0.16	81.34	0.31	5.89	-0.16	0.00
626608	A	61.99	0.29	3.45	-0.21	26.35	-0.13	8.05	-0.16	0.16
626609	B	3.93	-0.17	17.64	-0.06	46.74	0.16	31.69	-0.05	0.00
631131	C	5.68	-0.29	19.60	-0.23	55.44	0.34	19.21	-0.02	0.08
631132	C	3.15	-0.21	22.46	-0.24	54.93	0.25	19.47	0.03	0.00
626612	B	13.44	-0.07	35.28	0.09	23.91	-0.12	27.29	0.08	0.08
626613	A	53.83	0.46	24.43	-0.22	15.59	-0.26	6.15	-0.18	0.00
626614	A	14.12	-0.13	18.10	-0.33	51.95	0.38	15.83	-0.04	0.00
632455	D	13.00	-0.17	17.87	-0.01	16.28	-0.13	52.85	0.21	0.00
632456	C	23.08	-0.03	12.05	-0.22	43.56	0.24	21.31	-0.09	0.00
632457	D	18.22	-0.01	20.72	-0.24	14.89	-0.07	46.17	0.26	0.00
632458	D	10.70	-0.16	16.21	-0.14	43.51	0.14	29.58	0.07	0.00
632459	D	17.45	-0.13	11.72	-0.25	21.30	-0.11	49.53	0.35	0.00

Table J.24 (continued). Grade 10 Science Field Test: Multiple-Choice Distractor Analysis

		Response Options								
		A		B		C		D		Omit
Item ID	Key	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]
636426	B	18.03	-0.05	37.42	0.25	37.50	-0.10	6.97	-0.19	0.08
632460	C	50.12	0.09	5.98	-0.17	16.90	-0.06	27.00	0.05	0.00
632461	C	9.93	-0.15	15.42	-0.04	28.09	0.01	46.57	0.11	0.00
632462	C	4.13	-0.17	7.36	-0.27	66.67	0.28	21.76	-0.06	0.08
632463	C	6.00	-0.22	24.40	-0.15	47.54	0.30	21.98	-0.07	0.08
632465	D	5.81	-0.20	17.27	-0.28	17.43	-0.15	59.49	0.43	0.00
632466	A	71.50	0.56	11.83	-0.27	12.83	-0.35	3.75	-0.27	0.08
632469	B	25.49	0.00	18.07	0.07	35.20	0.10	21.23	-0.19	0.00
632931	B	23.79	-0.04	31.03	0.09	20.63	-0.07	24.46	0.01	0.08
632933	B	33.20	-0.08	47.05	0.34	8.20	-0.28	11.48	-0.17	0.08
632934	D	39.70	0.10	10.17	-0.26	7.71	-0.16	42.41	0.15	0.00
632935	D	5.07	-0.23	13.89	-0.16	26.62	-0.17	54.41	0.37	0.00
632945	D	3.44	-0.13	11.05	-0.22	25.94	-0.17	59.49	0.35	0.08
632464	C	15.51	-0.20	12.29	-0.26	59.65	0.41	12.54	-0.14	0.00
632946	C	31.46	-0.19	14.90	-0.16	27.04	0.23	26.52	0.10	0.09
632936	C	10.68	-0.06	21.14	-0.13	45.66	0.28	22.52	-0.16	0.00
632937	C	25.30	-0.04	26.17	-0.10	34.84	0.16	13.68	-0.04	0.00
632938	D	10.62	-0.08	15.80	-0.20	27.98	-0.13	45.60	0.32	0.00
632939	D	5.05	-0.26	10.75	-0.30	23.90	-0.12	60.30	0.41	0.00
636427	D	10.87	-0.15	24.79	-0.10	30.39	-0.04	33.96	0.23	0.00
631439	A	68.45	0.49	16.94	-0.30	5.76	-0.30	8.76	-0.17	0.08
632941	A	53.67	0.43	18.95	-0.10	17.32	-0.28	10.06	-0.22	0.00
632942	A	87.60	0.41	3.59	-0.17	5.55	-0.29	3.26	-0.22	0.00
632947	B	29.57	-0.02	9.75	-0.02	13.27	-0.02	47.42	0.04	0.00
632943	B	27.83	0.03	38.11	0.18	23.46	-0.02	10.52	-0.29	0.08
632944	A	34.07	0.31	13.56	-0.20	15.68	-0.26	36.69	0.03	0.00
633505	C	9.78	-0.11	17.79	-0.04	43.91	0.11	28.45	-0.02	0.08
633507	A	48.70	0.20	29.67	0.01	8.05	-0.28	13.50	-0.09	0.08
633520	B	20.52	0.03	44.14	0.23	21.82	-0.16	13.44	-0.17	0.08
633474	C	17.66	-0.07	7.88	-0.18	70.81	0.26	3.65	-0.21	0.00
633475	C	15.79	0.03	19.57	-0.23	56.22	0.28	8.41	-0.21	0.00
633476	C	2.44	-0.26	5.04	-0.30	88.06	0.47	4.47	-0.23	0.00
633470	D	11.77	-0.17	12.80	-0.20	14.77	-0.19	60.66	0.38	0.00
633471	A	52.50	0.46	10.50	-0.25	9.77	-0.35	27.22	-0.11	0.00
633472	B	6.59	-0.10	61.35	0.28	10.01	-0.23	22.05	-0.10	0.00
633473	B	8.79	-0.04	61.84	0.37	23.60	-0.30	5.77	-0.18	0.00
633477	B	9.34	-0.22	71.82	0.42	15.29	-0.23	3.55	-0.24	0.00
633482	A	23.52	0.06	23.20	0.00	24.43	-0.18	28.77	0.11	0.08
633510	D	35.07	-0.07	6.66	-0.15	19.42	-0.22	38.84	0.32	0.00
636419	C	17.46	-0.05	28.57	-0.02	45.95	0.15	7.94	-0.16	0.08
633479	D	4.00	-0.18	13.63	-0.16	14.14	-0.30	68.23	0.42	0.00
631549	D	3.15	-0.16	1.78	-0.18	7.75	-0.29	87.33	0.39	0.00
631550	B	4.31	-0.16	58.05	0.25	26.44	-0.01	11.20	-0.27	0.00
631540	B	2.51	-0.23	87.89	0.50	6.43	-0.35	3.17	-0.23	0.00
631541	C	3.62	-0.20	21.87	-0.03	62.39	0.20	12.04	-0.14	0.08

Table J.24 (continued). Grade 10 Science Field Test: Multiple-Choice Distractor Analysis

		Response Options								
		A		B		C		D		Omit
Item ID	Key	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]
631543	B	11.07	-0.15	42.70	0.14	19.80	-0.22	26.43	0.15	0.00
631544	C	3.32	-0.16	19.19	-0.34	63.21	0.45	14.29	-0.16	0.00
631546	A	57.46	0.10	5.13	-0.24	31.70	0.09	5.70	-0.14	0.00
631547	D	7.83	-0.21	6.17	-0.28	38.93	0.01	47.06	0.24	0.00
630468	C	15.22	-0.24	2.79	-0.24	73.15	0.46	8.76	-0.28	0.08
632524	A	67.36	0.50	8.49	-0.24	9.34	-0.37	14.81	-0.17	0.00
633125	B	11.03	-0.19	42.95	0.21	22.31	-0.15	23.71	0.04	0.00
633126	D	3.34	-0.18	14.31	-0.16	14.74	-0.25	67.61	0.38	0.00
633123	A	43.50	0.41	29.35	-0.19	18.05	-0.16	9.11	-0.21	0.00
631551	D	16.83	-0.06	13.72	-0.24	13.64	-0.26	55.82	0.39	0.00
633509	C	28.49	0.11	33.20	-0.04	27.50	0.08	10.82	-0.22	0.00
633127	B	7.84	-0.11	75.44	0.43	7.44	-0.30	9.28	-0.27	0.00
633128	D	5.15	-0.17	21.72	-0.11	16.89	-0.19	56.23	0.31	0.00
633129	A	59.11	0.23	11.25	-0.29	6.24	-0.20	23.40	0.06	0.00
633130	B	25.48	-0.14	43.86	0.40	15.46	-0.26	15.20	-0.12	0.00

[1] Percentage of response options

Appendix K: Formulas for MH-Statistic & Categorization Rules

Formulas for MH-Statistic

An odds-ratio,

$$\hat{\alpha}_{MH} = \frac{\sum\left(A_j D_j / T_j\right)}{\sum\left(B_j C_j / T_j\right)},$$

was summed across each of the *j*-levels and then converted into the Educational Testing Service (ETS) "delta scale"

$$\hat{\Delta}_{MH} = -2.35(\ln(\hat{\alpha}_{MH})).$$

The value $\hat{\Delta}_{MH}$ is the average amount more difficult that a member of the reference group found the studied item than did comparable members of the focal group.

The variance approximation for $\hat{\alpha}_{MH}$ was determined via the equation:

$$\mathrm{Var}(\hat{\alpha}_{MH}) = \frac{1}{2U^2}\sum_j [T_j^{-2}(A_j D_j + \hat{\alpha}_{MH} B_j C_j)(A_j + D_j + \hat{\alpha}_{MH}(B_j + C_j))],$$

where $$U = \sum_j \frac{A_j D_j}{T_j}.$$

Categorization Rules

The DIF classification is defined as follows:

Rule 1: MH delta (MHD) not significantly different from 0 (based on alpha=.05) **or** |MHD| < 1.0 are classified as A. [Note: The MHD is the ETS delta scale for item difficulty where the natural logarithm of the common odds ratio is multiplied by –(4/1.7).]

Rule 2: MHD significantly different from 0 and {|MHD| ≥ 1.0 and < 1.5} **or** MHD not significantly different from 0 and |MHD| ≥ 1.0 are classified as B.

Rule 3: |MHD| ≥ 1.5 and significantly different from 0 are classified as C.

In DIF classifications, a negative sign after the classification indicates better reference group (male or white) performance on the item while a positive sign indicates better focal group (female or Hispanic/Latino) performance.

Appendix L: Field Test Item Level DIF Statistics

Table L.1. Grade 3 Reading Field Test: Differential Item Functioning Analysis

	Male/Female DIF		White/Hispanic DIF		No Aid/Lunch Aid DIF	
Item ID	MH delta	NAEP Cat.	MH delta	NAEP Cat.	MH delta	NAEP Cat.
633423	0.196	A+	0.374	A+	-0.264	A-
633417	0.218	A+	-0.899	A-	-0.822	A-
633421	-0.732	A-	-0.912	A-	-0.553	A-
633415	-0.160	A-	-0.662	A-	-0.806	A-
633416	0.177	A+	-0.636	A-	-0.062	A-
633418	-0.159	A-	0.387	A+	-0.059	A-
633419	0.281	A+	0.189	A+	-0.097	A-
633424	-0.114	A-	-0.821	A-	-0.711	A-
633414	-0.444	A-	-0.180	A-	-0.283	A-
633413	0.170	A+	-0.019	A-	-0.127	A-
633964	0.153	A+	-0.446	A-	-0.408	A-
633967	-0.137	A-	-0.638	A-	-0.811	A-
633971	0.113	A+	-0.001	A-	-0.024	A-
633965	-0.277	A-	-0.871	A-	-0.698	A-
633966	-0.308	A-	-0.886	A-	-0.229	A-
633968	-0.095	A-	-0.411	A-	-0.268	A-
633969	-0.312	A-	-0.530	A-	-0.029	A-
633970	-0.404	A-	-0.453	A-	-0.446	A-
633962	0.136	A+	0.384	A+	-0.024	A-
633963	0.171	A+	-0.403	A-	-0.662	A-
628078	-0.011	A-	-0.389	A-	-0.055	A-
628094	0.304	A+	-0.489	A-	-0.391	A-
628079	-0.279	A-	-0.784	A-	-0.315	A-
628073	0.027	A+	-1.071	B-	-0.416	A-
628077	-0.616	A-	-0.476	A-	-0.457	A-
628076	-0.662	A-	-0.704	A-	-0.114	A-
628075	0.446	A+	-0.937	A-	-0.661	A-
628071	-0.373	A-	-0.463	A-	-0.435	A-
628070	0.249	A+	0.165	A+	-0.476	A-
628072	-0.512	A-	0.059	A+	-0.245	A-
627400	0.755	A+	0.010	A+	-0.012	A-
627399	0.356	A+	-0.181	A-	-0.431	A-
627396	0.892	A+	-0.398	A-	-0.347	A-
627394	0.285	A+	-0.505	A-	-0.756	A-
627398	0.520	A+	-0.577	A-	-0.660	A-
627393	0.140	A+	-1.088	B-	-0.759	A-
627397	0.948	A+	0.489	A+	-0.110	A-
627395	0.363	A+	0.133	A+	-0.385	A-
627402	0.767	A+	-0.436	A-	-0.625	A-
627390	0.141	A+	0.113	A+	-0.043	A-
628924	0.324	A+	-0.214	A-	-0.622	A-
628923	0.477	A+	-0.062	A-	-0.337	A-
628919	0.489	A+	-0.602	A-	-0.815	A-
628922	0.326	A+	0.073	A+	0.064	A+
628916	-0.057	A-	-1.298	B-	-0.586	A-

Table L.1 (continued). Grade 3 Reading Field Test: Differential Item Functioning Analysis

	Male/Female DIF		White/Hispanic DIF		No Aid/Lunch Aid DIF	
Item ID	MH delta	NAEP Cat.	MH delta	NAEP Cat.	MH delta	NAEP Cat.
628912	-0.094	A-	-0.264	A-	-0.375	A-
628914	-0.333	A-	-1.452	B-	-0.827	A-
628920	0.325	A+	-0.455	A-	-0.509	A-
628917	0.698	A+	0.217	A+	-0.043	A-
628911	0.040	A+	-0.043	A-	-0.060	A-

Reference groups = Male, White, and No lunch aid.
Focal groups = Female, Hispanic or Latino, and Lunch Aid
Negative values reflect better reference group performance on the item and positive values reflect better focal group performance.

Table L.2. Grade 4 Reading Field Test: Differential Item Functioning Analysis

	Male/Female DIF		White/Hispanic DIF		No Aid/Lunch Aid DIF	
Item ID	MH delta	NAEP Cat.	MH delta	NAEP Cat.	MH delta	NAEP Cat.
631162	-0.654	A-	0.032	A+	-0.099	A-
631165	-0.304	A-	-0.017	A-	-0.605	A-
635996	0.356	A+	-0.224	A-	-0.033	A-
631161	0.480	A+	-0.004	A-	0.336	A+
631160	-0.634	A-	-0.742	A-	-0.249	A-
631163	0.267	A+	-0.350	A-	-0.200	A-
631169	0.411	A+	0.438	A+	0.269	A+
631164	0.089	A+	-0.353	A-	-0.495	A-
631166	0.178	A+	-0.205	A-	-0.279	A-
631167	-0.488	A-	-0.252	A-	-0.257	A-
631186	0.624	A+	0.105	A+	-0.271	A-
631179	-0.007	A-	0.208	A+	-0.327	A-
631185	-0.502	A-	0.020	A+	-0.498	A-
631184	-0.278	A-	-0.389	A-	-0.020	A-
631188	0.009	A+	-0.170	A-	-0.110	A-
631178	-0.109	A-	0.297	A+	0.022	A+
631187	0.356	A+	-0.044	A-	-0.490	A-
631180	0.299	A+	-0.139	A-	-0.219	A-
631183	-0.055	A-	-0.451	A-	-0.257	A-
639470	0.125	A+	-0.086	A-	0.061	A+
628163	0.490	A+	-0.320	A-	-0.174	A-
628162	0.238	A+	-0.543	A-	-0.281	A-
628159	0.741	A+	0.998	A+	-0.113	A-
628154	0.189	A+	-0.482	A-	-0.680	A-
628161	0.082	A+	-0.365	A-	-0.257	A-
628156	0.287	A+	0.247	A+	-0.276	A-
628167	0.410	A+	-0.126	A-	-0.162	A-
628164	0.326	A+	-0.474	A-	-0.214	A-
628160	0.309	A+	0.276	A+	-0.300	A-
628166	0.413	A+	0.025	A+	-0.134	A-
631289	0.033	A+	0.345	A+	-0.242	A-
631292	0.248	A+	-0.150	A-	-0.073	A-
631287	0.523	A+	-0.291	A-	-0.623	A-
631290	0.244	A+	-0.706	A-	-0.443	A-
631285	0.172	A+	-0.236	A-	-0.121	A-
631293	0.375	A+	0.795	A+	-0.323	A-
631284	0.479	A+	-0.012	A-	-0.423	A-
631288	0.911	A+	-0.261	A-	-0.364	A-
631282	-1.860	C-	-1.212	B-	-0.745	A-
631283	0.052	A+	-0.756	A-	-0.682	A-
631092	0.152	A+	0.130	A+	-0.226	A-
631094	0.168	A+	0.080	A+	0.087	A+
631086	-0.370	A-	0.290	A+	-0.144	A-
631089	0.780	A+	-0.345	A-	-0.740	A-
631093	-0.186	A-	0.040	A+	0.139	A+
631087	-0.593	A-	-1.989	C-	-0.884	A-
631091	0.231	A+	-0.684	A-	-0.874	A-
631095	0.672	A+	0.118	A+	-0.317	A-

Table L.2 (continued). Grade 4 Reading Field Test: Differential Item Functioning Analysis

	Male/Female DIF		White/Hispanic DIF		No Aid/Lunch Aid DIF	
Item ID	**MH delta**	**NAEP Cat.**	**MH delta**	**NAEP Cat.**	**MH delta**	**NAEP Cat.**
631085	-0.233	A-	-0.191	A-	631085	-0.233
631084	0.393	A+	-0.969	A-	631084	0.393

Reference groups = Male, White, and No lunch aid.
Focal groups = Female, Hispanic or Latino, and Lunch Aid
Negative values reflect better reference group performance on the item and positive values reflect better focal group performance.

Table L.3. Grade 5 Reading Field Test: Differential Item Functioning Analysis

	Male/Female DIF		White/Hispanic DIF		No Aid/Lunch Aid DIF	
Item ID	MH delta	NAEP Cat.	MH delta	NAEP Cat.	MH delta	NAEP Cat.
630144	0.330	A+	0.701	A+	0.071	A+
630145	0.008	A+	0.050	A+	-0.266	A-
630142	-0.073	A-	0.020	A+	-0.040	A-
630140	-0.445	A-	-0.582	A-	-0.381	A-
630148	-0.352	A-	-0.180	A-	0.093	A+
630138	-1.014	B-	-0.198	A-	-0.362	A-
630143	-0.040	A-	-0.690	A-	-0.467	A-
635997	-0.207	A-	-0.476	A-	-0.343	A-
630136	0.338	A+	0.356	A+	-0.077	A-
630137	0.075	A+	-0.239	A-	-0.768	A-
633488	0.659	A+	0.510	A+	-0.092	A-
633489	0.048	A+	0.137	A+	-0.651	A-
633492	-0.467	A-	0.211	A+	-0.346	A-
633487	-0.372	A-	-0.130	A-	-0.362	A-
633493	0.247	A+	0.301	A+	-0.348	A-
633485	0.612	A+	-0.003	A-	-0.329	A-
633491	1.172	B+	-0.174	A-	-0.471	A-
633490	0.563	A+	-0.592	A-	-0.331	A-
633494	0.313	A+	-0.081	A-	-0.172	A-
633495	0.241	A+	0.214	A+	-0.382	A-
632320	0.426	A+	0.132	A+	-0.354	A-
632324	0.584	A+	-0.355	A-	-0.179	A-
632314	0.371	A+	-0.039	A-	-0.151	A-
632316	0.973	A+	0.167	A+	-0.466	A-
632317	-0.146	A-	-0.197	A-	-0.252	A-
634308	0.201	A+	0.304	A+	0.506	A+
632318	0.238	A+	-0.382	A-	-0.426	A-
632322	0.435	A+	0.913	A+	-0.300	A-
632321	0.304	A+	-0.629	A-	-0.681	A-
632313	0.050	A+	0.427	A+	0.316	A+
632343	0.434	A+	-0.016	A-	-0.046	A-
632340	0.291	A+	0.404	A+	-0.074	A-
632336	0.783	A+	0.032	A+	-0.916	A-
632338	0.437	A+	-0.305	A-	-0.242	A-
632335	0.437	A+	-0.287	A-	-0.378	A-
632339	-0.044	A-	-0.188	A-	-0.304	A-
632341	0.731	A+	0.389	A+	-0.131	A-
632334	0.444	A+	-0.482	A-	-0.411	A-
632344	0.735	A+	0.415	A+	-0.120	A-
632333	0.555	A+	0.018	A+	-0.206	A-
627817	-0.100	A-	-0.533	A-	-0.415	A-
627814	0.897	A+	0.463	A+	-0.081	A-
627819	-0.011	A-	-0.553	A-	-0.490	A-
627816	-0.025	A-	-0.656	A-	-0.407	A-
627815	0.886	A+	0.681	A+	0.211	A+
627822	-0.118	A-	-0.050	A-	-0.073	A-
627820	0.720	A+	0.446	A+	0.170	A+
627818	0.400	A+	-0.154	A-	0.160	A+

Table L.3 (continued). Grade 5 Reading Field Test: Differential Item Functioning Analysis

	Male/Female DIF		White/Hispanic DIF		No Aid/Lunch Aid DIF	
Item ID	**MH delta**	**NAEP Cat.**	**MH delta**	**NAEP Cat.**	**MH delta**	**NAEP Cat.**
627821	0.795	A+	0.510	A+	-0.069	A-
627813	0.385	A+	-1.694	C-	-1.080	B-

Reference groups = Male, White, and No lunch aid.
Focal groups = Female, Hispanic or Latino, and Lunch Aid
Negative values reflect better reference group performance on the item and positive values reflect better focal group performance.

Table L.4. Grade 6 Reading Field Test: Differential Item Functioning Analysis

	Male/Female DIF		White/Hispanic DIF		No Aid/Lunch Aid DIF	
Item ID	MH delta	NAEP Cat.	MH delta	NAEP Cat.	MH delta	NAEP Cat.
628898	0.272	A+	0.113	A+	-0.326	A-
628907	0.670	A+	0.036	A+	-0.198	A-
628901	0.636	A+	-1.524	C-	-0.982	A-
628902	-0.052	A-	-0.769	A-	-0.287	A-
628904	0.709	A+	-0.297	A-	-0.082	A-
628909	0.453	A+	-0.349	A-	0.057	A+
628905	0.706	A+	0.107	A+	-0.155	A-
628900	1.043	B+	-1.132	B-	-0.354	A-
628908	0.872	A+	-0.302	A-	0.125	A+
628899	1.028	B+	0.162	A+	0.884	A+
628878	0.375	A+	0.451	A+	-0.176	A-
628881	-0.216	A-	0.526	A+	-0.107	A-
628879	-0.342	A-	0.482	A+	-0.088	A-
628875	-0.273	A-	-0.224	A-	-0.258	A-
628873	-0.360	A-	-0.049	A-	-0.350	A-
628874	-0.172	A-	0.264	A+	0.052	A+
628877	-1.007	B-	-1.113	B-	-0.876	A-
628883	0.566	A+	-0.146	A-	-0.372	A-
628880	-0.365	A-	-0.589	A-	0.042	A+
628872	-0.813	A-	-0.719	A-	-0.147	A-
628866	1.047	B+	-0.089	A-	-0.478	A-
628871	1.701	C+	0.505	A+	0.029	A+
628867	-0.026	A-	-0.632	A-	0.131	A+
628868	1.063	B+	-0.464	A-	-0.551	A-
628865	0.804	A+	-0.568	A-	-0.494	A-
628863	0.670	A+	0.113	A+	-0.315	A-
628864	0.383	A+	-0.259	A-	-0.256	A-
628870	1.127	B+	-0.394	A-	-0.661	A-
628860	-0.318	A-	0.796	A+	-0.059	A-
628861	0.381	A+	-1.142	B-	-0.699	A-
632234	-0.117	A-	-0.652	A-	-0.437	A-
632235	0.198	A+	-0.535	A-	-0.686	A-
632236	-0.597	A-	-0.509	A-	-0.238	A-
632237	-0.599	A-	-0.607	A-	-0.419	A-
632238	-0.005	A-	-0.235	A-	-0.577	A-
632240	0.650	A+	-0.207	A-	-0.026	A-
632242	0.276	A+	0.200	A+	-0.194	A-
632243	-0.008	A-	0.001	A+	-0.335	A-
632244	0.905	A+	-0.608	A-	-0.371	A-
632245	0.564	A+	-0.447	A-	-0.324	A-
630758	1.140	B+	0.409	A+	-0.151	A-
630759	0.178	A+	-0.977	A-	-0.392	A-
630761	0.015	A+	0.081	A+	-0.181	A-
630760	0.306	A+	-0.078	A-	-0.530	A-
630755	1.003	B+	-0.105	A-	-0.172	A-
630762	-0.548	A-	-0.082	A-	-0.604	A-
630764	0.679	A+	0.259	A+	-0.544	A-
630765	0.919	A+	0.374	A+	0.013	A+

Table L.4 (continued). Grade 6 Reading Field Test: Differential Item Functioning Analysis

	Male/Female DIF		White/Hispanic DIF		No Aid/Lunch Aid DIF	
Item ID	**MH delta**	**NAEP Cat.**	**MH delta**	**NAEP Cat.**	**MH delta**	**NAEP Cat.**
630756	-1.369	B-	-1.851	C-	-0.896	A-
630754	0.490	A+	0.590	A+	-0.141	A-

Reference groups = Male, White, and No lunch aid.
Focal groups = Female, Hispanic or Latino, and Lunch Aid
Negative values reflect better reference group performance on the item and positive values reflect better focal group performance.

Table L.5. Grade 7 Reading Field Test: Differential Item Functioning Analysis

	Male/Female DIF		White/Hispanic DIF		No Aid/Lunch Aid DIF	
Item ID	MH delta	NAEP Cat.	MH delta	NAEP Cat.	MH delta	NAEP Cat.
628982	0.551	A+	0.201	A+	-0.293	A-
628976	-0.052	A-	-0.507	A-	-0.602	A-
628983	-0.014	A-	0.365	A+	-0.326	A-
628981	0.169	A+	-0.598	A-	-0.948	A-
628980	-1.050	B-	-0.781	A-	-0.879	A-
628975	-0.213	A-	-0.060	A-	-0.066	A-
630766	0.504	A+	-0.327	A-	-0.448	A-
628974	0.069	A+	-0.857	A-	-0.701	A-
628973	-0.352	A-	-0.611	A-	-0.472	A-
628972	0.929	A+	-0.882	A-	-0.565	A-
633956	0.111	A+	-0.056	A-	-0.425	A-
633961	-0.287	A-	0.229	A+	0.151	A+
633960	0.476	A+	-0.827	A-	-0.269	A-
633955	0.121	A+	-0.573	A-	-0.168	A-
633957	1.379	B+	0.289	A+	-0.090	A-
633954	-0.389	A-	0.233	A+	-0.233	A-
633953	0.818	A+	-1.065	B-	-1.139	B-
633959	1.135	B+	0.475	A+	-0.208	A-
633952	-0.115	A-	-2.592	C-	-1.280	B-
633951	-0.345	A-	-0.486	A-	-0.324	A-
628085	-0.434	A-	-0.849	A-	-0.464	A-
628091	0.178	A+	-0.413	A-	-0.215	A-
628082	0.029	A+	0.123	A+	-0.179	A-
628087	0.755	A+	-0.064	A-	-0.264	A-
628088	-0.352	A-	-0.727	A-	-0.355	A-
628089	0.844	A+	-0.336	A-	-0.415	A-
628086	0.021	A+	0.473	A+	0.020	A+
628090	0.029	A+	-0.116	A-	0.063	A+
628083	-1.069	B-	0.195	A+	-0.243	A-
628084	0.703	A+	0.243	A+	-0.498	A-
629243	0.869	A+	-0.501	A-	-0.428	A-
629232	0.889	A+	-0.701	A-	-0.470	A-
629233	0.656	A+	-0.080	A-	-0.297	A-
629240	0.392	A+	-0.220	A-	-0.109	A-
629235	0.134	A+	-0.278	A-	-0.266	A-
629242	0.580	A+	0.465	A+	-0.096	A-
629238	0.272	A+	-0.365	A-	-0.480	A-
629239	0.257	A+	0.305	A+	-0.465	A-
629236	-0.173	A-	-1.289	B-	-0.932	A-
629237	0.143	A+	-0.479	A-	-0.284	A-
628888	0.828	A+	-0.196	A-	-0.659	A-
628895	0.939	A+	-0.297	A-	-0.447	A-
628887	-0.513	A-	-0.417	A-	-0.463	A-
628885	-0.258	A-	-0.541	A-	-0.808	A-
628896	0.132	A+	-0.134	A-	-0.074	A-
628889	0.683	A+	-0.779	A-	-0.299	A-
628890	-0.197	A-	-0.945	A-	-0.444	A-
628894	0.308	A+	0.317	A+	0.123	A+

Table L.5 (continued). Grade 7 Reading Field Test: Differential Item Functioning Analysis

	Male/Female DIF		White/Hispanic DIF		No Aid/Lunch Aid DIF	
Item ID	MH delta	NAEP Cat.	MH delta	NAEP Cat.	MH delta	NAEP Cat.
628891	0.617	A+	-0.341	A-	-0.068	A-
628884	-0.248	A-	-0.087	A-	-0.215	A-

Reference groups = Male, White, and No lunch aid.
Focal groups = Female, Hispanic or Latino, and Lunch Aid
Negative values reflect better reference group performance on the item and positive values reflect better focal group performance.

Table L.6. Grade 8 Reading Field Test: Differential Item Functioning Analysis

	Male/Female DIF		White/Hispanic DIF		No Aid/Lunch Aid DIF	
Item ID	MH delta	NAEP Cat.	MH delta	NAEP Cat.	MH delta	NAEP Cat.
632220	0.401	A+	-0.300	A-	-0.188	A-
632212	0.261	A+	-0.268	A-	-0.058	A-
632209	0.803	A+	-0.251	A-	0.152	A+
632214	-0.005	A-	-0.521	A-	-0.255	A-
632210	0.573	A+	-0.853	A-	-0.555	A-
632213	0.738	A+	1.316	B+	-0.093	A-
632219	1.119	B+	0.743	A+	-0.125	A-
632217	0.698	A+	0.414	A+	0.167	A+
632208	-0.704	A-	0.217	A+	-0.004	A-
632211	0.096	A+	-0.773	A-	-0.358	A-
630120	1.113	B+	-0.193	A-	-0.310	A-
630115	0.009	A+	-0.288	A-	0.100	A+
630113	0.428	A+	-0.298	A-	-0.399	A-
630110	-0.309	A-	-1.148	B-	-0.400	A-
630114	1.371	B+	0.425	A+	0.111	A+
630118	-0.113	A-	-0.561	A-	-0.603	A-
630116	0.986	A+	0.893	A+	-0.347	A-
630121	0.140	A+	0.235	A+	-0.349	A-
630112	0.670	A+	1.098	B+	0.036	A+
630109	-0.382	A-	0.290	A+	0.019	A+
632260	0.053	A+	0.734	A+	0.012	A+
632259	0.321	A+	-0.087	A-	0.125	A+
632258	0.466	A+	-0.556	A-	-0.357	A-
632261	-0.211	A-	-0.707	A-	-0.208	A-
632262	-0.404	A-	-0.487	A-	-0.613	A-
632264	0.482	A+	-0.009	A-	-0.133	A-
632265	-0.273	A-	0.122	A+	0.021	A+
632268	0.348	A+	-0.399	A-	-0.289	A-
632267	0.692	A+	-0.364	A-	-0.452	A-
632263	0.185	A+	0.173	A+	-0.269	A-
627806	0.560	A+	0.035	A+	-0.342	A-
627805	1.787	C+	-0.421	A-	-0.386	A-
627810	0.958	A+	0.018	A+	-0.127	A-
627798	0.162	A+	-0.977	A-	-0.341	A-
627804	1.259	B+	-0.533	A-	-0.284	A-
627808	0.893	A+	-0.445	A-	-0.013	A-
627802	1.243	B+	-0.621	A-	-0.313	A-
627803	0.240	A+	-0.303	A-	-0.274	A-
627801	1.400	B+	-0.232	A-	0.001	A+
627799	1.325	B+	0.031	A+	0.329	A+
634343	0.024	A+	-0.637	A-	-0.471	A-
634344	1.142	B+	0.465	A+	-0.410	A-
634339	-0.005	A-	0.027	A+	-0.310	A-
634338	0.284	A+	-0.131	A-	-0.284	A-
634335	0.249	A+	-0.183	A-	-0.359	A-
634340	0.586	A+	-0.479	A-	-0.475	A-
634341	0.554	A+	-0.611	A-	-0.094	A-
634345	0.634	A+	-0.663	A-	-0.515	A-

Table L.6 (continued). Grade 8 Reading Field Test: Differential Item Functioning Analysis

	Male/Female DIF		White/Hispanic DIF		No Aid/Lunch Aid DIF	
Item ID	MH delta	NAEP Cat.	MH delta	NAEP Cat.	MH delta	NAEP Cat.
634346	0.663	A+	-0.314	A-	0.049	A+
634336	-1.367	B-	-1.471	B-	-0.904	A-

Reference groups = Male, White, and No lunch aid.
Focal groups = Female, Hispanic or Latino, and Lunch Aid
Negative values reflect better reference group performance on the item and positive values reflect better focal group performance.

Table L.7. Grade 10 Reading Field Test: Differential Item Functioning Analysis

	Male/Female DIF		White/Hispanic DIF		No Aid/Lunch Aid DIF	
Item ID	MH delta	NAEP Cat.	MH delta	NAEP Cat.	MH delta	NAEP Cat.
628931	0.597	A+	0.137	A+	-0.561	A-
628934	0.368	A+	0.078	A+	-0.178	A-
628928	0.119	A+	0.057	A+	-0.255	A-
628925	-0.096	A-	-0.836	A-	-0.876	A-
628937	0.025	A+	0.319	A+	-0.255	A-
628932	0.940	A+	0.072	A+	-0.258	A-
628927	1.199	B+	0.637	A+	-0.117	A-
628933	-0.702	A-	-0.458	A-	-0.381	A-
628929	0.648	A+	-0.262	A-	-0.665	A-
628926	0.579	A+	-0.586	A-	-0.466	A-
628853	0.560	A+	-0.369	A-	-0.281	A-
628852	0.062	A+	-0.998	A-	-0.161	A-
628850	0.503	A+	-0.090	A-	-0.385	A-
628849	0.129	A+	-0.451	A-	-0.096	A-
628855	0.300	A+	-0.524	A-	-0.326	A-
628851	0.592	A+	-0.242	A-	-0.209	A-
628858	0.426	A+	0.043	A+	-0.014	A-
628857	-0.111	A-	-0.599	A-	-0.712	A-
628859	0.459	A+	-0.233	A-	-0.203	A-
628848	0.274	A+	0.008	A+	-0.171	A-
634103	0.677	A+	0.386	A+	-0.347	A-
634100	-0.193	A-	-0.553	A-	-0.401	A-
634106	0.004	A+	0.616	A+	-0.448	A-
634102	1.465	B+	0.424	A+	-0.095	A-
634101	0.473	A+	0.975	A+	-0.009	A-
634098	-0.040	A-	-0.431	A-	-0.435	A-
634105	-0.013	A-	0.166	A+	-0.865	A-
634097	-0.168	A-	-0.781	A-	-0.437	A-
634095	0.489	A+	-0.123	A-	-0.225	A-
634096	-0.086	A-	-0.190	A-	-0.259	A-
631148	0.614	A+	0.095	A+	-0.456	A-
631147	1.612	C+	-0.627	A-	-0.611	A-
631156	0.669	A+	-0.159	A-	-0.024	A-
631153	0.331	A+	0.567	A+	-0.219	A-
631154	1.296	B+	-0.232	A-	-0.121	A-
631151	0.868	A+	-0.948	A-	-0.438	A-
631152	0.880	A+	1.010	B+	-0.295	A-
631157	0.979	A+	0.379	A+	-0.711	A-
631149	-0.514	A-	-0.515	A-	-0.431	A-
631146	-1.006	B-	0.594	A+	-0.389	A-
631135	0.279	A+	-0.410	A-	-0.422	A-
631142	0.828	A+	0.297	A+	-0.630	A-
631136	0.812	A+	0.218	A+	-0.492	A-
631139	0.263	A+	-0.383	A-	-0.331	A-
631138	-0.319	A-	-0.388	A-	-0.044	A-
631137	0.690	A+	-1.679	C-	-0.818	A-
631144	0.483	A+	-1.867	C-	-1.178	B-
631145	-0.290	A-	-0.538	A-	-0.176	A-

Table L.7 (continued). Grade 10 Reading Field Test: Differential Item Functioning Analysis

	Male/Female DIF		White/Hispanic DIF		No Aid/Lunch Aid DIF	
Item ID	MH delta	NAEP Cat.	MH delta	NAEP Cat.	MH delta	NAEP Cat.
631140	0.416	A+	-1.026	B-	-0.406	A-
631134	0.156	A+	-0.789	A-	-0.103	A-
596885	1.213	B+	0.346	A+	-0.195	A-
599556	0.081	A+	-0.370	A-	-0.279	A-
596887	1.507	C+	0.341	A+	-0.098	A-
596888	1.751	C+	-1.242	B-	-0.514	A-
599557	-0.009	A-	-0.299	A-	-0.011	A-
599558	0.008	A+	-0.251	A-	-0.258	A-
599560	-0.050	A-	-0.032	A-	-0.069	A-
599561	0.425	A+	-0.056	A-	-0.384	A-
599562	-0.435	A-	0.112	A+	-0.010	A-
596880	-0.321	A-	-0.155	A-	-0.445	A-

Reference groups = Male, White, and No lunch aid.
Focal groups = Female, Hispanic or Latino, and Lunch Aid
Negative values reflect better reference group performance on the item and positive values reflect better focal group performance.

Table L.8. Grade 3 Mathematics Field Test: Differential Item Functioning Analysis

	Male/Female DIF		White/Hispanic DIF		No Aid/Lunch Aid DIF	
Item ID	MH delta	NAEP Cat.	MH delta	NAEP Cat.	MH delta	NAEP Cat.
624864	0.194	A+	0.719	A+	0.107	A+
624865	-0.719	A-	-0.133	A-	-0.730	A-
626506	0.040	A+	-0.452	A-	-0.362	A-
626673	-0.442	A-	0.381	A+	0.327	A+
627911	0.176	A+	-0.868	A-	-0.325	A-
627127	0.482	A+	-0.561	A-	-0.354	A-
627298	-0.189	A-	0.469	A+	0.126	A+
627299	0.888	A+	0.601	A+	-0.606	A-
627137	0.112	A+	-0.324	A-	-0.523	A-
627138	0.351	A+	-0.042	A-	-0.064	A-
624866	1.260	B+	0.079	A+	-0.416	A-
624867	0.274	A+	0.150	A+	0.076	A+
625816	0.009	A+	-0.108	A-	-0.246	A-
625818	1.012	B+	0.203	A+	-0.149	A-
626680	-0.623	A-	-1.584	B-	-0.217	A-
626681	0.462	A+	-0.933	A-	-0.270	A-
627912	-1.941	C-	-0.431	A-	-0.616	A-
627913	-0.426	A-	-0.057	A-	0.081	A+
627300	-1.091	B-	-0.132	A-	0.124	A+
627301	-0.453	A-	-0.169	A-	-0.258	A-
627508	-0.679	A-	0.063	A+	0.054	A+
627509	-0.938	A-	-0.512	A-	-0.664	A-
624868	-1.520	B-	-1.564	B-	-1.089	B-
624869	-1.350	B-	-1.431	B-	0.066	A+
625819	-0.212	A-	-1.869	C-	-1.752	C-
625821	0.187	A+	-0.484	A-	-0.514	A-
626674	-0.337	A-	-0.511	A-	-0.654	A-
626675	-0.294	A-	0.229	A+	-0.178	A-
627130	0.015	A+	-0.070	A-	0.085	A+
627131	-0.073	A-	0.181	A+	-0.491	A-
627302	0.983	A+	0.243	A+	-0.243	A-
627303	0.805	A+	-0.503	A-	-0.075	A-
627141	-0.393	A-	-0.386	A-	-0.284	A-
627142	-0.134	A-	-0.745	A-	-0.547	A-
624870	-0.365	A-	-0.057	A-	-0.196	A-
624871	-0.463	A-	0.273	A+	-0.228	A-
625822	-0.238	A-	-0.334	A-	-0.053	A-
625824	-0.117	A-	0.389	A+	0.269	A+
626676	0.563	A+	0.012	A+	-0.191	A-
626677	0.032	A+	-0.425	A-	0.161	A+
627133	-0.133	A-	0.176	A+	-0.408	A-
627134	-0.190	A-	-0.751	A-	-0.835	A-
627135	-0.690	A-	-0.476	A-	-0.173	A-
627460	0.091	A+	-0.011	A-	0.004	A+
627143	0.610	A+	-0.432	A-	0.436	A+
627144	-0.255	A-	-0.100	A-	0.150	A+
624872	0.254	A+	-0.511	A-	-0.374	A-
624873	0.368	A+	-0.246	A-	-0.198	A-

Table L.8 (continued). Grade 3 Mathematics Field Test: Differential Item Functioning Analysis

	Male/Female DIF		White/Hispanic DIF		No Aid/Lunch Aid DIF	
Item ID	MH delta	NAEP Cat.	MH delta	NAEP Cat.	MH delta	NAEP Cat.
627136	-0.317	A-	-0.483	A-	-0.596	A-
627307	1.331	A+	-2.028	B-	-0.530	A-
625826	-0.457	A-	-0.338	A-	0.047	A+
625827	-0.430	A-	-0.393	A-	-0.551	A-
626678	-0.230	A-	0.363	A+	0.023	A+
626679	0.484	A+	0.224	A+	0.112	A+
627146	-0.511	A-	-0.727	A-	-0.301	A-

Reference groups = Male, White, and No lunch aid.
Focal groups = Female, Hispanic or Latino, and Lunch Aid
Negative values reflect better reference group performance on the item and positive values reflect better focal group performance.

Table L.9. Grade 4 Mathematics Field Test: Differential Item Functioning Analysis

	Male/Female DIF		White/Hispanic DIF		No Aid/Lunch Aid DIF	
Item ID	MH delta	NAEP Cat.	MH delta	NAEP Cat.	MH delta	NAEP Cat.
626393	0.423	A+	-0.076	A-	-0.376	A-
626394	-0.132	A-	0.049	A+	-0.708	A-
626313	-0.368	A-	-0.558	A-	-0.486	A-
626300	-0.092	A-	0.268	A+	-0.509	A-
626301	-0.264	A-	0.035	A+	-0.418	A-
626852	0.187	A+	-1.162	B-	-0.625	A-
626853	0.613	A+	-0.537	A-	-0.871	A-
628280	0.226	A+	0.245	A+	-0.153	A-
628281	0.711	A+	-0.852	A-	-1.111	B-
627883	1.049	B+	0.196	A+	-0.612	A-
627884	0.920	A+	0.421	A+	-0.203	A-
626395	0.404	A+	0.170	A+	-0.129	A-
626396	0.159	A+	0.611	A+	-0.466	A-
627520	0.539	A+	0.971	A+	0.597	A+
626302	0.403	A+	-0.151	A-	-0.284	A-
626303	0.996	A+	0.279	A+	-0.308	A-
626854	0.745	A+	0.227	A+	-0.595	A-
626855	-0.086	A-	-0.616	A-	-0.378	A-
628282	-0.812	A-	-0.685	A-	-0.826	A-
628283	0.268	A+	-0.368	A-	-0.663	A-
627885	-0.826	A-	-1.022	B-	-0.492	A-
627886	-1.283	B-	-1.084	B-	-0.696	A-
626397	-0.443	A-	-0.222	A-	-0.199	A-
626398	-0.148	A-	-0.283	A-	-0.272	A-
626317	-0.586	A-	-0.254	A-	-0.472	A-
626318	-1.048	B-	0.108	A+	-0.563	A-
626304	-0.357	A-	-0.356	A-	-0.771	A-
626305	-0.994	A-	-0.586	A-	-0.769	A-
626856	-0.262	A-	0.638	A+	0.325	A+
626857	-1.316	B-	-0.659	A-	-0.438	A-
628284	0.097	A+	-0.026	A-	-0.428	A-
627887	-0.533	A-	-0.066	A-	-0.416	A-
626399	1.490	B+	-0.020	A-	-0.239	A-
626849	-0.076	A-	-0.608	A-	-0.784	A-
626306	0.493	A+	-0.225	A-	0.049	A+
626307	0.949	A+	0.078	A+	-0.111	A-
626858	0.196	A+	0.920	A+	-0.770	A-
626859	0.952	A+	0.706	A+	-0.823	A-
631344	0.570	A+	0.083	A+	-0.508	A-
631345	0.246	A+	0.548	A+	0.241	A+
627888	0.047	A+	-0.315	A-	-0.337	A-
628290	-0.476	A-	-0.487	A-	-0.192	A-
626400	-0.065	A-	-0.802	A-	-0.313	A-
626310	-0.117	A-	0.176	A+	0.347	A+
626311	-0.075	A-	-0.096	A-	0.196	A+
626309	0.086	A+	0.122	A+	-0.097	A-
626860	-0.143	A-	-0.935	A-	-0.422	A-
626861	-0.562	A-	-0.396	A-	-0.329	A-

Table L.9 (continued). Grade 4 Mathematics Field Test: Differential Item Functioning Analysis

	Male/Female DIF		White/Hispanic DIF		No Aid/Lunch Aid DIF	
Item ID	MH delta	NAEP Cat.	MH delta	NAEP Cat.	MH delta	NAEP Cat.
628287	0.271	A+	0.329	A+	-0.311	A-
628288	0.934	A+	0.654	A+	-0.468	A-
627890	0.215	A+	0.032	A+	0.150	A+
627891	0.566	A+	-0.085	A-	-0.311	A-
626401	0.480	A+	-0.412	A-	-0.259	A-
628289	0.029	A+	-0.324	A-	-0.210	A-
627892	-0.667	A-	-0.543	A-	-0.339	A-

Reference groups = Male, White, and No lunch aid.
Focal groups = Female, Hispanic or Latino, and Lunch Aid
Negative values reflect better reference group performance on the item and positive values reflect better focal group performance.

Table L.10. Grade 5 Mathematics Field Test: Differential Item Functioning Analysis

	Male/Female DIF		White/Hispanic DIF		No Aid/Lunch Aid DIF	
Item ID	MH delta	NAEP Cat.	MH delta	NAEP Cat.	MH delta	NAEP Cat.
626357	0.757	A+	0.017	A+	0.327	A+
626358	-0.466	A-	-0.914	A-	-1.091	B-
627337	-0.847	A-	0.476	A+	0.325	A+
626887	-0.268	A-	-1.071	B-	-0.665	A-
626888	0.024	A+	-0.267	A-	-0.422	A-
626877	-0.468	A-	-0.222	A-	-0.226	A-
626878	-0.315	A-	0.098	A+	-0.196	A-
626729	0.526	A+	0.161	A+	0.052	A+
627786	1.165	B+	-0.255	A-	-0.183	A-
629067	1.708	C+	0.984	A+	-0.051	A-
627894	0.952	A+	0.393	A+	-0.586	A-
626360	0.933	A+	0.244	A+	0.028	A+
627338	-0.154	A-	-0.774	A-	-0.640	A-
627339	0.084	A+	-0.388	A-	-0.334	A-
627504	0.152	A+	-0.123	A-	-0.385	A-
626879	-0.364	A-	-1.137	A-	-1.175	A-
626884	-0.458	A-	-2.365	C-	-1.291	B-
626761	-0.784	A-	-0.901	A-	-0.625	A-
626762	1.402	B+	-0.488	A-	-0.090	A-
627788	-1.680	B-	-0.457	A-	-0.789	A-
627895	-0.080	A-	0.205	A+	-0.073	A-
627896	-1.162	B-	-0.705	A-	-0.082	A-
626361	-0.224	A-	-0.181	A-	-0.090	A-
626362	0.117	A+	0.488	A+	-0.266	A-
626284	-0.808	A-	-0.661	A-	-0.620	A-
626285	-0.521	A-	-0.710	A-	-0.770	A-
626891	-0.515	A-	-0.639	A-	-0.215	A-
627506	-0.570	A-	-1.012	B-	-0.637	A-
626885	-0.055	A-	-0.396	A-	-0.249	A-
626886	-0.493	A-	0.150	A+	0.049	A+
626732	-0.178	A-	0.268	A+	-0.208	A-
626733	0.239	A+	-0.048	A-	-0.153	A-
627789	-0.330	A-	-0.847	A-	-0.419	A-
627898	0.778	A+	0.676	A+	0.287	A+
626363	0.054	A+	-0.428	A-	-0.346	A-
626364	0.087	A+	-0.204	A-	-0.246	A-
627340	0.756	A+	0.172	A+	-0.108	A-
626893	0.277	A+	0.063	A+	-0.084	A-
626880	-0.309	A-	1.061	B+	0.209	A+
626881	-0.187	A-	-0.261	A-	-0.063	A-
626734	0.084	A+	-0.620	A-	-0.424	A-
627323	-0.066	A-	-1.303	B-	-0.645	A-
627790	-0.014	A-	-0.206	A-	-0.183	A-
627899	0.599	A+	-0.722	A-	-0.081	A-
626365	-0.459	A-	-0.329	A-	-0.351	A-
626366	0.252	A+	0.001	A+	0.083	A+
627342	-0.290	A-	-0.099	A-	-0.259	A-
626895	0.331	A+	-0.099	A-	-0.221	A-

Table L.10 (continued). Grade 5 Mathematics Field Test: Differential Item Functioning Analysis

	Male/Female DIF		White/Hispanic DIF		No Aid/Lunch Aid DIF	
Item ID	MH delta	NAEP Cat.	MH delta	NAEP Cat.	MH delta	NAEP Cat.
626882	0.920	A+	0.639	A+	0.241	A+
626883	0.242	A+	0.330	A+	0.146	A+
626736	-0.080	A-	-0.798	A-	-0.872	A-
627324	0.531	A+	-1.443	B-	-0.779	A-
629068	0.174	A+	0.860	A+	0.058	A+
627900	0.418	A+	-0.031	A-	0.235	A+
626738	0.096	A+	0.665	A+	0.140	A+
626896	0.185	A+	0.639	A+	0.301	A+
627794	0.306	A+	-0.642	A-	0.083	A+
629069	0.463	A+	-0.280	A-	-0.148	A-
629066	-0.065	A-	-0.586	A-	-0.596	A-
627795	0.081	A+	0.661	A+	-0.658	A-

Reference groups = Male, White, and No lunch aid.
Focal groups = Female, Hispanic or Latino, and Lunch Aid
Negative values reflect better reference group performance on the item and positive values reflect better focal group performance.

Table L.11. Grade 6 Mathematics Field Test: Differential Item Functioning Analysis

	Male/Female DIF		White/Hispanic DIF		No Aid/Lunch Aid DIF	
Item ID	MH delta	NAEP Cat.	MH delta	NAEP Cat.	MH delta	NAEP Cat.
627825	-0.976	A-	-0.434	A-	-0.574	A-
627826	-0.194	A-	-0.051	A-	-0.354	A-
627828	-0.047	A-	-0.756	A-	-0.266	A-
627829	0.871	A+	-0.331	A-	-0.723	A-
627846	-0.117	A-	-0.076	A-	-0.394	A-
627848	-0.290	A-	-0.049	A-	-0.342	A-
627849	0.239	A+	-0.065	A-	-0.140	A-
627851	0.107	A+	0.159	A+	-0.124	A-
627852	0.073	A+	-0.230	A-	0.024	A+
627854	0.142	A+	-1.115	B-	-0.354	A-
627855	0.233	A+	0.086	A+	-0.305	A-
628525	-1.001	B-	-1.512	C-	-0.497	A-
628526	0.009	A+	-0.680	A-	-0.239	A-
629281	0.386	A+	-0.121	A-	-0.353	A-
629283	-0.119	A-	-0.705	A-	-0.717	A-
629284	0.544	A+	0.359	A+	-0.094	A-
629285	0.564	A+	0.413	A+	0.138	A+
629286	-0.635	A-	-0.381	A-	-0.353	A-
629287	-0.227	A-	-0.274	A-	0.017	A+
629288	0.819	A+	1.036	B+	0.287	A+
630674	0.104	A+	-0.125	A-	-0.534	A-
630675	0.199	A+	-0.450	A-	-0.269	A-
630676	0.071	A+	-0.857	A-	-0.547	A-
630677	0.450	A+	0.529	A+	-0.024	A-
630678	1.367	B+	0.798	A+	0.096	A+
630679	0.569	A+	0.594	A+	-0.176	A-
631346	-0.264	A-	-0.232	A-	-0.733	A-
631347	-0.253	A-	-1.013	B-	-0.916	A-
631348	-0.690	A-	-0.184	A-	-0.103	A-
631351	-0.253	A-	0.082	A+	0.063	A+
631354	0.404	A+	0.605	A+	-0.188	A-
631355	0.252	A+	0.586	A+	0.164	A+
631942	0.793	A+	0.377	A+	-0.117	A-
631943	-0.173	A-	-0.197	A-	-0.384	A-
631944	0.332	A+	-0.413	A-	-0.272	A-
631945	0.051	A+	0.300	A+	-0.183	A-
631946	0.723	A+	-0.651	A-	-1.028	B-
631947	1.068	B+	0.275	A+	-0.392	A-
631949	0.187	A+	-0.465	A-	-0.059	A-
631950	0.436	A+	-0.871	A-	-0.416	A-
631951	0.293	A+	-0.813	A-	-0.315	A-
631953	0.104	A+	-0.136	A-	-0.616	A-
631954	-0.303	A-	0.457	A+	0.007	A+
631955	-0.604	A-	0.480	A+	0.008	A+
631956	-0.105	A-	-0.327	A-	-0.608	A-
631957	1.001	B+	0.744	A+	0.098	A+
631958	0.511	A+	0.076	A+	0.026	A+
632125	0.034	A+	-0.078	A-	0.013	A+

Table L.11 (continued). Grade 6 Mathematics Field Test: Differential Item Functioning Analysis

	Male/Female DIF		White/Hispanic DIF		No Aid/Lunch Aid DIF	
Item ID	MH delta	NAEP Cat.	MH delta	NAEP Cat.	MH delta	NAEP Cat.
632126	-1.038	B-	-0.505	A-	-0.312	A-
632185	0.345	A+	-0.090	A-	-0.091	A-
632186	0.449	A+	-0.510	A-	-0.786	A-
632187	0.428	A+	-0.579	A-	-0.649	A-
632188	-1.163	A-	-2.399	C-	-1.680	B-
632189	0.566	A+	0.031	A+	-0.507	A-
632190	-0.034	A-	-0.139	A-	-0.281	A-
632191	0.181	A+	0.021	A+	-0.210	A-
632192	-0.409	A-	0.131	A+	-0.147	A-
632194	0.896	A+	-0.139	A-	0.363	A+
632511	0.051	A+	0.154	A+	-0.084	A-
632512	0.472	A+	-0.105	A-	-0.078	A-

Reference groups = Male, White, and No lunch aid.
Focal groups = Female, Hispanic or Latino, and Lunch Aid
Negative values reflect better reference group performance on the item and positive values reflect better focal group performance.

Table L.12. Grade 7 Mathematics Field Test: Differential Item Functioning Analysis

	Male/Female DIF		White/Hispanic DIF		No Aid/Lunch Aid DIF	
Item ID	MH delta	NAEP Cat.	MH delta	NAEP Cat.	MH delta	NAEP Cat.
626653	-0.853	A-	-0.603	A-	-0.476	A-
626260	-0.469	A-	-0.433	A-	-0.556	A-
626261	0.186	A+	0.125	A+	-0.476	A-
627630	-0.326	A-	-0.502	A-	-0.399	A-
627631	-0.695	A-	-0.278	A-	-0.044	A-
627456	0.920	A+	0.433	A+	0.509	A+
627457	1.189	B+	-0.837	A-	0.756	A+
627199	0.007	A+	-0.497	A-	-0.170	A-
627200	0.125	A+	0.027	A+	-0.158	A-
627574	0.390	A+	-0.627	A-	-0.752	A-
627575	0.530	A+	-0.328	A-	-0.906	A-
627746	0.007	A+	-0.684	A-	-0.243	A-
626321	0.512	A+	0.029	A+	-0.878	A-
626322	0.143	A+	-0.251	A-	-0.505	A-
626262	-0.261	A-	0.404	A+	0.141	A+
626385	0.491	A+	-0.184	A-	-0.198	A-
626386	0.541	A+	-0.589	A-	-1.185	B-
627454	0.022	A+	0.323	A+	0.102	A+
627403	0.207	A+	-0.565	A-	-0.266	A-
627201	0.474	A+	-0.979	A-	-0.318	A-
627208	-0.888	A-	-1.092	B-	-0.607	A-
627328	-0.244	A-	-0.372	A-	-0.383	A-
627753	-1.074	B-	-0.441	A-	-0.272	A-
626323	-0.595	A-	-0.371	A-	-0.140	A-
626324	0.648	A+	-0.244	A-	-0.548	A-
626263	0.269	A+	-0.013	A-	-0.541	A-
626264	0.077	A+	-0.046	A-	-0.959	A-
626387	-0.132	A-	0.063	A+	-0.321	A-
626388	0.119	A+	-0.320	A-	-0.223	A-
627407	0.680	A+	-0.442	A-	-0.082	A-
627207	0.436	A+	-0.480	A-	-0.418	A-
627202	0.740	A+	0.187	A+	-0.222	A-
627329	0.251	A+	-0.423	A-	-0.223	A-
627330	-0.196	A-	-0.320	A-	-0.051	A-
627754	0.444	A+	0.419	A+	0.008	A+
627755	0.259	A+	-0.148	A-	-0.219	A-
626654	0.869	A+	-0.357	A-	-0.096	A-
626696	0.648	A+	-0.414	A-	-0.312	A-
626507	-0.136	A-	-0.492	A-	-0.661	A-
627632	0.323	A+	-0.331	A-	-0.212	A-
626390	-0.026	A-	0.078	A+	-0.202	A-
627404	0.544	A+	0.295	A+	0.074	A+
627405	0.228	A+	-0.153	A-	-0.213	A-
627204	-0.219	A-	-0.195	A-	0.153	A+
627331	-0.454	A-	0.155	A+	0.384	A+
627749	1.200	B+	-0.224	A-	-0.490	A-
626697	0.558	A+	-0.451	A-	-0.134	A-
626328	-1.372	B-	-0.688	A-	-0.123	A-

Table L.12 (continued). Grade 7 Mathematics Field Test: Differential Item Functioning Analysis

	Male/Female DIF		White/Hispanic DIF		No Aid/Lunch Aid DIF	
Item ID	MH delta	NAEP Cat.	MH delta	NAEP Cat.	MH delta	NAEP Cat.
626508	-0.023	A-	-0.114	A-	-0.373	A-
626391	-0.037	A-	1.020	B+	0.114	A+
626392	0.727	A+	0.196	A+	-0.570	A-
627720	0.202	A+	-0.186	A-	-0.228	A-
627205	0.904	A+	0.380	A+	0.026	A+
627206	0.908	A+	1.765	B+	0.337	A+
627333	0.139	A+	0.089	A+	-0.162	A-
627751	-0.101	A-	0.103	A+	0.015	A+
627752	-0.354	A-	-0.348	A-	-0.213	A-
626329	0.301	A+	-1.012	B-	-0.441	A-
626267	-0.298	A-	-0.496	A-	-0.341	A-
627458	-0.567	A-	-0.595	A-	-0.394	A-

Reference groups = Male, White, and No lunch aid.
Focal groups = Female, Hispanic or Latino, and Lunch Aid
Negative values reflect better reference group performance on the item and positive values reflect better focal group performance.

Table L.13. Grade 8 Mathematics Field Test: Differential Item Functioning Analysis

	Male/Female DIF		White/Hispanic DIF		No Aid/Lunch Aid DIF	
Item ID	MH delta	NAEP Cat.	MH delta	NAEP Cat.	MH delta	NAEP Cat.
628323	-1.053	B-	-0.974	A-	-0.439	A-
628324	-0.444	A-	-1.023	B-	-0.515	A-
629084	-0.357	A-	-0.467	A-	-0.036	A-
629085	-0.540	A-	-0.183	A-	-0.322	A-
631314	-0.752	A-	-0.514	A-	-0.211	A-
631315	-0.129	A-	-0.028	A-	0.057	A+
631357	-0.005	A-	-0.449	A-	-0.027	A-
631358	-0.203	A-	0.034	A+	0.169	A+
631334	-0.468	A-	-0.465	A-	-0.384	A-
631335	-0.289	A-	-0.359	A-	-0.108	A-
629090	1.074	B+	0.196	A+	0.080	A+
628556	-0.195	A-	0.067	A+	-0.135	A-
632298	0.136	A+	-0.201	A-	-0.054	A-
632299	-0.505	A-	-1.193	B-	-0.022	A-
632182	-0.255	A-	-0.543	A-	-0.374	A-
632183	1.228	B+	0.722	A+	0.652	A+
629086	0.584	A+	0.193	A+	0.028	A+
629080	0.679	A+	-1.094	B-	-0.264	A-
631316	1.059	B+	-0.077	A-	-0.322	A-
631317	0.021	A+	0.086	A+	-0.277	A-
631359	1.418	B+	-0.300	A-	-0.282	A-
631360	-0.773	A-	-0.115	A-	-0.392	A-
631336	-0.438	A-	1.020	B+	0.047	A+
629091	-0.987	A-	-0.724	A-	-0.334	A-
628558	-0.214	A-	-1.090	A-	-0.950	A-
632294	0.185	A+	-0.350	A-	-0.544	A-
632295	0.222	A+	-0.498	A-	-0.376	A-
628327	0.022	A+	-0.332	A-	-0.188	A-
628328	-1.185	B-	-0.247	A-	-0.661	A-
629081	0.342	A+	-0.007	A-	-0.406	A-
629082	0.094	A+	-0.812	A-	-0.260	A-
631318	-1.263	B-	-0.337	A-	-0.593	A-
628325	-1.005	B-	0.080	A+	0.005	A+
628326	-0.173	A-	-0.439	A-	0.162	A+
631337	0.127	A+	0.191	A+	-0.319	A-
629092	1.216	B+	-0.194	A-	-0.584	A-
632300	0.916	A+	0.012	A+	-0.345	A-
628332	-0.115	A-	-0.818	A-	-0.432	A-
629150	0.153	A+	-0.204	A-	-0.117	A-
629087	0.787	A+	-0.217	A-	-0.400	A-
631320	0.618	A+	-0.555	A-	-0.367	A-
631363	-0.380	A-	-0.458	A-	-0.231	A-
631338	-0.216	A-	-0.278	A-	-0.282	A-
628561	-0.106	A-	0.322	A+	0.187	A+
632296	0.647	A+	0.108	A+	-0.105	A-
629083	1.074	B+	0.273	A+	-0.170	A-
631321	0.424	A+	0.192	A+	-0.124	A-
632184	-0.804	A-	-0.593	A-	-0.054	A-

Table L.13 (continued). Grade 8 Mathematics Field Test: Differential Item Functioning Analysis

	Male/Female DIF		White/Hispanic DIF		No Aid/Lunch Aid DIF	
Item ID	MH delta	NAEP Cat.	MH delta	NAEP Cat.	MH delta	NAEP Cat.
631340	0.191	A+	-0.546	A-	-0.150	A-
631341	-0.044	A-	-0.723	A-	-0.076	A-
628563	-0.118	A-	-0.088	A-	0.141	A+
632301	-0.435	A-	-0.410	A-	-0.152	A-
632302	0.507	A+	0.076	A+	-0.007	A-
628330	0.569	A+	0.020	A+	-0.222	A-
629088	0.707	A+	-0.051	A-	-0.033	A-
632303	0.696	A+	0.518	A+	0.450	A+
632297	0.690	A+	0.362	A+	0.051	A+
631343	-0.599	A-	-0.796	A-	-0.215	A-
628565	-0.124	A-	0.244	A+	-0.378	A-
628331	-0.363	A-	-0.213	A-	-0.379	A-

Reference groups = Male, White, and No lunch aid.
Focal groups = Female, Hispanic or Latino, and Lunch Aid
Negative values reflect better reference group performance on the item and positive values reflect better focal group performance.

Table L.14. Grade 10 Mathematics Field Test: Differential Item Functioning Analysis

	Male/Female DIF		White/Hispanic DIF		No Aid/Lunch Aid DIF	
Item ID	MH delta	NAEP Cat.	MH delta	NAEP Cat.	MH delta	NAEP Cat.
627292	0.553	A+	-0.490	A-	-0.303	A-
627293	0.571	A+	-0.198	A-	-0.805	A-
626739	-0.301	A-	-0.121	A-	-0.373	A-
626740	0.273	A+	-0.799	A-	-0.332	A-
627116	0.096	A+	0.265	A+	0.147	A+
627117	-0.073	A-	0.182	A+	0.147	A+
627510	0.455	A+	0.139	A+	-0.278	A-
628689	-0.574	A-	0.375	A+	-0.053	A-
630927	-0.995	A-	-0.721	A-	-0.201	A-
630928	0.434	A+	0.060	A+	0.137	A+
629071	0.361	A+	0.157	A+	0.016	A+
632052	-0.036	A-	-0.066	A-	-0.098	A-
626741	-0.307	A-	0.008	A+	-0.146	A-
630213	0.522	A+	0.291	A+	0.369	A+
631324	-0.078	A-	0.226	A+	-0.124	A-
631325	-0.447	A-	-0.127	A-	0.311	A+
627512	0.156	A+	-0.617	A-	-0.586	A-
632426	-0.270	A-	0.018	A+	0.018	A+
632427	-0.503	A-	-0.163	A-	-0.030	A-
630929	-0.591	A-	-0.467	A-	0.038	A+
627379	0.439	A+	0.018	A+	-0.187	A-
626294	-0.500	A-	-0.516	A-	-0.298	A-
629072	-0.068	A-	-0.068	A-	0.119	A+
626743	0.368	A+	0.023	A+	0.383	A+
627418	-0.947	A-	-0.416	A-	-0.319	A-
627322	0.499	A+	-0.821	A-	-0.135	A-
627513	-0.422	A-	-0.319	A-	-0.462	A-
631326	-0.578	A-	-0.242	A-	0.051	A+
631327	0.024	A+	-0.107	A-	0.322	A+
630931	0.554	A+	0.203	A+	0.059	A+
632428	-0.161	A-	-0.306	A-	0.023	A+
629073	0.552	A+	-0.256	A-	-0.224	A-
627120	0.262	A+	0.582	A+	0.375	A+
627121	0.151	A+	0.332	A+	-0.464	A-
631328	-0.289	A-	0.189	A+	0.170	A+
631329	-0.457	A-	0.300	A+	-0.012	A-
632430	0.002	A+	-0.586	A-	0.187	A+
632431	0.264	A+	-0.450	A-	-0.072	A-
627295	-1.343	B-	-0.090	A-	-0.057	A-
632054	1.090	B+	0.047	A+	-0.182	A-
626744	-0.408	A-	-0.718	A-	-0.523	A-
626745	-1.437	B-	-0.230	A-	-0.077	A-
627123	-0.766	A-	-0.141	A-	-0.524	A-
627516	-0.173	A-	-0.465	A-	-0.670	A-
632432	-0.394	A-	-0.447	A-	-0.401	A-
630934	-1.090	B-	-0.397	A-	-0.183	A-
630935	-0.263	A-	-0.652	A-	-1.235	B-
629077	0.687	A+	-0.080	A-	-0.498	A-

Table L.14 (continued). Grade 10 Mathematics Field Test: Differential Item Functioning Analysis

	Male/Female DIF		White/Hispanic DIF		No Aid/Lunch Aid DIF	
Item ID	MH delta	NAEP Cat.	MH delta	NAEP Cat.	MH delta	NAEP Cat.
629078	-0.124	A-	-0.470	A-	-0.107	A-
629079	-0.156	A-	-0.240	A-	0.009	A+
630217	0.580	A+	-0.445	A-	-0.655	A-
630218	-0.767	A-	-0.136	A-	-0.110	A-
626746	0.259	A+	-0.043	A-	0.060	A+
631330	-0.337	A-	0.287	A+	-0.009	A-
631331	0.093	A+	-0.946	A-	0.307	A+
631332	-0.501	A-	-0.299	A-	-0.482	A-
632433	0.414	A+	-0.260	A-	0.128	A+
632434	-1.195	B-	-0.419	A-	-0.087	A-
632435	0.244	A+	0.040	A+	-0.456	A-
627297	-0.272	A-	-1.191	B-	-0.461	A-
626291	-0.801	A-	0.155	A+	0.165	A+
626748	0.939	A+	1.507	B+	-0.270	A-
627756	0.455	A+	0.391	A+	0.104	A+
627124	0.560	A+	0.017	A+	-0.062	A-
627125	1.325	B+	-0.323	A-	-0.857	A-
627517	0.644	A+	0.039	A+	0.109	A+
628691	-0.604	A-	-0.402	A-	-0.152	A-
628692	0.811	A+	0.041	A+	-0.159	A-
630936	-0.879	A-	-0.648	A-	-0.314	A-
630937	-0.067	A-	-0.597	A-	-0.108	A-
630938	-0.907	A-	0.981	A+	0.600	A+
629075	-0.142	A-	-0.294	A-	-0.142	A-
629076	-0.421	A-	-0.667	A-	-0.103	A-
630220	-0.581	A-	-0.439	A-	-0.089	A-
632373	-0.356	A-	-0.619	A-	-0.237	A-

Reference groups = Male, White, and No lunch aid.
Focal groups = Female, Hispanic or Latino, and Lunch Aid
Negative values reflect better reference group performance on the item and positive values reflect better focal group performance.

Table L.15. Grade 3 Language Usage Field Test: Differential Item Functioning Analysis

	Male/Female DIF		White/Hispanic DIF		No Aid/Lunch Aid DIF	
Item ID	MH delta	NAEP Cat.	MH delta	NAEP Cat.	MH delta	NAEP Cat.
628540	-0.272	A-	-1.947	C-	-1.115	B-
628541	-0.228	A-	-0.606	A-	-0.435	A-
628542	0.586	A+	-0.488	A-	-0.261	A-
628543	-0.150	A-	-0.210	A-	-0.218	A-
628544	0.249	A+	-0.514	A-	-0.603	A-
628545	0.289	A+	-0.107	A-	-0.323	A-
628546	-0.576	A-	-0.826	A-	-1.008	B-
628547	0.421	A+	0.417	A+	-0.094	A-
628548	0.801	A+	0.574	A+	-0.128	A-
628549	0.586	A+	1.022	B+	0.044	A+
628550	0.175	A+	-0.327	A-	-0.325	A-
628551	0.306	A+	-0.212	A-	-0.036	A-
628552	-0.398	A-	-0.257	A-	-0.443	A-
628553	0.230	A+	-0.169	A-	0.185	A+
628554	-0.305	A-	-0.182	A-	-0.330	A-
628555	-0.124	A-	-0.646	A-	-0.219	A-
628693	-0.047	A-	-0.592	A-	-0.467	A-
628694	-0.273	A-	0.296	A+	-0.132	A-
628695	-0.218	A-	-0.539	A-	-0.607	A-
628696	0.607	A+	-0.646	A-	-0.714	A-
628697	0.458	A+	0.760	A+	0.362	A+
628698	-0.189	A-	-0.300	A-	-0.471	A-
628699	0.417	A+	-0.454	A-	-0.120	A-
628700	-0.097	A-	-0.379	A-	-0.077	A-
628701	-0.081	A-	-0.247	A-	-0.480	A-
628702	-0.345	A-	-0.593	A-	-0.138	A-
628703	0.443	A+	-0.106	A-	-0.290	A-
628704	0.095	A+	-1.049	B-	-0.321	A-
628705	-0.568	A-	0.001	A+	-0.268	A-
628706	-0.025	A-	0.149	A+	0.053	A+
628707	0.094	A+	0.142	A+	0.193	A+
628708	0.061	A+	-0.617	A-	-0.040	A-
628724	-0.286	A-	-0.167	A-	-0.187	A-
628725	-0.547	A-	-0.425	A-	-0.214	A-
628726	-0.433	A-	-0.030	A-	-0.167	A-
628727	0.360	A+	-0.488	A-	-0.087	A-
628728	-0.109	A-	-0.153	A-	0.072	A+
628729	0.005	A+	-0.121	A-	-0.151	A-
628730	0.184	A+	-0.486	A-	-0.016	A-
628731	0.412	A+	0.252	A+	-0.092	A-
628732	0.257	A+	-0.227	A-	0.131	A+
628733	-0.062	A-	-2.499	C-	-0.848	A-
628734	-0.224	A-	-0.565	A-	0.159	A+
628735	-0.028	A-	-0.955	A-	-0.518	A-
628736	0.065	A+	-0.115	A-	-0.010	A-
628737	0.269	A+	0.031	A+	-0.249	A-
628738	0.334	A+	-0.103	A-	-0.288	A-
628739	-0.127	A-	-0.217	A-	-0.312	A-

Table L.15 (continued). Grade 3 Language Usage Field Test: Differential Item Functioning Analysis

	Male/Female DIF		White/Hispanic DIF		No Aid/Lunch Aid DIF	
Item ID	MH delta	NAEP Cat.	MH delta	NAEP Cat.	MH delta	NAEP Cat.
628800	0.449	A+	0.203	A+	0.026	A+
628801	0.393	A+	-0.336	A-	-0.163	A-
628802	0.301	A+	-0.814	A-	-0.334	A-
628803	0.011	A+	-0.221	A-	-0.458	A-
628804	0.250	A+	-0.399	A-	-0.071	A-
628805	0.198	A+	-0.715	A-	-0.222	A-
628806	0.068	A+	-0.462	A-	-0.640	A-
628807	0.565	A+	-0.024	A-	-0.090	A-
628808	0.358	A+	0.213	A+	-0.115	A-
628809	0.389	A+	0.766	A+	-0.167	A-
628810	0.186	A+	-0.780	A-	-0.389	A-
628811	-0.384	A-	-0.323	A-	-0.372	A-

Reference groups = Male, White, and No lunch aid.
Focal groups = Female, Hispanic or Latino, and Lunch Aid
Negative values reflect better reference group performance on the item and positive values reflect better focal group performance.

Table L.16. Grade 4 Language Usage Field Test: Differential Item Functioning Analysis

	Male/Female DIF		White/Hispanic DIF		No Aid/Lunch Aid DIF	
Item ID	MH delta	NAEP Cat.	MH delta	NAEP Cat.	MH delta	NAEP Cat.
628440	-0.494	A-	-0.824	A-	-0.540	A-
628441	0.215	A+	-0.780	A-	-0.122	A-
628442	1.058	B+	0.676	A+	-0.463	A-
628443	0.994	A+	0.093	A+	-0.261	A-
628444	0.001	A+	-0.820	A-	-0.311	A-
628445	0.122	A+	0.110	A+	-0.211	A-
628446	0.627	A+	0.221	A+	-0.346	A-
628447	0.346	A+	0.569	A+	0.019	A+
628448	-0.320	A-	-0.669	A-	-0.489	A-
628449	0.255	A+	0.340	A+	0.000	A-
628450	-0.265	A-	-0.598	A-	-0.313	A-
628451	-0.188	A-	0.006	A+	-0.003	A-
628452	0.447	A+	-0.314	A-	-0.484	A-
628453	0.211	A+	-0.317	A-	-0.109	A-
628454	0.007	A+	-0.147	A-	-0.027	A-
628455	0.691	A+	-0.552	A-	-0.313	A-
628638	-0.612	A-	-0.379	A-	-0.616	A-
628639	0.249	A+	-0.534	A-	-0.612	A-
628640	-0.469	A-	0.221	A+	-0.179	A-
628641	0.264	A+	-0.266	A-	-0.248	A-
628642	0.116	A+	0.189	A+	-0.351	A-
628643	0.274	A+	0.215	A+	-0.276	A-
628644	0.340	A+	-0.858	A-	-0.475	A-
628645	0.348	A+	0.337	A+	-0.250	A-
628646	0.305	A+	-0.506	A-	-0.177	A-
628647	-0.020	A-	0.369	A+	0.030	A+
628648	-0.153	A-	-0.430	A-	-0.410	A-
628649	0.665	A+	-0.079	A-	-0.205	A-
628650	-0.523	A-	-0.625	A-	-0.110	A-
628651	-0.446	A-	-0.104	A-	-0.655	A-
628652	0.724	A+	0.286	A+	0.000	A+
628653	-0.168	A-	-0.282	A-	-0.025	A-
628740	-0.269	A-	-0.157	A-	-0.202	A-
628741	-0.055	A-	-0.247	A-	-0.244	A-
628742	0.807	A+	0.309	A+	-0.464	A-
628743	0.165	A+	-0.523	A-	-1.010	B-
628744	0.017	A+	-1.113	B-	-0.437	A-
628745	-0.013	A-	-0.583	A-	-0.744	A-
628746	0.532	A+	-0.555	A-	-0.496	A-
628747	0.759	A+	0.239	A+	0.139	A+
628748	0.700	A+	0.236	A+	-0.091	A-
628749	-0.221	A-	-0.317	A-	-0.600	A-
628750	0.506	A+	-0.162	A-	0.121	A+
628751	1.218	B+	-1.038	B-	-0.264	A-
628752	0.018	A+	0.122	A+	-0.426	A-
628753	-0.214	A-	0.348	A+	-0.018	A-
628754	-0.027	A-	0.209	A+	-0.121	A-
628755	-0.425	A-	-0.330	A-	-0.344	A-

Table L.16 (continued). Grade 4 Language Usage Field Test: Differential Item Functioning Analysis

	Male/Female DIF		White/Hispanic DIF		No Aid/Lunch Aid DIF	
Item ID	MH delta	NAEP Cat.	MH delta	NAEP Cat.	MH delta	NAEP Cat.
628812	-0.119	A-	-0.698	A-	-0.376	A-
628813	-0.245	A-	-0.688	A-	-0.224	A-
628814	0.625	A+	-0.469	A-	-0.608	A-
628815	0.378	A+	0.673	A+	0.345	A+
628816	0.784	A+	1.361	B+	-0.747	A-
628817	1.060	B+	-0.615	A-	-0.476	A-
628818	1.439	B+	0.276	A+	-0.301	A-
628819	-0.048	A-	-0.517	A-	0.070	A+
628820	1.056	B+	-0.230	A-	-0.380	A-
628821	0.303	A+	0.080	A+	-0.342	A-
628822	0.325	A+	0.374	A+	-0.186	A-
628823	0.392	A+	-0.016	A-	-0.277	A-

Reference groups = Male, White, and No lunch aid.
Focal groups = Female, Hispanic or Latino, and Lunch Aid
Negative values reflect better reference group performance on the item and positive values reflect better focal group performance.

Table L.17. Grade 5 Language Usage Field Test: Differential Item Functioning Analysis

	Male/Female DIF		White/Hispanic DIF		No Aid/Lunch Aid DIF	
Item ID	MH delta	NAEP Cat.	MH delta	NAEP Cat.	MH delta	NAEP Cat.
539939	0.040	A+	-0.214	A-	-0.194	A-
628456	0.121	A+	0.667	A+	-0.377	A-
628457	0.576	A+	-0.752	A-	-0.642	A-
628458	-0.144	A-	-0.555	A-	-0.571	A-
628459	-0.220	A-	-0.604	A-	-0.439	A-
628460	-0.226	A-	-0.771	A-	-0.384	A-
628461	-0.145	A-	-0.220	A-	-0.375	A-
628462	0.286	A+	-0.491	A-	-0.015	A-
628463	0.353	A+	-0.367	A-	-0.207	A-
628464	-0.169	A-	-0.560	A-	-0.230	A-
628465	-0.283	A-	-0.660	A-	-0.469	A-
628466	0.025	A+	0.060	A+	-0.699	A-
628467	-0.386	A-	-0.212	A-	-0.103	A-
628468	0.387	A+	-0.667	A-	-0.447	A-
628469	-0.178	A-	-1.175	B-	-0.302	A-
628493	-0.455	A-	0.292	A+	-0.270	A-
628494	0.126	A+	0.391	A+	-0.303	A-
628495	-0.268	A-	-0.626	A-	-0.893	A-
628496	-0.225	A-	-1.081	B-	-0.867	A-
628497	0.105	A+	-0.904	A-	-0.838	A-
628498	0.012	A+	-0.727	A-	-0.627	A-
628499	-0.648	A-	0.914	A+	0.042	A+
628500	0.411	A+	0.333	A+	-0.021	A-
628501	-0.014	A-	0.405	A+	0.014	A+
628502	0.815	A+	0.180	A+	-0.271	A-
628503	0.151	A+	-0.068	A-	-0.147	A-
628504	0.283	A+	0.631	A+	-0.268	A-
628756	-0.122	A-	-0.217	A-	-0.275	A-
628757	-0.490	A-	-0.164	A-	-0.142	A-
628758	0.088	A+	-0.604	A-	-0.661	A-
628759	-0.356	A-	0.085	A+	-0.292	A-
628760	-0.385	A-	-0.653	A-	-0.502	A-
628762	-0.541	A-	-0.868	A-	-0.486	A-
628763	0.286	A+	0.066	A+	-0.010	A-
628764	-0.423	A-	-0.123	A-	-0.521	A-
628765	0.064	A+	0.476	A+	-0.352	A-
628766	-0.061	A-	-0.454	A-	-0.588	A-
628767	-0.549	A-	-1.178	B-	-0.276	A-
628768	0.188	A+	-0.403	A-	-0.340	A-
628769	-0.118	A-	-1.099	A-	-0.755	A-
628770	0.555	A+	-0.617	A-	-0.172	A-
628824	1.083	B+	-0.899	A-	-0.770	A-
628825	0.212	A+	0.347	A+	-0.177	A-
628826	0.380	A+	0.757	A+	0.202	A+
628827	0.797	A+	-0.454	A-	0.201	A+
628828	-0.019	A-	0.103	A+	-0.086	A-
628829	0.229	A+	0.207	A+	-0.578	A-
628830	-0.114	A-	-0.212	A-	-0.437	A-

Table L.17 (continued). Grade 5 Language Usage Field Test: Differential Item Functioning Analysis

	Male/Female DIF		White/Hispanic DIF		No Aid/Lunch Aid DIF	
Item ID	MH delta	NAEP Cat.	MH delta	NAEP Cat.	MH delta	NAEP Cat.
628831	-0.174	A-	-0.520	A-	-0.121	A-
628832	-0.026	A-	-0.405	A-	-0.137	A-
628833	-0.264	A-	0.422	A+	0.168	A+
628834	0.143	A+	1.163	B+	0.458	A+
628835	0.819	A+	0.233	A+	-0.055	A-
628836	0.841	A+	-0.571	A-	-0.383	A-
628837	0.160	A+	0.344	A+	0.015	A+
628838	0.341	A+	-0.235	A-	-0.030	A-
628839	-0.249	A-	-0.255	A-	-0.213	A-
628840	1.042	B+	0.741	A+	-0.244	A-
628841	0.267	A+	-0.420	A-	-0.498	A-
628842	0.483	A+	-0.440	A-	-0.331	A-

Reference groups = Male, White, and No lunch aid.
Focal groups = Female, Hispanic or Latino, and Lunch Aid
Negative values reflect better reference group performance on the item and positive values reflect better focal group performance.

Table L.18. Grade 6 Language Usage Field Test: Differential Item Functioning Analysis

	Male/Female DIF		White/Hispanic DIF		No Aid/Lunch Aid DIF	
Item ID	MH delta	NAEP Cat.	MH delta	NAEP Cat.	MH delta	NAEP Cat.
631493	0.710	A+	-0.574	A-	0.187	A+
631498	0.405	A+	-0.257	A-	-0.324	A-
631407	0.230	A+	-0.229	A-	-0.031	A-
631443	-0.696	A-	-0.449	A-	-0.811	A-
631408	0.177	A+	0.055	A+	-0.107	A-
631494	-0.149	A-	0.077	A+	-0.675	A-
631503	-0.158	A-	0.363	A+	0.093	A+
631456	-0.245	A-	-0.470	A-	-0.392	A-
631409	0.683	A+	0.346	A+	0.342	A+
631410	0.337	A+	-0.807	A-	-0.633	A-
631411	0.452	A+	-0.634	A-	-0.549	A-
631499	0.627	A+	-0.466	A-	-0.436	A-
631504	-0.251	A-	-0.365	A-	-0.153	A-
631413	0.080	A+	-0.920	A-	-0.953	A-
593729	-0.187	A-	0.067	A+	-0.180	A-
631500	0.304	A+	-0.585	A-	-0.168	A-
631488	0.306	A+	0.150	A+	-0.413	A-
631458	-0.299	A-	-0.009	A-	-0.510	A-
631447	0.329	A+	-0.576	A-	-0.408	A-
631414	-0.118	A-	-0.192	A-	-0.609	A-
631415	1.420	B+	-0.760	A-	-0.333	A-
631459	0.480	A+	0.169	A+	0.301	A+
631460	0.439	A+	0.584	A+	-0.210	A-
631505	0.516	A+	0.600	A+	0.009	A+
631501	0.314	A+	-0.281	A-	-0.531	A-
631448	0.184	A+	-0.013	A-	-0.672	A-
631449	0.199	A+	-0.205	A-	-0.398	A-
631417	-0.211	A-	-0.691	A-	-0.189	A-
631418	0.149	A+	-0.238	A-	-0.305	A-
631506	-0.072	A-	-0.051	A-	-0.153	A-
631496	0.160	A+	-0.132	A-	-0.074	A-
631490	0.308	A+	-0.053	A-	-0.009	A-
631507	0.577	A+	-0.150	A-	-0.504	A-
631419	0.160	A+	0.229	A+	-0.177	A-
631420	0.902	A+	0.556	A+	0.083	A+
631450	-0.177	A-	-0.752	A-	-0.645	A-
631461	-0.163	A-	-0.532	A-	-0.282	A-
631462	0.057	A+	-0.453	A-	0.038	A+
631463	0.721	A+	-0.171	A-	-0.285	A-
631451	0.017	A+	-0.711	A-	-0.191	A-
631502	0.113	A+	-0.136	A-	0.119	A+
631423	0.456	A+	-0.737	A-	0.000	A+
631464	0.616	A+	-0.552	A-	-0.232	A-
511287	-0.141	A-	-0.201	A-	-0.379	A-
516612	-0.071	A-	-0.204	A-	-0.177	A-
631405	0.369	A+	-0.863	A-	0.273	A+
631412	-0.676	A-	-0.669	A-	-0.392	A-
631421	0.415	A+	-0.311	A-	-0.228	A-

Table L.18 (continued). Grade 6 Language Usage Field Test: Differential Item Functioning Analysis

	Male/Female DIF		White/Hispanic DIF		No Aid/Lunch Aid DIF	
Item ID	MH delta	NAEP Cat.	MH delta	NAEP Cat.	MH delta	NAEP Cat.
631445	0.153	A+	-0.038	A-	-0.198	A-
631452	0.921	A+	0.827	A+	0.049	A+
631489	0.282	A+	0.039	A+	0.035	A+
631491	0.076	A+	0.050	A+	-0.142	A-
631495	0.200	A+	0.504	A+	0.221	A+
631497	0.197	A+	-0.312	A-	-0.364	A-
511265	1.018	B+	-0.533	A-	-0.314	A-

Reference groups = Male, White, and No lunch aid.
Focal groups = Female, Hispanic or Latino, and Lunch Aid
Negative values reflect better reference group performance on the item and positive values reflect better focal group performance.

Table L.19. Grade 7 Language Usage Field Test: Differential Item Functioning Analysis

	Male/Female DIF		White/Hispanic DIF		No Aid/Lunch Aid DIF	
Item ID	MH delta	NAEP Cat.	MH delta	NAEP Cat.	MH delta	NAEP Cat.
631623	-0.051	A-	0.393	A+	0.074	A+
631657	-0.126	A-	0.314	A+	-0.528	A-
631669	0.005	A+	-0.555	A-	-0.733	A-
539956	0.223	A+	-0.309	A-	-0.146	A-
520081	-0.050	A-	-0.497	A-	-0.388	A-
631671	-0.145	A-	-0.037	A-	-0.576	A-
631678	0.024	A+	-0.504	A-	-0.452	A-
631629	0.027	A+	0.026	A+	0.426	A+
631679	0.332	A+	-0.007	A-	-0.427	A-
631656	0.040	A+	-0.359	A-	-0.685	A-
631672	0.072	A+	-0.636	A-	-0.464	A-
631654	0.409	A+	0.016	A+	-0.237	A-
631643	0.033	A+	-0.083	A-	0.220	A+
631630	-0.271	A-	-1.043	B-	-0.571	A-
631632	0.588	A+	-0.245	A-	-0.246	A-
631665	0.531	A+	-0.561	A-	0.036	A+
631653	1.136	B+	0.030	A+	-0.353	A-
631660	0.726	A+	-0.364	A-	-0.251	A-
595103	1.031	B+	0.549	A+	-0.123	A-
631645	1.163	B+	0.729	A+	-0.038	A-
631634	0.567	A+	0.452	A+	0.150	A+
631635	0.032	A+	-0.306	A-	-0.061	A-
516706	0.774	A+	0.552	A+	-0.092	A-
631649	1.144	B+	-0.576	A-	-0.239	A-
631650	0.183	A+	-0.207	A-	-0.324	A-
536051	0.630	A+	0.140	A+	-0.239	A-
631636	1.067	B+	-0.112	A-	0.164	A+
631639	0.407	A+	-0.056	A-	0.109	A+
631651	1.841	B+	0.630	A+	0.312	A+
631646	0.391	A+	-0.907	A-	-0.301	A-
631676	-0.453	A-	-0.650	A-	-0.367	A-
631682	1.190	B+	-0.133	A-	-0.158	A-
631666	0.822	A+	-0.298	A-	-0.039	A-
511241	0.227	A+	0.205	A+	-0.089	A-
631641	0.496	A+	-0.335	A-	-0.325	A-
631652	0.357	A+	-0.179	A-	0.115	A+
631677	0.022	A+	0.110	A+	-0.181	A-
537853	0.746	A+	-0.038	A-	-0.165	A-
631624	-0.046	A-	-0.024	A-	-0.519	A-
631625	-0.541	A-	-0.852	A-	-0.399	A-
631626	0.385	A+	-0.142	A-	-0.067	A-
631633	0.111	A+	-0.287	A-	-0.218	A-
631637	-0.032	A-	-0.340	A-	0.074	A+
631638	0.638	A+	0.333	A+	0.372	A+
631647	0.802	A+	0.211	A+	0.048	A+
631655	-0.703	A-	-0.394	A-	0.012	A+
631658	-0.315	A-	-0.087	A-	-0.130	A-
631662	0.702	A+	0.177	A+	-0.070	A-

Table L.19 (continued). Grade 7 Language Usage Field Test: Differential Item Functioning Analysis

	Male/Female DIF		White/Hispanic DIF		No Aid/Lunch Aid DIF	
Item ID	MH delta	NAEP Cat.	MH delta	NAEP Cat.	MH delta	NAEP Cat.
631663	-0.518	A-	-0.640	A-	-0.428	A-
631668	0.043	A+	0.248	A+	-0.257	A-
631670	0.879	A+	0.193	A+	-0.176	A-
631673	0.404	A+	-0.071	A-	0.133	A+
631674	0.423	A+	-0.325	A-	0.034	A+
631675	0.351	A+	0.174	A+	0.002	A+
631680	-0.151	A-	-0.377	A-	-1.179	B-

Reference groups = Male, White, and No lunch aid.
Focal groups = Female, Hispanic or Latino, and Lunch Aid
Negative values reflect better reference group performance on the item and positive values reflect better focal group performance.

Table L.20. Grade 8 Language Usage Field Test: Differential Item Functioning Analysis

	Male/Female DIF		White/Hispanic DIF		No Aid/Lunch Aid DIF	
Item ID	MH delta	NAEP Cat.	MH delta	NAEP Cat.	MH delta	NAEP Cat.
631688	0.084	A+	-0.462	A-	-0.485	A-
631713	0.157	A+	-0.485	A-	-0.022	A-
631684	0.140	A+	-0.550	A-	-0.549	A-
631703	0.154	A+	-0.442	A-	-0.439	A-
631689	0.136	A+	-0.087	A-	-0.005	A-
631690	-0.022	A-	0.527	A+	-0.181	A-
631691	0.475	A+	-0.065	A-	-0.117	A-
631685	0.786	A+	-0.060	A-	-0.129	A-
631724	0.166	A+	-0.509	A-	-0.426	A-
631742	0.058	A+	-0.598	A-	0.156	A+
631692	-0.736	A-	-0.570	A-	-0.324	A-
631693	0.595	A+	-0.035	A-	-0.432	A-
631709	0.124	A+	-0.879	A-	-0.427	A-
631719	-0.207	A-	-0.468	A-	0.066	A+
631736	0.239	A+	-0.478	A-	0.033	A+
631694	-0.139	A-	-0.262	A-	-0.014	A-
631704	0.387	A+	-0.071	A-	-0.233	A-
631705	0.856	A+	0.345	A+	-0.505	A-
631716	0.135	A+	0.203	A+	-0.223	A-
631726	0.292	A+	-0.289	A-	-0.132	A-
631740	0.765	A+	-0.036	A-	-0.371	A-
631727	-0.777	A-	-0.384	A-	0.541	A+
631696	0.854	A+	0.813	A+	0.406	A+
631697	-0.189	A-	-0.164	A-	-0.248	A-
631720	0.972	A+	0.971	A+	0.260	A+
631741	0.513	A+	-0.499	A-	-0.040	A-
631698	-0.121	A-	-0.793	A-	-0.274	A-
631710	0.276	A+	-0.764	A-	-0.314	A-
631717	-0.341	A-	-0.345	A-	-0.307	A-
631729	0.092	A+	-0.382	A-	-0.479	A-
631730	0.755	A+	-0.583	A-	-0.019	A-
631700	0.294	A+	0.000	A+	-0.084	A-
631687	0.033	A+	0.144	A+	0.098	A+
631721	1.903	C+	0.683	A+	0.568	A+
631737	0.082	A+	-0.151	A-	-0.048	A-
631701	0.409	A+	-0.390	A-	-0.512	A-
631731	0.868	A+	0.244	A+	-0.120	A-
631732	0.348	A+	-0.204	A-	-0.152	A-
631712	0.571	A+	-0.328	A-	-0.283	A-
631722	0.715	A+	0.263	A+	0.256	A+
631683	0.549	A+	-0.501	A-	-0.438	A-
631695	0.045	A+	-0.246	A-	-0.233	A-
631699	0.402	A+	-0.008	A-	-0.354	A-
631707	0.967	A+	-0.350	A-	-0.269	A-
631708	0.094	A+	-0.589	A-	-0.425	A-
631711	0.316	A+	-0.256	A-	-0.332	A-
631715	-0.394	A-	-0.616	A-	-0.095	A-
631718	0.451	A+	-0.109	A-	-0.383	A-

Table L.20 (continued). Grade 8 Language Usage Field Test: Differential Item Functioning Analysis

	Male/Female DIF		White/Hispanic DIF		No Aid/Lunch Aid DIF	
Item ID	MH delta	NAEP Cat.	MH delta	NAEP Cat.	MH delta	NAEP Cat.
631723	0.720	A+	-0.507	A-	-0.005	A-
631728	0.165	A+	0.685	A+	-0.163	A-
631733	0.069	A+	0.378	A+	0.248	A+
631734	0.667	A+	-0.061	A-	-0.229	A-
631735	-0.173	A-	-0.190	A-	-0.469	A-
631739	-0.106	A-	-1.363	B-	-0.842	A-
631738	0.080	A+	-0.452	A-	-0.681	A-

Reference groups = Male, White, and No lunch aid.
Focal groups = Female, Hispanic or Latino, and Lunch Aid
Negative values reflect better reference group performance on the item and positive values reflect better focal group performance.

Table L.21. Grade 10 Language Usage Field Test: Differential Item Functioning Analysis

	Male/Female DIF		White/Hispanic DIF		No Aid/Lunch Aid DIF	
Item ID	MH delta	NAEP Cat.	MH delta	NAEP Cat.	MH delta	NAEP Cat.
631744	0.532	A+	0.182	A+	0.501	A+
631747	0.001	A+	-0.187	A-	0.063	A+
631746	0.592	A+	-0.298	A-	-0.106	A-
631796	0.143	A+	-0.457	A-	-0.059	A-
539928	0.483	A+	0.051	A+	-0.065	A-
631745	0.529	A+	-0.462	A-	-0.219	A-
631749	-0.050	A-	-0.984	A-	-0.540	A-
631797	-0.039	A-	-0.595	A-	-0.291	A-
631763	0.314	A+	-0.246	A-	0.034	A+
631769	0.038	A+	-0.065	A-	-0.203	A-
631750	0.687	A+	-1.553	B-	-0.327	A-
535709	0.601	A+	-0.524	A-	-0.321	A-
631752	-1.397	B-	-0.489	A-	-0.250	A-
631778	-0.253	A-	-0.608	A-	0.072	A+
631785	1.369	B+	0.400	A+	0.162	A+
631773	0.545	A+	0.036	A+	-0.196	A-
631753	-0.282	A-	-0.078	A-	-0.269	A-
631754	-0.336	A-	0.224	A+	0.136	A+
631755	-0.240	A-	-0.715	A-	-0.599	A-
631771	0.715	A+	-0.231	A-	-0.102	A-
631756	0.583	A+	-0.588	A-	-0.425	A-
631786	-0.318	A-	-1.173	B-	-0.532	A-
631787	0.024	A+	-0.073	A-	-0.091	A-
631788	-0.379	A-	-0.491	A-	-0.221	A-
631789	-0.451	A-	-0.223	A-	-0.130	A-
631757	0.284	A+	-1.037	B-	-0.232	A-
631758	0.881	A+	-0.305	A-	-0.229	A-
631790	0.756	A+	0.422	A+	-0.217	A-
631779	0.029	A+	-0.646	A-	-0.011	A-
631759	-0.213	A-	-0.036	A-	-0.593	A-
558958	0.561	A+	-0.197	A-	-0.411	A-
558961	0.224	A+	-0.328	A-	0.010	A+
558965	1.297	B+	-0.318	A-	-0.544	A-
631766	0.706	A+	-0.014	A-	0.312	A+
631762	0.555	A+	-0.275	A-	-0.159	A-
516191	0.409	A+	-0.023	A-	-0.362	A-
536158	0.194	A+	-0.567	A-	0.046	A+
538317	0.031	A+	0.399	A+	0.114	A+
539984	-0.343	A-	0.143	A+	-0.137	A-
555718	0.051	A+	-0.281	A-	-0.429	A-
558954	0.318	A+	-0.999	A-	-0.466	A-
631748	-0.107	A-	0.405	A+	0.261	A+
631760	0.553	A+	0.122	A+	-0.083	A-
631761	0.392	A+	0.001	A+	-0.093	A-
631765	0.693	A+	0.226	A+	-0.179	A-
631767	-0.680	A-	0.218	A+	-0.145	A-

Table L.21 (continued). Grade 10 Language Usage Field Test: Differential Item Functioning Analysis

	Male/Female DIF		White/Hispanic DIF		No Aid/Lunch Aid DIF	
Item ID	MH delta	NAEP Cat.	MH delta	NAEP Cat.	MH delta	NAEP Cat.
631775	0.584	A+	0.375	A+	-0.350	A-
631777	0.981	A+	0.033	A+	-0.127	A-
631781	0.059	A+	-0.374	A-	-0.437	A-
631783	0.300	A+	-0.040	A-	-0.672	A-
631791	0.273	A+	-0.047	A-	0.134	A+
631795	0.859	A+	-0.397	A-	0.099	A+
631925	0.744	A+	-0.765	A-	-0.176	A-

Reference groups = Male, White, and No lunch aid.
Focal groups = Female, Hispanic or Latino, and Lunch Aid
Negative values reflect better reference group performance on the item and positive values reflect better focal group performance.

Table L.22. Grade 5 Science Field Test: Differential Item Functioning Analysis

	Male/Female DIF		White/Hispanic DIF		No Aid/Lunch Aid DIF	
Item ID	MH delta	NAEP Cat.	MH delta	NAEP Cat.	MH delta	NAEP Cat.
628350	-0.329	A-	0.127	A+	0.005	A+
628333	-0.329	A-	0.811	A+	0.424	A+
628334	-0.391	A-	-0.066	A-	-0.083	A-
635733	0.541	A+	-0.193	A-	-0.401	A-
635734	-0.809	A-	-0.363	A-	-0.207	A-
636407	0.020	A+	-0.598	A-	-0.237	A-
636441	-0.068	A-	-1.145	B-	-0.093	A-
628337	0.350	A+	-1.372	B-	-0.256	A-
628338	0.084	A+	-0.619	A-	-0.114	A-
628339	0.396	A+	-0.369	A-	-0.178	A-
628343	-0.198	A-	0.343	A+	0.044	A+
628344	0.826	A+	0.031	A+	-0.326	A-
628345	0.870	A+			0.380	A+
629725	-0.246	A-	1.348	B+	0.045	A+
628346	0.401	A+	-0.096	A-	-0.024	A-
628348	0.588	A+	0.566	A+	-0.054	A-
628335	-0.297	A-	-0.425	A-	-0.045	A-
628336	-0.281	A-	0.070	A+	0.031	A+
628351	-0.558	A-	0.490	A+	-0.266	A-
628623	0.286	A+	-0.630	A-	0.182	A+
628624	0.085	A+	-0.844	A-	-0.063	A-
628625	-0.035	A-	-0.159	A-	-0.286	A-
628626	-0.346	A-	-0.297	A-	-0.118	A-
628627	0.252	A+	0.560	A+	-0.230	A-
628629	-0.401	A-	0.018	A+	-0.130	A-
628630	-0.749	A-	-0.071	A-	0.283	A+
628631	-0.466	A-	0.515	A+	0.305	A+
628632	0.103	A+	-0.441	A-	-0.387	A-
628634	-0.580	A-	0.524	A+	0.860	A+
628635	-1.170	B-	-1.542	B-	-0.527	A-
628636	-0.436	A-	0.333	A+	-0.016	A-
628637	-0.193	A-	-1.599	B-	-0.389	A-
629151	0.603	A+			-0.581	A-
629152	0.910	A+	0.458	A+	-0.882	A-
629153	-0.184	A-	-0.299	A-	-1.192	B-
629154	0.603	A+	0.060	A+	-0.498	A-
629155	0.280	A+	-0.187	A-	0.051	A+
629165	-0.404	A-	-0.584	A-	-0.452	A-
629166	0.008	A+	-0.103	A-	-0.010	A-
629167	0.207	A+	-0.020	A-	-0.344	A-
629168	0.408	A+	-0.099	A-	-0.162	A-
629169	0.137	A+	0.634	A+	0.013	A+
629156	-0.113	A-	-0.077	A-	-0.274	A-
629157	-0.777	A-	-0.708	A-	-0.524	A-
629158	0.972	A+	-0.461	A-	-0.460	A-
636193	0.162	A+	-0.760	A-	-0.495	A-
636206	0.397	A+	-0.016	A-	-0.604	A-
629163	-0.238	A-	-0.773	A-	-0.753	A-

Table L.22 (continued). Grade 5 Science Field Test: Differential Item Functioning Analysis

	Male/Female DIF		White/Hispanic DIF		No Aid/Lunch Aid DIF	
Item ID	MH delta	NAEP Cat.	MH delta	NAEP Cat.	MH delta	NAEP Cat.
629164	0.338	A+	0.897	A+	0.108	A+
635735	-0.752	A-	-0.275	A-	-0.456	A-
629726	0.362	A+	-0.990	A-	-0.096	A-
629727	-0.379	A-	-0.664	A-	-0.280	A-
629729	-0.010	A-	0.151	A+	0.277	A+
629730	-0.678	A-	-0.600	A-	-0.504	A-
629731	-0.037	A-	0.002	A+	-0.204	A-
629178	-0.323	A-	-0.683	A-	-0.539	A-
629179	-0.927	A-	0.314	A+	-0.327	A-
629173	-0.087	A-	-0.459	A-	0.028	A+
629174	0.104	A+	-1.007	B-	-0.306	A-
629175	-0.235	A-	0.226	A+	-0.084	A-
629176	0.094	A+	0.257	A+	0.251	A+
629177	-0.210	A-	0.353	A+	-0.158	A-
636408	-0.474	A-	-0.278	A-	-0.722	A-
629180	-0.431	A-	-1.137	B-	-0.961	A-
629181	0.114	A+	-0.654	A-	0.437	A+
629182	-0.628	A-	-0.576	A-	-0.070	A-
629184	-0.381	A-	-0.526	A-	0.012	A+
629185	-0.056	A-	0.007	A+	-0.104	A-
629186	-0.134	A-	0.164	A+	-0.945	A-
629187	-0.416	A-	-0.057	A-	0.065	A+
629188	-0.072	A-	0.266	A+	-0.176	A-
630473	-0.399	A-	0.401	A+	0.248	A+
630475	0.124	A+	-0.878	A-	-0.730	A-
630476	-0.293	A-	0.392	A+	-0.355	A-
630477	-0.894	A-	0.442	A+	-0.172	A-
630478	0.141	A+	0.063	A+	-0.168	A-
630479	-0.204	A-	0.110	A+	0.087	A+
630480	0.246	A+	-0.587	A-	0.111	A+
630481	0.198	A+	-1.220	B-	-0.218	A-
630780	0.864	A+	-0.470	A-	-0.321	A-
630781	0.107	A+	-0.264	A-	0.212	A+
630782	-0.143	A-	-0.238	A-	-0.320	A-
630783	-0.058	A-	-0.538	A-	0.007	A+
630784	-0.545	A-	-0.693	A-	-0.323	A-
630786	0.288	A+	-0.206	A-	-0.337	A-
630787	0.399	A+	-0.242	A-	-0.074	A-
630788	-0.948	A-	-0.262	A-	-0.382	A-
630789	-0.627	A-	-0.009	A-	-0.483	A-
630790	-0.397	A-	-0.522	A-	-0.193	A-
630791	-0.335	A-	0.152	A+	-0.172	A-
630792	-0.766	A-	1.093	B+	0.316	A+
630793	-0.340	A-	-0.576	A-	-0.493	A-
632091	0.126	A+	0.150	A+	-0.128	A-
632092	-0.397	A-	0.101	A+	-0.065	A-
632093	0.496	A+	-0.229	A-	-0.600	A-
636210	-0.877	A-	0.193	A+	-0.063	A-

Table L.22 (continued). Grade 5 Science Field Test: Differential Item Functioning Analysis

	Male/Female DIF		White/Hispanic DIF		No Aid/Lunch Aid DIF	
Item ID	MH delta	NAEP Cat.	MH delta	NAEP Cat.	MH delta	NAEP Cat.
630768	0.709	A+	-0.498	A-	0.249	A+
630769	0.858	A+	-0.339	A-	-0.023	A-
630770	1.200	B+	-0.388	A-	0.161	A+
630775	0.639	A+	-0.557	A-	-0.461	A-
631425	0.312	A+	-0.175	A-	0.028	A+
631426	0.618	A+	0.093	A+	0.401	A+
631430	0.254	A+	-0.061	A-	-0.168	A-
632436	-0.287	A-	-0.361	A-	-0.114	A-
632437	-0.808	A-	-0.947	A-	-0.389	A-
632438	-0.098	A-	0.613	A+	0.186	A+
632439	-0.283	A-	0.113	A+	0.321	A+
632441	-0.370	A-	-0.342	A-	-0.678	A-
632442	-0.226	A-	-1.004	B-	-0.339	A-
632443	-0.687	A-	-0.971	A-	-0.180	A-
632444	-0.709	A-	-0.388	A-	0.280	A+
632445	-0.182	A-	-0.821	A-	-0.271	A-
632446	-0.279	A-	0.937	A+	0.167	A+
632454	-0.723	A-	-0.794	A-	-0.421	A-
632471	-0.489	A-	0.321	A+	0.241	A+
632472	-0.198	A-	0.265	A+	0.205	A+
632473	0.255	A+	-0.143	A-	0.345	A+
632474	-0.397	A-	0.030	A+	0.064	A+
632475	-0.047	A-	-0.171	A-	-0.297	A-
632476	0.222	A+	-0.746	A-	-0.010	A-
632477	-1.193	B-	0.016	A+	-0.370	A-
632478	-0.011	A-	0.089	A+	0.150	A+
632479	-0.655	A-	0.027	A+	0.150	A+
632480	-0.287	A-	0.140	A+	0.001	A+
628347	-1.196	B-	-0.427	A-	0.005	A+
632448	-0.356	A-	-0.553	A-	-0.650	A-
632449	-0.345	A-	-0.737	A-	-0.646	A-
632450	0.309	A+	-0.245	A-	-0.418	A-
632451	-0.069	A-	0.053	A+	-0.501	A-
632452	-0.096	A-	-0.472	A-	-0.471	A-
632453	-0.394	A-	-0.572	A-	-0.461	A-
632520	-1.015	B-	-0.098	A-	0.010	A+
632521	0.089	A+	0.140	A+	-0.259	A-
632522	0.646	A+	0.251	A+	-0.290	A-
632523	-0.067	A-	0.419	A+	-1.117	B-
632525	-0.903	A-	-0.830	A-	-0.225	A-
632526	0.484	A+	-0.246	A-	-0.690	A-
632527	0.104	A+	0.144	A+	-0.003	A-
632528	-0.118	A-	-0.693	A-	-0.075	A-
633521	0.229	A+	0.209	A+	0.044	A+
633522	-0.408	A-	-0.929	A-	-0.242	A-
633523	-0.697	A-	-0.438	A-	-1.539	C-
633524	0.017	A+	-1.065	A-	-0.342	A-
633525	-0.596	A-	-0.606	A-	-0.273	A-

Table L.22 (continued). Grade 5 Science Field Test: Differential Item Functioning Analysis

	Male/Female DIF		White/Hispanic DIF		No Aid/Lunch Aid DIF	
Item ID	MH delta	NAEP Cat.	MH delta	NAEP Cat.	MH delta	NAEP Cat.
632529	-0.535	A-	-1.041	B-	-0.602	A-
632531	-1.408	B-	0.632	A+	0.242	A+
632532	-1.280	B-	-0.035	A-	0.408	A+
632534	0.263	A+	-0.167	A-	0.473	A+
634503	-0.600	A-	-0.342	A-	-0.243	A-
634504	0.411	A+	-0.122	A-	0.333	A+

Reference groups = Male, White, and No lunch aid.
Focal groups = Female, Hispanic or Latino, and Lunch Aid
Negative values reflect better reference group performance on the item and positive values reflect better focal group performance.

Table L.23. Grade 7 Science Field Test: Differential Item Functioning Analysis

	Male/Female DIF		White/Hispanic DIF		No Aid/Lunch Aid DIF	
Item ID	MH delta	NAEP Cat.	MH delta	NAEP Cat.	MH delta	NAEP Cat.
631962	0.129	A+	-0.738	A-	0.132	A+
636409	-1.151	B-	-0.008	A-	0.065	A+
636410	-0.237	A-	0.157	A+	-0.277	A-
630682	0.385	A+	-0.752	A-	-0.394	A-
630683	0.652	A+	-0.239	A-	-0.287	A-
630684	0.420	A+	0.305	A+	-0.194	A-
630686	0.395	A+	0.195	A+	-0.139	A-
630687	-0.048	A-			0.030	A+
630688	-0.404	A-	-0.344	A-	-0.100	A-
630689	0.316	A+	-0.491	A-	-0.754	A-
631963	0.476	A+	-0.863	A-	-0.076	A-
636411	-0.040	A-			-0.091	A-
630690	-0.296	A-	-0.816	A-	-0.393	A-
630692	-0.797	A-	-0.313	A-	-0.326	A-
630693	-0.156	A-	0.033	A+	-0.390	A-
630694	0.350	A+	0.485	A+	-0.450	A-
630695	1.000	B+	-0.395	A-	-0.999	A-
630696	-0.246	A-	-0.232	A-	-0.583	A-
630697	0.241	A+	-0.431	A-	0.035	A+
630698	-1.320	B-	0.546	A+	0.117	A+
630699	-1.367	B-	-0.930	A-	-0.345	A-
630700	0.547	A+	-1.103	B-	0.442	A+
630706	0.670	A+	0.479	A+	0.046	A+
630707	-0.130	A-	-0.192	A-	-0.037	A-
630701	-0.241	A-	-0.261	A-	-0.306	A-
630702	0.483	A+	-0.403	A-	-1.029	B-
630703	-0.296	A-	0.435	A+	-0.146	A-
630705	-0.317	A-	-0.496	A-	0.156	A+
631465	-0.494	A-	-0.233	A-	-0.280	A-
631481	0.914	A+	-0.284	A-	-0.322	A-
631964	0.007	A+	-0.289	A-	0.097	A+
631965	-0.099	A-	0.342	A+	0.032	A+
631966	-0.777	A-	-1.234	B-	-0.091	A-
631967	-0.593	A-	-0.682	A-	-0.453	A-
631482	0.792	A+	0.435	A+	0.783	A+
631483	0.420	A+	-0.595	A-	-0.241	A-
631466	-0.154	A-	0.109	A+	-0.299	A-
631467	1.036	B+	-0.061	A-	-0.927	A-
631468	-0.287	A-	-0.953	A-	-0.259	A-
631469	0.112	A+	-0.431	A-	-0.795	A-
631470	-0.331	A-	-0.134	A-	-0.210	A-
631485	0.517	A+	0.449	A+	0.010	A+
631486	0.549	A+	-0.433	A-	-0.415	A-
631471	0.053	A+	0.519	A+	-0.137	A-
631472	0.396	A+	0.539	A+	-0.215	A-
631473	0.082	A+	-0.393	A-	-0.525	A-
631474	-0.292	A-	-0.084	A-	-0.372	A-
631475	-0.426	A-	-0.216	A-	-0.392	A-

Table L.23 (continued). Grade 7 Science Field Test: Differential Item Functioning Analysis

	Male/Female DIF		White/Hispanic DIF		No Aid/Lunch Aid DIF	
Item ID	MH delta	NAEP Cat.	MH delta	NAEP Cat.	MH delta	NAEP Cat.
631476	-0.298	A-	-0.032	A-	0.332	A+
631477	-0.089	A-	-0.288	A-	-0.064	A-
631478	0.013	A+	0.709	A+	0.083	A+
631480	0.534	A+	0.034	A+	-0.239	A-
631508	0.345	A+			0.036	A+
631509	0.073	A+			0.224	A+
631510	-0.894	A-	-0.150	A-	-0.207	A-
631515	0.089	A+	-0.053	A-	-0.040	A-
631511	0.258	A+	-0.100	A-	0.089	A+
631512	-0.923	A-	-0.346	A-	-0.141	A-
631513	0.097	A+	0.487	A+	0.048	A+
631514	0.551	A+	0.515	A+	-0.119	A-
631969	0.247	A+	-0.472	A-	-0.041	A-
631970	-0.182	A-	0.077	A+	0.703	A+
631971	0.593	A+	0.240	A+	0.049	A+
632871	-0.114	A-			0.226	A+
632872	0.253	A+	-0.378	A-	-0.548	A-
632873	-0.336	A-	0.676	A+	0.117	A+
632874	-0.348	A-	-0.262	A-	0.142	A+
635736	-0.101	A-	-1.243	B-	-0.589	A-
632886	-0.864	A-	-0.778	A-	0.376	A+
632887	-0.603	A-	0.040	A+	-0.346	A-
632888	-0.150	A-	-0.098	A-	-0.190	A-
632889	0.400	A+	-1.042	B-	-0.342	A-
632876	-0.282	A-	-0.233	A-	0.520	A+
636415	0.178	A+	-0.207	A-	-0.520	A-
636416	-0.868	A-	-0.641	A-	-0.840	A-
632890	-0.762	A-	-1.438	B-	-0.505	A-
632891	-0.147	A-	-0.311	A-	-0.349	A-
632892	-0.136	A-	-0.128	A-	0.321	A+
632893	-0.771	A-	0.429	A+	-0.346	A-
632879	-0.052	A-	0.462	A+	0.549	A+
632880	0.326	A+	0.224	A+	-0.529	A-
632881	0.142	A+	-0.264	A-	-0.229	A-
632875	-0.549	A-	-0.485	A-	0.375	A+
632882	-0.681	A-	0.368	A+	0.715	A+
632883	-0.324	A-	0.366	A+	-0.514	A-
632894	0.093	A+	-0.255	A-	-0.240	A-
632895	0.011	A+	-0.371	A-	-0.168	A-
630778	-0.073	A-	-0.074	A-	-0.299	A-
630779	-0.401	A-	-0.877	A-	-0.145	A-
630794	-0.220	A-	-0.096	A-	-0.182	A-
636417	-0.816	A-			0.046	A+
631431	0.877	A+	0.510	A+	-0.258	A-
631432	-1.143	B-	-0.284	A-	0.068	A+
631433	0.090	A+	-0.018	A-	-0.048	A-
631440	0.154	A+	-0.096	A-	-1.099	B-
631441	-0.281	A-	-0.376	A-	-0.298	A-

Table L.23 (continued). Grade 7 Science Field Test: Differential Item Functioning Analysis

	Male/Female DIF		White/Hispanic DIF		No Aid/Lunch Aid DIF	
Item ID	MH delta	NAEP Cat.	MH delta	NAEP Cat.	MH delta	NAEP Cat.
631442	-0.376	A-	-0.595	A-	0.335	A+
631435	-0.176	A-	-0.056	A-	0.039	A+
631436	-0.245	A-			-0.729	A-
631437	0.032	A+	-0.220	A-	0.216	A+
631438	0.289	A+	-0.347	A-	-0.353	A-
632095	0.089	A+	-0.276	A-	-0.193	A-
632097	0.194	A+	0.162	A+	0.578	A+
632098	0.051	A+	-1.547	B-	-0.129	A-
632099	0.568	A+	-0.160	A-	-0.426	A-
632100	0.020	A+	0.090	A+	0.589	A+
632113	0.218	A+	-0.063	A-	-0.554	A-
632101	0.212	A+	-0.323	A-	-0.260	A-
632102	-0.699	A-	0.438	A+	0.265	A+
632103	-0.500	A-	-0.305	A-	-0.216	A-
632104	-0.057	A-	-0.187	A-	0.108	A+
628349	-0.305	A-	-0.164	A-	-0.462	A-
636418	0.052	A+	0.031	A+	0.478	A+
632105	-0.888	A-	-0.136	A-	0.199	A+
632107	-0.147	A-	-0.294	A-	-0.078	A-
632109	0.128	A+	0.053	A+	-0.505	A-
632110	0.296	A+	-0.130	A-	-0.265	A-
632111	0.844	A+	-0.442	A-	-0.018	A-
632645	-1.498	B-	-1.514	B-	-0.668	A-
632638	-0.837	A-	0.083	A+	-0.367	A-
632639	0.161	A+	-0.109	A-	-0.461	A-
632640	0.162	A+	0.386	A+	0.416	A+
632641	0.000	A+	-0.138	A-	-0.192	A-
632644	-0.391	A-	-0.594	A-	-0.225	A-
632927	-0.273	A-	-0.163	A-	-0.003	A-
632919	-0.332	A-	0.865	A+	-0.122	A-
632920	-0.778	A-	-0.583	A-	-0.484	A-
632921	-0.257	A-	-0.475	A-	-0.728	A-
632922	-0.041	A-	0.188	A+	-0.105	A-
632923	0.092	A+	0.336	A+	0.625	A+
632924	0.038	A+	-0.660	A-	-0.410	A-
632925	0.573	A+	-0.613	A-	0.038	A+
632926	0.064	A+	0.430	A+	0.146	A+
630461	0.287	A+	-0.175	A-	-0.500	A-
630462	0.402	A+	-0.674	A-	0.267	A+
630463	-0.479	A-	-0.390	A-	-0.439	A-
630464	-0.595	A-	0.106	A+	-0.044	A-
630465	-1.123	B-	-0.338	A-	-0.048	A-
630467	-0.302	A-	-0.125	A-	-0.173	A-
630469	0.381	A+	-0.063	A-	-0.279	A-
630471	-0.463	A-	0.908	A+	0.379	A+
630472	0.616	A+	0.239	A+	-0.444	A-
631530	-1.075	B-	-1.906	C-	-1.053	B-
631532	-1.401	B-	-0.104	A-	0.007	A+

Table L.23 (continued). Grade 7 Science Field Test: Differential Item Functioning Analysis

	Male/Female DIF		White/Hispanic DIF		No Aid/Lunch Aid DIF	
Item ID	MH delta	NAEP Cat.	MH delta	NAEP Cat.	MH delta	NAEP Cat.
631533	-1.145	B-			-1.113	B-
631534	-0.555	A-	-0.856	A-	-0.032	A-
631535	-2.354	C-	-0.958	A-	-0.755	A-
631536	-1.194	B-	-0.816	A-	0.039	A+
631537	0.063	A+	-1.603	B-	-0.776	A-
631538	-2.441	C-	0.323	A+	-0.064	A-

Reference groups = Male, White, and No lunch aid.
Focal groups = Female, Hispanic or Latino, and Lunch Aid
Negative values reflect better reference group performance on the item and positive values reflect better focal group performance.

Table L.24. Grade 10 Science Field Test: Differential Item Functioning Analysis

	Male/Female DIF		White/Hispanic DIF		No Aid/Lunch Aid DIF	
Item ID	MH delta	NAEP Cat.	MH delta	NAEP Cat.	MH delta	NAEP Cat.
631516	0.691	A+	-0.826	A-	-0.125	A-
631517	0.044	A+	0.221	A+	-0.107	A-
631518	0.947	A+	0.008	A+	-0.031	A-
631519	-0.076	A-	-0.393	A-	-0.231	A-
634505	0.569	A+	0.711	A+	-0.258	A-
634506	0.176	A+	0.006	A+	0.204	A+
634508	0.601	A+	0.664	A+	-0.779	A-
634509	0.469	A+	0.006	A+	-0.408	A-
636412	-0.456	A-	-0.389	A-	-0.408	A-
631521	-1.169	B-	-0.877	A-	-0.194	A-
631522	-0.809	A-	-0.268	A-	-0.329	A-
631525	0.483	A+	-0.603	A-	-0.909	A-
631580	-0.477	A-	0.090	A+	0.311	A+
631526	0.192	A+	-0.681	A-	-0.566	A-
631527	0.632	A+	-0.210	A-	-0.077	A-
631559	-0.033	A-	0.661	A+	-0.143	A-
631560	0.007	A+	0.276	A+	-0.127	A-
631561	-0.931	A-	-1.070	B-	-0.435	A-
631562	-0.621	A-	-0.826	A-	-0.267	A-
631563	-0.269	A-			0.147	A+
631564	-0.316	A-	0.368	A+	0.520	A+
631565	-0.636	A-	0.412	A+	0.037	A+
631566	-0.125	A-	-0.635	A-	-0.206	A-
631567	-0.577	A-	-0.084	A-	-0.322	A-
631569	-1.265	B-	-0.720	A-	-0.182	A-
631570	-0.629	A-	-0.391	A-	-1.335	B-
631571	-0.954	A-	0.197	A+	-0.408	A-
631573	0.350	A+	0.360	A+	0.290	A+
631574	1.034	B+	-0.335	A-	-0.050	A-
631575	2.089	C+	0.147	A+	-0.175	A-
631576	1.578	C+	-0.949	A-	0.111	A+
631577	1.222	B+	-0.890	A-	-0.172	A-
631578	1.248	B+	0.201	A+	-0.426	A-
631581	1.325	B+	-0.030	A-	0.277	A+
631582	1.294	B+	-0.186	A-	-0.055	A-
631583	0.831	A+	-1.516	B-	-0.729	A-
631584	-0.352	A-	-0.442	A-	-0.346	A-
631585	0.291	A+	0.073	A+	0.211	A+
631586	-0.196	A-	-0.340	A-	-0.633	A-
631587	-0.574	A-	-0.299	A-	0.120	A+
631588	-0.317	A-	-0.462	A-	-0.524	A-
631589	-0.892	A-	0.124	A+	0.065	A+
631590	-1.569	C-	-1.612	B-	-0.382	A-
631593	0.329	A+	-1.007	B-	-0.540	A-
631595	-0.381	A-	-0.359	A-	0.484	A+
636413	-0.503	A-	-1.194	B-	-0.297	A-
634501	-0.164	A-			-0.764	A-
634502	-1.000	A-	0.080	A+	0.059	A+

Table L.24 (continued). Grade 10 Science Field Test: Differential Item Functioning Analysis

	Male/Female DIF		White/Hispanic DIF		No Aid/Lunch Aid DIF	
Item ID	MH delta	NAEP Cat.	MH delta	NAEP Cat.	MH delta	NAEP Cat.
632121	0.368	A+	-0.431	A-	-0.380	A-
632122	1.177	B+	-1.019	A-	0.421	A+
632123	0.336	A+	-0.385	A-	-0.380	A-
632124	-0.235	A-	-2.374	C-	-0.323	A-
632115	0.202	A+	1.010	B+	0.085	A+
632116	-0.718	A-	0.356	A+	-0.453	A-
632118	0.194	A+	-0.155	A-	-0.522	A-
632119	-0.041	A-	0.319	A+	0.371	A+
632120	0.255	A+	-0.128	A-	-0.563	A-
636420	-0.473	A-	0.408	A+	-0.011	A-
636421	0.207	A+	0.805	A+	0.350	A+
626591	0.061	A+	0.308	A+	-0.479	A-
626593	-0.090	A-	-0.161	A-	-0.090	A-
631129	-0.565	A-	-1.095	B-	-0.321	A-
631130	-0.349	A-	-0.443	A-	0.087	A+
626594	-0.307	A-	0.587	A+	0.477	A+
626596	-0.989	A-	-0.833	A-	-0.919	A-
626598	-0.429	A-	-0.753	A-	0.164	A+
626599	-1.237	B-	-0.153	A-	-0.738	A-
626602	0.569	A+	0.851	A+	0.231	A+
626603	0.189	A+	0.021	A+	0.031	A+
632928	-1.023	B-	-1.085	A-	-0.413	A-
631133	-0.897	A-	0.286	A+	-0.234	A-
626600	-0.155	A-	0.123	A+	0.067	A+
626605	-0.824	A-	-0.055	A-	0.394	A+
636423	0.231	A+	-0.219	A-	-0.429	A-
636424	-0.333	A-	-0.584	A-	-0.187	A-
626616	-0.471	A-	0.458	A+	0.085	A+
626606	-2.209	C-	-0.629	A-	-0.250	A-
626607	0.019	A+	0.232	A+	-0.482	A-
626608	-0.223	A-	-0.676	A-	0.138	A+
626609	-1.122	B-	-0.184	A-	-0.074	A-
631131	-0.144	A-	0.227	A+	-0.411	A-
631132	-0.163	A-	-1.005	B-	-0.231	A-
626612	-0.399	A-	0.525	A+	-0.342	A-
626613	0.489	A+			-0.584	A-
626614	0.248	A+	0.299	A+	-0.310	A-
632455	-0.054	A-	-0.879	A-	-0.270	A-
632456	0.761	A+			0.015	A+
632457	-0.171	A-	0.019	A+	0.006	A+
632458	-0.004	A-	-0.199	A-	0.174	A+
632459	0.484	A+	-0.600	A-	0.146	A+
636426	0.253	A+	0.234	A+	-0.225	A-
632460	-0.264	A-	0.845	A+	-0.282	A-
632461	0.236	A+	0.546	A+	0.991	A+
632462	-0.407	A-	0.631	A+	0.268	A+
632463	-0.221	A-	-0.206	A-	-0.274	A-
632465	0.407	A+	-0.489	A-	0.039	A+

Table L.24 (continued). Grade 10 Science Field Test: Differential Item Functioning Analysis

	Male/Female DIF		White/Hispanic DIF		No Aid/Lunch Aid DIF	
Item ID	MH delta	NAEP Cat.	MH delta	NAEP Cat.	MH delta	NAEP Cat.
632466	-0.114	A-	-0.329	A-	0.034	A+
632469	-0.373	A-			-0.276	A-
632931	0.000	A+	-0.176	A-	-0.007	A-
632933	-0.129	A-	-0.629	A-	-0.379	A-
632934	-0.150	A-	-0.900	A-	0.167	A+
632935	-0.058	A-	-0.210	A-	0.155	A+
632945	0.355	A+	-0.286	A-	-0.106	A-
632464	-0.265	A-	0.299	A+	-0.262	A-
632946	-0.438	A-	-0.433	A-	-0.322	A-
632936	0.464	A+	0.401	A+	-0.339	A-
632937	-0.203	A-	-0.249	A-	0.034	A+
632938	0.912	A+	-0.091	A-	-0.158	A-
632939	0.421	A+	0.080	A+	0.091	A+
636427	-0.023	A-	-0.501	A-	-0.537	A-
631439	0.394	A+			-0.397	A-
632941	0.469	A+	-0.888	A-	-0.485	A-
632942	-0.746	A-	0.120	A+	0.139	A+
632947	-1.173	B-	-0.112	A-	-0.355	A-
632943	0.284	A+	-0.330	A-	-0.251	A-
632944	0.058	A+	-0.302	A-	-0.391	A-
633505	-0.268	A-	-0.026	A-	0.064	A+
633507	-0.021	A-	-0.285	A-	-0.060	A-
633520	-0.796	A-	-0.154	A-	0.034	A+
633474	0.836	A+	0.064	A+	0.536	A+
633475	0.948	A+	-0.108	A-	-0.227	A-
633476	0.984	A+	-0.219	A-	-0.206	A-
633470	0.098	A+	-0.597	A-	-0.223	A-
633471	-0.268	A-	0.039	A+	-0.768	A-
633472	-0.056	A-	-0.474	A-	-0.212	A-
633473	-0.986	A-	-0.376	A-	-0.702	A-
633477	-0.009	A-	-0.925	A-	-0.400	A-
633482	0.218	A+	-0.974	A-	-0.367	A-
633510	-0.253	A-	0.002	A+	0.221	A+
636419	-0.453	A-	-0.312	A-	-0.608	A-
633479	-1.012	B-	-0.709	A-	0.274	A+
631549	-0.487	A-	-0.494	A-	-0.528	A-
631550	-0.441	A-	-0.919	A-	-0.263	A-
631540	0.155	A+	0.261	A+	-1.177	B-
631541	-0.743	A-	0.037	A+	-0.460	A-
631543	-0.306	A-	0.305	A+	0.087	A+
631544	-1.392	B-	0.074	A+	0.132	A+
631546	0.804	A+	0.113	A+	-0.208	A-
631547	-0.251	A-	-0.936	A-	-0.159	A-
630468	-2.713	C-	-0.458	A-	-0.453	A-
632524	0.231	A+	-0.733	A-	-0.304	A-
633125	0.116	A+	-0.805	A-	-0.424	A-
633126	0.932	A+	0.337	A+	-0.223	A-
633123	0.182	A+	-0.056	A-	-0.166	A-

Table L.24 (continued). Grade 10 Science Field Test: Differential Item Functioning Analysis

	Male/Female DIF		White/Hispanic DIF		No Aid/Lunch Aid DIF	
Item ID	MH delta	NAEP Cat.	MH delta	NAEP Cat.	MH delta	NAEP Cat.
631551	0.366	A+	-0.450	A-	-0.143	A-
633509	-0.554	A-	-1.711	B-	-0.830	A-
633127	-1.106	B-	-1.086	B-	-0.108	A-
633128	-0.176	A-	-0.223	A-	-0.154	A-
633129	0.480	A+			0.083	A+
633130	-1.694	C-	-0.456	A-	-0.438	A-

Reference groups = Male, White, and No lunch aid.
Focal groups = Female, Hispanic or Latino, and Lunch Aid
Negative values reflect better reference group performance on the item and positive values reflect better focal group performance.

Appendix M: Field Test Rasch Item Parameters & Fit Statistics

Table M.1. Grade 3 Reading Field Test: Rasch Item Parameters and Fit Statistics

Item ID	Logit	SE(Logit)	Out Z Std	Out MNSq	In Z Std	In MNSq
633423	0.166	0.035	4.43	1.11	4.32	1.07
633417	-0.246	0.037	-5.09	0.86	-5.02	0.92
633421	-0.963	0.042	-2.81	0.88	-1.28	0.97
633415	-0.419	0.038	-6.89	0.79	-6.34	0.89
633416	1.087	0.035	9.90	1.39	9.90	1.23
633418	-0.860	0.041	9.90	1.68	4.88	1.11
633419	-0.257	0.037	0.43	1.01	1.25	1.02
633424	-0.629	0.039	-3.39	0.88	-1.02	0.98
633414	-0.503	0.038	-6.41	0.80	-5.45	0.90
633413	0.379	0.035	3.82	1.09	3.99	1.06
633964	1.044	0.035	5.90	1.14	4.11	1.06
633967	-0.229	0.037	-1.22	0.96	0.67	1.01
633971	-0.427	0.038	-7.37	0.78	-6.14	0.89
633965	-0.792	0.040	-2.03	0.92	-3.17	0.93
633966	0.874	0.035	9.90	1.23	8.34	1.12
633968	0.335	0.035	-0.19	1.00	-0.69	0.99
633969	0.774	0.035	9.90	1.30	9.90	1.20
633970	0.150	0.036	-2.48	0.94	-1.85	0.97
633962	0.369	0.035	9.90	1.26	9.90	1.19
633963	-1.605	0.049	-0.61	0.96	-1.33	0.96
628078	0.036	0.036	-3.27	0.92	-3.18	0.95
628094	0.612	0.035	9.90	1.33	9.90	1.21
628079	0.852	0.035	2.06	1.04	0.17	1.00
628073	-0.916	0.041	-3.21	0.87	-4.20	0.91
628077	-0.939	0.041	-5.56	0.77	-5.43	0.88
628076	0.209	0.035	4.76	1.12	4.01	1.06
628075	0.053	0.035	1.58	1.04	1.83	1.03
628071	-0.687	0.039	-3.92	0.86	-3.73	0.93
628070	1.091	0.035	0.57	1.01	-2.14	0.97
628072	2.045	0.039	9.90	1.76	8.95	1.18
627400	0.239	0.035	-4.05	0.90	-4.61	0.93
627399	-1.083	0.043	-3.93	0.82	-3.49	0.92
627396	-0.814	0.040	-8.23	0.69	-8.00	0.84
627394	-0.950	0.042	-6.37	0.73	-7.93	0.83
627398	0.162	0.036	-5.32	0.87	-6.32	0.91
627393	0.939	0.035	5.74	1.14	4.06	1.06
627397	-1.338	0.045	-6.39	0.68	-5.25	0.87
627395	-1.559	0.048	-8.05	0.56	-6.10	0.83
627402	1.006	0.035	5.79	1.14	2.54	1.04
627390	0.546	0.035	9.90	1.37	9.90	1.26
628924	0.153	0.035	1.53	1.04	1.52	1.02
628923	-0.467	0.038	4.14	1.15	0.91	1.02
628919	-1.221	0.044	-9.19	0.59	-7.37	0.82
628922	1.128	0.034	9.90	1.35	9.90	1.18
628916	-1.602	0.048	-1.69	0.89	-3.27	0.90
628912	-0.490	0.038	-2.77	0.91	-2.27	0.96

Table M.1 (continued). Grade 3 Reading Field Test: Rasch Item Parameters and Fit Statistics

Item ID	Logit	SE(Logit)	Out Z Std	Out MNSq	In Z Std	In MNSq
628914	-1.153	0.043	-8.17	0.64	-7.17	0.83
628920	-0.915	0.041	-9.01	0.65	-7.54	0.84
628917	-1.140	0.043	-5.94	0.73	-4.59	0.89
628911	1.320	0.035	9.15	1.24	7.82	1.11

Table M.2. Grade 4 Reading Field Test: Rasch Item Parameters and Fit Statistics

Item ID	Logit	SE(Logit)	Out Z Std	Out MNSq	In Z Std	In MNSq
631162	0.557	0.036	-5.88	0.85	-5.40	0.92
631165	0.372	0.036	-6.68	0.82	-7.02	0.89
635996	2.034	0.036	9.90	1.59	9.90	1.30
631161	1.064	0.035	4.55	1.10	4.71	1.07
631160	0.187	0.037	-0.15	0.99	3.24	1.06
631163	0.407	0.036	7.40	1.22	5.56	1.09
631169	1.060	0.035	3.68	1.08	3.71	1.05
631164	-0.226	0.040	-0.83	0.97	-0.48	0.99
631166	0.424	0.036	0.50	1.01	1.55	1.03
631167	0.362	0.036	3.74	1.11	5.01	1.08
631186	0.071	0.038	-4.87	0.84	-5.94	0.89
631179	0.279	0.037	-3.32	0.90	-5.08	0.91
631185	-1.226	0.050	-4.62	0.70	-3.30	0.90
631184	-0.041	0.039	-2.12	0.92	-1.47	0.97
631188	0.711	0.036	1.57	1.04	2.64	1.04
631178	-0.335	0.041	0.92	1.04	-0.29	0.99
631187	-0.718	0.044	-0.53	0.97	-1.97	0.95
631180	-0.438	0.042	1.79	1.09	2.98	1.07
631183	0.053	0.038	-7.68	0.75	-7.01	0.87
639470	0.649	0.036	2.39	1.06	3.51	1.06
628163	-1.534	0.055	2.50	1.23	-0.77	0.97
628162	-0.295	0.040	-3.69	0.85	-3.36	0.93
628159	-0.657	0.044	5.05	1.29	2.53	1.06
628154	-0.994	0.047	0.31	1.02	-1.04	0.97
628161	-0.115	0.039	-0.15	0.99	-1.00	0.98
628156	0.122	0.038	4.90	1.18	6.36	1.12
628167	1.681	0.035	9.90	1.40	9.90	1.19
628164	0.582	0.036	1.96	1.05	3.24	1.05
628160	-1.646	0.058	-6.80	0.51	-4.83	0.82
628166	-1.100	0.049	-1.12	0.92	-1.34	0.96
631289	0.815	0.035	3.16	1.08	3.28	1.05
631292	0.423	0.037	1.81	1.05	1.84	1.03
631287	-0.094	0.039	-2.46	0.91	-2.69	0.95
631290	-1.276	0.051	-6.06	0.61	-5.92	0.82
631285	1.230	0.035	9.90	1.36	9.90	1.25
631293	1.457	0.035	8.91	1.22	7.67	1.11
631284	-0.239	0.040	-4.32	0.83	-2.57	0.95
631288	-0.541	0.043	-7.15	0.68	-6.19	0.86
631282	-0.047	0.039	-0.72	0.97	0.17	1.00
631283	-0.660	0.044	-6.85	0.67	-6.34	0.85
631092	-1.300	0.052	0.59	1.04	-1.27	0.96
631094	1.037	0.035	7.98	1.19	8.92	1.13
631086	0.432	0.037	6.89	1.21	6.76	1.12
631089	-1.612	0.057	-6.58	0.53	-5.26	0.81
631093	0.861	0.035	9.90	1.30	9.90	1.19
631087	0.193	0.038	-7.67	0.77	-7.23	0.87
631091	-0.942	0.047	-6.00	0.68	-6.15	0.83
631095	-1.260	0.051	-6.94	0.58	-6.74	0.79

Table M.2 (continued). Grade 4 Reading Field Test: Rasch Item Parameters and Fit Statistics

Item ID	Logit	SE(Logit)	Out Z Std	Out MNSq	In Z Std	In MNSq
631085	1.421	0.035	9.90	1.47	9.90	1.27
631084	-1.330	0.052	0.29	1.02	0.29	1.01

Table M.3. Grade 5 Reading Field Test: Rasch Item Parameters and Fit Statistics

Item ID	Logit	SE(Logit)	Out Z Std	Out MNSq	In Z Std	In MNSq
630144	0.383	0.041	4.93	1.22	2.90	1.06
630145	0.637	0.039	-6.87	0.77	-5.72	0.89
630142	0.102	0.043	-7.69	0.67	-6.28	0.85
630140	1.712	0.035	1.32	1.03	0.92	1.01
630148	1.522	0.036	9.90	1.48	9.90	1.29
630138	-0.615	0.052	0.78	1.06	0.26	1.01
630143	0.716	0.039	-6.18	0.80	-4.86	0.91
635997	1.165	0.037	-4.11	0.89	-3.38	0.95
630136	-0.771	0.054	-3.13	0.77	-2.00	0.93
630137	-1.243	0.063	-5.47	0.55	-3.95	0.83
633488	0.318	0.041	1.84	1.08	0.70	1.02
633489	-1.248	0.062	-5.97	0.53	-3.77	0.84
633492	1.493	0.035	4.07	1.10	4.48	1.07
633487	2.474	0.036	9.90	1.38	6.54	1.10
633493	-0.606	0.051	-7.57	0.55	-5.67	0.83
633485	0.281	0.041	-6.84	0.73	-5.85	0.87
633491	-0.563	0.050	-6.76	0.60	-4.71	0.86
633490	1.185	0.036	7.60	1.21	9.75	1.17
633494	0.887	0.037	8.53	1.29	9.44	1.18
633495	1.445	0.036	9.90	1.30	9.90	1.18
632320	1.030	0.036	9.90	1.35	9.90	1.20
632324	1.892	0.034	5.15	1.11	4.38	1.06
632314	2.752	0.036	9.90	1.35	2.77	1.04
632316	0.895	0.037	-2.48	0.93	-1.20	0.98
632317	0.126	0.042	-7.40	0.70	-7.24	0.83
634308	3.943	0.045	9.90	3.12	9.90	1.30
632318	2.010	0.034	-2.03	0.96	-7.10	0.91
632322	-0.531	0.050	-3.94	0.76	-2.92	0.91
632321	0.958	0.037	9.90	1.39	9.90	1.23
632313	-0.086	0.045	3.09	1.17	2.75	1.07
632343	-0.179	0.046	-2.03	0.89	-1.63	0.96
632340	-0.159	0.045	5.26	1.32	3.91	1.11
632336	-0.582	0.051	-6.07	0.64	-5.11	0.84
632338	0.466	0.040	-1.66	0.94	-1.28	0.97
632335	-0.746	0.053	-5.55	0.64	-3.42	0.88
632339	1.169	0.036	3.24	1.09	3.17	1.05
632341	-0.179	0.046	-4.70	0.76	-4.33	0.89
632334	0.810	0.038	9.90	1.35	9.21	1.18
632344	1.341	0.036	-0.16	1.00	0.01	1.00
632333	0.424	0.040	0.28	1.01	1.47	1.03
627817	0.586	0.040	-1.91	0.93	0.39	1.01
627814	0.048	0.044	-5.53	0.74	-5.18	0.88
627819	0.177	0.043	-2.67	0.87	-3.90	0.91
627816	0.749	0.039	0.52	1.02	0.86	1.02
627815	0.029	0.044	-1.97	0.90	-1.43	0.96
627822	1.495	0.036	2.64	1.07	3.51	1.05
627820	-0.147	0.046	-4.14	0.78	-2.91	0.92
627818	0.733	0.039	3.91	1.14	2.17	1.04

Table M.3 (continued). Grade 5 Reading Field Test: Rasch Item Parameters and Fit Statistics

Item ID	Logit	SE(Logit)	Out Z Std	Out MNSq	In Z Std	In MNSq
627821	0.826	0.038	0.88	1.03	3.14	1.06
627813	-1.137	0.061	-6.61	0.48	-3.85	0.84

Table M.4. Grade 6 Reading Field Test: Rasch Item Parameters and Fit Statistics

Item ID	Logit	SE(Logit)	Out Z Std	Out MNSq	In Z Std	In MNSq
628898	1.916	0.035	9.90	1.32	9.90	1.20
628907	1.746	0.035	9.70	1.23	9.90	1.16
628901	-0.170	0.049	-5.17	0.71	-4.44	0.87
628902	0.617	0.040	-0.85	0.97	-2.82	0.94
628904	0.765	0.039	-3.29	0.88	-1.66	0.97
628909	0.184	0.045	-4.11	0.80	-3.20	0.92
628905	1.116	0.037	-2.44	0.93	-1.27	0.98
628900	-0.043	0.047	-4.72	0.75	-3.40	0.90
628908	-0.607	0.056	0.50	1.04	-2.69	0.90
628899	-1.756	0.085	-5.05	0.47	-1.80	0.88
628878	0.684	0.039	-2.22	0.92	-1.32	0.97
628881	1.010	0.037	0.18	1.01	1.93	1.03
628879	1.602	0.035	-1.52	0.97	-0.38	0.99
628875	1.331	0.036	2.28	1.06	3.11	1.05
628873	1.880	0.034	4.99	1.11	6.04	1.08
628874	1.210	0.036	-3.29	0.91	-1.81	0.97
628877	0.857	0.038	-3.91	0.87	-3.07	0.94
628883	0.588	0.040	-2.50	0.90	-2.28	0.95
628880	2.537	0.035	9.90	1.34	9.90	1.18
628872	1.418	0.035	3.55	1.09	4.85	1.07
628866	0.377	0.043	-4.38	0.81	-4.41	0.89
628871	-0.594	0.056	-7.72	0.51	-4.17	0.84
628867	1.817	0.035	7.79	1.17	9.15	1.13
628868	-0.364	0.052	-8.46	0.52	-5.29	0.82
628865	0.923	0.038	-3.74	0.88	-1.07	0.98
628863	0.011	0.047	-7.63	0.63	-5.12	0.86
628864	2.842	0.036	9.90	1.83	9.90	1.39
628870	-0.702	0.058	-7.30	0.51	-4.08	0.84
628860	0.013	0.047	2.31	1.13	1.77	1.05
628861	1.735	0.035	2.98	1.07	4.67	1.07
632234	2.062	0.034	4.60	1.09	4.38	1.06
632235	0.955	0.038	0.83	1.03	1.03	1.02
632236	1.493	0.035	-6.65	0.85	-6.39	0.91
632237	2.766	0.035	9.90	1.31	7.61	1.11
632238	0.467	0.041	-4.09	0.84	-1.88	0.96
632240	1.592	0.035	0.77	1.02	0.08	1.00
632242	1.577	0.035	0.16	1.00	1.50	1.02
632243	3.146	0.036	9.90	1.43	9.14	1.16
632244	1.367	0.036	-1.34	0.97	-0.54	0.99
632245	1.252	0.036	-2.05	0.95	-1.73	0.97
630758	-0.098	0.047	-4.91	0.74	-4.05	0.88
630759	0.447	0.042	-4.60	0.82	-2.77	0.94
630761	3.336	0.038	9.90	1.55	8.33	1.16
630760	0.366	0.042	-3.67	0.84	-4.27	0.90
630755	-1.217	0.068	-8.23	0.37	-3.76	0.81
630762	3.416	0.038	9.90	2.16	9.90	1.22
630764	-0.416	0.052	-5.36	0.67	-2.81	0.90
630765	0.677	0.040	-0.93	0.97	-0.68	0.99

Table M.4 (continued). Grade 6 Reading Field Test: Rasch Item Parameters and Fit Statistics

Item ID	Logit	SE(Logit)	Out Z Std	Out MNSq	In Z Std	In MNSq
630756	0.812	0.039	-3.45	0.89	-2.21	0.96
630754	-0.065	0.047	-1.08	0.94	-0.69	0.98

Table M.5. Grade 7 Reading Field Test: Rasch Item Parameters and Fit Statistics

Item ID	Logit	SE(Logit)	Out Z Std	Out MNSq	In Z Std	In MNSq
628982	1.997	0.036	9.90	1.43	9.90	1.30
628976	1.275	0.039	0.44	1.02	-0.33	0.99
628983	0.881	0.042	-1.12	0.95	-0.65	0.98
628981	0.349	0.048	-5.28	0.71	-3.63	0.90
628980	1.136	0.040	-4.24	0.84	-4.33	0.91
628975	0.766	0.043	-2.61	0.88	-1.12	0.97
630766	0.543	0.045	-3.69	0.81	-2.93	0.92
628974	0.237	0.049	-1.95	0.88	-1.29	0.96
628973	1.779	0.036	-0.04	1.00	-0.79	0.99
628972	0.543	0.045	-6.86	0.67	-4.69	0.88
633956	0.567	0.046	-2.59	0.86	-1.29	0.96
633961	1.330	0.039	3.69	1.14	3.49	1.07
633960	2.216	0.035	5.05	1.12	4.74	1.07
633955	1.372	0.039	5.96	1.22	8.07	1.16
633957	0.370	0.048	-5.62	0.69	-3.69	0.89
633954	1.949	0.036	0.26	1.01	2.19	1.03
633953	0.757	0.044	-5.22	0.76	-4.60	0.89
633959	0.511	0.046	0.17	1.01	0.49	1.01
633952	-0.483	0.063	-5.82	0.53	-2.98	0.87
633951	2.296	0.035	4.34	1.10	5.07	1.07
628085	1.628	0.037	1.43	1.04	3.05	1.05
628091	2.120	0.036	9.35	1.22	7.97	1.12
628082	0.106	0.052	-5.45	0.67	-3.34	0.89
628087	2.674	0.035	2.86	1.06	0.04	1.00
628088	1.169	0.040	2.21	1.08	1.32	1.03
628089	-0.366	0.060	1.07	1.09	-0.83	0.96
628086	0.104	0.052	-0.86	0.94	-0.60	0.98
628090	1.460	0.038	6.47	1.22	8.02	1.15
628083	1.479	0.038	-3.17	0.90	-1.95	0.97
628084	-0.302	0.059	-6.15	0.56	-3.72	0.85
629243	0.598	0.046	-8.04	0.62	-7.35	0.81
629232	1.292	0.040	-4.12	0.86	-4.10	0.92
629233	1.148	0.041	0.04	1.00	-0.59	0.99
629240	1.893	0.037	-0.83	0.98	-0.40	0.99
629235	1.824	0.037	2.67	1.07	3.31	1.06
629242	0.819	0.044	-5.17	0.77	-3.65	0.91
629238	0.088	0.053	-5.95	0.63	-4.72	0.85
629239	0.698	0.045	-0.88	0.95	-1.27	0.97
629236	0.151	0.052	-5.57	0.66	-4.28	0.86
629237	0.130	0.052	-6.52	0.60	-5.07	0.84
628888	1.995	0.035	2.44	1.06	4.53	1.07
628895	2.798	0.035	8.36	1.19	6.81	1.09
628887	3.099	0.035	5.23	1.13	-0.79	0.99
628885	0.065	0.052	-2.17	0.85	-2.64	0.91
628896	3.251	0.036	9.90	1.56	9.90	1.25
628889	0.250	0.049	2.20	1.14	0.46	1.01
628890	1.149	0.040	-1.61	0.94	-1.17	0.98
628894	1.551	0.037	2.53	1.08	2.90	1.05

Table M.5 (continued). Grade 7 Reading Field Test: Rasch Item Parameters and Fit Statistics

Item ID	Logit	SE(Logit)	Out Z Std	Out MNSq	In Z Std	In MNSq
628891	1.438	0.038	-0.40	0.99	0.57	1.01
628884	1.098	0.040	-2.42	0.91	-0.59	0.99

Table M.6. Grade 8 Reading Field Test: Rasch Item Parameters and Fit Statistics

Item ID	Logit	SE(Logit)	Out Z Std	Out MNSq	In Z Std	In MNSq
632220	0.938	0.048	1.13	1.07	0.11	1.00
632212	0.812	0.050	0.28	1.02	-1.06	0.97
632209	0.584	0.054	-6.97	0.58	-4.71	0.84
632214	0.724	0.051	-6.63	0.62	-4.39	0.86
632210	0.121	0.062	-5.77	0.56	-3.10	0.86
632213	2.069	0.038	6.24	1.20	8.09	1.15
632219	3.245	0.035	3.21	1.07	0.96	1.01
632217	2.790	0.036	9.90	1.37	9.90	1.25
632208	1.780	0.040	9.90	1.47	9.90	1.23
632211	3.350	0.035	9.90	1.47	9.90	1.30
630120	1.094	0.047	-2.79	0.85	-3.75	0.90
630115	0.987	0.048	-1.64	0.90	-0.45	0.99
630113	0.521	0.055	-5.75	0.62	-4.22	0.85
630110	-0.072	0.067	-2.31	0.78	-1.06	0.95
630114	1.198	0.045	-3.20	0.84	-3.65	0.90
630118	0.980	0.048	-7.10	0.63	-5.48	0.85
630116	0.556	0.054	-7.24	0.55	-5.24	0.82
630121	1.771	0.040	0.34	1.01	1.62	1.03
630112	3.418	0.036	9.90	1.74	9.90	1.42
630109	3.021	0.035	0.78	1.02	0.62	1.01
632260	4.062	0.038	9.90	1.79	9.90	1.32
632259	1.838	0.040	-1.65	0.94	-1.49	0.97
632258	1.778	0.040	-5.43	0.81	-5.03	0.90
632261	3.851	0.037	9.90	1.32	6.48	1.10
632262	1.342	0.044	-3.61	0.83	-3.41	0.92
632264	1.427	0.043	-3.04	0.86	-3.12	0.93
632265	3.000	0.036	2.65	1.06	1.78	1.03
632268	1.668	0.041	-6.18	0.77	-4.51	0.91
632267	2.020	0.039	-0.99	0.97	-0.15	1.00
632263	1.571	0.042	1.99	1.09	1.34	1.03
627806	1.030	0.048	4.59	1.30	0.33	1.01
627805	-0.325	0.074	-6.35	0.43	-3.76	0.80
627810	1.436	0.043	-0.25	0.99	0.39	1.01
627798	1.608	0.042	0.59	1.02	2.44	1.06
627804	0.018	0.065	-2.27	0.78	-3.65	0.83
627808	3.169	0.036	8.09	1.19	5.47	1.08
627802	0.010	0.065	-6.08	0.50	-4.10	0.81
627803	2.911	0.036	9.90	1.25	9.89	1.15
627801	-0.364	0.075	-4.01	0.60	-2.41	0.86
627799	-0.775	0.088	-4.82	0.47	-2.56	0.82
634343	2.404	0.037	6.66	1.19	6.09	1.10
634344	0.418	0.055	-3.23	0.76	-2.55	0.91
634339	2.194	0.037	-3.15	0.91	-2.04	0.97
634338	3.358	0.036	9.90	1.38	9.90	1.22
634335	0.932	0.048	-2.10	0.88	-1.79	0.95
634340	0.979	0.047	-4.80	0.74	-3.75	0.90
634341	1.506	0.042	-1.86	0.92	-0.72	0.98
634345	1.670	0.040	-6.88	0.75	-5.81	0.88

Table M.6 (continued). Grade 8 Reading Field Test: Rasch Item Parameters and Fit Statistics

Item ID	Logit	SE(Logit)	Out Z Std	Out MNSq	In Z Std	In MNSq
634346	2.184	0.037	6.94	1.22	4.79	1.08
634336	1.399	0.043	-5.11	0.78	-3.42	0.92

Table M.7. Grade 10 Reading Field Test: Rasch Item Parameters and Fit Statistics

Item ID	Logit	SE(Logit)	Out Z Std	Out MNSq	In Z Std	In MNSq
628931	0.768	0.059	-2.84	0.80	-2.72	0.90
628934	1.534	0.048	-5.51	0.75	-3.79	0.90
628928	2.575	0.040	1.68	1.05	1.02	1.02
628925	1.347	0.050	-2.96	0.84	-0.98	0.97
628937	3.098	0.039	7.37	1.18	7.60	1.12
628932	1.666	0.047	-3.58	0.84	-2.06	0.95
628927	0.416	0.066	-2.30	0.80	-1.35	0.94
628933	1.296	0.051	-1.54	0.91	-1.43	0.96
628929	0.795	0.058	-5.51	0.64	-3.91	0.86
628926	1.728	0.046	-2.97	0.87	-2.54	0.94
628853	4.410	0.043	9.90	1.67	7.36	1.16
628852	3.758	0.039	8.76	1.25	6.00	1.09
628850	1.355	0.049	-6.54	0.69	-6.33	0.82
628849	2.471	0.040	-1.27	0.96	-0.64	0.99
628855	2.313	0.041	4.30	1.14	5.35	1.10
628851	2.755	0.039	4.74	1.12	6.38	1.10
628858	2.068	0.043	-0.61	0.98	0.26	1.01
628857	1.162	0.052	0.66	1.04	-0.89	0.97
628859	1.004	0.054	2.65	1.18	-0.48	0.98
628848	1.355	0.049	-4.67	0.77	-2.31	0.93
634103	1.064	0.054	3.15	1.22	0.47	1.02
634100	2.026	0.044	-4.99	0.82	-3.84	0.92
634106	1.247	0.052	-0.65	0.96	-0.64	0.98
634102	-0.179	0.082	-2.56	0.72	-1.60	0.90
634101	1.743	0.046	-0.86	0.96	0.71	1.02
634098	2.417	0.042	-2.68	0.92	-2.30	0.96
634105	1.151	0.053	-8.28	0.57	-6.10	0.81
634097	1.643	0.047	-2.07	0.91	-2.27	0.94
634095	3.139	0.039	9.90	1.28	9.90	1.18
634096	1.914	0.045	-3.47	0.87	-1.57	0.96
631148	1.848	0.045	-0.26	0.99	0.89	1.02
631147	1.794	0.046	-0.70	0.97	-0.55	0.99
631156	0.567	0.062	-3.68	0.71	-2.64	0.89
631153	0.548	0.063	-4.81	0.63	-3.22	0.87
631154	0.120	0.072	-6.45	0.45	-3.55	0.82
631151	2.056	0.044	-8.33	0.71	-8.13	0.84
631152	0.061	0.074	-1.91	0.80	-1.73	0.91
631157	-0.064	0.077	-7.21	0.37	-3.92	0.79
631149	1.323	0.051	-3.66	0.80	-2.76	0.92
631146	1.987	0.044	-0.13	0.99	0.51	1.01
631135	0.866	0.057	4.22	1.33	1.23	1.05
631142	-0.370	0.087	-0.67	0.91	-0.56	0.96
631136	6.280	0.070	9.90	2.44	-0.01	1.00
631139	3.825	0.039	6.98	1.20	2.78	1.04
631138	2.404	0.041	-2.79	0.92	-3.21	0.94
631137	1.604	0.047	-4.54	0.80	-3.55	0.91
631144	0.588	0.062	-5.50	0.61	-3.63	0.85
631145	3.631	0.039	9.90	1.27	9.90	1.16

Table M.7 (continued). Grade 10 Reading Field Test: Rasch Item Parameters and Fit Statistics

Item ID	Logit	SE(Logit)	Out Z Std	Out MNSq	In Z Std	In MNSq
631140	0.698	0.059	-2.91	0.79	-2.34	0.91
631134	3.602	0.039	-3.03	0.93	-6.20	0.91
596885	2.119	0.043	2.00	1.07	1.18	1.02
599556	0.953	0.056	-3.29	0.79	-2.62	0.91
596887	1.257	0.051	-5.37	0.72	-3.77	0.89
596888	0.905	0.057	-7.45	0.56	-5.76	0.80
599557	3.114	0.039	5.37	1.13	4.25	1.06
599558	3.001	0.039	9.68	1.24	9.90	1.15
599560	2.542	0.041	3.97	1.11	4.96	1.09
599561	2.517	0.041	-2.15	0.94	-1.86	0.97
599562	2.585	0.040	8.16	1.23	8.77	1.16
596880	0.816	0.058	-4.49	0.70	-2.48	0.91

Table M.8. Grade 3 Mathematics Field Test: Rasch Item Parameters and Fit Statistics

Item ID	Logit	SE(Logit)	Out Z Std	Out MNSq	In Z Std	In MNSq
624864	-0.775	0.044	5.93	1.30	4.33	1.10
624865	-1.598	0.054	-2.60	0.82	-3.10	0.90
626506	-1.929	0.059	-2.59	0.79	-3.16	0.88
626673	-1.583	0.054	-1.70	0.88	-1.86	0.94
627911	0.580	0.039	1.79	1.05	1.57	1.03
627127	-1.237	0.050	3.13	1.20	2.02	1.06
627298	-0.275	0.041	-4.00	0.86	-4.67	0.91
627299	-1.481	0.052	0.31	1.02	-0.09	1.00
627137	-2.456	0.071	-1.85	0.80	-0.82	0.96
627138	-1.842	0.057	3.11	1.28	-0.44	0.98
624866	-3.303	0.099	-4.37	0.45	-1.33	0.89
624867	-2.900	0.083	-5.41	0.43	-1.99	0.87
625816	-0.236	0.041	-4.26	0.86	-4.36	0.92
625818	-1.850	0.059	-1.86	0.85	-2.65	0.90
626680	-2.463	0.072	-0.42	0.95	-0.82	0.96
626681	-2.797	0.079	-1.64	0.80	-1.44	0.91
627912	1.296	0.039	7.29	1.22	6.35	1.11
627913	2.310	0.044	9.90	2.46	9.90	1.39
627300	-2.188	0.064	-2.72	0.75	-1.16	0.95
627301	-1.663	0.055	1.43	1.11	0.38	1.01
627508	-0.762	0.044	6.33	1.31	3.32	1.08
627509	2.103	0.043	9.90	1.81	8.21	1.18
624868	-2.741	0.078	-5.79	0.42	-2.16	0.87
624869	-1.619	0.054	-3.13	0.78	-2.46	0.92
625819	-2.618	0.074	-5.51	0.46	-2.64	0.86
625821	-1.783	0.056	-3.82	0.72	-2.18	0.92
626674	-0.982	0.046	-5.53	0.74	-4.87	0.88
626675	-0.744	0.044	-1.23	0.94	-0.87	0.98
627130	-1.552	0.053	3.06	1.23	-0.16	0.99
627131	1.849	0.041	9.58	1.40	5.31	1.11
627302	-1.581	0.054	-2.91	0.80	-1.83	0.94
627303	-1.193	0.048	-3.01	0.83	-2.84	0.92
627141	0.358	0.039	2.80	1.07	3.60	1.06
627142	-0.677	0.044	-2.03	0.91	-0.07	1.00
624870	-0.727	0.045	5.37	1.27	5.96	1.14
624871	-2.460	0.073	-3.05	0.68	-1.81	0.90
625822	-0.494	0.042	1.21	1.05	2.18	1.05
625824	-1.573	0.054	-2.96	0.80	-1.68	0.94
626676	0.515	0.039	-1.81	0.96	-2.03	0.97
626677	-1.166	0.049	-4.33	0.76	-3.66	0.90
627133	-2.342	0.068	-1.91	0.80	-1.73	0.92
627134	-2.452	0.070	-2.81	0.70	-1.39	0.93
627135	-1.727	0.056	2.00	1.16	1.99	1.07
627460	-0.404	0.043	6.63	1.27	8.67	1.19
627143	-3.053	0.089	-1.48	0.79	-0.31	0.98
627144	0.233	0.039	8.08	1.23	9.90	1.18
624872	-0.525	0.043	-1.65	0.93	-3.29	0.93
624873	-0.853	0.046	-1.48	0.93	-1.64	0.96

Table M.8 (continued). Grade 3 Mathematics Field Test: Rasch Item Parameters and Fit Statistics

Item ID	Logit	SE(Logit)	Out Z Std	Out MNSq	In Z Std	In MNSq
627136	-1.496	0.053	-4.87	0.69	-4.05	0.87
627307	-4.338	0.156	-1.34	0.75	-0.09	0.98
625826	-0.271	0.042	-3.49	0.88	-3.40	0.93
625827	-1.929	0.059	-0.49	0.96	-1.47	0.94
626678	-0.748	0.045	-0.48	0.98	1.23	1.03
626679	-0.744	0.046	-5.36	0.76	-4.03	0.91
627146	-0.611	0.044	-1.68	0.93	-3.26	0.93

Table M.9. Grade 4 Mathematics Field Test: Rasch Item Parameters and Fit Statistics

Item ID	Logit	SE(Logit)	Out Z Std	Out MNSq	In Z Std	In MNSq
626393	-1.624	0.069	-3.13	0.71	-2.49	0.88
626394	-1.210	0.059	2.09	1.18	0.03	1.00
626313	-0.156	0.045	1.65	1.08	0.71	1.02
626300	0.557	0.040	-1.77	0.95	-1.20	0.98
626301	-0.153	0.044	-3.40	0.85	-3.28	0.93
626852	-0.234	0.045	-6.73	0.71	-5.75	0.87
626853	-1.129	0.058	0.45	1.04	0.38	1.01
628280	-1.083	0.057	4.63	1.41	1.71	1.07
628281	-2.739	0.108	-0.62	0.90	-0.40	0.96
627883	-1.263	0.059	-0.57	0.95	-0.57	0.98
627884	-0.529	0.049	-2.79	0.85	-1.86	0.95
626395	0.836	0.038	0.32	1.01	1.57	1.02
626396	0.415	0.041	-3.70	0.88	-2.73	0.95
627520	-0.658	0.050	-3.43	0.80	-1.20	0.96
626302	0.247	0.042	-3.78	0.86	-3.79	0.93
626303	-1.357	0.061	-1.51	0.87	-1.08	0.95
626854	-2.170	0.082	-4.94	0.50	-1.76	0.89
626855	-0.666	0.051	-3.01	0.82	-2.39	0.93
628282	-1.057	0.056	0.09	1.01	0.46	1.02
628283	-0.851	0.052	0.52	1.03	1.53	1.05
627885	0.352	0.040	8.16	1.30	7.05	1.14
627886	-0.405	0.047	5.91	1.35	4.39	1.12
626397	-0.044	0.044	1.55	1.07	3.29	1.08
626398	-0.270	0.045	3.67	1.19	2.49	1.06
626317	0.242	0.041	0.15	1.00	0.71	1.01
626318	1.994	0.038	2.51	1.06	-0.55	0.99
626304	-0.431	0.047	-4.85	0.76	-5.03	0.87
626305	0.710	0.039	-5.00	0.86	-5.82	0.91
626856	0.879	0.038	7.77	1.21	9.44	1.15
626857	0.377	0.041	-4.18	0.87	-3.57	0.93
628284	0.728	0.039	5.97	1.17	8.11	1.14
627887	-0.631	0.050	-2.76	0.84	-1.54	0.95
626399	-0.958	0.054	-1.08	0.92	-0.46	0.98
626849	-0.659	0.050	-3.95	0.77	-3.29	0.90
626306	-1.605	0.069	-1.58	0.84	-0.60	0.97
626307	-2.210	0.084	1.35	1.18	-0.07	0.99
626858	-1.581	0.069	-4.52	0.59	-2.49	0.88
626859	-1.241	0.061	-4.56	0.65	-2.73	0.89
631344	-1.992	0.079	-5.33	0.49	-2.03	0.88
631345	-1.038	0.056	-3.36	0.76	-1.43	0.95
627888	0.364	0.041	3.24	1.11	4.33	1.08
628290	1.924	0.038	1.46	1.04	0.08	1.00
626400	-0.321	0.046	-2.63	0.87	-1.03	0.97
626310	2.067	0.039	9.90	2.16	9.90	1.55
626311	1.004	0.038	6.22	1.16	7.44	1.12
626309	0.529	0.040	5.37	1.18	8.12	1.15
626860	-1.507	0.065	-2.41	0.78	-2.48	0.88
626861	-1.319	0.061	-0.53	0.95	-1.06	0.95

Table M.9 (continued). Grade 4 Mathematics Field Test: Rasch Item Parameters and Fit Statistics

Item ID	Logit	SE(Logit)	Out Z Std	Out MNSq	In Z Std	In MNSq
628287	-1.531	0.066	-3.09	0.72	-1.68	0.92
628288	-1.407	0.063	-5.15	0.59	-3.04	0.87
627890	0.741	0.039	-1.96	0.95	-1.54	0.97
627891	0.485	0.040	-1.63	0.95	-0.73	0.99
626401	-0.735	0.051	-4.01	0.76	-2.36	0.93
628289	0.933	0.038	5.32	1.14	4.52	1.07
627892	-0.507	0.049	-1.94	0.89	-1.42	0.96

Table M.10. Grade 5 Mathematics Field Test: Rasch Item Parameters and Fit Statistics

Item ID	Logit	SE(Logit)	Out Z Std	Out MNSq	In Z Std	In MNSq
626357	-0.932	0.077	-0.67	0.92	-0.41	0.97
626358	-0.704	0.071	0.65	1.07	-0.11	0.99
627337	0.462	0.049	0.40	1.02	-0.53	0.99
626887	1.806	0.036	-9.90	0.79	-9.90	0.85
626888	2.595	0.037	3.03	1.07	2.87	1.04
626877	2.191	0.036	6.28	1.14	6.49	1.09
626878	2.580	0.037	-8.63	0.82	-9.90	0.85
626729	1.889	0.040	6.85	1.18	9.12	1.15
627786	-0.189	0.053	-1.69	0.88	-1.37	0.95
629067	-1.174	0.075	1.16	1.13	-0.13	0.99
627894	0.067	0.049	0.12	1.01	-1.18	0.96
626360	-0.580	0.061	-2.66	0.78	-1.09	0.95
627338	-2.241	0.121	3.06	1.58	-0.28	0.97
627339	-1.121	0.073	1.37	1.15	0.03	1.00
627504	1.046	0.044	-3.52	0.87	-4.86	0.90
626879	-1.856	0.113	-1.18	0.82	-0.75	0.92
626884	-0.821	0.073	-2.25	0.77	-0.45	0.97
626761	-0.467	0.065	1.02	1.10	-0.70	0.97
626762	1.127	0.043	9.90	1.56	9.90	1.25
627788	-1.252	0.085	-1.42	0.82	-0.43	0.97
627895	1.256	0.043	0.83	1.03	0.42	1.01
627896	1.026	0.044	0.38	1.01	1.72	1.04
626361	0.741	0.047	1.40	1.07	1.31	1.03
626362	1.215	0.043	-5.08	0.82	-5.12	0.90
626284	1.563	0.042	-0.40	0.99	0.59	1.01
626285	2.993	0.042	5.75	1.17	1.47	1.03
626891	0.218	0.053	-0.48	0.97	0.61	1.02
627506	1.816	0.041	-6.66	0.83	-8.43	0.87
626885	1.246	0.043	-2.92	0.90	-2.61	0.95
626886	1.769	0.041	9.20	1.26	9.70	1.16
626732	3.463	0.045	4.52	1.18	0.01	1.00
626733	3.228	0.044	1.61	1.06	-1.74	0.96
627789	0.047	0.056	1.20	1.09	-1.56	0.95
627898	-1.064	0.081	2.93	1.39	0.41	1.03
626363	2.263	0.041	-6.55	0.85	-7.47	0.89
626364	0.890	0.045	-4.47	0.81	-4.38	0.91
627340	-0.043	0.055	-1.03	0.93	-1.18	0.96
626893	-0.510	0.064	-2.41	0.78	-1.25	0.94
626880	-0.413	0.064	-0.06	0.99	-0.74	0.97
626881	0.075	0.054	-2.82	0.82	-2.68	0.91
626734	2.203	0.040	0.86	1.02	0.88	1.01
627323	1.912	0.040	-2.96	0.93	-3.24	0.95
627790	0.097	0.054	-0.88	0.94	0.66	1.02
627899	-0.475	0.065	-2.14	0.81	-0.82	0.96
626365	0.765	0.046	0.40	1.02	0.52	1.01
626366	0.651	0.047	-0.99	0.95	0.26	1.01
627342	1.709	0.041	0.86	1.02	2.27	1.04
626895	1.723	0.040	9.22	1.26	9.90	1.18

Table M.10 (continued). Grade 5 Mathematics Field Test: Rasch Item Parameters and Fit Statistics

Item ID	Logit	SE(Logit)	Out Z Std	Out MNSq	In Z Std	In MNSq
626882	-2.381	0.141	-2.84	0.55	-0.33	0.95
626883	0.368	0.051	0.84	1.05	0.74	1.02
626736	-0.668	0.070	-3.70	0.66	-1.76	0.91
627324	0.182	0.053	-2.05	0.87	-0.38	0.99
629068	0.629	0.047	1.89	1.10	0.31	1.01
627900	1.042	0.044	5.62	1.23	6.81	1.14
626738	2.078	0.040	2.41	1.06	2.85	1.04
626896	2.398	0.041	4.60	1.11	4.59	1.07
627794	0.284	0.051	0.41	1.02	-1.17	0.97
629069	0.369	0.050	-2.57	0.85	-1.50	0.96
629066	1.778	0.041	-2.72	0.93	-3.73	0.94
627795	-1.155	0.082	-1.08	0.87	-0.74	0.95

Table M.11. Grade 6 Mathematics Field Test: Rasch Item Parameters and Fit Statistics

Item ID	Logit	SE(Logit)	Out Z Std	Out MNSq	In Z Std	In MNSq
627825	3.044	0.040	-2.36	0.94	-2.22	0.96
627826	2.812	0.039	1.33	1.03	0.88	1.01
627828	2.276	0.040	0.19	1.01	2.09	1.03
627829	1.676	0.043	-3.48	0.86	-3.75	0.93
627846	1.294	0.050	-1.71	0.90	-1.05	0.97
627848	2.767	0.040	-0.12	1.00	-1.32	0.98
627849	2.745	0.039	4.50	1.12	4.21	1.07
627851	2.452	0.040	7.61	1.23	8.55	1.14
627852	2.576	0.040	-5.45	0.86	-6.38	0.90
627854	0.917	0.051	-5.05	0.70	-4.76	0.87
627855	1.232	0.047	4.12	1.24	1.74	1.04
628525	0.786	0.053	-5.24	0.67	-4.16	0.87
628526	3.231	0.040	6.98	1.19	6.30	1.11
629281	-0.267	0.073	-1.23	0.86	-0.84	0.95
629283	1.051	0.049	2.04	1.13	1.97	1.05
629284	1.422	0.045	-2.59	0.88	-3.24	0.93
629285	1.804	0.042	-0.61	0.98	-2.81	0.95
629286	3.191	0.040	-0.69	0.98	-3.37	0.95
629287	2.918	0.039	8.75	1.23	9.53	1.16
629288	1.193	0.047	1.57	1.09	1.38	1.04
630674	1.741	0.046	3.42	1.16	3.30	1.07
630675	0.970	0.049	-0.73	0.95	-1.58	0.96
630676	1.132	0.048	-4.14	0.78	-3.90	0.90
630677	0.848	0.052	2.03	1.14	1.18	1.04
630678	0.238	0.061	-2.74	0.76	-2.52	0.90
630679	-0.129	0.069	1.73	1.19	0.04	1.00
631346	3.640	0.045	-8.41	0.75	-9.23	0.82
631347	3.424	0.045	-8.70	0.76	-9.50	0.83
631348	1.985	0.041	8.66	1.35	9.90	1.25
631351	1.266	0.046	0.64	1.03	-0.29	0.99
631354	2.218	0.041	-2.76	0.91	-1.98	0.97
631355	2.182	0.040	-4.51	0.87	-4.62	0.92
631942	2.178	0.041	0.54	1.02	1.73	1.03
631943	2.813	0.039	8.11	1.22	9.90	1.17
631944	2.287	0.041	-7.03	0.80	-8.05	0.87
631945	1.728	0.043	-6.98	0.74	-6.60	0.88
631946	0.877	0.051	-6.17	0.64	-4.26	0.88
631947	0.573	0.055	-3.84	0.73	-2.35	0.92
631949	1.816	0.042	7.30	1.31	6.64	1.13
631950	1.393	0.045	-2.81	0.86	-3.88	0.91
631951	1.240	0.046	-1.92	0.90	-2.12	0.95
631953	2.026	0.045	-1.18	0.96	-1.47	0.97
631954	-0.263	0.074	-3.13	0.68	-1.19	0.93
631955	0.350	0.059	-2.86	0.77	-2.79	0.89
631956	0.080	0.064	-5.49	0.55	-2.54	0.89
631957	-0.401	0.077	-2.27	0.74	-1.53	0.91
631958	2.024	0.041	6.74	1.25	7.25	1.13
632125	3.512	0.040	9.90	1.66	9.90	1.42

Table M.11 (continued). Grade 6 Mathematics Field Test: Rasch Item Parameters and Fit Statistics

Item ID	Logit	SE(Logit)	Out Z Std	Out MNSq	In Z Std	In MNSq
632126	3.038	0.040	5.77	1.15	5.70	1.10
632185	1.422	0.049	-2.65	0.87	-1.35	0.97
632186	-0.139	0.075	-1.92	0.79	-1.02	0.94
632187	2.230	0.040	-2.29	0.93	-3.05	0.95
632188	-1.352	0.116	-1.04	0.83	-0.18	0.98
632189	1.433	0.044	-2.22	0.90	-1.03	0.98
632190	2.094	0.041	-3.17	0.90	-2.90	0.95
632191	0.850	0.050	-3.64	0.78	-2.84	0.92
632192	2.756	0.040	9.90	1.31	9.90	1.24
632194	0.943	0.050	-0.52	0.97	-0.04	1.00
632511	0.281	0.060	-0.48	0.95	-0.60	0.97
632512	2.058	0.041	-1.33	0.95	-1.38	0.98

Table M.12. Grade 7 Mathematics Field Test: Rasch Item Parameters and Fit Statistics

Item ID	Logit	SE(Logit)	Out Z Std	Out MNSq	In Z Std	In MNSq
626653	2.661	0.039	-5.88	0.84	-7.24	0.89
626260	1.549	0.055	-2.75	0.84	-3.82	0.89
626261	2.856	0.047	-8.36	0.77	-9.72	0.83
627630	3.976	0.048	8.32	1.31	7.11	1.16
627631	3.714	0.047	9.90	1.42	9.90	1.22
627456	-0.373	0.085	-2.50	0.71	-0.58	0.96
627457	-0.383	0.085	-1.57	0.81	-0.88	0.94
627199	3.679	0.039	0.61	1.02	0.03	1.00
627200	2.080	0.041	5.25	1.21	5.85	1.11
627574	2.151	0.041	0.05	1.00	-0.04	1.00
627575	1.125	0.050	-0.89	0.94	-0.48	0.99
627746	2.045	0.050	-7.01	0.71	-7.66	0.83
626321	1.053	0.062	-5.20	0.62	-4.20	0.85
626322	0.905	0.065	-3.43	0.73	-2.80	0.89
626262	3.051	0.046	3.65	1.11	4.26	1.08
626385	2.943	0.046	3.32	1.10	3.14	1.06
626386	3.373	0.046	-0.70	0.98	-0.97	0.98
627454	3.354	0.046	9.90	1.40	9.90	1.28
627403	1.026	0.063	-3.49	0.73	-2.30	0.91
627201	1.106	0.050	9.23	1.70	4.08	1.13
627208	1.318	0.048	2.06	1.12	2.17	1.06
627328	3.609	0.039	7.11	1.18	5.58	1.09
627753	1.667	0.045	-6.99	0.70	-8.20	0.82
626323	3.286	0.038	0.84	1.02	-0.46	0.99
626324	3.201	0.038	-0.21	1.00	-0.74	0.99
626263	2.310	0.041	-1.28	0.96	-0.44	0.99
626264	0.835	0.055	-2.02	0.85	-0.90	0.97
626387	4.049	0.041	9.90	1.48	9.90	1.24
626388	4.700	0.044	9.90	1.70	9.84	1.25
627407	0.572	0.060	-6.11	0.56	-3.08	0.87
627207	3.024	0.038	-0.99	0.98	-0.23	1.00
627202	2.492	0.039	3.31	1.10	4.41	1.07
627329	3.485	0.039	8.71	1.22	7.74	1.13
627330	3.814	0.039	5.04	1.14	2.46	1.04
627754	2.207	0.048	-0.49	0.98	0.97	1.02
627755	1.561	0.056	-0.01	1.00	0.25	1.01
626654	3.663	0.047	6.04	1.19	3.78	1.07
626696	1.920	0.052	1.19	1.06	-0.15	1.00
626507	2.408	0.039	-2.91	0.91	-2.16	0.96
627632	3.054	0.038	7.53	1.18	8.38	1.13
626390	2.788	0.038	-0.09	1.00	0.40	1.01
627404	2.135	0.041	0.70	1.02	1.53	1.03
627405	3.494	0.038	4.47	1.11	1.79	1.03
627204	1.242	0.049	4.46	1.29	1.12	1.03
627331	3.868	0.039	9.90	1.36	9.90	1.21
627749	0.223	0.068	-2.81	0.74	-1.09	0.94
626697	1.027	0.053	2.62	1.19	2.38	1.08
626328	3.641	0.038	6.00	1.15	5.56	1.09

Table M.12 (continued). Grade 7 Mathematics Field Test: Rasch Item Parameters and Fit Statistics

Item ID	Logit	SE(Logit)	Out Z Std	Out MNSq	In Z Std	In MNSq
626508	5.509	0.055	9.90	2.55	5.77	1.22
626391	1.206	0.050	-1.41	0.91	-1.75	0.95
626392	0.747	0.056	0.35	1.03	0.74	1.03
627720	2.298	0.040	6.99	1.25	9.32	1.17
627205	0.655	0.059	-0.20	0.98	-0.92	0.96
627206	-0.661	0.096	-2.32	0.70	-0.71	0.94
627333	3.487	0.039	0.32	1.01	-3.03	0.95
627751	2.064	0.042	0.52	1.02	0.19	1.00
627752	2.089	0.042	-1.40	0.95	-0.74	0.99
626329	3.168	0.038	1.26	1.03	-0.36	0.99
626267	4.089	0.040	6.58	1.21	3.28	1.06
627458	2.723	0.039	1.30	1.03	2.27	1.04

Table M.13. Grade 8 Mathematics Field Test: Rasch Item Parameters and Fit Statistics

Item ID	Logit	SE(Logit)	Out Z Std	Out MNSq	In Z Std	In MNSq
628323	2.055	0.051	-0.64	0.96	-0.21	0.99
628324	3.270	0.040	-5.68	0.84	-8.34	0.87
629084	3.367	0.041	-0.70	0.98	0.63	1.01
629085	3.472	0.040	1.56	1.04	2.45	1.04
631314	3.670	0.040	0.95	1.02	1.74	1.03
631315	2.004	0.051	0.52	1.03	-2.16	0.94
631357	3.154	0.041	-2.45	0.92	-2.54	0.96
631358	2.786	0.043	-3.81	0.85	-3.68	0.93
631334	3.392	0.040	0.52	1.01	-1.53	0.98
631335	4.494	0.040	4.08	1.11	3.40	1.06
629090	1.013	0.070	-4.08	0.63	-1.90	0.90
628556	4.461	0.041	9.90	1.41	9.90	1.26
632298	1.897	0.052	-3.58	0.77	-3.14	0.90
632299	1.389	0.061	-4.25	0.66	-2.94	0.88
632182	3.476	0.044	-4.77	0.87	-5.16	0.91
632183	0.671	0.088	2.73	1.40	0.49	1.03
629086	2.019	0.055	-2.08	0.86	-2.25	0.93
629080	1.385	0.065	-2.40	0.78	-1.67	0.93
631316	2.860	0.047	-0.23	0.99	0.36	1.01
631317	2.125	0.055	0.70	1.05	0.10	1.00
631359	1.161	0.065	-5.78	0.53	-2.89	0.87
631360	2.620	0.044	-0.28	0.99	0.04	1.00
631336	4.232	0.043	9.90	1.90	9.90	1.60
629091	3.260	0.041	3.37	1.11	2.35	1.04
628558	0.068	0.102	0.99	1.15	-0.16	0.98
632294	4.374	0.040	-6.30	0.85	-8.20	0.87
632295	3.500	0.040	-8.73	0.78	-9.90	0.85
628327	3.800	0.040	2.97	1.07	2.15	1.03
628328	2.048	0.051	-6.58	0.63	-6.17	0.83
629081	3.705	0.040	-2.49	0.94	-2.89	0.96
629082	4.057	0.040	-1.59	0.96	-2.81	0.96
631318	2.659	0.044	-6.65	0.74	-6.10	0.88
628325	0.759	0.076	4.65	1.63	0.13	1.01
628326	3.071	0.042	-0.93	0.97	-2.22	0.96
631337	5.886	0.052	7.40	1.48	4.47	1.14
629092	0.994	0.070	-5.99	0.50	-2.73	0.86
632300	3.029	0.042	1.46	1.05	2.22	1.04
628332	3.628	0.040	9.17	1.25	9.62	1.15
629150	3.479	0.040	2.65	1.07	3.93	1.06
629087	3.407	0.040	-6.79	0.81	-7.00	0.89
631320	1.613	0.058	-4.83	0.66	-2.76	0.90
631363	4.002	0.040	0.06	1.00	-0.24	1.00
631338	4.230	0.040	9.90	1.33	9.90	1.19
628561	4.259	0.040	8.59	1.22	9.11	1.15
632296	3.752	0.040	-0.96	0.98	-0.06	1.00
629083	2.656	0.043	7.92	1.38	5.56	1.12
631321	3.621	0.040	9.90	1.41	9.90	1.29
632184	2.860	0.042	-1.89	0.93	-1.96	0.96

Table M.13 (continued). Grade 8 Mathematics Field Test: Rasch Item Parameters and Fit Statistics

Item ID	Logit	SE(Logit)	Out Z Std	Out MNSq	In Z Std	In MNSq
631340	4.078	0.040	9.90	1.30	9.90	1.22
631341	3.478	0.040	-0.73	0.98	-1.38	0.98
628563	3.901	0.040	7.76	1.20	7.83	1.13
632301	5.197	0.045	6.92	1.29	1.75	1.04
632302	3.367	0.041	-0.10	1.00	0.11	1.00
628330	1.864	0.053	6.85	1.56	3.89	1.13
629088	2.691	0.044	-1.39	0.94	-3.05	0.94
632303	1.646	0.056	1.49	1.12	-0.10	1.00
632297	3.923	0.039	0.44	1.01	0.49	1.01
631343	3.015	0.042	-6.23	0.79	-6.10	0.90
628565	3.401	0.041	-1.24	0.96	-1.85	0.97
628331	3.217	0.041	0.98	1.03	1.74	1.03

Table M.14. Grade 10 Mathematics Field Test: Rasch Item Parameters and Fit Statistics

Item ID	Logit	SE(Logit)	Out Z Std	Out MNSq	In Z Std	In MNSq
627292	3.387	0.055	-0.62	0.96	-2.37	0.93
627293	2.540	0.066	0.27	1.02	-0.13	0.99
626739	5.642	0.051	9.90	1.46	6.33	1.16
626740	4.344	0.050	-1.42	0.95	-0.69	0.99
627116	3.708	0.052	5.24	1.29	6.30	1.16
627117	4.494	0.048	-3.78	0.87	-4.23	0.92
627510	1.259	0.101	-4.03	0.47	-1.06	0.91
628689	5.815	0.052	1.45	1.06	-4.60	0.89
630927	4.881	0.049	1.95	1.06	1.28	1.03
630928	3.426	0.055	2.54	1.17	1.75	1.05
629071	4.156	0.024	7.66	1.16	6.05	1.06
632052	4.536	0.024	-1.62	0.97	-3.17	0.97
626741	4.553	0.048	2.60	1.09	2.49	1.05
630213	4.353	0.050	6.76	1.28	5.33	1.11
631324	3.793	0.051	-2.07	0.90	-1.53	0.96
631325	6.071	0.053	9.90	1.62	5.14	1.14
627512	4.876	0.048	-1.41	0.95	-3.32	0.94
632426	2.476	0.069	-0.63	0.93	-0.87	0.96
632427	2.383	0.069	2.57	1.29	0.56	1.02
630929	3.804	0.052	-5.32	0.76	-6.85	0.85
627379	4.606	0.048	9.80	1.38	9.90	1.25
626294	3.747	0.051	-4.50	0.79	-5.19	0.88
629072	3.365	0.055	4.34	1.30	1.52	1.04
626743	5.400	0.048	9.76	1.37	8.37	1.19
627418	3.831	0.051	5.51	1.29	7.41	1.18
627322	5.144	0.049	3.36	1.12	1.41	1.03
627513	3.517	0.053	0.77	1.04	2.62	1.07
631326	4.545	0.049	-5.19	0.83	-5.71	0.89
631327	2.180	0.074	-2.88	0.69	-1.81	0.91
630931	5.349	0.051	2.13	1.08	-1.05	0.98
632428	5.053	0.049	9.90	1.44	9.90	1.27
629073	2.510	0.068	-1.09	0.89	-2.29	0.91
627120	4.867	0.048	4.34	1.15	4.49	1.09
627121	5.153	0.048	8.11	1.29	8.06	1.17
631328	3.729	0.052	0.80	1.04	1.60	1.04
631329	3.145	0.057	-3.36	0.78	-4.60	0.87
632430	2.312	0.071	0.27	1.03	-1.06	0.95
632431	4.623	0.048	5.60	1.20	8.20	1.17
627295	4.587	0.048	2.30	1.08	1.77	1.04
632054	2.838	0.062	8.50	1.86	2.84	1.10
626744	4.533	0.049	3.67	1.13	6.56	1.14
626745	3.688	0.052	-0.41	0.98	0.13	1.00
627123	3.042	0.059	1.14	1.09	1.30	1.04
627516	3.732	0.053	-1.47	0.92	0.34	1.01
632432	4.579	0.048	-2.48	0.92	-4.40	0.91
630934	3.709	0.052	9.90	1.90	9.90	1.34
630935	2.123	0.074	-2.23	0.75	-1.94	0.90
629077	1.087	0.108	-2.53	0.62	-1.16	0.90

Table M.14 (continued). Grade 10 Mathematics Field Test: Rasch Item Parameters and Fit Statistics

Item ID	Logit	SE(Logit)	Out Z Std	Out MNSq	In Z Std	In MNSq
629078	3.987	0.050	5.11	1.24	6.39	1.14
629079	3.475	0.054	0.32	1.02	0.90	1.02
630217	3.737	0.052	-1.68	0.92	-2.07	0.95
630218	4.712	0.048	9.90	1.37	9.90	1.25
626746	3.142	0.058	-0.77	0.94	0.06	1.00
631330	5.397	0.049	9.90	1.96	9.90	1.58
631331	1.666	0.087	-0.75	0.89	-0.71	0.95
631332	4.664	0.048	-3.44	0.89	-4.84	0.91
632433	3.846	0.051	2.20	1.11	3.06	1.07
632434	6.450	0.057	9.90	1.98	4.65	1.15
632435	2.513	0.069	-3.01	0.71	-3.87	0.84
627297	3.361	0.056	0.91	1.06	0.61	1.02
626291	5.649	0.050	9.90	1.68	9.90	1.35
626748	2.518	0.066	4.70	1.55	1.11	1.05
627756	3.405	0.055	2.44	1.16	1.59	1.04
627124	4.273	0.049	6.40	1.27	6.34	1.14
627125	3.180	0.058	-3.32	0.78	-2.84	0.91
627517	4.932	0.049	4.60	1.16	4.13	1.09
628691	4.781	0.049	4.99	1.17	5.57	1.11
628692	4.219	0.049	3.73	1.15	3.35	1.07
630936	6.486	0.055	9.90	1.90	6.53	1.21
630937	3.796	0.051	-1.12	0.95	-1.13	0.97
630938	7.993	0.084	9.91	5.77	3.98	1.25
629075	5.235	0.049	6.44	1.24	5.77	1.13
629076	4.494	0.049	-0.50	0.98	0.46	1.01
630220	4.229	0.049	-2.94	0.89	-2.64	0.95
632373	3.491	0.053	-3.09	0.83	-2.64	0.93

Table M.15. Grade 3 Language Usage Field Test: Rasch Item Parameters and Fit Statistics

Item ID	Logit	SE(Logit)	Out Z Std	Out MNSq	In Z Std	In MNSq
628540	0.204	0.039	-5.54	0.87	-6.61	0.90
628541	-1.617	0.053	-0.15	0.99	-0.96	0.97
628542	-2.424	0.068	-3.11	0.72	-2.25	0.89
628543	-1.714	0.055	-3.29	0.78	-3.68	0.88
628544	-0.257	0.041	-4.70	0.86	-4.35	0.92
628545	-1.350	0.050	0.15	1.01	-1.93	0.95
628546	-0.887	0.045	-3.76	0.84	-4.65	0.90
628547	-1.981	0.058	-1.18	0.90	-1.05	0.96
628548	-0.539	0.043	0.71	1.03	2.37	1.05
628549	-1.270	0.049	5.94	1.36	4.61	1.13
628550	-1.818	0.056	0.44	1.03	0.73	1.03
628551	-1.310	0.049	-4.50	0.77	-3.78	0.90
628552	0.267	0.040	-2.74	0.93	-2.57	0.96
628553	-3.470	0.104	-3.26	0.56	-1.02	0.91
628554	0.706	0.039	9.90	1.26	8.92	1.15
628555	-1.456	0.051	-3.63	0.79	-3.01	0.91
628693	0.842	0.040	9.90	1.29	9.90	1.18
628694	-0.557	0.043	1.90	1.07	1.63	1.03
628695	-0.543	0.042	-1.50	0.95	-0.96	0.98
628696	-1.527	0.051	-1.13	0.93	-0.78	0.98
628697	-2.501	0.070	-4.52	0.59	-3.19	0.84
628698	0.830	0.039	9.90	1.45	9.90	1.27
628699	-0.702	0.043	-3.23	0.88	-2.97	0.94
628700	-0.710	0.043	-4.17	0.84	-3.95	0.92
628701	1.490	0.043	8.31	1.31	5.16	1.10
628702	0.326	0.039	1.86	1.04	1.90	1.03
628703	-1.444	0.050	-0.57	0.97	-0.48	0.99
628704	0.796	0.039	2.63	1.06	-0.09	1.00
628705	-1.087	0.047	4.15	1.22	2.93	1.07
628706	-0.747	0.044	-3.32	0.87	-2.46	0.95
628707	-1.241	0.049	-2.00	0.89	-1.76	0.95
628708	-1.027	0.046	-4.38	0.80	-4.13	0.90
628724	-0.290	0.041	5.24	1.18	3.69	1.07
628725	0.031	0.040	-0.68	0.98	-1.07	0.98
628726	0.161	0.039	7.92	1.21	8.81	1.14
628727	-0.757	0.044	-0.70	0.97	-1.18	0.97
628728	-1.941	0.058	-2.78	0.79	-1.89	0.93
628729	-1.690	0.054	2.75	1.21	0.48	1.02
628730	-0.413	0.042	-0.37	0.99	0.42	1.01
628731	-1.360	0.050	-2.63	0.85	-3.21	0.91
628732	-0.640	0.044	-3.01	0.88	-2.24	0.95
628733	-1.107	0.047	-0.46	0.98	0.04	1.00
628734	-0.155	0.040	0.63	1.02	1.76	1.03
628735	-1.054	0.046	-2.66	0.88	-3.56	0.92
628736	0.596	0.040	7.58	1.19	7.73	1.12
628737	-0.442	0.042	5.09	1.18	7.21	1.14
628738	-0.148	0.040	-3.73	0.90	-3.07	0.95
628739	0.642	0.039	4.07	1.10	3.31	1.05

Table M.15 (continued). Grade 3 Language Usage Field Test: Rasch Item Parameters and Fit Statistics

Item ID	Logit	SE(Logit)	Out Z Std	Out MNSq	In Z Std	In MNSq
628800	0.621	0.039	9.90	1.35	9.90	1.22
628801	-0.588	0.042	2.53	1.09	2.08	1.04
628802	-1.020	0.045	-2.63	0.88	-4.72	0.89
628803	0.161	0.039	3.96	1.10	5.44	1.09
628804	-0.517	0.042	-1.68	0.94	-1.03	0.98
628805	0.651	0.040	6.29	1.16	4.88	1.08
628806	1.085	0.040	0.91	1.02	-1.74	0.97
628807	-0.478	0.042	2.13	1.07	1.85	1.04
628808	-0.861	0.045	-0.93	0.96	-0.63	0.99
628809	-1.250	0.049	0.77	1.04	-2.46	0.93
628810	-1.651	0.053	-5.21	0.68	-4.40	0.86
628811	0.077	0.040	-2.30	0.94	-1.62	0.97

Table M.16. Grade 4 Language Usage Field Test: Rasch Item Parameters and Fit Statistics

Item ID	Logit	SE(Logit)	Out Z Std	Out MNSq	In Z Std	In MNSq
628440	0.557	0.043	-2.24	0.92	-4.01	0.92
628441	0.718	0.041	4.93	1.16	5.13	1.09
628442	-0.641	0.054	1.92	1.13	0.44	1.01
628443	-0.123	0.048	-1.76	0.91	-3.03	0.92
628444	-0.390	0.051	-4.12	0.77	-3.73	0.89
628445	0.198	0.045	0.83	1.04	1.87	1.04
628446	-1.161	0.062	-2.90	0.76	-3.04	0.87
628447	0.837	0.040	3.39	1.10	5.41	1.09
628448	-0.272	0.049	-1.66	0.91	-0.96	0.97
628449	0.550	0.042	5.05	1.18	5.04	1.10
628450	1.606	0.040	-1.20	0.97	-1.74	0.97
628451	2.827	0.045	9.90	1.82	8.83	1.21
628452	0.857	0.040	2.46	1.07	3.74	1.06
628453	0.535	0.042	3.27	1.12	4.98	1.10
628454	0.730	0.042	5.55	1.18	7.97	1.15
628455	-1.522	0.071	-2.96	0.71	-2.19	0.89
628638	0.084	0.046	1.41	1.06	0.95	1.02
628639	-0.055	0.047	-2.28	0.89	-1.55	0.96
628640	-0.537	0.053	2.95	1.20	1.85	1.06
628641	-1.391	0.069	-4.27	0.62	-1.86	0.91
628642	-0.292	0.048	-4.06	0.79	-3.60	0.90
628643	0.483	0.042	-0.76	0.97	0.52	1.01
628644	0.476	0.042	1.00	1.04	-0.04	1.00
628645	-0.184	0.048	-3.24	0.84	-2.81	0.93
628646	0.871	0.040	-2.98	0.92	-2.75	0.95
628647	1.173	0.040	9.90	1.27	9.90	1.17
628648	1.449	0.040	9.90	1.27	9.90	1.19
628649	1.942	0.040	8.72	1.23	5.85	1.09
628650	1.137	0.040	8.73	1.23	9.90	1.17
628651	0.470	0.042	3.84	1.14	4.20	1.08
628652	0.796	0.041	-0.75	0.98	-0.18	1.00
628653	0.090	0.046	3.54	1.17	4.92	1.12
628740	-0.557	0.053	-0.53	0.96	-0.89	0.97
628741	1.804	0.039	9.90	1.47	9.90	1.28
628742	-1.193	0.064	-3.36	0.72	-2.68	0.88
628743	0.176	0.045	-2.49	0.90	-1.66	0.96
628744	-0.524	0.052	-4.18	0.75	-2.35	0.93
628745	-0.323	0.049	-2.08	0.89	-2.12	0.94
628746	0.250	0.044	-4.71	0.82	-3.61	0.92
628747	0.496	0.042	-2.03	0.93	-2.56	0.95
628748	-1.038	0.061	-1.39	0.88	-0.88	0.96
628749	0.113	0.045	0.12	1.00	0.90	1.02
628750	2.155	0.040	9.90	1.63	9.90	1.35
628751	-1.827	0.082	-5.38	0.46	-2.24	0.86
628752	1.519	0.039	6.47	1.16	5.67	1.09
628753	0.979	0.040	0.69	1.02	1.25	1.02
628754	2.889	0.045	9.90	1.92	9.90	1.29
628755	0.259	0.044	2.54	1.11	2.40	1.05

Table M.16 (continued). Grade 4 Language Usage Field Test: Rasch Item Parameters and Fit Statistics

Item ID	Logit	SE(Logit)	Out Z Std	Out MNSq	In Z Std	In MNSq
628812	0.610	0.041	-0.42	0.99	1.13	1.02
628813	0.451	0.043	0.13	1.00	0.33	1.01
628814	-0.257	0.048	-4.74	0.76	-4.09	0.89
628815	-0.579	0.053	0.60	1.04	0.68	1.02
628816	-1.447	0.071	-1.89	0.81	-1.78	0.91
628817	-1.397	0.069	-4.55	0.60	-1.97	0.90
628818	-0.298	0.049	0.15	1.01	1.10	1.03
628819	0.506	0.043	2.68	1.10	5.07	1.10
628820	0.614	0.042	4.51	1.16	3.93	1.08
628821	-0.014	0.046	-2.14	0.90	-1.79	0.96
628822	0.577	0.042	-1.99	0.93	-0.15	1.00
628823	-0.228	0.049	-2.37	0.88	-2.29	0.94

Table M.17. Grade 5 Language Usage Field Test: Rasch Item Parameters and Fit Statistics

Item ID	Logit	SE(Logit)	Out Z Std	Out MNSq	In Z Std	In MNSq
539939	1.121	0.041	0.49	1.01	2.02	1.03
628456	2.022	0.039	9.90	1.25	9.90	1.18
628457	0.691	0.043	1.72	1.07	1.86	1.04
628458	2.137	0.039	4.10	1.09	1.01	1.02
628459	1.565	0.039	3.97	1.10	3.96	1.06
628460	0.061	0.049	-3.89	0.80	-2.94	0.92
628461	1.196	0.040	1.33	1.03	1.80	1.03
628462	1.591	0.039	7.48	1.18	8.41	1.13
628463	0.451	0.045	5.92	1.26	4.33	1.10
628464	0.666	0.043	-1.14	0.96	-0.18	1.00
628465	0.606	0.044	-4.83	0.82	-4.69	0.90
628466	-0.538	0.058	-3.55	0.75	-2.62	0.90
628467	1.373	0.040	-0.22	0.99	0.97	1.01
628468	2.616	0.040	7.42	1.21	5.11	1.09
628469	-0.104	0.051	-2.06	0.88	-1.01	0.97
628493	0.891	0.042	7.78	1.28	7.60	1.15
628494	-0.286	0.055	3.26	1.23	0.25	1.01
628495	0.919	0.042	-3.84	0.88	-3.86	0.93
628496	-0.291	0.054	0.83	1.05	1.99	1.07
628497	1.251	0.040	-5.58	0.85	-6.87	0.89
628498	2.948	0.042	4.09	1.14	-0.43	0.99
628499	-0.233	0.053	-1.66	0.90	-1.32	0.96
628500	1.103	0.041	1.95	1.06	3.17	1.05
628501	2.347	0.040	7.42	1.19	6.94	1.11
628502	1.483	0.039	8.78	1.22	9.90	1.16
628503	1.065	0.041	2.99	1.09	3.17	1.05
628504	1.744	0.039	3.78	1.08	4.43	1.06
628756	1.060	0.041	6.59	1.21	7.62	1.13
628757	1.058	0.041	-4.03	0.88	-3.78	0.94
628758	0.770	0.042	-0.24	0.99	0.51	1.01
628759	0.174	0.047	2.60	1.14	1.40	1.04
628760	1.518	0.040	-2.81	0.93	-2.81	0.96
628762	1.811	0.039	-0.46	0.99	-1.05	0.98
628763	-0.201	0.053	0.41	1.03	-1.11	0.96
628764	-0.474	0.057	-3.04	0.79	-2.12	0.92
628765	1.360	0.040	1.98	1.05	1.83	1.03
628766	0.532	0.044	-3.24	0.87	-4.28	0.91
628767	1.413	0.039	0.04	1.00	-0.09	1.00
628768	1.259	0.040	-0.05	1.00	0.88	1.01
628769	-1.997	0.104	-2.25	0.70	-0.34	0.97
628770	0.248	0.047	-1.28	0.94	-1.04	0.97
628824	-0.445	0.057	-3.96	0.74	-3.00	0.89
628825	0.765	0.043	1.58	1.06	2.83	1.06
628826	-0.728	0.063	-3.25	0.75	-1.33	0.94
628827	-0.683	0.062	-2.19	0.83	-1.51	0.93
628828	1.356	0.039	2.90	1.07	4.11	1.06
628829	0.519	0.044	-2.27	0.91	-1.65	0.96
628830	1.296	0.040	2.88	1.07	4.43	1.07

Table M.17 (continued). Grade 5 Language Usage Field Test: Rasch Item Parameters and Fit Statistics

Item ID	Logit	SE(Logit)	Out Z Std	Out MNSq	In Z Std	In MNSq
628831	3.130	0.044	7.48	1.30	4.82	1.11
628832	1.337	0.040	2.31	1.06	2.06	1.03
628833	-2.905	0.152	-1.54	0.72	-0.21	0.96
628834	2.515	0.040	7.78	1.21	8.40	1.14
628835	-0.033	0.050	-2.92	0.84	-2.26	0.93
628836	1.268	0.040	6.43	1.18	7.78	1.13
628837	1.668	0.039	1.24	1.03	2.29	1.03
628838	0.248	0.047	-0.30	0.98	-0.38	0.99
628839	3.326	0.045	9.90	1.56	8.02	1.21
628840	0.831	0.042	0.40	1.01	1.41	1.03
628841	0.479	0.044	-3.07	0.88	-2.75	0.94
628842	0.257	0.046	0.49	1.02	0.49	1.01

Table M.18. Grade 6 Language Usage Field Test: Rasch Item Parameters and Fit Statistics

Item ID	Logit	SE(Logit)	Out Z Std	Out MNSq	In Z Std	In MNSq
631493	-0.537	0.064	-0.99	0.91	-1.92	0.91
631498	0.022	0.053	-3.99	0.76	-3.25	0.89
631407	0.615	0.044	-2.79	0.88	-2.02	0.95
631443	0.779	0.043	-0.01	1.00	-0.76	0.98
631408	0.508	0.046	-0.85	0.96	-1.59	0.96
631494	-0.696	0.066	-5.49	0.57	-2.55	0.88
631503	-0.044	0.054	-6.59	0.62	-4.38	0.85
631456	1.578	0.038	0.99	1.03	1.07	1.02
631409	0.316	0.049	-1.63	0.91	-1.34	0.96
631410	0.589	0.046	-3.00	0.86	-2.84	0.93
631411	0.385	0.048	-4.70	0.77	-3.38	0.91
631499	0.586	0.045	-1.09	0.95	-1.68	0.96
631504	1.093	0.042	1.84	1.07	2.40	1.05
631413	-1.269	0.086	-0.59	0.92	-0.48	0.96
593729	1.913	0.037	9.90	1.37	9.90	1.25
631500	0.107	0.052	-1.67	0.90	-0.80	0.97
631488	2.058	0.037	9.90	1.22	9.90	1.15
631458	1.630	0.038	-0.31	0.99	-0.26	1.00
631447	1.437	0.039	3.69	1.11	5.95	1.10
631414	0.336	0.048	-2.11	0.89	-1.03	0.97
631415	-0.399	0.061	-1.94	0.85	-1.21	0.95
631459	0.833	0.043	5.32	1.23	3.74	1.09
631460	2.322	0.037	2.30	1.05	1.99	1.03
631505	2.024	0.037	5.36	1.12	5.52	1.08
631501	1.289	0.040	-0.46	0.99	0.73	1.01
631448	0.472	0.047	2.46	1.13	0.79	1.02
631449	1.261	0.040	-2.12	0.93	-1.09	0.98
631417	1.510	0.039	-8.59	0.78	-8.88	0.86
631418	2.109	0.037	0.85	1.02	0.69	1.01
631506	2.077	0.037	-3.48	0.93	-3.55	0.95
631496	-0.183	0.056	-5.64	0.65	-3.56	0.87
631490	1.338	0.040	9.90	1.60	9.90	1.25
631507	1.922	0.038	0.14	1.00	0.96	1.01
631419	2.150	0.037	4.63	1.09	5.53	1.08
631420	2.542	0.037	8.14	1.18	8.22	1.12
631450	2.615	0.038	2.67	1.06	0.70	1.01
631461	0.040	0.052	-2.78	0.83	-1.65	0.94
631462	-0.799	0.070	-2.49	0.77	-1.42	0.92
631463	1.669	0.038	3.27	1.08	4.37	1.07
631451	1.840	0.038	-2.92	0.94	-3.24	0.95
631502	1.626	0.038	0.58	1.01	0.34	1.01
631423	1.322	0.040	-6.69	0.81	-6.15	0.90
631464	1.695	0.038	1.16	1.03	2.15	1.03
511287	1.811	0.038	5.84	1.14	7.22	1.11
516612	1.993	0.037	9.90	1.35	9.90	1.24
631405	-0.749	0.069	-0.17	0.98	-0.86	0.95
631412	-0.946	0.072	-0.67	0.93	-0.69	0.96
631421	1.262	0.040	-3.68	0.89	-3.83	0.93

Table M.18 (continued). Grade 6 Language Usage Field Test: Rasch Item Parameters and Fit Statistics

Item ID	Logit	SE(Logit)	Out Z Std	Out MNSq	In Z Std	In MNSq
631445	0.673	0.044	-0.03	1.00	-0.19	1.00
631452	1.103	0.041	-4.44	0.85	-3.63	0.93
631489	1.930	0.038	9.90	1.24	9.90	1.17
631491	1.506	0.039	-2.45	0.93	-1.87	0.97
631495	1.096	0.041	6.36	1.24	5.44	1.11
631497	1.934	0.038	0.48	1.01	-0.09	1.00
511265	-0.993	0.075	-3.84	0.64	-0.88	0.95

Table M.19. Grade 7 Language Usage Field Test: Rasch Item Parameters and Fit Statistics

Item ID	Logit	SE(Logit)	Out Z Std	Out MNSq	In Z Std	In MNSq
631623	1.169	0.043	-2.11	0.91	-2.19	0.95
631657	0.845	0.047	-0.79	0.96	-0.37	0.99
631669	1.649	0.040	-0.17	0.99	-0.43	0.99
539956	2.016	0.038	6.05	1.16	5.81	1.09
520081	0.729	0.048	-3.61	0.82	-3.00	0.92
631671	1.733	0.039	-0.52	0.98	-0.73	0.99
631678	2.859	0.038	9.90	1.22	9.90	1.15
631629	1.405	0.041	9.40	1.36	8.34	1.16
631679	1.916	0.038	6.43	1.18	6.91	1.11
631656	1.556	0.040	-1.96	0.94	-1.57	0.97
631672	3.941	0.043	5.08	1.20	1.05	1.02
631654	2.213	0.037	4.24	1.10	6.20	1.09
631643	2.245	0.038	9.90	1.29	9.90	1.20
631630	1.312	0.042	-4.78	0.83	-4.01	0.92
631632	2.446	0.037	9.90	1.26	9.90	1.22
631665	0.945	0.045	-2.12	0.90	-1.79	0.96
631653	0.949	0.045	-1.08	0.95	-0.66	0.98
631660	1.543	0.041	-2.19	0.93	-1.32	0.98
595103	0.958	0.045	2.62	1.13	3.14	1.08
631645	-0.505	0.070	-4.16	0.64	-1.47	0.92
631634	0.607	0.049	-3.63	0.81	-1.91	0.94
631635	1.198	0.043	5.43	1.23	6.00	1.13
516706	2.024	0.038	-0.34	0.99	0.58	1.01
631649	2.396	0.038	9.90	1.25	9.90	1.19
631650	1.895	0.039	-5.11	0.87	-5.19	0.92
536051	1.666	0.040	-1.16	0.96	-1.62	0.97
631636	0.689	0.048	-5.94	0.71	-4.40	0.88
631639	2.379	0.038	-0.41	0.99	0.56	1.01
631651	-1.346	0.101	-5.14	0.42	-0.96	0.91
631646	1.934	0.038	-4.55	0.89	-4.72	0.93
631676	3.657	0.042	9.90	1.55	9.90	1.25
631682	0.132	0.057	-2.93	0.80	-1.41	0.94
631666	2.554	0.037	6.06	1.13	7.07	1.10
511241	2.205	0.038	3.08	1.07	4.63	1.07
631641	0.842	0.046	-4.78	0.78	-2.61	0.93
631652	2.601	0.037	5.18	1.11	4.76	1.07
631677	3.656	0.041	9.90	1.47	7.49	1.16
537853	2.278	0.038	4.96	1.11	6.18	1.09
631624	0.655	0.048	2.43	1.14	-0.04	1.00
631625	1.830	0.039	-3.15	0.91	-3.02	0.95
631626	0.541	0.050	-0.33	0.98	-1.34	0.96
631633	0.648	0.048	-3.24	0.83	-2.46	0.93
631637	1.378	0.041	-4.12	0.86	-2.23	0.96
631638	-0.439	0.069	-5.76	0.54	-2.44	0.87
631647	0.845	0.046	-1.52	0.93	-1.29	0.97
631655	3.908	0.043	9.15	1.38	4.75	1.11
631658	3.024	0.038	6.76	1.16	6.15	1.10
631662	1.818	0.039	4.83	1.14	5.79	1.09

Table M.19 (continued). Grade 7 Language Usage Field Test: Rasch Item Parameters and Fit Statistics

Item ID	Logit	SE(Logit)	Out Z Std	Out MNSq	In Z Std	In MNSq
631663	2.444	0.038	5.46	1.12	5.77	1.08
631668	1.356	0.042	-1.12	0.96	-0.32	0.99
631670	1.581	0.041	0.20	1.01	0.42	1.01
631673	2.594	0.038	1.05	1.02	1.78	1.03
631674	1.774	0.039	4.94	1.14	6.65	1.11
631675	1.963	0.038	7.06	1.18	4.94	1.08
631680	0.367	0.052	-7.19	0.60	-4.81	0.85

Table M.20. Grade 8 Language Usage Field Test: Rasch Item Parameters and Fit Statistics

Item ID	Logit	SE(Logit)	Out Z Std	Out MNSq	In Z Std	In MNSq
631688	2.077	0.039	-0.40	0.99	-1.62	0.97
631713	1.086	0.047	-5.39	0.75	-4.90	0.88
631684	0.975	0.048	-2.27	0.88	-2.18	0.94
631703	1.196	0.045	4.25	1.21	1.56	1.04
631689	0.081	0.063	0.82	1.07	-0.69	0.97
631690	1.679	0.041	2.02	1.07	0.18	1.00
631691	0.485	0.056	-4.52	0.70	-3.00	0.89
631685	1.297	0.045	-0.19	0.99	-0.69	0.98
631724	1.853	0.041	-1.62	0.95	-2.56	0.95
631742	0.438	0.056	-0.97	0.93	-0.81	0.97
631692	0.401	0.057	-6.79	0.57	-4.20	0.84
631693	1.125	0.046	0.52	1.03	0.75	1.02
631709	0.895	0.050	-5.12	0.74	-4.02	0.88
631719	0.267	0.060	0.69	1.06	0.52	1.02
631736	2.830	0.038	6.92	1.15	7.87	1.12
631694	2.138	0.039	-1.90	0.95	-1.09	0.98
631704	2.309	0.038	2.19	1.05	2.55	1.04
631705	1.451	0.043	-0.41	0.98	-0.85	0.98
631716	0.546	0.054	-2.90	0.81	-1.58	0.94
631726	3.277	0.039	4.77	1.11	1.97	1.03
631740	1.450	0.044	-1.97	0.92	-0.19	1.00
631727	4.544	0.047	9.06	1.49	3.45	1.10
631696	-0.108	0.067	-0.27	0.97	-0.46	0.98
631697	2.632	0.038	9.90	1.36	9.90	1.25
631720	1.548	0.042	1.89	1.07	2.08	1.04
631741	0.706	0.051	0.68	1.04	0.68	1.02
631698	-0.205	0.070	-6.07	0.51	-2.62	0.86
631710	1.052	0.048	-4.52	0.78	-3.80	0.90
631717	2.903	0.038	6.66	1.14	7.28	1.11
631729	1.900	0.040	-1.72	0.95	-1.82	0.97
631730	2.193	0.039	-1.34	0.96	-0.50	0.99
631700	3.161	0.038	9.90	1.41	9.90	1.27
631687	2.728	0.038	-0.46	0.99	-0.78	0.99
631721	-0.586	0.082	-5.76	0.46	-1.87	0.88
631737	2.335	0.039	-0.19	0.99	-0.46	0.99
631701	1.551	0.042	-2.16	0.92	-1.40	0.97
631731	1.682	0.042	2.93	1.11	2.94	1.06
631732	2.913	0.037	7.82	1.17	8.81	1.13
631712	2.941	0.038	3.81	1.08	2.60	1.04
631722	-0.134	0.069	-4.00	0.66	-1.80	0.91
631683	1.464	0.042	-3.22	0.88	-2.25	0.95
631695	3.733	0.040	8.15	1.25	6.41	1.12
631699	3.754	0.040	8.93	1.27	6.94	1.13
631707	-0.569	0.083	-0.70	0.91	-0.02	1.00
631708	2.976	0.037	0.08	1.00	0.30	1.00
631711	2.769	0.038	2.11	1.04	1.68	1.02
631715	2.386	0.038	4.69	1.11	5.20	1.08
631718	1.330	0.044	-5.22	0.79	-4.61	0.90

Table M.20 (continued). Grade 8 Language Usage Field Test: Rasch Item Parameters and Fit Statistics

Item ID	Logit	SE(Logit)	Out Z Std	Out MNSq	In Z Std	In MNSq
631723	0.193	0.061	0.65	1.05	-0.36	0.98
631728	1.987	0.039	-0.76	0.98	0.18	1.00
631733	1.820	0.041	4.18	1.15	3.18	1.06
631734	1.880	0.040	4.55	1.14	5.27	1.09
631735	2.538	0.038	4.42	1.10	5.86	1.09
631739	1.034	0.048	-3.85	0.81	-2.69	0.93
631738	3.308	0.038	-1.72	0.96	-2.25	0.97

Table M.21. Grade 10 Language Usage Field Test: Rasch Item Parameters and Fit Statistics

Item ID	Logit	SE(Logit)	Out Z Std	Out MNSq	In Z Std	In MNSq
631744	1.630	0.047	1.86	1.10	0.72	1.02
631747	2.072	0.043	7.30	1.33	6.69	1.15
631746	2.186	0.042	3.19	1.13	0.22	1.00
631796	1.027	0.057	5.11	1.44	1.84	1.07
539928	2.238	0.042	5.43	1.22	4.96	1.10
631745	0.095	0.074	-2.92	0.71	-1.38	0.92
631749	1.342	0.051	-0.15	0.99	-1.95	0.94
631797	2.455	0.041	0.11	1.00	0.50	1.01
631763	1.360	0.050	-1.73	0.90	-1.69	0.95
631769	2.865	0.039	1.89	1.05	2.26	1.03
631750	0.513	0.066	-5.34	0.58	-2.69	0.87
535709	3.019	0.039	-0.09	1.00	-0.58	0.99
631752	3.386	0.038	-2.13	0.95	-2.93	0.96
631778	1.762	0.046	6.29	1.33	2.71	1.07
631785	0.416	0.069	-1.94	0.81	-1.61	0.92
631773	2.450	0.040	-0.10	1.00	-0.02	1.00
631753	2.378	0.041	2.57	1.09	3.32	1.06
631754	2.506	0.040	0.02	1.00	0.40	1.01
631755	2.561	0.041	5.62	1.18	8.03	1.14
631771	3.707	0.038	6.42	1.15	3.77	1.06
631756	0.629	0.062	-4.08	0.68	-1.90	0.92
631786	2.337	0.042	0.26	1.01	0.60	1.01
631787	5.003	0.047	9.90	1.91	9.90	1.29
631788	2.392	0.041	2.23	1.08	2.82	1.05
631789	3.364	0.038	5.00	1.12	5.09	1.08
631757	1.884	0.045	-8.26	0.67	-8.05	0.83
631758	2.656	0.039	-3.51	0.90	-2.98	0.95
631790	3.645	0.039	2.41	1.06	1.26	1.02
631779	0.838	0.059	-3.78	0.72	-2.64	0.90
631759	2.039	0.043	-3.29	0.87	-3.52	0.93
558958	1.453	0.049	-1.47	0.92	-1.27	0.96
558961	3.753	0.040	7.37	1.18	7.00	1.11
558965	2.311	0.041	-5.45	0.82	-4.99	0.91
631766	3.557	0.039	9.90	1.25	9.90	1.16
631762	2.498	0.041	0.96	1.03	1.97	1.03
516191	2.754	0.039	4.03	1.11	4.61	1.07
536158	3.608	0.039	8.58	1.21	7.81	1.12
538317	3.992	0.040	9.90	1.35	9.90	1.22
539984	2.574	0.039	-1.47	0.96	-1.11	0.98
555718	3.592	0.039	-1.31	0.97	-3.28	0.95
558954	1.751	0.045	1.28	1.06	0.52	1.01
631748	1.254	0.050	1.36	1.09	1.13	1.03
631760	3.592	0.038	5.51	1.13	4.68	1.07
631761	4.152	0.041	4.27	1.13	1.71	1.03
631765	3.016	0.039	-1.62	0.96	-0.85	0.99
631767	0.868	0.057	0.07	1.00	0.03	1.00
631768	2.517	0.040	9.90	1.39	9.10	1.16
631772	3.423	0.039	1.70	1.04	2.04	1.03

Table M.21 (continued). Grade 10 Language Usage Field Test: Rasch Item Parameters and Fit Statistics

Item ID	Logit	SE(Logit)	Out Z Std	Out MNSq	In Z Std	In MNSq
631775	1.978	0.043	4.45	1.20	3.25	1.07
631777	0.542	0.065	0.74	1.07	-1.21	0.94
631781	1.365	0.050	1.99	1.12	-0.06	1.00
631783	0.840	0.059	-1.10	0.91	-2.28	0.91
631791	2.889	0.038	2.85	1.07	4.78	1.07
631795	1.460	0.049	-0.28	0.98	-1.45	0.96
631925	-0.159	0.085	-3.63	0.60	-1.37	0.90

Table M.22. Grade 5 Science Field Test: Rasch Item Parameters and Fit Statistics

Item ID	Logit	SE(Logit)	Out Z Std	Out MNSq	In Z Std	In MNSq
628350	0.718	0.062	1.36	1.05	1.46	1.03
628333	0.310	0.063	-3.25	0.86	-3.50	0.91
628334	0.670	0.061	-2.69	0.91	-2.75	0.94
635733	0.634	0.061	-0.07	1.00	0.70	1.02
635734	1.157	0.060	8.23	1.26	9.07	1.20
636407	1.686	0.062	1.47	1.05	0.74	1.02
636441	0.840	0.061	-2.45	0.92	-2.59	0.94
628337	1.373	0.061	2.82	1.09	2.89	1.06
628338	-1.085	0.087	-1.78	0.83	-0.93	0.95
628339	0.571	0.062	9.41	1.37	9.90	1.26
628343	2.174	0.065	6.62	1.34	4.65	1.14
628344	1.488	0.062	7.66	1.27	7.30	1.18
628345	-1.049	0.087	-4.75	0.60	-3.02	0.84
629725	3.554	0.092	9.90	3.13	3.57	1.25
628346	1.286	0.061	9.90	1.37	9.90	1.26
628348	0.560	0.062	-2.46	0.91	-2.26	0.95
628335	0.621	0.062	-0.08	1.00	0.81	1.02
628336	0.468	0.064	2.50	1.10	2.61	1.07
628351	1.128	0.062	2.17	1.07	3.13	1.07
628623	2.056	0.065	4.25	1.19	3.13	1.09
628624	1.307	0.060	1.14	1.03	0.21	1.00
628625	0.724	0.061	2.62	1.09	2.99	1.07
628626	1.750	0.063	5.97	1.25	5.22	1.14
628627	1.292	0.060	1.39	1.04	1.19	1.03
628629	0.319	0.064	3.68	1.16	4.71	1.13
628630	0.066	0.066	1.24	1.06	1.46	1.04
628631	0.983	0.060	1.85	1.06	1.78	1.04
628632	0.638	0.062	0.01	1.00	-0.33	0.99
628634	-1.003	0.086	4.37	1.48	1.65	1.09
628635	1.285	0.062	2.61	1.09	2.88	1.07
628636	-0.472	0.073	4.20	1.31	1.70	1.07
628637	1.272	0.060	-2.28	0.93	-2.17	0.95
629151	1.166	0.059	4.62	1.14	4.76	1.10
629152	-0.962	0.084	-4.46	0.63	-2.77	0.86
629153	0.587	0.062	-0.34	0.99	-0.14	1.00
629154	-0.339	0.072	0.16	1.01	-0.39	0.98
629155	0.871	0.061	-0.31	0.99	-0.85	0.98
629165	0.736	0.060	3.61	1.12	3.80	1.09
629166	1.763	0.061	7.91	1.30	8.45	1.22
629167	-0.695	0.076	-1.37	0.89	-0.72	0.97
629168	-0.762	0.079	-1.05	0.91	-0.77	0.96
629169	0.438	0.062	1.10	1.04	0.57	1.01
629156	0.029	0.065	0.13	1.01	-0.93	0.97
629157	0.115	0.066	-2.53	0.88	-2.19	0.94
629158	-0.025	0.067	-0.90	0.95	-0.81	0.97
636193	0.314	0.064	-0.62	0.97	-0.01	1.00
636206	-0.707	0.076	-4.44	0.69	-3.36	0.86
629163	-0.245	0.069	-1.44	0.91	-1.91	0.93

Table M.22 (continued). Grade 5 Science Field Test: Rasch Item Parameters and Fit Statistics

Item ID	Logit	SE(Logit)	Out Z Std	Out MNSq	In Z Std	In MNSq
629164	1.619	0.063	6.42	1.25	5.67	1.15
635735	-0.534	0.077	-2.87	0.80	-2.22	0.91
629726	0.172	0.065	-1.54	0.93	-1.83	0.95
629727	0.912	0.061	-1.44	0.96	-2.13	0.95
629729	1.721	0.064	4.51	1.18	4.18	1.11
629730	-2.066	0.122	-2.36	0.65	-0.77	0.92
629731	0.700	0.061	1.08	1.04	1.65	1.04
629178	1.824	0.063	3.24	1.13	2.56	1.07
629179	3.177	0.081	9.90	2.19	3.85	1.21
629173	1.159	0.060	1.97	1.06	2.95	1.06
629174	1.564	0.063	2.26	1.08	1.44	1.03
629175	1.700	0.062	4.89	1.18	3.22	1.08
629176	1.788	0.063	2.68	1.11	0.55	1.01
629177	1.957	0.064	3.05	1.13	2.72	1.08
636408	2.635	0.073	6.87	1.50	2.46	1.10
629180	-0.143	0.068	-1.90	0.89	-1.55	0.95
629181	2.267	0.067	3.18	1.16	2.53	1.08
629182	0.327	0.063	-4.49	0.82	-4.37	0.89
629184	-0.837	0.082	-2.63	0.79	-1.59	0.92
629185	2.335	0.068	3.60	1.21	1.09	1.04
629186	1.849	0.063	4.51	1.19	3.31	1.09
629187	2.222	0.068	4.09	1.22	2.22	1.07
629188	1.430	0.061	-0.90	0.97	-1.16	0.97
630473	0.913	0.061	5.48	1.18	5.17	1.12
630475	0.272	0.066	-0.94	0.96	-0.58	0.98
630476	0.284	0.065	2.77	1.13	4.53	1.13
630477	3.131	0.082	9.42	2.00	3.36	1.18
630478	2.789	0.074	5.07	1.39	2.63	1.11
630479	1.008	0.059	9.90	1.41	9.90	1.29
630480	0.717	0.061	0.74	1.03	0.41	1.01
630481	-0.004	0.067	1.02	1.05	1.37	1.04
630780	-0.791	0.078	-0.18	0.98	0.05	1.00
630781	-0.199	0.069	1.77	1.11	0.09	1.00
630782	-0.156	0.068	5.71	1.36	5.44	1.19
630783	-0.595	0.076	2.55	1.21	2.27	1.10
630784	1.381	0.062	-2.61	0.92	-2.30	0.95
630786	0.533	0.062	-1.31	0.95	-0.51	0.99
630787	1.033	0.061	4.74	1.15	5.62	1.12
630788	-0.244	0.071	-2.25	0.86	-1.37	0.95
630789	0.614	0.062	-0.34	0.99	1.24	1.03
630790	1.574	0.063	2.80	1.10	1.81	1.04
630791	1.470	0.062	2.23	1.07	1.23	1.03
630792	0.424	0.062	2.30	1.09	3.63	1.09
630793	1.307	0.062	-0.91	0.97	-0.28	0.99
632091	1.402	0.061	4.32	1.14	4.63	1.11
632092	0.829	0.061	-0.57	0.98	0.18	1.00
632093	1.911	0.065	7.78	1.36	5.80	1.17
636210	1.454	0.060	7.67	1.25	7.67	1.18

Table M.22 (continued). Grade 5 Science Field Test: Rasch Item Parameters and Fit Statistics

Item ID	Logit	SE(Logit)	Out Z Std	Out MNSq	In Z Std	In MNSq
630768	0.477	0.064	-1.91	0.93	-1.82	0.95
630769	-0.100	0.069	-3.09	0.83	-3.01	0.90
630770	-1.603	0.103	-2.84	0.67	-1.09	0.92
630775	-0.239	0.070	-2.18	0.87	-1.50	0.95
631425	0.357	0.064	-2.27	0.90	-1.97	0.95
631426	0.814	0.061	6.17	1.21	7.41	1.17
631430	1.292	0.062	0.48	1.02	-0.13	1.00
632436	0.132	0.065	2.22	1.11	2.46	1.07
632437	1.382	0.061	3.76	1.12	3.73	1.08
632438	1.057	0.061	0.06	1.00	-0.06	1.00
632439	1.920	0.064	2.28	1.09	1.52	1.04
632441	1.062	0.061	1.37	1.04	1.40	1.03
632442	1.373	0.062	6.02	1.20	4.82	1.11
632443	1.580	0.062	5.58	1.19	5.10	1.13
632444	1.792	0.063	6.78	1.28	6.16	1.17
632445	-0.009	0.068	-0.67	0.96	-0.32	0.99
632446	1.476	0.061	5.23	1.18	4.01	1.09
632454	-0.441	0.072	-3.17	0.79	-3.13	0.88
632471	0.696	0.061	3.22	1.12	3.99	1.09
632472	0.844	0.061	2.67	1.09	3.65	1.08
632473	0.132	0.065	-2.31	0.89	-2.17	0.94
632474	1.019	0.061	1.00	1.03	0.46	1.01
632475	1.499	0.061	1.56	1.05	0.68	1.02
632476	1.721	0.064	2.71	1.10	2.58	1.07
632477	1.857	0.063	3.90	1.16	1.66	1.04
632478	2.150	0.065	6.83	1.34	4.82	1.15
632479	2.198	0.067	1.83	1.09	-0.64	0.98
632480	1.408	0.061	3.34	1.11	2.57	1.06
628347	1.307	0.061	-1.19	0.96	-1.21	0.97
632448	0.546	0.062	0.92	1.03	0.84	1.02
632449	0.419	0.063	5.59	1.23	4.82	1.12
632450	1.178	0.061	-2.36	0.93	-2.68	0.94
632451	-1.366	0.094	-3.13	0.67	-1.26	0.92
632452	0.422	0.062	-1.31	0.95	-1.76	0.96
632453	0.682	0.062	-0.39	0.99	-0.77	0.98
632520	1.315	0.059	0.80	1.02	0.22	1.00
632521	1.082	0.060	7.53	1.24	8.30	1.19
632522	-1.137	0.088	0.96	1.10	-0.18	0.99
632523	-1.043	0.086	-2.79	0.74	-2.05	0.89
632525	1.740	0.063	7.13	1.29	5.95	1.16
632526	1.350	0.059	8.23	1.27	8.81	1.20
632527	-0.637	0.075	0.49	1.04	-1.11	0.95
632528	0.329	0.063	2.26	1.10	2.20	1.06
633521	1.083	0.061	4.91	1.16	4.94	1.11
633522	0.640	0.061	2.56	1.09	2.11	1.05
633523	0.315	0.063	-4.00	0.84	-4.42	0.89
633524	-1.784	0.110	-2.51	0.67	-0.80	0.93
633525	1.420	0.062	5.59	1.18	6.13	1.15

Table M.22 (continued). Grade 5 Science Field Test: Rasch Item Parameters and Fit Statistics

Item ID	Logit	SE(Logit)	Out Z Std	Out MNSq	In Z Std	In MNSq
632529	0.243	0.065	6.09	1.29	5.86	1.17
632531	1.339	0.061	-0.60	0.98	-0.95	0.98
632532	0.634	0.063	2.12	1.08	2.00	1.05
632534	0.779	0.061	8.55	1.31	8.52	1.20
634503	1.517	0.060	9.89	1.33	8.76	1.20
634504	1.643	0.062	9.90	1.39	9.90	1.25

Table M.23. Grade 7 Science Field Test: Rasch Item Parameters and Fit Statistics

Item ID	Logit	SE(Logit)	Out Z Std	Out MNSq	In Z Std	In MNSq
631962	-0.001	0.075	0.25	1.02	-0.93	0.96
636409	2.913	0.071	1.26	1.07	-0.90	0.97
636410	1.377	0.062	2.72	1.08	3.37	1.07
630682	1.554	0.062	1.61	1.05	1.27	1.03
630683	1.587	0.061	8.11	1.23	8.67	1.19
630684	1.308	0.062	4.77	1.14	4.57	1.10
630686	1.458	0.061	3.02	1.09	3.01	1.07
630687	2.859	0.069	6.45	1.39	4.17	1.15
630688	0.788	0.064	-2.09	0.92	-2.61	0.93
630689	1.958	0.061	5.42	1.17	4.48	1.10
631963	0.361	0.070	-2.50	0.86	-2.61	0.92
636411	1.826	0.061	1.77	1.05	1.18	1.03
630690	0.961	0.063	-2.03	0.92	-1.82	0.96
630692	2.262	0.063	-0.16	0.99	-1.12	0.97
630693	1.811	0.061	-3.23	0.91	-3.60	0.92
630694	0.975	0.061	0.39	1.01	0.67	1.02
630695	-0.340	0.079	-0.25	0.98	-1.34	0.94
630696	0.269	0.068	-3.79	0.80	-4.08	0.87
630697	1.041	0.060	-1.32	0.96	-1.20	0.97
630698	1.581	0.060	8.56	1.27	9.65	1.21
630699	1.380	0.061	-0.27	0.99	-0.30	0.99
630700	0.407	0.067	-1.46	0.93	-2.20	0.93
630706	0.062	0.072	-0.53	0.97	-0.44	0.98
630707	1.084	0.063	-3.77	0.88	-3.45	0.92
630701	1.368	0.060	-0.73	0.98	-0.27	0.99
630702	-0.713	0.087	-1.64	0.84	-0.79	0.95
630703	-0.081	0.073	1.56	1.11	0.65	1.03
630705	3.194	0.074	3.42	1.25	1.10	1.05
631465	0.907	0.063	-4.47	0.84	-4.98	0.88
631481	2.005	0.062	1.83	1.06	1.08	1.02
631964	-0.146	0.076	1.68	1.12	1.47	1.06
631965	0.256	0.071	1.53	1.09	0.61	1.02
631966	0.022	0.076	-2.02	0.86	-2.40	0.90
631967	1.620	0.061	1.48	1.05	1.59	1.04
631482	-1.495	0.118	0.70	1.10	-0.54	0.95
631483	0.819	0.063	3.32	1.13	4.02	1.10
631466	1.620	0.061	5.23	1.16	4.89	1.11
631467	0.338	0.068	-4.40	0.78	-4.31	0.87
631468	2.751	0.068	5.63	1.31	2.81	1.10
631469	-0.490	0.085	-3.06	0.74	-2.12	0.89
631470	0.258	0.070	-0.58	0.97	-0.44	0.98
631485	0.664	0.065	1.67	1.08	2.45	1.07
631486	2.046	0.061	2.78	1.09	1.30	1.03
631471	0.243	0.069	3.75	1.23	3.36	1.12
631472	0.922	0.063	-1.35	0.95	-0.62	0.98
631473	0.415	0.068	-1.88	0.91	-2.54	0.92
631474	2.133	0.061	5.85	1.20	6.10	1.15
631475	1.998	0.062	2.13	1.07	0.94	1.02

Table M.23 (continued). Grade 7 Science Field Test: Rasch Item Parameters and Fit Statistics

Item ID	Logit	SE(Logit)	Out Z Std	Out MNSq	In Z Std	In MNSq
631476	1.584	0.061	5.90	1.18	4.58	1.10
631477	1.820	0.060	3.31	1.10	2.39	1.05
631478	3.260	0.077	4.32	1.34	1.89	1.09
631480	2.361	0.065	5.56	1.24	5.55	1.16
631508	1.654	0.061	4.62	1.14	4.87	1.11
631509	2.141	0.061	9.36	1.34	8.88	1.22
631510	1.385	0.061	0.95	1.03	1.21	1.03
631515	1.652	0.061	-1.59	0.96	-1.50	0.97
631511	1.728	0.059	3.51	1.10	3.99	1.08
631512	1.289	0.061	1.78	1.05	1.39	1.03
631513	0.304	0.067	-1.55	0.92	-0.47	0.98
631514	0.573	0.067	4.54	1.23	3.02	1.09
631969	-0.646	0.087	-2.37	0.79	-1.49	0.92
631970	2.010	0.064	0.82	1.03	0.84	1.02
631971	1.993	0.061	1.70	1.05	1.60	1.04
632871	1.300	0.062	5.17	1.17	6.76	1.16
632872	1.614	0.061	4.28	1.12	4.90	1.11
632873	3.411	0.079	3.81	1.32	1.77	1.09
632874	3.182	0.075	4.86	1.36	2.71	1.12
635736	2.461	0.065	9.23	1.44	7.20	1.22
632886	2.527	0.065	5.45	1.25	5.15	1.16
632887	2.866	0.069	7.90	1.50	4.23	1.15
632888	0.453	0.067	-0.99	0.95	0.03	1.00
632889	0.924	0.064	-4.74	0.83	-4.91	0.88
632876	0.847	0.064	-2.51	0.90	-2.59	0.93
636415	2.180	0.062	4.83	1.18	3.62	1.09
636416	1.919	0.062	-1.80	0.94	-2.19	0.95
632890	2.615	0.066	-1.55	0.93	-2.04	0.94
632891	2.085	0.062	5.31	1.19	5.07	1.13
632892	0.399	0.068	-1.76	0.91	-1.29	0.96
632893	1.087	0.061	1.27	1.04	1.11	1.03
632879	3.871	0.092	9.68	2.37	3.23	1.22
632880	2.078	0.064	6.28	1.23	5.82	1.15
632881	1.084	0.060	3.37	1.11	3.29	1.07
632875	3.895	0.088	8.87	2.14	2.76	1.18
632882	3.173	0.074	8.23	1.65	4.35	1.19
632883	0.999	0.062	0.49	1.02	0.55	1.01
632894	2.057	0.061	2.85	1.10	1.86	1.04
632895	2.552	0.064	9.90	1.58	9.46	1.29
630778	1.125	0.062	-2.56	0.92	-3.05	0.93
630779	1.636	0.062	-1.20	0.96	-1.84	0.96
630794	2.252	0.064	2.05	1.08	1.08	1.03
636417	2.726	0.069	6.04	1.34	3.95	1.14
631431	1.781	0.060	1.22	1.04	1.29	1.03
631432	1.809	0.061	2.26	1.07	1.85	1.04
631433	-0.003	0.074	3.66	1.26	1.19	1.05
631440	0.597	0.066	-4.09	0.82	-3.60	0.90
631441	0.316	0.070	-0.66	0.96	-0.82	0.97

Table M.23 (continued). Grade 7 Science Field Test: Rasch Item Parameters and Fit Statistics

Item ID	Logit	SE(Logit)	Out Z Std	Out MNSq	In Z Std	In MNSq
631442	0.413	0.067	-0.38	0.98	-1.22	0.96
631435	1.728	0.061	6.74	1.20	6.62	1.15
631436	1.566	0.062	2.90	1.09	3.52	1.08
631437	2.228	0.063	7.68	1.30	6.78	1.18
631438	1.814	0.061	1.87	1.06	1.92	1.04
632095	1.070	0.061	2.74	1.09	3.68	1.09
632097	-0.630	0.089	-1.13	0.89	-0.42	0.97
632098	-0.684	0.090	-1.28	0.87	-0.59	0.96
632099	0.598	0.064	-2.14	0.91	-1.51	0.96
632100	1.215	0.061	0.58	1.02	0.97	1.02
632113	0.635	0.066	-1.05	0.95	-0.50	0.99
632101	1.248	0.062	2.23	1.07	2.33	1.05
632102	1.455	0.062	-3.66	0.90	-4.23	0.91
632103	1.088	0.064	0.18	1.01	0.78	1.02
632104	0.629	0.064	-0.33	0.98	-0.32	0.99
628349	1.327	0.061	2.58	1.08	2.94	1.06
636418	1.430	0.062	3.72	1.11	4.64	1.10
632105	1.391	0.060	-0.84	0.97	-0.35	0.99
632107	2.755	0.068	8.42	1.48	6.45	1.22
632109	1.366	0.061	-0.78	0.98	-0.49	0.99
632110	1.151	0.061	-0.15	1.00	0.59	1.01
632111	0.140	0.071	-1.39	0.91	-1.54	0.94
632645	1.135	0.063	-0.58	0.98	-0.01	1.00
632638	3.612	0.086	4.41	1.46	1.09	1.06
632639	1.197	0.063	0.46	1.01	0.35	1.01
632640	2.083	0.061	6.65	1.23	6.84	1.17
632641	1.867	0.061	0.98	1.03	1.27	1.03
632644	0.730	0.064	-3.93	0.85	-4.13	0.89
632927	1.737	0.061	7.03	1.22	7.44	1.17
632919	2.677	0.067	5.15	1.26	3.26	1.11
632920	1.064	0.062	-3.74	0.87	-3.66	0.92
632921	0.848	0.064	2.81	1.11	3.85	1.10
632922	1.230	0.062	3.82	1.12	4.48	1.10
632923	2.467	0.066	9.08	1.45	8.56	1.27
632924	2.652	0.068	6.89	1.38	5.21	1.17
632925	2.141	0.064	-0.95	0.97	-0.60	0.98
632926	1.545	0.060	9.19	1.29	9.17	1.21
630461	1.292	0.059	-4.00	0.89	-4.74	0.90
630462	2.465	0.066	6.84	1.31	5.82	1.17
630463	2.436	0.065	0.74	1.03	0.40	1.01
630464	2.163	0.063	7.25	1.28	7.98	1.21
630465	2.317	0.065	5.76	1.24	5.47	1.15
630467	0.748	0.065	-0.20	0.99	-0.07	1.00
630469	2.578	0.068	8.06	1.42	6.16	1.20
630471	1.107	0.062	7.58	1.27	8.09	1.19
630472	1.700	0.061	3.81	1.11	4.06	1.09
631530	-0.073	0.075	-0.96	0.93	0.00	1.00
631532	0.297	0.071	-0.80	0.95	-0.85	0.97

Table M.23 (continued). Grade 7 Science Field Test: Rasch Item Parameters and Fit Statistics

Item ID	Logit	SE(Logit)	Out Z Std	Out MNSq	In Z Std	In MNSq
631533	0.144	0.072	-4.94	0.72	-3.64	0.87
631534	-0.329	0.077	-3.06	0.78	-2.56	0.89
631535	0.151	0.071	-4.75	0.73	-3.84	0.87
631536	0.326	0.067	-2.81	0.86	-2.18	0.93
631537	-0.707	0.089	-3.35	0.69	-1.89	0.89
631538	0.616	0.064	-3.91	0.84	-4.25	0.89

Table M.24. Grade 10 Science Field Test: Rasch Item Parameters and Fit Statistics

Item ID	Logit	SE(Logit)	Out Z Std	Out MNSq	In Z Std	In MNSq
631516	1.456	0.067	3.80	1.22	2.46	1.08
631517	3.762	0.071	6.43	1.43	5.48	1.21
631518	1.231	0.073	-2.67	0.83	-4.56	0.85
631519	2.343	0.062	5.91	1.22	5.75	1.14
634505	2.089	0.066	0.58	1.02	0.63	1.02
634506	2.876	0.063	4.72	1.19	3.38	1.09
634508	1.476	0.070	1.21	1.07	0.25	1.01
634509	3.725	0.069	7.90	1.52	5.57	1.20
636412	2.922	0.065	6.50	1.27	5.48	1.15
631521	1.189	0.071	-2.12	0.86	-1.72	0.94
631522	3.773	0.072	9.08	1.67	6.26	1.24
631525	3.812	0.071	6.47	1.44	3.41	1.12
631580	3.477	0.067	9.90	1.67	7.52	1.24
631526	1.984	0.065	-1.10	0.95	-1.50	0.96
631527	1.821	0.065	-0.60	0.97	-0.54	0.99
631559	1.731	0.066	3.26	1.17	2.17	1.06
631560	3.097	0.068	4.59	1.21	5.34	1.16
631561	0.856	0.077	-2.59	0.80	-1.63	0.93
631562	2.800	0.063	4.15	1.16	4.26	1.11
631563	0.702	0.079	-5.34	0.60	-4.76	0.80
631564	3.691	0.072	3.60	1.22	2.60	1.09
631565	1.410	0.070	-2.76	0.83	-3.92	0.88
631566	1.708	0.067	-1.04	0.95	-0.55	0.98
631567	1.723	0.065	-2.55	0.88	-2.00	0.94
631569	2.541	0.065	0.22	1.01	-0.59	0.99
631570	3.002	0.064	0.81	1.03	-0.43	0.99
631571	1.685	0.066	2.93	1.15	4.85	1.14
631573	1.107	0.074	2.48	1.18	1.10	1.04
631574	2.330	0.062	8.77	1.34	8.73	1.22
631575	0.636	0.083	1.19	1.11	-0.64	0.97
631576	1.415	0.068	3.44	1.19	3.12	1.10
631577	0.173	0.092	-2.06	0.77	-1.89	0.89
631578	1.743	0.067	-0.18	0.99	-0.49	0.99
631581	0.178	0.093	-3.20	0.66	-2.25	0.87
631582	0.109	0.094	-2.34	0.73	-1.72	0.89
631583	1.392	0.068	-3.88	0.80	-4.33	0.87
631584	4.009	0.074	7.94	1.65	4.73	1.19
631585	-0.040	0.101	-1.91	0.76	-1.41	0.90
631586	1.475	0.068	0.81	1.04	0.90	1.03
631587	2.125	0.064	-4.71	0.83	-5.04	0.88
631588	2.029	0.064	2.99	1.12	4.04	1.11
631589	2.751	0.064	-0.50	0.98	-1.65	0.96
631590	1.433	0.067	-0.97	0.95	-1.27	0.96
631593	1.606	0.067	-3.87	0.82	-3.94	0.89
631595	1.695	0.066	-1.22	0.94	-0.89	0.97
636413	3.018	0.065	1.39	1.06	0.47	1.01
634501	1.032	0.073	-2.29	0.84	-2.29	0.91
634502	2.205	0.064	3.20	1.13	4.39	1.11

Table M.24 (continued). Grade 10 Science Field Test: Rasch Item Parameters and Fit Statistics

Item ID	Logit	SE(Logit)	Out Z Std	Out MNSq	In Z Std	In MNSq
632121	2.866	0.064	6.22	1.25	5.89	1.15
632122	0.433	0.087	-4.64	0.58	-3.39	0.83
632123	3.161	0.066	1.04	1.04	0.09	1.00
632124	4.107	0.075	5.24	1.43	3.88	1.16
632115	2.729	0.064	9.90	1.40	9.90	1.27
632116	2.382	0.065	-1.20	0.96	-1.46	0.96
632118	3.242	0.065	1.46	1.06	0.20	1.01
632119	2.043	0.066	3.01	1.13	3.31	1.09
632120	0.846	0.076	1.21	1.10	0.00	1.00
636420	2.434	0.063	9.53	1.36	9.38	1.24
636421	1.961	0.063	9.90	1.55	9.90	1.37
626591	2.121	0.064	8.50	1.36	8.64	1.23
626593	2.122	0.064	3.10	1.12	2.33	1.06
631129	1.480	0.067	-1.07	0.94	0.28	1.01
631130	2.406	0.064	-3.58	0.87	-4.31	0.90
626594	2.547	0.064	8.98	1.33	9.62	1.25
626596	3.419	0.067	7.77	1.43	4.07	1.13
626598	2.862	0.064	4.76	1.19	3.73	1.10
626599	2.147	0.064	-2.60	0.90	-2.10	0.95
626602	3.097	0.065	5.73	1.26	5.72	1.16
626603	3.443	0.067	9.90	1.78	9.90	1.36
632928	2.930	0.067	0.61	1.02	0.11	1.00
631133	3.449	0.067	6.36	1.35	3.88	1.12
626600	3.379	0.067	7.30	1.38	8.63	1.27
626605	3.731	0.068	3.17	1.18	0.22	1.01
636423	2.821	0.062	3.39	1.13	3.35	1.08
636424	3.490	0.068	2.12	1.11	-0.26	0.99
626616	3.603	0.069	6.23	1.38	2.37	1.08
626606	1.339	0.070	-1.45	0.91	-0.34	0.99
626607	0.728	0.079	2.27	1.21	0.62	1.03
626608	1.905	0.065	1.57	1.07	3.24	1.09
626609	4.324	0.082	9.90	2.43	5.33	1.28
631131	2.258	0.063	2.73	1.10	2.67	1.07
631132	2.260	0.063	5.93	1.22	5.77	1.15
626612	3.270	0.066	9.90	1.51	9.09	1.28
626613	2.351	0.065	-2.40	0.91	-2.79	0.93
626614	4.732	0.086	9.90	2.70	5.44	1.33
632455	2.400	0.065	7.65	1.31	7.76	1.21
632456	2.850	0.065	7.00	1.28	5.29	1.14
632457	2.682	0.064	5.01	1.19	4.78	1.12
632458	3.571	0.068	9.90	1.62	7.86	1.27
632459	2.494	0.065	2.94	1.11	2.05	1.05
636426	3.139	0.065	5.56	1.25	3.83	1.11
632460	4.463	0.082	9.90	2.58	5.65	1.30
632461	3.661	0.070	9.90	1.84	8.19	1.30
632462	1.593	0.067	2.40	1.13	3.99	1.12
632463	2.659	0.062	3.41	1.12	3.87	1.09
632465	2.011	0.065	-1.05	0.96	-1.21	0.97

Table M.24 (continued). Grade 10 Science Field Test: Rasch Item Parameters and Fit Statistics

Item ID	Logit	SE(Logit)	Out Z Std	Out MNSq	In Z Std	In MNSq
632466	1.404	0.070	-4.85	0.73	-6.04	0.82
632469	4.322	0.079	7.72	1.76	3.68	1.18
632931	3.422	0.068	9.02	1.52	6.56	1.22
632933	2.647	0.064	1.98	1.07	1.77	1.04
632934	2.870	0.064	8.34	1.33	8.27	1.22
632935	2.294	0.064	0.94	1.03	1.34	1.03
632945	2.080	0.064	3.89	1.17	2.45	1.06
632464	1.997	0.065	-1.02	0.96	-1.08	0.97
632946	3.723	0.073	5.86	1.41	1.90	1.07
632936	2.736	0.062	4.40	1.16	4.70	1.12
632937	3.259	0.065	7.82	1.37	6.14	1.18
632938	2.745	0.064	3.56	1.14	3.06	1.08
632939	2.025	0.065	-0.17	0.99	-0.42	0.99
636427	3.314	0.068	5.55	1.28	3.38	1.10
631439	1.581	0.068	-2.14	0.89	-3.87	0.89
632941	2.335	0.062	-1.28	0.96	-1.78	0.96
632942	0.213	0.092	-2.30	0.76	-1.81	0.89
632947	5.132	0.102	8.17	2.50	2.40	1.19
632943	3.122	0.065	6.99	1.31	6.79	1.19
632944	3.388	0.068	2.92	1.14	0.43	1.01
633505	2.792	0.063	9.90	1.41	9.90	1.26
633507	2.616	0.063	7.05	1.26	8.10	1.21
633520	2.832	0.064	6.25	1.25	5.66	1.15
633474	1.483	0.070	3.13	1.19	3.31	1.11
633475	2.201	0.066	3.77	1.16	4.03	1.11
633476	0.111	0.093	-4.07	0.58	-2.57	0.85
633470	1.969	0.064	1.56	1.06	0.69	1.02
633471	2.387	0.064	-2.83	0.90	-3.06	0.93
633472	1.950	0.065	4.38	1.20	4.35	1.12
633473	1.915	0.067	0.40	1.02	0.88	1.02
633477	1.321	0.070	-1.57	0.91	-1.76	0.94
633482	3.968	0.074	8.24	1.65	6.20	1.25
633510	3.088	0.064	1.91	1.08	0.60	1.02
636419	2.723	0.064	8.71	1.34	8.75	1.22
633479	1.613	0.069	-1.89	0.90	-1.64	0.95
631549	0.164	0.090	-2.25	0.76	-1.62	0.91
631550	2.127	0.066	5.19	1.22	5.66	1.16
631540	0.148	0.094	-4.70	0.52	-3.06	0.82
631541	1.893	0.064	6.09	1.28	6.80	1.19
631543	2.893	0.065	8.89	1.37	8.78	1.24
631544	1.854	0.066	-3.13	0.87	-2.54	0.93
631546	2.177	0.064	9.90	1.44	9.90	1.30
631547	2.665	0.061	6.02	1.21	6.83	1.17
630468	1.312	0.069	-2.68	0.85	-2.87	0.91
632524	1.603	0.066	-3.23	0.84	-3.38	0.90
633125	2.835	0.065	7.04	1.29	7.32	1.20
633126	1.612	0.069	1.07	1.06	0.23	1.01
633123	2.855	0.064	0.14	1.00	-0.43	0.99

Table M.24 (continued). Grade 10 Science Field Test: Rasch Item Parameters and Fit Statistics

Item ID	Logit	SE(Logit)	Out Z Std	Out MNSq	In Z Std	In MNSq
631551	2.267	0.063	0.04	1.00	0.17	1.00
633509	3.691	0.071	9.09	1.61	5.53	1.20
633127	1.177	0.072	-0.99	0.93	-1.91	0.93
633128	2.209	0.064	2.75	1.11	3.89	1.10
633129	2.052	0.065	7.95	1.34	6.53	1.18
633130	2.807	0.065	-0.28	0.99	-1.08	0.97

Appendix N: Spring 2011 ISAT Test Administration Manual

ISAT

Idaho Standards Achievement Tests

Test Administration Manual for Accommodated Materials

Spring 2011

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General Information

Introduction

Data Recognition Corporation (DRC) along with the computer delivery vendor, Computerized Assessments and Learning (CAL), are the providers of the Idaho Standards Achievement Tests (ISAT) Program. The Spring 2011 ISAT will be administered to all students in grades 3–10. The ISAT Exit Exam Retest will be administered to students in grades 11 and 12 who have not yet passed the ISAT.

For the Spring 2011 administration, the ISAT Exit Exam Retest will be administered to students in grade 9 as a practice opportunity. Grade 9 students will NOT have an Extender set.

This manual has been designed to help you administer the special versions of the ISAT accurately and efficiently. Please take the time to read this manual to familiarize yourself with the administration of the ISAT. Completing the steps in administering the ISAT is essential to the success of the ISAT program. This manual should be reviewed by all Test Coordinators, Test Administrators, and Proctors who will participate in the Spring 2011 ISAT.

Test Administrators are strongly urged to become thoroughly familiar with this manual before the first day of testing. However, test items in the test booklets and answer documents are secure and may not be read by anyone before, during (except for the student testing), or after the test administration.

Teachers, Proctors, Test Administrators, or other testing personnel may not read test items aloud, silently, to themselves, or to another individual. Parents/guardians may not read test items under any circumstances.

Key Dates

Spring 2011 Regional Training Sessions	February 28–March 4, 2011
Management Tools Available	March 14, 2011
NCLB Accommodated Materials Delivered to District Office	April 8, 2011
Spring 2011 ISAT Accommodated Material Test Window	April 11–May 5, 2011
NCLB materials returned via UPS to DRC in order to receive targeted Extender materials	April 18, 2011
Deadline for ordering accommodated materials for new students	April 28, 2011
Extender Accommodated Materials Delivered to District Office	April 29, 2011
Remaining materials returned via UPS to DRC for scoring	May 6, 2011
Student Enrollment File (SEF) Upload Window Closes	May 6, 2011 @ 12 pm MDT (11 am PDT)
Student Editor Closes – All student demographic information in the Student Editor must be accurate and final.	May 12, 2011 @ 4 pm MDT (3 pm PDT)
Final Score Reports Posted	June 2, 2011

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Important Notes for Spring 2011 ISAT

The following items should be noted for the Spring 2011 ISAT:

- Grade 9 students will be allowed to take the ISAT as a practice opportunity. The test will have only one part (no Extender). **Grade 9 students will use the test booklet and answer document titled Grades 9 & 10 NCLB/Retest.**
- The State Student ID field in the Student Enrollment File (SEF) is now required for ALL students. The State Student ID is a unique ID assigned to each student by the state. In addition, if you enter a student manually via the Student Editor, you will be required to enter the 9 digit State Student ID.
- The SEF upload window will be closing one week before the test window closes. SEF uploads must be complete by 12 pm MDT (11 am PDT) on May 6, 2011. Updates to student data may still be made manually via Student Editor through 4 pm MDT (3 pm PDT) on May 12, 2011.
- Final score reports will be posted June 2, 2011.

Scheduling the Spring 2011 ISAT

For scheduling purposes, each subject of the ISAT will take about 60–90 minutes to complete. Students who finish early may read or sit quietly until the end of the test session.

Under no circumstances should a test be started unless there is enough time to complete it. Students may be given additional time if needed, but additional time must be given as an extension of the same testing period, not at a different time.

Accommodated Materials

Paper/Large Print/Braille/Audio CDs

The accommodated materials available for this administration are paper versions, large print versions, and Braille versions for each grade and subject. Audio CDs are available for language usage, mathematics, and science and can be provided in addition to paper, large print, and Braille materials. The student's Individualized Education Program (IEP) will determine which accommodated versions are needed for this administration.

These materials are considered accommodations and are only available for special education, English Language Learners (ELL), and Section 504 students. Special accommodations may be necessary when administering the test to these students. Please check the student's IEP, ELP, or 504 Plan for special accommodations that may be needed.

IMPORTANT NOTE: No human readers will be allowed. If a student using paper, large print, or Braille needs a language usage, mathematics, or science test read to him/her, an audio CD **must** be used.

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To order accommodated materials, you must email the following information to the ISAT Project Team at ISAT@datarecognitioncorp.com no later than April 28, 2011:

- District Number
- School Number
- Student Name
- Student ID
- Student Grade
- Subject(s)
- Type of Material Needed (Paper, Large Print, or Braille). Audio CDs can be ordered in addition to any other type of material.

DRC will send these materials to arrive in districts beginning April 8, 2011, depending on when the order is received. **No orders for accommodated materials will be accepted after April 28, 2011.**

In addition to ordering accommodated materials via email, each student must also be added to and identified in the Student Editor by subject for each accommodated material needed. This information must be entered no later than **April 15, 2011** for those materials returned on April 18, 2011 and no later than **May 6, 2011** for those materials returned after April 18, 2011.

1. To use the Student Enrollment File to update the accommodation information, include local student ID, school number, student grade, and indicate accommodated materials used for each student in columns AD, AH, AL, and AP of the Student Enrollment File. The file can then be uploaded via the ISAT Website.

2. To manually indicate accommodated materials used for each student via the Student Editor:

    - Log in to the ISAT Website
    - Click on “Data Tools”
    - Click on “Student Editor”
    - Choose the subject and any other information needed to identify the student
    - Click on “Accommodations” in the blue box
    - Choose “P-Paper,” “L-Large Print,” “B-Braille,” “R-Paper with Audio CD,” “T-Large Print with Audio CD,” or “E-Braille with Audio CD” from the drop-down menu in the “Accd 1” field

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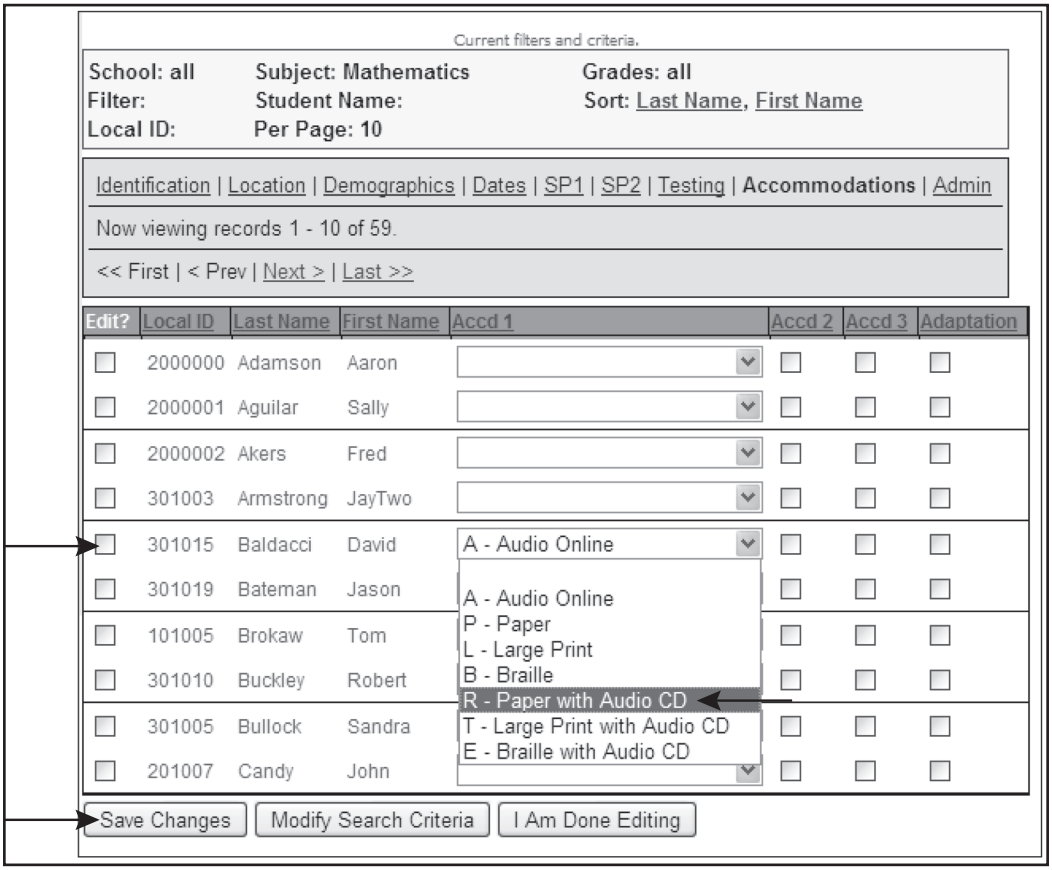
- Check the “Edit” box to the left of the “Local ID” field
- Click “Save Changes”



Precode labels containing student name and demographic information will be shipped with your order. Any changes made to this data in the ISAT Student Editor before **May 12, 2011** will be reflected on the score reports and data files.

Extender Sets for Accommodated Materials

Districts are required to administer the Extender set to all students in grades 3 through 8 and 10; therefore, the Extender portion of the ISAT is available for students in grades 3 through 8 and 10 who use an accommodated version of the test. **Students in grade 9 will NOT have an Extender set.**

The Extender set materials will be in the same version of accommodated materials that your district orders, with the exception of Braille. **NOTE:** ALL Braille Extender sets will be Contracted for reading and language usage, and Nemeth (Contracted) for math and science.

You have the option of administering targeted or on-grade Extender materials to your students. NCLB materials must be shipped no later than **April 18, 2011** in order to receive targeted Extender materials. If NCLB materials are not returned on April 18, 2011, students will receive **on-grade** Extender materials.

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Paper Version Administration and Handling Information

- Students respond directly onto an answer document.
- Bundle the paper version and answer document with all test materials to be returned to DRC for scoring. These are secure materials.

NOTE: *If a transcriber was used, the answer document must bear the signature(s) of the transcriber(s) and the transcription date on the inside front cover.*

Large Print Version Administration and Handling Information

- Students mark responses directly in the large print test booklet.
- Transcribe student responses onto an answer document.
- Bundle the large print version and answer document with all test materials to be returned to DRC for scoring. These are secure materials.

NOTE: *Answer documents must bear the signature(s) of the transcriber(s) and the transcription date on the inside front cover.*

Braille Version Administration and Handling Information

- Students use a Brailler.
- Transcribe student responses onto an answer document.
- Bundle the Braille version and answer document with all test materials to be returned to DRC for scoring. These are secure materials.

NOTE: *Answer documents must bear the signature(s) of the transcriber(s) and the transcription date on the inside front cover.*

Test Security

District Test Coordinators (DTCs), School Test Coordinators, and Test Administrators share the responsibility for ensuring that all test materials and student responses are handled securely and confidentially in accordance with security procedures. The ISAT is to be administered by professional staff members who have been oriented in the proper test administration procedures for the ISAT used in the school.

- **Nondisclosure of Test Contents** – The test content is not to be viewed by anyone prior to the test administration. Only students being tested are allowed to access the test at the time of testing. Once a test is started during test administration, only the student taking the test is allowed to view that student's test booklet and answer document.

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- **Secure Testing Materials** – **No testing materials are to be reproduced.** No test materials are to be accessed outside the school building except under approved conditions; contact the Idaho State Department of Education (SDE). The following materials may be provided to students during the test administration:

  - Scratch paper: Blank scratch paper and a writing instrument may be provided to students for any test.
  - Mathematics Reference Sheets: Mathematics Reference Sheets are provided in the back of the test booklet and in the back of this manual. Test Administrators may provide clean, paper copies of these reference sheets to students.
  - Periodic Table: A periodic table is provided in the back of the grade 10 science test booklet and in the back of this manual. Test administrators may provide clean, paper copies of this periodic table to students.

  All test booklets and answer documents, both used and unused, will be inventoried by DRC upon receipt for scoring. Results of the inventory will be provided to SDE and to each district. To prevent any problems with the return of materials, Test Administrators should inventory materials immediately after every test session and store test materials securely before and after their use. **Every test booklet and answer document, both used and unused, must be accounted for at all times.**

- **Test Security Agreement** – All district and school level personnel who are working with any ISAT materials must complete a *Test Security Agreement*. The *Test Security Agreement* can be found on page 47 of this manual. This form may be reproduced as necessary for your district. At the minimum, the following individuals must review and sign a *Test Security Agreement*:

  - District Test Coordinators
  - School Test Coordinators
  - Test Administrators/Proctors who are in the classroom during an ISAT administration
  - All individuals involved in transcriptions of student responses

  DTCs are responsible for these completed forms. These forms must be completed and stored at the district office for two years. The SDE will randomly audit these forms each administration.

- **Proctors** –The assistance of a Proctor is essential. The ratio of one adult for every 12–15 students is recommended in the testing room. Teachers' aides may be used as Proctors.

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Invalidating a Test

The ISAT administration must adhere to the *Test Coordinator's Guide for Federal and State Assessments*. If the Test Administrator or Proctor believes the integrity of the ISAT has been compromised, the test booklet and answer document should be collected and the student removed from the testing location. **The school principal will determine if the student test will be invalidated.** Possible reasons to consider invalidating a test are:

- The student receiving help from another student;
- The student randomly marking answers without reading the presented material;
- The student refusing to take or continue the test;
- Test Administrators, Proctors, or other adults in the room explaining test items to students;
- Test Administrators, Proctors, or other adults in the room reading words or passages to students;
- Test Administrators, Proctors, or other adults in the room pointing to or suggesting the correct response;
- The student using a calculator on a non-calculator portion of the math test;
- Copying or any other modification of the test booklet.

If the school principal decides to invalidate the test, it is the School Test Coordinator's responsibility to invalidate the test in the ISAT system.

NOTE: If a student's test is coded for an adaptation, DRC will automatically invalidate the student's test. You should **NOT** use the Invalid code for students coded with an adaptation.

To invalidate a test:

- Log into the ISAT Website
- Click on "Data Tools"
- Click on "Student Editor"
- Choose the subject and any other information needed to identify the student
- Click on "Testing" in the blue box
- Choose "03-Invalid" from the drop-down menu in the "Not Tested/Invalid" field

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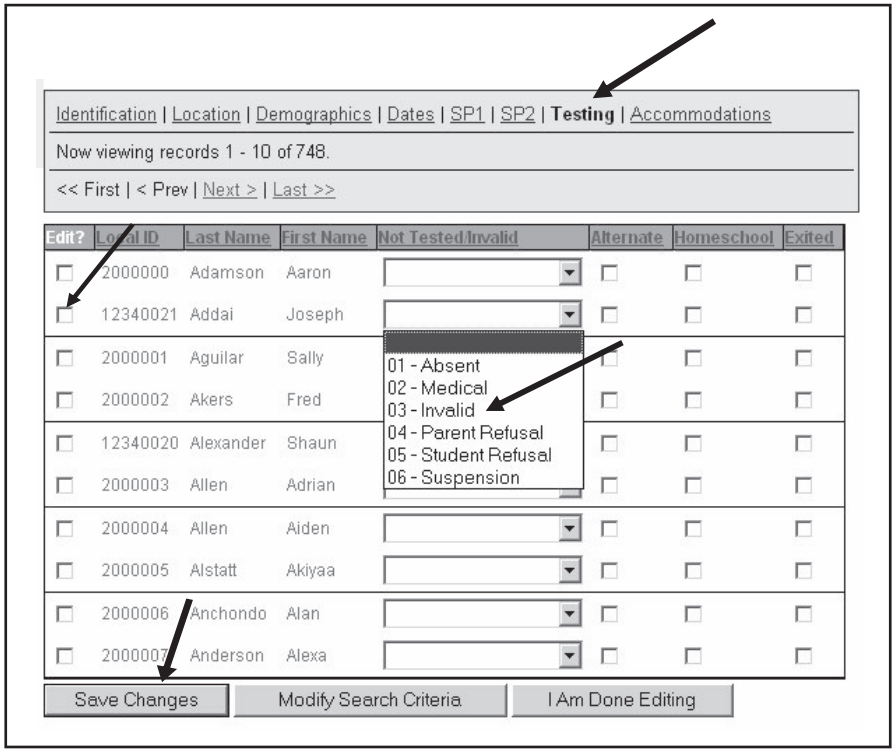
- Check the “Edit” box to the left of the “Local ID” field
- Click “Save Changes”



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Roles and Responsibilities of the Test Administrator

Test Administrators are responsible for the following:

- distributing test booklets and answer documents to students
- administering the ISAT
- returning all test materials to the School Test Coordinator when testing is complete.

Test Administrators may also:

- arrange the testing room
- restrict electronic devices of any type: Palm Pilots, cell phones, PDAs, wristwatches with electronic displays, calculators, iPods, MP3 players, etc.
- distribute test materials
- make sure students are working in the correct place and are filling in only one circle for each multiple-choice item
- prohibit talking or sharing of responses
- collect or secure materials at the end of the session (closing the test booklets is sufficient during breaks).

Schedule Testing

Under no circumstances should Test Administrators begin a test unless there is enough time to complete it. Students may be given additional time if needed, but additional time must be given as an extension of the same testing period, not at a different time. Students who finish early may read or sit quietly until the end of the test session.

Prepare for Testing

Test Administrators are required to follow the district's ISAT security procedures. The *Test Security Agreement* found on page 47 of this manual must be signed and returned to the DTC prior to testing. Before testing begins, make sure to have all of the materials needed for testing. You should also read through this manual prior to testing day.

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All Test Administrators will need:

- a copy of the *Test Administration Manual for Accommodated Materials*
- test booklets and answer documents for each student (your School Test Coordinator will provide these prior to testing)
- Student precode labels
- "Do Not Process" labels
- A "Testing: Do Not Disturb" sign for the door (not provided)

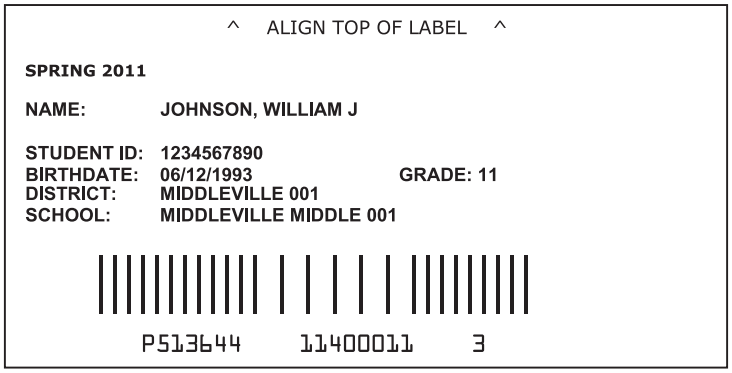
Make sure that all test materials are stored in a secure location prior to test administration.

Label Answer Documents

Student precode labels and "Do Not Process" labels are provided. **All answer documents must have a precode label applied before students use the answer documents.**

ANSWER DOCUMENTS THAT DO NOT CONTAIN A STUDENT PRECODE LABEL WILL BE CONSIDERED UNUSED AND WILL NOT BE SCORED. MANUAL SCORING OF ANSWER DOCUMENTS WILL BE AT THE DISTRICT'S EXPENSE.

- Student precode labels are produced for each grade 3 through 12 student for whom DRC received an accommodated material order. Place a student precode label on the ISAT answer document.



- Apply each label to the front cover of the answer document in the box containing the words **"Attention: Apply label here."**

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- If a label is positioned incorrectly, do not use the answer document. Place the “Do Not Process” label in the preprinted box and contact the ISAT Project Team to report the security number of the answer document. Use a new answer document for that student.

^ ALIGN TOP OF LABEL ^

SPRING 2011

You must contact DRC @1-866-572-2050
if using this label.

DO NOT PROCESS

D513644 NOTSCORE

NOTE: *Each student using accommodated materials for the ISAT needs to be identified in the Student Editor no later than* ***April 15, 2011*** *for those orders that were submitted by April 8, 2011. This information must be entered into the Student Editor no later than* ***May 6, 2011*** *for those orders that were submitted after April 8, 2011.*

Prepare Testing Location

Provide a testing location that has comfortable seating, sufficient workspace, and good lighting. Arrangements for rooms and seating should be announced in advance in order to eliminate confusion when testing begins. The room where students take the test should be as free from outside disturbance as possible. Students should be seated so they have enough room and will not be tempted to copy other students’ answers. Any visual aids or clues such as curricular materials (for example, multiplication tables) should be removed or covered and remain hidden throughout the administration of all tests.

Post a “Testing: Do Not Disturb” sign on the door to prevent interruptions. For large groups, it is advisable to have one adult assistant for every 12–15 students tested, in addition to the Test Administrator.

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Administer Tests

In order to ensure accurate results, it is essential that all Test Administrators follow the same procedure when administering the test. This procedure begins on page 14 of this manual.

There are Mathematics Reference Sheets included in the back of this manual. You must copy and distribute this reference sheet to the students during the mathematics testing sessions.

- Be sure students understand the directions and how to mark responses.
- There are several places in this manual that direct you to ask students if they have any questions. Be sure that you answer all questions students have regarding the **text that you have read aloud** (preceded by the word "SAY") and any questions they have about test-taking mechanics.
- Be careful not to inadvertently give hints or clues that indicate an answer or help eliminate answer choices.
- Typically, students may raise their hands and tell you that they do not understand a question after they have begun working on the test. You may **NOT** provide additional information to a student on test items or clarify test items.
- You may not read test items, passages, or prompts to the students.

Marking Answers. Students should mark only **one** response for a multiple-choice item and should completely erase any response they do not want.

Guessing. Encourage students to attempt all items. Tell them to read each item carefully and make their best attempt at responding. Be careful not to imply that they should guess randomly. Points are not subtracted for wrong responses.

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Transcribe Responses

- Transcribers must be a test proctor, teacher, building administrator, or designated scribe who has signed the *Test Security Agreement*.
- Transcribe any responses that cannot be recorded by a student into an answer document.
- Responses that must be transcribed include those answered using a Braille or large print version of the test, as well as signed or oral responses.
- All responses must be transcribed into an answer document.
- Transcriber signatures and the date must be on the inside front cover of the document in which they transcribed the responses.
- Return any used Braille or large print test booklet to your School Test Coordinator after an accurate transcription has been made into a standard answer document.

Return Test Materials

Test Administrators should return all test materials to the School Test Coordinator as soon as possible after completing the test session.

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Administer the Spring 2011 ISAT Accommodated Versions

Administration of the ISAT is an important professional responsibility. The usefulness of the test results depends on the accuracy of each student's performance. Experience shows that student performance is highly dependent upon the student's motivation and attitude toward the test, the preparedness of the Test Administrator, the physical arrangements for testing, and adherence to instructions. To ensure accurate and reliable results, the Test Administrator **must** become thoroughly familiar with the procedures described in this manual before administering the test.

Distribute the test booklets and answer documents. Check to see that each student has a test booklet, his or her own answer document, and a No. 2 pencil.

Students may use scratch paper while taking the ISAT — have scratch paper available for students to use. **NOTE:** The ISAT mathematics test has one test part that allows the use of a calculator with those items.

In order to ensure accurate achievement results, it is essential that all Test Administrators follow the same procedure when administering the test. Follow the script provided below for administering the ISAT accommodated versions.

Read aloud **word for word** the material that is printed in **bold type** and preceded by the word **"Say."**

The material that is italicized is information for you and should not be read to the students.

Read the directions to the students exactly as they are written, using a natural tone and manner. If you make a mistake in reading a direction, stop and say, "No, that is wrong. Listen again." Then read the direction again. Be sure students understand the directions and how to respond. Be careful not to inadvertently give hints or clues that indicate an answer. Begin the test when all students are present.

Say: Today you will take the Spring 2011 Idaho Standards Achievement Tests. Give each test your best effort. You will have enough time to read and answer all the questions. Some questions will be easy; others will be more difficult. Be sure to read the entire question and ALL of the answer choices carefully. If you really do not know the answer to a question, use your best test-taking skills to eliminate some answer choices. Then choose the best answer from the ones that remain. Remember there is no penalty for guessing. You CAN skip questions and come back to them if you need more time.

The test will take about one hour to complete; however, it is not timed, and you will be given time to finish.

If you have any concerns once the test has started, raise your hand and the Test Administrator *(Proctor/Teacher)* **will come to you. The Test Administrator** *(Proctor/Teacher)* **is not allowed to provide you with any additional information during the test. The Test Administrator** *(Proctor/Teacher)* **cannot help you with any words.**

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Are there any questions?

Answer student questions as needed.

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Administering the Grades 3–10 NCLB/Retest Reading Tests

Say: We are about to begin the reading test. Please check the cover of your answer document and make sure that your name is on the label. Raise your hand if you do not have the correct answer document.

Assist students as needed.

Say: Now open your answer document to page 2. You will mark all of your answers in your answer document. Do not make any stray marks on the answer document.

Also open your test booklet to page 3. You should now see the directions in your test booklet. Raise your hand if you need help finding the directions.

Assist students as needed.

Say: We will now read the directions together. Please follow along as I read aloud.

"On the following pages of your test booklet are passages and multiple-choice questions for the Grade(s) *(3, 4, 5, 6, 7, 8, or 9 & 10/Retest)* **Reading Idaho Standards Achievement Tests.**

Each question will ask you to select an answer from among four choices. These questions will be found in your test booklet.

For <u>all</u> questions:

- **Read each question carefully and choose the best answer.**
- **Be sure to answer ALL the questions on your answer sheet.**
- **Remember only one of the answers provided is the correct response."**

When you come to the word STOP at the end of your test booklet, you have finished the reading test. You may review the test to check your answers. Make sure you have marked all of your answers clearly and that you have completely erased any marks you do not want.

Now let's read the directions in the answer document together. Please follow along as I read aloud. You will only be marking your answers in the box marked Reading.

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"NOTE TO STUDENTS:

Only mark answers to reading questions in this section.

Be sure the number next to the response you are marking on your answer document matches the number of the test question you are answering."

When you have finished the reading test, close your test booklet and answer document and sit quietly or read your book until I dismiss you.

Are there any questions?

Answer student questions as needed.

Say: Turn to page 4 in your test booklet. You are now ready to begin the test.

While students are working, walk around the room to see that they are following directions and that they are not looking at any other student's test. Do not give help on specific test questions.

As students complete the test, please follow your school's plan for dismissing students.

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Administering the Forms A–D and F–H Extender Reading Tests

Say: We are about to begin the reading test. Please check the cover of your answer document and make sure that your name is on the label. Raise your hand if you do not have the correct answer document.

Assist students as needed.

Say: Now turn your answer document over. You will mark all of your answers on your answer document. Do not make any stray marks on the answer document.

Also open your test booklet to page 3. You should now see the directions in your test booklet. Raise your hand if you need help finding the directions.

Assist students as needed.

Say: We will now read the directions together. Please follow along as I read aloud.

"On the following pages of your test booklet are passages and multiple-choice questions for the Form *(A, B, C, D, F, G, or H)* **Reading Idaho Standards Achievement Tests.**

Each question will ask you to select an answer from among four choices. These questions will be found in your test booklet.

For <u>all</u> questions:

- **Read each question carefully and choose the best answer.**
- **Be sure to answer ALL the questions on your answer sheet.**
- **Remember only one of the answers provided is the correct response."**

When you come to the word STOP at the end of your test booklet, you have finished the reading test. You may review the test to check your answers. Make sure you have marked all of your answers clearly and that you have completely erased any marks you do not want.

Now let's read the directions in the answer document together. Please follow along as I read aloud. You will only be marking your answers in the box marked Reading.

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"NOTE TO STUDENTS:

Only mark answers to reading questions in this section.

Be sure the number next to the response you are marking on your answer document matches the number of the test question you are answering."

When you have finished the reading test, close your test booklet, turn your answer document over, and sit quietly or read your book until I dismiss you.

Are there any questions?

Answer student questions as needed.

Say: Turn to page 4 in your test booklet. You are now ready to begin the test.

While students are working, walk around the room to see that they are following directions and that they are not looking at any other student's test. Do not give help on specific test questions.

As students complete the test, please follow your school's plan for dismissing students.

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Administering the Grades 3–10 NCLB/Retest Language Usage Tests

Say: We are about to begin the language usage test. Please check the cover of your answer document and make sure that your name is on the label. Raise your hand if you do not have the correct answer document.

Assist students as needed.

Say: Now open your answer document to page 2. You will mark all of your answers in your answer document. Do not make any stray marks on the answer document.

Also open your test booklet to page 3. You should now see the directions in your test booklet. Raise your hand if you need help finding the directions.

Assist students as needed.

Say: We will now read the directions together. Please follow along as I read aloud.

"On the following pages of your test booklet are multiple-choice questions for the Grade(s) *(3, 4, 5, 6, 7, 8, or 9 & 10/Retest)* **Language Usage Idaho Standards Achievement Tests.**

Each question will ask you to select an answer from among four choices. These questions will be found in your test booklet.

For <u>all</u> questions:

- **Read each question carefully and choose the best answer.**
- **Be sure to answer ALL the questions on your answer sheet.**
- **Remember only one of the answers provided is the correct response."**

When you come to the word STOP at the end of your test booklet, you have finished the language usage test. You may review the test to check your answers. Make sure you have marked all of your answers clearly and that you have completely erased any marks you do not want.

Now let's read the directions in the answer document together. Please follow along as I read aloud. You will only be marking your answers in the box marked Language Usage.

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"NOTE TO STUDENTS:

Only mark answers to language usage questions in this section.

Be sure the number next to the response you are marking on your answer document matches the number of the test question you are answering."

When you have finished the language usage test, close your test booklet and answer document and sit quietly or read your book until I dismiss you.

Are there any questions?

Answer student questions as needed.

Say: Turn to page 4 in your test booklet. You are now ready to begin the test.

While students are working, walk around the room to see that they are following directions and that they are not looking at any other student's test. Do not give help on specific test questions.

As students complete the test, please follow your school's plan for dismissing students.

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Administering the Forms A–D and F–H Extender Language Usage Tests

Say: We are about to begin the language usage test. Please check the cover of your answer document and make sure that your name is on the label. Raise your hand if you do not have the correct answer document.

Assist students as needed.

Say: Now turn your answer document over. You will mark all of your answers on your answer document. Do not make any stray marks on the answer document.

Also open your test booklet to page 3. You should now see the directions in your test booklet. Raise your hand if you need help finding the directions.

Assist students as needed.

Say: We will now read the directions together. Please follow along as I read aloud.

"On the following pages of your test booklet are multiple-choice questions for the Form *(A, B, C, D, F, G, or H)* **Language Usage Idaho Standards Achievement Tests.**

Each question will ask you to select an answer from among four choices. These questions will be found in your test booklet.

For <u>all</u> questions:

- **Read each question carefully and choose the best answer.**
- **Be sure to answer ALL the questions on your answer sheet.**
- **Remember only one of the answers provided is the correct response."**

When you come to the word STOP at the end of your test booklet, you have finished the language usage test. You may review the test to check your answers. Make sure you have marked all of your answers clearly and that you have completely erased any marks you do not want.

Now let's read the directions in the answer document together. Please follow along as I read aloud. You will only be marking your answers in the box marked Language Usage.

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"NOTE TO STUDENTS:

Only mark answers to language usage questions in this section.

Be sure the number next to the response you are marking on your answer document matches the number of the test question you are answering."

When you have finished the language usage test, close your test booklet, turn your answer document over, and sit quietly or read your book until I dismiss you.

Are there any questions?

Answer student questions as needed.

Say: Turn to page 4 in your test booklet. You are now ready to begin the test.

While students are working, walk around the room to see that they are following directions and that they are not looking at any other student's test. Do not give help on specific test questions.

As students complete the test, please follow your school's plan for dismissing students.

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Administering the Grades 3 and 4 NCLB Mathematics Tests

Grades 3 and 4 have only one part.

Say: We are about to begin the mathematics test. Please check the cover of your answer document and make sure that your name is on the label. Raise your hand if you do not have the correct answer document.

Assist students as needed.

Say: Now open your answer document to page 3. You will mark all of your answers in your answer document. Do not make any stray marks on the answer document.

Also open your test booklet to page 3. You should now see the directions in your test booklet. Raise your hand if you need help finding the directions.

Assist students as needed.

Say: We will now read the directions together. Please follow along as I read aloud.

"On the following pages of your test booklet are multiple-choice questions for the Grade *(3 or 4)* **Mathematics Idaho Standards Achievement Tests.**

Each question will ask you to select an answer from among four choices. These questions will be found in your test booklet.

For <u>all</u> questions:

- **Read each question carefully and choose the best answer.**
- **You may use scratch paper to solve the problems.**
- **Be sure to answer ALL the questions on your answer sheet.**
- **Remember only one of the answers provided is the correct response."**

When you come to the word STOP at the end of your test booklet, you have finished the mathematics test. You may review the test to check your answers. Make sure you have marked all of your answers clearly and that you have completely erased any marks you do not want.

Now let's read the directions in the answer document together. Please follow along as I read aloud. You will only be marking your answers in the box marked Mathematics.

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"NOTE TO STUDENTS:

Only mark answers to mathematics questions in this section.

Be sure the number next to the response you are marking on your answer document matches the number of the test question you are answering."

When you have finished the mathematics test, close your test booklet and answer document and sit quietly or read your book until I dismiss you.

Are there any questions?

Answer student questions as needed.

Say: Turn to page 4 in your test booklet. You are now ready to begin the test.

While students are working, walk around the room to see that they are following directions and that they are not looking at any other student's test. Do not give help on specific test questions.

As students complete the test, please follow your school's plan for dismissing students.

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Administering the Grades 5 and 6 NCLB Mathematics Tests

Grades 5 and 6 have two parts. It is imperative that each student complete both parts of the test.

Say: We are about to begin the mathematics test. Please check the cover of your answer document and make sure that your name is on the label. Raise your hand if you do not have the correct answer document.

Assist students as needed.

Say: Now open your answer document to page 3. You will mark all of your answers in your answer document. Do not make any stray marks on the answer document.

Also open your test booklet to page 3. You should now see the directions in your test booklet. Raise your hand if you need help finding the directions.

Assist students as needed.

Say: We will now read the directions together. Please follow along as I read aloud.

"On the following pages of your test booklet are multiple-choice questions for the Grade *(5 or 6)* **Mathematics Idaho Standards Achievement Tests.**

Each question will ask you to select an answer from among four choices. These questions will be found in your test booklet.

For <u>all</u> questions:

- **Read each question carefully and choose the best answer.**
- **You may use scratch paper to solve the problems.**
- **You may not use a calculator for Part I. You may use a calculator for all other items on this test.**
- **Be sure to answer ALL the questions on your answer sheet.**
- **Remember only one of the answers provided is the correct response."**

When you come to the word STOP at the end of Part I in your test booklet, you have finished the non-calculator portion of the mathematics test. You may review only the non-calculator portion of the test to check your answers. Make sure you have marked all of your answers clearly and that you have completely erased any marks you do not want.

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Once you have completed Part I of the test, raise your hand and I will give you a calculator for Part II of the test.

When you come to the word STOP after question number forty-five at the end of Part II in your test booklet, you have finished the calculator portion of the mathematics test. You may review only the calculator portion of the test to check your answers. Make sure you have marked all of your answers clearly and that you have completely erased any marks you do not want.

Now let's read the directions in the answer document together. Please follow along as I read aloud. You will only be marking your answers in the box marked Mathematics.

"NOTE TO STUDENTS:

Only mark answers to mathematics questions in this section.

Be sure the number next to the response you are marking on your answer document matches the number of the test question you are answering."

When you have finished the mathematics test, close your test booklet and answer document and sit quietly or read your book until I dismiss you.

Are there any questions?

Answer student questions as needed.

Say: Turn to page 4 in your test booklet. You are now ready to begin the test.

While students are working, walk around the room to see that they are following directions and that they are not looking at any other student's test. Do not give help on specific test questions.

As students complete the test, please follow your school's plan for dismissing students.

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Administering the Grades 7 and 8 NCLB Mathematics Tests

Grades 7 and 8 have two parts. It is imperative that each student complete both parts of the test.

Say: We are about to begin the mathematics test. Please check the cover of your answer document and make sure that your name is on the label. Raise your hand if you do not have the correct answer document.

Assist students as needed.

Say: Now open your answer document to page 3. You will mark all of your answers in your answer document. Do not make any stray marks on the answer document.

Also open your test booklet to page 3. You should now see the directions in your test booklet. Raise your hand if you need help finding the directions.

Assist students as needed.

If you distributed the reference sheets, please read the following to students.

Say: You should all have a copy of the reference sheet. There is also a reference sheet provided in the back of your test booklet. You can use either one to help you answer the questions.

Continue.

Say: We will now read the directions together. Please follow along as I read aloud.

"On the following pages of your test booklet are multiple-choice questions for the Grade *(7 or 8)* **Mathematics Idaho Standards Achievement Tests.**

Each question will ask you to select an answer from among four choices. These questions will be found in your test booklet.

For <u>all</u> questions:

- **Read each question carefully and choose the best answer.**
- **You may use scratch paper to solve the problems.**
- **A Mathematics Reference Sheet is provided in the back of the test booklet.**
- **You may not use a calculator for Part I. You may use a calculator for all other items on this test.**
- **Be sure to answer ALL the questions on your answer sheet.**
- **Remember only one of the answers provided is the correct response."**

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When you come to the word STOP at the end of Part I in your test booklet, you have finished the non-calculator portion of the mathematics test. You may review only the non-calculator portion of the test to check your answers. Make sure you have marked all of your answers clearly and that you have completely erased any marks you do not want.

Once you have completed Part I of the test, raise your hand and I will give you a calculator for Part II of the test.

When you come to the word STOP after question number forty-five at the end of Part II in your test booklet, you have finished the calculator portion of the mathematics test. You may review only the calculator portion of the test to check your answers. Make sure you have marked all of your answers clearly and that you have completely erased any marks you do not want.

Now let's read the directions in the answer document together. Please follow along as I read aloud. You will only be marking your answers in the box marked Mathematics.

"NOTE TO STUDENTS:

Only mark answers to mathematics questions in this section.

Be sure the number next to the response you are marking on your answer document matches the number of the test question you are answering."

When you have finished the mathematics test, close your test booklet and answer document and sit quietly or read your book until I dismiss you.

Are there any questions?

Answer student questions as needed.

Say: Turn to page 4 in your test booklet. You are now ready to begin the test.

While students are working, walk around the room to see that they are following directions and that they are not looking at any other student's test. Do not give help on specific test questions.

As students complete the test, please follow your school's plan for dismissing students.

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Administering the Grades 9 & 10 NCLB/Retest Mathematics Test

Grades 9 & 10 NCLB/Retest has two parts. It is imperative that each student complete both parts of the test.

Say: We are about to begin the mathematics test. Please check the cover of your answer document and make sure that your name is on the label. Raise your hand if you do not have the correct answer document.

Assist students as needed.

Say: Now open your answer document to page 3. You will mark all of your answers in your answer document. Do not make any stray marks on the answer document.

Also open your test booklet to page 3. You should now see the directions in your test booklet. Raise your hand if you need help finding the directions.

Assist students as needed.

If you distributed the reference sheets, please read the following to students.

Say: You should all have a copy of the reference sheet. There is also a reference sheet provided in the back of your test booklet. You can use either one to help you answer the questions.

Continue.

Say: We will now read the directions together. Please follow along as I read aloud.

"On the following pages of your test booklet are multiple-choice questions for the Grades 9 & 10/Retest Mathematics Idaho Standards Achievement Tests.

Each question will ask you to select an answer from among four choices. These questions will be found in your test booklet.

For <u>all</u> questions:

- **Read each question carefully and choose the best answer.**
- **You may use scratch paper to solve the problems.**
- **A Mathematics Reference Sheet is provided in the back of the test booklet.**
- **You may not use a calculator for Part I. You may use a calculator for all other items on this test.**
- **Be sure to answer ALL the questions on your answer sheet.**
- **Remember only one of the answers provided is the correct response."**

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When you come to the word STOP at the end of Part I in your test booklet, you have finished the non-calculator portion of the mathematics test. You may review only the non-calculator portion of the test to check your answers. Make sure you have marked all of your answers clearly and that you have completely erased any marks you do not want.

Once you have completed Part I of the test, raise your hand and I will give you a calculator for Part II of the test.

When you come to the word STOP after question number forty-five at the end of Part II in your test booklet, you have finished the calculator portion of the mathematics test. You may review only the calculator portion of the test to check your answers. Make sure you have marked all of your answers clearly and that you have completely erased any marks you do not want.

Now let's read the directions in the answer document together. Please follow along as I read aloud. You will only be marking your answers in the box marked Mathematics.

"NOTE TO STUDENTS:

Only mark answers to mathematics questions in this section.

Be sure the number next to the response you are marking on your answer document matches the number of the test question you are answering."

When you have finished the mathematics test, close your test booklet and answer document and sit quietly or read your book until I dismiss you.

Are there any questions?

Answer student questions as needed.

Say: Turn to page 5 in your test booklet. You are now ready to begin the test.

While students are working, walk around the room to see that they are following directions and that they are not looking at any other student's test. Do not give help on specific test questions.

As students complete the test, please follow your school's plan for dismissing students.

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Administering the Forms A and B Extender Mathematics Tests

Forms A and B have only one part.

Say: We are about to begin the mathematics test. Please check the cover of your answer document and make sure that your name is on the label. Raise your hand if you do not have the correct answer document.

Assist students as needed.

Say: Now turn your answer document over. You will mark all of your answers on your answer document. Do not make any stray marks on the answer document.

Also open your test booklet to page 3. You should now see the directions in your test booklet. Raise your hand if you need help finding the directions.

Assist students as needed.

Say: We will now read the directions together. Please follow along as I read aloud.

"On the following pages of your test booklet are multiple-choice questions for the Form *(A or B)* **Mathematics Idaho Standards Achievement Tests.**

Each question will ask you to select an answer from among four choices. These questions will be found in your test booklet.

For <u>all</u> questions:

- **Read each question carefully and choose the best answer.**
- **You may use scratch paper to solve the problems.**
- **Be sure to answer ALL the questions on your answer sheet.**
- **Remember only one of the answers provided is the correct response."**

When you come to the word STOP at the end of your test booklet, you have finished the mathematics test. You may review the test to check your answers. Make sure you have marked all of your answers clearly and that you have completely erased any marks you do not want.

Now let's read the directions in the answer document together. Please follow along as I read aloud. You will only be marking your answers in the box marked Mathematics.

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"NOTE TO STUDENTS:

Only mark answers to mathematics questions in this section.

Be sure the number next to the response you are marking on your answer document matches the number of the test question you are answering."

When you have finished the mathematics test, close your test booklet, turn your answer document over, and sit quietly or read your book until I dismiss you.

Are there any questions?

Answer student questions as needed.

Say: Turn to page 4 in your test booklet. You are now ready to begin the test.

While students are working, walk around the room to see that they are following directions and that they are not looking at any other student's test. Do not give help on specific test questions.

As students complete the test, please follow your school's plan for dismissing students.

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Administering the Forms C and D Extender Mathematics Tests

Forms C and D have only one part.

Say: We are about to begin the mathematics test. Please check the cover of your answer document and make sure that your name is on the label. Raise your hand if you do not have the correct answer document.

Assist students as needed.

Say: Now turn your answer document over. You will mark all of your answers on your answer document. Do not make any stray marks on the answer document.

Also open your test booklet to page 3. You should now see the directions in your test booklet. Raise your hand if you need help finding the directions.

Assist students as needed.

Say: We will now read the directions together. Please follow along as I read aloud.

"On the following pages of your test booklet are multiple-choice questions for the Form *(C or D)* **Mathematics Idaho Standards Achievement Tests.**

Each question will ask you to select an answer from among four choices. These questions will be found in your test booklet.

For <u>all</u> questions:

- **Read each question carefully and choose the best answer.**
- **You may use scratch paper to solve the problems.**
- **You may use a calculator for all items on this test.**
- **Be sure to answer ALL the questions on your answer sheet.**
- **Remember only one of the answers provided is the correct response."**

When you come to the word STOP at the end of your test booklet, you have finished the mathematics test. You may review the test to check your answers. Make sure you have marked all of your answers clearly and that you have completely erased any marks you do not want.

Now let's read the directions in the answer document together. Please follow along as I read aloud. You will only be marking your answers in the box marked Mathematics.

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"NOTE TO STUDENTS:

Only mark answers to mathematics questions in this section.

Be sure the number next to the response you are marking on your answer document matches the number of the test question you are answering."

When you have finished the mathematics test, close your test booklet, turn your answer document over, and sit quietly or read your book until I dismiss you.

Are there any questions?

Answer student questions as needed.

Say: Turn to page 4 in your test booklet. You are now ready to begin the test.

While students are working, walk around the room to see that they are following directions and that they are not looking at any other student's test. Do not give help on specific test questions.

As students complete the test, please follow your school's plan for dismissing students.

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Administering the Forms F, G, and H Extender Mathematics Tests

Forms F, G, and H have only one part.

Say: We are about to begin the mathematics test. Please check the cover of your answer document and make sure that your name is on the label. Raise your hand if you do not have the correct answer document.

Assist students as needed.

Say: Now turn your answer document over. You will mark all of your answers on your answer document. Do not make any stray marks on the answer document.

Also open your test booklet to page 3. You should now see the directions in your test booklet. Raise your hand if you need help finding the directions.

Assist students as needed.

If you distributed the reference sheets, please read the following to students.

Say: You should all have a copy of the reference sheet. There is also a reference sheet provided in the back of your test booklet. You can use either one to help you answer the questions.

Continue.

Say: We will now read the directions together. Please follow along as I read aloud.

"On the following pages of your test booklet are multiple-choice questions for the Form *(F, G, or H)* **Mathematics Idaho Standards Achievement Tests.**

Each question will ask you to select an answer from among four choices. These questions will be found in your test booklet.

For <u>all</u> questions:

- **Read each question carefully and choose the best answer.**
- **You may use scratch paper to solve the problems.**
- **A Mathematics Reference Sheet is provided in the back of the test booklet.**
- **You may use a calculator for all items on this test.**
- **Be sure to answer ALL the questions on your answer sheet.**
- **Remember only one of the answers provided is the correct response."**

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When you come to the word STOP at the end of your test booklet, you have finished the mathematics test. You may review the test to check your answers. Make sure you have marked all of your answers clearly and that you have completely erased any marks you do not want.

Now let's read the directions in the answer document together. Please follow along as I read aloud. You will only be marking your answers in the box marked Mathematics.

"NOTE TO STUDENTS:

Only mark answers to mathematics questions in this section.

Be sure the number next to the response you are marking on your answer document matches the number of the test question you are answering."

When you have finished the mathematics test, close your test booklet, turn your answer document over, and sit quietly or read your book until I dismiss you.

Are there any questions?

Answer student questions as needed.

Say: Turn to page 4 in your test booklet. You are now ready to begin the test.

While students are working, walk around the room to see that they are following directions and that they are not looking at any other student's test. Do not give help on specific test questions.

As students complete the test, please follow your school's plan for dismissing students.

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Administering the Grades 5 and 7 NCLB Science Tests

Say: We are about to begin the science test. Please check the cover of your answer document and make sure that your name is on the label. Raise your hand if you do not have the correct answer document.

Assist students as needed.

Say: Now open your answer document to page 3. You will mark all of your answers in your answer document. Do not make any stray marks on the answer document.

Also open your test booklet to page 3. You should now see the directions in your test booklet. Raise your hand if you need help finding the directions.

Assist students as needed.

Say: We will now read the directions together. Please follow along as I read aloud.

"On the following pages of your test booklet are multiple-choice questions for the Grade *(5 or 7)* **Science Idaho Standards Achievement Tests.**

Each question will ask you to select an answer from among four choices. These questions will be found in your test booklet.

For <u>all</u> questions:

- **Read each question carefully and choose the best answer.**
- **Be sure to answer ALL the questions on your answer sheet.**
- **Remember only one of the answers provided is the correct response."**

When you come to the word STOP at the end of your test booklet, you have finished the science test. You may review the test to check your answers. Make sure you have marked all of your answers clearly and that you have completely erased any marks you do not want.

Now let's read the directions in the answer document together. Please follow along as I read aloud. You will only be marking your answers in the box marked Science.

"NOTE TO STUDENTS:

Only mark answers to science questions in this section.

Be sure the number next to the response you are marking on your answer document matches the number of the test question you are answering."

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When you have finished the science test, close your test booklet and answer document and sit quietly or read your book until I dismiss you.

Are there any questions?

Answer student questions as needed.

Say: Turn to page 4 in your test booklet. You are now ready to begin the test.

While students are working, walk around the room to see that they are following directions and that they are not looking at any other student's test. Do not give help on specific test questions.

As students complete the test, please follow your school's plan for dismissing students.

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Administering the Grade 10 NCLB Science Test

Say: We are about to begin the science test. Please check the cover of your answer document and make sure that your name is on the label. Raise your hand if you do not have the correct answer document.

Assist students as needed.

Say: Now open your answer document to page 3. You will mark all of your answers in your answer document. Do not make any stray marks on the answer document.

Also open your test booklet to page 3. You should now see the directions in your test booklet. Raise your hand if you need help finding the directions.

Assist students as needed.

Say: For this test, a calculator will be available for your use. Now I will pass out the calculators. We will now read the directions together. Please follow along as I read aloud.

"On the following pages of your test booklet are multiple-choice questions for the Grade 10 Science Idaho Standards Achievement Tests.

Each question will ask you to select an answer from among four choices. These questions will be found in your test booklet. A periodic table is provided on the inside back cover of this test booklet. You may need to use it to answer some of the questions.

For <u>all</u> questions:

- **Read each question carefully and choose the best answer.**
- **Be sure to answer ALL the questions on your answer sheet.**
- **Remember only one of the answers provided is the correct response."**

When you come to the word STOP at the end of your test booklet, you have finished the science test. You may review the test to check your answers. Make sure you have marked all of your answers clearly and that you have completely erased any marks you do not want.

Now let's read the directions in the answer document together. Please follow along as I read aloud. You will only be marking your answers in the box marked Science–Grade 10 only.

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"NOTE TO STUDENTS:

Only mark answers to science questions in this section.

Be sure the number next to the response you are marking on your answer document matches the number of the test question you are answering."

When you have finished the science test, close your test booklet and answer document and sit quietly or read your book until I dismiss you.

Are there any questions?

Answer student questions as needed.

Say: Turn to page 4 in your test booklet. You are now ready to begin the test.

While students are working, walk around the room to see that they are following directions and that they are not looking at any other student's test. Do not give help on specific test questions.

As students complete the test, please follow your school's plan for dismissing students.

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Administering the Forms C and F Extender Science Tests

Say: We are about to begin the science test. Please check the cover of your answer document and make sure that your name is on the label. Raise your hand if you do not have the correct answer document.

Assist students as needed.

Say: Now turn your answer document over. You will mark all of your answers on your answer document. Do not make any stray marks on the answer document.

Also open your test booklet to page 3. You should now see the directions in your test booklet. Raise your hand if you need help finding the directions.

Assist students as needed.

Say: We will now read the directions together. Please follow along as I read aloud.

"On the following pages of your test booklet are multiple-choice questions for the Form *(C or F)* **Science Idaho Standards Achievement Tests.**

Each question will ask you to select an answer from among four choices. These questions will be found in your test booklet.

For <u>all</u> questions:

- **Read each question carefully and choose the best answer.**
- **Be sure to answer ALL the questions on your answer sheet.**
- **Remember only one of the answers provided is the correct response."**

When you come to the word STOP at the end of your test booklet, you have finished the science test. You may review the test to check your answers. Make sure you have marked all of your answers clearly and that you have completely erased any marks you do not want.

Now let's read the directions in the answer document together. Please follow along as I read aloud. You will only be marking your answers in the box marked Science.

"NOTE TO STUDENTS:

Only mark answers to science questions in this section.

Be sure the number next to the response you are marking on your answer document matches the number of the test question you are answering."

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When you have finished the science test, close your test booklet, turn your answer document over, and sit quietly or read your book until I dismiss you.

Are there any questions?

Answer student questions as needed.

Say: Turn to page 4 in your test booklet. You are now ready to begin the test.

While students are working, walk around the room to see that they are following directions and that they are not looking at any other student's test. Do not give help on specific test questions.

As students complete the test, please follow your school's plan for dismissing students.

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Administering the Form H Extender Science Test

Say: We are about to begin the science test. Please check the cover of your answer document and make sure that your name is on the label. Raise your hand if you do not have the correct answer document.

Assist students as needed.

Say: Now turn your answer document over. You will mark all of your answers on your answer document. Do not make any stray marks on the answer document.

Also open your test booklet to page 3. You should now see the directions in your test booklet. Raise your hand if you need help finding the directions.

Assist students as needed.

Say: For this test, a calculator will be available for your use. Now I will pass out the calculators. We will now read the directions together. Please follow along as I read aloud.

"On the following pages of your test booklet are multiple-choice questions for the Form H Science Idaho Standards Achievement Tests.

Each question will ask you to select an answer from among four choices. These questions will be found in your test booklet. A periodic table is provided on the inside back cover of this test booklet. You may need to use it to answer some of the questions.

For <u>all</u> questions:

- **Read each question carefully and choose the best answer.**
- **Be sure to answer ALL the questions on your answer sheet.**
- **Remember only one of the answers provided is the correct response."**

When you come to the word STOP at the end of your test booklet, you have finished the science test. You may review the test to check your answers. Make sure you have marked all of your answers clearly and that you have completely erased any marks you do not want.

Now let's read the directions in the answer document together. Please follow along as I read aloud. You will only be marking your answers in the box marked Science.

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"NOTE TO STUDENTS:

Only mark answers to science questions in this section.

Be sure the number next to the response you are marking on your answer document matches the number of the test question you are answering."

When you have finished the science test, close your test booklet, turn your answer document over, and sit quietly or read your book until I dismiss you.

Are there any questions?

Answer student questions as needed.

Say: Turn to page 4 in your test booklet. You are now ready to begin the test.

While students are working, walk around the room to see that they are following directions and that they are not looking at any other student's test. Do not give help on specific test questions.

As students complete the test, please follow your school's plan for dismissing students.

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Collect Materials

After each testing session, collect the test booklets and answer documents. Make sure all scratch paper and reference sheets have been removed from the answer documents. Inventory the test materials immediately after administering the test. Turn in all of your testing materials to your School Test Coordinator so they may be put into secure storage.

Additional Questions

If you have any additional questions not covered in this manual, please review the additional support documentation available on the Documentation page of the ISAT Website at http://isat.caltesting.org. If you would like to contact the ISAT Project Team, please call 1-866-572-2050 or email ISAT@datarecognitioncorp.com.

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ISAT
Idaho Standards Achievement Tests

Spring 2011

TESTING PERSONNEL TEST SECURITY AGREEMENT

I acknowledge that I will have access to the Idaho Standards Achievement Tests (ISAT) for the purpose of administering the test. I understand that these materials are highly secure, and it is my professional responsibility to protect their security as follows:

1. I will protect the contents of the test from any improper access.
2. I will handle test items or test booklets in accordance with security instructions. Copying or taking notes about any part of the test is not allowed.
3. I will carefully restrict access to the test materials to only persons authorized by the District Test Coordinator.
4. I will assure students' responses are accurate reflections of their own work.
5. I will assure that students' answers to test items are their own and that no one offers any improper assistance to students.
6. I acknowledge that discussing with teachers or students or answering any test questions contained in the assessment before, during, or after the administration of the test is a violation of test security.
7. I understand my username and password for the ISAT are secure and must remain confidential.
8. I acknowledge that copying or any other modification of the test booklet will result in an invalid test administration and no student scores will be reported.
9. I understand that any information about student data and test performance is confidential and I am not at liberty to discuss or share with anyone who does not have legal access to that information.
10. I certify that students with disabilities and LEP students received appropriate accommodations in accordance with their IEP, ELP, or 504 Plan.

Interpreters and all individuals involved in transcriptions of student responses must also read and sign the *Test Security Agreement*.

Please be sure to print, sign, and return the *Test Security Agreement* (from the computer OR manual) to the District Test Coordinator before administering any ISAT.

Signed: _____

Print Name: _____

Position: _____

School: _____

District: _____

Date: _____

This page may be photocopied.

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Mathematics Reference Sheets

Mathematics Reference Sheet – Grade 7

Shape	Area	Circumference
Circle	$A = \pi r^2$	$C = \pi d = 2\pi r$
Triangle	$A = \frac{1}{2}bh$	**Perimeter**
Rectangle	$A = lw$	$P = 2l + 2w$
Trapezoid	$A = \frac{1}{2}h(b_1+b_2)$	
Parallelogram	$A = bh$	

Key	
b = base	w = width
h = height	d = diameter
l = length	r = radius
Use 3.14 for π	

3-Dimensional Shape	Volume
Rectangular Prism	$V = lwh$

Formulas	
Distance, rate, and time d = distance, r = rate, t = time $d = rt$	Simple interest p = principal, r = rate, t = time $I = prt$

Conversions	
1 yard (yd) = 3 feet (ft) = 36 inches (in.)	1 meter (m) = 100 centimeters (cm)
1 mile (mi) = 1,760 yards (yd) = 5,280 feet (ft)	1 meter (m) = 1,000 millimeters (mm)
	1 kilometer (km) = 1,000 meters (m)
1 cup = 8 fluid ounces (fl oz)	
1 pint (pt) = 2 cups	1 liter (l) = 1,000 milliliters (ml)
1 quart (qt) = 2 pints (pt)	1 liter (l) = 1,000 cubic centimeters (cu. cm)
1 gallon (gal.) = 4 quarts (qt)	
	1 gram (g) = 1,000 milligrams (mg)
1 pound (lb) = 16 ounces (oz)	1 kilogram (kg) = 1,000 grams (g)
1 ton = 2,000 pounds (lb)	

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Mathematics Reference Sheet – Grade 8

Shape	Area	Circumference
Circle	$A = \pi r^2$	$C = \pi d = 2\pi r$
Triangle	$A = \frac{1}{2}bh$	**Perimeter**
Rectangle	$A = lw$	$P = 2l + 2w$
Trapezoid	$A = \frac{1}{2}h(b_1+b_2)$	
Parallelogram	$A = bh$	

Key	
b = base	w = width
h = height	d = diameter
l = length	r = radius
Use 3.14 for π	

3-dimensional Shape	Volume	Total Surface Area
Rectangular Prism	$V = lwh$	$SA = 2(lw) + 2(hw) + 2(lh)$

Formulas	
Distance, rate, time formula d = distance, r = rate, t = time $d = rt$	Simple interest p = principal, r = rate, t = time $I = prt$
Slope-intercept form of an equation of a line, where m is the slope of the line and b is the y-intercept $y = mx + b$	

Conversions	
1 yard (yd) = 3 feet (ft) = 36 inches (in.)	1 meter (m) = 100 centimeters (cm)
1 mile (mi) = 1,760 yards (yd) = 5,280 feet (ft)	1 meter (m) = 1,000 millimeters (mm)
	1 kilometer (km) = 1,000 meters (m)
1 cup = 8 fluid ounces (fl oz)	
1 pint (pt) = 2 cups	1 liter (l) = 1,000 milliliters (ml)
1 quart (qt) = 2 pints (pt)	1 liter (l) = 1,000 cubic centimeters (cu. cm)
1 gallon (gal.) = 4 quarts (qt)	
	1 gram (g) = 1,000 milligrams (mg)
1 pound (lb) = 16 ounces (oz)	1 kilogram (kg) = 1,000 grams (g)
1 ton = 2,000 pounds (lb)	

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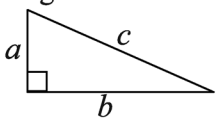
Mathematics Reference Sheet – Grades 9 & 10/Retest

Shape	Area	Circumference
Circle	$A = \pi r^2$	$C = \pi d = 2\pi r$
Triangle	$A = \frac{1}{2}bh$	**Perimeter**
Rectangle	$A = lw$	$P = 2l + 2w$
Trapezoid	$A = \frac{1}{2}h(b_1+b_2)$	
Parallelogram	$A = bh$	

Key	
b = base	w = width
B = area of base	d = diameter
h = height	r = radius
l = length	ℓ = slant height
Use 3.14 for π	

3-dimensional Shape	Volume	Total Surface Area
Rectangular Prism	$V = lwh$	$SA = 2(lw) + 2(hw) + 2(lh)$
Square Pyramid	$V = \frac{1}{3}l^2h$	$SA = 4(\frac{1}{2}l\ell) + l^2 = 2l\ell + l^2$
Sphere	$V = \frac{4}{3}\pi r^3$	$SA = 4\pi r^2$
Right Cylinder	$V = \pi r^2 h$	$SA = 2\pi rh + 2\pi r^2$
Triangular Prism	$V = Bh$	
Right Circular Cone	$V = \frac{1}{3}\pi r^2 h$	
Rectangular Pyramid	$V = \frac{1}{3}lwh$	

Formulas

Distance, rate, and time d = distance, r = rate, t = time $d = rt$	Simple interest p = principal, r = rate, t = time $I = prt$
Slope-intercept form of an equation of a line, where m is the slope of the line and b is the y-intercept $y = mx + b$	Pythagorean Theorem  $a^2 + b^2 = c^2$

Conversions

1 yard (yd) = 3 feet (ft) = 36 inches (in.)	1 meter (m) = 100 centimeters (cm)
1 mile (mi) = 1,760 yards (yd) = 5,280 feet (ft)	1 meter (m) = 1,000 millimeters (mm)
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1 quart (qt) = 2 pints (pt)	1 liter (l) = 1,000 cubic centimeters (cu. cm)
1 gallon (gal.) = 4 quarts (qt)	
	1 gram (g) = 1,000 milligrams (mg)
1 pound (lb) = 16 ounces (oz)	1 kilogram (kg) = 1,000 grams (g)
1 ton = 2,000 pounds (lb)	

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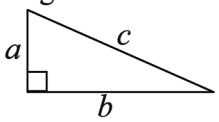
Mathematics Reference Sheet – For Extenders F, G, and H

Shape	Area	Circumference
Circle	$A = \pi r^2$	$C = \pi d = 2\pi r$
Triangle	$A = \frac{1}{2}bh$	**Perimeter**
Rectangle	$A = lw$	$P = 2l + 2w$
Trapezoid	$A = \frac{1}{2}h(b_1+b_2)$	
Parallelogram	$A = bh$	

Key	
b = base	w = width
B = area of base	d = diameter
h = height	r = radius
l = length	ℓ = slant height
Use 3.14 for π	

3-dimensional Shape	Volume	Total Surface Area
Rectangular Prism	$V = lwh$	$SA = 2(lw) + 2(hw) + 2(lh)$
Square Pyramid	$V = \frac{1}{3}l^2h$	$SA = 4(\frac{1}{2}l\ell) + l^2 = 2l\ell + l^2$
Sphere	$V = \frac{4}{3}\pi r^3$	$SA = 4\pi r^2$
Right Cylinder	$V = \pi r^2 h$	$SA = 2\pi rh + 2\pi r^2$
Triangular Prism	$V = Bh$	
Right Circular Cone	$V = \frac{1}{3}\pi r^2 h$	
Rectangular Pyramid	$V = \frac{1}{3}lwh$	

Formulas	
Distance, rate, and time d = distance, r = rate, t = time $d = rt$	Simple interest p = principal, r = rate, t = time $I = prt$
Slope-intercept form of an equation of a line, where m is the slope of the line and b is the y-intercept $y = mx + b$	Pythagorean Theorem  $a^2 + b^2 = c^2$

Conversions	
1 yard (yd) = 3 feet (ft) = 36 inches (in.)	1 meter (m) = 100 centimeters (cm)
1 mile (mi) = 1,760 yards (yd) = 5,280 feet (ft)	1 meter (m) = 1,000 millimeters (mm)
	1 kilometer (km) = 1,000 meters (m)
1 cup = 8 fluid ounces (fl oz)	
1 pint (pt) = 2 cups	1 liter (l) = 1,000 milliliters (ml)
1 quart (qt) = 2 pints (pt)	1 liter (l) = 1,000 cubic centimeters (cu. cm)
1 gallon (gal.) = 4 quarts (qt)	
	1 gram (g) = 1,000 milligrams (mg)
1 pound (lb) = 16 ounces (oz)	1 kilogram (kg) = 1,000 grams (g)
1 ton = 2,000 pounds (lb)	

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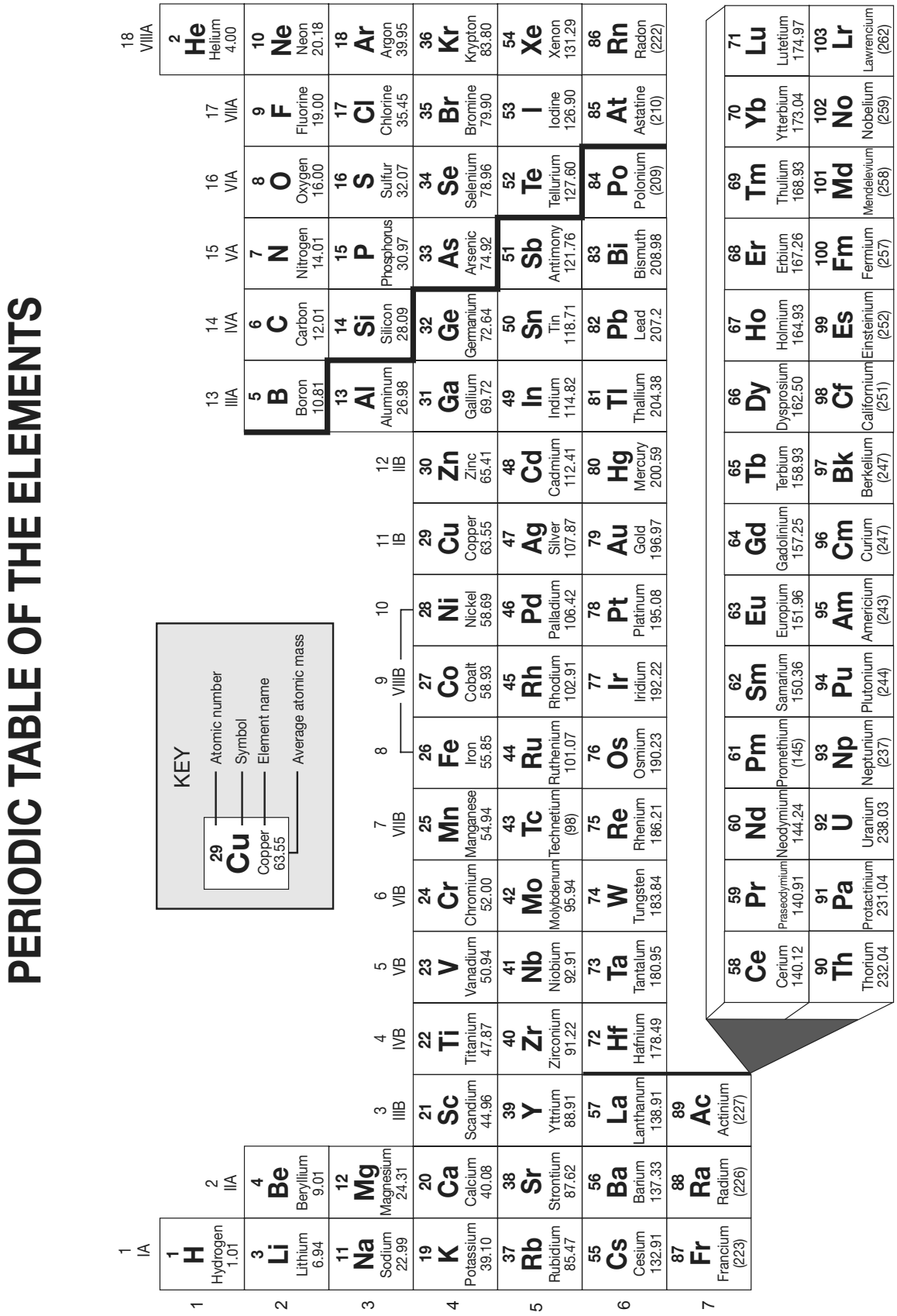
Science Periodic Table



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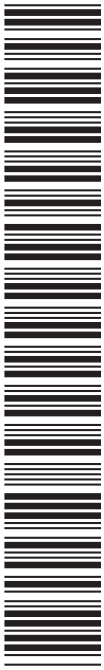

ISAT

Idaho Standards Achievement Tests

Test Administration Manual for Accommodated Materials

Spring 2011

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3450-044-ISAT/TAM/S11

Appendix O: Core Multiple-Choice Distractor Analysis

Table O.1. Grade 3 Reading Core Test: Multiple-Choice Distractor Analysis

		Response Options								
		A		B		C		D		Omit
Item ID	Key	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]
507771	B	6.23	-0.22	77.94	0.37	11.93	-0.22	3.88	-0.15	0.03
536782	B	8.19	-0.31	69.65	0.49	11.40	-0.21	10.74	-0.24	0.03
536490	B	16.15	-0.27	67.97	0.53	8.71	-0.28	7.13	-0.26	0.04
536492	D	7.98	-0.32	6.76	-0.24	7.25	-0.33	77.98	0.56	0.03
507769	D	5.13	-0.25	4.54	-0.33	5.02	-0.22	85.27	0.49	0.03
536475	A	83.46	0.53	3.37	-0.26	7.87	-0.31	5.24	-0.29	0.05
598755	A	87.81	0.39	3.53	-0.24	4.39	-0.17	4.23	-0.22	0.04
598752	B	17.32	-0.31	72.43	0.48	2.96	-0.18	7.28	-0.26	0.02
598758	B	6.71	-0.29	85.02	0.50	4.81	-0.24	3.42	-0.29	0.04
598756	D	15.95	-0.17	3.93	-0.20	16.67	-0.16	63.40	0.33	0.05
598747	D	13.98	-0.20	11.40	-0.26	6.54	-0.28	68.03	0.47	0.05
598746	A	70.17	0.40	11.07	-0.24	7.97	-0.17	10.73	-0.19	0.06
558933	D	3.40	-0.27	14.41	-0.21	13.64	-0.29	68.51	0.48	0.05
558932	A	81.24	0.55	3.78	-0.30	9.80	-0.31	5.14	-0.29	0.04
558922	C	4.52	-0.26	9.68	-0.20	73.36	0.50	12.41	-0.32	0.04
558931	D	5.87	-0.23	11.68	-0.18	4.33	-0.14	78.09	0.34	0.04
558923	A	61.48	0.46	8.35	-0.25	5.00	-0.14	25.13	-0.28	0.04
558924	D	2.16	-0.26	2.33	-0.24	5.82	-0.32	89.64	0.49	0.05
515329	A	77.36	0.49	5.05	-0.33	11.46	-0.22	6.06	-0.25	0.06
515330	D	6.93	-0.28	4.20	-0.22	11.00	-0.30	77.83	0.51	0.05
515327	C	4.09	-0.27	3.58	-0.32	89.77	0.46	2.52	-0.17	0.04
515332	A	83.45	0.51	5.86	-0.29	5.25	-0.23	5.39	-0.31	0.06
515322	D	9.23	-0.31	10.97	-0.27	6.00	-0.34	73.73	0.58	0.06
559023	C	32.12	-0.07	7.84	-0.24	52.93	0.33	7.08	-0.25	0.03
559018	A	81.37	0.49	6.69	-0.23	4.48	-0.28	7.43	-0.29	0.02
559022	C	6.37	-0.29	6.30	-0.26	83.00	0.48	4.28	-0.23	0.04
559086	B	21.41	-0.23	73.23	0.35	1.80	-0.20	3.53	-0.19	0.03
559012	D	6.90	-0.28	5.17	-0.31	13.17	-0.23	74.72	0.50	0.03
598803	D	15.58	-0.22	8.06	-0.29	5.56	-0.23	70.75	0.47	0.05
598804	D	14.49	-0.17	7.29	-0.27	15.18	-0.23	63.02	0.44	0.02
598805	A	62.66	0.44	17.38	-0.20	8.46	-0.25	11.46	-0.21	0.03
598798	C	11.84	-0.24	23.62	-0.09	60.12	0.35	4.39	-0.26	0.02
598808	A	91.35	0.50	2.59	-0.25	2.83	-0.28	3.21	-0.30	0.02
596559	B	16.00	-0.12	73.49	0.31	7.56	-0.24	2.90	-0.19	0.04
596561	A	73.87	0.37	11.10	-0.14	6.00	-0.24	8.99	-0.21	0.03
596557	A	72.31	0.46	11.34	-0.33	10.24	-0.21	6.07	-0.16	0.03
596552	D	38.79	-0.20	9.97	-0.11	9.05	-0.14	42.16	0.35	0.02
596563	A	64.98	0.43	4.69	-0.30	7.25	-0.12	23.06	-0.27	0.02
596556	C	10.17	-0.26	4.24	-0.20	81.95	0.40	3.62	-0.18	0.02
596555	D	8.19	-0.29	14.29	-0.24	4.24	-0.23	73.24	0.47	0.03

[1] Percentage of response options

Table O.2. Grade 4 Reading Core Test: Multiple-Choice Distractor Analysis

		Response Options								
		A		B		C		D		Omit
Item ID	Key	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]
536549	D	24.47	-0.19	8.79	-0.25	9.33	-0.18	57.37	0.42	0.04
536547	A	84.61	0.49	8.91	-0.34	2.30	-0.24	4.16	-0.21	0.01
536550	B	4.96	-0.26	79.53	0.46	7.33	-0.35	8.17	-0.14	0.01
536548	A	63.06	0.51	6.58	-0.24	9.35	-0.26	20.98	-0.28	0.03
538129	C	11.27	-0.26	14.23	-0.17	56.23	0.34	18.25	-0.07	0.03
536554	C	2.17	-0.24	2.35	-0.26	76.92	0.54	18.53	-0.39	0.02
536552	C	4.33	-0.23	5.26	-0.24	75.13	0.44	15.25	-0.25	0.03
596433	B	4.67	-0.21	80.18	0.47	5.03	-0.24	10.09	-0.30	0.03
596441	D	28.82	-0.25	3.79	-0.24	13.49	-0.20	53.87	0.45	0.02
596434	A	87.67	0.40	8.07	-0.23	2.06	-0.24	2.19	-0.24	0.01
596437	B	20.19	-0.15	60.81	0.43	3.36	-0.22	15.63	-0.30	0.01
596435	C	4.78	-0.30	3.14	-0.22	86.57	0.47	5.50	-0.26	0.01
596430	C	2.48	-0.22	6.34	-0.26	86.94	0.45	4.20	-0.27	0.04
598891	C	4.80	-0.26	8.39	-0.31	73.48	0.53	13.31	-0.27	0.03
598892	A	72.68	0.50	7.33	-0.23	11.96	-0.29	8.01	-0.25	0.02
598895	D	7.90	-0.28	12.81	-0.25	6.97	-0.24	72.28	0.50	0.03
598893	D	12.26	-0.22	4.05	-0.30	33.24	-0.12	50.40	0.38	0.04
598889	C	39.20	-0.18	4.00	-0.25	51.46	0.39	5.32	-0.27	0.03
598885	C	2.76	-0.16	1.32	-0.18	90.56	0.30	5.32	-0.18	0.04
597050	D	10.96	-0.39	16.99	-0.16	9.13	-0.14	62.87	0.46	0.05
597051	A	81.73	0.50	5.66	-0.28	7.11	-0.25	5.46	-0.27	0.04
597053	D	11.67	-0.27	7.06	-0.26	9.92	-0.32	71.32	0.55	0.03
597049	A	74.58	0.46	16.46	-0.24	6.22	-0.30	2.71	-0.24	0.03
597055	B	21.43	-0.24	64.39	0.46	8.58	-0.23	5.57	-0.24	0.03
597046	B	5.31	-0.27	86.37	0.49	4.64	-0.29	3.63	-0.25	0.04
515412	D	10.47	-0.38	3.71	-0.24	2.17	-0.26	83.63	0.54	0.02
514963	D	8.91	-0.33	2.17	-0.28	3.40	-0.24	85.51	0.51	0.01
514970	A	87.13	0.52	5.29	-0.33	2.91	-0.29	4.64	-0.24	0.02
514968	C	13.81	-0.12	20.71	-0.25	43.92	0.37	21.54	-0.10	0.02
514967	B	8.04	-0.35	78.93	0.51	5.87	-0.26	7.14	-0.20	0.02
515413	B	4.39	-0.27	78.30	0.54	6.11	-0.29	11.16	-0.32	0.04
514964	C	4.14	-0.25	14.60	-0.19	71.59	0.43	9.64	-0.26	0.03
596459	D	27.57	-0.19	22.10	-0.17	9.15	-0.19	41.15	0.43	0.03
596456	B	4.14	-0.25	75.93	0.53	10.86	-0.36	9.05	-0.23	0.01
596452	B	6.38	-0.26	75.54	0.50	8.22	-0.29	9.83	-0.24	0.02
596454	C	8.74	-0.24	23.09	-0.09	59.24	0.33	8.89	-0.19	0.04
596460	D	5.08	-0.28	25.97	-0.27	4.14	-0.25	64.78	0.48	0.03
596453	C	3.68	-0.23	8.55	-0.32	83.45	0.48	4.29	-0.23	0.02
596448	C	32.12	-0.21	3.01	-0.26	51.49	0.32	13.34	-0.05	0.03
596447	D	4.18	-0.27	23.77	-0.22	5.27	-0.25	66.76	0.44	0.03

[1] Percentage of response options

Table O.3. Grade 5 Reading Core Test: Multiple-Choice Distractor Analysis

		Response Options								
		A		B		C		D		Omit
Item ID	Key	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]
599567	B	16.15	-0.38	75.20	0.51	5.41	-0.17	3.20	-0.23	0.04
599568	B	7.38	-0.26	85.31	0.46	3.42	-0.30	3.85	-0.22	0.04
599573	C	7.09	-0.22	6.73	-0.27	80.82	0.45	5.33	-0.24	0.03
599569	D	9.08	-0.26	8.31	-0.33	6.60	-0.28	75.98	0.55	0.03
599566	A	51.41	0.34	10.01	-0.20	13.26	-0.25	25.29	-0.05	0.03
599572	D	11.11	-0.23	4.28	-0.26	15.78	-0.27	68.79	0.48	0.04
599565	B	2.45	-0.27	85.33	0.49	5.98	-0.27	6.22	-0.28	0.03
599564	B	4.37	-0.25	83.42	0.49	3.73	-0.24	8.42	-0.31	0.07
539132	D	11.85	-0.27	8.99	-0.21	9.71	-0.20	69.42	0.45	0.03
539134	D	7.78	-0.26	12.66	-0.23	13.93	-0.15	65.61	0.42	0.03
539137	B	1.95	-0.25	89.09	0.52	3.54	-0.30	5.39	-0.31	0.03
539133	D	19.50	-0.11	12.25	-0.19	10.95	-0.25	57.27	0.37	0.04
539141	B	7.01	-0.30	78.99	0.52	9.50	-0.30	4.46	-0.24	0.04
539140	A	79.96	0.41	10.16	-0.17	5.28	-0.27	4.57	-0.25	0.03
539138	A	94.24	0.49	2.53	-0.31	2.50	-0.31	0.68	-0.18	0.04
596668	A	71.90	0.46	6.97	-0.23	4.73	-0.22	16.38	-0.28	0.03
596680	C	21.03	-0.25	4.84	-0.27	67.90	0.45	6.21	-0.21	0.02
596675	A	65.66	0.47	18.84	-0.20	6.31	-0.29	9.17	-0.25	0.02
596671	C	5.25	-0.21	14.90	-0.33	71.14	0.50	8.68	-0.22	0.02
596678	B	9.04	-0.28	85.49	0.47	4.17	-0.29	1.28	-0.22	0.02
596670	C	2.81	-0.25	21.38	-0.26	68.73	0.49	7.03	-0.31	0.05
597080	D	38.76	-0.16	4.37	-0.29	8.44	-0.24	48.41	0.41	0.03
597079	B	6.83	-0.30	86.57	0.51	3.77	-0.28	2.79	-0.27	0.04
597076	D	7.22	-0.27	5.30	-0.31	8.29	-0.27	79.14	0.53	0.05
597078	A	83.19	0.59	7.70	-0.36	4.90	-0.29	4.16	-0.31	0.05
597077	B	16.69	-0.30	75.77	0.52	4.53	-0.32	2.96	-0.26	0.05
597075	C	9.23	-0.27	5.11	-0.25	72.94	0.53	12.66	-0.30	0.07
516472	D	7.03	-0.32	6.44	-0.33	3.28	-0.27	83.22	0.56	0.04
516471	A	88.85	0.52	4.58	-0.30	3.57	-0.30	2.99	-0.26	0.02
516469	D	4.75	-0.20	9.99	-0.20	3.73	-0.23	81.51	0.38	0.02
516466	B	4.02	-0.29	90.23	0.49	2.76	-0.23	2.96	-0.30	0.03
517674	B	9.35	-0.26	80.35	0.45	3.71	-0.25	6.57	-0.22	0.02
516468	C	5.81	-0.32	3.50	-0.25	87.41	0.51	3.25	-0.27	0.03
516470	C	2.26	-0.24	33.74	-0.20	57.01	0.41	6.97	-0.30	0.02
516464	A	92.33	0.43	3.30	-0.22	1.89	-0.23	2.45	-0.27	0.04
598865	B	7.78	-0.30	80.64	0.44	5.04	-0.19	6.50	-0.21	0.03
598861	D	21.00	-0.19	21.50	-0.12	9.72	-0.23	47.74	0.39	0.04
598869	A	81.16	0.52	5.95	-0.26	6.03	-0.35	6.83	-0.22	0.03
598872	A	55.96	0.30	3.13	-0.22	37.25	-0.15	3.62	-0.18	0.03
598863	B	7.78	-0.27	59.38	0.43	21.40	-0.19	11.41	-0.18	0.03
598868	B	42.97	-0.13	47.45	0.32	4.77	-0.24	4.78	-0.20	0.03
598860	D	8.10	-0.21	13.77	-0.14	10.06	-0.27	68.00	0.40	0.06

[1] Percentage of response options

Table O.4. Grade 6 Reading Core Test: Multiple-Choice Distractor Analysis

		Response Options								
		A		B		C		D		Omit
Item ID	Key	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]
509627	B	5.77	-0.32	80.88	0.47	10.29	-0.24	3.04	-0.22	0.03
510354	C	11.93	-0.23	2.90	-0.25	82.95	0.41	2.20	-0.25	0.02
510358	B	4.25	-0.25	89.01	0.47	2.45	-0.26	4.27	-0.28	0.02
509628	C	4.98	-0.31	2.91	-0.25	87.69	0.50	4.40	-0.27	0.02
509623	D	13.51	-0.34	10.74	-0.22	8.81	-0.20	66.91	0.51	0.02
509624	D	4.02	-0.23	9.21	-0.25	9.30	-0.18	77.44	0.41	0.03
596233	B	9.62	-0.23	71.63	0.44	3.27	-0.27	15.47	-0.23	0.01
596224	D	14.53	-0.18	9.80	-0.15	9.27	-0.18	66.39	0.33	0.00
596226	C	6.79	-0.22	1.28	-0.17	85.23	0.28	6.69	-0.10	0.01
596230	B	26.28	-0.22	67.78	0.41	3.64	-0.29	2.29	-0.24	0.02
596227	D	17.82	-0.22	4.04	-0.24	16.69	-0.15	61.45	0.39	0.00
596225	A	89.90	0.44	2.43	-0.27	6.65	-0.29	1.01	-0.19	0.01
596231	B	16.09	-0.26	74.17	0.44	3.74	-0.28	5.97	-0.19	0.03
559209	B	5.55	-0.29	56.16	0.40	14.73	-0.19	23.54	-0.16	0.02
559212	C	6.95	-0.15	5.97	-0.19	82.98	0.32	4.09	-0.19	0.02
559213	D	16.97	-0.33	3.08	-0.19	3.12	-0.18	76.81	0.45	0.02
559215	D	33.24	-0.11	4.90	-0.22	13.82	-0.22	48.02	0.34	0.02
559208	B	4.68	-0.20	84.68	0.43	4.01	-0.22	6.61	-0.28	0.03
559211	B	6.99	-0.25	69.93	0.43	15.22	-0.22	7.83	-0.20	0.02
559210	A	81.56	0.41	11.15	-0.22	4.65	-0.26	2.60	-0.21	0.04
596551	B	5.88	-0.25	66.12	0.44	3.74	-0.24	24.23	-0.24	0.03
596545	D	8.96	-0.28	40.14	0.01	7.37	-0.21	43.53	0.26	0.00
596544	B	14.45	-0.32	67.99	0.53	13.61	-0.26	3.92	-0.25	0.02
596543	C	22.55	-0.02	5.97	-0.22	50.64	0.37	20.83	-0.31	0.02
596550	B	12.86	-0.15	41.52	0.41	34.27	-0.13	11.32	-0.28	0.02
596541	A	71.80	0.40	3.90	-0.25	7.54	-0.20	16.74	-0.21	0.02
596547	B	4.03	-0.28	82.92	0.50	4.25	-0.28	8.78	-0.27	0.02
596540	D	14.96	-0.28	3.77	-0.23	3.53	-0.25	77.72	0.46	0.03
596975	C	4.32	-0.30	2.86	-0.30	90.41	0.49	2.37	-0.22	0.04
596976	A	80.70	0.35	2.89	-0.26	4.76	-0.19	11.63	-0.17	0.02
596977	B	2.10	-0.24	88.80	0.37	3.41	-0.19	5.67	-0.20	0.02
596978	A	81.37	0.47	2.85	-0.25	11.45	-0.28	4.32	-0.25	0.01
596974	D	3.49	-0.29	7.74	-0.29	3.13	-0.29	85.62	0.52	0.02
596981	B	38.65	-0.13	41.70	0.34	7.30	-0.19	12.33	-0.17	0.02
596973	C	6.24	-0.08	1.32	-0.21	87.46	0.26	4.94	-0.18	0.03
558784	B	21.52	-0.26	60.32	0.45	7.62	-0.26	10.52	-0.14	0.02
558786	B	1.88	-0.26	93.35	0.43	2.51	-0.25	2.25	-0.22	0.02
559369	B	9.10	-0.27	80.07	0.47	6.33	-0.27	4.47	-0.23	0.03
559364	C	3.78	-0.22	6.74	-0.31	76.40	0.47	13.06	-0.23	0.02
559363	C	6.06	-0.22	5.47	-0.30	84.95	0.48	3.49	-0.27	0.04
558791	A	75.56	0.39	2.89	-0.27	4.69	-0.26	16.83	-0.18	0.03
558782	D	3.94	-0.29	6.31	-0.33	14.65	-0.28	75.08	0.55	0.04

[1] Percentage of response options

Table O.5. Grade 7 Reading Core Test: Multiple-Choice Distractor Analysis

		Response Options								
		A		B		C		D		Omit
Item ID	Key	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]
515125	D	2.86	-0.27	4.79	-0.15	14.78	-0.29	77.52	0.43	0.04
515124	C	2.32	-0.26	1.73	-0.25	91.71	0.48	4.20	-0.29	0.04
515130	B	2.49	-0.22	80.90	0.51	8.25	-0.35	8.31	-0.25	0.04
515128	B	4.80	-0.24	67.75	0.33	19.21	-0.10	8.19	-0.23	0.04
515131	D	9.43	-0.16	12.08	-0.26	6.21	-0.26	72.24	0.44	0.05
515126	D	3.52	-0.30	4.35	-0.27	7.67	-0.22	84.42	0.46	0.05
515122	A	81.47	0.43	5.68	-0.26	4.54	-0.20	8.25	-0.23	0.06
596530	C	3.38	-0.17	13.52	-0.35	80.12	0.47	2.95	-0.20	0.03
596526	A	74.01	0.42	7.45	-0.29	15.80	-0.24	2.72	-0.13	0.01
596528	D	8.40	-0.34	3.50	-0.17	3.44	-0.29	84.64	0.50	0.02
596520	B	4.95	-0.31	87.19	0.44	5.33	-0.17	2.51	-0.26	0.02
596531	A	68.78	0.56	8.62	-0.31	9.64	-0.32	12.94	-0.24	0.01
596529	B	26.42	-0.13	44.70	0.39	9.14	-0.23	19.73	-0.17	0.02
596523	A	79.85	0.41	10.55	-0.28	3.90	-0.22	5.68	-0.16	0.02
596527	C	3.40	-0.33	3.46	-0.31	87.82	0.45	5.31	-0.14	0.01
596521	B	7.31	-0.20	55.85	0.37	24.27	-0.14	12.51	-0.21	0.06
511531	C	3.90	-0.33	1.92	-0.27	85.26	0.46	8.87	-0.22	0.04
511529	B	2.20	-0.22	68.40	0.30	1.82	-0.19	27.57	-0.18	0.01
511530	A	83.05	0.51	12.79	-0.38	2.49	-0.22	1.66	-0.24	0.01
511534	B	3.67	-0.28	85.48	0.51	2.75	-0.24	8.08	-0.32	0.01
511526	A	79.65	0.45	5.81	-0.24	10.02	-0.25	4.49	-0.25	0.02
560358	B	2.20	-0.24	92.90	0.44	2.14	-0.27	2.71	-0.25	0.05
598972	D	12.90	-0.32	14.87	-0.18	6.61	-0.23	65.60	0.48	0.03
598978	C	4.01	-0.21	2.75	-0.22	91.52	0.39	1.71	-0.23	0.01
598976	C	3.51	-0.19	1.77	-0.20	88.37	0.39	6.34	-0.26	0.01
598981	A	66.20	0.45	15.21	-0.18	14.63	-0.32	3.94	-0.17	0.02
598984	C	14.31	-0.22	11.59	-0.21	69.13	0.45	4.95	-0.30	0.01
598983	B	29.97	-0.08	52.52	0.34	8.79	-0.26	8.70	-0.21	0.02
598973	A	88.85	0.42	6.72	-0.29	2.22	-0.22	2.17	-0.19	0.03
538919	C	2.53	-0.27	2.17	-0.24	89.39	0.54	5.89	-0.37	0.02
538918	A	81.95	0.35	5.92	-0.23	3.47	-0.17	8.66	-0.18	0.00
538908	B	5.01	-0.25	87.07	0.46	4.85	-0.22	3.05	-0.30	0.02
538911	B	26.65	-0.14	62.94	0.35	8.31	-0.26	2.08	-0.22	0.01
538916	B	11.50	-0.21	74.92	0.41	8.05	-0.24	5.53	-0.19	0.01
538913	A	82.79	0.49	8.08	-0.25	4.99	-0.29	4.12	-0.26	0.01
538917	D	24.15	-0.24	16.25	-0.18	3.41	-0.19	56.15	0.41	0.03
515066	A	61.32	0.41	2.48	-0.28	29.73	-0.22	6.43	-0.22	0.04
515064	A	63.80	0.37	18.90	-0.16	7.88	-0.23	9.40	-0.17	0.03
514960	B	10.53	-0.29	79.48	0.50	6.97	-0.32	3.01	-0.20	0.01
515063	C	2.99	-0.24	12.59	-0.27	78.86	0.43	5.53	-0.20	0.03
514951	D	6.90	-0.28	24.90	-0.19	2.62	-0.23	65.57	0.40	0.01
514950	C	15.47	-0.26	21.73	-0.08	56.74	0.38	6.05	-0.25	0.01
514953	A	75.19	0.53	9.46	-0.25	6.99	-0.34	8.32	-0.26	0.04
514949	D	3.62	-0.29	4.57	-0.31	2.06	-0.28	89.71	0.53	0.03

[1] Percentage of response options

Table O.6. Grade 8 Reading Core Test: Multiple-Choice Distractor Analysis

		Response Options								
		A		B		C		D		Omit
Item ID	Key	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]
598970	D	14.59	-0.34	14.41	-0.17	13.61	-0.02	57.34	0.38	0.04
598968	D	8.77	-0.19	21.56	-0.24	28.03	-0.10	41.62	0.40	0.02
598962	B	18.16	-0.19	67.35	0.49	11.09	-0.38	3.37	-0.20	0.02
598964	B	2.11	-0.21	87.72	0.34	6.29	-0.23	3.85	-0.14	0.02
598961	C	1.67	-0.22	2.34	-0.23	91.73	0.37	4.24	-0.20	0.02
598969	D	17.01	-0.12	18.66	-0.26	7.21	-0.25	57.09	0.44	0.03
598959	B	2.43	-0.28	79.18	0.48	4.51	-0.29	13.84	-0.27	0.04
520716	C	10.48	-0.31	1.52	-0.19	84.12	0.44	3.84	-0.22	0.04
517509	D	2.38	-0.16	1.60	-0.18	22.25	-0.21	73.75	0.31	0.02
514809	D	8.95	-0.15	7.61	-0.24	3.09	-0.24	80.33	0.37	0.02
520718	B	12.05	-0.13	79.54	0.32	6.35	-0.22	2.04	-0.23	0.03
515005	C	10.58	-0.23	10.24	-0.32	73.03	0.52	6.10	-0.26	0.05
514802	B	10.18	-0.23	80.31	0.38	4.35	-0.18	5.13	-0.19	0.03
514580	B	10.25	-0.29	74.77	0.41	12.47	-0.17	2.45	-0.22	0.05
514828	A	89.27	0.35	1.75	-0.20	5.10	-0.23	3.85	-0.16	0.02
514829	D	5.60	-0.29	6.05	-0.28	2.08	-0.25	86.24	0.49	0.03
514827	A	69.77	0.42	4.27	-0.27	5.42	-0.23	20.50	-0.21	0.03
514572	C	2.02	-0.22	2.81	-0.28	93.49	0.41	1.65	-0.18	0.02
514831	B	4.70	-0.23	80.62	0.48	5.67	-0.28	8.99	-0.26	0.03
514832	C	21.37	-0.18	1.98	-0.25	71.95	0.36	4.64	-0.26	0.05
519207	C	10.91	-0.16	8.18	-0.30	78.60	0.38	2.25	-0.14	0.06
519199	B	6.33	-0.23	77.06	0.41	4.70	-0.31	11.89	-0.16	0.03
519202	C	4.46	-0.21	6.60	-0.25	64.50	0.54	24.40	-0.36	0.04
519526	D	10.48	-0.31	8.05	-0.26	7.69	-0.27	73.72	0.54	0.06
519205	B	5.78	-0.23	88.56	0.40	3.37	-0.24	2.25	-0.18	0.03
519203	A	87.94	0.46	5.10	-0.30	3.80	-0.21	3.11	-0.25	0.04
596606	D	5.64	-0.32	10.54	-0.25	36.10	-0.21	47.68	0.51	0.04
596604	D	12.01	-0.24	14.91	-0.23	17.13	-0.28	55.90	0.53	0.04
596603	B	8.92	-0.32	82.91	0.47	6.43	-0.27	1.70	-0.15	0.03
596605	D	10.17	-0.35	5.36	-0.22	9.97	-0.30	74.45	0.56	0.05
596597	D	3.29	-0.15	2.07	-0.25	4.56	-0.26	90.02	0.39	0.06
595350	D	1.41	-0.23	1.94	-0.27	6.22	-0.28	90.37	0.45	0.05
595354	A	73.38	0.49	7.73	-0.26	9.82	-0.30	9.06	-0.20	0.01
595352	A	90.56	0.45	2.00	-0.24	1.64	-0.24	5.78	-0.29	0.02
595356	D	6.56	-0.35	10.74	-0.30	3.49	-0.23	79.19	0.54	0.02
595355	C	12.70	-0.17	6.14	-0.22	59.38	0.30	21.75	-0.09	0.04
595345	B	2.21	-0.25	90.76	0.45	4.16	-0.29	2.84	-0.21	0.03
517357	D	1.83	-0.21	11.82	-0.23	7.44	-0.31	78.89	0.46	0.02
517352	C	4.23	-0.25	4.90	-0.27	85.21	0.50	5.62	-0.30	0.04
517355	C	2.01	-0.25	12.21	-0.09	82.49	0.26	3.27	-0.19	0.01
518031	A	57.62	0.37	7.07	-0.26	20.39	-0.11	14.89	-0.20	0.02
517349	D	13.88	-0.14	18.24	-0.23	3.78	-0.30	64.07	0.41	0.02
517359	B	9.04	-0.19	80.23	0.41	1.44	-0.23	9.27	-0.29	0.02
517348	B	4.86	-0.22	86.63	0.34	2.34	-0.13	6.13	-0.20	0.03

[1] Percentage of response options

Table O.7. Grade 10 Reading Core Test: Multiple-Choice Distractor Analysis

		Response Options								
		A		B		C		D		Omit
Item ID	Key	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]
559180	B	36.38	-0.16	58.43	0.33	4.09	-0.32	1.06	-0.17	0.05
559172	D	14.34	-0.13	13.96	-0.25	15.01	-0.08	56.64	0.33	0.05
559173	B	4.41	-0.18	82.83	0.44	5.74	-0.23	6.95	-0.29	0.07
559175	B	12.36	-0.13	67.79	0.33	16.42	-0.20	3.30	-0.20	0.13
598071	C	1.96	-0.21	4.63	-0.28	86.17	0.43	7.16	-0.23	0.08
598070	D	4.25	-0.21	8.37	-0.30	6.65	-0.18	80.67	0.43	0.06
598066	A	49.25	0.28	4.69	-0.26	2.69	-0.21	43.31	-0.10	0.06
598065	D	6.27	-0.27	1.27	-0.22	5.21	-0.17	87.19	0.38	0.06
598068	A	70.10	0.45	4.43	-0.22	7.13	-0.26	18.26	-0.24	0.08
598078	D	3.25	-0.22	14.34	-0.14	6.23	-0.14	76.11	0.29	0.08
598074	B	21.38	-0.07	47.76	0.32	13.76	-0.17	17.01	-0.19	0.10
598075	C	8.78	-0.24	3.36	-0.24	86.22	0.40	1.53	-0.21	0.11
596913	B	37.81	-0.18	51.20	0.36	8.32	-0.21	2.59	-0.21	0.08
596915	D	21.73	-0.22	16.82	-0.23	7.15	-0.22	54.21	0.47	0.09
596918	B	4.82	-0.23	67.25	0.48	21.50	-0.26	6.35	-0.27	0.08
596916	D	17.02	-0.23	13.05	-0.29	3.58	-0.26	66.27	0.50	0.07
596908	C	2.84	-0.25	6.52	-0.24	82.35	0.41	8.22	-0.20	0.07
596920	D	6.95	-0.27	18.60	-0.07	5.39	-0.30	68.98	0.35	0.08
596909	A	86.40	0.51	2.59	-0.29	4.30	-0.31	6.63	-0.25	0.08
596919	D	12.25	-0.23	4.51	-0.24	1.98	-0.26	81.14	0.41	0.11
559393	C	17.83	-0.30	2.66	-0.26	75.22	0.45	4.20	-0.18	0.08
559395	C	21.97	-0.25	4.28	-0.31	70.59	0.44	3.12	-0.20	0.05
559401	A	88.20	0.50	3.56	-0.29	3.86	-0.29	4.36	-0.26	0.03
559404	D	4.73	-0.28	31.78	-0.22	7.23	-0.27	56.21	0.47	0.04
559392	C	4.60	-0.25	14.73	-0.43	79.79	0.55	0.84	-0.17	0.04
559402	A	75.84	0.35	3.77	-0.24	3.96	-0.31	16.37	-0.11	0.06
559391	B	6.09	-0.20	68.58	0.39	1.67	-0.17	23.61	-0.26	0.05
559329	B	2.87	-0.25	89.25	0.49	2.30	-0.24	5.53	-0.32	0.06
539176	D	16.56	-0.20	4.43	-0.22	6.29	-0.26	72.68	0.41	0.05
539180	C	4.87	-0.22	14.36	-0.30	68.87	0.43	11.87	-0.14	0.04
539177	A	85.45	0.55	1.69	-0.24	6.79	-0.35	6.02	-0.31	0.05
559330	D	20.74	-0.16	5.54	-0.26	13.04	-0.19	60.62	0.38	0.06
539179	C	1.57	-0.20	4.04	-0.29	89.33	0.45	5.01	-0.26	0.06
539169	C	20.87	-0.04	14.98	-0.27	46.33	0.35	17.75	-0.15	0.08
539175	C	0.85	-0.18	6.50	-0.28	91.11	0.41	1.47	-0.25	0.07
539170	A	86.07	0.46	3.58	-0.25	7.69	-0.31	2.56	-0.20	0.10
517796	D	4.36	-0.19	2.38	-0.29	4.00	-0.30	89.20	0.46	0.06
517794	B	1.17	-0.23	71.90	0.48	22.38	-0.32	4.51	-0.27	0.04
517792	A	73.78	0.43	6.78	-0.18	4.73	-0.25	14.66	-0.25	0.05
518463	D	4.37	-0.23	18.25	-0.33	5.87	-0.21	71.47	0.50	0.04
517798	A	89.52	0.47	5.18	-0.30	3.57	-0.25	1.69	-0.22	0.04
517797	C	3.90	-0.16	4.05	-0.28	88.56	0.44	3.46	-0.29	0.04
518461	C	5.07	-0.20	4.66	-0.33	82.33	0.50	7.91	-0.29	0.04
517795	C	3.11	-0.20	4.77	-0.18	90.59	0.33	1.49	-0.20	0.04
518462	D	4.90	-0.17	14.53	-0.14	45.20	-0.14	35.28	0.33	0.10

[1] Percentage of response options

Table O.8. Grade 3 Mathematics Core Test: Multiple-Choice Distractor Analysis

		Response Options								
		A		B		C		D		Omit
Item ID	Key	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]
593572	C	3.78	-0.29	3.28	-0.21	87.07	0.47	5.85	-0.29	0.02
593779	A	90.22	0.41	5.53	-0.37	2.12	-0.13	2.11	-0.13	0.02
517378	C	6.67	-0.26	9.51	-0.17	74.20	0.45	9.59	-0.29	0.02
592765	B	4.29	-0.26	89.48	0.45	4.35	-0.26	1.84	-0.23	0.03
566158	D	9.56	-0.21	16.53	-0.32	12.16	-0.17	61.73	0.49	0.01
566256	A	88.97	0.38	5.32	-0.20	4.32	-0.26	1.36	-0.19	0.02
593575	A	70.77	0.57	15.23	-0.27	3.45	-0.30	10.52	-0.35	0.02
593221	D	0.96	-0.21	3.64	-0.21	2.62	-0.24	92.78	0.38	0.01
594522	B	9.73	-0.21	54.69	0.42	14.13	-0.22	21.42	-0.17	0.02
592667	B	5.28	-0.20	89.81	0.35	0.98	-0.17	3.91	-0.23	0.02
516991	A	78.08	0.43	6.33	-0.22	8.23	-0.27	7.34	-0.19	0.02
518888	C	2.64	-0.29	5.26	-0.19	87.89	0.45	4.18	-0.28	0.02
592614	C	17.25	-0.40	3.57	-0.24	75.84	0.55	3.32	-0.22	0.01
594249	D	1.74	-0.23	3.73	-0.29	5.38	-0.25	89.13	0.45	0.00
593581	A	84.95	0.38	10.63	-0.27	2.63	-0.18	1.78	-0.16	0.01
566693	D	2.54	-0.27	5.57	-0.29	5.85	-0.32	86.04	0.53	0.01
516961	C	4.22	-0.26	6.63	-0.24	81.80	0.45	7.33	-0.23	0.02
566250	D	7.18	-0.32	6.87	-0.31	2.84	-0.26	83.08	0.54	0.02
593230	A	84.29	0.49	5.63	-0.28	4.68	-0.23	5.38	-0.29	0.02
566701	C	17.37	-0.28	9.53	-0.34	71.06	0.53	2.02	-0.25	0.02
592460	C	11.49	-0.33	3.19	-0.22	82.69	0.45	2.61	-0.15	0.01
516549	A	51.70	0.41	11.19	-0.03	15.17	-0.15	21.91	-0.35	0.02
517084	D	16.26	-0.17	13.53	-0.25	18.49	-0.14	51.66	0.41	0.06
592661	A	64.96	0.54	9.71	-0.14	11.65	-0.32	13.66	-0.33	0.01
566594	B	5.63	-0.14	60.87	0.52	16.27	-0.23	17.22	-0.36	0.01
594250	B	4.28	-0.26	89.04	0.40	4.80	-0.22	1.86	-0.18	0.02
592619	C	3.62	-0.22	6.29	-0.27	86.24	0.46	3.82	-0.27	0.02
517874	D	1.28	-0.18	5.58	-0.17	4.49	-0.24	88.62	0.34	0.02
518898	B	6.64	-0.27	78.68	0.53	6.02	-0.25	8.63	-0.31	0.03
593254	C	3.43	-0.28	7.47	-0.22	84.06	0.48	5.01	-0.31	0.03
519751	B	5.14	-0.24	83.46	0.46	6.14	-0.24	5.25	-0.26	0.02
566699	A	69.85	0.48	12.42	-0.19	9.42	-0.22	8.29	-0.34	0.02
518946	B	32.29	-0.13	46.75	0.43	15.05	-0.33	5.87	-0.15	0.03
566251	D	3.53	-0.25	6.42	-0.20	6.86	-0.21	83.18	0.40	0.01
534936	A	77.13	0.39	13.92	-0.28	3.96	-0.16	4.96	-0.17	0.03
517380	D	22.06	-0.37	0.81	-0.12	5.34	-0.12	71.77	0.43	0.02
592761	C	3.31	-0.30	3.32	-0.21	89.21	0.45	4.14	-0.24	0.01
592463	A	78.41	0.48	5.58	-0.16	5.51	-0.20	10.48	-0.37	0.02
516995	D	6.67	-0.19	14.61	-0.31	3.93	-0.08	74.77	0.40	0.02
593220	C	3.67	-0.30	6.68	-0.29	87.75	0.49	1.89	-0.21	0.01

[1] Percentage of response options

Table O.9. Grade 4 Mathematics Core Test: Multiple-Choice Distractor Analysis

		Response Options								
		A		B		C		D		Omit
Item ID	Key	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]
594692	C	1.19	-0.18	6.62	-0.25	90.86	0.34	1.33	-0.14	0.00
521193	D	11.55	-0.38	13.95	-0.15	5.88	-0.21	68.61	0.48	0.01
594243	A	65.80	0.52	17.78	-0.20	10.26	-0.36	6.15	-0.25	0.01
559258	B	4.01	-0.23	84.59	0.37	4.53	-0.28	6.86	-0.12	0.00
594272	C	1.99	-0.21	4.86	-0.16	86.89	0.38	6.23	-0.26	0.02
595454	A	75.16	0.49	9.35	-0.26	7.67	-0.32	7.80	-0.17	0.02
594518	D	5.64	-0.22	32.24	-0.15	4.20	-0.23	57.91	0.34	0.00
595460	C	2.31	-0.22	3.49	-0.17	86.23	0.37	7.96	-0.24	0.01
594294	D	9.76	-0.35	11.06	-0.28	10.31	-0.17	68.85	0.52	0.02
595119	B	30.33	-0.18	40.54	0.36	12.11	-0.07	17.01	-0.19	0.01
594246	C	9.52	-0.30	4.33	-0.22	78.99	0.42	7.15	-0.15	0.01
594514	C	6.90	-0.31	23.37	-0.06	55.89	0.33	13.83	-0.17	0.01
595205	D	7.00	-0.32	8.16	-0.25	8.45	-0.27	76.39	0.53	0.00
595200	D	3.45	-0.21	4.57	-0.19	6.28	-0.25	85.67	0.40	0.02
594263	A	79.35	0.50	6.38	-0.19	9.94	-0.35	4.32	-0.25	0.00
594241	D	11.64	-0.18	10.40	-0.22	10.56	-0.24	67.37	0.42	0.03
594685	B	3.20	-0.16	73.15	0.58	16.74	-0.39	6.91	-0.33	0.01
594693	B	1.80	-0.10	66.95	0.50	12.75	-0.17	18.50	-0.43	0.00
520979	D	10.21	-0.05	2.03	-0.21	15.73	-0.45	72.03	0.46	0.00
507551	D	17.84	-0.19	12.52	-0.05	31.83	-0.15	37.79	0.33	0.01
595458	A	79.47	0.44	10.16	-0.26	7.16	-0.23	3.20	-0.22	0.00
594247	D	9.67	-0.25	13.93	-0.21	3.94	-0.19	72.46	0.41	0.00
595114	C	3.41	-0.20	17.00	-0.19	76.74	0.36	2.84	-0.25	0.00
595112	A	46.24	0.43	14.75	-0.11	15.33	-0.14	23.64	-0.29	0.04
506485	A	35.60	0.34	13.38	-0.10	29.12	-0.12	21.88	-0.19	0.02
595204	B	9.67	-0.20	80.44	0.38	6.22	-0.19	3.66	-0.24	0.01
594682	C	4.86	-0.24	4.37	-0.21	87.01	0.40	3.76	-0.22	0.00
594694	B	8.58	-0.24	72.09	0.52	8.30	-0.22	11.03	-0.34	0.00
595515	B	3.68	-0.22	86.75	0.46	6.13	-0.27	3.42	-0.28	0.01
595516	C	5.35	-0.18	10.78	-0.34	77.54	0.48	6.32	-0.23	0.01
594679	B	6.04	-0.35	74.83	0.56	12.02	-0.28	7.10	-0.25	0.01
506487	D	4.38	-0.33	3.73	-0.29	14.35	-0.29	77.53	0.53	0.01
595120	C	8.27	-0.24	4.09	-0.28	82.98	0.46	4.65	-0.25	0.01
595667	B	5.34	-0.25	81.32	0.57	7.58	-0.32	5.75	-0.35	0.01
594510	D	3.51	-0.24	6.16	-0.23	5.61	-0.26	84.71	0.44	0.01
594690	B	18.85	-0.24	75.90	0.40	3.06	-0.24	2.16	-0.24	0.02
594268	A	54.31	0.42	11.03	-0.18	20.46	-0.17	14.19	-0.24	0.01
595453	A	74.06	0.49	10.65	-0.14	5.73	-0.19	9.56	-0.43	0.00
594244	C	3.75	-0.31	2.24	-0.19	86.31	0.45	7.69	-0.25	0.00
594238	A	87.24	0.46	5.89	-0.26	3.67	-0.23	3.19	-0.29	0.01

[1] Percentage of response options

Table O.10. Grade 5 Mathematics Core Test: Multiple-Choice Distractor Analysis

		Response Options								
		A		B		C		D		Omit
Item ID	Key	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]
566685	C	1.66	-0.20	10.21	-0.32	87.47	0.40	0.66	-0.15	0.00
594800	B	11.76	-0.17	79.13	0.40	6.40	-0.26	2.71	-0.26	0.00
594537	A	76.54	0.46	9.58	-0.27	3.67	-0.16	10.21	-0.28	0.00
518075	B	22.94	-0.33	49.17	0.45	16.82	-0.24	11.07	0.02	0.00
593213	D	5.30	-0.19	4.87	-0.31	4.98	-0.18	84.85	0.41	0.00
518078	A	77.86	0.40	4.87	-0.13	7.59	-0.26	9.68	-0.24	0.00
594274	B	19.93	-0.49	56.58	0.48	9.50	-0.07	14.00	-0.06	0.00
519652	B	7.78	-0.20	80.48	0.52	3.30	-0.22	8.44	-0.42	0.00
521582	A	86.59	0.39	9.27	-0.29	1.59	-0.10	2.53	-0.22	0.01
592414	C	6.09	-0.29	6.70	-0.21	82.29	0.44	4.92	-0.22	0.01
592824	C	15.05	-0.44	8.70	-0.22	74.78	0.54	1.47	-0.14	0.00
594801	D	7.41	-0.08	10.02	-0.28	25.91	-0.19	56.66	0.38	0.00
518089	B	4.54	-0.20	87.01	0.45	5.87	-0.34	2.59	-0.18	0.00
596927	C	5.68	-0.10	41.13	-0.37	45.72	0.47	7.47	-0.12	0.00
517858	B	8.46	-0.21	75.97	0.47	12.36	-0.34	3.19	-0.18	0.01
593899	B	17.40	-0.28	58.76	0.34	18.06	-0.12	5.77	-0.07	0.01
518088	C	6.22	-0.20	2.84	-0.16	80.60	0.32	10.33	-0.17	0.00
594803	D	67.65	-0.26	3.35	-0.18	2.03	-0.11	26.97	0.38	0.00
516265	B	2.85	-0.15	78.07	0.42	16.42	-0.30	2.66	-0.25	0.00
535900	A	84.30	0.31	0.39	-0.12	14.89	-0.27	0.40	-0.14	0.01
593237	C	16.57	-0.32	42.07	-0.18	39.87	0.45	1.47	-0.10	0.01
566690	D	1.07	-0.15	9.24	-0.28	6.64	-0.18	83.03	0.38	0.01
594542	C	7.66	-0.21	15.21	-0.21	60.39	0.44	16.73	-0.22	0.00
595517	A	65.52	0.49	22.39	-0.39	3.12	-0.17	8.97	-0.14	0.00
595954	D	9.39	-0.15	1.13	-0.18	7.12	-0.42	82.36	0.45	0.00
517764	D	9.12	-0.10	16.21	-0.24	15.90	-0.24	58.76	0.42	0.00
518879	A	76.87	0.30	9.84	-0.17	3.33	-0.10	9.94	-0.20	0.01
535396	A	81.46	0.34	9.94	-0.18	6.71	-0.21	1.89	-0.18	0.00
592412	C	8.62	-0.25	2.00	-0.17	88.67	0.33	0.71	-0.11	0.00
596819	D	53.81	-0.17	9.09	-0.28	2.65	-0.16	34.45	0.40	0.00
593215	D	6.32	-0.20	3.17	-0.24	2.52	-0.22	87.99	0.38	0.01
565920	C	23.13	-0.18	8.02	-0.29	66.66	0.38	2.19	-0.17	0.01
513682	D	4.82	-0.23	11.77	-0.23	7.29	-0.32	76.11	0.49	0.01
596820	C	18.69	-0.32	11.23	-0.26	61.02	0.52	9.06	-0.16	0.00
596206	D	22.42	-0.25	9.72	-0.17	4.69	-0.22	63.17	0.42	0.01
535381	A	70.01	0.39	21.71	-0.28	6.55	-0.16	1.72	-0.17	0.00
516258	D	7.25	-0.26	6.38	-0.18	3.23	-0.23	83.14	0.41	0.00
596929	B	10.88	-0.29	83.96	0.37	2.56	-0.17	2.58	-0.12	0.01
593217	D	1.48	-0.19	17.80	-0.25	17.44	-0.23	63.28	0.43	0.01
515978	B	8.55	-0.26	82.11	0.48	1.44	-0.16	7.90	-0.34	0.00
518092	D	1.95	-0.16	11.03	-0.14	1.43	-0.16	85.58	0.24	0.01
594275	C	16.51	-0.20	9.39	-0.32	71.61	0.45	2.48	-0.22	0.01
566709	A	81.89	0.46	3.60	-0.25	8.89	-0.20	5.60	-0.32	0.01
537577	C	4.43	-0.28	4.60	-0.21	85.13	0.40	5.84	-0.17	0.01
594799	D	6.25	-0.18	2.04	-0.20	6.25	-0.34	85.45	0.44	0.00

[1] Percentage of response options

Table O.11. Grade 6 Mathematics Core Test: Multiple-Choice Distractor Analysis

		Response Options								
		A		B		C		D		Omit
Item ID	Key	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]
521354	A	87.84	0.46	7.29	-0.30	3.18	-0.28	1.69	-0.19	0.00
538496	B	9.82	-0.32	78.69	0.48	10.06	-0.29	1.43	-0.13	0.00
599045	D	36.88	-0.23	2.73	-0.16	3.47	-0.21	56.92	0.36	0.00
598918	C	3.53	-0.20	6.74	-0.21	62.46	0.44	27.27	-0.27	0.00
520849	C	5.08	-0.13	8.50	-0.35	62.33	0.65	24.09	-0.45	0.00
598651	A	69.87	0.46	5.09	-0.30	21.57	-0.28	3.47	-0.16	0.00
598988	C	5.53	-0.25	6.61	-0.21	84.04	0.41	3.82	-0.22	0.00
599016	A	90.28	0.41	5.72	-0.26	2.07	-0.23	1.91	-0.19	0.02
521671	A	72.02	0.52	5.13	-0.25	11.83	-0.45	10.98	-0.11	0.04
599054	D	17.17	-0.19	9.32	-0.10	14.02	-0.17	59.47	0.33	0.01
598912	B	7.49	-0.14	80.61	0.39	6.91	-0.17	4.97	-0.33	0.01
521215	D	17.71	-0.30	2.45	-0.26	2.81	-0.29	77.01	0.48	0.02
599017	A	42.73	0.42	41.62	-0.24	8.83	-0.16	6.79	-0.18	0.04
521726	C	8.40	-0.22	2.64	-0.21	83.05	0.44	5.89	-0.29	0.02
599022	D	8.89	-0.22	8.44	-0.24	5.26	-0.30	77.39	0.47	0.03
599055	B	40.01	-0.43	51.99	0.57	3.30	-0.16	4.67	-0.21	0.03
599071	C	6.77	-0.34	4.33	-0.22	46.86	0.33	42.01	-0.07	0.03
599041	A	78.80	0.36	13.14	-0.21	3.29	-0.21	4.75	-0.17	0.02
599039	D	4.13	-0.21	4.04	-0.25	15.02	-0.35	76.79	0.51	0.02
598903	B	6.10	-0.23	59.91	0.55	2.65	-0.21	31.32	-0.39	0.02
598686	B	6.23	-0.20	76.05	0.57	13.86	-0.42	3.83	-0.24	0.03
599489	C	6.25	-0.20	11.49	-0.23	70.91	0.46	11.29	-0.27	0.07
598910	D	6.19	-0.15	7.15	-0.21	10.18	-0.29	76.43	0.43	0.06
507598	C	11.26	-0.30	6.02	-0.23	66.33	0.56	16.36	-0.31	0.03
599074	B	16.93	-0.30	80.51	0.37	0.64	-0.11	1.89	-0.18	0.02
599048	B	7.91	-0.24	62.27	0.49	11.09	-0.18	18.71	-0.30	0.03
599443	D	21.20	-0.21	21.54	-0.04	21.55	-0.21	35.67	0.39	0.04
518954	C	10.71	-0.32	3.40	-0.22	71.62	0.42	14.25	-0.15	0.02
598916	B	9.06	-0.17	67.67	0.39	13.84	-0.13	9.42	-0.31	0.01
598909	C	40.11	-0.27	23.79	-0.06	33.10	0.37	2.95	-0.11	0.05
599043	D	11.66	-0.28	7.46	-0.20	9.47	-0.25	71.39	0.48	0.02
598690	C	1.24	-0.17	45.71	-0.28	51.08	0.36	1.96	-0.18	0.01
599079	C	2.56	-0.14	8.79	-0.11	75.29	0.39	13.32	-0.34	0.03
599488	A	85.51	0.49	8.12	-0.32	4.27	-0.27	2.07	-0.21	0.02
599075	D	1.13	-0.17	19.71	-0.33	2.31	-0.18	76.84	0.41	0.01
599050	A	78.54	0.47	6.80	-0.24	7.58	-0.25	7.04	-0.27	0.03
599013	B	22.58	-0.33	59.53	0.53	13.81	-0.26	4.05	-0.18	0.03
598923	D	3.72	-0.21	14.70	-0.24	3.48	-0.20	78.06	0.40	0.03
598922	D	1.67	-0.19	1.14	-0.16	13.32	-0.35	83.84	0.43	0.02
598986	B	13.33	-0.34	73.25	0.44	1.51	-0.15	11.89	-0.19	0.03
598924	B	4.20	-0.22	84.98	0.42	7.20	-0.23	3.60	-0.26	0.02
521438	A	85.32	0.36	6.86	-0.18	1.79	-0.22	6.01	-0.22	0.03
598659	C	20.09	-0.14	11.17	-0.23	55.44	0.42	13.26	-0.23	0.04
598667	C	6.70	-0.19	22.60	-0.09	56.51	0.42	14.13	-0.36	0.06
598915	A	89.65	0.48	3.88	-0.30	2.38	-0.27	4.08	-0.23	0.01

[1] Percentage of response options

Table O.12. Grade 7 Mathematics Core Test: Multiple-Choice Distractor Analysis

		Response Options								
		A		B		C		D		Omit
Item ID	Key	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]
594578	C	1.09	-0.20	15.73	-0.48	74.18	0.46	9.00	-0.02	0.00
566159	D	7.10	-0.30	13.15	-0.13	10.02	-0.37	69.73	0.50	0.00
593930	C	12.34	-0.35	4.86	-0.26	72.09	0.43	10.71	-0.07	0.00
592490	C	2.25	-0.22	21.94	-0.36	66.06	0.47	9.74	-0.14	0.00
593757	A	76.68	0.51	11.67	-0.27	5.58	-0.27	6.07	-0.28	0.00
592355	C	17.54	-0.50	6.94	-0.25	74.81	0.60	0.72	-0.10	0.00
593756	B	3.61	-0.17	67.76	0.54	15.39	-0.33	13.24	-0.31	0.00
566163	A	83.90	0.51	5.08	-0.25	2.21	-0.19	8.79	-0.37	0.01
593262	B	0.88	-0.05	71.62	0.48	18.90	-0.37	8.59	-0.23	0.01
594552	D	10.26	-0.21	3.38	-0.25	3.60	-0.27	82.72	0.42	0.03
593253	B	6.41	-0.20	60.13	0.52	23.05	-0.30	10.38	-0.25	0.03
596183	A	82.94	0.48	4.02	-0.26	4.55	-0.27	8.47	-0.26	0.02
592560	D	20.49	-0.23	9.76	-0.25	18.34	-0.12	51.39	0.43	0.02
566440	C	1.39	-0.17	9.37	-0.19	79.99	0.35	9.22	-0.23	0.03
593245	D	5.70	-0.22	7.11	-0.26	8.53	-0.28	78.63	0.48	0.03
567081	D	4.00	-0.18	28.18	-0.44	4.11	-0.20	63.69	0.57	0.03
593250	C	1.23	-0.15	20.07	-0.34	78.01	0.40	0.66	-0.14	0.02
515711	B	17.41	-0.14	55.77	0.33	7.81	-0.32	19.00	-0.06	0.02
596243	C	4.74	-0.26	8.15	-0.24	74.80	0.42	12.29	-0.20	0.02
592357	A	63.96	0.40	13.64	-0.23	18.35	-0.18	4.02	-0.20	0.03
596244	C	35.67	-0.29	8.34	-0.18	54.74	0.41	1.23	-0.11	0.02
596242	A	63.33	0.47	23.14	-0.28	5.12	-0.25	8.39	-0.18	0.02
566438	D	11.34	-0.20	6.06	-0.25	14.21	-0.28	68.35	0.47	0.04
594471	A	86.37	0.40	1.65	-0.18	10.96	-0.30	0.98	-0.17	0.03
592360	D	21.14	-0.27	27.18	-0.08	14.23	-0.15	37.43	0.41	0.02
593256	C	3.13	-0.17	2.81	-0.19	83.43	0.45	10.59	-0.34	0.03
594669	B	17.59	-0.13	58.69	0.37	5.79	-0.23	17.90	-0.20	0.03
506177	B	13.68	-0.06	57.42	0.42	12.37	-0.21	16.50	-0.31	0.03
594585	D	11.96	-0.34	7.46	-0.17	14.84	-0.17	65.72	0.46	0.02
592593	D	14.48	-0.24	21.75	-0.10	13.40	-0.31	50.34	0.47	0.04
516929	A	57.45	0.50	13.72	-0.30	18.19	-0.23	10.59	-0.18	0.04
537843	D	8.57	-0.18	6.53	-0.29	9.27	-0.36	75.60	0.53	0.03
592362	A	84.17	0.38	10.47	-0.25	3.09	-0.20	2.24	-0.18	0.02
566164	D	24.51	-0.04	23.73	-0.08	27.16	-0.13	24.55	0.26	0.04
594673	B	6.60	-0.21	66.43	0.52	17.60	-0.28	9.34	-0.28	0.03
596181	D	9.05	-0.32	10.12	-0.38	5.80	-0.19	75.01	0.58	0.02
566439	A	76.69	0.34	12.25	-0.25	7.27	-0.19	3.76	-0.07	0.02
592562	C	30.64	-0.23	18.87	-0.08	40.39	0.42	10.08	-0.22	0.02
565172	B	17.61	-0.22	59.66	0.36	16.70	-0.14	6.00	-0.17	0.03
593260	C	7.77	-0.24	2.26	-0.18	83.98	0.34	5.96	-0.14	0.03
594579	B	11.46	-0.22	78.14	0.42	6.06	-0.16	4.31	-0.33	0.02
596161	D	2.82	-0.20	20.07	-0.23	14.30	-0.27	62.79	0.46	0.02
566716	C	53.49	-0.26	9.70	-0.22	31.67	0.43	5.11	-0.02	0.03
594581	B	7.83	-0.28	80.81	0.47	8.53	-0.29	2.80	-0.17	0.03
596187	A	82.31	0.47	12.42	-0.37	2.43	-0.18	2.82	-0.19	0.03

[1] Percentage of response options

Table O.13. Grade 8 Mathematics Core Test: Multiple-Choice Distractor Analysis

		Response Options								
		A		B		C		D		Omit
Item ID	Key	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]
520959	C	6.28	-0.38	2.58	-0.22	90.13	0.45	1.00	-0.07	0.00
594525	B	4.65	-0.23	74.47	0.40	3.20	-0.22	17.67	-0.23	0.00
595706	C	21.26	-0.26	6.03	-0.20	70.30	0.41	2.41	-0.20	0.00
596923	A	64.83	0.37	7.65	-0.38	16.59	-0.14	10.92	-0.08	0.01
598942	C	2.38	-0.22	2.67	-0.28	87.76	0.47	7.18	-0.29	0.01
521694	C	3.94	-0.13	7.44	-0.15	71.94	0.43	16.66	-0.34	0.02
596102	D	5.33	-0.23	8.41	-0.27	6.96	-0.19	79.29	0.43	0.02
598991	D	36.07	-0.34	3.70	-0.11	2.94	-0.14	57.26	0.42	0.03
598099	A	87.44	0.43	4.65	-0.23	2.76	-0.23	5.14	-0.25	0.02
520695	C	4.07	-0.23	8.13	-0.25	83.34	0.43	4.44	-0.21	0.01
598930	A	65.41	0.33	29.81	-0.18	3.17	-0.26	1.60	-0.24	0.01
596989	B	12.85	-0.12	64.39	0.38	19.22	-0.27	3.53	-0.17	0.01
598631	A	75.18	0.43	5.61	-0.26	9.18	-0.25	10.02	-0.17	0.01
598100	B	14.52	-0.30	65.51	0.57	4.15	-0.21	15.80	-0.34	0.01
598814	B	14.00	-0.21	65.04	0.48	12.16	-0.30	8.77	-0.21	0.02
596986	C	16.20	-0.36	14.70	-0.24	63.24	0.48	5.84	-0.06	0.02
597029	C	38.38	-0.24	7.06	-0.22	44.29	0.42	10.26	-0.12	0.01
519387	B	15.23	-0.20	65.96	0.37	12.50	-0.17	6.28	-0.18	0.03
596199	B	12.61	-0.33	66.61	0.44	18.35	-0.20	2.41	-0.13	0.01
598745	D	13.36	-0.28	6.68	-0.28	12.77	-0.26	67.18	0.53	0.01
596931	C	13.16	-0.19	17.72	-0.38	56.36	0.52	12.74	-0.14	0.02
598937	D	1.74	-0.17	15.11	-0.31	2.79	-0.21	80.34	0.42	0.01
521696	A	79.99	0.39	13.50	-0.27	3.02	-0.18	3.48	-0.19	0.02
594615	D	8.80	-0.09	6.93	-0.22	22.41	-0.29	61.85	0.41	0.01
594532	D	0.73	-0.15	4.37	-0.19	19.97	-0.27	74.91	0.37	0.01
597027	B	4.52	-0.23	81.36	0.49	10.21	-0.35	3.88	-0.19	0.02
595710	C	20.23	-0.21	15.89	-0.35	56.73	0.51	7.12	-0.16	0.02
598630	D	17.41	-0.02	24.01	-0.24	15.61	-0.31	42.94	0.44	0.02
596101	B	7.59	-0.36	84.95	0.50	4.86	-0.26	2.58	-0.18	0.02
594609	C	8.79	-0.29	22.48	-0.32	64.37	0.49	4.33	-0.08	0.03
598354	D	12.38	-0.16	26.08	-0.18	17.56	-0.15	43.97	0.38	0.01
598632	A	75.08	0.39	15.67	-0.26	7.27	-0.19	1.95	-0.19	0.02
598680	A	79.10	0.48	10.04	-0.27	5.04	-0.24	5.80	-0.27	0.02
597023	D	29.08	-0.16	19.29	-0.31	4.11	-0.05	47.49	0.41	0.02
598106	B	15.10	-0.29	73.03	0.45	6.16	-0.20	5.69	-0.20	0.02
597020	B	18.33	-0.31	61.92	0.46	5.67	-0.10	14.06	-0.23	0.02
599023	C	5.70	-0.26	8.37	-0.27	80.82	0.49	5.09	-0.26	0.02
598819	C	14.37	-0.29	8.40	-0.14	67.08	0.48	10.11	-0.29	0.03
520967	B	27.44	-0.23	56.70	0.40	9.21	-0.23	6.64	-0.12	0.01
596191	B	25.10	-0.38	53.64	0.43	9.01	-0.11	12.23	-0.06	0.01
596990	C	27.29	-0.14	20.21	-0.23	41.52	0.38	10.96	-0.10	0.02
594523	D	6.80	-0.13	1.22	-0.18	4.61	-0.29	87.35	0.34	0.01
598992	A	77.09	0.37	8.64	-0.29	13.20	-0.18	1.06	-0.13	0.01
518906	B	8.80	-0.36	83.16	0.51	6.01	-0.27	2.01	-0.18	0.01
596196	A	84.48	0.40	3.92	-0.27	9.66	-0.23	1.92	-0.18	0.02

[1] Percentage of response options

Table O.14. Grade 10 Mathematics Core Test: Multiple-Choice Distractor Analysis

		Response Options								
		A		B		C		D		Omit
Item ID	Key	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]
559050	D	3.45	-0.23	5.37	-0.18	6.36	-0.29	84.81	0.42	0.00
534930	D	1.44	-0.20	5.04	-0.22	3.83	-0.33	89.65	0.45	0.04
517148	C	1.19	-0.16	4.21	-0.38	93.49	0.45	1.08	-0.16	0.03
536362	D	5.40	-0.38	5.19	-0.24	9.39	-0.29	79.98	0.57	0.05
535191	A	57.14	0.51	20.36	-0.31	16.27	-0.24	6.18	-0.17	0.06
559058	A	73.61	0.42	16.53	-0.25	2.89	-0.24	6.94	-0.19	0.04
537470	B	10.30	-0.14	64.97	0.51	15.97	-0.30	8.73	-0.30	0.04
537758	B	7.62	-0.15	82.40	0.36	3.48	-0.22	6.46	-0.23	0.04
535269	D	19.83	-0.18	22.26	-0.31	11.39	-0.18	46.46	0.52	0.05
513743	C	5.32	-0.15	36.83	-0.20	48.10	0.36	9.71	-0.16	0.05
537887	B	2.35	-0.15	60.44	0.40	6.31	-0.28	30.87	-0.23	0.03
506889	D	3.43	-0.13	5.22	-0.24	3.85	-0.29	87.45	0.41	0.05
506895	C	15.86	-0.32	9.17	-0.22	64.20	0.46	10.73	-0.12	0.04
521680	B	3.41	-0.22	86.56	0.45	2.83	-0.28	7.16	-0.25	0.04
539550	B	4.01	-0.21	79.53	0.54	13.28	-0.36	3.13	-0.29	0.05
507475	C	6.45	-0.31	1.71	-0.22	79.33	0.51	12.48	-0.31	0.04
535264	D	13.41	-0.31	21.44	-0.15	13.07	-0.16	51.99	0.44	0.08
512888	D	2.59	-0.27	3.05	-0.27	3.72	-0.28	90.60	0.49	0.04
519361	A	78.88	0.43	15.72	-0.28	3.34	-0.26	2.02	-0.18	0.05
536359	C	14.02	-0.25	8.81	-0.26	62.38	0.49	14.75	-0.21	0.04
538283	A	78.36	0.55	13.06	-0.36	6.80	-0.31	1.73	-0.18	0.05
535179	C	13.58	-0.25	14.53	-0.29	53.41	0.53	18.42	-0.19	0.06
534919	D	10.25	-0.18	8.56	-0.29	11.70	-0.25	69.45	0.47	0.04
521686	B	3.52	-0.22	79.54	0.50	6.07	-0.19	10.82	-0.37	0.05
536361	C	10.00	-0.25	11.71	-0.25	61.83	0.48	16.42	-0.20	0.05
535194	A	69.15	0.43	16.11	-0.25	6.07	-0.33	8.63	-0.11	0.04
520648	D	2.35	-0.15	2.13	-0.24	16.16	-0.31	79.32	0.43	0.05
505204	C	5.49	-0.14	39.89	-0.29	43.02	0.41	11.55	-0.09	0.05
535278	C	3.42	-0.24	6.51	-0.35	82.43	0.52	7.59	-0.26	0.06
535284	A	82.61	0.50	6.93	-0.30	7.39	-0.28	3.04	-0.23	0.04
516563	D	2.77	-0.25	15.69	-0.36	3.30	-0.28	78.20	0.53	0.04
517613	B	7.56	-0.19	81.29	0.44	9.49	-0.30	1.62	-0.24	0.04
536367	C	20.86	-0.24	20.07	-0.21	47.60	0.44	11.43	-0.13	0.05
511060	D	5.71	-0.35	5.04	-0.27	10.71	-0.32	78.50	0.59	0.04
535939	A	85.19	0.50	2.08	-0.25	2.67	-0.28	10.03	-0.32	0.03
517154	A	60.54	0.50	13.59	-0.27	11.76	-0.18	14.07	-0.27	0.04
537101	B	16.28	-0.22	72.53	0.39	6.39	-0.24	4.75	-0.14	0.05
537760	D	7.33	-0.35	4.59	-0.26	10.12	-0.16	77.93	0.46	0.03
535277	B	14.32	-0.16	56.56	0.53	6.02	-0.17	23.05	-0.39	0.05
535197	A	86.27	0.49	2.52	-0.29	7.89	-0.38	3.28	-0.12	0.04
521685	B	5.18	-0.20	76.87	0.44	11.29	-0.31	6.61	-0.17	0.05
535181	C	9.29	-0.23	7.25	-0.26	61.77	0.58	21.66	-0.35	0.03
537480	B	21.99	-0.37	67.87	0.51	7.95	-0.24	2.15	-0.15	0.04
537898	C	1.58	-0.18	4.00	-0.29	82.23	0.46	12.14	-0.29	0.05
537093	A	79.46	0.56	7.76	-0.30	6.76	-0.29	5.98	-0.30	0.04

[1] Percentage of response options

Table O.15. Grade 3 Language Usage Core Test: Multiple-Choice Distractor Analysis

		Response Options								
		A		B		C		D		Omit
Item ID	Key	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]
515112	A	84.28	0.49	5.79	-0.25	5.35	-0.28	4.57	-0.27	0.01
516211	C	3.85	-0.26	6.85	-0.29	82.90	0.51	6.38	-0.29	0.02
515243	D	1.77	-0.22	1.02	-0.17	12.02	-0.27	85.19	0.38	0.01
536347	A	49.50	0.46	15.46	-0.18	13.85	-0.27	21.17	-0.18	0.03
515221	C	5.71	-0.28	14.25	-0.13	75.20	0.37	4.81	-0.23	0.02
535492	D	7.99	-0.20	9.05	-0.26	13.90	-0.27	69.03	0.48	0.03
535475	C	7.04	-0.24	14.35	-0.25	69.63	0.47	8.96	-0.23	0.02
521327	D	4.87	-0.30	12.73	-0.26	8.41	-0.27	73.98	0.52	0.02
511685	D	22.43	-0.19	11.68	-0.24	10.39	-0.24	55.46	0.46	0.03
535460	B	6.69	-0.26	81.36	0.52	3.40	-0.24	8.53	-0.34	0.01
515208	B	12.08	-0.18	62.66	0.44	11.40	-0.22	13.85	-0.24	0.01
508886	C	13.94	-0.24	11.67	-0.24	68.59	0.47	5.76	-0.24	0.04
515255	B	7.88	-0.30	85.15	0.46	2.90	-0.24	4.05	-0.22	0.02
510864	C	3.21	-0.28	2.57	-0.26	91.49	0.46	2.72	-0.23	0.01
535473	D	13.92	-0.37	11.51	-0.23	6.92	-0.24	67.63	0.57	0.02
535436	D	16.24	-0.29	18.88	-0.08	11.74	-0.15	53.12	0.38	0.02
509419	C	22.17	-0.10	22.04	-0.18	42.76	0.34	13.00	-0.15	0.03
515222	B	5.37	-0.27	75.40	0.47	13.28	-0.20	5.92	-0.32	0.03
536069	C	29.57	-0.22	5.70	-0.20	37.94	0.38	26.76	-0.08	0.03
599504	D	17.36	-0.24	7.25	-0.28	11.78	-0.19	63.59	0.47	0.02
535685	C	26.02	-0.22	10.94	-0.14	50.08	0.40	12.94	-0.18	0.02
515103	B	15.06	-0.32	66.35	0.45	6.49	-0.20	12.08	-0.16	0.02
516215	B	9.38	-0.16	63.26	0.48	9.88	-0.29	17.46	-0.25	0.03
516216	A	80.27	0.47	5.29	-0.24	6.08	-0.24	8.34	-0.27	0.03
535695	B	2.66	-0.20	76.31	0.36	5.92	-0.19	15.11	-0.21	0.01
515217	D	11.70	-0.29	5.85	-0.23	2.82	-0.19	79.62	0.44	0.01
538374	A	54.25	0.42	16.15	-0.19	19.09	-0.17	10.48	-0.24	0.03
520989	A	73.39	0.44	5.76	-0.22	7.83	-0.23	13.01	-0.24	0.01
520035	B	6.52	-0.25	69.55	0.41	7.24	-0.20	16.67	-0.20	0.02
535484	C	17.58	-0.14	12.23	-0.19	57.85	0.41	12.32	-0.26	0.02
515116	C	14.85	-0.35	7.56	-0.26	72.90	0.55	4.67	-0.24	0.03
516203	A	73.09	0.47	4.64	-0.27	4.69	-0.25	17.55	-0.26	0.02
535482	D	7.39	-0.26	1.71	-0.24	2.85	-0.24	88.03	0.43	0.01
515196	B	3.51	-0.22	92.08	0.39	2.15	-0.23	2.24	-0.21	0.01
515110	A	71.64	0.40	3.78	-0.25	4.87	-0.29	19.67	-0.18	0.03
520028	A	69.15	0.38	5.22	-0.29	5.52	-0.23	20.10	-0.15	0.02
535737	B	6.71	-0.29	76.32	0.54	9.34	-0.30	7.61	-0.26	0.03
596514	A	58.70	0.44	14.92	-0.17	13.15	-0.23	13.20	-0.23	0.02
508893	C	6.62	-0.30	3.23	-0.28	82.19	0.52	7.94	-0.27	0.01
508924	A	87.59	0.54	2.55	-0.26	4.09	-0.33	5.76	-0.30	0.01

[1] Percentage of response options

Table O.16. Grade 4 Language Usage Core Test: Multiple-Choice Distractor Analysis

		Response Options								
		A		B		C		D		Omit
Item ID	Key	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]
510180	B	5.71	-0.27	86.77	0.47	3.02	-0.25	4.50	-0.26	0.00
516750	D	5.08	-0.25	11.78	-0.15	4.64	-0.29	78.48	0.40	0.01
536117	B	6.62	-0.23	77.93	0.48	6.07	-0.30	9.38	-0.24	0.00
536109	C	9.74	-0.21	15.20	-0.18	45.64	0.35	29.40	-0.11	0.01
536131	C	8.55	-0.25	5.38	-0.26	82.54	0.47	3.53	-0.26	0.00
509689	D	7.28	-0.19	5.81	-0.28	10.24	-0.33	76.64	0.51	0.02
516658	D	19.19	-0.22	5.82	-0.25	14.70	-0.20	60.28	0.44	0.00
521989	A	61.96	0.36	3.49	-0.22	27.61	-0.15	6.94	-0.26	0.01
516817	B	13.27	-0.28	67.65	0.46	6.20	-0.20	12.87	-0.21	0.00
509694	A	85.41	0.43	4.13	-0.24	4.01	-0.26	6.43	-0.21	0.02
516815	A	90.04	0.43	3.13	-0.21	1.65	-0.22	5.18	-0.29	0.00
516810	B	4.40	-0.30	90.30	0.48	3.18	-0.26	2.11	-0.23	0.00
593932	B	7.36	-0.27	77.80	0.50	3.14	-0.27	11.70	-0.28	0.00
516682	A	53.46	0.36	11.15	-0.16	22.65	-0.20	12.74	-0.13	0.00
536119	B	4.08	-0.22	54.09	0.40	22.71	-0.20	19.11	-0.19	0.00
536522	A	46.13	0.46	5.24	-0.22	5.79	-0.22	42.84	-0.26	0.00
517818	B	16.25	-0.36	73.77	0.54	5.91	-0.24	4.07	-0.23	0.01
509601	A	77.08	0.45	14.18	-0.26	3.52	-0.31	5.21	-0.19	0.01
538855	D	44.05	-0.13	3.46	-0.19	9.97	-0.23	42.51	0.34	0.00
519073	B	9.57	-0.25	78.26	0.50	8.30	-0.28	3.87	-0.29	0.00
536521	B	8.52	-0.27	80.38	0.50	6.11	-0.27	5.00	-0.27	0.00
516646	D	4.36	-0.23	7.72	-0.29	12.17	-0.27	75.75	0.50	0.00
520995	C	12.66	-0.30	8.32	-0.22	67.51	0.54	11.51	-0.30	0.00
516681	B	8.36	-0.26	62.36	0.52	8.88	-0.36	20.39	-0.20	0.00
516830	C	6.71	-0.26	4.62	-0.13	74.11	0.48	14.56	-0.33	0.00
593955	C	9.69	-0.24	3.42	-0.28	79.91	0.49	6.99	-0.29	0.00
538033	C	8.71	-0.19	7.90	-0.20	73.94	0.38	9.45	-0.20	0.00
515101	A	89.35	0.33	1.53	-0.20	2.16	-0.18	6.96	-0.19	0.00
593939	D	3.41	-0.26	4.95	-0.28	5.17	-0.28	86.46	0.50	0.01
509394	D	2.58	-0.25	2.65	-0.23	4.97	-0.19	89.78	0.39	0.01
536517	A	72.31	0.45	13.54	-0.20	8.13	-0.26	6.01	-0.26	0.00
521163	C	6.19	-0.25	10.93	-0.28	75.94	0.51	6.93	-0.27	0.01
519066	D	2.51	-0.25	4.52	-0.21	1.17	-0.21	91.80	0.38	0.00
515115	C	15.58	-0.17	2.38	-0.25	78.18	0.35	3.86	-0.23	0.01
516641	C	2.15	-0.23	1.68	-0.23	92.52	0.46	3.64	-0.30	0.00
521055	A	77.11	0.41	7.31	-0.20	7.74	-0.26	7.84	-0.20	0.01
536530	B	5.77	-0.19	86.82	0.45	4.65	-0.29	2.75	-0.28	0.00
516160	C	6.93	-0.19	8.78	-0.22	78.08	0.39	6.21	-0.21	0.00
535547	D	7.61	-0.30	7.46	-0.27	9.52	-0.26	75.41	0.52	0.00
516167	C	7.68	-0.27	7.01	-0.24	76.39	0.48	8.90	-0.24	0.01

[1] Percentage of response options

Table O.17. Grade 5 Language Usage Core Test: Multiple-Choice Distractor Analysis

		Response Options								
		A		B		C		D		Omit
Item ID	Key	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]
516185	D	11.76	-0.26	7.89	-0.28	6.18	-0.23	74.17	0.49	0.00
537501	B	4.19	-0.13	79.60	0.40	14.00	-0.29	2.21	-0.23	0.00
599536	D	1.90	-0.18	6.82	-0.28	9.66	-0.27	81.61	0.46	0.01
595703	B	7.45	-0.30	74.62	0.47	12.71	-0.23	5.21	-0.23	0.01
516620	C	12.80	-0.20	3.48	-0.27	70.85	0.36	12.87	-0.14	0.00
537486	C	6.77	-0.23	13.50	-0.22	63.00	0.37	16.72	-0.12	0.00
515257	B	19.28	-0.24	62.31	0.44	10.83	-0.23	7.57	-0.18	0.01
516856	A	85.45	0.51	8.56	-0.35	2.94	-0.27	3.05	-0.21	0.00
516801	A	80.87	0.44	10.72	-0.25	5.60	-0.25	2.81	-0.23	0.01
536023	D	18.86	-0.22	2.81	-0.28	2.79	-0.27	75.53	0.41	0.01
511133	A	73.00	0.41	4.28	-0.27	1.81	-0.20	20.89	-0.24	0.01
599461	C	3.98	-0.28	12.20	-0.19	74.44	0.41	9.36	-0.21	0.01
601194	C	10.73	-0.19	39.74	-0.26	34.78	0.32	14.74	0.10	0.01
516172	D	43.39	-0.20	7.70	-0.18	5.60	-0.17	43.30	0.38	0.00
516866	A	59.36	0.40	14.12	-0.21	15.45	-0.19	11.07	-0.18	0.01
515771	C	15.21	-0.26	16.72	-0.23	66.85	0.42	1.21	-0.15	0.01
516184	D	11.04	-0.18	12.15	-0.21	8.10	-0.21	68.71	0.39	0.01
521056	D	2.17	-0.19	7.10	-0.20	6.28	-0.26	84.45	0.39	0.00
599450	B	6.55	-0.26	78.51	0.45	9.14	-0.20	5.78	-0.27	0.01
516753	D	8.41	-0.31	3.23	-0.28	4.18	-0.25	84.16	0.51	0.02
515248	D	4.00	-0.25	11.62	-0.18	11.63	-0.26	72.74	0.44	0.01
516182	A	76.53	0.51	14.14	-0.31	6.62	-0.28	2.71	-0.22	0.00
515235	D	2.34	-0.25	4.27	-0.27	17.91	-0.23	75.48	0.42	0.00
516871	B	4.52	-0.19	84.32	0.47	4.35	-0.28	6.79	-0.30	0.01
515199	A	56.48	0.39	7.76	-0.21	16.11	-0.21	19.64	-0.15	0.01
516826	D	13.36	-0.24	4.51	-0.24	11.00	-0.23	71.12	0.45	0.01
537503	D	18.36	-0.16	12.74	-0.13	15.58	-0.16	53.31	0.33	0.01
510942	A	55.72	0.37	28.44	-0.11	8.62	-0.25	7.21	-0.24	0.01
599451	C	2.36	-0.27	1.45	-0.20	92.14	0.44	4.04	-0.27	0.01
537164	A	66.25	0.47	13.88	-0.23	12.84	-0.21	7.02	-0.28	0.01
515751	C	6.33	-0.23	13.55	-0.28	73.34	0.41	6.77	-0.12	0.01
537509	D	7.72	-0.30	5.33	-0.27	1.50	-0.24	85.46	0.48	0.00
599452	C	15.14	-0.17	9.74	-0.25	65.91	0.41	9.21	-0.20	0.01
516858	B	4.24	-0.25	89.05	0.43	2.61	-0.22	4.08	-0.24	0.02
516865	B	8.62	-0.25	81.48	0.35	1.33	-0.21	8.56	-0.16	0.01
515735	A	76.59	0.51	3.38	-0.21	4.20	-0.24	15.83	-0.35	0.00
515761	C	3.90	-0.28	2.91	-0.19	76.67	0.47	16.52	-0.30	0.00
516178	B	18.59	-0.26	63.46	0.47	9.13	-0.26	8.80	-0.17	0.01
539326	C	2.58	-0.23	22.32	-0.23	66.04	0.41	9.06	-0.22	0.00
536037	A	64.80	0.42	8.55	-0.18	7.98	-0.23	18.66	-0.22	0.01
595678	C	4.12	-0.26	5.27	-0.28	84.58	0.49	6.03	-0.26	0.00
516820	B	6.84	-0.21	86.23	0.37	4.60	-0.23	2.33	-0.17	0.00

[1] Percentage of response options

Table O.18. Grade 6 Language Usage Core Test: Multiple-Choice Distractor Analysis

		Response Options								
		A		B		C		D		Omit
Item ID	Key	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]
535934	C	9.74	-0.27	7.42	-0.27	73.73	0.48	9.10	-0.21	0.01
517114	A	77.74	0.37	1.05	-0.19	13.00	-0.31	8.21	-0.11	0.00
511605	D	3.43	-0.22	18.52	-0.19	4.90	-0.19	73.15	0.36	0.00
510895	C	7.77	-0.27	6.37	-0.22	83.72	0.42	2.13	-0.19	0.00
538227	D	34.46	-0.18	10.09	-0.20	11.10	-0.11	44.35	0.36	0.00
511614	B	4.48	-0.19	83.33	0.45	5.07	-0.25	7.11	-0.27	0.01
511681	D	7.07	-0.19	7.16	-0.24	21.31	-0.20	64.45	0.40	0.01
512054	B	14.69	-0.19	72.01	0.43	8.78	-0.32	4.51	-0.19	0.00
515772	A	64.03	0.34	16.63	-0.09	9.75	-0.23	9.59	-0.20	0.00
539267	B	2.40	-0.19	78.78	0.47	9.49	-0.20	9.33	-0.36	0.00
537916	D	8.82	-0.27	5.75	-0.26	6.75	-0.26	78.68	0.50	0.00
537905	A	56.30	0.38	34.91	-0.17	6.85	-0.30	1.92	-0.22	0.01
511280	B	5.08	-0.26	86.80	0.50	5.05	-0.29	3.06	-0.27	0.00
539278	C	7.82	-0.10	9.38	-0.17	56.79	0.31	26.01	-0.17	0.00
518476	B	6.48	-0.25	60.93	0.37	4.80	-0.24	27.79	-0.15	0.00
517100	D	21.39	-0.24	5.17	-0.32	11.76	-0.27	61.67	0.53	0.01
594297	A	56.21	0.38	23.24	-0.14	14.31	-0.24	6.24	-0.18	0.00
518486	A	86.83	0.40	5.83	-0.27	2.71	-0.16	4.62	-0.22	0.01
510913	C	3.86	-0.23	11.10	-0.22	74.90	0.42	10.13	-0.22	0.00
517745	C	3.33	-0.26	8.49	-0.23	84.82	0.40	3.35	-0.19	0.01
518502	D	8.66	-0.17	9.87	-0.17	10.10	-0.20	71.36	0.35	0.00
510902	B	11.88	-0.24	61.23	0.37	17.50	-0.14	9.38	-0.16	0.01
538059	B	21.45	-0.31	69.58	0.48	5.19	-0.25	3.76	-0.20	0.01
539284	C	8.40	-0.32	3.04	-0.27	87.34	0.46	1.22	-0.17	0.00
539492	A	71.42	0.47	18.18	-0.31	2.63	-0.24	7.77	-0.20	0.00
518499	A	86.42	0.32	4.10	-0.08	4.07	-0.21	5.40	-0.22	0.01
517110	C	6.21	-0.31	6.00	-0.18	79.27	0.49	8.51	-0.29	0.00
593650	D	8.10	-0.14	7.94	-0.29	4.85	-0.25	79.11	0.42	0.00
516036	C	18.24	-0.09	22.41	-0.10	33.48	0.30	25.87	-0.14	0.00
517196	A	69.41	0.41	8.08	-0.25	3.47	-0.19	19.04	-0.21	0.01
537110	D	21.12	-0.38	3.07	-0.09	16.45	-0.15	59.35	0.46	0.01
511671	C	5.43	-0.23	3.37	-0.26	88.03	0.41	3.16	-0.21	0.01
511270	B	7.06	-0.19	76.94	0.45	3.78	-0.27	12.22	-0.27	0.01
517189	C	13.83	-0.21	24.00	-0.11	45.80	0.36	16.35	-0.17	0.01
509804	D	3.50	-0.22	6.74	-0.25	3.10	-0.28	86.65	0.45	0.01
510905	D	12.06	-0.42	2.33	-0.24	4.68	-0.28	80.93	0.59	0.00
509766	B	2.79	-0.21	89.07	0.46	2.99	-0.25	5.15	-0.30	0.00
539281	B	6.95	-0.18	37.33	0.39	13.36	-0.20	42.36	-0.15	0.00
537908	D	3.46	-0.25	4.85	-0.27	3.03	-0.24	88.66	0.46	0.01
511418	D	8.52	-0.28	19.94	-0.17	11.27	-0.24	60.27	0.45	0.00
517108	C	14.57	-0.31	1.35	-0.17	83.02	0.40	1.06	-0.19	0.00
518494	A	87.28	0.47	3.55	-0.23	7.68	-0.34	1.49	-0.21	0.00

[1] Percentage of response options

Table O.19. Grade 7 Language Usage Core Test: Multiple-Choice Distractor Analysis

		Response Options								
		A		B		C		D		Omit
Item ID	Key	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]
520093	C	4.43	-0.24	17.29	-0.35	76.02	0.48	2.24	-0.16	0.03
536049	B	8.03	-0.22	72.65	0.46	6.39	-0.26	12.91	-0.24	0.02
516710	C	8.20	-0.20	5.65	-0.23	79.45	0.44	6.67	-0.28	0.02
537852	C	4.67	-0.23	6.25	-0.26	83.83	0.44	5.23	-0.22	0.01
538533	D	3.83	-0.20	5.03	-0.24	7.39	-0.24	83.74	0.42	0.01
520067	B	20.75	-0.16	53.19	0.43	12.12	-0.23	13.92	-0.22	0.02
518506	C	6.94	-0.21	4.85	-0.29	79.40	0.40	8.80	-0.16	0.01
539957	B	2.36	-0.22	82.01	0.33	10.05	-0.20	5.57	-0.16	0.01
520134	A	82.31	0.45	12.90	-0.32	2.48	-0.23	2.29	-0.19	0.01
512816	A	57.82	0.39	23.25	-0.17	9.52	-0.19	9.39	-0.23	0.01
516721	D	10.11	-0.25	6.60	-0.22	8.77	-0.24	74.51	0.46	0.01
516230	A	80.78	0.44	4.65	-0.29	10.92	-0.23	3.64	-0.22	0.00
511856	C	8.41	-0.18	26.30	-0.25	52.76	0.41	12.52	-0.14	0.01
516849	D	13.11	-0.29	19.29	-0.25	11.35	-0.18	56.23	0.52	0.02
516714	D	8.31	-0.16	13.74	-0.30	6.60	-0.19	71.33	0.43	0.01
511477	C	11.74	-0.18	11.12	-0.21	58.60	0.42	18.51	-0.21	0.03
511342	B	4.13	-0.22	67.24	0.47	3.91	-0.12	24.70	-0.36	0.01
537307	A	74.54	0.41	8.90	-0.21	6.26	-0.25	10.27	-0.20	0.03
537314	D	7.02	-0.17	5.25	-0.19	8.03	-0.23	79.68	0.37	0.02
510919	B	3.34	-0.10	56.89	0.46	24.62	-0.29	15.13	-0.24	0.01
516239	B	17.80	-0.11	35.97	0.35	31.90	-0.19	14.30	-0.11	0.02
535705	A	69.91	0.39	7.82	-0.32	14.20	-0.15	8.05	-0.15	0.02
520088	A	56.48	0.40	14.03	-0.13	16.03	-0.20	13.43	-0.24	0.02
535708	C	3.51	-0.21	9.84	-0.26	80.15	0.43	6.49	-0.23	0.01
516728	A	66.54	0.43	14.59	-0.16	12.33	-0.26	6.53	-0.24	0.01
537304	D	2.51	-0.17	5.37	-0.26	2.80	-0.15	89.30	0.35	0.01
510912	D	26.14	-0.18	13.10	-0.18	5.02	-0.21	55.74	0.37	0.01
535718	D	6.10	-0.21	7.29	-0.22	13.67	-0.31	72.93	0.48	0.01
512812	B	13.02	-0.21	69.03	0.38	8.04	-0.25	9.89	-0.12	0.01
516698	B	20.73	-0.13	48.74	0.40	17.84	-0.20	12.68	-0.21	0.01
537303	B	5.90	-0.20	71.27	0.36	20.48	-0.22	2.34	-0.18	0.02
520121	A	92.00	0.43	4.45	-0.29	1.59	-0.22	1.94	-0.21	0.02
538528	C	1.56	-0.16	18.74	-0.37	74.13	0.50	5.56	-0.24	0.02
538520	C	4.27	-0.17	9.01	-0.27	64.19	0.41	22.50	-0.20	0.02
510926	C	10.70	-0.12	23.13	-0.31	53.32	0.47	12.84	-0.20	0.01
511851	D	5.56	-0.18	12.90	-0.31	6.18	-0.25	75.35	0.48	0.01
520102	A	88.52	0.43	5.32	-0.28	3.34	-0.20	2.81	-0.23	0.01
596122	C	4.06	-0.24	7.18	-0.31	82.51	0.45	6.23	-0.17	0.02
516694	A	57.80	0.40	31.86	-0.26	7.28	-0.18	3.06	-0.17	0.01
511344	D	19.56	-0.13	6.83	-0.26	6.60	-0.27	66.99	0.39	0.02
521835	D	31.67	-0.14	7.72	-0.26	8.22	-0.24	52.38	0.41	0.01
595105	B	4.45	-0.19	71.96	0.39	6.72	-0.23	16.85	-0.20	0.01
539962	D	11.09	-0.31	4.84	-0.27	3.02	-0.24	81.03	0.50	0.01
535711	A	72.99	0.36	8.63	-0.25	4.76	-0.22	13.60	-0.13	0.02
511873	C	10.23	-0.34	4.20	-0.25	81.67	0.49	3.89	-0.19	0.01

[1] Percentage of response options

Table O.20. Grade 8 Language Usage Core Test: Multiple-Choice Distractor Analysis

		Response Options								
		A		B		C		D		Omit
Item ID	Key	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]
521394	D	2.55	-0.26	3.07	-0.26	1.83	-0.23	92.53	0.44	0.02
519143	A	90.35	0.43	3.68	-0.26	3.46	-0.24	2.50	-0.22	0.01
594632	B	3.76	-0.23	86.60	0.45	4.55	-0.25	5.09	-0.26	0.00
520267	B	4.33	-0.24	85.38	0.45	2.88	-0.26	7.41	-0.26	0.01
517672	A	82.62	0.35	0.91	-0.17	15.37	-0.28	1.09	-0.16	0.01
520122	B	4.31	-0.21	75.59	0.38	14.46	-0.24	5.64	-0.15	0.00
520275	D	3.66	-0.25	5.36	-0.21	23.23	-0.24	67.74	0.42	0.01
596125	D	7.48	-0.16	12.32	-0.29	14.18	-0.09	66.01	0.36	0.01
536711	A	68.14	0.47	11.31	-0.28	15.71	-0.25	4.84	-0.18	0.00
539303	A	58.40	0.38	20.70	-0.22	4.10	-0.20	16.79	-0.16	0.00
512515	C	12.06	-0.20	12.70	-0.26	59.64	0.47	15.60	-0.21	0.00
539316	D	0.71	-0.14	3.41	-0.28	40.94	-0.25	54.94	0.38	0.00
521063	C	5.73	-0.17	6.09	-0.23	83.56	0.34	4.61	-0.15	0.01
536715	B	9.69	-0.22	86.71	0.37	1.71	-0.21	1.89	-0.24	0.00
594639	A	86.03	0.42	3.51	-0.23	5.29	-0.27	5.17	-0.19	0.00
512756	C	36.79	-0.20	11.44	-0.16	38.09	0.36	13.68	-0.08	0.00
517810	A	70.42	0.35	10.30	-0.16	2.24	-0.22	17.03	-0.21	0.01
520549	B	23.06	-0.39	73.23	0.48	1.67	-0.18	2.02	-0.16	0.02
537452	C	9.26	-0.23	7.92	-0.27	67.11	0.52	15.69	-0.29	0.01
536716	B	8.62	-0.22	68.65	0.40	11.93	-0.23	10.79	-0.16	0.01
522044	A	60.07	0.44	11.77	-0.18	15.40	-0.22	12.75	-0.23	0.00
554205	D	10.52	-0.17	14.44	-0.29	16.89	-0.29	58.14	0.53	0.01
521465	B	31.65	-0.46	55.35	0.56	2.31	-0.14	10.68	-0.14	0.00
539252	B	16.01	-0.26	56.17	0.51	10.77	-0.21	17.02	-0.24	0.02
511466	B	6.25	-0.16	85.86	0.35	4.28	-0.22	3.59	-0.21	0.01
510590	C	8.50	-0.17	3.80	-0.27	82.70	0.40	4.98	-0.23	0.00
520544	D	7.99	-0.27	5.04	-0.25	2.40	-0.23	84.54	0.45	0.02
521392	D	4.79	-0.22	5.29	-0.24	11.44	-0.29	78.48	0.48	0.00
518470	C	6.65	-0.23	4.63	-0.15	76.32	0.41	12.39	-0.26	0.01
538584	D	3.96	-0.23	13.11	-0.16	8.68	-0.34	74.24	0.44	0.00
539306	B	24.31	-0.22	51.84	0.36	11.73	-0.11	12.10	-0.14	0.01
512253	D	13.85	-0.17	15.11	-0.20	21.42	-0.23	49.63	0.45	0.00
536198	D	10.46	-0.11	15.96	-0.22	24.96	-0.21	48.60	0.41	0.01
594631	C	7.53	-0.20	7.02	-0.25	76.63	0.45	8.80	-0.25	0.01
521477	C	7.89	-0.27	8.69	-0.28	77.24	0.50	6.16	-0.25	0.01
536195	D	34.13	-0.10	19.15	-0.04	18.42	-0.14	28.29	0.26	0.00
539317	C	12.34	-0.07	11.82	-0.19	62.80	0.37	13.03	-0.28	0.00
517542	D	10.52	-0.12	21.43	-0.22	3.56	-0.25	64.48	0.36	0.00
554235	A	59.46	0.36	14.16	-0.17	11.31	-0.12	15.05	-0.22	0.01
520688	D	6.90	-0.24	6.44	-0.26	3.33	-0.27	83.31	0.46	0.01
512461	A	86.77	0.47	3.68	-0.27	5.74	-0.30	3.81	-0.20	0.01
539514	A	47.65	0.45	8.52	-0.17	41.17	-0.31	2.65	-0.16	0.00
596333	C	15.73	-0.17	10.21	-0.17	49.60	0.36	24.45	-0.15	0.01
511830	C	9.32	-0.20	20.31	-0.27	66.37	0.43	4.00	-0.19	0.00
596961	A	59.84	0.41	14.46	-0.17	19.17	-0.27	6.52	-0.14	0.00

[1] Percentage of response options

Table O.21. Grade 10 Language Usage Core Test: Multiple-Choice Distractor Analysis

		Response Options								
		A		B		C		D		Omit
Item ID	Key	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]
512762	C	1.86	-0.23	6.39	-0.28	88.86	0.45	2.88	-0.25	0.02
512041	B	5.64	-0.30	89.66	0.47	3.10	-0.26	1.60	-0.23	0.01
521599	B	3.70	-0.29	89.18	0.47	1.83	-0.23	5.29	-0.27	0.01
519180	D	1.10	-0.20	10.88	-0.21	8.94	-0.28	79.07	0.41	0.01
536207	D	4.77	-0.30	6.66	-0.27	10.59	-0.26	77.96	0.51	0.02
521793	D	4.53	-0.26	4.10	-0.21	17.12	-0.22	74.23	0.41	0.01
519183	C	25.13	-0.22	6.58	-0.22	64.39	0.41	3.88	-0.23	0.02
521616	A	50.31	0.46	3.26	-0.20	21.19	-0.20	25.23	-0.26	0.02
601522	D	3.01	-0.21	7.12	-0.26	26.01	-0.30	63.85	0.49	0.02
512125	C	12.62	-0.25	15.46	-0.25	58.23	0.43	13.67	-0.12	0.02
538310	D	19.47	-0.32	9.69	-0.17	15.01	-0.17	55.81	0.47	0.02
539947	D	24.84	-0.32	5.47	-0.14	7.57	-0.27	62.10	0.50	0.02
520666	A	91.53	0.40	1.71	-0.20	3.57	-0.26	3.18	-0.22	0.02
536152	A	87.97	0.39	5.16	-0.23	4.43	-0.24	2.43	-0.17	0.02
521818	D	5.97	-0.20	4.31	-0.25	1.49	-0.14	88.22	0.36	0.01
555704	C	10.05	-0.12	10.84	-0.26	73.33	0.37	5.75	-0.18	0.03
519173	A	49.30	0.40	13.52	-0.22	20.80	-0.11	16.36	-0.21	0.02
601488	C	7.64	-0.18	8.92	-0.27	65.59	0.44	17.81	-0.22	0.04
539433	D	8.78	-0.12	36.27	-0.32	6.88	-0.21	48.05	0.49	0.03
539431	B	26.05	-0.24	68.79	0.39	2.98	-0.26	2.18	-0.22	0.01
601484	A	76.90	0.43	8.19	-0.27	13.61	-0.27	1.28	-0.13	0.01
601478	B	2.53	-0.15	54.81	0.43	3.29	-0.19	39.35	-0.32	0.03
512799	B	31.84	-0.25	36.22	0.46	19.25	-0.18	12.68	-0.10	0.02
538300	B	2.54	-0.16	86.63	0.36	7.72	-0.24	3.10	-0.19	0.02
601467	A	83.82	0.51	9.40	-0.34	3.71	-0.26	3.05	-0.21	0.02
518621	D	56.61	-0.05	4.27	-0.23	7.53	-0.28	31.58	0.31	0.01
539923	C	12.65	-0.17	9.92	-0.25	56.57	0.35	20.85	-0.10	0.01
601500	C	4.82	-0.26	7.54	-0.24	63.04	0.53	24.59	-0.32	0.01
538305	C	5.94	-0.24	8.93	-0.18	62.68	0.43	22.43	-0.24	0.02
521772	B	54.98	-0.13	22.88	0.28	10.55	-0.09	11.58	-0.09	0.01
511811	A	87.25	0.45	6.04	-0.30	5.07	-0.24	1.63	-0.21	0.02
536200	A	77.01	0.41	4.89	-0.23	13.65	-0.24	4.43	-0.19	0.02
538323	A	78.68	0.45	4.78	-0.18	11.59	-0.32	4.94	-0.20	0.01
539999	D	10.58	-0.17	6.88	-0.27	2.31	-0.24	80.20	0.40	0.02
521814	A	45.88	0.45	6.24	-0.24	29.06	-0.23	18.79	-0.16	0.03
539983	C	7.41	-0.23	2.78	-0.19	83.90	0.44	5.91	-0.28	0.01
539930	A	82.99	0.47	7.40	-0.32	6.65	-0.27	2.95	-0.16	0.01
539989	D	6.58	-0.18	24.57	-0.17	11.62	-0.27	57.22	0.41	0.01
539942	B	2.72	-0.18	82.77	0.45	10.02	-0.32	4.48	-0.21	0.01
601466	A	76.47	0.51	9.65	-0.23	7.72	-0.33	6.14	-0.24	0.02
538052	B	21.49	-0.24	43.83	0.39	30.26	-0.11	4.40	-0.23	0.02
558950	B	6.87	-0.32	82.18	0.41	1.93	-0.20	9.01	-0.17	0.02
521787	C	3.51	-0.17	12.61	-0.36	80.60	0.44	3.25	-0.13	0.03
539990	B	12.64	-0.28	72.99	0.47	12.41	-0.25	1.94	-0.23	0.02
538311	B	8.23	-0.22	75.69	0.42	14.26	-0.28	1.80	-0.18	0.03

[1] Percentage of response options

Table O.22. Grade 5 Science Core Test: Multiple-Choice Distractor Analysis

		Response Options								
		A		B		C		D		Omit
Item ID	Key	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]
595603	A	70.29	0.34	18.23	-0.17	4.79	-0.19	6.68	-0.19	0.01
595480	C	11.08	-0.13	14.39	-0.20	37.65	0.35	36.87	-0.12	0.01
596400	D	5.02	-0.23	4.49	-0.25	2.36	-0.22	88.11	0.42	0.02
596245	A	70.80	0.43	7.15	-0.24	16.73	-0.25	5.31	-0.19	0.01
534864	B	7.35	-0.09	67.99	0.38	7.41	-0.28	17.23	-0.21	0.02
595314	A	72.04	0.45	20.23	-0.31	3.83	-0.24	3.89	-0.15	0.01
598854	D	22.45	-0.22	8.16	-0.18	6.88	-0.27	62.51	0.43	0.00
537340	A	64.80	0.45	11.06	-0.30	8.00	-0.21	16.14	-0.17	0.00
595472	A	81.51	0.51	6.60	-0.31	6.45	-0.27	5.42	-0.24	0.01
595486	B	18.61	-0.16	50.96	0.35	17.15	-0.14	13.27	-0.17	0.01
595477	D	5.56	-0.15	2.47	-0.19	5.49	-0.19	86.46	0.31	0.01
513061	D	7.77	-0.21	10.16	-0.22	12.39	-0.30	69.67	0.48	0.01
594315	C	1.84	-0.17	3.00	-0.18	90.21	0.33	4.93	-0.20	0.02
537013	B	7.22	-0.15	68.28	0.42	11.72	-0.22	12.77	-0.25	0.01
508780	A	57.08	0.34	18.50	-0.07	17.86	-0.26	6.54	-0.17	0.01
536998	A	65.46	0.42	5.82	-0.23	11.29	-0.17	17.42	-0.24	0.01
596254	D	24.54	-0.13	14.54	-0.05	24.23	-0.14	36.68	0.27	0.01
536493	A	80.64	0.49	7.59	-0.29	6.99	-0.27	4.76	-0.22	0.02
509672	B	10.81	-0.19	43.81	0.37	15.18	-0.22	30.18	-0.11	0.02
599060	D	14.38	-0.15	3.46	-0.20	13.35	-0.14	68.78	0.30	0.03
596252	B	7.79	-0.20	56.39	0.43	10.75	-0.14	25.05	-0.27	0.03
512789	D	2.67	-0.23	2.98	-0.23	8.59	-0.29	85.75	0.45	0.01
559294	A	62.01	0.42	10.20	-0.19	9.13	-0.26	18.66	-0.18	0.01
595478	D	3.41	-0.24	10.77	-0.27	7.43	-0.27	78.37	0.48	0.02
599464	C	10.95	-0.15	5.85	-0.17	65.04	0.37	18.16	-0.23	0.00
595476	A	63.73	0.47	6.14	-0.23	19.65	-0.23	10.48	-0.26	0.00
595470	C	6.70	-0.19	23.15	-0.23	65.57	0.41	4.57	-0.24	0.01
594308	C	4.52	-0.17	12.57	-0.30	77.35	0.46	5.54	-0.24	0.02
595600	D	25.13	-0.16	20.21	-0.05	14.24	-0.13	40.42	0.28	0.00
595474	C	8.81	-0.13	13.49	-0.19	61.10	0.41	16.58	-0.26	0.01
599467	A	61.29	0.42	8.99	-0.19	16.11	-0.20	13.60	-0.21	0.01
595320	D	9.86	-0.17	12.86	-0.27	8.72	-0.27	68.53	0.47	0.02
595466	C	8.02	-0.22	5.54	-0.22	80.10	0.42	6.32	-0.25	0.02
515512	C	4.34	-0.22	3.86	-0.24	86.00	0.42	5.80	-0.24	0.00
599363	A	73.92	0.42	8.64	-0.18	9.83	-0.25	7.60	-0.22	0.01
595467	B	4.39	-0.25	86.03	0.39	2.97	-0.17	6.60	-0.22	0.01
599494	A	55.61	0.45	12.42	-0.23	14.37	-0.29	17.58	-0.12	0.01
538690	C	15.37	-0.20	9.74	-0.27	61.50	0.48	13.36	-0.24	0.03
594321	D	3.00	-0.20	3.16	-0.25	4.38	-0.30	89.44	0.46	0.00
594312	A	45.69	0.28	11.18	-0.20	27.23	-0.10	15.87	-0.09	0.02
596398	C	3.74	-0.15	16.13	-0.19	61.92	0.41	18.21	-0.26	0.00
595606	D	5.93	-0.24	3.51	-0.24	4.30	-0.27	86.26	0.45	0.01

[1] Percentage of response options

Table O.23. Grade 7 Science Core Test: Multiple-Choice Distractor Analysis

		Response Options								
		A		B		C		D		Omit
Item ID	Key	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]
596316	A	93.10	0.31	5.13	-0.26	0.87	-0.12	0.87	-0.12	0.02
596759	C	12.87	-0.12	10.22	-0.25	58.61	0.34	18.28	-0.14	0.02
538114	A	64.00	0.51	14.40	-0.26	15.95	-0.27	5.64	-0.24	0.02
595507	C	11.13	-0.10	11.04	-0.23	63.10	0.30	14.70	-0.12	0.03
596755	D	1.14	-0.12	11.55	-0.22	6.77	-0.27	80.53	0.38	0.01
595560	B	8.17	-0.24	62.70	0.43	8.34	-0.30	20.75	-0.15	0.03
594328	B	23.36	-0.34	65.54	0.53	4.91	-0.24	6.17	-0.24	0.01
594507	D	14.14	-0.14	13.38	-0.16	18.13	-0.24	54.32	0.40	0.03
595481	A	78.35	0.42	15.64	-0.31	3.28	-0.21	2.71	-0.15	0.01
599360	B	9.60	-0.15	63.29	0.39	8.49	-0.27	18.59	-0.18	0.02
516357	C	6.53	-0.21	16.77	-0.25	67.67	0.42	9.00	-0.17	0.03
537212	C	4.69	-0.19	7.89	-0.32	73.77	0.53	13.62	-0.31	0.02
509292	A	48.28	0.14	10.45	-0.15	28.85	-0.06	12.40	0.00	0.02
599356	A	73.61	0.55	7.29	-0.30	6.70	-0.28	12.39	-0.29	0.02
594338	C	12.45	-0.16	20.09	-0.21	46.01	0.36	21.43	-0.10	0.01
517512	B	19.44	-0.22	54.91	0.36	17.68	-0.16	7.96	-0.12	0.01
595317	D	5.68	-0.19	8.06	-0.19	18.98	-0.33	67.26	0.48	0.02
538430	A	65.92	0.50	8.60	-0.33	13.24	-0.29	12.21	-0.15	0.02
538119	C	7.27	-0.20	8.47	-0.29	79.00	0.44	5.25	-0.20	0.01
536971	A	58.90	0.43	19.69	-0.27	6.36	-0.18	15.04	-0.17	0.00
534818	A	85.14	0.32	3.95	-0.16	2.62	-0.17	8.28	-0.21	0.02
513882	C	5.87	-0.23	12.26	-0.21	71.54	0.46	10.31	-0.27	0.02
521893	A	81.44	0.40	3.95	-0.19	4.32	-0.21	10.28	-0.25	0.01
517522	B	15.20	-0.14	45.91	0.37	25.17	-0.15	13.70	-0.19	0.01
596317	C	11.77	-0.25	2.47	-0.18	70.37	0.50	15.36	-0.32	0.03
594324	A	83.31	0.53	4.41	-0.26	7.42	-0.32	4.84	-0.27	0.01
534871	B	15.69	-0.16	64.50	0.46	14.84	-0.31	4.95	-0.23	0.03
595269	C	20.80	-0.23	3.26	-0.18	65.99	0.40	9.93	-0.21	0.01
536965	C	18.89	-0.12	7.90	-0.21	54.47	0.34	18.73	-0.17	0.01
536726	B	1.82	-0.19	70.14	0.36	22.63	-0.21	5.39	-0.22	0.02
595270	A	61.19	0.54	19.97	-0.31	9.73	-0.28	9.08	-0.19	0.02
594795	D	3.21	-0.19	13.57	-0.21	16.90	-0.08	66.30	0.29	0.02
516344	C	6.55	-0.09	9.52	-0.12	71.99	0.22	11.92	-0.12	0.01
512787	B	15.37	-0.18	74.08	0.30	2.83	-0.21	7.70	-0.11	0.02
594256	B	12.70	-0.20	62.86	0.44	14.47	-0.26	9.95	-0.19	0.02
599355	A	46.58	0.35	15.01	-0.23	10.33	-0.21	28.06	-0.07	0.01
534768	B	13.58	-0.11	68.57	0.42	11.62	-0.29	6.20	-0.26	0.02
595558	C	15.31	-0.06	24.46	-0.21	48.11	0.32	12.10	-0.15	0.01
515467	B	4.30	-0.25	78.91	0.50	9.95	-0.28	6.82	-0.27	0.02
594255	B	19.97	-0.16	55.85	0.33	8.37	-0.12	15.78	-0.18	0.02
534772	D	12.15	-0.21	26.72	-0.14	14.66	-0.26	46.45	0.45	0.01
537021	B	9.59	-0.14	55.08	0.32	8.85	-0.18	26.46	-0.15	0.01
598900	D	2.22	-0.21	4.19	-0.19	7.47	-0.29	86.11	0.42	0.02
595252	D	8.47	-0.18	5.46	-0.19	32.49	-0.30	53.57	0.47	0.01
599474	B	21.82	-0.09	43.27	0.29	15.72	-0.10	19.17	-0.18	0.02
537042	D	3.48	-0.23	8.00	-0.24	36.82	-0.16	51.68	0.37	0.02

Table O.23 (continued). Grade 7 Science Core Test: Multiple-Choice Distractor Analysis

		Response Options								
		A		B		C		D		Omit
Item ID	Key	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]
596311	B	3.78	-0.25	89.81	0.42	3.15	-0.24	3.25	-0.20	0.01
516330	A	59.09	0.33	23.64	-0.09	12.12	-0.29	5.13	-0.14	0.02

[1] Percentage of response options

Table O.24. Grade 10 Science Core Test: Multiple-Choice Distractor Analysis

		Response Options								
		A		B		C		D		Omit
Item ID	Key	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]
508525	B	14.21	-0.13	56.67	0.35	13.37	-0.26	15.74	-0.11	0.01
595235	A	64.69	0.47	19.19	-0.25	11.06	-0.22	5.04	-0.25	0.02
595617	A	80.73	0.48	10.10	-0.28	6.35	-0.33	2.80	-0.16	0.02
512958	C	5.59	-0.24	7.49	-0.36	79.23	0.49	7.68	-0.19	0.01
596392	C	7.93	-0.13	11.52	-0.32	75.71	0.41	4.81	-0.18	0.03
595309	D	3.88	-0.13	7.06	-0.26	21.57	-0.19	67.48	0.36	0.01
535623	C	11.12	-0.23	6.01	-0.24	72.02	0.44	10.81	-0.22	0.04
596465	D	4.93	-0.15	8.08	-0.22	6.71	-0.26	80.28	0.39	0.00
509212	B	10.51	-0.09	51.44	0.38	12.34	-0.28	25.68	-0.16	0.03
595232	A	86.82	0.47	5.12	-0.26	5.53	-0.29	2.50	-0.23	0.03
513218	A	58.93	0.49	7.85	-0.28	18.48	-0.25	14.70	-0.19	0.04
595613	B	7.91	-0.16	74.44	0.47	10.02	-0.27	7.62	-0.31	0.02
508604	A	62.53	0.47	17.54	-0.25	13.56	-0.22	6.36	-0.24	0.01
559123	C	3.81	-0.20	3.16	-0.29	87.54	0.45	5.49	-0.27	0.01
595239	B	4.04	-0.16	80.31	0.44	10.34	-0.31	5.29	-0.22	0.02
535169	D	4.18	-0.18	6.74	-0.25	15.63	-0.25	73.43	0.43	0.02
595231	D	1.63	-0.19	19.55	-0.33	4.72	-0.28	74.09	0.49	0.02
509284	B	8.85	-0.19	70.54	0.54	6.91	-0.35	13.68	-0.30	0.02
535162	C	26.63	-0.16	17.98	-0.19	49.34	0.36	6.04	-0.15	0.02
594335	D	3.11	-0.19	9.94	-0.24	20.27	-0.36	66.66	0.53	0.01
595620	A	54.48	0.36	24.07	-0.13	9.83	-0.17	11.60	-0.22	0.02
512957	B	19.28	-0.21	68.76	0.45	5.12	-0.25	6.83	-0.27	0.01
595260	A	53.42	0.51	21.32	-0.16	10.50	-0.35	14.74	-0.23	0.02
595250	A	38.76	0.39	22.80	-0.18	27.48	-0.21	10.95	-0.07	0.01
559147	B	8.64	-0.11	77.04	0.33	9.16	-0.22	5.15	-0.21	0.01
559042	A	78.17	0.52	6.58	-0.23	5.01	-0.31	10.23	-0.30	0.01
595228	C	11.99	-0.19	10.51	-0.28	63.20	0.41	14.28	-0.15	0.02
516311	B	16.56	-0.24	63.27	0.46	4.94	-0.26	15.21	-0.22	0.02
596413	C	5.92	-0.20	2.39	-0.24	87.03	0.39	4.63	-0.22	0.02
595619	B	5.23	-0.23	72.57	0.37	6.96	-0.30	15.25	-0.10	0.00
596415	A	42.82	0.46	25.84	-0.18	15.73	-0.25	15.59	-0.17	0.02
594332	A	65.32	0.46	12.31	-0.29	11.23	-0.24	11.12	-0.16	0.01
598897	D	5.39	-0.26	9.80	-0.33	9.54	-0.34	75.25	0.60	0.02
595261	B	25.44	-0.22	54.51	0.43	12.22	-0.28	7.80	-0.11	0.03
595247	B	13.97	-0.28	76.27	0.44	4.91	-0.20	4.81	-0.22	0.03
595611	D	11.92	-0.23	5.24	-0.26	12.62	-0.29	70.20	0.50	0.02
535177	A	80.02	0.37	8.91	-0.21	7.60	-0.16	3.47	-0.25	0.01
598751	D	12.67	-0.12	15.03	-0.27	21.29	-0.22	50.97	0.45	0.04
596539	A	62.05	0.50	8.12	-0.30	10.47	-0.35	19.34	-0.14	0.02
595236	D	3.43	-0.23	7.90	-0.26	27.56	-0.26	61.09	0.47	0.02
535172	B	20.18	-0.29	69.42	0.47	6.75	-0.28	3.64	-0.17	0.02
595306	B	9.14	-0.21	72.73	0.44	10.89	-0.21	7.23	-0.27	0.01
595262	C	5.59	-0.16	9.88	-0.22	60.51	0.36	24.01	-0.17	0.01
594797	C	5.19	-0.24	9.20	-0.22	59.46	0.46	26.14	-0.25	0.01
595240	B	8.32	-0.19	75.66	0.42	6.88	-0.23	9.12	-0.23	0.02
595463	B	12.01	-0.27	60.49	0.46	15.49	-0.30	12.00	-0.09	0.02
599430	A	57.14	0.37	30.16	-0.12	4.78	-0.30	7.90	-0.23	0.02

Table O.24 (continued). Grade 10 Science Core Test: Multiple-Choice Distractor Analysis

		Response Options								
		A		B		C		D		Omit
Item ID	Key	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]	Pt-Bis	P[1]
595230	C	4.88	-0.21	3.98	-0.26	82.62	0.41	8.52	-0.21	0.01
508970	A	69.87	0.26	15.50	-0.06	5.99	-0.21	8.64	-0.17	0.01
559142	B	7.22	-0.28	81.36	0.53	6.60	-0.32	4.79	-0.24	0.03

[1] Percentage of response options

Appendix P: Core Rasch Item Parameters & Fit Statistics

Table P.1. Grade 3 Reading Core Test: Rasch Item Parameters and Fit Statistics

Item ID	Logit	SE(Logit)	Out Z Std	Out MNSq	In Z Std	In MNSq
507771	-0.817	0.018	6.39	1.12	5.84	1.06
536782	-0.573	0.017	9.25	1.16	6.20	1.05
536490	-0.451	0.017	-4.09	0.94	-0.55	1.00
536492	-0.876	0.018	-9.90	0.71	-9.90	0.86
507769	-1.153	0.019	-9.90	0.68	-9.90	0.77
536475	-1.373	0.020	-9.90	0.72	-8.53	0.90
598755	-1.492	0.021	-5.09	0.87	-9.90	0.86
598752	-0.275	0.017	-9.90	0.86	-9.90	0.91
598758	-1.072	0.019	-9.90	0.61	-9.90	0.76
598756	-0.103	0.016	9.90	1.27	9.90	1.20
598747	-0.251	0.016	-2.22	0.97	-1.19	0.99
598746	-0.394	0.017	7.94	1.12	9.90	1.08
558933	-0.141	0.016	-6.25	0.92	-5.85	0.96
558932	-0.947	0.018	-9.90	0.66	-9.90	0.80
558922	-0.381	0.017	-9.90	0.82	-9.90	0.90
558931	-0.703	0.018	5.76	1.10	5.54	1.05
558923	0.014	0.016	3.68	1.04	5.38	1.04
558924	-1.868	0.023	-9.90	0.56	-9.90	0.82
515329	-0.904	0.018	-4.41	0.92	-1.69	0.98
515330	-0.763	0.018	-9.90	0.77	-9.90	0.89
515327	-2.080	0.025	-5.50	0.81	-1.89	0.97
515332	-1.356	0.020	-9.90	0.77	-7.03	0.92
515322	-0.795	0.018	-9.90	0.81	-7.96	0.93
559023	-0.197	0.016	9.90	1.68	9.90	1.43
559018	-1.143	0.019	-9.20	0.81	-6.25	0.93
559022	-1.198	0.020	-9.38	0.80	-9.87	0.89
559086	-0.518	0.017	5.83	1.09	9.90	1.11
559012	-0.746	0.018	0.81	1.01	-2.15	0.98
598803	-0.434	0.017	0.88	1.01	-0.41	1.00
598804	0.016	0.016	2.35	1.03	5.31	1.04
598805	-0.006	0.016	1.88	1.02	6.34	1.05
598798	0.560	0.016	9.90	1.21	9.90	1.13
598808	-2.070	0.025	-9.90	0.52	-9.90	0.77
596559	-0.730	0.018	9.90	1.43	9.90	1.22
596561	-0.522	0.017	5.18	1.08	9.37	1.08
596557	-0.382	0.017	-4.86	0.93	-4.10	0.97
596552	1.128	0.016	9.90	1.21	9.90	1.08
596563	-0.232	0.016	9.90	1.16	9.90	1.09
596556	-1.224	0.020	-0.05	1.00	3.77	1.04
596555	-0.510	0.017	-2.91	0.96	-3.78	0.97

Table P.2. Grade 4 Reading Core Test: Rasch Item Parameters and Fit Statistics

Item ID	Logit	SE(Logit)	Out Z Std	Out MNSq	In Z Std	In MNSq
536549	1.023	0.016	9.90	1.14	9.90	1.08
536547	-0.858	0.020	-5.90	0.85	-9.90	0.88
536550	-0.465	0.019	2.46	1.05	-3.53	0.96
536548	0.481	0.016	-5.16	0.94	-3.55	0.97
538129	0.790	0.016	9.90	1.25	9.90	1.20
536554	0.259	0.017	-9.90	0.71	-9.90	0.80
536552	-0.032	0.017	-5.84	0.91	-2.07	0.98
596433	-1.049	0.021	7.64	1.24	9.90	1.30
596441	0.735	0.016	7.96	1.09	9.90	1.09
596434	-0.896	0.021	-6.32	0.84	-9.90	0.82
596437	0.665	0.016	6.37	1.07	9.90	1.07
596435	-1.105	0.022	-4.56	0.87	-7.49	0.90
596430	-1.440	0.024	7.68	1.30	6.47	1.11
598891	0.047	0.017	-9.90	0.76	-9.90	0.90
598892	0.047	0.017	-9.73	0.85	-6.45	0.95
598895	0.073	0.017	-7.50	0.89	-5.82	0.95
598893	1.540	0.016	9.90	1.29	9.90	1.13
598889	1.152	0.016	9.90	1.18	9.90	1.10
598885	-1.561	0.025	3.60	1.14	2.08	1.04
597050	0.665	0.016	2.06	1.02	3.10	1.02
597051	-0.589	0.019	-9.90	0.76	-9.90	0.89
597053	0.229	0.017	-9.90	0.78	-9.90	0.87
597049	-0.449	0.019	6.28	1.14	9.90	1.14
597055	0.310	0.017	7.83	1.11	9.69	1.08
597046	-1.187	0.022	-8.03	0.77	-4.10	0.94
515412	-0.776	0.020	-9.90	0.67	-9.90	0.84
514963	-1.072	0.022	-8.66	0.76	-6.03	0.92
514970	-1.011	0.021	-9.90	0.59	-9.90	0.78
514968	1.417	0.016	9.90	1.20	9.90	1.10
514967	-0.381	0.018	-9.09	0.83	-9.90	0.90
515413	-0.692	0.020	-4.02	0.91	3.29	1.04
514964	-0.233	0.018	9.90	1.29	9.90	1.17
596459	2.033	0.016	9.90	1.24	9.90	1.09
596456	-0.227	0.018	-9.90	0.80	-9.51	0.91
596452	-0.172	0.018	-5.82	0.90	-6.04	0.95
596454	0.815	0.016	9.90	1.28	9.90	1.19
596460	0.366	0.016	0.83	1.01	2.83	1.02
596453	-0.419	0.019	-9.90	0.67	-9.90	0.80
596448	1.045	0.016	9.90	1.30	9.90	1.21
596447	0.247	0.017	9.90	1.21	9.90	1.09

Table P.3. Grade 5 Reading Core Test: Rasch Item Parameters and Fit Statistics

Item ID	Logit	SE(Logit)	Out Z Std	Out MNSq	In Z Std	In MNSq
599567	0.543	0.018	-8.75	0.86	-9.19	0.92
599568	-0.004	0.020	-9.90	0.69	-9.90	0.81
599573	0.412	0.018	-9.90	0.80	-9.90	0.88
599569	0.638	0.017	-9.90	0.72	-9.90	0.83
599566	1.853	0.016	9.90	1.26	9.90	1.16
599572	0.585	0.018	5.44	1.09	9.90	1.10
599565	-0.090	0.020	-9.90	0.70	-9.90	0.81
599564	-0.407	0.022	-2.75	0.92	4.76	1.07
539132	0.648	0.017	6.40	1.10	9.90	1.10
539134	1.001	0.017	8.62	1.12	9.90	1.09
539137	-0.649	0.023	-9.90	0.56	-9.90	0.79
539133	1.610	0.016	9.90	1.18	9.90	1.12
539141	0.213	0.019	-9.90	0.79	-8.94	0.91
539140	0.054	0.019	6.49	1.15	6.06	1.07
539138	-1.299	0.028	-9.90	0.31	-9.90	0.67
596668	0.586	0.018	3.10	1.05	5.28	1.05
596680	1.046	0.016	-1.07	0.99	0.58	1.00
596675	0.931	0.017	6.93	1.10	5.95	1.05
596671	0.671	0.017	-3.25	0.95	-1.19	0.99
596678	-0.371	0.021	-7.14	0.81	-3.96	0.95
596670	0.830	0.017	-4.17	0.94	-0.19	1.00
597080	2.036	0.016	9.90	1.13	9.90	1.06
597079	-0.498	0.022	-9.90	0.70	-7.88	0.89
597076	0.249	0.019	-9.90	0.80	-9.90	0.88
597078	-0.028	0.020	-9.90	0.57	-9.90	0.76
597077	0.380	0.018	-8.67	0.85	-5.30	0.95
597075	0.685	0.017	-9.90	0.80	-9.90	0.91
516472	-0.160	0.020	-9.90	0.67	-9.90	0.86
516471	-0.590	0.023	-9.90	0.54	-9.90	0.78
516469	0.161	0.019	6.99	1.15	0.06	1.00
516466	-0.548	0.023	-9.90	0.50	-9.90	0.70
517674	0.011	0.020	0.02	1.00	3.06	1.03
516468	-0.684	0.023	-8.50	0.74	-2.87	0.96
516470	0.866	0.017	9.90	1.41	9.90	1.30
516464	-1.120	0.027	-9.90	0.63	-7.93	0.86
598865	-0.060	0.020	2.41	1.06	5.67	1.07
598861	1.935	0.016	9.90	1.15	9.90	1.07
598869	0.223	0.019	-9.90	0.71	-9.90	0.84
598872	1.668	0.016	9.90	1.33	9.90	1.21
598863	1.320	0.016	6.50	1.07	9.90	1.08
598868	1.975	0.016	9.90	1.31	9.90	1.19
598860	0.876	0.017	7.63	1.11	9.90	1.11

Table P.4. Grade 6 Reading Core Test: Rasch Item Parameters and Fit Statistics

Item ID	Logit	SE(Logit)	Out Z Std	Out MNSq	In Z Std	In MNSq
509627	0.352	0.019	-3.00	0.94	-6.54	0.93
510354	0.373	0.019	-9.26	0.82	-9.12	0.90
510358	-0.270	0.022	-9.90	0.61	-9.90	0.80
509628	-0.133	0.022	-9.90	0.58	-9.90	0.80
509623	1.271	0.016	-9.90	0.84	-9.90	0.92
509624	0.259	0.019	7.76	1.18	9.90	1.20
596233	1.027	0.017	0.06	1.00	-1.86	0.99
596224	1.233	0.016	9.90	1.22	9.90	1.14
596226	-0.263	0.022	9.90	1.62	9.90	1.25
596230	1.362	0.016	0.27	1.00	1.32	1.01
596227	1.728	0.016	5.39	1.05	7.56	1.05
596225	-0.439	0.024	-9.90	0.67	-9.39	0.86
596231	0.635	0.018	2.95	1.05	7.28	1.07
559209	1.931	0.015	5.09	1.05	4.68	1.03
559212	0.086	0.020	4.70	1.12	9.90	1.14
559213	0.731	0.018	-4.65	0.93	-6.00	0.95
559215	2.081	0.015	9.90	1.19	9.90	1.12
559208	0.291	0.019	-9.90	0.73	-9.90	0.85
559211	1.204	0.016	-5.97	0.93	-2.79	0.98
559210	0.416	0.019	-5.12	0.90	-5.61	0.94
596551	1.130	0.016	3.27	1.04	6.81	1.05
596545	2.304	0.015	9.90	1.30	9.90	1.19
596544	1.185	0.016	-9.90	0.84	-9.90	0.90
596543	2.118	0.015	9.90	1.12	9.90	1.07
596550	2.509	0.015	5.20	1.05	-2.53	0.98
596541	0.997	0.017	2.22	1.03	4.36	1.04
596547	0.479	0.019	-9.90	0.66	-9.90	0.79
596540	0.520	0.018	-5.71	0.90	-1.41	0.99
596975	-0.353	0.023	-9.90	0.50	-9.90	0.73
596976	0.302	0.019	9.90	1.28	7.10	1.08
596977	-0.415	0.023	2.33	1.07	-0.81	0.99
596978	0.430	0.019	-9.90	0.81	-9.90	0.89
596974	-0.062	0.021	-9.90	0.67	-9.90	0.87
596981	2.441	0.015	9.90	1.16	9.90	1.09
596973	-0.519	0.024	9.90	1.77	9.90	1.28
558784	1.646	0.016	-0.64	0.99	-1.92	0.99
558786	-0.787	0.027	-9.90	0.53	-9.90	0.72
559369	0.398	0.019	-9.90	0.81	-4.90	0.95
559364	0.737	0.018	-9.42	0.85	-7.16	0.94
559363	0.016	0.021	-9.90	0.73	-7.65	0.90
558791	0.622	0.018	9.90	1.18	9.07	1.09
558782	0.529	0.018	-9.07	0.84	-2.05	0.98

Table P.5. Grade 7 Reading Core Test: Rasch Item Parameters and Fit Statistics

Item ID	Logit	SE(Logit)	Out Z Std	Out MNSq	In Z Std	In MNSq
515125	0.748	0.020	9.90	1.29	9.90	1.14
515124	0.268	0.022	-9.90	0.39	-9.90	0.60
515130	1.156	0.018	-9.90	0.65	-9.90	0.78
515128	1.656	0.017	9.90	1.17	9.90	1.14
515131	1.379	0.017	-1.25	0.98	0.82	1.01
515126	0.635	0.020	-8.10	0.82	-9.90	0.86
515122	0.562	0.020	-0.76	0.98	6.78	1.09
596530	1.160	0.018	-9.90	0.78	-9.90	0.85
596526	1.254	0.018	1.87	1.03	3.00	1.03
596528	0.832	0.019	-9.90	0.64	-9.90	0.76
596520	0.304	0.022	-3.82	0.90	-9.50	0.87
596531	1.731	0.016	-9.90	0.78	-9.90	0.84
596529	2.773	0.016	9.90	1.13	7.52	1.05
596523	0.928	0.019	-1.79	0.97	-1.49	0.98
596527	0.398	0.021	-9.90	0.69	-9.90	0.80
596521	1.989	0.016	9.90	1.21	9.90	1.16
511531	0.408	0.021	-3.61	0.91	-6.18	0.92
511529	1.202	0.018	9.90	1.42	9.90	1.35
511530	0.513	0.021	-8.92	0.79	-5.42	0.93
511534	0.556	0.020	-9.90	0.64	-9.90	0.80
511526	0.723	0.020	-0.59	0.99	3.77	1.04
560358	-0.401	0.027	-9.90	0.54	-9.90	0.79
598972	1.847	0.016	-6.04	0.93	-6.50	0.95
598978	0.155	0.023	-9.90	0.60	-9.90	0.71
598976	0.140	0.023	-6.30	0.82	-3.42	0.95
598981	1.897	0.016	-3.33	0.96	-2.80	0.98
598984	1.659	0.017	-5.81	0.93	-3.31	0.98
598983	2.717	0.016	9.90	1.27	9.90	1.15
598973	0.278	0.022	-9.90	0.71	-9.90	0.81
538919	0.242	0.022	-9.90	0.45	-9.90	0.69
538918	0.573	0.020	9.67	1.25	9.51	1.12
538908	0.179	0.023	-3.98	0.89	-3.92	0.94
538911	1.955	0.016	9.90	1.17	9.90	1.12
538916	1.283	0.018	1.32	1.02	1.68	1.01
538913	0.976	0.019	-9.90	0.68	-9.90	0.79
538917	1.843	0.016	9.90	1.21	9.90	1.15
515066	1.314	0.017	9.90	1.44	9.90	1.35
515064	1.748	0.016	9.90	1.20	9.90	1.13
514960	0.654	0.020	-3.18	0.93	2.93	1.03
515063	0.742	0.020	5.19	1.12	7.72	1.09
514951	1.416	0.017	9.90	1.30	9.90	1.19
514950	1.899	0.016	9.90	1.19	9.90	1.16
514953	1.348	0.017	-9.90	0.75	-9.90	0.85
514949	-0.260	0.026	-9.90	0.65	-2.56	0.95

Table P.6. Grade 8 Reading Core Test: Rasch Item Parameters and Fit Statistics

Item ID	Logit	SE(Logit)	Out Z Std	Out MNSq	In Z Std	In MNSq
598970	2.748	0.016	9.90	1.20	9.90	1.12
598968	3.472	0.016	8.88	1.09	0.03	1.00
598962	2.159	0.017	-4.52	0.94	-2.84	0.98
598964	0.881	0.022	-2.95	0.92	-5.06	0.93
598961	0.013	0.029	-0.66	0.97	4.18	1.09
598969	2.499	0.016	9.49	1.11	9.90	1.08
598959	1.559	0.019	-9.90	0.77	-9.90	0.90
520716	1.003	0.021	-5.07	0.87	-0.61	0.99
517509	1.678	0.018	9.90	1.38	9.90	1.22
514809	1.285	0.020	8.90	1.21	7.31	1.09
520718	1.285	0.020	9.90	1.39	9.90	1.18
515005	1.774	0.018	-9.22	0.85	-5.68	0.95
514802	1.620	0.018	-2.47	0.95	-3.85	0.96
514580	1.965	0.017	-2.48	0.96	-3.18	0.97
514828	0.392	0.025	4.58	1.18	4.66	1.08
514829	1.029	0.021	-9.90	0.67	-9.90	0.81
514827	1.703	0.018	9.90	1.26	9.90	1.20
514572	-0.025	0.029	-9.90	0.59	-6.79	0.86
514831	1.415	0.019	-9.90	0.79	-8.82	0.91
514832	1.716	0.018	9.90	1.26	9.90	1.19
519207	1.407	0.019	8.41	1.19	8.95	1.10
519199	1.559	0.019	1.30	1.02	5.01	1.05
519202	2.651	0.016	-9.90	0.82	-9.90	0.86
519526	2.056	0.017	-9.90	0.75	-9.90	0.83
519205	0.790	0.022	-8.79	0.76	-9.09	0.87
519203	0.973	0.021	-9.90	0.63	-9.90	0.77
596606	2.844	0.016	-6.05	0.94	-6.25	0.96
596604	2.931	0.016	-9.90	0.86	-9.90	0.88
596603	1.213	0.020	-9.90	0.78	-7.89	0.91
596605	1.869	0.018	-9.90	0.74	-9.90	0.84
596597	0.416	0.025	1.18	1.04	-2.37	0.96
595350	0.663	0.023	-9.90	0.60	-9.90	0.75
595354	1.931	0.017	-9.90	0.82	-9.35	0.92
595352	0.133	0.028	-5.70	0.78	2.78	1.06
595356	1.696	0.018	-9.90	0.66	-9.90	0.80
595355	2.464	0.016	9.90	1.36	9.90	1.24
595345	0.224	0.027	-8.38	0.70	-1.87	0.96
517357	1.691	0.018	-9.90	0.81	-9.90	0.90
517352	1.219	0.020	-9.90	0.60	-9.90	0.78
517355	1.219	0.020	9.90	1.82	9.90	1.13
518031	2.560	0.016	9.90	1.15	9.90	1.13
517349	2.495	0.016	3.92	1.05	6.00	1.04
517359	1.423	0.019	-2.16	0.96	-1.15	0.99
517348	0.704	0.023	7.62	1.26	6.73	1.11

Table P.7. Grade 10 Reading Core Test: Rasch Item Parameters and Fit Statistics

Item ID	Logit	SE(Logit)	Out Z Std	Out MNSq	In Z Std	In MNSq
559180	2.684	0.016	9.90	1.21	9.90	1.15
559172	2.955	0.016	9.90	1.19	9.90	1.12
559173	1.206	0.021	-2.27	0.95	1.16	1.02
559175	2.236	0.017	9.90	1.25	9.90	1.15
598071	1.073	0.022	-8.51	0.79	-6.74	0.91
598070	1.435	0.020	-0.57	0.99	-0.42	1.00
598066	3.323	0.016	9.90	1.27	9.90	1.16
598065	1.013	0.022	-2.40	0.94	-6.04	0.92
598068	2.015	0.018	6.12	1.10	5.65	1.05
598078	2.036	0.018	9.90	1.16	7.65	1.07
598074	3.407	0.016	9.90	1.23	9.90	1.10
598075	0.950	0.023	0.14	1.00	-0.31	1.00
596913	2.974	0.016	9.90	1.18	9.90	1.10
596915	3.204	0.016	-4.57	0.96	-9.90	0.94
596918	2.413	0.017	-7.44	0.91	-7.83	0.94
596916	2.590	0.016	-9.90	0.87	-9.90	0.90
596908	1.235	0.021	2.36	1.06	3.76	1.05
596920	2.468	0.017	7.59	1.09	7.50	1.06
596909	0.905	0.023	-9.90	0.70	-5.34	0.92
596919	1.394	0.020	1.64	1.04	1.13	1.01
559393	1.976	0.018	-5.84	0.91	-6.06	0.95
559395	1.926	0.018	7.12	1.12	9.03	1.09
559401	0.881	0.023	-9.90	0.61	-9.90	0.81
559404	2.934	0.016	-4.62	0.96	-6.49	0.96
559392	1.609	0.019	-9.90	0.68	-9.90	0.83
559402	1.872	0.018	9.64	1.17	7.09	1.07
559391	2.266	0.017	4.57	1.06	7.06	1.06
559329	0.429	0.027	-5.63	0.80	1.86	1.04
539176	1.925	0.018	4.61	1.08	7.43	1.07
539180	2.194	0.017	2.75	1.04	3.98	1.03
539177	1.362	0.020	-9.90	0.54	-9.90	0.72
559330	2.727	0.016	9.09	1.10	9.06	1.06
539179	1.125	0.022	-9.90	0.55	-9.90	0.70
539169	3.480	0.016	9.90	1.17	9.90	1.06
539175	0.481	0.026	-5.34	0.82	-6.72	0.88
539170	0.988	0.022	-8.96	0.77	-5.12	0.93
517796	0.794	0.024	-9.90	0.65	-9.90	0.82
517794	1.935	0.018	-4.96	0.92	0.51	1.00
517792	1.797	0.019	0.79	1.01	7.72	1.08
518463	2.154	0.017	-9.90	0.86	-9.90	0.92
517798	0.719	0.024	-9.90	0.63	-9.90	0.84
517797	0.845	0.023	-8.15	0.78	-9.46	0.86
518461	1.324	0.021	-9.90	0.76	-7.05	0.92
517795	0.516	0.026	-0.70	0.98	-0.97	0.98
518462	3.351	0.016	9.90	1.13	9.90	1.07

Table P.8. Grade 3 Mathematics Core Test: Rasch Item Parameters and Fit Statistics

Item ID	Logit	SE(Logit)	Out Z Std	Out MNSq	In Z Std	In MNSq
593572	-2.124	0.024	5.95	1.25	6.90	1.11
593779	-2.197	0.025	1.57	1.06	-3.43	0.94
517378	-0.770	0.018	5.75	1.11	6.32	1.06
592765	-2.279	0.025	-3.20	0.87	2.54	1.04
566158	-0.165	0.017	2.46	1.03	6.17	1.05
566256	-2.279	0.025	8.18	1.38	8.60	1.16
593575	-0.460	0.017	-9.90	0.82	-9.90	0.89
593221	-2.484	0.027	-4.56	0.80	-6.23	0.89
594522	0.335	0.016	9.90	1.19	9.90	1.11
592667	-2.162	0.025	4.62	1.19	2.27	1.04
516991	-1.242	0.019	5.44	1.14	9.90	1.16
518888	-1.944	0.023	0.96	1.03	-2.53	0.96
592614	-0.973	0.018	-9.90	0.80	-5.39	0.95
594249	-1.914	0.023	-6.01	0.81	-9.90	0.86
593581	-1.508	0.021	1.25	1.03	2.66	1.03
566693	-2.219	0.025	0.53	1.02	9.90	1.24
516961	-1.280	0.020	-0.51	0.99	-0.14	1.00
566250	-1.412	0.020	-9.18	0.78	-9.90	0.87
593230	-1.413	0.020	-6.49	0.84	-9.90	0.88
566701	-0.483	0.017	-7.62	0.89	-7.53	0.94
592460	-1.544	0.021	3.07	1.09	6.18	1.08
516549	0.812	0.016	9.90	1.23	9.90	1.14
517084	0.651	0.016	9.90	1.22	9.90	1.09
592661	-0.125	0.016	-7.95	0.90	-8.43	0.94
566594	0.081	0.016	-5.19	0.94	-4.72	0.97
594250	-2.204	0.025	3.40	1.14	5.17	1.09
592619	-1.660	0.021	-6.39	0.82	-6.56	0.92
517874	-1.909	0.023	3.34	1.12	0.84	1.01
518898	-0.895	0.018	-9.90	0.77	-9.90	0.87
593254	-1.443	0.020	-6.84	0.83	-7.28	0.92
519751	-1.411	0.020	-6.60	0.84	-3.04	0.96
566699	-0.381	0.017	-2.95	0.96	0.29	1.00
518946	0.738	0.016	9.90	1.16	9.14	1.06
566251	-1.459	0.020	5.54	1.16	5.96	1.07
534936	-0.874	0.018	5.41	1.11	9.06	1.09
517380	-0.652	0.018	9.90	1.18	9.90	1.12
592761	-2.025	0.024	-5.83	0.80	-5.90	0.91
592463	-1.039	0.019	3.79	1.08	-1.15	0.99
516995	-0.609	0.017	8.16	1.14	8.20	1.07
593220	-2.009	0.024	-5.88	0.80	-1.57	0.98

Table P.9. Grade 4 Mathematics Core Test: Rasch Item Parameters and Fit Statistics

Item ID	Logit	SE(Logit)	Out Z Std	Out MNSq	In Z Std	In MNSq
594692	-1.614	0.026	1.65	1.07	1.79	1.03
521193	-0.103	0.018	9.90	1.22	9.90	1.14
594243	0.604	0.016	-8.93	0.90	-9.90	0.92
559258	-0.867	0.021	8.99	1.26	1.61	1.02
594272	-0.951	0.021	2.68	1.08	-5.62	0.93
595454	-0.216	0.018	-3.51	0.94	0.10	1.00
594518	0.969	0.016	9.90	1.24	9.90	1.17
595460	-0.913	0.021	-1.20	0.97	-2.38	0.97
594294	0.222	0.017	-7.90	0.89	-6.34	0.95
595119	1.402	0.016	9.90	1.18	9.90	1.10
594246	-0.278	0.018	-1.52	0.97	-1.74	0.98
594514	1.179	0.016	9.90	1.26	9.90	1.18
595205	-0.038	0.017	-9.90	0.78	-9.90	0.86
595200	-0.935	0.021	-1.80	0.95	-1.12	0.99
594263	-0.455	0.019	-4.99	0.90	-5.68	0.94
594241	0.405	0.016	1.98	1.03	6.30	1.05
594685	-0.042	0.017	-9.90	0.76	-9.90	0.87
594693	0.147	0.017	3.15	1.05	5.33	1.04
520979	0.363	0.016	-6.28	0.92	-7.54	0.94
507551	2.226	0.016	9.90	1.53	9.90	1.20
595458	-0.363	0.018	-5.31	0.90	-3.08	0.97
594247	0.195	0.017	2.51	1.04	3.34	1.03
595114	-0.099	0.018	9.90	1.24	6.85	1.06
595112	1.539	0.016	9.56	1.10	3.36	1.02
506485	2.163	0.016	9.90	1.41	9.90	1.10
595204	-0.363	0.018	2.49	1.05	0.31	1.00
594682	-1.129	0.022	-1.60	0.95	-0.18	1.00
594694	0.002	0.017	-1.73	0.97	-4.91	0.96
595515	-1.251	0.023	-0.15	0.99	1.59	1.02
595516	-0.195	0.018	-7.89	0.86	-8.03	0.93
594679	-0.211	0.018	-9.90	0.80	-8.33	0.92
506487	-0.235	0.018	-9.90	0.78	-9.90	0.88
595120	-0.648	0.020	-9.54	0.79	-7.31	0.92
595667	-0.706	0.020	-9.90	0.70	-9.15	0.90
594510	-1.165	0.022	5.59	1.19	8.74	1.13
594690	-0.380	0.019	9.90	1.31	9.90	1.15
594268	0.976	0.016	8.15	1.09	9.90	1.07
595453	-0.220	0.018	-0.07	1.00	3.44	1.03
594244	-1.055	0.022	-6.84	0.81	-3.15	0.96
594238	-1.160	0.022	-4.58	0.86	-5.23	0.93

Table P.10. Grade 5 Mathematics Core Test: Rasch Item Parameters and Fit Statistics

Item ID	Logit	SE(Logit)	Out Z Std	Out MNSq	In Z Std	In MNSq
566685	-0.385	0.023	-1.66	0.95	0.48	1.01
594800	0.326	0.019	6.97	1.16	5.48	1.06
594537	0.524	0.018	-2.93	0.94	0.06	1.00
518075	2.230	0.016	2.91	1.03	0.41	1.00
593213	-0.189	0.022	1.84	1.05	3.30	1.05
518078	0.677	0.018	-5.97	0.90	-3.53	0.97
594274	1.665	0.016	-2.48	0.97	-2.43	0.98
519652	0.452	0.018	-9.90	0.69	-9.90	0.83
521582	-0.416	0.023	-2.89	0.91	8.37	1.13
592414	0.018	0.020	2.29	1.06	2.96	1.04
592824	0.657	0.018	-9.90	0.80	-9.90	0.90
594801	1.791	0.016	9.90	1.15	9.90	1.09
518089	-0.096	0.021	-9.90	0.73	-9.90	0.83
596927	1.885	0.016	1.61	1.02	0.01	1.00
517858	0.705	0.017	-8.61	0.85	-8.35	0.93
593899	1.221	0.016	9.90	1.33	9.90	1.24
518088	0.269	0.019	9.90	1.29	9.51	1.11
594803	3.141	0.017	1.43	1.02	-9.61	0.93
516265	0.645	0.018	-4.30	0.92	-7.08	0.94
535900	0.792	0.017	-9.90	0.84	-9.90	0.87
593237	2.628	0.016	0.11	1.00	-4.81	0.97
566690	0.232	0.019	-2.77	0.94	-3.91	0.96
594542	1.422	0.016	3.97	1.05	6.21	1.04
595517	1.111	0.016	-2.60	0.96	0.36	1.00
595954	0.162	0.020	-4.84	0.89	-4.97	0.94
517764	2.016	0.016	8.99	1.09	9.90	1.06
518879	0.911	0.017	3.02	1.05	4.41	1.04
535396	0.743	0.017	-5.82	0.90	-9.90	0.91
592412	-0.117	0.021	-2.72	0.92	-9.90	0.85
596819	2.975	0.016	9.57	1.13	3.32	1.02
593215	-0.427	0.023	-2.60	0.92	1.09	1.02
565920	1.222	0.016	9.90	1.17	9.90	1.08
513682	0.679	0.018	-7.09	0.88	-9.64	0.92
596820	1.565	0.016	-9.90	0.88	-9.90	0.92
596206	1.113	0.016	9.90	1.20	9.90	1.13
535381	0.626	0.018	9.90	1.48	9.90	1.23
516258	0.436	0.018	-8.28	0.84	-9.90	0.85
596929	-0.128	0.021	7.45	1.23	7.65	1.10
593217	1.417	0.016	2.30	1.03	3.65	1.02
515978	0.363	0.019	-9.90	0.70	-9.90	0.85
518092	-0.225	0.022	9.90	1.65	9.90	1.18
594275	1.032	0.017	-3.35	0.95	-5.41	0.96
566709	0.325	0.019	-7.63	0.84	-9.90	0.89
537577	0.028	0.020	-3.07	0.92	-6.48	0.92
594799	-0.347	0.023	1.33	1.04	7.01	1.11

Table P.11. Grade 6 Mathematics Core Test: Rasch Item Parameters and Fit Statistics

Item ID	Logit	SE(Logit)	Out Z Std	Out MNSq	In Z Std	In MNSq
521354	0.389	0.022	-9.90	0.67	-9.90	0.84
538496	1.069	0.019	-3.48	0.92	-5.63	0.95
599045	1.659	0.017	9.90	1.72	9.90	1.43
598918	2.111	0.016	4.94	1.06	7.77	1.05
520849	2.489	0.016	-9.90	0.70	-9.90	0.77
598651	1.426	0.017	4.73	1.09	9.90	1.10
598988	0.689	0.020	-1.31	0.96	-2.91	0.97
599016	0.113	0.024	-9.31	0.69	-9.62	0.85
521671	1.641	0.017	-9.49	0.85	-9.90	0.90
599054	2.392	0.016	9.90	1.32	9.90	1.20
598912	0.955	0.019	9.90	1.27	1.82	1.02
521215	1.159	0.018	-3.46	0.93	-2.36	0.98
599017	2.596	0.016	9.90	1.17	9.90	1.11
521726	0.680	0.020	-2.31	0.94	-0.53	0.99
599022	1.231	0.018	-4.94	0.90	-6.46	0.94
599055	2.500	0.016	-9.90	0.88	-9.90	0.89
599071	3.107	0.016	9.90	1.33	9.90	1.22
599041	1.100	0.018	6.85	1.16	7.11	1.07
599039	1.249	0.018	-8.91	0.83	-9.90	0.90
598903	2.404	0.016	-9.90	0.87	-9.90	0.91
598686	1.019	0.019	-6.61	0.85	-2.55	0.97
599489	1.732	0.017	-4.07	0.94	-3.72	0.97
598910	1.332	0.018	-6.29	0.88	-0.48	1.00
507598	1.868	0.016	-9.90	0.82	-9.90	0.89
599074	1.052	0.019	0.96	1.02	1.66	1.02
599048	2.362	0.016	-4.52	0.95	-3.68	0.98
599443	3.790	0.017	9.90	1.41	9.90	1.12
518954	1.556	0.017	1.20	1.02	6.03	1.05
598916	1.901	0.016	9.90	1.20	9.90	1.08
598909	3.828	0.017	9.90	1.42	9.90	1.11
599043	1.464	0.017	-1.90	0.97	2.67	1.02
598690	2.753	0.016	9.90	1.24	9.90	1.14
599079	1.356	0.018	7.72	1.16	5.58	1.05
599488	0.639	0.021	-9.90	0.68	-9.90	0.83
599075	1.282	0.018	-0.29	0.99	0.47	1.00
599050	1.249	0.018	-9.39	0.82	-9.90	0.90
599013	2.267	0.016	-9.90	0.88	-9.90	0.93
598923	1.261	0.018	-0.46	0.99	0.16	1.00
598922	0.859	0.019	-7.69	0.82	-9.90	0.88
598986	1.333	0.018	4.31	1.09	6.14	1.05
598924	0.504	0.021	0.13	1.00	0.19	1.00
521438	0.464	0.022	9.90	1.36	4.00	1.05
598659	2.411	0.016	9.90	1.14	9.90	1.09
598667	2.520	0.016	9.11	1.10	9.90	1.07
598915	0.313	0.022	-9.90	0.54	-9.90	0.74

Table P.12. Grade 7 Mathematics Core Test: Rasch Item Parameters and Fit Statistics

Item ID	Logit	SE(Logit)	Out Z Std	Out MNSq	In Z Std	In MNSq
594578	1.472	0.019	7.60	1.17	8.52	1.09
566159	1.971	0.017	-6.93	0.89	-5.60	0.96
593930	1.344	0.019	9.90	1.50	9.90	1.28
592490	2.028	0.017	1.97	1.03	6.76	1.05
593757	1.562	0.018	-8.83	0.83	-8.91	0.92
592355	1.637	0.018	-9.90	0.69	-9.90	0.83
593756	2.262	0.016	-9.90	0.79	-9.90	0.88
566163	0.852	0.021	-6.67	0.82	-3.35	0.96
593262	1.625	0.018	4.44	1.09	7.81	1.07
594552	1.190	0.020	-1.50	0.96	-7.10	0.92
593253	2.392	0.016	-6.09	0.92	-3.94	0.97
596183	0.991	0.021	-7.55	0.81	-3.54	0.96
592560	3.127	0.016	8.47	1.09	9.22	1.06
566440	1.557	0.018	0.94	1.02	-1.77	0.98
593245	1.302	0.019	-3.76	0.91	-0.66	0.99
567081	2.343	0.016	-9.90	0.82	-9.90	0.88
593250	1.443	0.019	1.42	1.03	4.40	1.04
515711	2.567	0.016	9.90	1.35	9.90	1.22
596243	1.957	0.017	-5.93	0.91	-5.95	0.95
592357	2.250	0.016	9.90	1.29	9.90	1.11
596244	2.755	0.016	9.90	1.13	9.90	1.09
596242	2.449	0.016	0.73	1.01	-1.19	0.99
566438	2.205	0.017	-4.74	0.94	-5.25	0.96
594471	1.141	0.020	-9.90	0.74	-9.90	0.81
592360	3.901	0.017	9.90	1.19	8.03	1.06
593256	0.832	0.022	-3.05	0.91	5.00	1.07
594669	2.601	0.016	9.90	1.15	9.90	1.13
506177	2.568	0.016	9.90	1.12	9.90	1.09
594585	2.175	0.017	0.68	1.01	2.92	1.02
592593	3.099	0.016	1.68	1.02	-0.06	1.00
516929	2.685	0.016	-7.81	0.92	-6.47	0.96
537843	1.582	0.018	-8.14	0.85	-9.78	0.91
592362	0.991	0.021	6.67	1.20	-0.89	0.99
566164	4.675	0.019	9.90	1.67	9.90	1.22
594673	2.284	0.016	-9.62	0.88	-9.90	0.92
596181	1.670	0.018	-9.90	0.77	-9.90	0.84
566439	1.629	0.018	9.33	1.19	7.87	1.07
592562	3.707	0.016	9.90	1.16	7.42	1.05
565172	2.648	0.016	9.90	1.24	9.90	1.14
593260	1.246	0.019	0.01	1.00	-4.64	0.95
594579	1.534	0.018	-2.91	0.94	-2.74	0.97
596161	2.621	0.016	-0.32	1.00	-0.58	1.00
566716	4.120	0.017	8.93	1.13	-5.02	0.96
594581	1.419	0.019	-9.90	0.73	-9.90	0.88
596187	1.161	0.020	-8.65	0.80	-7.40	0.92

Table P.13. Grade 8 Mathematics Core Test: Rasch Item Parameters and Fit Statistics

Item ID	Logit	SE(Logit)	Out Z Std	Out MNSq	In Z Std	In MNSq
520959	1.465	0.023	-9.90	0.51	-9.90	0.71
594525	2.891	0.017	-8.89	0.87	-6.42	0.95
595706	2.805	0.017	1.78	1.03	4.07	1.03
596923	2.803	0.017	9.90	1.26	9.90	1.18
598942	1.561	0.022	-9.90	0.58	-9.90	0.81
521694	2.638	0.017	-2.16	0.96	2.77	1.02
596102	2.246	0.019	-5.37	0.89	-5.66	0.95
598991	3.608	0.016	6.95	1.08	9.90	1.07
598099	1.445	0.023	-7.56	0.77	-4.30	0.94
520695	1.908	0.020	-6.07	0.85	-6.39	0.93
598930	2.713	0.017	9.90	1.41	9.90	1.26
596989	3.296	0.016	4.28	1.05	9.90	1.07
598631	2.449	0.018	0.75	1.01	0.46	1.00
598100	3.106	0.016	-9.90	0.79	-9.90	0.86
598814	3.137	0.016	-6.13	0.92	-5.90	0.96
596986	3.170	0.016	2.52	1.03	-2.79	0.98
597029	4.186	0.016	8.50	1.09	5.69	1.04
519387	2.763	0.017	9.90	1.32	9.90	1.18
596199	2.747	0.017	9.90	1.21	9.90	1.09
598745	2.627	0.017	-3.72	0.94	2.11	1.02
596931	3.610	0.016	-8.77	0.91	-9.90	0.93
598937	1.813	0.021	7.20	1.21	9.90	1.13
521696	2.179	0.019	0.10	1.00	-1.35	0.99
594615	3.227	0.016	9.90	1.13	9.61	1.07
594532	2.542	0.018	8.46	1.16	5.16	1.04
597027	2.132	0.019	-9.90	0.70	-9.90	0.85
595710	3.568	0.016	-4.87	0.95	-7.59	0.95
598630	4.395	0.016	9.19	1.11	5.11	1.04
596101	1.624	0.022	-9.90	0.70	-6.52	0.91
594609	3.330	0.016	-9.40	0.89	-8.94	0.94
598354	4.250	0.016	9.90	1.20	9.90	1.10
598632	2.167	0.019	9.90	1.34	9.90	1.18
598680	2.165	0.019	-9.15	0.81	-6.57	0.93
597023	3.957	0.016	9.90	1.10	9.90	1.07
598106	2.654	0.017	-3.08	0.95	-3.54	0.97
597020	3.317	0.016	-1.77	0.98	-1.44	0.99
599023	1.982	0.020	-9.52	0.78	-5.27	0.94
598819	2.692	0.017	4.94	1.08	5.73	1.05
520967	3.392	0.016	9.90	1.12	9.90	1.08
596191	3.747	0.016	4.82	1.05	5.62	1.04
596990	4.367	0.016	9.90	1.21	9.90	1.08
594523	1.522	0.022	4.82	1.16	-2.59	0.96
598992	2.288	0.019	5.35	1.12	6.49	1.06
518906	1.783	0.021	-9.52	0.76	-8.16	0.90
596196	2.007	0.020	-6.72	0.84	-9.90	0.86

Table P.14. Grade 10 Mathematics Core Test: Rasch Item Parameters and Fit Statistics

Item ID	Logit	SE(Logit)	Out Z Std	Out MNSq	In Z Std	In MNSq
559050	2.584	0.022	-1.45	0.95	-3.03	0.96
534930	1.945	0.026	-1.68	0.93	-4.46	0.92
517148	1.317	0.032	-9.90	0.51	-2.84	0.93
536362	2.884	0.020	-8.81	0.78	-9.90	0.88
535191	4.133	0.017	3.41	1.05	3.02	1.02
559058	3.325	0.019	7.35	1.17	9.90	1.11
537470	3.789	0.017	2.91	1.05	3.23	1.03
537758	2.689	0.021	9.90	1.77	6.80	1.09
535269	5.057	0.017	-0.27	1.00	-8.27	0.94
513743	4.730	0.017	9.90	1.25	9.90	1.16
537887	4.102	0.017	9.90	1.22	9.90	1.14
506889	2.431	0.023	0.26	1.01	-8.90	0.88
506895	4.025	0.017	5.91	1.09	5.67	1.04
521680	2.469	0.022	0.93	1.03	-9.90	0.87
539550	3.068	0.019	-9.90	0.71	-9.90	0.87
507475	3.139	0.019	-9.90	0.72	-9.90	0.88
535264	4.727	0.017	9.90	1.16	9.90	1.07
512888	1.996	0.025	-9.90	0.62	-9.90	0.78
519361	3.175	0.019	1.01	1.02	-2.07	0.98
536359	4.149	0.017	-0.61	0.99	0.97	1.01
538283	3.121	0.019	-9.90	0.75	-9.90	0.88
535179	4.594	0.017	-6.26	0.93	-9.73	0.93
534919	3.687	0.018	4.07	1.07	2.59	1.02
521686	2.757	0.021	0.14	1.00	3.66	1.04
536361	4.175	0.017	0.39	1.01	2.72	1.02
535194	3.918	0.017	2.16	1.03	5.40	1.04
520648	3.090	0.019	4.55	1.11	-0.49	0.99
505204	5.110	0.017	9.90	1.19	9.50	1.07
535278	2.785	0.021	-5.83	0.84	-9.90	0.87
535284	2.775	0.021	-7.68	0.79	-8.74	0.90
516563	2.925	0.020	-6.99	0.82	-1.77	0.98
517613	2.880	0.020	0.77	1.02	-1.01	0.99
536367	4.737	0.017	8.39	1.10	7.30	1.05
511060	3.065	0.019	-9.90	0.68	-9.90	0.84
535939	2.723	0.021	-9.90	0.63	-9.90	0.80
517154	4.232	0.017	-0.11	1.00	-0.07	1.00
537101	3.353	0.019	9.90	1.25	9.90	1.16
537760	3.032	0.020	3.11	1.08	2.24	1.02
535277	4.329	0.017	-4.59	0.94	-5.00	0.97
535197	2.491	0.022	-6.77	0.79	-9.90	0.84
521685	3.510	0.018	-4.56	0.91	-6.21	0.95
535181	4.021	0.017	-9.38	0.87	-9.90	0.91
537480	3.797	0.017	-7.42	0.88	-4.63	0.96
537898	2.879	0.020	-4.22	0.89	-7.05	0.92
537093	2.897	0.020	-9.85	0.76	-7.69	0.92

Table P.15. Grade 3 Language Usage Core Test: Rasch Item Parameters and Fit Statistics

Item ID	Logit	SE(Logit)	Out Z Std	Out MNSq	In Z Std	In MNSq
515112	-1.581	0.020	-9.90	0.74	-9.90	0.84
516211	-1.592	0.020	-9.90	0.73	-9.90	0.88
515243	-1.665	0.020	-5.12	0.87	-4.83	0.94
536347	0.467	0.016	4.91	1.05	0.91	1.01
515221	-1.246	0.018	9.90	1.32	9.90	1.18
535492	-0.784	0.017	0.15	1.00	2.83	1.02
535475	-0.594	0.017	-4.65	0.94	-3.19	0.98
521327	-0.803	0.017	-9.90	0.83	-9.90	0.89
511685	0.066	0.016	5.41	1.06	2.87	1.02
535460	-1.195	0.018	-9.90	0.65	-9.90	0.79
515208	-0.270	0.016	9.90	1.15	7.24	1.05
508886	-0.654	0.017	-0.33	1.00	1.55	1.01
515255	-1.953	0.022	-3.63	0.89	0.56	1.01
510864	-2.212	0.023	-9.90	0.46	-9.90	0.70
535473	-0.535	0.016	-9.90	0.79	-9.90	0.88
535436	0.305	0.016	9.90	1.16	9.90	1.12
509419	0.654	0.016	9.90	1.25	9.90	1.14
515222	-1.020	0.018	-3.21	0.94	-4.37	0.96
536069	0.931	0.016	9.90	1.18	5.38	1.04
599504	-0.203	0.016	-0.86	0.99	-2.14	0.99
535685	0.308	0.016	9.90	1.12	9.90	1.07
515103	-0.539	0.016	2.79	1.04	4.60	1.03
516215	-0.571	0.016	3.89	1.06	9.56	1.07
516216	-1.248	0.018	-9.90	0.80	-9.90	0.89
535695	-1.089	0.018	7.64	1.15	9.04	1.08
515217	-1.386	0.019	-1.96	0.96	0.21	1.00
538374	0.068	0.016	7.54	1.08	9.90	1.07
520989	-0.918	0.017	-1.24	0.98	2.09	1.02
520035	-0.818	0.017	9.90	1.26	9.90	1.11
535484	0.234	0.016	9.90	1.12	9.90	1.08
515116	-0.995	0.018	-8.24	0.86	-7.20	0.94
516203	-0.711	0.017	-6.80	0.90	-9.07	0.93
535482	-1.991	0.022	-7.48	0.79	-9.82	0.87
515196	-2.245	0.024	-9.90	0.59	-9.90	0.73
515110	-0.721	0.017	7.10	1.11	5.20	1.04
520028	-0.726	0.017	9.90	1.24	9.90	1.12
535737	-1.192	0.018	-9.90	0.78	-7.83	0.93
596514	-0.092	0.016	3.60	1.04	7.70	1.05
508893	-1.360	0.019	-9.90	0.67	-9.90	0.81
508924	-2.166	0.023	-9.90	0.59	-6.94	0.90

Table P.16. Grade 4 Language Usage Core Test: Rasch Item Parameters and Fit Statistics

Item ID	Logit	SE(Logit)	Out Z Std	Out MNSq	In Z Std	In MNSq
510180	-0.912	0.022	-6.78	0.81	-8.11	0.89
516750	-0.522	0.020	9.90	1.26	9.90	1.19
536117	-0.177	0.018	-4.22	0.92	-5.70	0.95
536109	1.364	0.016	9.90	1.24	9.90	1.13
536131	-0.627	0.020	-3.16	0.92	-1.60	0.98
509689	-0.036	0.018	-9.90	0.81	-9.90	0.90
516658	0.976	0.016	2.66	1.03	3.47	1.02
521989	0.519	0.016	9.90	1.27	9.90	1.21
516817	0.217	0.017	5.63	1.09	9.90	1.09
509694	-0.523	0.020	-9.90	0.74	-9.90	0.85
516815	-1.202	0.024	-7.83	0.75	-9.90	0.85
516810	-1.231	0.024	-9.90	0.57	-9.90	0.80
593932	-0.107	0.018	-8.61	0.85	-9.48	0.91
516682	1.066	0.016	9.90	1.27	9.90	1.17
536119	1.116	0.016	9.90	1.14	9.90	1.10
536522	1.953	0.016	9.90	1.12	5.36	1.04
517818	0.182	0.017	-9.90	0.78	-9.90	0.88
509601	-0.031	0.018	-5.42	0.91	-4.49	0.96
538855	1.869	0.016	9.90	1.29	9.90	1.13
519073	-0.454	0.019	-0.75	0.98	4.38	1.05
536521	-0.570	0.020	-1.52	0.96	1.48	1.02
516646	0.187	0.017	-9.90	0.81	-9.90	0.88
520995	0.508	0.016	-9.90	0.85	-9.90	0.90
516681	0.788	0.016	-9.46	0.89	-9.34	0.94
516830	-0.025	0.018	-2.58	0.95	1.41	1.01
593955	-0.160	0.018	-9.90	0.81	-9.90	0.87
538033	0.091	0.017	6.52	1.11	9.90	1.09
515101	-1.209	0.024	3.45	1.12	0.86	1.01
593939	-1.001	0.022	-9.83	0.73	-4.52	0.94
509394	-1.316	0.024	-1.05	0.96	-1.84	0.97
536517	0.332	0.017	-0.08	1.00	-2.89	0.98
521163	-0.074	0.018	-8.89	0.84	-6.28	0.94
519066	-1.388	0.025	-8.92	0.70	-9.63	0.84
515115	-0.064	0.018	6.05	1.12	5.64	1.05
516641	-1.434	0.025	-9.90	0.48	-9.90	0.72
521055	-0.270	0.019	5.87	1.13	9.57	1.10
536530	-1.139	0.023	1.07	1.04	2.78	1.04
516160	-0.207	0.018	4.34	1.09	5.39	1.05
535547	-0.154	0.018	-3.94	0.93	-2.59	0.98
516167	-0.031	0.018	-6.13	0.89	-5.39	0.95

Table P.17. Grade 5 Language Usage Core Test: Rasch Item Parameters and Fit Statistics

Item ID	Logit	SE(Logit)	Out Z Std	Out MNSq	In Z Std	In MNSq
516185	0.652	0.017	-9.90	0.81	-9.90	0.88
537501	0.100	0.018	0.74	1.01	-1.43	0.99
599536	0.136	0.018	-9.90	0.74	-9.90	0.85
595703	0.306	0.018	-5.19	0.91	-1.25	0.99
516620	0.603	0.017	5.87	1.09	9.90	1.09
537486	1.160	0.016	7.90	1.09	9.90	1.07
515257	0.993	0.016	-0.84	0.99	3.34	1.02
516856	-0.292	0.020	-9.90	0.60	-9.90	0.80
516801	-0.014	0.019	-5.21	0.89	-5.59	0.94
536023	0.414	0.017	-1.53	0.97	-2.04	0.98
511133	0.379	0.017	4.57	1.08	8.49	1.08
599461	0.344	0.018	2.41	1.04	5.71	1.05
601194	2.552	0.016	9.90	1.24	9.90	1.13
516172	2.351	0.016	9.90	1.23	9.90	1.09
516866	1.250	0.016	4.20	1.04	8.40	1.05
515771	0.518	0.017	9.90	1.18	9.90	1.16
516184	0.751	0.016	3.22	1.04	7.10	1.05
521056	-0.178	0.020	-3.33	0.92	-8.23	0.91
599450	0.117	0.018	-5.43	0.90	-3.40	0.97
516753	-0.307	0.020	-9.90	0.71	-9.90	0.88
515248	0.728	0.016	-4.77	0.94	-7.49	0.94
516182	0.326	0.018	-9.90	0.81	-9.90	0.89
515235	0.396	0.017	-1.52	0.97	-1.90	0.98
516871	-0.297	0.020	-8.07	0.81	-8.82	0.90
515199	1.263	0.016	9.90	1.15	9.90	1.09
516826	0.702	0.017	-4.63	0.94	-4.84	0.96
537503	1.508	0.015	9.90	1.17	9.90	1.13
510942	1.352	0.016	9.90	1.17	9.90	1.11
599451	-1.296	0.028	-9.90	0.61	-3.11	0.94
537164	0.913	0.016	-7.05	0.92	-4.43	0.97
515751	0.555	0.017	-0.46	0.99	-0.40	1.00
537509	-0.206	0.020	-9.90	0.67	-9.90	0.80
599452	1.036	0.016	1.57	1.02	1.68	1.01
516858	-0.694	0.023	-9.90	0.69	-9.90	0.85
516865	-0.080	0.019	2.73	1.06	3.58	1.04
515735	0.157	0.018	-7.35	0.87	-4.50	0.96
515761	0.098	0.018	-1.45	0.97	2.31	1.02
516178	1.021	0.016	-1.45	0.98	-2.46	0.98
539326	0.824	0.016	6.20	1.08	8.54	1.06
536037	0.823	0.016	5.63	1.07	9.57	1.07
595678	-0.418	0.021	-9.90	0.76	-5.14	0.93
516820	-0.498	0.021	-1.65	0.95	-0.99	0.99

Table P.18. Grade 6 Language Usage Core Test: Rasch Item Parameters and Fit Statistics

Item ID	Logit	SE(Logit)	Out Z Std	Out MNSq	In Z Std	In MNSq
535934	0.893	0.017	-9.90	0.81	-8.06	0.93
517114	0.529	0.018	5.28	1.10	7.38	1.08
511605	0.783	0.017	9.90	1.26	9.90	1.12
510895	0.087	0.020	-2.91	0.93	-0.06	1.00
538227	2.730	0.016	9.90	1.26	9.90	1.11
511614	0.503	0.018	-9.90	0.70	-9.90	0.81
511681	1.478	0.016	2.11	1.02	4.29	1.03
512054	0.970	0.017	2.82	1.04	0.02	1.00
515772	1.220	0.016	9.90	1.28	9.90	1.17
539267	0.579	0.018	-8.79	0.85	-8.39	0.92
537916	0.591	0.018	-9.90	0.79	-9.90	0.89
537905	1.678	0.016	9.90	1.16	9.90	1.11
511280	0.107	0.020	-9.90	0.56	-9.90	0.75
539278	1.731	0.016	9.90	1.25	9.90	1.17
518476	1.499	0.016	9.90	1.16	9.90	1.11
517100	1.511	0.016	-9.90	0.85	-9.90	0.91
594297	1.832	0.015	9.90	1.10	9.90	1.07
518486	0.026	0.021	-5.21	0.87	-9.90	0.86
510913	0.759	0.018	-0.65	0.99	1.93	1.02
517745	0.408	0.019	-9.90	0.76	-9.90	0.82
518502	0.928	0.017	9.90	1.22	9.90	1.13
510902	1.488	0.016	9.90	1.14	9.90	1.11
538059	1.180	0.016	-8.88	0.89	-8.64	0.94
539284	-0.069	0.021	-9.90	0.64	-9.90	0.83
539492	1.012	0.017	-7.00	0.90	-5.46	0.96
518499	-0.086	0.021	9.90	1.32	1.15	1.02
517110	0.637	0.018	-9.90	0.75	-9.90	0.86
593650	0.521	0.018	-1.46	0.97	-2.00	0.98
516036	2.823	0.016	9.90	1.22	7.73	1.05
517196	1.042	0.017	3.19	1.05	7.60	1.06
537110	1.449	0.016	4.98	1.06	6.04	1.04
511671	0.060	0.021	-9.90	0.65	-9.90	0.78
511270	0.482	0.019	-1.12	0.98	4.57	1.05
517189	2.549	0.016	9.90	1.21	9.90	1.10
509804	-0.043	0.021	-9.90	0.74	-9.90	0.87
510905	0.219	0.020	-9.90	0.67	-9.90	0.89
509766	-0.247	0.022	-9.90	0.62	-9.90	0.81
539281	2.705	0.016	7.42	1.08	-1.60	0.99
537908	-0.175	0.022	-9.90	0.60	-9.90	0.80
511418	1.596	0.016	-3.13	0.97	-0.47	1.00
517108	0.319	0.019	-5.98	0.88	-6.21	0.93
518494	-0.194	0.022	-9.90	0.65	-7.14	0.90

Table P.19. Grade 7 Language Usage Core Test: Rasch Item Parameters and Fit Statistics

Item ID	Logit	SE(Logit)	Out Z Std	Out MNSq	In Z Std	In MNSq
520093	0.893	0.018	-4.87	0.91	-1.44	0.99
536049	1.246	0.017	-7.97	0.88	-4.34	0.97
516710	0.653	0.019	-2.39	0.95	2.23	1.02
537852	0.301	0.021	-4.33	0.89	1.61	1.02
538533	0.419	0.020	-2.24	0.94	-2.38	0.97
520067	2.219	0.016	2.88	1.03	2.56	1.02
518506	0.841	0.018	-2.67	0.95	-2.46	0.98
539957	0.947	0.018	-1.83	0.97	-9.30	0.92
520134	0.718	0.019	-9.90	0.75	-9.90	0.87
512816	2.050	0.016	9.32	1.10	9.90	1.07
516721	1.160	0.017	-6.26	0.90	-6.38	0.95
516230	0.982	0.018	-9.90	0.78	-9.90	0.84
511856	2.178	0.016	4.84	1.05	6.85	1.04
516849	2.230	0.016	-9.90	0.89	-9.90	0.91
516714	1.253	0.017	1.24	1.02	2.31	1.02
511477	1.833	0.016	9.46	1.11	9.90	1.07
511342	1.852	0.016	-9.90	0.89	-9.90	0.92
537307	1.237	0.017	-4.64	0.93	-4.92	0.96
537314	0.832	0.019	0.55	1.01	0.14	1.00
510919	2.140	0.016	-4.12	0.96	-2.79	0.98
516239	3.265	0.016	9.90	1.21	9.90	1.09
535705	1.621	0.016	2.85	1.04	-0.15	1.00
520088	1.985	0.016	9.90	1.17	9.90	1.07
535708	0.647	0.019	-1.06	0.98	0.44	1.00
516728	1.505	0.016	1.92	1.03	4.19	1.03
537304	0.059	0.023	-5.14	0.85	-8.80	0.87
510912	2.082	0.016	9.90	1.10	9.90	1.09
535718	1.269	0.017	-8.43	0.88	-9.90	0.92
512812	1.275	0.017	9.90	1.18	9.90	1.12
516698	2.240	0.016	9.02	1.09	9.90	1.06
537303	1.288	0.017	6.80	1.11	9.90	1.08
520121	-0.233	0.025	-9.90	0.49	-9.90	0.74
538528	1.129	0.017	-9.90	0.84	-9.36	0.92
538520	1.559	0.016	9.90	1.14	9.90	1.08
510926	2.189	0.016	-5.38	0.95	-5.82	0.97
511851	1.156	0.017	-9.90	0.83	-9.90	0.91
520102	0.140	0.022	-9.90	0.70	-9.90	0.82
596122	0.631	0.019	-9.90	0.78	-9.36	0.90
516694	1.833	0.016	9.90	1.12	9.90	1.09
511344	1.648	0.016	3.21	1.04	4.61	1.03
521835	2.387	0.016	5.29	1.05	6.48	1.04
595105	1.559	0.016	-4.65	0.94	-3.11	0.98
539962	0.807	0.019	-9.90	0.69	-9.90	0.83
535711	1.010	0.018	9.90	1.24	9.90	1.15
511873	0.752	0.019	-9.90	0.70	-9.90	0.85

Table P.20. Grade 8 Language Usage Core Test: Rasch Item Parameters and Fit Statistics

Item ID	Logit	SE(Logit)	Out Z Std	Out MNSq	In Z Std	In MNSq
521394	0.049	0.025	-9.90	0.39	-9.90	0.68
519143	0.225	0.024	-9.90	0.58	-9.90	0.79
594632	0.539	0.022	-9.90	0.72	-9.90	0.86
520267	0.874	0.020	-9.90	0.62	-9.90	0.79
517672	1.011	0.019	-5.53	0.89	-5.27	0.94
520122	1.306	0.018	4.07	1.07	4.97	1.05
520275	1.694	0.017	5.19	1.08	6.82	1.05
596125	1.827	0.017	9.90	1.18	9.90	1.11
536711	1.892	0.016	-7.87	0.90	-8.32	0.94
539303	2.291	0.016	8.99	1.09	9.90	1.07
512515	2.150	0.016	-2.31	0.97	-2.10	0.99
539316	2.466	0.016	9.90	1.11	9.90	1.08
521063	0.549	0.022	7.99	1.24	9.90	1.15
536715	0.525	0.022	0.20	1.01	-4.79	0.94
594639	0.602	0.021	-8.75	0.78	-7.84	0.90
512756	3.337	0.016	9.90	1.17	7.17	1.05
517810	1.415	0.018	9.90	1.32	9.90	1.18
520549	1.369	0.018	-4.40	0.93	-1.23	0.99
537452	1.965	0.016	-9.90	0.81	-9.90	0.88
536716	1.912	0.016	-2.17	0.97	0.70	1.00
522044	1.938	0.016	9.50	1.12	9.90	1.08
554205	2.365	0.016	-9.90	0.86	-9.90	0.90
521465	2.334	0.016	-9.90	0.85	-9.90	0.89
539252	2.606	0.016	-9.71	0.91	-9.90	0.92
511466	0.502	0.022	4.62	1.14	1.19	1.02
510590	0.911	0.020	1.89	1.04	-6.59	0.93
520544	0.770	0.020	-9.90	0.76	-9.90	0.86
521392	1.139	0.019	-9.62	0.82	-7.82	0.92
518470	1.369	0.018	-4.63	0.92	-3.64	0.97
538584	1.496	0.017	-0.24	1.00	-6.46	0.95
539306	2.649	0.016	9.90	1.15	9.90	1.10
512253	2.823	0.016	-0.06	1.00	-2.36	0.99
536198	2.908	0.016	6.06	1.06	5.02	1.03
594631	1.621	0.017	-9.90	0.79	-9.90	0.87
521477	1.286	0.018	-9.90	0.75	-9.90	0.88
536195	3.741	0.017	9.90	1.29	9.90	1.09
539317	2.047	0.016	9.90	1.17	9.90	1.08
517542	1.830	0.017	9.90	1.20	9.90	1.13
554235	2.149	0.016	9.90	1.14	9.90	1.12
520688	0.809	0.020	-9.20	0.80	-9.90	0.89
512461	0.818	0.020	-9.90	0.60	-9.90	0.72
539514	2.587	0.016	-0.44	1.00	-0.22	1.00
596333	2.695	0.016	9.90	1.15	9.90	1.09
511830	1.949	0.016	-2.55	0.97	-1.16	0.99
596961	2.248	0.016	2.62	1.03	5.67	1.04

Table P.21. Grade 10 Language Usage Core Test: Rasch Item Parameters and Fit Statistics

Item ID	Logit	SE(Logit)	Out Z Std	Out MNSq	In Z Std	In MNSq
512762	0.716	0.024	-9.90	0.63	-6.71	0.89
512041	0.722	0.024	-9.90	0.54	-9.90	0.81
521599	0.793	0.024	-9.90	0.59	-9.90	0.80
519180	1.611	0.019	4.50	1.10	-1.63	0.98
536207	1.670	0.019	-9.90	0.77	-9.90	0.90
521793	1.723	0.019	7.06	1.15	9.90	1.10
519183	2.428	0.017	6.47	1.09	8.72	1.06
521616	3.185	0.016	1.61	1.02	-0.93	0.99
601522	2.571	0.017	-7.88	0.91	-7.85	0.95
512125	2.814	0.016	0.26	1.00	2.84	1.02
538310	2.864	0.016	-0.53	0.99	-1.54	0.99
539947	2.482	0.017	-3.17	0.96	-3.16	0.98
520666	0.807	0.024	-9.90	0.52	-9.90	0.69
536152	0.932	0.023	-4.61	0.86	-8.30	0.88
521818	1.102	0.022	-9.65	0.75	-9.90	0.83
555704	2.067	0.018	9.90	1.20	4.57	1.04
519173	3.226	0.016	9.72	1.10	9.87	1.06
601488	2.393	0.017	0.08	1.00	2.60	1.02
539433	3.257	0.016	-6.38	0.94	-8.86	0.95
539431	2.179	0.017	6.61	1.10	9.90	1.08
601484	1.740	0.019	0.79	1.02	-1.16	0.99
601478	3.007	0.016	2.22	1.02	2.64	1.02
512799	3.774	0.016	-3.71	0.96	-9.90	0.91
538300	1.104	0.022	-3.22	0.91	-6.26	0.92
601467	1.113	0.022	-9.90	0.74	-5.30	0.93
518621	3.992	0.017	9.90	1.18	9.17	1.07
539923	2.706	0.016	9.90	1.21	9.90	1.16
601500	2.744	0.016	-9.90	0.83	-9.90	0.88
538305	2.593	0.017	2.91	1.04	4.14	1.03
521772	4.484	0.018	9.90	1.25	-2.01	0.98
511811	1.135	0.021	-9.90	0.70	-9.90	0.77
536200	1.750	0.019	3.85	1.08	-0.02	1.00
538323	1.585	0.019	-3.25	0.93	-3.00	0.97
539999	1.773	0.019	0.91	1.02	-9.90	0.90
521814	3.397	0.016	-0.34	1.00	-2.36	0.99
539983	1.367	0.020	-9.90	0.73	-9.90	0.88
539930	1.392	0.020	-9.90	0.76	-9.90	0.86
539989	3.039	0.016	7.64	1.08	7.80	1.05
539942	1.451	0.020	-9.90	0.74	-9.90	0.88
601466	1.771	0.019	-8.92	0.84	-9.90	0.91
538052	3.553	0.016	9.90	1.12	6.04	1.04
558950	1.405	0.020	-6.19	0.86	-3.57	0.96
521787	1.821	0.018	-9.90	0.77	-9.90	0.84
539990	2.002	0.018	-4.14	0.93	-4.39	0.96
538311	1.836	0.018	-0.02	1.00	-0.16	1.00

Table P.22. Grade 5 Science Core Test: Rasch Item Parameters and Fit Statistics

Item ID	Logit	SE(Logit)	Out Z Std	Out MNSq	In Z Std	In MNSq
595603	0.072	0.016	2.90	1.04	4.71	1.03
595480	1.603	0.016	9.90	1.13	2.94	1.02
596400	-1.256	0.022	-9.90	0.69	-9.90	0.86
596245	-0.040	0.016	-4.75	0.94	-3.96	0.97
534864	-0.054	0.016	5.64	1.08	9.90	1.08
595314	-0.205	0.017	-4.40	0.94	-1.81	0.99
598854	0.504	0.015	-4.41	0.96	-4.59	0.97
537340	0.290	0.016	-5.50	0.94	-6.30	0.96
595472	-0.508	0.018	-9.90	0.64	-9.90	0.77
595486	1.005	0.015	9.90	1.09	9.90	1.07
595477	-1.088	0.021	-3.50	0.92	-2.93	0.96
513061	-0.017	0.016	-9.90	0.87	-9.37	0.93
594315	-1.569	0.024	-4.31	0.87	-2.96	0.95
537013	-0.107	0.017	5.71	1.08	7.56	1.06
508780	0.687	0.015	9.90	1.11	9.90	1.08
536998	-0.237	0.017	9.90	1.26	9.90	1.20
596254	1.746	0.016	9.90	1.28	9.90	1.13
536493	-0.859	0.019	-8.26	0.84	-2.17	0.98
509672	1.444	0.015	9.90	1.12	6.63	1.04
599060	0.170	0.016	9.70	1.11	9.90	1.08
596252	0.460	0.015	4.68	1.05	5.24	1.03
512789	-1.137	0.021	-9.90	0.75	-6.68	0.91
559294	0.440	0.015	-0.31	1.00	-0.10	1.00
595478	-0.578	0.018	-9.79	0.83	-8.28	0.92
599464	0.301	0.016	3.53	1.04	5.51	1.04
595476	0.532	0.015	-9.90	0.89	-9.90	0.92
595470	0.221	0.016	1.97	1.02	1.51	1.01
594308	-0.387	0.017	-9.90	0.83	-9.90	0.90
595600	1.285	0.015	9.90	1.17	9.90	1.10
595474	0.524	0.015	-2.09	0.98	0.02	1.00
599467	0.416	0.016	1.81	1.02	2.09	1.01
595320	0.254	0.016	-9.90	0.88	-9.90	0.91
595466	-0.426	0.018	-9.90	0.81	-9.90	0.86
515512	-1.120	0.021	-8.08	0.81	-7.15	0.91
599363	-0.355	0.017	2.07	1.03	2.38	1.02
595467	-1.173	0.021	-5.94	0.86	-2.44	0.97
599494	0.731	0.015	-5.22	0.96	-4.45	0.97
538690	0.729	0.015	-9.90	0.88	-9.90	0.91
594321	-1.617	0.024	-9.90	0.68	-2.73	0.95
594312	1.223	0.015	9.90	1.21	9.90	1.16
596398	0.369	0.016	-0.15	1.00	3.35	1.02
595606	-1.350	0.022	-4.52	0.88	1.21	1.02

Table P.23. Grade 7 Science Core Test: Rasch Item Parameters and Fit Statistics

Item ID	Logit	SE(Logit)	Out Z Std	Out MNSq	In Z Std	In MNSq
596316	-1.402	0.027	-9.90	0.67	-7.05	0.86
596759	1.080	0.015	6.95	1.06	9.35	1.06
538114	0.830	0.016	-9.90	0.84	-9.90	0.89
595507	1.051	0.015	9.90	1.09	9.90	1.07
596755	-0.450	0.020	5.07	1.11	7.99	1.10
595560	0.863	0.016	-5.62	0.95	-4.91	0.97
594328	0.546	0.016	-9.90	0.86	-9.90	0.91
594507	1.456	0.015	3.37	1.03	2.55	1.01
595481	-0.103	0.018	-5.87	0.90	-4.52	0.96
599360	0.742	0.016	1.58	1.02	4.13	1.03
516357	0.685	0.016	-7.33	0.93	-7.56	0.95
537212	0.038	0.018	-9.90	0.83	-6.89	0.94
509292	1.175	0.015	9.90	1.42	9.90	1.31
599356	0.192	0.017	-9.90	0.74	-9.90	0.86
594338	1.475	0.015	8.12	1.06	7.16	1.04
517512	1.318	0.015	5.54	1.04	7.09	1.04
595317	0.624	0.016	-9.90	0.87	-9.90	0.92
538430	0.826	0.016	-9.90	0.82	-9.90	0.87
538119	-0.321	0.019	-1.69	0.97	3.63	1.04
536971	1.138	0.015	-5.94	0.95	-6.36	0.96
534818	-0.677	0.021	3.59	1.09	2.80	1.04
513882	0.433	0.016	-9.90	0.85	-9.90	0.91
521893	-0.037	0.018	-9.90	0.76	-9.90	0.85
517522	1.578	0.015	6.01	1.05	5.02	1.03
596317	0.280	0.017	-9.71	0.88	-6.24	0.95
594324	-0.322	0.019	-9.90	0.59	-9.90	0.78
534871	0.784	0.016	-9.90	0.91	-9.63	0.94
595269	0.725	0.016	-3.91	0.96	-2.48	0.98
536965	1.195	0.015	8.12	1.07	9.90	1.07
536726	0.592	0.016	-2.03	0.98	-1.28	0.99
595270	0.860	0.016	-9.90	0.84	-9.90	0.88
594795	0.864	0.016	9.90	1.10	9.90	1.07
516344	0.142	0.017	9.90	1.40	9.90	1.23
512787	0.269	0.017	7.21	1.10	6.01	1.05
594256	0.946	0.015	-8.98	0.92	-9.54	0.94
599355	1.602	0.015	9.03	1.07	9.73	1.06
534768	0.615	0.016	-6.46	0.93	-6.96	0.95
595558	1.507	0.015	9.90	1.11	9.90	1.08
515467	-0.070	0.018	-9.90	0.72	-9.90	0.86
594255	1.018	0.015	9.90	1.13	9.90	1.10
534772	1.700	0.015	-5.83	0.96	-7.37	0.96
537021	1.040	0.015	9.90	1.16	9.90	1.11
598900	-0.622	0.021	-9.90	0.72	-9.90	0.87
595252	0.982	0.015	-2.44	0.98	-1.35	0.99
599474	1.847	0.015	9.90	1.18	9.90	1.11

Table P.23 (continued). Grade 7 Science Core Test: Rasch Item Parameters and Fit Statistics

Item ID	Logit	SE(Logit)	Out Z Std	Out MNSq	In Z Std	In MNSq
537042	1.355	0.015	6.99	1.05	7.48	1.04
596311	-0.840	0.022	-9.90	0.54	-9.90	0.76
516330	0.991	0.015	9.77	1.09	9.90	1.08

Table P.24. Grade 10 Science Core Test: Rasch Item Parameters and Fit Statistics

Item ID	Logit	SE(Logit)	Out Z Std	Out MNSq	In Z Std	In MNSq
508525	2.080	0.016	9.90	1.13	9.90	1.11
595235	1.489	0.017	0.16	1.00	3.16	1.02
595617	0.543	0.020	-3.86	0.91	-2.98	0.97
512958	0.849	0.019	-9.90	0.81	-9.90	0.87
596392	1.040	0.018	-2.24	0.96	-0.26	1.00
595309	1.512	0.017	9.74	1.13	9.90	1.09
535623	1.326	0.017	-4.51	0.93	-3.53	0.97
596465	0.857	0.019	-3.18	0.94	-7.29	0.93
509212	2.448	0.016	9.90	1.10	9.90	1.06
595232	0.272	0.022	-9.90	0.65	-9.90	0.80
513218	1.676	0.017	0.19	1.00	4.04	1.03
595613	1.136	0.018	-7.53	0.88	-7.37	0.94
508604	1.801	0.016	-2.66	0.97	-4.44	0.97
559123	0.427	0.021	-9.90	0.62	-9.90	0.73
595239	0.709	0.020	-5.33	0.89	-5.51	0.94
535169	1.260	0.018	-7.39	0.89	-4.11	0.97
595231	1.039	0.018	-7.20	0.88	-4.42	0.96
509284	1.560	0.017	-9.90	0.76	-9.90	0.84
535162	2.483	0.016	9.90	1.13	9.90	1.08
594335	1.561	0.017	-9.90	0.85	-9.90	0.90
595620	2.184	0.016	9.90	1.12	9.90	1.10
512957	1.548	0.017	-4.58	0.94	-4.76	0.96
595260	2.220	0.016	-9.90	0.89	-9.90	0.92
595250	3.049	0.016	9.90	1.11	3.60	1.02
559147	1.052	0.018	7.55	1.14	2.96	1.03
559042	1.000	0.018	-9.90	0.70	-9.90	0.83
595228	1.586	0.017	5.08	1.07	9.90	1.08
516311	1.575	0.017	3.00	1.04	2.87	1.02
596413	0.143	0.023	-5.10	0.86	-4.28	0.94
595619	1.260	0.018	9.90	1.25	5.11	1.04
596415	2.914	0.016	-0.42	1.00	-5.99	0.96
594332	1.449	0.017	-2.18	0.97	3.87	1.03
598897	1.085	0.018	-9.90	0.65	-9.90	0.79
595261	2.026	0.016	6.93	1.07	7.27	1.05
595247	0.921	0.019	-3.16	0.94	-0.63	0.99
595611	1.271	0.018	-7.29	0.89	-5.61	0.95
535177	0.718	0.019	5.17	1.11	1.32	1.01
598751	2.307	0.016	-0.01	1.00	-0.43	1.00
596539	1.882	0.016	-7.21	0.92	-9.90	0.93
595236	1.953	0.016	-7.90	0.92	-5.90	0.96
535172	1.559	0.017	-9.90	0.87	-9.90	0.93
595306	1.100	0.018	4.30	1.07	1.93	1.02
595262	1.877	0.016	9.90	1.12	9.90	1.10
594797	2.020	0.016	-4.11	0.96	-3.87	0.97
595240	1.062	0.018	0.13	1.00	-1.78	0.98
595463	1.920	0.016	-5.08	0.95	-3.68	0.98
599430	2.132	0.016	9.90	1.16	9.90	1.10

Table P.24 (continued). Grade 10 Science Core Test: Rasch Item Parameters and Fit Statistics

Item ID	Logit	SE(Logit)	Out Z Std	Out MNSq	In Z Std	In MNSq
595230	0.631	0.020	-6.47	0.86	-7.56	0.92
508970	1.222	0.018	9.90	1.49	9.90	1.24
559142	0.499	0.021	-9.90	0.78	-7.24	0.92

Appendix Q: Item and Student Distribution Maps

Table Q.1. Grade 3 Reading Core Test: Item and Student Distribution Map

```
MAP OF Students AND Readings
MEASURE                                  |                                MEASURE
  <more> --------------------- Students-+- Readings----------------- <rare>
    4                           .######  +                                  4
                                         |
                                         |
                                         |
                                         |
                                         |
                        .############### |
    3                                  T+                                  3
                                         |
                                         |
                                         |
                .######################  |
                                         |
                                         |
    2       .##########################  +                                  2
                                       S|
          .############################  |
                                         |
           .###########################  |
                                         |
              .########################  |  X
    1         .########################  +                                  1
                .######################  |
                  .####################  |
                   .###################  |T X
                     .################  |
                        .#############  |
                         .############  |
    0                      .###########  +S XXX                             0
                           .###########  |  XXX
                   .###################  |  XXX
                               .#######  |  XXXXX
                               .#######  |S XXXX
                         .#############  |M XXXX
                                 .#####  |  XXXX
   -1                            .#####  +  X                              -1
                                  .####  |  XXXX
                             .#########  |S XX
                                   .###  |  XX
                                   .###  |
                                    .## |T
                                    .##  |  X
   -2                                ##  +T X                              -2
                                     .#  |  X
                                      .  |
                                         |
                                      .  |
                                      .  |
                                         |
   -3                                 .  +                                 -3
                                         |
                                         |
                                         |
                                         |
                                         |
                                         |
   -4                                 .  +                                 -4
  <less> --------------------- Students-+- Readings----------------- <frequent>
 EACH '#' IN THE Student COLUMN IS  54 Students: EACH '.' IS 1 TO  53
```

Table Q.2. Grade 4 Reading Core Test: Item and Student Distribution Map

```
MAP OF Students AND Readings
MEASURE                                  |                                MEASURE
  <more> -------------------- Students-+- Readings----------------- <rare>
    5                           .#####  +                                  5
                                        |
                                        |
                                        |
                                        |
                                        |
                                        |
    4                   #############  +                                  4
                                        |
                                      T|
                                        |
                                        |
                 .###################  |
                                        |
    3                                   +                                  3
            .########################  |
                                        |
                                        |
          .############################ S|
                                        |
          .############################  |
    2      .###########################  +  X                              2
                                        |
           .##########################  |T
           .##########################  |  X
               .######################  |  X
                 .####################  M|
                 .###################  |  X
    1              .#################  +  XX                             1
                    .################  |S XX
                     .###############  |  XXX
                       .#############  |
                       .#############  |  XX
                         .###########  |  XXXX
                 .####################  |  X
    0                      .##########  S+M XXX                          0
                             .#######  |  X
                             .#######  |  XX
                       .#############  |  XXXX
                               .######  |  X
                               .######  |  XX
                                .#####  |S XX
   -1                           .#####  +  XX                            -1
                                 .####  |  XXX
                                  .### T|
                                  .###  |  X
                                   .##  |  X
                                        |T
                                    .#  |
   -2                                .  +                                -2
                                        |
                                      .  |
                                      .  |
                                        |
                                        |
                                      .  |
   -3                                   +                                -3
  <less> -------------------- Students-+- Readings----------------- <frequent>
 EACH '#' IN THE Student COLUMN IS  46 Students: EACH '.' IS 1 TO  45
```

Table Q.3. Grade 5 Reading Core Test: Item and Student Distribution Map

```
MAP OF Students AND Readings
MEASURE                                  |                                MEASURE
  <more> -------------------- Students-+- Readings----------------- <rare>
    5                           .#####  +                                  5
                                        |
                                        |
                                        |
                        .############## |
                                      T|
                                        |
    4                                   +                                  4
                                        |
                .######################  |
                                        |
                                        |
            .########################  |
                                      S|
    3     .##########################  +                                  3
                                        |
          .###########################  |
                                        |
            .########################  |
             .#######################  |
                                        |
    2          .######################  +T XXX                             2
                #####################  M|  X
                  .##################  |  X
                    .################  |  X
                     .###############  |
                        .############  |S X
               .######################  |
    1                     .##########  +  XXX                             1
                           .#########  |  XXX
                            .########  |  XXX
                      .############### S|  XXXX
                               .######  |M XX
                                .#####  |  XX
                            ##########  |  XX
    0                            .####  +  XXXXX                          0
                                  .###  |  XX
                                 .####  |
                                  .###  |S XXX
                               .###### T|  XX
                                   .##  |  XX
                                   .##  |
   -1                               .#  +                                 -1
                                        |  X
                                    .#  |T X
                                     .  |
                                     .  |
                                        |
                                     .  |
   -2                                   +                                 -2
                                     .  |
                                        |
                                     .  |
                                        |
                                        |
                                        |
   -3                                .  +                                 -3
  <less> -------------------- Students-+- Readings----------------- <frequent>
 EACH '#' IN THE Student COLUMN IS  52 Students: EACH '.' IS 1 TO  51
```

Table Q.4. Grade 6 Reading Core Test: Item and Student Distribution Map

```
MAP OF Students AND Readings
MEASURE                                  |                                MEASURE
  <more> -------------------- Students-+- Readings----------------- <rare>
    5                               .##  +                                  5
                              .########  |
                                         |
                                         |
                                       T|
                                         |
                                         |
    4                  .###############  +                                  4
                                         |
                                         |
                 .####################   |
                                         |
               .######################## S|
                                         |
    3        .########################   +                                  3
                                         |
             .########################   |
             .########################   |  X
               .######################   |T X
                                         |  X
                 .#################### M|  XX
    2              .##################   +  X                               2
                    .################   |
                       .###############  |  XX
          .############################   |S
                            .###########  |  X
                             .##########  |  XX
                              .#########  |  XXX
    1                          .######## S+  XX                            1
                        .##############   |
                                  .#####   |M XX
                                  .#####   |  XXXX
                              .########   |  XXXXX
                                   .###   |  XXXX
                                   .###   |  X
    0                                .##  +  XX                            0
                                    ### T|S X
                                  .####   |  XXX
                                     .#   |  XX
                                     .#   |  X
                                      .   |
                                          |  X
   -1                                 .  +T                              -1
                                      .  |
                                      .  |
                                         |
                                      .  |
                                         |
                                         |
   -2                                    +                                -2
                                      .  |
                                         |
                                         |
                                      .  |
                                         |
                                         |
   -3                                    +                                -3
  <less> -------------------- Students-+- Readings----------------- <frequent>
 EACH '#' IN THE Student COLUMN IS  58 Students: EACH '.' IS 1 TO  57
```

Table Q.5. Grade 7 Reading Core Test: Item and Student Distribution Map

```
MAP OF Students AND Readings
MEASURE                                  |                                MEASURE
  <more> --------------------- Students-+- Readings----------------- <rare>
    6                              .####  +                                  6
                                          |
                                          |
                                          |
                                          |
                                          |
    5                       .##########  +                                  5
                                         T|
                                          |
                                          |
                     .#################   |
                                          |
    4                                     +                                  4
                 .####################   |
                                         S|
                 .####################   |
                .#####################   |
                                          |
    3            .####################   +                                  3
                 .####################   |  X
                   .##################   |  X
                     .################ M|T
          .############################   |
                        .############   |
    2                    .############   +  XX                              2
                  .####################   |S XXXX
                              .#######   |  XXXX
                          .#############  |
                                  .##### S|  XXXXXX
                             .#########  |  XXX
    1                         .########  +M XX                              1
                                   .###  |  X
                              .######    |  XXXXX
                                  .##    |  XXXX
                               .####     |S XXXXX
                                  .# T|  XXXX
    0                           .###  +                                    0
                                  .#  |
                                  .#  |  XX
                                   .  |T
                                   .  |
                                   .  |
   -1                              .  +                                   -1
                                   .  |
                                      |
                                   .  |
                                      |
                                      |
   -2                                 +                                   -2
                                   .  |
                                      |
                                      |
                                      |
                                      |
   -3                                 +                                   -3
  <less> --------------------- Students-+- Readings----------------- <frequent>
 EACH '#' IN THE Student COLUMN IS  66 Students: EACH '.' IS 1 TO  65
```

Table Q.6. Grade 8 Reading Core Test: Item and Student Distribution Map

```
MAP OF Students AND Readings
MEASURE                                  |                                MEASURE
  <more> --------------------- Students-+- Readings----------------- <rare>
    6                           .######  +                                 6
                                         |
                                         |
                      .################  |
                                       T|
                                         |
                                         |
                                         |
    5                                    +                                 5
              .########################  |
                                         |
                                         |
                                         |
          .############################  |
                                       S|
          .############################  |
    4                                    +                                 4
          .############################  |
                                         |
           .###########################  |
                                         |  X
             .########################  |
               .######################  |
                 .####################  |
    3                                    +                                 3
                  .###################  |  XX
                    .##################  |  X
                      .################  |  X
                       .###############  |  XXXX
                        .#############  |S
                         .############  |
                           .##########  |  X
    2                .###################  +  XX                            2
                                .#######  S|  XX
                                 .######  |  XXXXX
                                  .#####  |  XX
                                  .#####  |M XX
                              .##########  |  XXX
                                    .####  |  XXXXX
                                     .###  |
    1                                .###  +  XXX                           1
                                      .##  |  X
                                      .## T|S XX
                                      .##  |  X
                                      .##  |
                                       .#  |  XX
                                       .#  |  X
                                       .#  |  X
    0                                   .  +  XX                            0
                                        .  |T
                                           |
                                        .  |
                                        .  |
                                           |
                                        .  |
                                           |
   -1                                      +                               -1
  <less> --------------------- Students-+- Readings----------------- <frequent>
                     EACH '#' IN THE Student COLUMN IS  48 Students: EACH '.' IS 1 TO  47
```

Table Q.7 Grade 10 Reading Core Test: Item and Student Distribution Map

```
MAP OF Students AND Readings
MEASURE                                  |                                MEASURE
  <more> --------------------- Students-+- Readings----------------- <rare>
    6                        .########  +                                  6
                                        |
                                        |
                                        |
                                      T|
                         .############  |
                                        |
    5                                   +                                  5
                     .################  |
                                        |
                                        |
                .######################  |
               .######################## S|
                                        |
    4        .########################  +                                  4
            .#########################  |
                                        |
          .############################  |T
             .#########################  |  XX
                .######################## M|  XX
               .######################  |  X
    3            .####################  +  XXX                             3
                  .##################  |
          .############################  |S XX
                        .#############  |  X
                         .############  |  XX
                            .#########  |  XX
                       .################ S|  XX
    2                          .######  +  XXXX                           2
                               .######  |M XXXX
                            .##########  |
                                  .####  |  X
                               .#######  |  XXX
                                   .###  |  XX
                                   .###  |  XXX
    1                               .## T+S XXX                            1
                                 .#####  |  XXXX
                                    .##  |  X
                                     .#  |  X
                                     .#  |  XX
                                      .  |
                                      .  |T
    0                                   +                                  0
                                      .  |
                                      .  |
                                         |
                                      .  |
                                      .  |
                                         |
   -1                                    +                                 -1
                                      .  |
                                         |
                                         |
                                         |
                                         |
                                         |
   -2                                    +                                 -2
  <less> --------------------- Students-+- Readings----------------- <frequent>
 EACH '#' IN THE Student COLUMN IS  47 Students: EACH '.' IS 1 TO  46
```

Table Q.8. Grade 3 Mathematics Core Test: Item and Student Distribution Map

```
MAP OF Students AND Maths
MEASURE                                  |                                MEASURE
  <more> -------------------- Students-+- Maths   ----------------- <rare>
    3                     .############  +                                  3
              .######################  |
                                       |
                                       |
                                       |
                                       |
                                       |
           .##########################  |
    2                                  +                                  2
                                      S|
          .###########################  |
                                       |
                                       |
            .##########################  |
                                       |
                .######################  |
    1                                  +                                  1
                 .####################  |
                                       |  XX
                    .################## M|T X
                      .################  |
                                       |  X
                       .###############  |
                        .##############  |  X
    0                     .############  +                                  0
                                       |  XX
                          .###########  |S
                            .#########  |  X
                             .########  |  XX
                              .#######  |  XX
                              .####### S|  X
                               .######  |  XX
   -1                          .######  +  XX                            -1
                                .#####  |M
                                 .####  |  XX
                                 .####  |  XXX
                              .#######  |  XXXX
                                  .###  |  X
                                  .###  |
                                   .##  |  XX
   -2                              .## T+  XXX                           -2
                                    .#  |S XX
                                        |  XXXXX
                                    .#  |
                                     #  |  X
                                    .#  |
                                     .  |
                                        |
   -3                                .  +T                                -3
                                     .  |
                                        |
                                     .  |
                                        |
                                     .  |
                                        |
                                        |
   -4                                .  +                                 -4
  <less> -------------------- Students-+- Maths   ----------------- <frequent>
 EACH '#' IN THE Student COLUMN IS  64 Students: EACH '.' IS 1 TO  63
```

Table Q.9. Grade 4 Mathematics Core Test: Item and Student Distribution Map

```
MAP OF Students AND Maths
MEASURE                                  |                                MEASURE
  <more> -------------------- Students-+- Maths   ----------------- <rare>
    5                            .####  +                                  5
                                        |
                                        |
                                        |
                                        |
                                        |
    4                      .###########  +                                  4
                                        |
                                      T|
                                        |
                   .##################  |
                                        |
    3                                   +                                  3
              .#######################  |
                                        |
             .######################### S|
                                        |
             .#########################  |  XX
    2       .##########################  +                                  2
                                        |
             .#########################  |T
               .######################  |  X
               .###################### M|  X
                 .####################  |  X
    1                .################  +  XX                               1
                      .###############  |S
         .############################  |  X
                        .###########  |
                         .##########  |  XX
                   .###################  |  XXX
    0                        .######## S+M XXX                              0
                       .##############  |  XXXXXXX
                               .######  |  XXXX
                               .######  |  X
                            .#########  |  XX
                                 .####  |  XX
   -1                             .###  +S XXX                             -1
                               .##### T|  XXX
                                  .##  |  X
                                  .##  |
                                   .#  |  X
                                    .  |T
   -2                               .  +                                   -2
                                       |
                                    .  |
                                    .  |
                                       |
                                    .  |
   -3                                  +                                   -3
                                       |
                                    .  |
                                       |
                                       |
                                       |
   -4                                  +                                   -4
  <less> -------------------- Students-+- Maths   ----------------- <frequent>
 EACH '#' IN THE Student COLUMN IS  55 Students: EACH '.' IS 1 TO  54
```

Table Q.10. Grade 5 Mathematics Core Test: Item and Student Distribution Map

```
MAP OF Students AND Maths
MEASURE                                  |                                MEASURE
  <more> --------------------- Students-+- Maths   ----------------- <rare>
    6                                .##  +                                   6
                                          |
                                          |
                                          |
                                          |
                                          |
    5                            .######  +                                   5
                                          |
                                          |
                                        T|
                              .#########  |
                                          |
    4                                     +                                   4
                            .###########  |
                                          |
                          .#############  |
                                        S|
                          .#############  |  X
    3                   .###############  +  X                               3
                                          |
                        .###############  |  X
                         .##############  |T
                          .##############  |
           .############################ M|  X
    2                    .#############  +  X                               2
                          .############  |  XX
                           .###########  |S X
                     .####################  |  XXX
                                .#########  |
                         .################  |  XXXX
    1                            .###### S+  X                               1
                            .###########  |M XX
                              .#########  |  XXXXXXX
                                    .###  |  XXX
                                .#######  |  XXXX
                                     .##  |  XX
    0                              .#####  +  XX                              0
                                      .## T|S XXXXX
                                      .##  |  XXX
                                        .  |  X
                                        .  |
                                        .  |
   -1                                   .  +T                              -1
                                        .  |
                                        .  |
                                           |
                                           |
                                        .  |
   -2                                      +                              -2
                                        .  |
                                           |
                                           |
                                           |
                                           |
   -3                                      +                              -3
  <less> --------------------- Students-+- Maths   ----------------- <frequent>
 EACH '#' IN THE Student COLUMN IS  75 Students: EACH '.' IS 1 TO  74
```

Table Q.11. Grade 6 Mathematics Core Test: Item and Student Distribution Map

```
MAP OF Students AND Maths
MEASURE                                  |                                MEASURE
  <more> --------------------- Students-+- Maths   ----------------- <rare>
    6                            .#####  +                                    6
                           .##########  |
                                        |
                                        |
                                        |
                                      T|
                                        |
    5                   .##############  +                                    5
                                        |
                                        |
                     .################  |
                                        |
                    ################  |
                                        |
    4                .################# S+                                    4
                                        |  XX
                     .################  |
                     .################  |
                                        |
                    .##################  |T
                     .################  |  X
    3                 .################  +                                    3
                      .################  |
                       .############### M|  X
         ############################   |  XXX
                        .##############  |S XXXXX
                         .#############  |  X
                         .#############  |  X
    2         .########################  +                                    2
                           .##########  |  XX
                           .##########  |  XX
                    .################## S|M XX
                                .#######  |  XX
                            .###############  |  XXXXXXXX
                                      .#####  |  XX
    1                                 .#####  +  XXXX                        1
                                       .####  |  X
                                    .#######  |S XX
                                          .###  |  XX
                                           .##  |  XX
                                           .## T|  X
                                            .#  |  X
    0                                       .#  +                            0
                                             .  |T
                                             .  |
                                                |
                                             .  |
                                             .  |
                                                |
   -1                                        .  +                           -1
                                                |
                                             .  |
                                                |
                                                |
                                                |
   -2                                           +                           -2
  <less> --------------------- Students-+- Maths   ----------------- <frequent>
 EACH '#' IN THE Student COLUMN IS  54 Students: EACH '.' IS 1 TO  53
```

Table Q.12. Grade 7 Mathematics Core Test: Item and Student Distribution Map

```
MAP OF Students AND Maths
MEASURE                                  |                                MEASURE
  <more> --------------------- Students-+- Maths   ----------------- <rare>
    7                               .##  +                                   7
                                         |
                                         |
                                         |
                                .#####   |
                                         |
    6                                    +                                   6
                                         |
                                         |
                             .######## T|
                                         |
                          .###########   |
    5                                    +                                   5
                                         |
                        .#############   |  X
                       .##############   |
                                       S|
                      .###############   |  X
    4                 .###############   +                                   4
                     .################   |T X
                     .###############   |  X
                     .###############   |
                     .###############   |
          .############################ M|  XX
    3                   .############   +S                                  3
                        .############   |  X
              .######################   |  XXXX
                          .###########   |  XXX
                   .###################   |  XXXXX
                     .#################   |  XX
    2                          .#######   +M XXX                            2
                        .############# S|
                                .######   |  XXXX
                          .###########   |  XXXXXXX
                            .#########   |  XX
                                 .####   |S XXXX
    1                              .###  +  XX                              1
                                .######   |  XX
                                    .## T|
                                     .#  |
                                     .#  |T
                                      .  |
    0                                 .  +                                   0
                                      .  |
                                         |
                                      .  |
                                         |
                                      .  |
   -1                                    +                                  -1
                                         |
                                         |
                                         |
                                         |
                                         |
   -2                                 .  +                                  -2
  <less> --------------------- Students-+- Maths   ----------------- <frequent>
 EACH '#' IN THE Student COLUMN IS  60 Students: EACH '.' IS 1 TO  59
```

Table Q.13. Grade 8 Mathematics Core Test: Item and Student Distribution Map

```
MAP OF Students AND Maths
MEASURE                                  |                                MEASURE
  <more> --------------------- Students-+- Maths   ----------------- <rare>
    7                            .#####  +                                   7
                               .########  |
                                          |
                                          |
                                          |
                                        T|
                           .##########  |
    6                                     +                                   6
                                          |
                         .############  |
                                          |
                                          |
                       .##############  |
                       .##############  |
    5                                    S+                                   5
                      .###############  |
                       .##############  |
                                          |
                      .###############  |T XX
                       .##############  |  X
                       .##############  |  X
    4                 .###############  +  X                                 4
          .############################ M|
                        .#############  |  X
                        .#############  |S XXX
                         .############  |  X
               .######################  |  XXXX
                          .###########  |  XXX
    3                       .#########  +                                   3
                    .##################  |  XXX
                               .######## S|M XXXXX
                                .#######  |  XXX
                          .############  |  X
                                 .#####  |  XX
                           .##########  |  XXXX
    2                            .####  +S XX                                2
                                  .###  |  XX
                                   .##  |  X
                                   .##  |  XXX
                                    .# T|  XX
                                    .#  |
                                    .#  |T
    1                                .  +                                    1
                                     .  |
                                     .  |
                                        |
                                     .  |
                                        |
                                     .  |
    0                                   +                                    0
                                        |
                                        |
                                        |
                                     .  |
                                        |
                                        |
   -1                                .  +                                   -1
  <less> --------------------- Students-+- Maths   ----------------- <frequent>
 EACH '#' IN THE Student COLUMN IS  58 Students: EACH '.' IS 1 TO  57
```

Table Q.14. Grade 10 Mathematics Core Test: Item and Student Distribution Map

```
MAP OF Students AND Maths
MEASURE                                  |                                MEASURE
  <more> --------------------- Students-+- Maths   ----------------- <rare>
    8                      .###########  +                                  8
                                         |
                                         |
                     .################   |
                                       T|
                                         |
    7                                    +                                  7
                    .#################   |
                                         |
                                         |
                    .#################   |
                                         |
    6               .################# S+                                   6
                                         |
                    .#################   |
                     .################   |
                     .################   |
                     .################   |T X
    5                 .################  +  X                               5
                      .###############   |
                        ############### M|  XXXX
        .############################    |
                        .#############   |S X
                          .###########   |  XXXXX
    4            .######################  +  XXX                            4
                    .##################   |  XX
                               .#######   |  X
                        .#############   |  X
                                .##### S|M XX
                         .############   |  XXXX
    3                            #####  +  XXXX                           3
                            .########   |  XXXXXXX
                             .#######   |  XXX
                                 .###   |S XXX
                                 .###   |
                               .#####   |
    2                             .## T+  XX                               2
                                   .#   |
                                    #   |T
                                    .   |
                                    .   |  X
                                        |
    1                               .   +                                  1
                                    .   |
                                        |
                                    .   |
                                        |
                                        |
    0                                   +                                  0
                                        |
                                        |
                                        |
                                    .   |
                                        |
   -1                               .   +                                 -1
  <less> --------------------- Students-+- Maths   ----------------- <frequent>
 EACH '#' IN THE Student COLUMN IS  54 Students: EACH '.' IS 1 TO  53
```

Table Q.15. Grade 3 Language Usage Core Test: Item and Student Distribution Map

```
MAP OF Students AND Languages
MEASURE                                  |                                MEASURE
  <more> -------------------- Students-+- Language----------------- <rare>
    4                           .#####  +                                  4
                                        |
                                        |
                                        |
                                        |
                        .###########    |
    3                                   +                                  3
                                      T|
                                        |
                    .################   |
                                        |
                                        |
    2            .####################  +                                  2
                                        |
               .######################## S|
                                        |
             .########################  |
               .######################  |
    1         .######################  +  X                               1
             .######################   |T
              .#####################   |  X
               .####################   |  X
                 .#################  M|  XX
                 .#################   |  X
    0             .################   +S XX                               0
         .############################  |  XX
                      .############   |  X
                 ######################  |  XXX
                        .##########   |  XXXXX
                         .######### S|M XXX
   -1                .################  +  XXX                            -1
                            ########   |  XXXXX
                       .#############  |  XX
                              .######  |  X
                              .######  |S XX
                           .########  |
   -2                           .### T+  XX                               -2
                                 .##   |  XXX
                                  .#   |T
                                   .   |
                                   .   |
                                       |
   -3                              .   +                                  -3
                                   .   |
                                       |
                                   .   |
                                       |
                                       |
   -4                              .   +                                  -4
                                       |
                                       |
                                       |
                                       |
                                       |
   -5                              .   +                                  -5
  <less> -------------------- Students-+- Language----------------- <frequent>
 EACH '#' IN THE Student COLUMN IS  51 Students: EACH '.' IS 1 TO  50
```

Table Q.16. Grade 4 Language Usage Core Test: Item and Student Distribution Map

```
MAP OF Students AND Languages
MEASURE                                  |                                MEASURE
  <more> --------------------- Students-+- Language----------------- <rare>
    4      .#########################  +                                   4
                                      T|
                                       |
                                       |
                                       |
                                       |
             .######################  |
                                       |
    3                                  +                                   3
                                       |
          .##########################  |
                                      S|
                                       |
         .###########################  |
                                       |
         .###########################  |
    2                                  +  X                               2
           .##########################  |  X
                                       |
            .#########################  |T
              .######################  |
                .#####################  M|  X
                                       |
                 .###################  |  XX
    1               .################  +  X                               1
                      .##############  |
                       .#############  |S X
                         .############  |
                          .###########  |  XX
                          .###########  |  X
                            .########  |  X
                             .#######  S|  XXX
    0                         .######  +  XXXX                           0
                              .######  |M XXXXXX
                               .#####  |  XX
                               .#####  |
                                .####  |  XXX
                                 .###  |  XX
                                 .###  |
                                  .##  |S X
   -1                             .##  +  X                             -1
                                   .## T|  X
                                   .##  |  XXX
                                    .#  |  XXX
                                    .#  |
                                    .#  |
                                        |T
                                     .  |
   -2                                .  +                                -2
                                     .  |
                                        |
                                     .  |
                                        |
                                        |
                                     .  |
   -3                                   +                                -3
  <less> --------------------- Students-+- Language----------------- <frequent>
 EACH '#' IN THE Student COLUMN IS  52 Students: EACH '.' IS 1 TO  51
```

Table Q.17. Grade 5 Language Usage Core Test: Item and Student Distribution Map

```
MAP OF Students AND Languages
MEASURE                                  |                                MEASURE
  <more> --------------------- Students-+- Language----------------- <rare>
    5                              .###  +                                  5
                                         |
                                         |
                                         |
                             .#########  |
                                         |
                                         |
    4                                  T+                                  4
                                         |
                         .#############  |
                                         |
                                         |
                       .###############  |
                                         |
    3                 .################  +                                  3
                                       S|
                     .#################  |
                                         |  X
                    .##################  |
                    .##################  |  X
                     .#################  |
    2                                   +T                                 2
                       .###############  |
                     .################# M|
                      .################  |  X
          .############################  |
                           .############  |S XXX
                            .###########  |  X
    1                        .##########  +  XXX                           1
                     .#################  |  XXX
                               .########  |  XXXX
                                 .###### S|  XXX
                            .###########  |M XXX
                                   .####  |  XXX
                                   .####  |  XXXXX
    0                              .####  +  X                             0
                                .#######  |  XXX
                                     .##  |S XXX
                                     .##  |  XX
                                     .## T|
                                      .#  |  X
                                      .#  |
   -1                                 .#  +T                             -1
                                       .  |
                                       .  |  X
                                       .  |
                                          |
                                       .  |
                                          |
   -2                                  .  +                              -2
                                          |
                                       .  |
                                          |
                                          |
                                          |
   -3                                     +                              -3
  <less> --------------------- Students-+- Language----------------- <frequent>
                     EACH '#' IN THE Student COLUMN IS  64 Students: EACH '.' IS 1 TO  63
```

Table Q.18. Grade 6 Language Usage Core Test: Item and Student Distribution Map

```
MAP OF Students AND Languages
MEASURE                                  |                                MEASURE
  <more> --------------------- Students-+- Language----------------- <rare>
    5                        .########  +                                  5
                                        |
                                        |
                                        |
                                      T|
                           .##########  |
    4                                   +                                  4
                         .############  |
                                        |
                       .##############  |
                                      S|
                      .###############  |
    3                .################  +                                  3
                                        |  X
                     .################  |  XX
                    .################  |T X
                     .################  |
                      .############### M|
    2    ##############################  +                                  2
                         .############  |  X
                         .############  |S XXX
                   .####################  |  XXXXX
                               .########  |
                      .###############  |  XX
    1                          .###### S+  XXXX                            1
                           .##########  |M XXX
                                 .####  |  XX
                               .#######  |  XXXXX
                                   .###  |  XX
                                 .#####  |  XXX
    0                               .##  +S XXXX                           0
                                     ## T|  XXXX
                                      .#  |
                                     .##  |
                                       .  |T
                                       .  |
   -1                                     +                                -1
                                       .  |
                                       .  |
                                          |
                                          |
                                          |
   -2                                     +                                -2
                                          |
                                          |
                                          |
                                          |
                                          |
   -3                                  .  +                                -3
                                          |
                                          |
                                          |
                                          |
                                          |
   -4                                     +                                -4
  <less> --------------------- Students-+- Language----------------- <frequent>
 EACH '#' IN THE Student COLUMN IS  74 Students: EACH '.' IS 1 TO  73
```

Table Q.19. Grade 7 Language Usage Core Test: Item and Student Distribution Map

```
MAP OF Students AND Languages
MEASURE                                  |                                MEASURE
  <more> --------------------- Students-+- Language----------------- <rare>
    6                              .##  +                                  6
                                        |
                                        |
                                        |
                             .#######   |
                                        |
                                        |
    5                                   +                                  5
                                        |
                                      T|
                         .##########   |
                                        |
                                        |
                       .#############   |
    4                                   +                                  4
                      .###############  |
                                        |
                    .################## S|
                    .##################  |
                                        |  X
                    .##################  |
    3               .##################  +                                  3
                    .##################  |
                     .###############   |T
                      .###############  |
                      ################ M|  X
                      .###############  |  XXX
          .############################  |  XXXX
    2                   .############  +S XX                               2
                         .###########  |  XXX
                 .####################  |  X
                             .########  |  XXXX
                     .################  |
                              .####### S|M XXXXXX
                       .#############   |  XXX
    1                          .#####  +  XXX                              1
                               .#####  |  XXXX
                            .########  |  XXXX
                                  ####  |S X
                                 .###  |  X
                                  .##  |  X
                                 #### T|  X
    0                              .#  +  X                                0
                                    .  |T
                                    .  |  X
                                       |
                                    .  |
                                    .  |
                                       |
   -1                               .  +                                 -1
                                       |
                                       |
                                       |
                                    .  |
                                       |
                                       |
   -2                               .  +                                 -2
  <less> --------------------- Students-+- Language----------------- <frequent>
 EACH '#' IN THE Student COLUMN IS  58 Students: EACH '.' IS 1 TO  57
```

Table Q.20. Grade 8 Language Usage Core Test: Item and Student Distribution Map

```
MAP OF Students AND Languages
MEASURE                                  |                                MEASURE
  <more> --------------------- Students-+- Language----------------- <rare>
    6                               .###  +                                  6
                                 .######  |
                                          |
                                          |
                                          |
                                          |
                                          |
                             .###########  |
    5                                    T+                                  5
                                          |
                                          |
                      .################   |
                                          |
                                          |
                     .##################  |
                                          |
    4            .######################  +                                  4
                                         S|
                  .######################  |  X
                .#######################  |
                                          |
               .########################  |T X
                .#######################  |
                .#######################  |
    3           .#######################  +                                  3
                 .######################  |  XX
                 .###################### M|  X
                  .#####################  |  XXX
                    .##################  |S X
                    .##################  |  XX
                     .#################  |  XX
                      .################  |  XX
    2                   .##############  +  XXXX                             2
          .############################  |  XXXX
                         .############  |  X
                           .########### S|M X
                            .##########  |  X
                            .##########  |  XXX
                        ################  |  XX
                                 .######  |  X
    1                             .#####  +  X                               1
                                   .#####  |S XXX
                                    .####  |  XX
                                    .####  |  X
                                     .### T|  XXXX
                                      .##  |
                                      .##  |  X
                                       .#  |
    0                                     +T X                               0
                                         .  |
                                         .  |
                                            |
                                         .  |
                                         .  |
                                            |
                                         .  |
   -1                                       +                                -1
  <less> --------------------- Students-+- Language----------------- <frequent>
 EACH '#' IN THE Student COLUMN IS  40 Students: EACH '.' IS 1 TO  39
```

Table Q.21. Grade 10 Language Usage Core Test: Item and Student Distribution Map

```
MAP OF Students AND Languages
MEASURE                                  |                                MEASURE
  <more> -------------------- Students-+- Language----------------- <rare>
    7                              .##  +                                  7
                                        |
                                        |
                                        |
                               .#####   |
                                        |
    6                                   +                                  6
                                        |
                           .######## T|
                                        |
                                        |
                          .##########   |
    5                                   +                                  5
                       .#############   |
                                        |
                       .############## S|  X
                      .###############  |
                      .###############  |
    4                 .###############  +T X                              4
                     .################  |  X
                      .###############  |
                      .###############  |  X
                      .############### M|  XX
                       .##############  |  XX
    3    .############################  +S XX                              3
                       .#############  |  XX
             .######################   |  XXX
                          .##########  |  XXX
                 .###################  |  X
                           .########  |M X
    2                  .############# S+  XX                              2
                               .#####   |  XXXXX
                          .##########  |  XXXXX
                                 .####  |  X
                             .#######  |  XXX
                                 .###  |S XXXX
    1                          .#####  +  X                               1
                                   .# T|  XX
                                   .#  |  XX
                                   .#  |
                                    .  |T
                                    .  |
    0                               .  +                                  0
                                    .  |
                                       |
                                    .  |
                                       |
                                       |
   -1                                  +                                 -1
                                       |
                                       |
                                       |
                                       |
                                       |
   -2                               .  +                                 -2
                                       |
                                       |
                                       |
                                       |
                                       |
   -3                                  +                                 -3
  <less> -------------------- Students-+- Language----------------- <frequent>
 EACH '#' IN THE Student COLUMN IS  58 Students: EACH '.' IS 1 TO  57
```

Table Q.22. Grade 5 Science Core Test: Item and Student Distribution Map

```
MAP OF Students AND Sciences
MEASURE                                  |                                MEASURE
  <more> -------------------- Students-+- Sciences----------------- <rare>
    5                              .#  +                                  5
                                       |
                                       |
                                       |
                                       |
                                       |
    4                           .###  +                                  4
                                       |
                                       |
                                       |
                              .######  |
                                     T|
    3                                  +                                  3
                            .########  |
                                       |
                          .###########  |
                        .#############  |
                                     S|
    2                   .##############  +                                  2
                      .###############  |
                     .################  |T XX
                     .################  |  X
                      .###############  |  X
                      .###############  |  X
    1    .############################ M+  X                                1
                        .#############  |S
            .########################  |  XXX
                          .###########  |  XXXXX
                           .##########  |  XXXXX
                     .##################  |  XX
    0                        .######## S+M XXXX                            0
                      .##############  |  XXX
                              .######  |  XX
                           .##########  |  XXX
                                 .####  |
                              .######  |S X
   -1                             .##  +                                 -1
                                  .# T|  XXXX
                                  .#  |  XX
                                  .#  |  X
                                   .  |T X
                                   .  |
   -2                              .  +                                  -2
                                   .  |
                                      |
                                   .  |
                                      |
                                   .  |
   -3                                 +                                  -3
                                      |
                                      |
                                      |
                                      |
                                      |
   -4                              .  +                                  -4
                                      |
                                      |
                                      |
                                      |
                                      |
   -5                                 +                                  -5
  <less> -------------------- Students-+- Sciences----------------- <frequent>
 EACH '#' IN THE Student COLUMN IS  70 Students: EACH '.' IS 1 TO  69
```

Table Q.23. Grade 7 Science Core Test: Item and Student Distribution Map

```
MAP OF Students AND Sciences
MEASURE                                  |                                MEASURE
  <more> -------------------- Students-+- Sciences----------------- <rare>
    5                                .  +                                  5
                                        |
                                     .# |
                                        |
                                        |
                                        |
    4                              .###  +                                  4
                                        |
                                        |
                                 .##### T|
                                        |
                              .########|
    3                        .#########+                                  3
                           .###########|
                                        |
                         .############ S|
           .############################|
                       .##############|
    2                  .##############+T                                 2
                       .##############|  X
            .##########################|  XX
            .##########################M|  XXXX
                         .############|S XX
                .######################|  XXX
    1             .####################+  XXXXXXX                        1
                             .#########|  XXXXXX
                      ##################|M XXXXXX
                       .################S|  XX
                        .###############|  XX
                                 .######|  XX
    0                      .###########+  XXX                            0
                             .#########|S X
                                    .###|  XX
                                 .#### T|  X
                                     .# |  XX
                                      . |T X
   -1                                 . +                                 -1
                                      . |
                                      . |  X
                                        |
                                        |
                                        |
   -2                                 . +                                 -2
                                        |
                                        |
                                        |
                                        |
                                        |
   -3                                   +                                 -3
                                        |
                                        |
                                      . |
                                        |
                                        |
   -4                                   +                                 -4
  <less> -------------------- Students-+- Sciences----------------- <frequent>
 EACH '#' IN THE Student COLUMN IS  62 Students: EACH '.' IS 1 TO  61
```

Table Q.24. Grade 10 Science Core Test: Item and Student Distribution Map

```
MAP OF Students AND Sciences
MEASURE                                  |                                MEASURE
  <more> -------------------- Students-+- Sciences----------------- <rare>
    6                              .##  +                                  6
                                        |
                                        |
                               .#####   |
                                        |
                                        |
                                        |
    5                                   +                                  5
                           .########   |
                                      T|
                                        |
                        .############   |
                                        |
                                        |
    4                   .##############  +                                  4
                      .###############  |
                                        |
                      .############### S|
                    .################   |
                    .################   |
                    .################   |
    3                .################  +  X                               3
                     .################  |  X
                      .###############  |T
                       .##############  |
        .############################## M|  XX
                        .#############  |  XX
                        .#############  |S XXX
    2         .######################  +  XXX                              2
                .####################  |  XXXX
                           .########   |  X
                  .##################  |  XXXXXXX
                             .#######  |M XX
                      .############### S|  XXXXX
                       .##############  |  XXX
    1                          .######  +  XXXXX                           1
                           .###########  |S XXX
                                 .#####  |  XX
                            .##########  |  XX
                                  .####  |  XX
                                   .###  |  X
                                    .## T|T X
    0                              .###  +                                  0
                                      .  |
                                      .  |
                                         |
                                      .  |
                                      .  |
                                      .  |
   -1                                    +                                 -1
                                      .  |
                                         |
                                         |
                                         |
                                         |
                                         |
   -2                                    +                                 -2
  <less> -------------------- Students-+- Sciences----------------- <frequent>
 EACH '#' IN THE Student COLUMN IS  48 Students: EACH '.' IS 1 TO  47
```

Appendix R: Raw to Scale Conversions

Table R.1. Grade 3 Reading Core Test: Raw to Scale Conversion

Raw Score	Ability	Scale Score	SEM	Frequency	Percent Below
0	-5.761	142	18.36	1	<1
1	-4.531	155	10.19	0	<1
2	-3.800	162	7.34	0	<1
3	-3.356	166	6.10	0	<1
4	-3.029	170	5.38	4	<1
5	-2.766	172	4.90	14	<1
6	-2.544	175	4.55	33	<1
7	-2.349	177	4.29	45	<1
8	-2.174	178	4.08	86	<1
9	-2.014	180	3.92	108	1
10	-1.866	181	3.79	143	2
11	-1.727	183	3.68	160	3
12	-1.595	184	3.59	186	4
13	-1.469	185	3.51	195	5
14	-1.348	187	3.45	239	6
15	-1.230	188	3.41	257	7
16	-1.116	189	3.37	263	8
17	-1.003	190	3.34	284	9
18	-0.893	191	3.32	300	11
19	-0.783	192	3.31	348	12
20	-0.674	193	3.30	383	14
21	-0.565	194	3.31	398	16
22	-0.455	195	3.32	431	18
23	-0.345	197	3.34	523	20
24	-0.232	198	3.36	539	23
25	-0.118	199	3.40	614	26
26	0.000	200	3.45	645	29
27	0.121	201	3.51	727	32
28	0.246	202	3.58	806	36
29	0.378	204	3.67	941	40
30	0.517	205	3.78	1035	45
31	0.665	207	3.92	1100	50
32	0.825	208	4.08	1208	56
33	1.000	210	4.29	1325	62
34	1.194	212	4.55	1317	68
35	1.417	214	4.90	1495	75
36	1.680	217	5.38	1559	82
37	2.008	220	6.11	1416	89
38	2.453	225	7.35	1256	94
39	3.186	232	10.20	839	98
40	4.419	244	18.37	365	>99

Table R.2. Grade 4 Reading Core Test: Raw to Scale Conversion

Raw Score	Ability	Scale Score	SEM	Frequency	Percent Below
0	-5.230	148	18.37	0	<1
1	-3.997	160	10.20	0	<1
2	-3.262	167	7.36	0	<1
3	-2.814	172	6.13	1	<1
4	-2.484	175	5.42	6	<1
5	-2.217	178	4.94	16	<1
6	-1.989	180	4.60	37	<1
7	-1.790	182	4.35	66	<1
8	-1.609	184	4.15	105	1
9	-1.444	186	3.99	140	2
10	-1.290	187	3.86	177	3
11	-1.144	189	3.76	213	4
12	-1.006	190	3.68	234	5
13	-0.874	191	3.61	252	6
14	-0.745	193	3.55	278	7
15	-0.621	194	3.51	301	8
16	-0.499	195	3.47	311	10
17	-0.379	196	3.45	335	11
18	-0.261	197	3.43	379	13
19	-0.144	199	3.42	411	15
20	-0.027	200	3.42	468	17
21	0.090	201	3.42	456	19
22	0.208	202	3.44	543	22
23	0.327	203	3.46	590	25
24	0.447	204	3.49	660	28
25	0.570	206	3.53	687	31
26	0.696	207	3.57	766	35
27	0.826	208	3.63	791	38
28	0.961	210	3.71	840	42
29	1.101	211	3.79	932	46
30	1.249	212	3.90	1006	51
31	1.406	214	4.03	1095	56
32	1.575	216	4.19	1268	62
33	1.760	218	4.40	1259	68
34	1.964	220	4.65	1279	74
35	2.196	222	5.00	1297	80
36	2.469	225	5.47	1325	86
37	2.806	228	6.19	1155	91
38	3.260	233	7.41	941	96
39	4.003	240	10.25	644	99
40	5.242	252	18.39	274	>99

Table R.3. Grade 5 Reading Core Test: Raw to Scale Conversion

Raw Score	Ability	Scale Score	SEM	Frequency	Percent Below
0	-4.830	152	18.37	1	<1
1	-3.598	164	10.20	0	<1
2	-2.864	171	7.35	0	<1
3	-2.417	176	6.12	3	<1
4	-2.088	179	5.40	2	<1
5	-1.823	182	4.92	16	<1
6	-1.599	184	4.58	22	<1
7	-1.401	186	4.31	47	<1
8	-1.224	188	4.11	77	<1
9	-1.062	189	3.95	98	1
10	-0.911	191	3.82	121	2
11	-0.770	192	3.71	150	3
12	-0.636	194	3.62	147	3
13	-0.508	195	3.54	179	4
14	-0.384	196	3.48	206	5
15	-0.265	197	3.43	211	6
16	-0.148	199	3.39	188	7
17	-0.034	200	3.36	230	8
18	0.078	201	3.34	259	9
19	0.189	202	3.32	261	10
20	0.299	203	3.32	303	12
21	0.409	204	3.31	356	14
22	0.519	205	3.32	383	15
23	0.630	206	3.33	428	17
24	0.741	207	3.35	429	19
25	0.854	209	3.38	498	22
26	0.969	210	3.41	531	24
27	1.087	211	3.45	555	27
28	1.208	212	3.50	652	30
29	1.333	213	3.57	704	33
30	1.463	215	3.64	842	37
31	1.599	216	3.74	923	41
32	1.742	217	3.85	1013	46
33	1.895	219	3.98	1092	51
34	2.060	221	4.14	1163	57
35	2.240	222	4.35	1329	63
36	2.440	224	4.61	1373	69
37	2.668	227	4.95	1503	76
38	2.936	229	5.43	1453	83
39	3.268	233	6.15	1353	90
40	3.718	237	7.38	1157	95
41	4.455	245	10.22	765	99
42	5.689	257	18.38	280	>99

Table R.4. Grade 6 Reading Core Test: Raw to Scale Conversion

Raw Score	Ability	Scale Score	SEM	Frequency	Percent Below
0	-4.527	155	18.36	0	<1
1	-3.297	167	10.19	0	<1
2	-2.566	174	7.34	1	<1
3	-2.122	179	6.10	1	<1
4	-1.795	182	5.38	0	<1
5	-1.532	185	4.90	6	<1
6	-1.309	187	4.56	13	<1
7	-1.113	189	4.30	23	<1
8	-0.937	191	4.10	35	<1
9	-0.776	192	3.94	57	<1
10	-0.626	194	3.81	79	1
11	-0.485	195	3.70	107	2
12	-0.352	196	3.62	122	2
13	-0.224	198	3.54	157	3
14	-0.100	199	3.49	174	4
15	0.020	200	3.44	166	4
16	0.136	201	3.40	206	5
17	0.251	203	3.37	193	6
18	0.364	204	3.35	228	7
19	0.476	205	3.34	275	9
20	0.587	206	3.33	320	10
21	0.698	207	3.33	321	12
22	0.809	208	3.34	364	13
23	0.921	209	3.35	488	16
24	1.034	210	3.37	503	18
25	1.149	211	3.40	557	21
26	1.266	213	3.44	597	23
27	1.385	214	3.48	694	27
28	1.508	215	3.54	770	30
29	1.636	216	3.60	885	34
30	1.768	218	3.68	909	39
31	1.907	219	3.77	1070	44
32	2.053	221	3.88	1132	49
33	2.209	222	4.02	1211	55
34	2.377	224	4.18	1289	61
35	2.560	226	4.38	1395	67
36	2.763	228	4.64	1432	74
37	2.994	230	4.99	1468	81
38	3.265	233	5.46	1358	87
39	3.601	236	6.17	1190	93
40	4.054	241	7.40	880	97
41	4.795	248	10.23	479	>99
42	6.032	260	18.39	161	>99

Table R.5. Grade 7 Reading Core Test: Raw to Scale Conversion

Raw Score	Ability	Scale Score	SEM	Frequency	Percent Below
0	-4.190	158	18.35	0	<1
1	-2.962	170	10.17	0	<1
2	-2.235	178	7.31	1	<1
3	-1.795	182	6.07	0	<1
4	-1.472	185	5.34	1	<1
5	-1.213	188	4.86	8	<1
6	-0.994	190	4.51	5	<1
7	-0.803	192	4.25	13	<1
8	-0.632	194	4.04	30	<1
9	-0.475	195	3.87	48	<1
10	-0.330	197	3.74	68	<1
11	-0.195	198	3.63	78	1
12	-0.066	199	3.54	123	2
13	0.056	201	3.46	116	2
14	0.173	202	3.40	120	3
15	0.287	203	3.34	142	4
16	0.397	204	3.30	153	4
17	0.505	205	3.27	147	5
18	0.611	206	3.24	192	6
19	0.715	207	3.22	209	7
20	0.818	208	3.20	261	8
21	0.921	209	3.20	258	9
22	1.023	210	3.20	279	11
23	1.125	211	3.20	321	12
24	1.228	212	3.21	316	14
25	1.331	213	3.23	379	16
26	1.436	214	3.25	408	18
27	1.543	215	3.28	499	20
28	1.652	217	3.32	495	22
29	1.763	218	3.36	612	25
30	1.878	219	3.42	706	29
31	1.998	220	3.49	747	32
32	2.122	221	3.57	798	36
33	2.252	223	3.66	875	40
34	2.390	224	3.77	1032	45
35	2.538	225	3.91	1118	51
36	2.697	227	4.08	1221	57
37	2.872	229	4.29	1342	63
38	3.066	231	4.55	1354	70
39	3.289	233	4.90	1431	76
40	3.552	236	5.38	1380	83
41	3.880	239	6.11	1355	90
42	4.325	243	7.35	1139	95
43	5.058	251	10.20	720	99
44	6.289	263	18.37	304	>99

Table R.6. Grade 8 Reading Core Test: Raw to Scale Conversion

Raw Score	Ability	Scale Score	SEM	Frequency	Percent Below
0	-3.770	162	18.36	0	<1
1	-2.539	175	10.19	0	<1
2	-1.807	182	7.34	0	<1
3	-1.362	186	6.11	0	<1
4	-1.034	190	5.39	0	<1
5	-0.770	192	4.91	2	<1
6	-0.547	195	4.56	7	<1
7	-0.351	196	4.30	13	<1
8	-0.176	198	4.09	14	<1
9	-0.015	200	3.93	29	<1
10	0.134	201	3.79	55	<1
11	0.273	203	3.68	69	<1
12	0.405	204	3.59	65	1
13	0.531	205	3.51	105	2
14	0.652	207	3.45	106	2
15	0.769	208	3.39	128	3
16	0.883	209	3.35	136	4
17	0.994	210	3.31	165	4
18	1.103	211	3.29	147	5
19	1.210	212	3.26	219	6
20	1.316	213	3.25	243	7
21	1.421	214	3.24	259	9
22	1.526	215	3.24	305	10
23	1.631	216	3.24	291	12
24	1.737	217	3.25	355	13
25	1.843	218	3.27	412	15
26	1.950	220	3.29	446	18
27	2.059	221	3.32	499	20
28	2.171	222	3.36	511	23
29	2.285	223	3.40	583	25
30	2.402	224	3.46	659	29
31	2.524	225	3.52	753	32
32	2.651	227	3.60	799	36
33	2.783	228	3.69	884	41
34	2.924	229	3.81	982	45
35	3.074	231	3.94	1045	51
36	3.235	232	4.11	1137	56
37	3.412	234	4.31	1222	62
38	3.610	236	4.58	1313	69
39	3.834	238	4.92	1362	75
40	4.100	241	5.41	1364	82
41	4.430	244	6.13	1350	89
42	4.877	249	7.36	1176	94
43	5.612	256	10.21	842	99
44	6.846	268	18.37	304	>99

Table R.7. Grade 10 Reading Core Test: Raw to Scale Conversion

Raw Score	Ability	Scale Score	SEM	Frequency	Percent Below
0	-3.491	165	18.35	0	<1
1	-2.262	177	10.18	0	<1
2	-1.533	185	7.33	0	<1
3	-1.090	189	6.09	2	<1
4	-0.765	192	5.37	1	<1
5	-0.504	195	4.89	2	<1
6	-0.282	197	4.54	8	<1
7	-0.088	199	4.28	19	<1
8	0.086	201	4.08	25	<1
9	0.245	202	3.91	44	<1
10	0.393	204	3.78	84	<1
11	0.532	205	3.67	89	1
12	0.663	207	3.58	108	2
13	0.789	208	3.51	109	2
14	0.910	209	3.44	149	3
15	1.026	210	3.39	140	4
16	1.140	211	3.35	150	5
17	1.251	213	3.31	165	6
18	1.360	214	3.29	179	6
19	1.467	215	3.27	191	7
20	1.573	216	3.25	218	9
21	1.679	217	3.24	231	10
22	1.784	218	3.24	277	11
23	1.889	219	3.24	325	13
24	1.994	220	3.25	293	14
25	2.100	221	3.26	356	16
26	2.207	222	3.28	422	18
27	2.315	223	3.31	469	21
28	2.426	224	3.34	569	24
29	2.538	225	3.37	645	27
30	2.654	227	3.42	652	30
31	2.773	228	3.48	705	34
32	2.896	229	3.54	889	38
33	3.024	230	3.62	971	43
34	3.158	232	3.71	1055	49
35	3.300	233	3.82	1095	54
36	3.451	235	3.96	1217	60
37	3.614	236	4.12	1319	67
38	3.792	238	4.33	1243	73
39	3.990	240	4.59	1196	79
40	4.216	242	4.93	1147	85
41	4.482	245	5.41	1064	91
42	4.812	248	6.13	811	95
43	5.259	253	7.36	573	98
44	5.994	260	10.20	365	>99
45	7.226	272	18.37	99	>99

Table R.8. Grade 3 Mathematics Core Test: Raw to Scale Conversion

Raw Score	Ability	Scale Score	SEM	Frequency	Percent Below
0	-6.386	136	18.36	0	<1
1	-5.155	148	10.19	0	<1
2	-4.423	156	7.34	0	<1
3	-3.978	160	6.11	1	<1
4	-3.650	164	5.40	5	<1
5	-3.385	166	4.92	6	<1
6	-3.160	168	4.58	12	<1
7	-2.962	170	4.33	17	<1
8	-2.783	172	4.13	38	<1
9	-2.619	174	3.98	66	<1
10	-2.466	175	3.85	64	<1
11	-2.322	177	3.75	107	1
12	-2.185	178	3.67	124	2
13	-2.053	179	3.60	135	3
14	-1.925	181	3.55	154	3
15	-1.800	182	3.51	200	4
16	-1.678	183	3.48	202	5
17	-1.558	184	3.46	226	6
18	-1.439	186	3.44	236	7
19	-1.320	187	3.44	258	9
20	-1.202	188	3.44	277	10
21	-1.084	189	3.45	341	11
22	-0.964	190	3.47	408	13
23	-0.843	192	3.49	407	15
24	-0.720	193	3.53	503	18
25	-0.594	194	3.57	491	20
26	-0.465	195	3.62	567	22
27	-0.332	197	3.68	625	25
28	-0.193	198	3.76	723	29
29	-0.048	200	3.85	804	32
30	0.104	201	3.96	897	36
31	0.266	203	4.09	992	41
32	0.440	204	4.26	1078	46
33	0.630	206	4.46	1211	52
34	0.840	208	4.72	1390	58
35	1.078	211	5.06	1461	65
36	1.357	214	5.53	1724	73
37	1.701	217	6.24	1839	81
38	2.162	222	7.46	1752	89
39	2.911	229	10.28	1504	96
40	4.155	242	18.41	790	>99

Table R.9. Grade 4 Mathematics Core Test: Raw to Scale Conversion

Raw Score	Ability	Scale Score	SEM	Frequency	Percent Below
0	-5.282	147	18.36	0	<1
1	-4.051	159	10.19	0	<1
2	-3.318	167	7.35	1	<1
3	-2.873	171	6.11	2	<1
4	-2.545	175	5.40	3	<1
5	-2.280	177	4.92	11	<1
6	-2.055	179	4.58	22	<1
7	-1.858	181	4.32	39	<1
8	-1.680	183	4.12	65	<1
9	-1.517	185	3.96	114	1
10	-1.365	186	3.84	136	2
11	-1.221	188	3.73	147	3
12	-1.085	189	3.65	174	3
13	-0.955	190	3.58	214	4
14	-0.828	192	3.53	228	5
15	-0.705	193	3.49	234	6
16	-0.585	194	3.45	277	8
17	-0.466	195	3.43	333	9
18	-0.349	197	3.42	337	11
19	-0.232	198	3.41	391	13
20	-0.116	199	3.42	400	14
21	0.001	200	3.43	466	17
22	0.119	201	3.44	500	19
23	0.239	202	3.47	571	22
24	0.360	204	3.51	586	24
25	0.485	205	3.55	639	27
26	0.613	206	3.61	739	31
27	0.746	207	3.68	839	35
28	0.884	209	3.76	872	39
29	1.028	210	3.85	928	43
30	1.181	212	3.97	1144	48
31	1.344	213	4.11	1225	54
32	1.520	215	4.28	1253	60
33	1.712	217	4.49	1361	66
34	1.925	219	4.76	1420	73
35	2.168	222	5.11	1354	79
36	2.452	225	5.58	1353	85
37	2.802	228	6.30	1270	91
38	3.272	233	7.52	1039	96
39	4.031	240	10.33	627	99
40	5.282	253	18.44	263	>99

Table R.10. Grade 5 Mathematics Core Test: Raw to Scale Conversion

Raw Score	Ability	Scale Score	SEM	Frequency	Percent Below
0	-4.518	155	18.35	0	<1
1	-3.291	167	10.16	0	<1
2	-2.564	174	7.31	0	<1
3	-2.124	179	6.07	1	<1
4	-1.802	182	5.34	1	<1
5	-1.543	185	4.86	0	<1
6	-1.324	187	4.51	3	<1
7	-1.133	189	4.25	6	<1
8	-0.961	190	4.04	21	<1
9	-0.805	192	3.88	27	<1
10	-0.659	193	3.75	44	<1
11	-0.523	195	3.64	61	<1
12	-0.394	196	3.55	96	1
13	-0.271	197	3.47	121	2
14	-0.153	198	3.41	175	3
15	-0.039	200	3.36	171	3
16	0.073	201	3.32	205	4
17	0.182	202	3.28	222	5
18	0.288	203	3.26	269	7
19	0.394	204	3.24	267	8
20	0.498	205	3.23	298	9
21	0.602	206	3.22	341	11
22	0.706	207	3.22	384	13
23	0.809	208	3.22	422	15
24	0.914	209	3.24	433	17
25	1.019	210	3.25	503	19
26	1.125	211	3.28	599	22
27	1.233	212	3.31	653	25
28	1.344	213	3.34	687	28
29	1.457	215	3.39	711	32
30	1.574	216	3.44	804	35
31	1.694	217	3.50	845	39
32	1.819	218	3.58	921	44
33	1.950	220	3.66	991	48
34	2.088	221	3.76	1041	53
35	2.234	222	3.88	1127	58
36	2.390	224	4.03	1100	64
37	2.559	226	4.20	1089	69
38	2.744	227	4.41	1141	74
39	2.951	230	4.68	1139	79
40	3.186	232	5.03	1102	84
41	3.463	235	5.52	1046	89
42	3.806	238	6.24	882	94
43	4.267	243	7.46	690	97
44	5.018	250	10.29	482	>99
45	6.263	263	18.42	206	>99

Table R.11. Grade 6 Mathematics Core Test: Raw to Scale Conversion

Raw Score	Ability	Scale Score	SEM	Frequency	Percent Below
0	-3.712	163	18.35	0	<1
1	-2.484	175	10.17	0	<1
2	-1.755	182	7.32	0	<1
3	-1.314	187	6.08	2	<1
4	-0.991	190	5.35	3	<1
5	-0.731	193	4.87	4	<1
6	-0.511	195	4.52	11	<1
7	-0.318	197	4.26	34	<1
8	-0.146	199	4.05	41	<1
9	0.011	200	3.89	58	<1
10	0.157	202	3.76	78	1
11	0.294	203	3.65	113	2
12	0.424	204	3.55	148	2
13	0.547	205	3.48	173	3
14	0.666	207	3.42	198	4
15	0.781	208	3.36	261	5
16	0.892	209	3.32	249	6
17	1.001	210	3.29	287	8
18	1.108	211	3.26	313	9
19	1.214	212	3.24	406	11
20	1.318	213	3.22	426	13
21	1.422	214	3.22	438	15
22	1.525	215	3.21	493	18
23	1.629	216	3.22	494	20
24	1.733	217	3.23	563	22
25	1.837	218	3.24	570	25
26	1.943	219	3.26	640	28
27	2.051	221	3.29	671	31
28	2.160	222	3.33	717	35
29	2.272	223	3.37	704	38
30	2.387	224	3.42	788	42
31	2.506	225	3.48	764	45
32	2.630	226	3.55	802	49
33	2.759	228	3.63	838	53
34	2.894	229	3.73	897	57
35	3.038	230	3.85	910	61
36	3.191	232	3.99	919	66
37	3.357	234	4.16	1021	71
38	3.539	235	4.37	926	75
39	3.742	237	4.64	931	79
40	3.973	240	4.99	966	84
41	4.246	242	5.48	918	88
42	4.584	246	6.20	894	92
43	5.041	250	7.43	780	96
44	5.787	258	10.26	563	99
45	7.029	270	18.41	312	>99

Table R.12. Grade 7 Mathematics Core Test: Raw to Scale Conversion

Raw Score	Ability	Scale Score	SEM	Frequency	Percent Below
0	-3.219	168	18.35	0	<1
1	-1.992	180	10.16	1	<1
2	-1.266	187	7.30	0	<1
3	-0.826	192	6.06	6	<1
4	-0.504	195	5.34	6	<1
5	-0.246	198	4.85	14	<1
6	-0.028	200	4.50	20	<1
7	0.163	202	4.24	45	<1
8	0.334	203	4.04	81	<1
9	0.490	205	3.87	107	1
10	0.635	206	3.74	135	2
11	0.770	208	3.63	181	3
12	0.898	209	3.54	223	4
13	1.021	210	3.46	231	5
14	1.138	211	3.40	289	6
15	1.252	213	3.35	275	8
16	1.363	214	3.31	312	9
17	1.471	215	3.27	313	11
18	1.577	216	3.25	386	13
19	1.682	217	3.23	371	14
20	1.785	218	3.21	379	16
21	1.889	219	3.21	445	18
22	1.991	220	3.21	459	21
23	2.094	221	3.21	511	23
24	2.198	222	3.22	523	26
25	2.302	223	3.24	591	28
26	2.408	224	3.26	594	31
27	2.515	225	3.29	669	34
28	2.625	226	3.33	693	38
29	2.737	227	3.37	727	41
30	2.853	229	3.43	760	45
31	2.972	230	3.49	760	49
32	3.097	231	3.57	858	53
33	3.227	232	3.65	878	57
34	3.364	234	3.76	919	61
35	3.510	235	3.88	905	66
36	3.666	237	4.02	953	70
37	3.834	238	4.20	967	75
38	4.020	240	4.42	957	79
39	4.227	242	4.69	945	84
40	4.463	245	5.05	862	88
41	4.742	247	5.54	793	92
42	5.087	251	6.26	692	95
43	5.553	256	7.49	527	98
44	6.308	263	10.31	327	>99
45	7.558	276	18.44	131	>99

Table R.13. Grade 8 Mathematics Core Test: Raw to Scale Conversion

Raw Score	Ability	Scale Score	SEM	Frequency	Percent Below
0	-2.534	175	18.35	1	<1
1	-1.306	187	10.17	0	<1
2	-0.578	194	7.32	1	<1
3	-0.137	199	6.08	0	<1
4	0.187	202	5.35	2	<1
5	0.448	204	4.87	3	<1
6	0.668	207	4.52	8	<1
7	0.860	209	4.26	19	<1
8	1.033	210	4.06	43	<1
9	1.191	212	3.89	70	<1
10	1.337	213	3.76	98	1
11	1.474	215	3.65	101	2
12	1.603	216	3.55	144	2
13	1.727	217	3.48	165	3
14	1.845	218	3.41	212	4
15	1.960	220	3.36	238	5
16	2.071	221	3.32	279	7
17	2.180	222	3.28	312	8
18	2.287	223	3.25	337	10
19	2.392	224	3.23	327	12
20	2.496	225	3.21	384	13
21	2.599	226	3.20	430	16
22	2.701	227	3.20	495	18
23	2.804	228	3.20	524	21
24	2.906	229	3.21	557	23
25	3.010	230	3.22	577	26
26	3.114	231	3.24	652	29
27	3.220	232	3.27	654	33
28	3.328	233	3.30	704	36
29	3.438	234	3.34	743	40
30	3.550	236	3.38	794	44
31	3.667	237	3.44	765	47
32	3.787	238	3.51	807	51
33	3.913	239	3.59	863	56
34	4.045	240	3.68	893	60
35	4.185	242	3.79	858	64
36	4.334	243	3.93	847	68
37	4.495	245	4.10	880	73
38	4.671	247	4.30	856	77
39	4.867	249	4.57	886	81
40	5.091	251	4.91	847	85
41	5.355	254	5.39	816	89
42	5.684	257	6.12	726	93
43	6.130	261	7.35	626	96
44	6.863	269	10.20	518	99
45	8.095	281	18.37	297	>99

Table R.14. Grade 10 Mathematics Core Test: Raw to Scale Conversion

Raw Score	Ability	Scale Score	SEM	Frequency	Percent Below
0	-1.961	180	18.37	1	<1
1	-0.728	193	10.21	3	<1
2	0.007	200	7.36	0	<1
3	0.453	205	6.12	1	<1
4	0.782	208	5.40	2	<1
5	1.046	210	4.91	13	<1
6	1.270	213	4.56	16	<1
7	1.466	215	4.30	31	<1
8	1.641	216	4.09	54	<1
9	1.801	218	3.92	81	1
10	1.950	220	3.79	142	2
11	2.089	221	3.67	143	2
12	2.220	222	3.58	138	3
13	2.345	223	3.50	182	4
14	2.466	225	3.44	191	5
15	2.582	226	3.38	183	6
16	2.695	227	3.34	210	7
17	2.805	228	3.30	219	8
18	2.913	229	3.27	234	9
19	3.020	230	3.25	270	11
20	3.125	231	3.24	295	12
21	3.229	232	3.23	357	14
22	3.333	233	3.22	303	16
23	3.437	234	3.22	371	17
24	3.541	235	3.23	362	19
25	3.646	236	3.24	423	21
26	3.752	238	3.26	496	24
27	3.859	239	3.29	526	27
28	3.968	240	3.32	563	30
29	4.080	241	3.36	584	32
30	4.194	242	3.41	609	36
31	4.312	243	3.46	710	39
32	4.434	244	3.53	764	43
33	4.561	246	3.61	797	47
34	4.694	247	3.70	756	51
35	4.835	248	3.81	856	55
36	4.986	250	3.95	826	59
37	5.148	251	4.11	880	64
38	5.325	253	4.32	879	68
39	5.523	255	4.58	890	73
40	5.748	257	4.92	957	78
41	6.013	260	5.40	960	83
42	6.343	263	6.12	939	87
43	6.790	268	7.36	969	92
44	7.524	275	10.20	882	97
45	8.756	288	18.37	620	>99

Table R.15. Grade 3 Language Usage Core Test: Raw to Scale Conversion

Raw Score	Ability	Scale Score	SEM	Frequency	Percent Below
0	-5.981	140	18.37	0	<1
1	-4.748	153	10.20	2	<1
2	-4.014	160	7.36	1	<1
3	-3.566	164	6.13	2	<1
4	-3.236	168	5.41	8	<1
5	-2.970	170	4.94	10	<1
6	-2.743	173	4.59	21	<1
7	-2.544	175	4.34	49	<1
8	-2.365	176	4.14	70	<1
9	-2.201	178	3.98	113	1
10	-2.048	180	3.85	160	2
11	-1.904	181	3.74	219	3
12	-1.768	182	3.65	236	4
13	-1.637	184	3.58	308	6
14	-1.511	185	3.53	330	7
15	-1.388	186	3.48	356	9
16	-1.268	187	3.44	343	10
17	-1.151	188	3.42	408	12
18	-1.035	190	3.40	406	14
19	-0.920	191	3.39	453	16
20	-0.805	192	3.38	465	18
21	-0.690	193	3.39	541	21
22	-0.575	194	3.40	552	23
23	-0.459	195	3.42	621	26
24	-0.341	197	3.45	660	29
25	-0.221	198	3.49	695	33
26	-0.097	199	3.54	757	36
27	0.030	200	3.59	887	40
28	0.161	202	3.67	943	45
29	0.299	203	3.75	944	49
30	0.444	204	3.86	1048	54
31	0.598	206	3.99	1113	59
32	0.763	208	4.15	1156	64
33	0.944	209	4.35	1193	70
34	1.145	211	4.61	1169	75
35	1.373	214	4.96	1248	81
36	1.641	216	5.43	1200	87
37	1.974	220	6.15	1098	92
38	2.424	224	7.38	907	96
39	3.161	232	10.22	606	99
40	4.395	244	18.38	289	>99

Table R.16. Grade 4 Language Usage Core Test: Raw to Scale Conversion

Raw Score	Ability	Scale Score	SEM	Frequency	Percent Below
0	-5.283	147	18.37	0	<1
1	-4.051	159	10.20	0	<1
2	-3.318	167	7.35	0	<1
3	-2.871	171	6.12	2	<1
4	-2.542	175	5.40	1	<1
5	-2.276	177	4.93	6	<1
6	-2.051	179	4.59	13	<1
7	-1.852	181	4.33	36	<1
8	-1.674	183	4.13	55	<1
9	-1.510	185	3.97	85	<1
10	-1.357	186	3.84	103	1
11	-1.213	188	3.74	131	2
12	-1.077	189	3.66	154	3
13	-0.946	191	3.59	198	4
14	-0.819	192	3.53	207	5
15	-0.696	193	3.48	210	6
16	-0.576	194	3.45	236	7
17	-0.458	195	3.42	287	8
18	-0.341	197	3.41	324	10
19	-0.225	198	3.40	318	11
20	-0.110	199	3.40	388	13
21	0.006	200	3.41	391	15
22	0.122	201	3.42	426	17
23	0.240	202	3.44	501	19
24	0.359	204	3.47	585	22
25	0.482	205	3.52	612	24
26	0.607	206	3.57	657	27
27	0.736	207	3.63	764	31
28	0.871	209	3.71	810	35
29	1.011	210	3.80	917	39
30	1.160	212	3.91	1047	44
31	1.318	213	4.04	1116	49
32	1.488	215	4.21	1226	55
33	1.674	217	4.42	1347	61
34	1.880	219	4.68	1375	67
35	2.115	221	5.02	1477	74
36	2.390	224	5.50	1505	81
37	2.731	227	6.22	1428	88
38	3.190	232	7.44	1214	93
39	3.937	239	10.27	958	98
40	5.179	252	18.41	445	>99

Table R.17. Grade 5 Language Usage Core Test: Raw to Scale Conversion

Raw Score	Ability	Scale Score	SEM	Frequency	Percent Below
0	-4.707	153	18.36	0	<1
1	-3.476	165	10.19	0	<1
2	-2.745	173	7.34	0	<1
3	-2.301	177	6.10	1	<1
4	-1.975	180	5.37	4	<1
5	-1.713	183	4.89	7	<1
6	-1.491	185	4.54	15	<1
7	-1.297	187	4.28	24	<1
8	-1.123	189	4.07	37	<1
9	-0.964	190	3.91	93	<1
10	-0.817	192	3.77	110	1
11	-0.679	193	3.66	126	2
12	-0.548	195	3.57	152	3
13	-0.423	196	3.50	187	4
14	-0.303	197	3.43	179	4
15	-0.187	198	3.38	225	5
16	-0.074	199	3.34	255	7
17	0.037	200	3.31	270	8
18	0.146	201	3.29	283	9
19	0.253	203	3.27	309	11
20	0.360	204	3.26	354	12
21	0.466	205	3.26	393	14
22	0.573	206	3.27	438	16
23	0.680	207	3.28	519	19
24	0.788	208	3.30	545	21
25	0.897	209	3.32	632	24
26	1.009	210	3.36	703	27
27	1.123	211	3.40	758	31
28	1.241	212	3.46	799	35
29	1.363	214	3.52	882	39
30	1.490	215	3.60	950	43
31	1.623	216	3.70	1097	49
32	1.764	218	3.81	1155	54
33	1.915	219	3.95	1078	59
34	2.078	221	4.12	1179	65
35	2.256	223	4.33	1230	70
36	2.455	225	4.60	1249	76
37	2.683	227	4.95	1197	82
38	2.952	230	5.44	1141	87
39	3.286	233	6.17	1040	92
40	3.738	237	7.40	873	96
41	4.480	245	10.24	589	99
42	5.719	257	18.39	236	>99

Table R.18. Grade 6 Language Usage Core Test: Raw to Scale Conversion

Raw Score	Ability	Scale Score	SEM	Frequency	Percent Below
0	-4.304	157	18.35	0	<1
1	-3.076	169	10.17	1	<1
2	-2.347	177	7.32	0	<1
3	-1.906	181	6.08	0	<1
4	-1.581	184	5.36	0	<1
5	-1.321	187	4.88	3	<1
6	-1.100	189	4.53	12	<1
7	-0.906	191	4.28	22	<1
8	-0.732	193	4.07	44	<1
9	-0.573	194	3.91	61	<1
10	-0.425	196	3.78	104	1
11	-0.286	197	3.68	116	2
12	-0.154	198	3.59	148	2
13	-0.028	200	3.52	159	3
14	0.094	201	3.46	192	4
15	0.212	202	3.41	225	5
16	0.328	203	3.38	242	6
17	0.441	204	3.35	274	8
18	0.552	206	3.33	286	9
19	0.662	207	3.32	329	10
20	0.772	208	3.31	380	12
21	0.882	209	3.31	388	14
22	0.992	210	3.32	465	16
23	1.102	211	3.33	525	19
24	1.214	212	3.36	616	22
25	1.328	213	3.39	646	25
26	1.444	214	3.42	716	28
27	1.563	216	3.47	771	32
28	1.685	217	3.53	913	36
29	1.812	218	3.59	898	40
30	1.943	219	3.67	1074	45
31	2.082	221	3.77	1072	50
32	2.228	222	3.88	1123	55
33	2.384	224	4.02	1206	61
34	2.552	226	4.19	1317	67
35	2.736	227	4.39	1243	73
36	2.940	229	4.66	1271	79
37	3.173	232	5.00	1156	84
38	3.447	234	5.48	1041	89
39	3.785	238	6.20	903	94
40	4.242	242	7.42	761	97
41	4.986	250	10.25	428	>99
42	6.226	262	18.40	186	>99

Table R.19. Grade 7 Language Usage Core Test: Raw to Scale Conversion

Raw Score	Ability	Scale Score	SEM	Frequency	Percent Below
0	-3.915	161	18.35	0	<1
1	-2.687	173	10.17	0	<1
2	-1.960	180	7.31	1	<1
3	-1.519	185	6.07	2	<1
4	-1.196	188	5.34	0	<1
5	-0.937	191	4.86	2	<1
6	-0.719	193	4.51	9	<1
7	-0.528	195	4.24	15	<1
8	-0.357	196	4.03	36	<1
9	-0.201	198	3.87	40	<1
10	-0.057	199	3.73	59	<1
11	0.078	201	3.62	117	1
12	0.205	202	3.52	115	2
13	0.326	203	3.44	170	3
14	0.443	204	3.38	189	4
15	0.555	206	3.32	232	5
16	0.664	207	3.28	236	6
17	0.770	208	3.24	304	7
18	0.873	209	3.21	298	9
19	0.975	210	3.18	329	10
20	1.076	211	3.17	397	12
21	1.176	212	3.16	413	14
22	1.276	213	3.15	463	16
23	1.375	214	3.15	447	19
24	1.474	215	3.16	518	21
25	1.574	216	3.17	544	24
26	1.675	217	3.19	576	26
27	1.778	218	3.21	644	30
28	1.882	219	3.24	678	33
29	1.988	220	3.28	699	36
30	2.097	221	3.33	806	40
31	2.210	222	3.39	854	44
32	2.327	223	3.45	883	48
33	2.449	224	3.53	928	53
34	2.577	226	3.63	891	57
35	2.712	227	3.74	948	62
36	2.858	229	3.88	991	66
37	3.015	230	4.05	1006	71
38	3.187	232	4.26	1016	76
39	3.379	234	4.53	1011	81
40	3.600	236	4.88	1004	86
41	3.861	239	5.36	910	90
42	4.186	242	6.09	806	94
43	4.629	246	7.33	617	97
44	5.360	254	10.19	436	>99
45	6.591	266	18.36	169	>99

Table R.20. Grade 8 Language Usage Core Test: Raw to Scale Conversion

Raw Score	Ability	Scale Score	SEM	Frequency	Percent Below
0	-3.658	163	18.36	0	<1
1	-2.428	176	10.19	0	<1
2	-1.697	183	7.34	0	<1
3	-1.253	187	6.10	0	<1
4	-0.926	191	5.38	1	<1
5	-0.663	193	4.90	3	<1
6	-0.441	196	4.55	7	<1
7	-0.246	198	4.29	12	<1
8	-0.071	199	4.09	30	<1
9	0.090	201	3.92	58	<1
10	0.238	202	3.79	81	<1
11	0.377	204	3.68	112	1
12	0.509	205	3.58	132	2
13	0.634	206	3.51	163	3
14	0.755	208	3.44	186	4
15	0.872	209	3.39	210	5
16	0.985	210	3.34	261	6
17	1.096	211	3.31	281	8
18	1.204	212	3.28	332	9
19	1.311	213	3.25	348	11
20	1.416	214	3.24	436	13
21	1.520	215	3.23	418	15
22	1.624	216	3.22	452	17
23	1.728	217	3.22	539	20
24	1.832	218	3.23	551	23
25	1.936	219	3.24	605	26
26	2.042	220	3.26	631	29
27	2.148	221	3.28	709	32
28	2.257	223	3.31	723	36
29	2.368	224	3.35	775	40
30	2.481	225	3.39	795	44
31	2.598	226	3.45	879	48
32	2.720	227	3.52	902	52
33	2.846	228	3.59	897	57
34	2.978	230	3.69	943	61
35	3.118	231	3.80	948	66
36	3.268	233	3.94	953	71
37	3.430	234	4.10	979	75
38	3.606	236	4.31	950	80
39	3.803	238	4.58	879	84
40	4.028	240	4.93	895	89
41	4.294	243	5.41	728	92
42	4.624	246	6.13	693	96
43	5.072	251	7.37	454	98
44	5.808	258	10.21	266	>99
45	7.042	270	18.37	129	>99

Table R.21. Grade 10 Language Usage Core Test: Raw to Scale Conversion

Raw Score	Ability	Scale Score	SEM	Frequency	Percent Below
0	-3.236	168	18.36	0	<1
1	-2.007	180	10.18	1	<1
2	-1.277	187	7.33	0	<1
3	-0.834	192	6.09	0	<1
4	-0.508	195	5.37	3	<1
5	-0.246	198	4.89	2	<1
6	-0.024	200	4.55	2	<1
7	0.171	202	4.29	14	<1
8	0.346	203	4.08	29	<1
9	0.506	205	3.92	62	<1
10	0.655	207	3.79	103	1
11	0.794	208	3.68	105	2
12	0.926	209	3.59	139	2
13	1.053	211	3.52	157	3
14	1.174	212	3.46	193	4
15	1.292	213	3.41	213	5
16	1.407	214	3.37	230	6
17	1.519	215	3.33	240	8
18	1.629	216	3.31	282	9
19	1.738	217	3.29	323	11
20	1.845	218	3.27	327	12
21	1.952	220	3.27	360	14
22	2.059	221	3.26	413	16
23	2.165	222	3.27	477	19
24	2.272	223	3.28	528	21
25	2.380	224	3.29	581	24
26	2.489	225	3.31	609	27
27	2.600	226	3.34	676	31
28	2.712	227	3.37	705	34
29	2.828	228	3.41	774	38
30	2.946	229	3.46	814	43
31	3.068	231	3.52	860	47
32	3.194	232	3.59	868	51
33	3.326	233	3.67	885	56
34	3.464	235	3.77	910	60
35	3.610	236	3.88	897	65
36	3.765	238	4.02	932	70
37	3.933	239	4.18	925	74
38	4.117	241	4.39	905	79
39	4.321	243	4.65	901	84
40	4.553	246	5.00	847	88
41	4.826	248	5.48	776	92
42	5.165	252	6.20	624	95
43	5.621	256	7.43	521	98
44	6.366	264	10.26	330	>99
45	7.607	276	18.40	128	>99

Table R.22. Grade 5 Science Core Test: Raw to Scale Conversion

Raw Score	Ability	Scale Score	SEM	Frequency	Percent Below
0	-5.265	147	18.37	0	<1
1	-4.031	160	10.21	1	<1
2	-3.295	167	7.37	0	<1
3	-2.846	172	6.14	2	<1
4	-2.513	175	5.43	2	<1
5	-2.245	178	4.95	4	<1
6	-2.017	180	4.61	12	<1
7	-1.817	182	4.35	27	<1
8	-1.637	184	4.15	41	<1
9	-1.471	185	3.99	73	<1
10	-1.318	187	3.86	99	1
11	-1.173	188	3.75	134	2
12	-1.037	190	3.66	199	3
13	-0.906	191	3.58	212	4
14	-0.780	192	3.52	249	5
15	-0.658	193	3.47	290	6
16	-0.539	195	3.43	372	8
17	-0.423	196	3.39	386	10
18	-0.309	197	3.37	448	12
19	-0.196	198	3.35	484	14
20	-0.084	199	3.34	502	17
21	0.027	200	3.33	594	19
22	0.138	201	3.33	636	22
23	0.249	202	3.34	657	25
24	0.361	204	3.36	735	29
25	0.475	205	3.38	812	33
26	0.590	206	3.41	844	37
27	0.708	207	3.45	858	41
28	0.829	208	3.50	955	45
29	0.954	210	3.56	1010	50
30	1.084	211	3.64	1017	55
31	1.219	212	3.73	1104	60
32	1.362	214	3.84	1109	65
33	1.514	215	3.97	1137	70
34	1.678	217	4.13	1163	76
35	1.857	219	4.33	1081	81
36	2.056	221	4.59	1028	86
37	2.282	223	4.94	911	90
38	2.549	225	5.42	793	94
39	2.880	229	6.13	589	96
40	3.328	233	7.37	441	98
41	4.064	241	10.21	219	>99
42	5.297	253	18.37	103	>99

Table R.23. Grade 7 Science Core Test: Raw to Scale Conversion

Raw Score	Ability	Scale Score	SEM	Frequency	Percent Below
0	-4.726	153	18.37	0	<1
1	-3.494	165	10.20	1	<1
2	-2.761	172	7.35	0	<1
3	-2.317	177	6.10	0	<1
4	-1.990	180	5.38	1	<1
5	-1.728	183	4.89	0	<1
6	-1.506	185	4.53	0	<1
7	-1.313	187	4.26	8	<1
8	-1.141	189	4.05	11	<1
9	-0.984	190	3.88	29	<1
10	-0.839	192	3.74	42	<1
11	-0.704	193	3.62	102	<1
12	-0.577	194	3.52	119	2
13	-0.456	195	3.43	173	2
14	-0.341	197	3.36	203	3
15	-0.230	198	3.30	262	5
16	-0.124	199	3.24	320	6
17	-0.020	200	3.20	366	8
18	0.081	201	3.16	368	10
19	0.180	202	3.13	428	12
20	0.277	203	3.10	455	14
21	0.372	204	3.08	519	16
22	0.467	205	3.07	520	19
23	0.560	206	3.06	521	21
24	0.653	207	3.05	517	24
25	0.746	207	3.05	599	27
26	0.840	208	3.05	577	30
27	0.933	209	3.06	666	33
28	1.028	210	3.08	659	36
29	1.123	211	3.10	710	39
30	1.220	212	3.13	724	43
31	1.319	213	3.16	774	47
32	1.420	214	3.20	833	51
33	1.524	215	3.25	854	55
34	1.631	216	3.31	863	59
35	1.743	217	3.37	858	63
36	1.859	219	3.46	872	67
37	1.982	220	3.55	854	71
38	2.112	221	3.67	883	75
39	2.251	223	3.81	890	80
40	2.402	224	3.97	905	84
41	2.569	226	4.19	810	88
42	2.755	228	4.45	709	91
43	2.968	230	4.81	610	94
44	3.222	232	5.30	502	97
45	3.540	235	6.03	340	98
46	3.975	240	7.28	221	>99
47	4.698	247	10.14	98	>99
48	5.922	259	18.34	27	>99

Table R.24. Grade 10 Science Core Test: Raw to Scale Conversion

Raw Score	Ability	Scale Score	SEM	Frequency	Percent Below
0	-3.862	161	18.33	0	<1
1	-2.638	174	10.14	0	<1
2	-1.916	181	7.27	0	<1
3	-1.482	185	6.02	0	<1
4	-1.165	188	5.29	1	<1
5	-0.912	191	4.80	1	<1
6	-0.699	193	4.44	2	<1
7	-0.514	195	4.17	6	<1
8	-0.350	197	3.96	20	<1
9	-0.200	198	3.78	32	<1
10	-0.062	199	3.64	75	<1
11	0.066	201	3.52	109	1
12	0.187	202	3.43	135	2
13	0.301	203	3.34	168	3
14	0.410	204	3.27	221	4
15	0.515	205	3.21	242	5
16	0.616	206	3.16	260	7
17	0.714	207	3.11	271	8
18	0.810	208	3.07	292	9
19	0.903	209	3.04	274	11
20	0.995	210	3.02	293	12
21	1.086	211	3.00	313	14
22	1.175	212	2.98	374	16
23	1.264	213	2.97	340	18
24	1.352	214	2.97	401	20
25	1.440	214	2.96	385	22
26	1.528	215	2.97	434	24
27	1.616	216	2.97	434	26
28	1.705	217	2.99	459	28
29	1.794	218	3.00	469	31
30	1.885	219	3.02	564	34
31	1.978	220	3.05	568	37
32	2.072	221	3.08	548	39
33	2.168	222	3.12	645	43
34	2.267	223	3.17	644	46
35	2.369	224	3.22	671	49
36	2.475	225	3.28	702	53
37	2.585	226	3.36	696	57
38	2.700	227	3.44	759	60
39	2.822	228	3.54	795	65
40	2.952	230	3.66	778	69
41	3.091	231	3.80	826	73
42	3.242	232	3.98	837	77
43	3.409	234	4.19	836	81
44	3.596	236	4.46	746	85
45	3.810	238	4.82	752	89
46	4.066	241	5.31	692	93
47	4.385	244	6.04	603	96

Table R.24 (continued). Grade 10 Science Core Test: Raw to Scale Conversion

Raw Score	Ability	Scale Score	SEM	Frequency	Percent Below
48	4.822	248	7.29	476	98
49	5.547	255	10.16	276	>99
50	6.773	268	18.34	102	>99

Appendix S: High-level Test Blueprints

Table S.1. Grade 3 Reading Test Blueprint

Grade	Standard	Goal	Objective Assessed	Reading Distribution
3	1 Reading Process	1.1 Acquire Concepts about Print	1.1.2	35–48%
		1.2 Acquire Concepts about Text	1.2.3	
		1.5 Acquire Decoding Skills Using Syllabication	1.5.1	
		1.8 Vocabulary and Concept Development	1.8.1 1.8.2	
	2 Comprehension/ Interpretation	2.1 Acquire Strategies and Skills for Comprehending Text	2.1.3	52–65%
		2.2 Acquire Skills to Comprehend Expository Text	2.2.1 2.2.3 2.2.4	
		2.3 Acquire Skills for Comprehending Literary Text	2.3.1 2.3.2 2.3.3 2.3.4 2.3.6	
				Total = 100%

Table S.2. Grade 4 Reading Test Blueprint

Grade	Standard	Goal	Objective Assessed	Reading Distribution
4	1 Reading Process	1.2 Acquire Concepts about Text	1.2.3	25–37%
		1.4 Acquire Decoding Skills Using Word Parts	1.4.1	
		1.8 Vocabulary and Concept Development	1.8.1 1.8.2	
	2 Comprehension/ Interpretation	2.1 Acquire Strategies and Skills for Comprehending Text	2.1.1 2.1.2 2.1.3	63–75%
		2.2 Acquire Skills to Comprehend Expository Text	2.2.1 2.2.3 2.2.4	
		2.3 Acquire Skills for Comprehending Literary Text	2.3.1 2.3.2 2.3.3 2.3.4 2.3.5 2.3.6 2.3.7	
				Total = 100%

Table S.3. Grade 5 Reading Test Blueprint

Grade	Standard	Goal	Objective Assessed	Reading Distribution
5	1 Reading Process	1.2 Acquire Concepts about Print	1.2.3	24–31%
		1.4 Acquire Decoding Skills Using Word Parts	1.4.1	
		1.8 Vocabulary and Concept Development	1.8.1 1.8.2	
	2 Comprehension/ Interpretation	2.1 Acquire Strategies and Skills for Comprehending Text	2.1.1 2.1.2 2.1.3	69–76%
		2.2 Acquire Strategies and Skills to Comprehend Expository Text	2.2.1 2.2.3 2.2.4	
		2.3 Acquire Skills for Comprehending Literary Text	2.3.1 2.3.2 2.3.3 2.3.4 2.3.5 2.3.6 2.3.7	
				Total = 100%

Table S.4. Grade 6 Reading Test Blueprint

Grade	Standard	Goal	Objective Assessed	Reading Distribution
6	1 Reading Process	1.2 Acquire Concepts about Text	1.2.3	24–32%
		1.4 Acquire Decoding Skills Using Word Parts	1.4.1	
		1.8 Vocabulary and Concept Development	1.8.1 1.8.2	
	2 Comprehension/ Interpretation	2.1 Acquire Strategies and Skills for Comprehending Text	2.1.1 2.1.2 2.1.3	68–76%
		2.2 Acquire Skills to Comprehend Expository Text	2.2.3 2.2.4	
		2.3 Acquire Skills for Comprehending Literary Text	2.3.1 2.3.2 2.3.3 2.3.4 2.3.5 2.3.6 2.3.7	
				Total = 100%

Table S.5. Grade 7 Reading Test Blueprint

Grade	Standard	Goal	Objective Assessed	Reading Distribution
7	1 Reading Process	1.2 Acquire Concepts about Text	1.2.3	20–27%
		1.4 Acquire Decoding Skills Using Word Parts	1.4.1	
		1.8 Vocabulary and Concept Development	1.8.1 1.8.2	
	2 Comprehension/ Interpretation	2.1 Acquire Strategies and Skills for Comprehending Text	2.1.2 2.1.3	73–80%
		2.2 Acquire Skills to Comprehend Expository Text	2.2.3 2.2.4	
		2.3 Acquire Skills for Comprehending Literary Text	2.3.2 2.3.3 2.3.4 2.3.5 2.3.6 2.3.7	
				Total = 100%

Table S.6. Grade 8 Reading Test Blueprint

Grade	Standard	Goal	Objective Assessed	Reading Distribution
8	1 Reading Process	1.2 Acquire Concepts about Text	1.2.3	20–27%
		1.4 Acquire Decoding Skills Using Word Parts	1.4.1	
		1.8 Vocabulary and Concept Development	1.8.1 1.8.2	
	2 Comprehension/ Interpretation	2.1 Acquire Strategies and Skills for Comprehending Text	2.1.1 2.1.2 2.1.3	73–80%
		2.2 Acquire Skills to Comprehend Expository Text	2.2.3 2.2.4	
		2.3 Acquire Skills for Comprehending Literary Text	2.3.2 2.3.3 2.3.4 2.3.5 2.3.6 2.3.7	
				Total = 100%

Table S.7. Grade 10 Reading Test Blueprint

Grade	Standard	Goal	Objective Assessed	Reading Distribution
10	1 Reading Process	1.2 Acquire Concepts about Text	1.2.1	15–25%
		1.8 Vocabulary and Concept Development	1.8.1 1.8.2	
	2 Comprehension/ Interpretation	2.1 Acquire Strategies and Skills for Comprehending Text	2.1.1	75–85%
		2.2 Acquire Skills to Comprehend Expository Text	2.2.1 2.2.2 2.2.3	
		2.3 Acquire Skills for Comprehending Literary Text	2.3.2 2.3.3 2.3.4 2.3.5	
				Total = 100%

Table S.8. Grade 3 Mathematics Test Blueprint

Grade	Standard	Goal	Objective Assessed	Mathematics Distribution
3	1 Number and Operation	1.1 Understand and use numbers	1.1.1 1.1.2 1.1.3 1.1.4	35–40%
		1.2 Perform computations accurately	1.2.2 1.2.3 1.2.4 1.2.6	
	2 Concepts and Principles of Measurement	2.1 Understand and use U.S. customary and metric measurements	2.1.1 2.1.2 2.1.3 2.1.4 2.1.5 2.1.6	15–20%
	3 Concepts and Language of Algebra and Functions	3.1 Use algebraic symbolism as a tool to represent mathematical relationships	3.1.1 3.1.2 3.1.3 3.1.4	15–18%
		3.2 Evaluate algebraic expressions	3.2.1 3.2.2	
		3.3 Solve algebraic equations and inequalities	3.3.1	
		3.4 Understand the concept of functions	3.4.1	
	4 Concepts and Principles of Geometry	4.1 Apply concepts of size, shape, and spatial relationships	4.1.1 4.1.3	15–18%
		4.3 Apply graphing in two dimensions	4.3.1	
	5 Data Analysis, Probability, and Statistics	5.1 Understand data analysis	5.1.1	15–18%
		5.2 Collect, organize, and display data	5.2.1	
				Total = 100%

Table S.9. Grade 4 Mathematics Test Blueprint

Grade	Standard	Goal	Objective Assessed	Mathematics Distribution
4	1 Number and Operation	1.1 Understand and use numbers	1.1.1 1.1.2 1.1.3 1.1.4 1.1.5	35–40%
		1.2 Perform computations accurately	1.2.2 1.2.3 1.2.4 1.2.5 1.2.7	
	2 Concepts and Principles of Measurement	2.1 Understand and use U.S. customary and metric measurements	2.1.1 2.1.2 2.1.3 2.1.4 2.1.5 2.1.7	15–20%
	3 Concepts and Language of Algebra and Functions	3.1 Use algebraic symbolism as a tool to represent mathematical relationships	3.1.1 3.1.2 3.1.3 3.1.4	15–18%
		3.2 Evaluate algebraic expressions	3.2.1	
		3.3 Solve algebraic equations and inequalities	3.3.1	
		3.4 Understand the concept of functions	3.4.1	
	4 Concepts and Principles of Geometry	4.1 Apply concepts of size, shape, and spatial relationships	4.1.1 4.1.2 4.1.3	15–18%
		4.3 Apply graphing in two dimensions	4.3.1	
	5 Data Analysis, Probability, and Statistics	5.1 Understand data analysis	5.1.1	15–18%
		5.2 Collect, organize, and display data	5.2.1	
		5.3 Apply simple statistical measurements	5.3.1	
		5.4 Understand basic concepts of probability	5.4.1	
		5.5 Make predictions or decisions based on data	5.5.1	
				Total = 100%

Table S.10. Grade 5 Mathematics Test Blueprint

Grade	Standard	Goal	Objective Assessed	Mathematics Distribution
5	1 Number and Operation	1.1 Understand and use numbers	1.1.1 1.1.2 1.1.4 1.1.5 1.1.6	29–33%
		1.2 Perform computations accurately	1.2.2 1.2.3 1.2.4 1.2.5 1.2.7	
	2 Concepts and Principles of Measurement	2.1 Understand and use U.S. customary and metric measurements	2.1.1 2.1.2 2.1.3 2.1.4 2.1.5 2.1.6 2.1.7 2.1.8	13–18%
	3 Concepts and Language of Algebra and Functions	3.1 Use algebraic symbolism as a tool to represent mathematical relationships	3.1.1 3.1.2 3.1.3 3.1.4	18–22%
		3.2 Evaluate algebraic expressions	3.2.1	
		3.3 Solve algebraic equations and inequalities	3.3.1	
		3.4 Understand the concept of functions	3.4.1	
		3.6 Use patterns to represent problems	3.6.1	
	4 Concepts and Principles of Geometry	4.1 Apply concepts of size, shape, and spatial relationships	4.1.1 4.1.2 4.1.3 4.1.4 4.1.5	16–20%
		4.3 Apply graphing in two dimensions	4.3.1	

Table S.10 (continued). Grade 5 Mathematics Test Blueprint

Grade	Standard	Goal	Objective Assessed	Mathematics Distribution
5	5 Data Analysis, Probability, and Statistics	5.1 Understand data analysis	5.1.1	13–16%
		5.2 Collect, organize, and display data	5.2.1	
		5.3 Apply simple statistical measurements	5.3.1 5.3.2	
		5.4 Understand basic concepts of probability	5.4.1	
		5.5 Make predictions or decisions based on data	5.5.1	
				Total = 100%

Table S.11. Grade 6 Mathematics Test Blueprint

Grade	Standard	Goal	Objective Assessed	Mathematics Distribution
6	1 Number and Operation	1.1 Understand and use numbers	1.1.1 1.1.3 1.1.4 1.1.5	27–31%
		1.2 Perform computations accurately	1.2.2 1.2.3 1.2.5	
		1.3 Estimate and judge reasonableness of results	1.3.3	
	2 Concepts and Principles of Measurement	2.1 Understand and use U.S. customary and metric measurements	2.1.1 2.1.3 2.1.4 2.1.5 2.1.6	13–18%
		2.2 Apply the concepts of rates, ratios, and proportions	2.2.1	
	3 Concepts and Language of Algebra and Functions	3.1 Use algebraic symbolism as a tool to represent mathematical relationships	3.1.2 3.1.3	20–24%
		3.2 Evaluate algebraic expressions	3.2.1 3.2.2	
		3.3 Solve algebraic equations and inequalities	3.3.1	
		3.4 Understand the concept of functions	3.4.1 3.4.2 3.4.3	
		3.6 Use patterns to represent problems	3.6.1	
	4 Concepts and Principles of Geometry	4.1 Apply concepts of size, shape, and spatial relationships	4.1.3 4.1.4 4.1.5	16–20%
		4.3 Apply graphing in two dimensions	4.3.1	

Table S.11 (continued). Grade 6 Mathematics Test Blueprint

Grade	Standard	Goal	Objective Assessed	Mathematics Distribution
6	5 Data Analysis, Probability, and Statistics	5.1 Understand data analysis	5.1.1	13–16%
		5.2 Collect, organize, and display data	5.2.1	
		5.3 Apply simple statistical measurements	5.3.1 5.3.2	
		5.4 Understand basic concepts of probability	5.4.1	
		5.5 Make predictions or decisions based on data	5.5.1	
				Total = 100%

Table S.12. Grade 7 Mathematics Test Blueprint

Grade	Standard	Goal	Objective Assessed	Mathematics Distribution
7	1 Number and Operation	1.1 Understand and use numbers	1.1.1 1.1.2 1.1.3 1.1.4 1.1.5 1.1.6	24–29%
		1.2 Perform computations accurately	1.2.2 1.2.3 1.2.4 1.2.6	
		1.3 Estimate and judge reasonableness of results	1.3.3	
	2 Concepts and Principles of Measurement	2.1 Understand and use U.S. customary and metric measurements	2.1.1 2.1.4 2.1.5 2.1.6	13–16%
		2.2 Apply the concepts of rates, ratios, and proportions	2.2.2	
		2.3 Apply dimensional analysis	2.3.1	
	3 Concepts and Language of Algebra and Functions	3.1 Use algebraic symbolism as a tool to represent mathematical relationships	3.1.1 3.1.2 3.1.3	20–24%
		3.2 Evaluate algebraic expressions	3.2.1 3.2.2	
		3.3 Solve algebraic equations and inequalities	3.3.1	
		3.4 Understand the concept of functions	3.4.1	
		3.5 Represent equations, inequalities and functions in a variety of formats	3.5.1	
		3.6 Use patterns to represent problems	3.6.1	
	4 Concepts and Principles of Geometry	4.1 Apply concepts of size, shape, and spatial relationships	4.1.1 4.1.3 4.1.4 4.1.5	18–22%
		4.3 Apply graphing in two dimensions	4.3.1	

Table S.12 (continued). Grade 7 Mathematics Test Blueprint

Grade	Standard	Goal	Objective Assessed	Mathematics Distribution
7	5 Data Analysis, Probability, and Statistics	5.1 Understand data analysis	5.1.1	13–18%
		5.2 Collect, organize, and display data	5.2.1	
		5.3 Apply simple statistical measurements	5.3.1	
		5.4 Understand basic concepts of probability	5.4.1 5.4.2	
		5.5 Make predictions or decisions based on data	5.5.1	
				Total = 100%

Table S.13. Grade 8 Mathematics Test Blueprint

Grade	Standard	Goal	Objective Assessed	Mathematics Distribution
8	1 Number and Operation	1.1 Understand and use numbers	1.1.1 1.1.2 1.1.3 1.1.4 1.1.5 1.1.6 1.1.7	20–24%
		1.2 Perform computations accurately	1.2.2 1.2.3 1.2.4 1.2.6	
		1.3 Estimate and judge reasonableness of results	1.3.3	
	2 Concepts and Principles of Measurement	2.1 Understand and use U.S. customary and metric measurements	2.1.1 2.1.4 2.1.5 2.1.6	13–16%
		2.2 Apply the concepts of rates, ratios, and proportions	2.2.1 2.2.2	
		2.3 Apply dimensional analysis	2.3.1	
	3 Concepts and Language of Algebra and Functions	3.1 Use algebraic symbolism as a tool to represent mathematical relationships	3.1.1 3.1.2 3.1.3	27–31%
		3.2 Evaluate algebraic expressions	3.2.1 3.2.2 3.2.3	
		3.3 Solve algebraic equations and inequalities	3.3.1 3.3.2	
		3.4 Understand the concept of functions	3.4.1	
		3.5 Represent equations, inequalities and functions in a variety of formats	3.5.1	
		3.6 Use patterns to represent problems	3.6.1	
	4 Concepts and Principles of Geometry	4.1 Apply concepts of size, shape, and spatial relationships	4.1.1 4.1.2 4.1.3 4.1.4 4.1.5	18–22%
		4.3 Apply graphing in two dimensions	4.3.1	

Table S.13 (continued). Grade 8 Mathematics Test Blueprint

Grade	Standard	Goal	Objective Assessed	Mathematics Distribution
8	5 Data Analysis, Probability, and Statistics	5.1 Understand data analysis	5.1.1	13–18%
		5.2 Collect, organize, and display data	5.2.1	
		5.3 Apply simple statistical measurements	5.3.1	
		5.4 Understand basic concepts of probability	5.4.2	
		5.5 Make predictions or decisions based on data	5.5.1	
				Total = 100%

Table S.14. Grade 10 Mathematics Test Blueprint

Grade	Standard	Goal	Objective Assessed	Mathematics Distribution
10	1 Number and Operation	1.1 Understand and use numbers	1.1.1 1.1.2 1.1.3 1.1.4 1.1.5	13–18%
		1.2 Perform computations accurately	1.2.1	
	2 Concepts and Principles of Measurement	2.1 Understand and use U.S. customary and metric measurements	2.1.1 2.1.2	13–16%
		2.2 Apply the concepts of rates, ratios, and proportions	2.2.1 2.2.3	
		2.3 Apply dimensional analysis	2.3.1	
		2.4 Apply appropriate techniques and tools to determine measurements	2.4.1	
	3 Concepts and Language of Algebra and Functions	3.1 Use algebraic symbolism as a tool to represent mathematical relationships	3.1.1	27–31%
		3.2 Evaluate algebraic expressions	3.2.1	
		3.3 Solve algebraic equations and inequalities	3.3.1 3.3.2	
		3.4 Solve simple linear systems of equations	3.4.1	
		3.6 Apply functions to a variety of problems	3.6.1 3.6.2	
	4 Concepts and Principles of Geometry	4.1 Apply concepts of size, shape, and spatial relationships	4.1.1 4.1.2	18–22%
		4.2 Apply the geometry of right triangles	4.2.1	
		4.3 Apply graphing in two dimensions	4.3.1 4.3.2	
		4.4 Represent and graph linear relationships	4.4.2 4.4.3	
		4.5 Use reasoning skills	4.5.1	

Table S.14 (continued). Grade 10 Mathematics Test Blueprint

Grade	Standard	Goal	Objective Assessed	Mathematics Distribution
10	5 Data Analysis, Probability, and Statistics	5.1 Represent data with a variety of formats	5.1.1	18–22%
		5.2 Collect, organize, and display data	5.2.1	
		5.3 Apply simple statistical measurements	5.3.1 5.3.2	
		5.4 Understand basic concepts of probability	5.4.1 5.4.2	
		5.5 Make predictions or decisions based on data	5.5.1	
				Total = 100%

Table S.15. Grade 3 Language Usage Test Blueprint

Grade	Standard	Goal	Objective Assessed	Language Usage Distribution
3	3 Writing Process	3.1 Prewrite	3.1.2 3.1.3 3.1.4	40–50%
		3.3 Revise	3.3.1 3.3.2 3.3.3	
		3.4 Edit	3.4.1	
	5 Writing Components	5.2 Spelling Skills	5.2.1 5.2.3	50–60%
		5.3 Sentence Structure	5.3.1 5.3.2	
		5.4 Conventions	5.4.1 5.4.2	
				Total = 100%

Table S.16. Grade 4 Language Usage Test Blueprint

Grade	Standard	Goal	Objective Assessed	Language Usage Distribution
4	3 Writing Process	3.1 Prewrite	3.1.2 3.1.3 3.1.4	40–50%
		3.3 Revise	3.3.1 3.3.2 3.3.4	
		3.4 Edit	3.4.1	
	5 Writing Components	5.2 Spelling Skills	5.2.1 5.2.3	50–60%
		5.3 Sentence Structure	5.3.1 5.3.2	
		5.4 Conventions	5.4.1 5.4.2	
				Total = 100%

Table S.17. Grade 5 Language Usage Test Blueprint

Grade	Standard	Goal	Objective Assessed	Language Usage Distribution
5	3 Writing Process	3.1 Prewrite	3.1.2 3.1.3 3.1.4	50–60%
		3.3 Revise	3.3.1 3.3.2 3.3.3 3.3.4	
		3.4 Edit	3.4.1	
	5 Writing Components	5.2 Spelling Skills	5.2.1 5.2.3	40–50%
		5.3 Sentence Structure	5.3.1 5.3.2	
		5.4 Conventions	5.4.1 5.4.2	
				Total = 100%

Table S.18. Grade 6 Language Usage Test Blueprint

Grade	Standard	Goal	Objective Assessed	Language Usage Distribution
6	3 Writing Process	3.1 Prewrite	3.1.2 3.1.3 3.1.4	50–60%
		3.3 Revise	3.3.1 3.3.2 3.3.3 3.3.4	
		3.4 Edit	3.4.1	
	5 Writing Components	5.2 Spelling Skills	5.2.1 5.2.3	40–50%
		5.3 Sentence Structure	5.3.1 5.3.2	
		5.4 Conventions	5.4.1 5.4.2	
				Total = 100%

Table S.19. Grade 7 Language Usage Test Blueprint

Grade	Standard	Goal	Objective Assessed	Language Usage Distribution
7	3 Writing Process	3.1 Prewrite	3.1.2 3.1.3 3.1.4	56–64%
		3.3 Revise	3.3.1 3.3.2 3.3.3 3.3.4	
		3.4 Edit	3.4.1	
	5 Writing Components	5.2 Spelling Skills	5.2.1 5.2.3	36–44%
		5.3 Sentence Structure	5.3.1 5.3.2	
		5.4 Conventions	5.4.1 5.4.2	
				Total = 100%

Table S.20. Grade 8 Language Usage Test Blueprint

Grade	Standard	Goal	Objective Assessed	Language Usage Distribution
8	3 Writing Process	3.1 Prewrite	3.1.2 3.1.3 3.1.4	56–64%
		3.3 Revise	3.3.1 3.3.2 3.3.3 3.3.4	
		3.4 Edit	3.4.1	
	5 Writing Components	5.2 Spelling Skills	5.2.1 5.2.3	36–44%
		5.3 Sentence Structure	5.3.1 5.3.2	
		5.4 Conventions	5.4.1 5.4.2	
				Total = 100%

Table S.21. Grade 10 Language Usage Test Blueprint

Grade	Standard	Goal	Objective Assessed	Language Usage Distribution
10	3 Writing Process	3.1 Prewrite	3.1.2 3.1.3 3.1.4	58–69%
		3.3 Revise	3.3.1 3.3.2 3.3.3 3.3.4	
		3.4 Edit	3.4.2	
	5 Writing Components	5.3 Sentence Structure	5.3.1 5.3.2	31–42%
		5.4 Conventions	5.4.1 5.4.2	
				Total = 100%

Table S.22. Grade 5 Science Test Blueprint

Grade	Standard	Goal	Objective Assessed	Science Distribution
5	1 Nature of Science	1.1 Understand Systems, Order, and Organization	1.1.1	35–38%
		1.2 Understand Concepts and Processes of Evidence, Models, and Explanations	1.2.1 1.2.2 1.2.3	
		1.3 Understand Constancy, Change, and Measurement	1.3.1 1.3.2	
		1.5 Understand Concepts of Form and Function	1.5.1	
		1.6 Understand Scientific Inquiry and Develop Critical Thinking Skills	1.6.1 1.6.3 1.6.4 1.6.5 1.6.6	
	2 Physical Science	2.1 Understand the Structure and Function of Matter and Molecules and Their Interactions	2.1.1 2.1.2 2.1.3	15–17%
	3 Biology	3.2 Understand the Relationship between Matter and Energy in Living Systems	3.2.1	15–17%
		3.3 Understand the Cell is the Basis of Form and Function for All Living Things	3.3.1 3.3.2	
	4 Earth and Space Systems	4.1 Understand Scientific Theories of Origin and Subsequent Changes in the Universe and Earth Systems	4.1.1	15–17%
		4.2 Understand Geo-chemical Cycles and Energy in the Earth System	4.2.1	
	5 Personal and Social Perspectives; Technology	5.1 Understand Common Environmental Quality Issues, Both Natural and Human Induced	5.1.1	15–17%
		5.2 Understand the Relationship between Science and Technology	5.2.1 5.2.2	
		5.3 Understand the Importance of Natural Resources and the Need to Manage and Conserve Them	5.3.1	
				Total = 100%

Table S.23. Grade 7 Science Test Blueprint

Grade	Standard	Goal	Objective Assessed	Science Distribution
7	1 Nature of Science	1.1 Understand Systems, Order, and Organization	1.1.1 1.1.2 1.1.3	39–43%
		1.2 Understand Concepts and Processes of Evidence, Models, and Explanations	1.2.1 1.2.2 1.2.3	
		1.3 Understand Constancy, Change, and Measurement	1.3.1 1.3.2 1.3.3	
		1.6 Understand Scientific Inquiry and Develop Critical Thinking Skills	1.6.1 1.6.2 1.6.3 1.6.4 1.6.5 1.6.6	
		1.8 Understand Technical Communication	1.8.1	
	2 Physical Science	2.1 Understand the Structure and Function of Matter and Molecules and Their Interactions	2.1.1 2.1.2 2.1.3 2.1.4 2.1.5	13–17%
		2.2 Understand Concepts of Motion and Forces	2.2.1	
	3 Biology	3.1 Understand the Theory of Biological Evolution	3.1.1	13–17%
		3.2 Understand the Relationship between Matter and Energy in Living Systems	3.2.1 3.2.2 3.2.4	
		3.3 Understand the Cell is the Basis of Form and Function for All Living Things	3.3.1 3.3.2 3.3.3 3.3.4 3.3.5	
	4 Earth and Space Systems	4.1 Understand Scientific Theories of Origin and Subsequent Changes in the Universe and Earth Systems	4.1.1 4.1.2 4.1.3	13–17%
	5 Personal and Social Perspectives; Technology	5.2 Understand the Relationship between Science and Technology	5.2.1 5.2.2	13–17%
		5.3 Understand the Importance of Natural Resources and the Need to Manage and Conserve Them	5.3.1	
				Total = 100%

Table S.24. Grade 10 Science Test Blueprint

Grade	Standard	Goal	Objective Assessed	Science Distribution
10	1 Nature of Science	1.1 Understand Systems, Order, and Organization	1.1.1 1.1.2	39–42%
		1.2 Understand Concepts and Processes of Evidence, Models, and Explanations	1.2.1	
		1.3 Understand Constancy, Change, and Measurement	1.3.1 1.3.2 1.3.3	
		1.4 Understand the Theory that Evolution is a Process that Relates to the Gradual Changes in the Universe and of Equilibrium as a Physical State	Ref to 3.2.1	
		1.6 Understand Scientific Inquiry and Develop Critical Thinking Skills	1.6.1 1.6.2 1.6.3 1.6.5 1.6.6 1.6.7	
		1.8 Understand Technical Communication	1.8.1	
	2 Physical Science	2.2 Understand Concepts of Motion and Forces	2.2.1	14–16%
		2.3 Understand the Total Energy in the Universe is Constant	2.3.1 2.3.2	
		2.4 Understand the Structure of Atoms	2.4.1 2.4.2 2.4.3 2.4.4 2.4.5	
		2.5 Understand Chemical Reactions	2.5.1	
	3 Biology	3.1 Understand the Theory of Biological Evolution	3.1.1 3.1.2	14–16%
		3.2 Understand the Relationship between Matter and Energy in Living Systems	3.2.1 3.2.2 3.2.3 3.2.4 3.2.5	
		3.3 Understand the Cell is the Basis of Form and Function for All Living Things	3.3.1 3.3.2 3.3.3 3.3.4	

Table S.24 (continued). Grade 10 Science Test Blueprint

Grade	Standard	Goal	Objective Assessed	Science Distribution
10	4 Earth and Space Systems	4.1 Understand Scientific Theories of Origin and Subsequent Changes in the Universe and Earth Systems	4.1.1 4.1.2 4.1.3	14–16%
		4.2 Understand Geo-Chemical Cycles and Energy in the Earth System	4.2.1	
	5 Personal and Social Perspectives; Technology	5.1 Understand Common Environmental Quality Issues, Both Natural and Human Induced	5.1.1	14–16%
		5.2 Understand the Relationship between Science and Technology	5.2.1 5.2.2 5.2.3	
		5.3 Understand the Importance of Natural Resources and the Need to Manage and Conserve Them	5.3.1	
				Total = 100%

Appendix T: Standards Validation Report

Standards Validation Report

IDAHO
STANDARDS ACHIEVEMENT TESTS
MAY, 2007

DATA RECOGNITION CORPORATION

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1 Introduction

1.1 Background

The initial standard setting for the Idaho Standards Achievement Tests (ISAT) was held in the spring of 2003. It included grades 3 through 8 and 10 in reading, mathematics, and language usage. Cutpoints were established for placing students into four performance levels: Advanced, Proficient, Basic, and Below Basic. In addition, performance level descriptors were established at the end, written by the panelists, and subsequently used in score reports and other state materials. The meeting was conducted by Northwest Evaluation Association (NWEA) and utilized the Bookmark procedure (see Lewis, Mitzel, & Green, 1996).

In the spring of 2006, DRC conducted standard setting to set new cutpoints for grades 3 through 8 and 10 in reading and mathematics. The results from this meeting were used to make recommendations to the Board. The Board adopted the new cutpoints and performance level descriptors shortly after the meeting. However, the first application of the new cutpoints was on the Fall 2006 assessment. The cutpoints established in 2003 were used for Spring 2006 AYP calculations.

In the spring of 2007, DRC conducted standards re-validation for grades 3 through 8 and 10 in reading and mathematics. DRC also conducted standard setting for grades 3 through 8 and 10 in language usage and grades 5, 7, and 10 in science. The primary impetus for re-validating the cutpoints established and adopted in the spring of 2006 was that this was the first administration that used core items (a common set of items for each student within grade and subject that were used in calculating AYP) that were developed exclusively by DRC.

1.2 Purpose and Objectives

Panelists were introduced to the following pre-existing conditions that contributed to the purpose for the meeting:

- Peer reviewers, under No Child Left Behind (NCLB), determined that the process used to determine the cutpoints established in 2003 was unsatisfactory for reporting adequate yearly progress (AYP)
- Peer reviewers determined that the process used to determine the cutpoints established in 2006 was satisfactory for reporting adequate yearly progress (AYP). However, the items used in the standards validation process were from the pool that was deemed not adequately aligned to the Idaho Content Standards. Therefore, they recommended that a standards re-validation be conducted in the spring of 2007, upon external verification of adequate content alignment.

The stated purpose and objective of the meeting was to set cutpoints that defined the placement of students into the four performance levels for grades 3 through 8 and 10 in reading, mathematics, and language usage and grades 5, 7, and 10 in science. It was further stated that the results from this meeting would be presented to the State Board for review and possible adoption.

2 Methodology

2.1 Modified Bookmark

As was done in spring 2006, DRC utilized a modified Bookmark procedure. Bookmark is one in a broad category of methods commonly referred to as item mapping that focuses on items rather than examinees. To begin the process, participants were asked to visualize the knowledge and skills of a student who is at the borderline between two Performance Levels based on the performance level descriptors. Thereafter, participants were given an ordered item booklet (from the easiest item to the most difficult) and asked to assess whether this borderline student had a reasonably high probability of answering each item. For multiple-choice (MC) items, reasonably high was set at 2/3 or .67. Item cards in the order item booklet contained the response key and content code showing alignment to the standard, goal, and objective. Panelists also had the performance level descriptors and an item separation map which contained a graphical representation of scaled item difficulty. Panelists were given a rating sheet to record their individual placements for all performance levels by round.

2.2 Training

Meetings for the four subjects were staggered across the week of May 21st. Panelists for a given subject area were trained on the first morning of the meeting. There were three separate training sessions: Reading and mathematics panelists were trained on Monday May 21st; language usage panelists were trained on Wednesday May 23rd; and science panelists were trained on Thursday May 24th.

All panelists were told that they were:

- To be responsible for all secure materials
- To verify their individual placements for each round of judgments, and
- To participate in a discussion as a large group

Training materials included:

- PLDs
- Ordered Item Booklets (OIB)
- Item Separation Map
- Rating Form

Panelists were told that the process would include iterations (rounds) of individual judgments, small and large group discussions, and opportunities to revise judgments. In addition, impacts would be presented (% of students in each performance level) based on the large groups, and when appropriate, in the other grades.

Copies of the agendas for the meeting are provided in Appendix A.

3 Composition of Panel

There were 34 panelists for reading, 35 for mathematics, 27 for language usage, and 33 for science. The demographics of the panelists are displayed in the following section. They include: gender, role (e.g., teacher, educator/non-teacher, or other), region of residence in the state, and years of teaching experience.

3.1 Demographic Distribution

Figure 1
Gender by Content Area

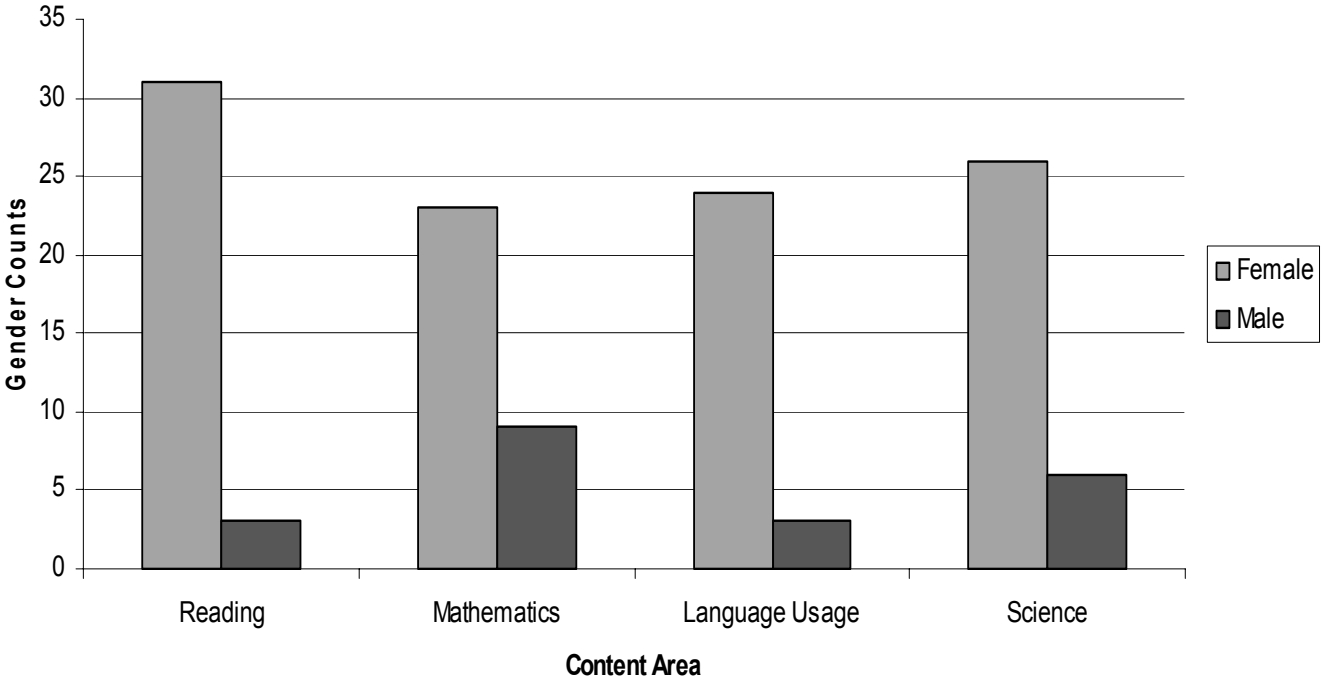


Figure 2
Role by Content Area

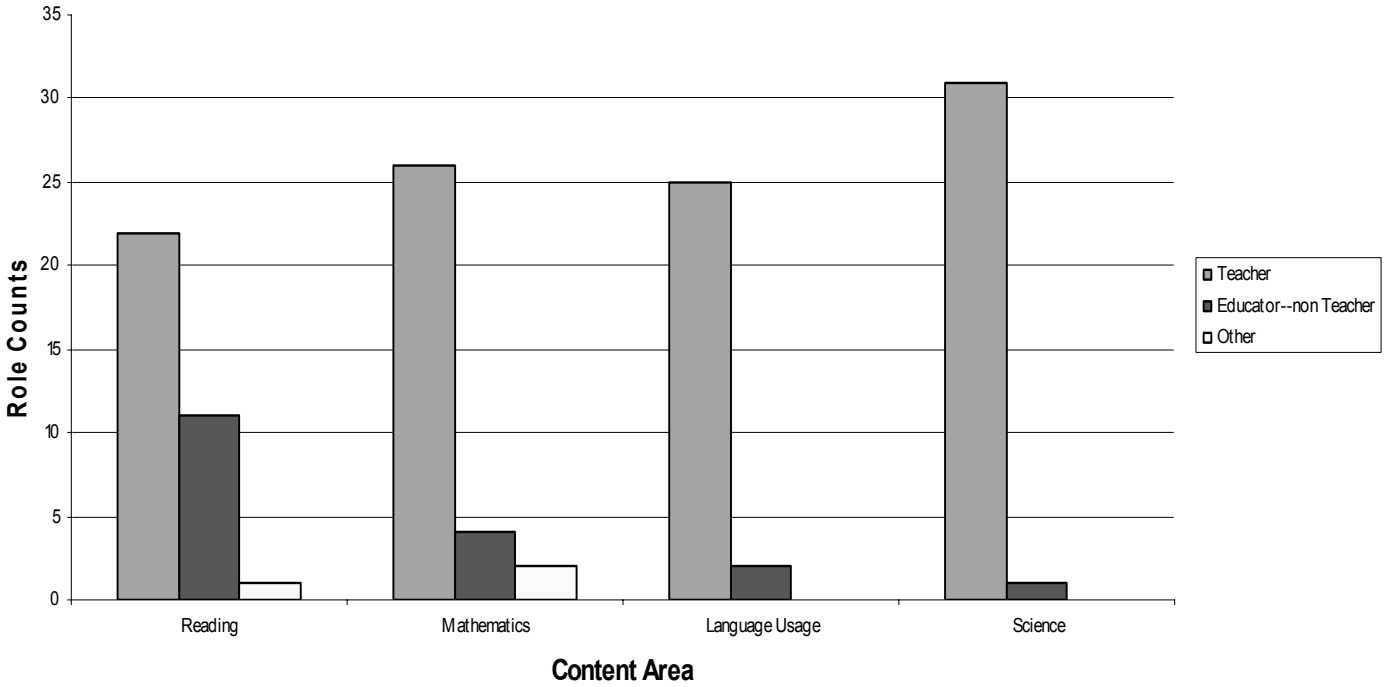


Figure 3
Region by Content Area

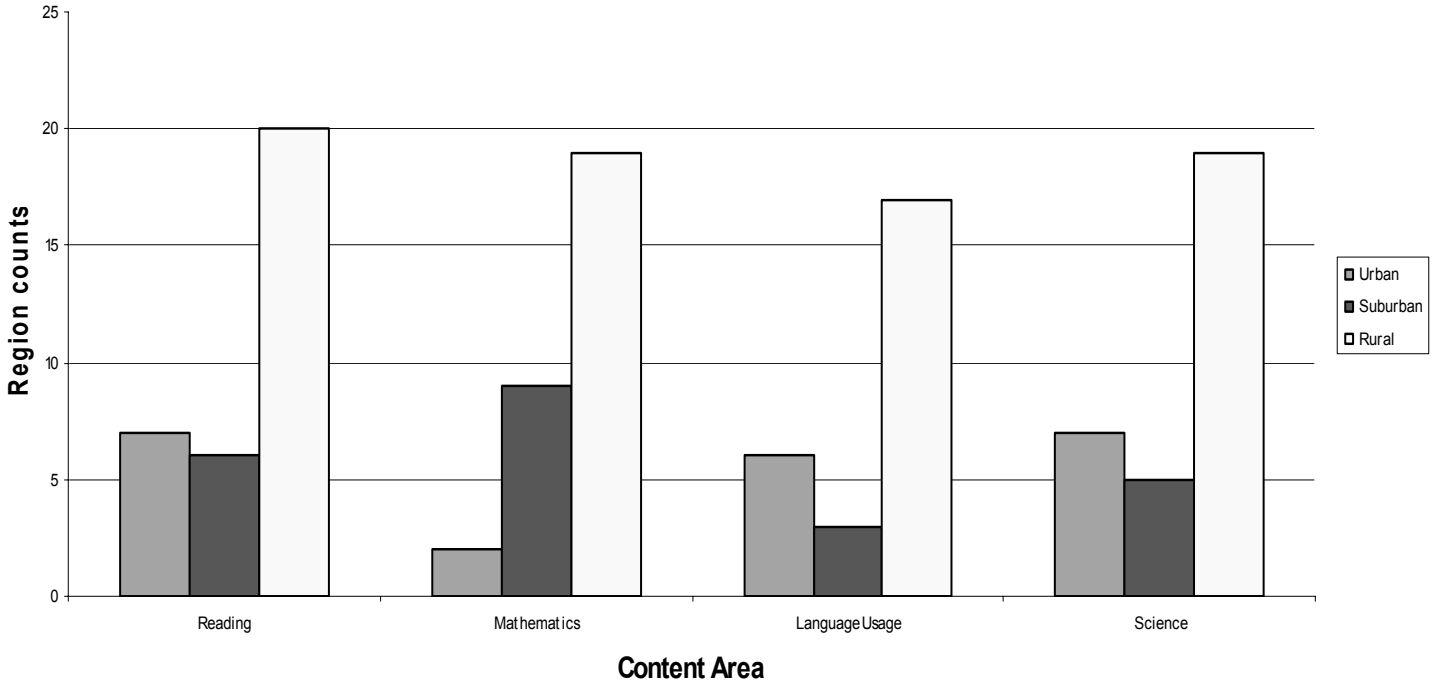
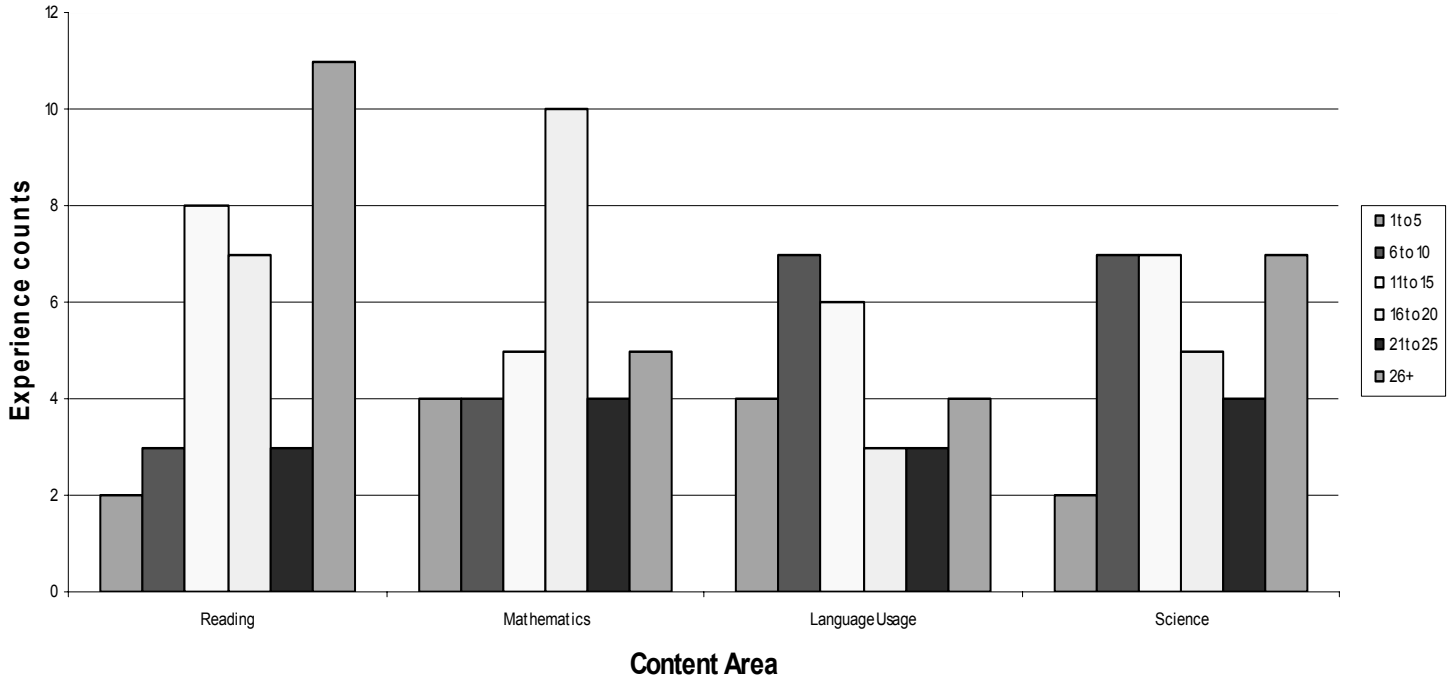


Figure 4
Teacher Experience by Content Area



3.2 Breakout of Panelist Groups

For reading, mathematics, and language usage, the panelists were broken out by subject and started with grade 6. For reading and mathematics, information regarding the location of the existing Proficient/Basic cutpoint was provided. For language usage and science, information regarding the location of the existing cutpoints was not provided. Thereafter, language usage panelists separated into two grade clusters, one for grades 5, 4, and 3, and another for grades 7, 8, and 10. Results from adjacent grades were used to establish starting values to be used as reference points at the beginning of round one for each of the adjacent grades. At the end, all panelists, by subject, met to review and discuss the reasonableness of the cutpoints across all grades. In science, panelists began together with grade 7 and then separated into two groups, one for grade 5 and the other for grade 10. The other processes for science mirrored those of language usage.

4 Cutpoints and Standard Errors

4.1 Establishment of Initial Cutpoints (aka Starting Values)

For grade 6 reading and mathematics, panelists were provided the Proficient/Basic cutpoint established in summer 2006. For grade 6 language usage, the panelists were not provided existing cutpoints or starting values. For all three subjects, panelists started by placing the Proficient/Basic cutpoint and then working on the Advanced/Proficient cutpoint and finally the Basic/Below Basic cutpoint. The grade 6 cutpoints were used to establish starting values for the adjacent grades (5 and 7) using an equipercentile calculation. The starting values for the adjacent grades reflected the percent of students that would be in each category if the grade 6 results were applied to each of the adjacent grades. After panelists finished the grades 5 and 7 cutpoints, these were then used to establish the starting values for grades 8 and 10 in the same manner. These starting values were presented to the panelists at the beginning of round one for each grade. Panelists were instructed to place a post-it note in their ordered item booklet to indicate the location of the cutpoints based on the starting values they were provided for their subject and grade. The processes for science mirrored the ones for language usage, save for the grade ranges.

4.2 Computation of Standard Errors

There are two forms of error that should be considered in standard setting or standards validation. One is the standard error associated with the panelists' ratings and the second is the standard error of measurement of the test itself. The two types are described below, along with their respective roles in the process.

Standard Error of Panelists' Ratings

Standard errors associated with this process represent the likely range of recommendations that might result had the panels of educators conducted the same process, under the same conditions. Note that the groups for each subject were split into two groups that worked on grades 5, 4, and 3, or 7, 8 and 10. Therefore, the sample sizes for each grade cluster were approximately half of the total. In science, the total group worked on grade 7 and approximately half of the total worked on grade 5 and the other half on grade 10.

It is important to note that the calculations were based on the standard error of the median. The standard error of the median, given a normal distribution or large samples, is approximately 25 percent larger than the standard error of the means. Thus, multiplying the standard error of the means by a factor of 1.25 was used as an approximation.

With the exception of grade 6 language usage and grade 7 science, the panelists were given starting values (initial cutpoints) rather than beginning without any prior information, therefore, the standard errors would be expected to be smaller than if the panelists were not given starting values (initial cutpoints). In effect, panelists went into the process with the goal of articulating the cutpoints across grades in a reasonable manner and were not asked to treat this as independent of the adjacent grades cutpoints. In this manner, the process resembled that

suggested by Huynh, H. & Scheider, C. (2004) in establishing vertical moderated standards across grades.

Table 1 shows the standard errors in the logit (Rasch) metric for Round 1 at each cutpoint, by grade, within subject. Table 2 shows the same information as Table 1, but in the scale score metric. Note that the complete set of standard errors by subject and grade for each round may be found in Appendix B.

Table 1

	Reading			Mathematics		
	SE Logit			*SE Logit*		
Grade	**B/BB**	**P/B**	**A/P**	**B/BB**	**P/B**	**A/P**
3	0.064	0.048	0.049	0.065	0.060	0.075
4	0.053	0.054	0.052	0.058	0.026	0.134
5	0.029	0.040	0.080	0.117	0.100	0.104
6	0.045	0.047	0.067	0.081	0.047	0.052
7	0.023	0.102	0.081	0.151	0.047	0.095
8	0.042	0.036	0.121	0.144	0.071	0.053
10	0.034	0.081	0.059	0.053	0.035	0.079
	Language Usage			**Science**		
	SE Logit			*SE Logit*		
Grade	**B/BB**	**P/B**	**A/P**	**B/BB**	**P/B**	**A/P**
3	0.038	0.094	0.049			
4	0.108	0.080	0.092			
5	0.130	0.092	0.136	0.162	0.145	0.056
6	0.139	0.124	0.089			
7	0.202	0.123	0.058	0.099	0.064	0.042
8	0.188	0.082	0.087			
10	0.077	0.127	0.074	0.075	0.123	0.091

BB- Below Basic
B- Basic
P- Proficient
A- Advanced

Table 2

	Reading			Mathematics		
	SE Scale Score			SE Scale Score		
Grade	B/BB	P/B	A/P	B/BB	P/B	A/P
3	0.64	0.48	0.49	0.65	0.60	0.75
4	0.53	0.54	0.52	0.58	0.26	1.34
5	0.29	0.40	0.80	1.17	1.00	1.04
6	0.45	0.47	0.67	0.81	0.47	0.52
7	0.23	1.02	0.81	1.51	0.47	0.95
8	0.42	0.36	1.21	1.44	0.71	0.53
10	0.34	0.81	0.59	0.53	0.35	0.79
	Language Usage			Science		
	SE Scale Score			SE Scale Score		
Grade	B/BB	P/B	A/P	B/BB	P/B	A/P
3	0.38	0.94	0.49			
4	1.08	0.80	0.92			
5	1.30	0.92	1.36	1.62	1.45	0.56
6	1.39	1.24	0.89			
7	2.02	1.23	0.58	0.99	0.64	0.42
8	1.88	0.82	0.87			
10	0.77	1.27	0.74	0.75	1.23	0.91

BB- Below Basic
B- Basic
P- Proficient
A- Advanced

Conditional Standard Error of Measurement

Perhaps, a more appropriate type of standard error for this situation is commonly referred to as the conditional standard of error (CSE). It differs from the standard error of the panelists' ratings in that it is a measure of the expected error of the test itself; in addition, it differs from the traditional standard error of measurement (SEM) in that it is dependent on the particular score along the entire range of possible scores, whereas the traditional SEM is constant at all levels. For CSEs, in general, scores in the middle of the score distribution are more precise (have less error) than those at the extremes. The most relevant use for the conditional standard error in standard setting or standards validation is the CSE at the cutpoints, given that they are the critical decision points in terms of consequences and outcomes. In consultation with the national technical advisory committee, it was determined that these values were more relevant than the ones based on the panelists' ratings. Thus, they were used in determining the reasonable bounds of the recommendations.

Table 3 shows the conditional standard errors in the logit (Rasch) metric at the cutpoints. For reading and math the cutpoint is the Proficient/Basic cutpoint given to panelists as the starting values. For language usage and science, the cutpoints are those recommended by the panelists at the end of round 3. Table 4 shows the same information as Table 3, but in the scale score metric.

Table 3

	Reading			Mathematics		
	SE Logit			*SE Logit*		
Grade	**B/BB**	**P/B**	**A/P**	**B/BB**	**P/B**	**A/P**
3		0.342			0.344	
4		0.339			0.346	
5		0.327			0.339	
6		0.330			0.339	
7		0.330			0.322	
8		0.316			0.327	
10		0.316			0.322	
	Language Usage			**Science**		
	SE Logit			*SE Logit*		
Grade	**B/BB**	**P/B**	**A/P**	**B/BB**	**P/B**	**A/P**
3	0.375	0.403	0.519			
4	0.382	0.381	0.450			
5	0.343	0.365	0.452	0.347	0.341	0.411
6	0.344	0.364	0.466			
7	0.327	0.335	0.430	0.305	0.317	0.357
8	0.327	0.337	0.491			
10	0.339	0.331	0.458	0.302	0.308	0.385

BB- Below Basic
B- Basic
P- Proficient
A- Advanced

Table 4

	Reading			Mathematics		
	SE Scale Score			SE Scale Score		
Grade	**B/BB**	**P/B**	**A/P**	**B/BB**	**P/B**	**A/P**
3		3.42			3.44	
4		3.39			3.46	
5		3.27			3.39	
6		3.30			3.39	
7		3.30			3.22	
8		3.16			3.27	
10		3.16			3.22	
	Language Usage			**Science**		
	SE Scale Score			**SE Scale Score**		
Grade	**B/BB**	**P/B**	**A/P**	**B/BB**	**P/B**	**A/P**
3	3.75	4.03	5.19			
4	3.82	3.81	4.50			
5	3.43	3.65	4.52	3.47	3.41	4.11
6	3.44	3.64	4.66			
7	3.27	3.35	4.30	3.05	3.17	3.57
8	3.27	3.37	4.91			
10	3.39	3.31	4.58	3.02	3.08	3.85

BB- Below Basic
B- Basic
P- Proficient
A- Advanced

4.3 Panelist Recommendations and Smoothing

Figures 5 through 8 show the panelists' recommended cutpoints (at the end of Round 3[1]) in the logit metric, across all grades, for each cutpoint. For reading, mathematics, and language usage the figures also show a smoothing applied to the panelists' recommended cutpoints. The smoothing was applied to provide for a more smooth progression across grades. This was not used as a means to make the cutpoints either more or less strict. The smoothing was not applied to science.

Figures 9 through 12 show the percent of students that would fall into each of the four performance levels based on the panelists' recommended cutpoints.

Figures 13 through 15 show the percent of students that would fall into each of the four performance levels based on the smoothed cutpoints.

[1] Grade 8 Reading was the exception, as they completed four rounds of judgments. Some panelists expressed their concern about the lack of items at the lower end of the OIB and were thus less confident in their judgments at the Basic/Below Basic cutpoint. DRC, in response to their concern, supplemented the OIB with several embedded field test items in and below the range of the initial OIB. Round 4 was completed as the first task on the following day.

Figure 5
Reading Cutpoints:
Panelists' Recommendations and Post-smoothing

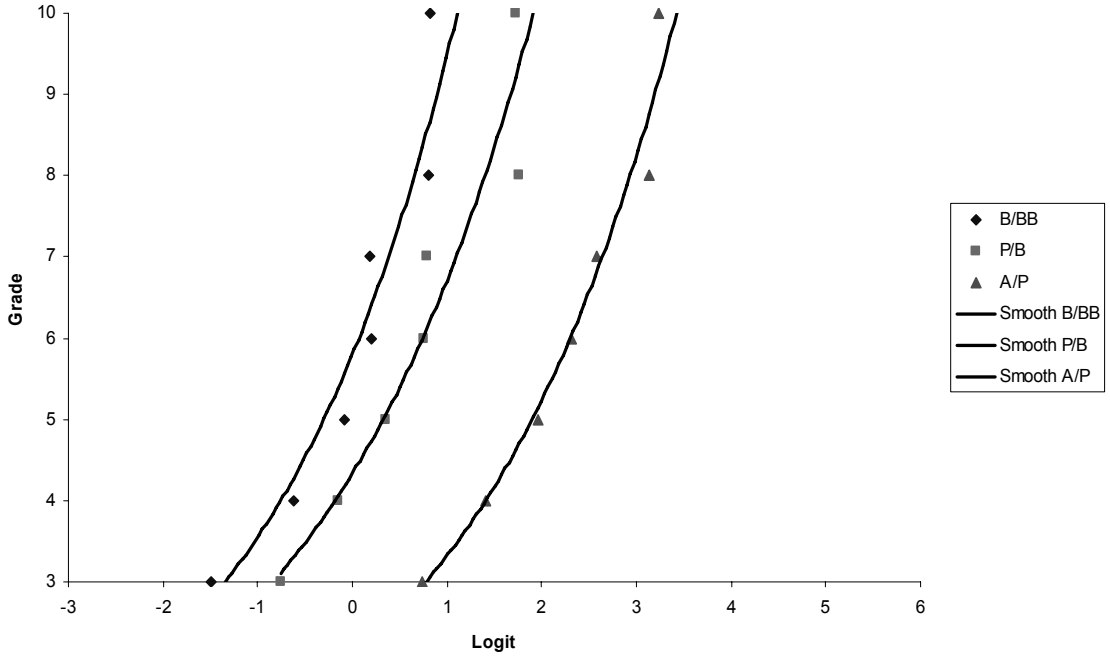


Figure 6
Mathematics Cutpoints:
Panelists' Recommendations and Post-smoothing

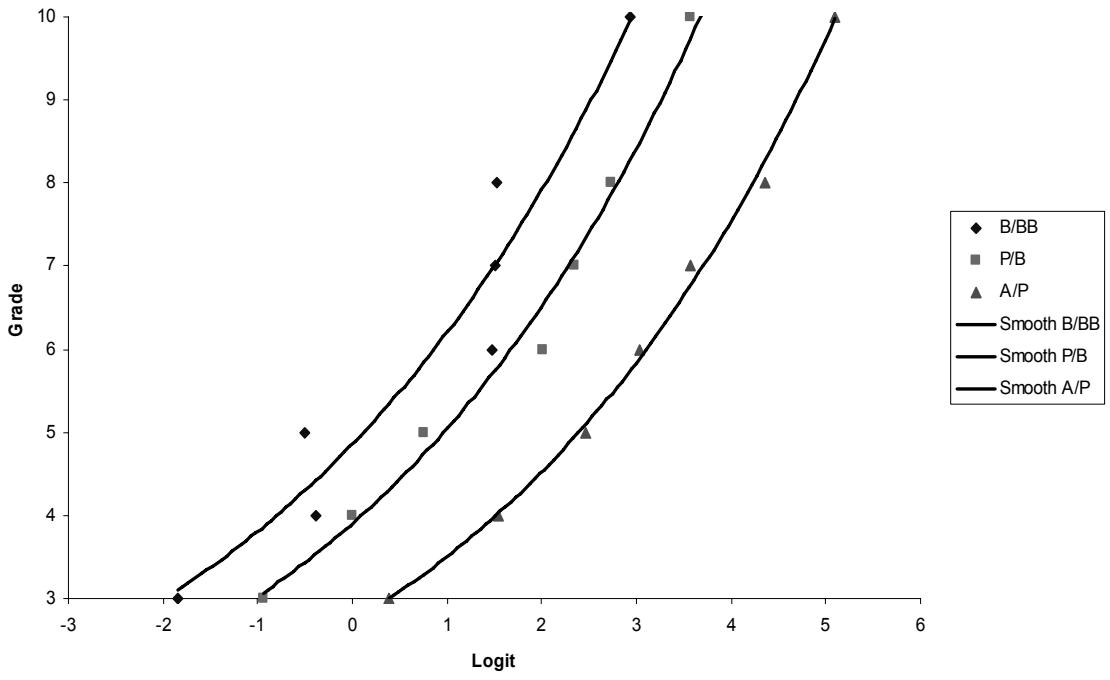


Figure 7
Language Usage Cutpoints:
Panelists' Recommendations and Post-smoothing

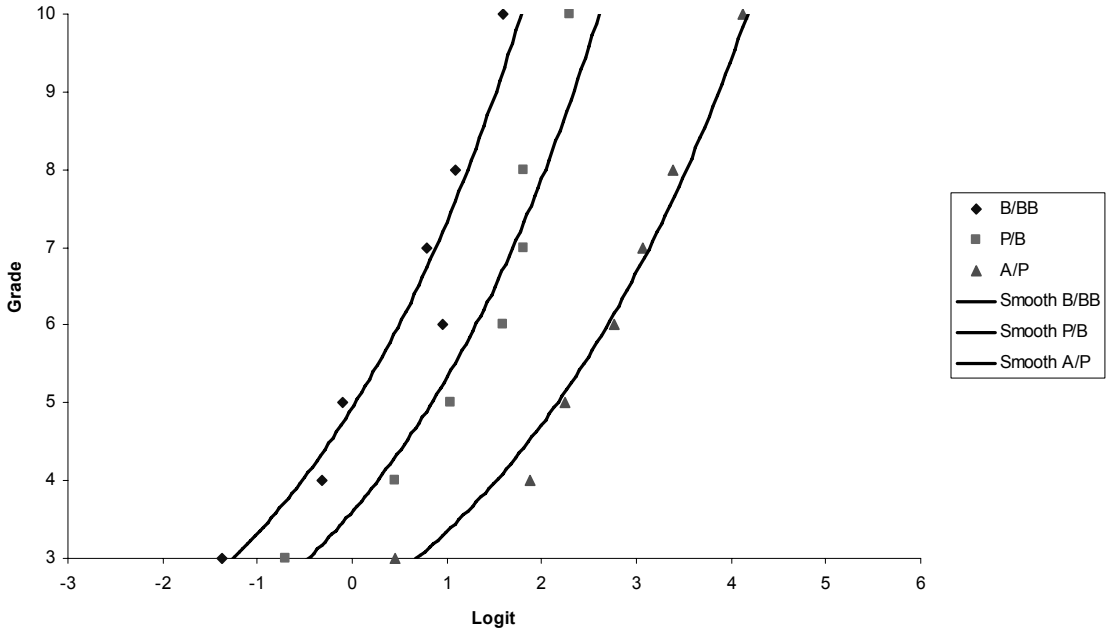


Figure 8

Science Cutpoints:
Panelists' Recommendations

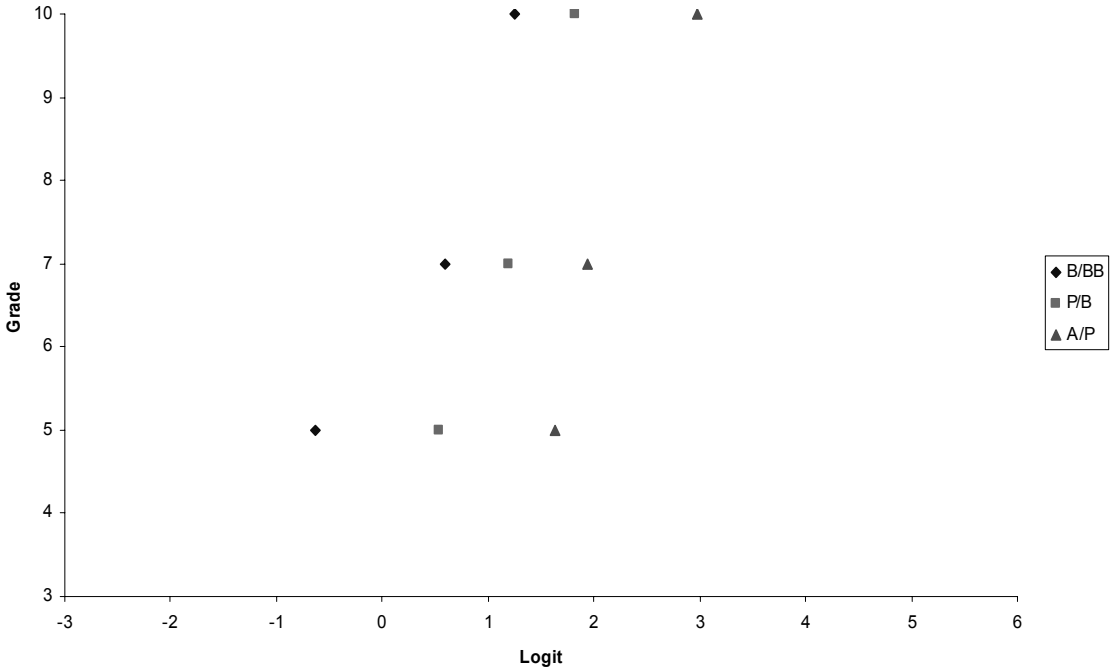
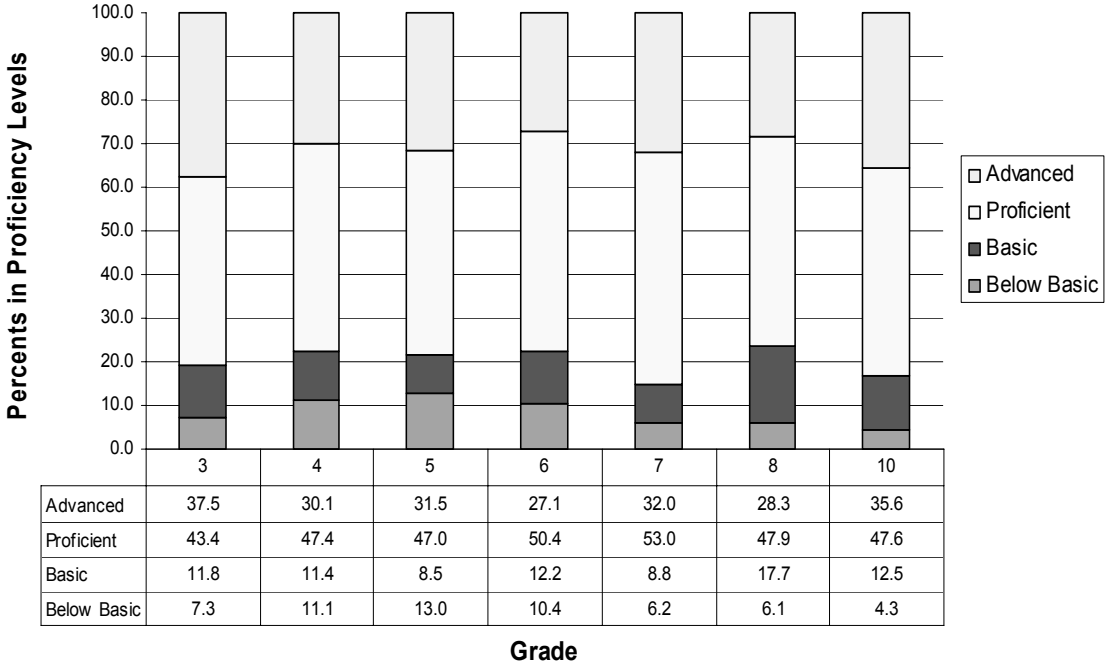


Figure 9

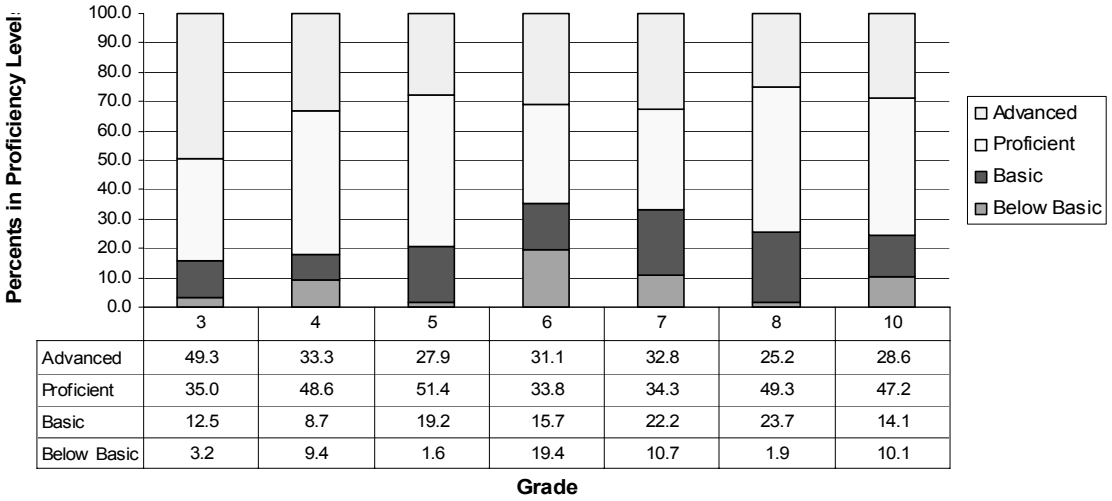
Reading:

Impacts based on Panelists' Recommendations



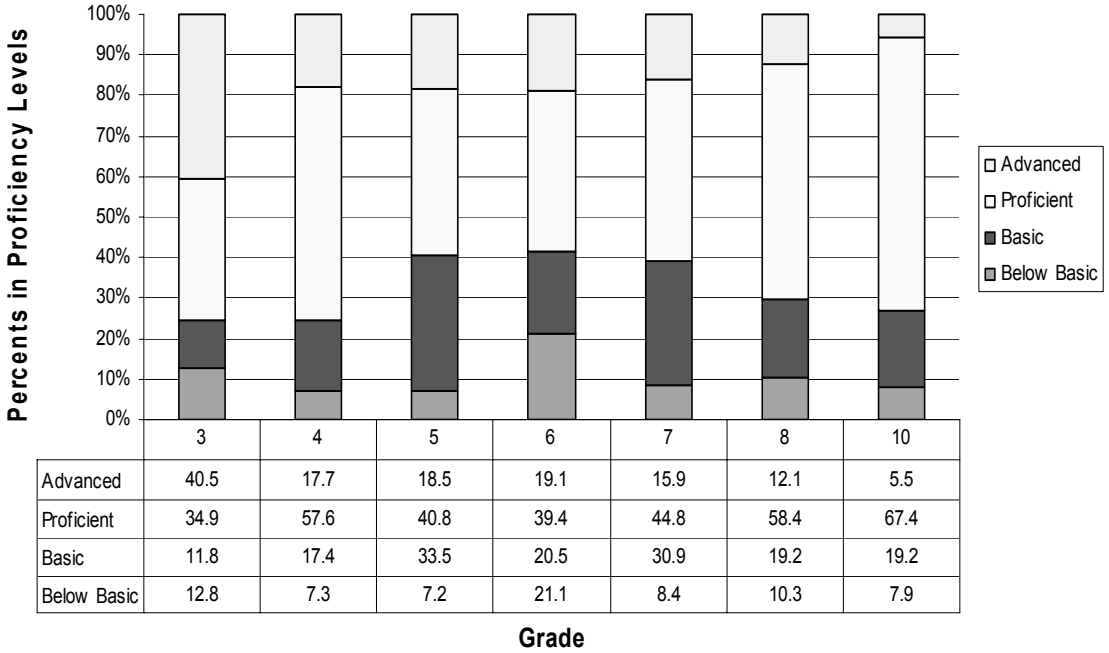
	3	4	5	6	7	8	10
Advanced	37.5	30.1	31.5	27.1	32.0	28.3	35.6
Proficient	43.4	47.4	47.0	50.4	53.0	47.9	47.6
Basic	11.8	11.4	8.5	12.2	8.8	17.7	12.5
Below Basic	7.3	11.1	13.0	10.4	6.2	6.1	4.3

Figure 10
Mathematics:
Impacts based on Panelists' Recommendations



	3	4	5	6	7	8	10
Advanced	49.3	33.3	27.9	31.1	32.8	25.2	28.6
Proficient	35.0	48.6	51.4	33.8	34.3	49.3	47.2
Basic	12.5	8.7	19.2	15.7	22.2	23.7	14.1
Below Basic	3.2	9.4	1.6	19.4	10.7	1.9	10.1

Figure 11
Language Usage:
Impacts based on Panelists' Recommendations

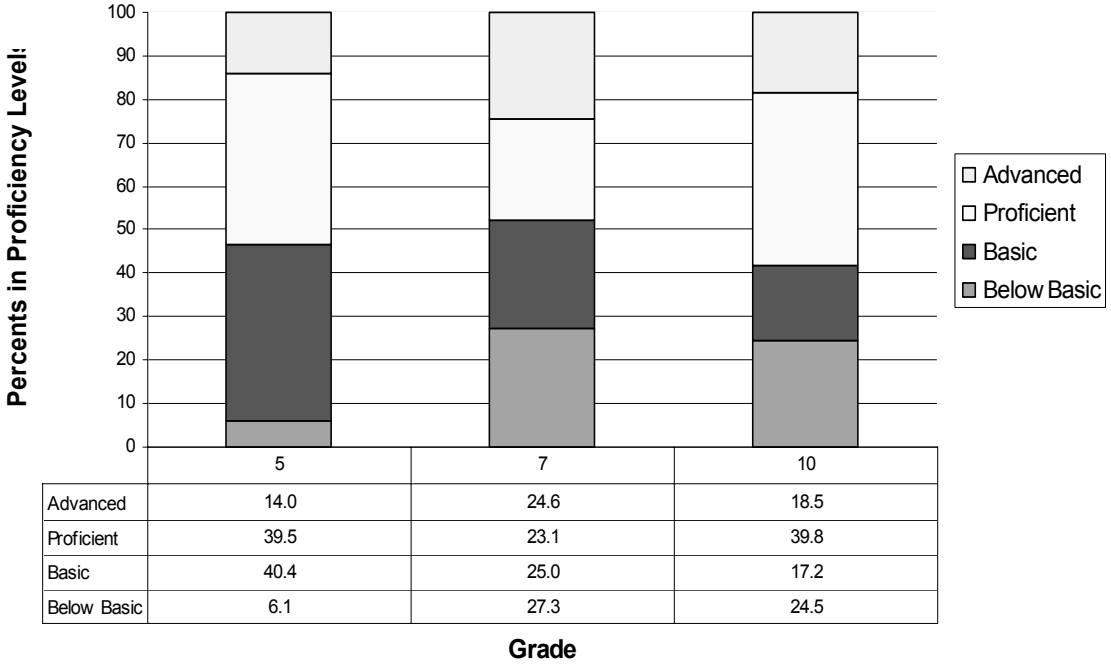


	3	4	5	6	7	8	10
Advanced	40.5	17.7	18.5	19.1	15.9	12.1	5.5
Proficient	34.9	57.6	40.8	39.4	44.8	58.4	67.4
Basic	11.8	17.4	33.5	20.5	30.9	19.2	19.2
Below Basic	12.8	7.3	7.2	21.1	8.4	10.3	7.9

Figure 12

Science:

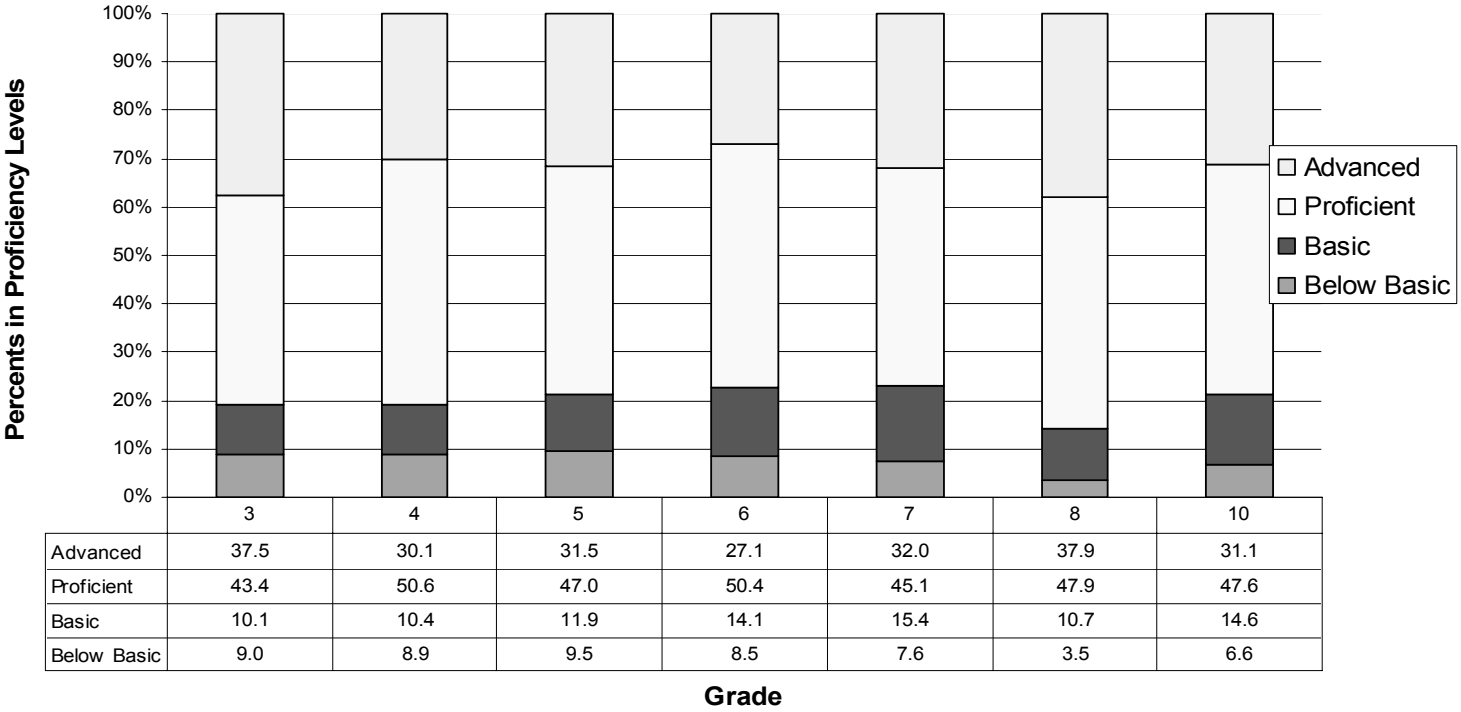
Impacts based on Panelists' Recommendations



	5	7	10
Advanced	14.0	24.6	18.5
Proficient	39.5	23.1	39.8
Basic	40.4	25.0	17.2
Below Basic	6.1	27.3	24.5

Figure 13

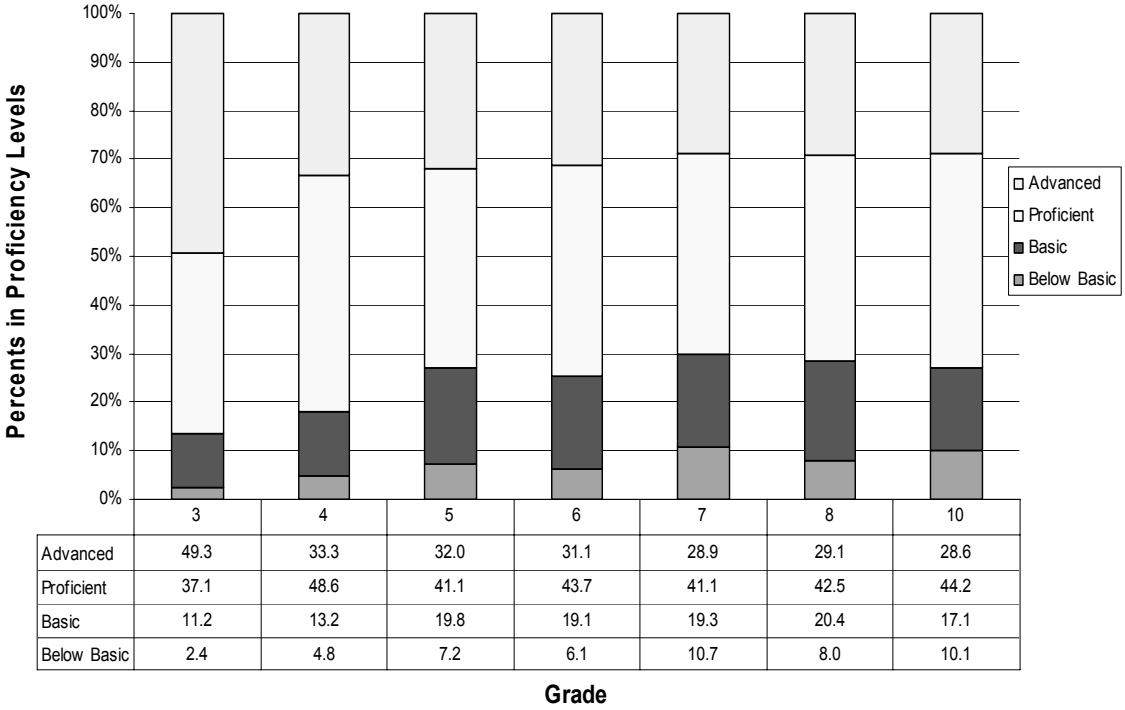
Reading:
Impacts based on Smoothing Procedure



	3	4	5	6	7	8	10
Advanced	37.5	30.1	31.5	27.1	32.0	37.9	31.1
Proficient	43.4	50.6	47.0	50.4	45.1	47.9	47.6
Basic	10.1	10.4	11.9	14.1	15.4	10.7	14.6
Below Basic	9.0	8.9	9.5	8.5	7.6	3.5	6.6

Figure 14

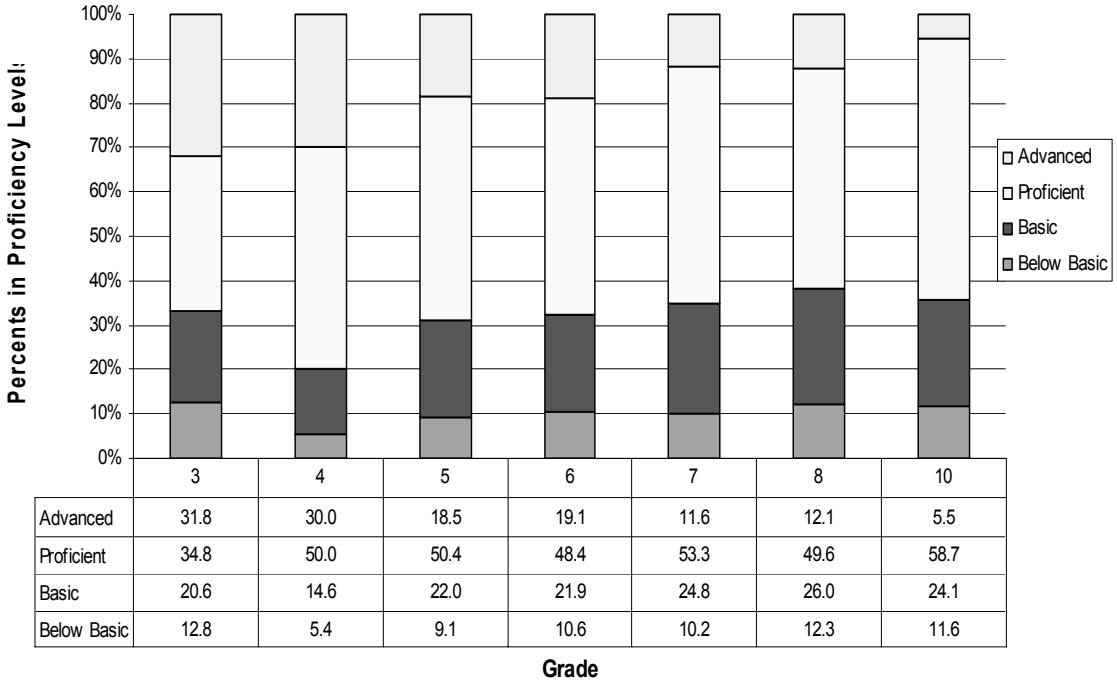
Mathematics:
Impacts based on Smoothing Procedure



	3	4	5	6	7	8	10
Advanced	49.3	33.3	32.0	31.1	28.9	29.1	28.6
Proficient	37.1	48.6	41.1	43.7	41.1	42.5	44.2
Basic	11.2	13.2	19.8	19.1	19.3	20.4	17.1
Below Basic	2.4	4.8	7.2	6.1	10.7	8.0	10.1

Figure 15

Language Usage:
Impacts based on Smoothing Procedure



	3	4	5	6	7	8	10
Advanced	31.8	30.0	18.5	19.1	11.6	12.1	5.5
Proficient	34.8	50.0	50.4	48.4	53.3	49.6	58.7
Basic	20.6	14.6	22.0	21.9	24.8	26.0	24.1
Below Basic	12.8	5.4	9.1	10.6	10.2	12.3	11.6

5 Scale Score Cutpoints

Table 5 shows the scale score cutpoints for each grade and subject. Results for grade 9 are interpolated from grades 8 and 10.

Table 5

READING								
Performance Level	**Grade 3**	**Grade 4**	**Grade 5**	**Grade 6**	**Grade 7**	**Grade 8**	**Grade 9**	**Grade 10**
Advanced	208 and above	214 and above	219 and above	223 and above	227 and above	229 and above	232 and above	235 and above
Proficient	192-207	198-213	204-218	208-222	212-226	214-228	217-231	220-234
Basic	187-191	193-197	197-203	201-207	204-211	207-213	209-216	211-219
Below Basic	186 and below	192 and below	196 and below	200 and below	203 and below	206 and below	208 and below	210 and below
MATHEMATICS								
Performance Level	**Grade 3**	**Grade 4**	**Grade 5**	**Grade 6**	**Grade 7**	**Grade 8**	**Grade 9**	**Grade 10**
Advanced	204 and above	216 and above	224 and above	231 and above	237 and above	243 and above	247 and above	251 and above
Proficient	190-203	201-215	211-223	218-230	223-236	229-242	233-246	238-250
Basic	181-189	193-200	202-210	209-217	215-222	220-228	226-232	230-237
Below Basic	180 and below	192 and below	201 and below	208 and below	214 and below	219 and below	225 and below	229 and below
LANGUAGE USAGE								
Performance Level	**Grade 3**	**Grade 4**	**Grade 5**	**Grade 6**	**Grade 7**	**Grade 8**	**Grade 9**	**Grade 10**
Advanced	207 and above	216 and above	222 and above	227 and above	232 and above	236 and above	239 and above	242 and above
Proficient	196-206	203-215	209-221	214-226	218-231	221-235	224-238	226-241
Basic	188-195	195-202	201-208	206-213	209-217	213-220	216-223	218-225
Below Basic	187 and below	194 and below	200 and below	205 and below	208 and below	212 and below	215 and below	217 and below
SCIENCE								
Performance Level	**Grade 3**	**Grade 4**	**Grade 5**	**Grade 6**	**Grade 7**	**Grade 8**	**Grade 9**	**Grade 10**
Advanced			216 and above		219 and above			230 and above
Proficient			206-215		213-218			219-229
Basic			194-205		206-212			213-218
Below Basic			193 and below		205 and below			212 and below

6 Panelists' Survey Evaluation Results Summary

Idaho Standards Validation
May 2007

Evaluation Form

The purpose of this Evaluation Form is to obtain your opinions about the standards validation. Your opinions will provide a basis for evaluating both the materials and the training. We request that you **not** put your name on this form. We want your opinions to remain anonymous.

Please Circle Content Area:

Reading

1. Check the column that most accurately reflects your opinion regarding the usefulness of the following materials used in the standards validation:

Materials	Not Useful	Partially Useful	Useful	Very Useful
Performance Level Descriptors (n=34)	0.0%	5.9%	17.6%	**76.5%**
Item Map (n=33)	0.0%	3.0%	36.3%	**60.7%**
Items (n=33)	0.0%	0.0%	9.1%	**90.9%**
Impact Report (n=33)	0.0%	9.1%	39.4%	**51.5%**

2. Indicate the importance of the following factors in your classifications:

Factor	Not Important	Somewhat Important	Important	Very Important
Your perceptions of the difficulty of the items (n=34)	0.0%	11.8%	29.4%	**58.8%**
Your own classroom experience (n=34)	0.0%	11.8%	41.2%	**47.0%**
Panel discussions (n=34)	0.0%	0.0%	23.5%	**76.5%**
The initial estimates of the other panelists (n=34)	2.9%	17.7%	**58.8%**	20.6%

3. Check the column that reflects your confidence in your final judgment:

Performance Level	Not Confident	Partially Confident	Confident	Very Confident
Below Basic/Basic (n=33)	0.0%	0.0%	45.5%	**54.5%**
Basic/Proficient (n=31)	0.0%	0.0%	38.7%	**61.3%**
Proficient/ Advanced (n=32)	0.0%	3.1%	46.9%	**50.0%**

4. How adequate was the training provided on the procedure and tasks to prepare you for your subsequent judgments? (n=33)

a. Not Adequate 0.0%
b. Partially Adequate 9.1%
c. Adequate 54.5%
d. Very Adequate 36.4%

5. How would you rate the amount of time used for training? (n=33)

a. Too little time 9.1%
b. About right 90.9%
c. Too much time 0.0%

6. How would you rate the amount of time allotted for your judgements **after** the training? (n=33)

a. Too little time 0.0%
b. About right 100.0%
c. Too much time 0.0%

7. How confident are you that the processes and methods used for the standards validation will produce a reliable and valid result? (n=33)

a. Not Confident 0.0%
b. Partially Confident 6.0%
c. Confident 69.7%
d. Very Confident 24.3%

8. How would you rate the facilities? (n=33)

a. Not Suitable 0.0%
b. Somewhat Suitable 18.2%
c. Highly Suitable 81.8%

Idaho Standards Validation
May 2007

Evaluation Form

The purpose of this Evaluation Form is to obtain your opinions about the standards validation. Your opinions will provide a basis for evaluating both the materials and the training. We request that you **not** put your name on this form. We want your opinions to remain anonymous.

Please Circle Content Area:

Math

1. Check the column that most accurately reflects your opinion regarding the usefulness of the following materials used in the standards validation:

Materials	Not Useful	Partially Useful	Useful	Very Useful
Performance Level Descriptors (n=35)	0%	5.7%	31.4%	**62.9%**
Item Map (n=35)	0%	5.7%	40.0%	**54.3%**
Items (n=35)	0%	0%	14.3%	**85.7%**
Impact Report (n=35)	5.7%	0%	**48.6%**	45.7%

2. Indicate the importance of the following factors in your classifications:

Factor	Not Important	Somewhat Important	Important	Very Important
Your perceptions of the difficulty of the items (n=35)	0%	17.1%	**45.7%**	37.1%
Your own classroom experience (n=35)	0%	17.1%	**54.3%**	28.6%
Panel discussions (n=35)	0%	2.9%	28.6%	**68.6%**
The initial estimates of the other panelists (n=35)	8.6%	**40.0%**	31.4%	20.0%

3. Check the column that reflects your confidence in your final judgment:

Performance Level	Not Confident	Partially Confident	Confident	Very Confident
Below Basic/Basic (n=35)	0%	5.7%	**51.4%**	42.9%
Basic/Proficient (n=35)	0%	5.7%	**60.0%**	34.3%
Proficient/ Advanced (n=35)	0%	8.6%	**68.6%**	22.9%

4. How adequate was the training provided on the procedure and tasks to prepare you for your subsequent judgments? (n=35)

a. Not Adequate 0.0%
b. Partially Adequate 20.0%
c. Adequate 45.7%
d. Very Adequate 34.3%

5. How would you rate the amount of time used for training? (n=35)

a. Too little time 20.0%
b. About right 74.3%
c. Too much time 5.7%

6. How would you rate the amount of time allotted for your judgements **after** the training? (n=35)

a. Too little time 0.0%
b. About right 94.3%
c. Too much time 5.7%

7. How confident are you that the processes and methods used for the standards validation will produce a reliable and valid result? (n=35)

a. Not Confident 2.9%
b. Partially Confident 31.4%
c. Confident 48.6%
d. Very Confident 17.1%

8. How would you rate the facilities? (n=35)

a. Not Suitable 2.9%
b. Somewhat Suitable 17.1%
c. Highly Suitable 80.0%

Idaho Standard Setting
May 2007

Evaluation Form

The purpose of this Evaluation Form is to obtain your opinions about the standard setting. Your opinions will provide a basis for evaluating both the materials and the training. We request that you **not** put your name on this form. We want your opinions to remain anonymous.

Please Circle Content Area:

Language Usage

1. Check the column that most accurately reflects your opinion regarding the usefulness of the following materials used in the standard setting:

Materials	Not Useful	Partially Useful	Useful	Very Useful
Performance Level Descriptors (n=27)	0%	7.4%	25.9%	**66.7%**
Item Map (n=26)	0%	15.4%	46.2%	**88.5%**
Items (n=26)	0%	0%	15.4%	**84.6%**
Impact Report (n=25)	0%	12.0%	**48.0%**	40.0%

2. Indicate the importance of the following factors in your classifications:

Factor	Not Important	Somewhat Important	Important	Very Important
Your perceptions of the difficulty of the items (n=27)	0%	7.4%	37.0%	**55.6%**
Your own classroom experience (n=27)	0%	3.7%	33.3%	**63.0%**
Panel discussions (n=27)	0%	3.7%	29.6%	**66.7%**
The initial estimates of the other panelists (n=27)	7.4%	29.6%	**40.7%**	22.2%

3. Check the column that reflects your confidence in your final judgment:

Performance Level	Not Confident	Partially Confident	Confident	Very Confident
Below Basic/Basic (n=25)	0.0%	8.0%	40.0%	**52.0%**
Basic/Proficient (n=25)	0.0%	8.0%	36.0%	**56.0%**
Proficient/ Advanced (n=25)	0.0%	8.0%	36.0%	**60.0%**

4. How adequate was the training provided on the procedure and tasks to prepare you for your subsequent judgments? (n=26)

a. Not Adequate 0.0%
b. Partially Adequate 3.9%
c. Adequate 57.7%
d. Very Adequate 38.5%

5. How would you rate the amount of time used for training? (n=27)

a. Too little time 3.7%
b. About right 92.6%
c. Too much time 3.7%

6. How would you rate the amount of time allotted for your judgements **after** the training? (n=26)

a. Too little time 3.9%
b. About right 88.5%
c. Too much time 7.7%

7. How confident are you that the processes and methods used for the standard setting will produce a reliable and valid result? (n=26)

a. Not Confident 0.0%
b. Partially Confident 42.3%
c. Confident 34.6%
d. Very Confident 23.1%

8. How would you rate the facilities? (n=27)

a. Not Suitable 0.0%
b. Somewhat Suitable 3.7%
c. Highly Suitable 96.3%

Idaho Standard Setting
May 2007

Evaluation Form

The purpose of this Evaluation Form is to obtain your opinions about the standard setting. Your opinions will provide a basis for evaluating both the materials and the training. We request that you **not** put your name on this form. We want your opinions to remain anonymous.

Please Circle Content Area:

Science

1. Check the column that most accurately reflects your opinion regarding the usefulness of the following materials used in the standard setting:

Materials	Not Useful	Partially Useful	Useful	Very Useful
Performance Level Descriptors (n=33)	0.0%	0.0%	36.4%	**63.6%**
Item Map (n=33)	0.0%	12.1%	39.4%	**48.5%**
Items (n=33)	0.0%	0.0%	15.2%	**84.9%**
Impact Report (n=32)	0.0%	12.5%	**46.9%**	40.6%

2. Indicate the importance of the following factors in your classifications:

Factor	Not Important	Somewhat Important	Important	Very Important
Your perceptions of the difficulty of the items (n=33)	0.0%	6.1%	39.4%	**54.6%**
Your own classroom experience (n=33)	0.0%	9.1%	27.3%	**63.6%**
Panel discussions (n=33)	0.0%	3.0%	**51.5%**	45.5%
The initial estimates of the other panelists (n=33)	3.0%	33.3%	**39.4%**	24.2%

3. Check the column that reflects your confidence in your final judgment:

Performance Level	Not Confident	Partially Confident	Confident	Very Confident
Below Basic/Basic (n=33)	0.0%	6.1%	**63.6%**	30.3%
Basic/Proficient (n=32)	3.1%	12.5%	**50.0%**	34.4%
Proficient/ Advanced (n=32)	6.3%	12.5%	37.5%	**43.8%**

4. How adequate was the training provided on the procedure and tasks to prepare you for your subsequent judgments? (n=33)

a. Not Adequate 0.0%
b. Partially Adequate 3.0%
c. Adequate 63.6%
d. Very Adequate 33.3%

5. How would you rate the amount of time used for training? (n=33)

a. Too little time 9.1%
b. About right 72.7%
c. Too much time 18.2%

6. How would you rate the amount of time allotted for your judgements **after** the training? (n=33)

a. Too little time 0.0%
b. About right 90.9%
c. Too much time 9.1%

7. How confident are you that the processes and methods used for the standard setting will produce a reliable and valid result? (n=32)

a. Not Confident 9.4%
b. Partially Confident 31.3%
c. Confident 43.8%
d. Very Confident 15.6%

8. How would you rate the facilities? (n=33)

a. Not Suitable 0.0%
b. Somewhat Suitable 0.0%
c. Highly Suitable 100.0%

Appendix A: Agendas

Idaho Standards Validation Meeting
Reading and Mathematics
May 20-23, 2007
Boise, Idaho

Sunday, May 20

6:00 pm – 7:00 pm	Overview of Standard Setting (July 24-28, 2006) Goals and Purpose of Standards Validation (May 20-23, 2007) Questions for OSBE and DRC Summary of activities—Monday, Tuesday, and Wednesday

Monday, May 21

8:00 am – 8:30 am	Continental Breakfast
8:30 am – 8:45 am	Check-in
8:45 am – 9:15 am	Introduction to Standards Validation OSBE introduction DRC introduction – Reimbursement and other administrative procedures
9:15 am – 9:45 am	Overview of Method
9:45 am – 10:15 am	Training using sample materials
10:15 am – 10:30 am	Break
10:30 am – 11:00 am	Presentation and Discussion of Performance Level Descriptors (grade 6) Reading – Room TBD Mathematics – Room TBD
11:00 am – 12:00 pm	Round 1 – Individual Placements (grade 6)
12:00 pm – 1:00 pm	Lunch
1:00 pm – 1:45 pm	Round 2 – Presentation of Impacts from end of Round 1 and group discussion
1:45pm – 2:30pm	Revisions (grade 6)
2:30 pm – 3:00 pm	Break/Analysis
3:00 pm – 4:00 pm	Round 3 – Presentation of Impacts from end of Round 2 and group discussion
4:00 pm – 4:30 pm	Final Revisions (grade 6)

Tuesday, May 22

8:00 am – 8:30 am	Continental Breakfast and Check-in
8:30 am – 8:45 am	Presentation and Discussion of Performance Level Descriptors (grade 5 or grade 7) Reading – Room TBD Mathematics – Room TBD
8:45 am – 9:30 am	Round 1 – Individual Placements (grade 5 or 7)
9:30 am – 9:45 am	Analysis
9:45 am –10:00 am	Round 2 – Presentation of Impacts from end of Round 1 and group discussion
10:00 am – 10:30 am	Revisions (grade 5 or 7)
10:30am – 10:45 am	Break/Analysis
10:45 am – 11:45 am	Round 3 – Presentation of impacts from end of Round 2 and group discussion
11:45 am – 12:00 pm	Final Revisions (grade 5 or 7)
12:00 pm – 1:00 pm	Lunch
1:00 pm – 1:15 pm	Presentation and Discussion of Performance Level Descriptors (grade 4 or 8)
1:15 pm – 2:15 pm	Round 1 – Individual Placements (grade 4 or 8)
2:15 pm – 2:30 pm	Break/Analysis
2:30 pm – 3:15 pm	Round 2 – Presentation of Impacts from end of Round 1 and group discussion
3:15 pm – 4:00 pm	Revisions (grade 4 or 8)

Wednesday, May 23

8:00 am – 8:30 am	Continental Breakfast and Check-in
8:30 am – 9:30 am	Round 3 – Presentation of Impacts from end of Round 2 and group discussion Reading – Room TBD Mathematics – Room TBD
9:30 am – 10:15 am	Final revisions (grade 4 or 8)
10:15 am – 10:30 am	Break
10:30 am – 10:45 am	Presentation and Discussion of Performance Level Descriptors (grade 3 or 10)
10:45 am – 12:00 pm	Round 1 – Individual Placements (grade 3 or 10)
12:00 pm —1:00 pm	Lunch
1:00 am – 2:00 pm	Round 2 – Presentation of Impacts from end of Round 1 and group discussion
2:00 pm – 2:30 pm	Revisions (grade 3 or 10)
2:30 pm – 2:45 pm	Break/Analysis
2:45 pm – 3:15 pm	Round 3 – Presentation of Impacts from end of Round 2 and group discussion
3:15 pm – 3:45 pm	Final Revisions (grade 3 or 10)
3:45 pm – 4:00 pm	Break/Analysis
4:00 pm – 4:30 pm	Presentation of cut points and impacts across grades

Idaho Standard Setting Meeting
Language Usage
May 23-25, 2007
Boise, Idaho

Wednesday, May 23

7:30 am – 8:30 am	Continental Breakfast
8:30 am – 8:45 am	Check-in
8:45 am – 9:15 am	Introduction to Standard Setting OSBE introduction DRC introduction – Reimbursement and other administrative procedures
9:15 am – 9:45 am	Overview of Method
9:45 am – 10:15 am	Training using sample materials
10:15 am – 10:30 am	Break
10:30 am – noon	Presentation and Discussion of Proficiency Level Descriptors (grade 6) Round 1 – Individual Placements (grade 6)
noon – 1:00 pm	Lunch
1:00 pm – 1:45 pm	Round 2 – Presentation of Impacts from end of Round 1 and group discussion
1:45pm – 2:30pm	Revisions (grade 6)
2:30 pm – 3:00 pm	Break/Analysis
3:00 pm – 3:15 pm	Round 3 – Presentation of Impacts from end of Round 2
3:15pm – 4:00 pm	Group Discussion
4:00 pm – 4:30 pm	Final Revisions (grade 6)

Thursday, May 24

7:30 am – 8:00 am	Continental Breakfast
8:00 am – 8:15 am	Check-in
8:15 am – 8:30 am	Presentation and Discussion of Proficiency Level Descriptors (grade 5 or grade 7) – Room TBD
8:30 am – 9:30 am	Round 1 – Individual Placements (grade 5 or 7)
9:30 am –10:00 am	Round 2 – Group discussion and Presentation of Round 1 Impacts
10:00 am – 10:30 am	Revisions (grade 5 or 7)
10:30am – 10:45 am	Break
10:45 am – 11:15 am	Round 3 – Presentation of impacts from end of Round 2
11:15 am – noon	Group discussion
noon – 12:15 pm	Final Revisions (grade 5 or 7)
12:15 pm – 1:00 pm	Lunch
1:00 pm – 1:15 pm	Presentation and Discussion of Proficiency Level Descriptors (grade 4 or 8)
1:15 pm – 2:15 pm	Round 1 – Individual Placements (grade 4 or 8)
2:15 pm – 2:30 pm	Break
2:30 pm – 3:00 pm	Round 2 – Group discussions, presentation of Round 1 impacts, and

	revisions (grade 4 or 8)
3:00 pm – 3:15 pm	Break/analysis
3:15 pm –4:30 pm	Round 3 – Presentation of Round 2 impacts (grade 4 or grade 8) Group discussion Final revisions (grade 4 or 8)

Friday, May 25

7:30 am – 8:00 am	Continental Breakfast
8:00 am – 8:30 am	Check-in
8:30 am – 8:45 am	Presentation and Discussion of Proficiency Level Descriptors (grade 3 or 10)
8:45 am – 9:45 am	Round 1 – Individual Placements (grade 3 or 10)
9:45 am – 10:00 am	Break
10:00 am –11:00 pm	Round 2 – Group discussion, presentation of Round 1 impacts, and revisions (grade 3 or 10)
11:00 am – 11:15 pm	Break for analysis
11:15 pm –12:15 pm	Round 3 – Group discussion, presentation of Round 2 impacts (grade 3 or 10), and revisions
12:15 pm – 1:15 pm	Lunch
1:15 pm – 1:45 pm	Presentation of cut points and impacts across grades – Room TBD

Appendix B: Standard Errors by Round

Reading Grade 3

Round 1						
Panelist	**B/BB**	**RID**	**P/B**	**RID**	**A/P**	**RID**
1	8	-0.997	12	-0.607	33	0.565
2	5	-1.486	8	-0.997	38	1.067
3	7	-1.129	11	-0.633	34	0.605
4	5	-1.486	10	-0.761	36	0.953
5	5	-1.486	10	-0.761	35	0.743
6	2	-1.983	8	-0.997	35	0.743
7	5	-1.486	10	-0.761	35	0.743
8	5	-1.486	10	-0.761	38	1.067
9	6	-1.157	10	-0.761	34	0.605
10	7	-1.129	12	-0.607	35	0.743
11	5	-1.486	11	-0.633	35	0.743
12	5	-1.486	12	-0.607	34	0.605
13	5	-1.486	11	-0.633	35	0.743
14	5	-1.486	11	-0.633	35	0.743
15	6	-1.157	12	-0.607	36	0.953
16	4	-1.573	7	-1.129	31	0.537
17	5	-1.486	14	-0.428	35	0.743
18	5	-1.486	10	-0.761	35	0.743
19	5	-1.486	11	-0.633	38	1.067
Room Median	5	-1.486	11	-0.633	35	0.743
SEMedian		0.064		0.048		0.049
Round 2						
Panelist	**B/BB**	**RID**	**P/B**	**RID**	**A/P**	**RID**
1	5	-1.486	10	-0.761	35	0.743
2	5	-1.486	8	-0.997	35	0.743
3	4	-1.573	10	-0.761	35	0.743
4	5	-1.486	10	-0.761	35	0.743
5	5	-1.486	10	-0.761	35	0.743
6	5	-1.486	8	-0.997	35	0.743
7	5	-1.486	8	-0.997	35	0.743
8	5	-1.486	8	-0.997	34	0.605
9	5	-1.486	8	-0.997	34	0.605
10	5	-1.486	8	-0.997	34	0.605
11	5	-1.486	10	-0.761	35	0.743
12	5	-1.486	10	-0.761	34	0.605
13	5	-1.486	10	-0.761	35	0.743
14	5	-1.486	11	-0.633	35	0.743
15	5	-1.486	10	-0.761	35	0.743
16	5	-1.486	7	-1.129	35	0.743
17	5	-1.486	7	-1.129	35	0.743
18	5	-1.486	10	-0.761	35	0.743
19	5	-1.486	10	-0.761	35	0.743

Room Median	5	-1.486	10	-0.761	35	0.743
SEMedian		0.006		0.043		0.017
Round 3						
Panelist	**B/BB**	**RID**	**P/B**	**RID**	**A/P**	**RID**
1	5	-1.486	10	-0.761	36	0.953
2	5	-1.486	10	-0.761	35	0.743
3	5	-1.486	10	-0.761	36	0.953
4	5	-1.486	10	-0.761	35	0.743
5	5	-1.486	10	-0.761	35	0.743
6	5	-1.486	9	-0.832	35	0.743
7	5	-1.486	8	-0.997	36	0.953
8	5	-1.486	10	-0.761	36	0.953
9	5	-1.486	10	-0.761	36	0.953
10	5	-1.486	10	-0.761	36	0.953
11	5	-1.486	10	-0.761	35	0.743
12	5	-1.486	10	-0.761	35	0.743
13	5	-1.486	10	-0.761	35	0.743
14	5	-1.486	10	-0.761	37	0.997
15	5	-1.486	10	-0.761	36	0.953
16	5	-1.486	7	-1.129	35	0.743
17	5	-1.486	10	-0.761	35	0.743
18	5	-1.486	10	-0.761	35	0.743
19	5	-1.486	10	-0.761	35	0.743
Room Median	5	-1.486	10	-0.761	35	0.743
SEMedian		0.000		0.028		0.032

Reading Grade 4

Round 1						
Panelist	**B/BB**	**RID**	**P/B**	**RID**	**A/P**	**RID**
1	4	-0.627	8	-0.157	34	1.409
2	4	-0.627	8	-0.157	34	1.409
3	3	-0.954	7	-0.257	36	1.693
4	4	-0.627	8	-0.157	34	1.409
5	4	-0.627	10	0.108	34	1.409
6	4	-0.627	10	0.108	38	1.799
7	3	-0.954	8	-0.157	33	1.393
8	4	-0.627	8	-0.157	36	1.693
9	4	-0.627	8	-0.157	34	1.409
10	4	-0.627	8	-0.157	36	1.693
11	4	-0.627	11	0.187	35	1.582
12	3	-0.954	11	0.187	28	1.100
13	4	-0.627	8	-0.157	34	1.409
14	4	-0.627	8	-0.157	34	1.409
15	4	-0.627	8	-0.157	34	1.409
16	2	-1.163	5	-0.340	38	1.799
17	3	-0.954	6	-0.304	34	1.409
18	3	-0.954	10	0.108	36	1.693
19	3	-0.954	13	0.339	34	1.409
Room Median	4	-0.627	8	-0.157	34	1.409
SEMedian		0.053		0.054		0.052
Round 2						
Panelist	**B/BB**	**RID**	**P/B**	**RID**	**A/P**	**RID**
1	4	-0.627	8	-0.157	34	1.409
2	4	-0.627	8	-0.157	36	1.693
3	4	-0.627	8	-0.157	36	1.693
4	4	-0.627	8	-0.157	36	1.693
5	4	-0.627	8	-0.157	34	1.409
6	4	-0.627	8	-0.157	34	1.409
7	4	-0.627	8	-0.157	34	1.409
8	4	-0.627	8	-0.157	34	1.409
9	4	-0.627	8	-0.157	34	1.409
10	4	-0.627	8	-0.157	34	1.409
11	4	-0.627	8	-0.157	34	1.409
12	4	-0.627	8	-0.157	34	1.409
13	4	-0.627	8	-0.157	34	1.409
14	4	-0.627	8	-0.157	34	1.409
15	4	-0.627	8	-0.157	34	1.409
16	3	-0.954	8	-0.157	34	1.409
17	3	-0.954	8	-0.157	34	1.409
18	4	-0.627	8	-0.157	34	1.409
19	4	-0.627	8	-0.157	34	1.409
Room Median	4	-0.627	8	-0.157	34	1.409

SEMedian		0.030		0.000		0.031
Round 3						
Panelist	**B/BB**	**RID**	**P/B**	**RID**	**A/P**	**RID**
1	4	-0.627	8	-0.157	34	1.409
2	4	-0.627	8	-0.157	34	1.409
3	4	-0.627	8	-0.157	36	1.693
4	4	-0.627	8	-0.157	36	1.693
5	4	-0.627	8	-0.157	34	1.409
6	4	-0.627	8	-0.157	34	1.409
7	4	-0.627	8	-0.157	34	1.409
8	4	-0.627	8	-0.157	34	1.409
9	4	-0.627	8	-0.157	34	1.409
10	4	-0.627	8	-0.157	34	1.409
11	4	-0.627	8	-0.157	34	1.409
12	4	-0.627	8	-0.157	34	1.409
13	4	-0.627	8	-0.157	34	1.409
14	4	-0.627	8	-0.157	34	1.409
15	4	-0.627	8	-0.157	34	1.409
16	4	-0.627	8	-0.157	34	1.409
17	4	-0.627	8	-0.157	34	1.409
18	4	-0.627	8	-0.157	34	1.409
19	4	-0.627	8	-0.157	34	1.409
Room Median	4	-0.627	8	-0.157	34	1.409
SEMedian		0.000		0.000		0.026

Reading Grade 5

Round 1						
Panelist	**B/BB**	**RID**	**P/B**	**RID**	**A/P**	**RID**
1	3	-0.087	8	0.355	37	1.968
2	4	0.094	8	0.355	34	1.825
3	4	0.094	8	0.355	36	1.956
4	4	0.094	7	0.156	35	1.888
5	6	0.114	10	0.418	40	2.149
6	4	0.094	11	0.609	34	1.825
7	3	-0.087	8	0.355	40	2.149
8	6	0.114	11	0.609	37	1.968
9	7	0.156	11	0.609	29	1.302
10	2	-0.123	6	0.114	30	1.538
11	5	0.111	10	0.418	31	1.569
12	3	-0.087	10	0.418	33	1.683
13	6	0.114	9	0.418	33	1.683
14	3	-0.087	8	0.355	35	1.888
15	5	0.111	10	0.418	32	1.681
16	3	-0.087	7	0.156	40	2.149
17	4	0.094	10	0.418	36	1.956
18	7	0.156	8	0.355	29	1.302
19	4	0.094	8	0.355	29	1.302
Room Median	4	0.094	8	0.355	34	1.825
SEMedian		0.029		0.040		0.080
Round 2						
Panelist	**B/BB**	**RID**	**P/B**	**RID**	**A/P**	**RID**
1	4	0.094	8	0.355	37	1.968
2	4	0.094	8	0.355	37	1.968
3	4	0.094	8	0.355	37	1.968
4	4	0.094	7	0.156	33	1.683
5	2	-0.123	8	0.355	35	1.888
6	5	0.111	11	0.609	35	1.888
7	2	-0.123	8	0.355	33	1.683
8	3	-0.087	10	0.418	35	1.888
9	6	0.114	11	0.609	33	1.683
10	6	0.114	11	0.609	35	1.888
11	3	-0.087	10	0.418	33	1.683
12	2	-0.123	10	0.418	32	1.681
13	5	0.111	9	0.418	32	1.681
14	3	-0.087	8	0.355	33	1.683
15	3	-0.087	10	0.418	33	1.683
16	3	-0.087	8	0.355	37	1.968
17	4	0.094	8	0.355	37	1.968
18	3	-0.087	8	0.355	29	1.302
19	3	-0.087	8	0.355	29	1.302
Room Median	3	-0.087	8	0.355	33	1.683

SEMedian		0.030		0.031		0.059
Round 3						
Panelist	**B/BB**	**RID**	**P/B**	**RID**	**A/P**	**RID**
1	3	-0.087	7	0.156	39	2.098
2	3	-0.087	8	0.355	39	2.098
3	3	-0.087	8	0.355	37	1.968
4	3	-0.087	8	0.355	40	2.149
5	2	-0.123	10	0.418	40	2.149
6	2	-0.123	11	0.609	37	1.968
7	2	-0.123	8	0.355	40	2.149
8	2	-0.123	8	0.355	40	2.149
9	3	-0.087	11	0.609	37	1.968
10	4	0.094	8	0.355	40	2.149
11	2	-0.123	9	0.418	37	1.968
12	2	-0.123	8	0.355	37	1.968
13	2	-0.123	8	0.355	37	1.968
14	3	-0.087	8	0.355	38	2.086
15	2	-0.123	8	0.355	37	1.968
16	3	-0.087	8	0.355	37	1.968
17	3	-0.087	8	0.355	37	1.968
18	3	-0.087	8	0.355	36	1.956
19	3	-0.087	8	0.355	36	1.956
Room Median	3	-0.087	8	0.355	37	1.968
SEMedian		0.014		0.028		0.024

Reading Grade 6

Round 1						
Panelist	**B/BB**	**RID**	**P/B**	**RID**	**A/P**	**RID**
1	3	0.075	9	0.707	36	2.088
2	6	0.428	13	0.964	34	1.982
3	4	0.174	9	0.707	29	1.843
4	3	0.075	10	0.754	28	1.836
5	2	0.057	10	0.754	35	2.044
6	3	0.075	10	0.754	28	1.836
7	6	0.428	15	0.985	33	1.954
8	6	0.428	10	0.754	39	2.314
9	5	0.201	12	0.905	39	2.314
10	5	0.201	10	0.754	29	1.843
11	5	0.201	9	0.707	39	2.314
12	5	0.201	10	0.754	39	2.314
13	4	0.174	9	0.707	30	1.927
14	5	0.201	12	0.905	28	1.836
15	6	0.428	10	0.754	24	1.444
16	4	0.174	11	0.895	28	1.836
17	4	0.174	10	0.754	33	1.954
18	7	0.561	11	0.895	33	1.954
19	4	0.174	10	0.754	34	1.982
20	5	0.201	8	0.600	38	2.307
21	4	0.174	10	0.754	23	1.400
22	4	0.174	12	0.905	33	1.954
23	5	0.201	10	0.754	23	1.400
24	5	0.201	9	0.707	27	1.726
25	15	0.985	26	1.620	39	2.314
26	4	0.174	12	0.905	33	1.954
27	4	0.174	12	0.905	33	1.954
28	6	0.428	13	0.964	33	1.954
29	4	0.174	12	0.905	33	1.954
30	11	0.895	12	0.905	21	1.356
31	4	0.174	26	1.620	33	1.954
32	5	0.201	9	0.707	24	1.444
33	5	0.201	9	0.707	36	2.088
34	5	0.201	10	0.754	16	0.998
Room Median	5	0.201	10	0.754	33	1.954
SEMedian		0.045		0.047		0.067
Round 2						
Panelist	**B/BB**	**RID**	**P/B**	**RID**	**A/P**	**RID**
1	3	0.075	9	0.707	35	2.044
2	5	0.201	12	0.905	36	2.088
3	5	0.201	10	0.754	33	1.954
4	3	0.075	10	0.754	36	2.088
5	4	0.174	10	0.754	37	2.262
6	3	0.075	10	0.754	33	1.954
7	5	0.201	12	0.905	39	2.314

8	5	0.201	10	0.754	39	2.314
9	5	0.201	12	0.905	39	2.314
10	5	0.201	12	0.905	39	2.314
11	5	0.201	10	0.754	39	2.314
12	5	0.201	10	0.754	39	2.314
13	4	0.174	9	0.707	32	1.946
14	5	0.201	10	0.754	34	1.982
15	5	0.201	11	0.895	33	1.954
16	5	0.201	11	0.895	33	1.954
17	5	0.201	10	0.754	33	1.954
18	5	0.201	11	0.895	33	1.954
19	4	0.174	12	0.905	33	1.954
20	4	0.174	10	0.754	33	1.954
21	5	0.201	10	0.754	33	1.954
22	5	0.201	12	0.905	36	2.088
23	5	0.201	10	0.754	35	2.044
24	5	0.201	10	0.754	35	2.044
25	5	0.201	15	0.985	39	2.314
26	4	0.174	12	0.905	36	2.088
27	4	0.174	12	0.905	33	1.954
28	5	0.201	12	0.905	33	1.954
29	4	0.174	10	0.754	33	1.954
30	4	0.174	12	0.905	22	1.373
31	5	0.201	15	0.985	39	2.314
32	4	0.174	9	0.707	38	2.307
33	5	0.201	10	0.754	36	2.088
34	5	0.201	10	0.754	36	2.088
Room Median	5	0.201	10	0.754	35	2.044
SEMedian		0.008		0.019		0.042
Round 3						
Panelist	**B/BB**	**RID**	**P/B**	**RID**	**A/P**	**RID**
1	3	0.075	9	0.707	36	2.088
2	5	0.201	12	0.905	39	2.314
3	5	0.201	10	0.754	33	1.954
4	5	0.201	10	0.754	39	2.314
5	4	0.174	10	0.754	39	2.314
6	4	0.174	10	0.754	36	2.088
7	5	0.201	10	0.754	39	2.314
8	5	0.201	10	0.754	40	2.574
9	5	0.201	12	0.905	39	2.314
10	5	0.201	12	0.905	39	2.314
11	5	0.201	11	0.895	39	2.314
12	5	0.201	12	0.905	39	2.314
13	4	0.174	10	0.754	35	2.044
14	5	0.201	10	0.754	36	2.088
15	5	0.201	11	0.895	35	2.044
16	5	0.201	10	0.754	35	2.044
17	5	0.201	10	0.754	35	2.044

18	5	0.201	11	0.895	35	2.044
19	4	0.174	12	0.905	33	1.954
20	4	0.174	12	0.905	33	1.954
21	5	0.201	10	0.754	39	2.314
22	5	0.201	12	0.905	39	2.314
23	5	0.201	10	0.754	38	2.307
24	5	0.201	10	0.754	39	2.314
25	5	0.201	10	0.754	39	2.314
26	4	0.174	10	0.754	39	2.314
27	4	0.174	12	0.905	33	1.954
28	5	0.201	12	0.905	33	1.954
29	4	0.174	12	0.905	33	1.954
30	4	0.174	12	0.905	33	1.954
31	4	0.174	10	0.754	39	2.314
32	4	0.174	9	0.707	39	2.314
33	5	0.201	10	0.754	39	2.314
34	5	0.201	10	0.754	39	2.314
Room Median	5	0.201	10	0.754	39	2.314
SEMedian		0.005		0.017		0.036

Reading Grade 7

Round 1						
Panelist	**B/BB**	**RID**	**P/B**	**RID**	**A/P**	**RID**
1	4	0.179	10	0.789	39	2.574
2	6	0.342	12	1.109	40	2.760
3	6	0.342	12	1.109	35	2.265
4	6	0.342	10	0.789	35	2.265
5	5	0.277	19	1.324	41	2.820
6	6	0.342	9	0.593	41	2.820
7	6	0.342	9	0.593	35	2.265
8	4	0.179	10	0.789	40	2.760
9	5	0.277	10	0.789	41	2.820
10	6	0.342	21	1.615	40	2.760
11	6	0.342	10	0.789	33	2.205
12	4	0.179	10	0.789	38	2.518
13	5	0.277	20	1.521	36	2.440
14	6	0.342	10	0.789	41	2.820
15	4	0.179	11	0.973	35	2.265
Room Median	6	0.342	10	0.789	39	2.574
SEMedian		0.023		0.102		0.081
Round 2						
Panelist	**B/BB**	**RID**	**P/B**	**RID**	**A/P**	**RID**
1	4	0.179	12	1.109	38	2.518
2	6	0.342	12	1.109	40	2.760
3	6	0.342	12	1.109	36	2.440
4	6	0.342	10	0.789	35	2.265
5	4	0.179	12	1.109	39	2.574
6	6	0.342	12	1.109	39	2.574
7	4	0.179	13	1.167	40	2.760
8	4	0.179	10	0.789	40	2.760
9	6	0.342	12	1.109	41	2.820
10	6	0.342	13	1.167	40	2.760
11	4	0.179	10	0.789	38	2.518
12	4	0.179	11	0.973	40	2.760
13	4	0.179	12	1.109	38	2.518
14	4	0.179	10	0.789	38	2.518
15	6	0.342	12	1.109	35	2.265
Room Median	4	0.179	12	1.109	39	2.574
SEMedian		0.027		0.049		0.058
Round 3						
Panelist	**B/BB**	**RID**	**P/B**	**RID**	**A/P**	**RID**
1	4	0.179	11	0.973	38	2.518
2	6	0.342	11	0.973	40	2.760
3	6	0.342	12	1.109	36	2.440
4	6	0.342	10	0.789	35	2.265
5	4	0.179	10	0.789	39	2.574

6	6	0.342	10	0.789	41	2.820
7	4	0.179	11	0.973	40	2.760
8	4	0.179	10	0.789	40	2.760
9	6	0.342	12	1.109	41	2.820
10	6	0.342	13	1.167	41	2.820
11	4	0.179	10	0.789	38	2.518
12	4	0.179	11	0.973	40	2.760
13	4	0.179	10	0.789	38	2.518
14	5	0.277	10	0.789	39	2.574
15	4	0.179	10	0.789	35	2.265
Room Median	4	0.179	10	0.789	39	2.574
SEMedian		0.026		0.046		0.062

Reading Grade 8

Round 1						
Panelist	**B/BB**	**RID**	**P/B**	**RID**	**A/P**	**RID**
1	11	1.622	18	1.767	50	3.198
2	11	1.622	15	1.708	28	2.287
3	12	1.642	17	1.756	49	3.139
4	11	1.622	19	1.793	46	2.938
5	8	1.394	11	1.622	26	1.981
6	11	1.622	15	1.708	48	3.049
7	8	1.394	11	1.622	50	3.198
8	8	1.394	13	1.645	49	3.139
9	8	1.394	15	1.708	50	3.198
10	11	1.622	26	1.981	50	3.198
11	13	1.645	17	1.756	46	2.938
12	11	1.622	18	1.767	33	2.485
13	17	1.756	23	1.882	43	2.781
14	15	1.708	17	1.756	40	2.655
15	17	1.756	26	1.981	46	2.938
Room Median	11	1.622	17	1.756	46	2.938
SEMedian		0.042		0.036		0.121
Round 2						
Panelist	**B/BB**	**RID**	**P/B**	**RID**	**A/P**	**RID**
1	12	1.642	18	1.767	49	3.139
2	12	1.642	17	1.756	49	3.139
3	12	1.642	17	1.756	48	3.049
4	11	1.622	17	1.756	46	2.938
5	11	1.622	15	1.708	49	3.139
6	11	1.622	15	1.708	50	3.198
7	8	1.394	11	1.622	49	3.139
8	8	1.394	18	1.767	49	3.139
9	8	1.394	15	1.708	50	3.198
10	8	1.394	23	1.882	50	3.198
11	11	1.622	17	1.756	46	2.938
12	11	1.622	17	1.756	42	2.756
13	11	1.622	18	1.767	43	2.781
14	8	1.394	18	1.767	41	2.692
15	11	1.622	19	1.793	48	3.049
Room Median	11	1.622	17	1.756	49	3.139
SEMedian		0.037		0.018		0.056
Round 3						
Panelist	**B/BB**	**RID**	**P/B**	**RID**	**A/P**	**RID**
1	8	1.394	17	1.756	49	3.139
2	11	1.622	18	1.767	49	3.139
3	11	1.622	17	1.756	48	3.049
4	8	1.394	17	1.756	48	3.049
5	8	1.394	17	1.756	49	3.139

6	8	1.394	15	1.708	50	3.198
7	8	1.394	11	1.622	49	3.139
8	8	1.394	17	1.756	49	3.139
9	8	1.394	15	1.708	50	3.198
10	8	1.394	20	1.823	50	3.198
11	8	1.394	11	1.622	46	2.938
12	8	1.394	15	1.708	43	2.781
13	8	1.394	18	1.767	43	2.781
14	8	1.394	18	1.767	42	2.756
15	8	1.394	18	1.767	49	3.139
Room Median	8	1.394	17	1.756	49	3.139
SEMedian		0.026		0.018		0.052
Round 4						
Panelist	**B/BB**	**RID**	**P/B**	**RID**	**A/P**	**RID**
1	4	0.812	17	1.756	49	3.139
2	4	0.812	18	1.767	49	3.139
3	4	0.812	17	1.756	48	3.049
4	4	0.812	17	1.756	48	3.049
5	4	0.812	17	1.756	49	3.139
6	4	0.812	15	1.708	50	3.198
7	4	0.812	11	1.622	49	3.139
8	5	1.187	17	1.756	49	3.139
9	5	1.187	15	1.708	50	3.198
10	4	0.812	20	1.823	50	3.198
11	4	0.812	11	1.622	46	2.938
12	4	0.812	15	1.708	43	2.781
13	4	0.812	18	1.767	43	2.781
14	4	0.812	18	1.767	42	2.756
15	5	1.187	18	1.767	49	3.139
Room Median	4	0.812	17	1.756	49	3.139
SEMedian		0.050		0.018		0.052

Panelists had difficulty in setting the Basic/Below Basic cutpoint given the ordered item booklet. Some felt that borderline students should not be expected to answer even the first item correctly 67% of the time. Therefore between days 2 and 3, additional items were added to the ordered item booklet and a fourth round took place on day 3.

Reading Grade 10

Round 1						
Panelist	**B/BB**	**RID**	**P/B**	**RID**	**A/P**	**RID**
1	6	0.820	15	1.435	45	3.109
2	6	0.820	21	2.013	51	3.234
3	6	0.820	16	1.459	41	2.896
4	11	1.085	18	1.664	47	3.138
5	6	0.820	19	1.719	53	3.475
6	6	0.820	19	1.719	53	3.475
7	8	1.008	19	1.719	51	3.234
8	8	1.008	16	1.459	42	3.029
9	6	0.820	22	2.028	52	3.431
10	6	0.820	13	1.227	51	3.234
11	6	0.820	19	1.719	49	3.166
12	6	0.820	19	1.719	42	3.029
13	10	1.070	21	2.013	47	3.138
14	6	0.820	20	1.927	41	2.896
15	6	0.820	22	2.028	48	3.162
Room Median	6	0.820	19	1.719	48	3.162
SEMedian		0.034		0.081		0.059
Round 2						
Panelist	**B/BB**	**RID**	**P/B**	**RID**	**A/P**	**RID**
1	6	0.820	20	1.927	48	3.162
2	6	0.820	20	1.927	51	3.234
3	6	0.820	19	1.719	51	3.234
4	6	0.820	19	1.719	51	3.234
5	6	0.820	19	1.719	53	3.475
6	6	0.820	19	1.719	53	3.475
7	7	0.980	19	1.719	50	3.189
8	7	0.980	19	1.719	51	3.234
9	6	0.820	19	1.719	52	3.431
10	6	0.820	19	1.719	51	3.234
11	6	0.820	19	1.719	49	3.166
12	7	0.980	19	1.719	48	3.162
13	10	1.070	21	2.013	49	3.166
14	6	0.820	22	2.028	48	3.162
15	8	1.008	22	2.028	49	3.166
Room Median	6	0.820	19	1.719	51	3.234
SEMedian		0.030		0.043		0.037
Round 3						
Panelist	**B/BB**	**RID**	**P/B**	**RID**	**A/P**	**RID**
1	6	0.820	20	1.927	49	3.166
2	6	0.820	19	1.719	51	3.234
3	6	0.820	19	1.719	51	3.234
4	6	0.820	19	1.719	51	3.234
5	6	0.820	19	1.719	53	3.475

6	6	0.820	19	1.719	53	3.475
7	6	0.820	19	1.719	50	3.189
8	7	0.980	19	1.719	51	3.234
9	6	0.820	19	1.719	52	3.431
10	6	0.820	19	1.719	51	3.234
11	6	0.820	19	1.719	49	3.166
12	6	0.820	19	1.719	48	3.162
13	6	0.820	19	1.719	50	3.189
14	6	0.820	20	1.927	48	3.162
15	8	1.008	20	1.927	49	3.166
Room Median	6	0.820	19	1.719	51	3.234
SEMedian		0.020		0.028		0.037

Mathematics Grade 3

Round 1						
Panelist	**B/BB**	**RID**	**P/B**	**RID**	**A/P**	**RID**
1	5	-1.534	10	-1.194	38	0.484
2	5	-1.534	10	-1.194	35	0.081
3	4	-1.847	8	-1.318	32	-0.096
4	4	-1.847	14	-0.946	35	0.081
5	4	-1.847	11	-1.133	32	-0.096
6	4	-1.847	14	-0.946	33	-0.042
7	4	-1.847	11	-1.133	34	0.067
8	3	-1.894	10	-1.194	33	-0.042
9	4	-1.847	5	-1.534	33	-0.042
10	4	-1.847	14	-0.946	38	0.484
11	4	-1.847	14	-0.946	35	0.081
12	5	-1.534	11	-1.133	33	-0.042
13	5	-1.534	14	-0.946	25	-0.337
14	5	-1.534	14	-0.946	37	0.390
15	8	-1.318	16	-0.780	38	0.484
16	7	-1.358	14	-0.946	36	0.230
17	8	-1.318	18	-0.766	37	0.390
Room Median	4	-1.847	14	-0.946	35	0.081
SEMedian		0.065		0.060		0.075
Round 2						
Panelist	**B/BB**	**RID**	**P/B**	**RID**	**A/P**	**RID**
1	4	-1.847	12	-1.040	37	0.390
2	5	-1.534	14	-0.946	37	0.390
3	4	-1.847	14	-0.946	37	0.390
4	4	-1.847	14	-0.946	37	0.390
5	4	-1.847	14	-0.946	37	0.390
6	4	-1.847	14	-0.946	37	0.390
7	4	-1.847	14	-0.946	37	0.390
8	4	-1.847	13	-0.949	38	0.484
9	4	-1.847	14	-0.946	37	0.390
10	4	-1.847	14	-0.946	37	0.390
11	4	-1.847	14	-0.946	37	0.390
12	5	-1.534	12	-1.040	37	0.390
13	5	-1.534	14	-0.946	37	0.390
14	5	-1.534	16	-0.780	37	0.390
15	6	-1.449	14	-0.946	38	0.484
16	5	-1.534	14	-0.946	37	0.390
17	5	-1.534	16	-0.780	35	0.081
Room Median	4	-1.847	14	-0.946	37	0.390
SEMedian		0.050		0.020		0.025
Round 3						
Panelist	**B/BB**	**RID**	**P/B**	**RID**	**A/P**	**RID**
1	5	-1.534	12	-1.040	37	0.390

2	4	-1.847	14	-0.946	37	0.390
3	4	-1.847	14	-0.946	37	0.390
4	4	-1.847	14	-0.946	37	0.390
5	4	-1.847	14	-0.946	37	0.390
6	4	-1.847	14	-0.946	37	0.390
7	4	-1.847	14	-0.946	39	0.879
8	4	-1.847	13	-0.949	38	0.484
9	4	-1.847	14	-0.946	37	0.390
10	4	-1.847	14	-0.946	37	0.390
11	4	-1.847	14	-0.946	37	0.390
12	4	-1.847	12	-1.040	37	0.390
13	5	-1.534	14	-0.946	37	0.390
14	5	-1.534	16	-0.780	37	0.390
15	5	-1.534	14	-0.946	37	0.390
16	5	-1.534	14	-0.946	37	0.390
17	5	-1.534	16	-0.780	37	0.390
Room Median	4	-1.847	14	-0.946	37	0.390
SEMedian		0.047		0.020		0.036

Mathematics Grade 4

Round 1						
Panelist	**B/BB**	**RID**	**P/B**	**RID**	**A/P**	**RID**
1	4	-0.687	13	-0.026	31	1.121
2	4	-0.687	14	0.001	33	1.133
3	5	-0.497	13	-0.026	34	1.205
4	5	-0.497	14	0.001	36	1.390
5	4	-0.687	14	0.001	34	1.205
6	6	-0.388	15	0.115	26	0.849
7	5	-0.497	13	-0.026	33	1.133
8	4	-0.687	13	-0.026	39	2.169
9	9	-0.124	15	0.115	33	1.133
10	8	-0.170	14	0.001	34	1.205
11	6	-0.388	15	0.115	36	1.390
12	6	-0.388	18	0.246	36	1.390
13	4	-0.687	11	-0.074	37	1.539
14	3	-0.748	15	0.115	37	1.539
15	3	-0.748	15	0.115	39	2.169
16	5	-0.497	15	0.115	40	2.491
17	5	-0.497	14	0.001	36	1.390
Room Median	5	-0.497	14	0.001	36	1.390
SEMedian		0.058		0.026		0.134
Round 2						
Panelist	**B/BB**	**RID**	**P/B**	**RID**	**A/P**	**RID**
1	5	-0.497	13	-0.026	39	2.169
2	5	-0.497	14	0.001	34	1.205
3	6	-0.388	13	-0.026	34	1.205
4	5	-0.497	14	0.001	36	1.390
5	5	-0.497	14	0.001	34	1.205
6	6	-0.388	13	-0.026	34	1.205
7	4	-0.687	13	-0.026	37	1.539
8	4	-0.687	13	-0.026	36	1.390
9	6	-0.388	15	0.115	32	1.121
10	6	-0.388	15	0.115	34	1.205
11	6	-0.388	15	0.115	36	1.390
12	6	-0.388	15	0.115	36	1.390
13	5	-0.497	9	-0.124	39	2.169
14	5	-0.497	15	0.115	37	1.539
15	8	-0.170	15	0.115	36	1.390
16	8	-0.170	15	0.115	39	2.169
17	8	-0.170	15	0.115	36	1.390
Room Median	6	-0.388	14	0.001	36	1.390
SEMedian		0.046		0.024		0.107
Round 3						
Panelist	**B/BB**	**RID**	**P/B**	**RID**	**A/P**	**RID**
1	5	-0.497	13	-0.026	39	2.169

2	6	-0.388	14	0.001	39	2.169
3	6	-0.388	14	0.001	39	2.169
4	5	-0.497	14	0.001	39	2.169
5	6	-0.388	14	0.001	39	2.169
6	6	-0.388	13	-0.026	36	1.390
7	5	-0.497	13	-0.026	37	1.539
8	5	-0.497	13	-0.026	36	1.390
9	6	-0.388	15	0.115	34	1.205
10	6	-0.388	15	0.115	34	1.205
11	6	-0.388	15	0.115	36	1.390
12	6	-0.388	15	0.115	36	1.390
13	6	-0.388	9	-0.124	39	2.169
14	6	-0.388	14	0.001	37	1.539
15	8	-0.170	14	0.001	37	1.539
16	8	-0.170	15	0.115	39	2.169
17	8	-0.170	14	0.001	36	1.390
Room Median	6	-0.388	14	0.001	37	1.539
SEMedian		0.033		0.021		0.122

Mathematics Grade 5

Round 1						
Panelist	**B/BB**	**RID**	**P/B**	**RID**	**A/P**	**RID**
1	5	0.060	12	0.457	38	2.467
2	10	0.382	23	1.558	35	2.232
3	9	0.366	18	1.087	34	2.216
4	5	0.060	14	0.759	38	2.467
5	5	0.060	14	0.759	37	2.265
6	7	0.278	12	0.457	34	2.216
7	3	-0.627	9	0.366	18	1.087
8	4	-0.510	18	1.087	36	2.234
9	7	0.278	13	0.617	38	2.467
10	4	-0.510	13	0.617	37	2.265
11	5	0.060	13	0.617	37	2.265
12	8	0.357	16	0.821	37	2.265
13	4	-0.510	9	0.366	44	2.870
14	4	-0.510	13	0.617	36	2.234
15	4	-0.510	19	1.141	37	2.265
16	5	0.060	10	0.382	34	2.216
17	10	0.382	13	0.617	34	2.216
Room Median	5	0.060	13	0.617	37	2.265
SEMedian		0.117		0.100		0.104
Round 2						
Panelist	**B/BB**	**RID**	**P/B**	**RID**	**A/P**	**RID**
1	5	0.060	12	0.457	38	2.467
2	6	0.121	19	1.141	38	2.467
3	9	0.366	12	0.457	37	2.265
4	5	0.060	14	0.759	38	2.467
5	4	-0.510	14	0.759	37	2.265
6	5	0.060	12	0.457	34	2.216
7	4	-0.510	12	0.457	37	2.265
8	4	-0.510	12	0.457	37	2.265
9	4	-0.510	13	0.617	37	2.265
10	4	-0.510	13	0.617	37	2.265
11	4	-0.510	13	0.617	37	2.265
12	4	-0.510	13	0.617	37	2.265
13	4	-0.510	19	1.141	43	2.848
14	4	-0.510	13	0.617	37	2.265
15	4	-0.510	19	1.141	37	2.265
16	4	-0.510	17	0.910	37	2.265
17	6	0.121	16	0.821	34	2.216
Room Median	4	-0.510	13	0.617	37	2.265
SEMedian		0.098		0.075		0.048
Round 3						
Panelist	**B/BB**	**RID**	**P/B**	**RID**	**A/P**	**RID**
1	5	0.060	14	0.759	38	2.467

2	5	0.060	19	1.141	38	2.467
3	6	0.121	14	0.759	41	2.812
4	5	0.060	14	0.759	38	2.467
5	5	0.060	14	0.759	38	2.467
6	5	0.060	12	0.457	37	2.265
7	4	-0.510	12	0.457	37	2.265
8	4	-0.510	12	0.457	37	2.265
9	4	-0.510	13	0.617	38	2.467
10	4	-0.510	14	0.759	38	2.467
11	5	0.060	14	0.759	38	2.467
12	4	-0.510	15	0.800	38	2.467
13	4	-0.510	9	0.366	38	2.467
14	4	-0.510	17	0.910	38	2.467
15	4	-0.510	19	1.141	38	2.467
16	4	-0.510	17	0.910	38	2.467
17	6	0.121	16	0.821	34	2.216
Room Median	4	-0.510	14	0.759	38	2.467
SEMedian		0.092		0.067		0.041

Mathematics Grade 6

Round 1						
Panelist	**B/BB**	**RID**	**P/B**	**RID**	**A/P**	**RID**
1	9	1.669	23	2.292	38	2.924
2	11	1.728	24	2.317	39	3.019
3	11	1.728	21	2.229	36	2.887
4	7	1.491	20	2.211	40	3.028
5	7	1.491	17	2.139	31	2.656
6	8	1.511	24	2.317	41	3.057
7	11	1.728	20	2.211	38	2.924
8	11	1.728	20	2.211	34	2.781
9	4	0.871	6	1.475	40	3.028
10	12	1.913	24	2.317	39	3.019
11	7	1.491	24	2.317	38	2.924
12	11	1.728	24	2.317	38	2.924
13	8	1.511	24	2.317	41	3.057
14	7	1.491	28	2.499	39	3.019
15	8	1.511	24	2.317	38	2.924
16	7	1.491	20	2.211	37	2.924
17	4	0.871	18	2.185	29	2.530
18	4	0.871	18	2.185	30	2.606
19	12	1.913	24	2.317	37	2.924
20	11	1.728	24	2.317	42	3.356
21	9	1.669	24	2.317	36	2.887
22	6	1.475	23	2.292	37	2.924
23	4	0.871	24	2.317	38	2.924
24	11	1.728	24	2.317	34	2.781
25	12	1.913	27	2.462	39	3.019
26	12	1.913	24	2.317	34	2.781
27	12	1.913	24	2.317	34	2.781
28	4	0.871	20	2.211	42	3.356
29	8	1.511	17	2.139	41	3.057
30	25	2.365	38	2.924	45	3.781
31	24	2.317	38	2.924	42	3.356
32	11	1.728	24	2.317	42	3.356
33	8	1.511	24	2.317	41	3.057
34	8	1.511	20	2.211	30	2.606
35	4	0.871	24	2.317	34	2.781
Room Median	8	1.511	24	2.317	38	2.924
SEMedian		0.081		0.047		0.052
Round 2						
Panelist	**B/BB**	**RID**	**P/B**	**RID**	**A/P**	**RID**
1	7	1.491	17	2.139	39	3.019
2	7	1.491	17	2.139	39	3.019
3	7	1.491	17	2.139	39	3.019
4	7	1.491	17	2.139	39	3.019
5	7	1.491	17	2.139	39	3.019
6	7	1.491	18	2.185	41	3.057

7	8	1.511	18	2.185	38	2.924
8	8	1.511	18	2.185	38	2.924
9	4	0.871	18	2.185	39	3.019
10	4	0.871	18	2.185	38	2.924
11	7	1.491	18	2.185	38	2.924
12	7	1.491	18	2.185	38	2.924
13	6	1.475	18	2.185	38	2.924
14	7	1.491	18	2.185	39	3.019
15	5	1.362	18	2.185	41	3.057
16	5	1.362	18	2.185	41	3.057
17	4	0.871	18	2.185	39	3.019
18	4	0.871	18	2.185	41	3.057
19	7	1.491	18	2.185	41	3.057
20	8	1.511	22	2.252	42	3.356
21	9	1.669	26	2.413	42	3.356
22	8	1.511	22	2.252	38	2.924
23	8	1.511	18	2.185	38	2.924
24	7	1.491	19	2.202	41	3.057
25	6	1.475	15	2.049	39	3.019
26	6	1.475	21	2.229	40	3.028
27	9	1.669	24	2.317	41	3.057
28	4	0.871	15	2.049	42	3.356
29	8	1.511	18	2.185	39	3.019
30	8	1.511	18	2.185	38	2.924
31	8	1.511	18	2.185	38	2.924
32	8	1.511	21	2.229	41	3.057
33	7	1.491	18	2.185	41	3.057
34	7	1.491	18	2.185	38	2.924
35	7	1.491	20	2.211	41	3.057
Room Median	7	1.491	18	2.185	39	3.019
SEMedian		0.049		0.013		0.024
Round 3						
Panelist	**B/BB**	**RID**	**P/B**	**RID**	**A/P**	**RID**
1	3	0.073	10	1.713	40	3.028
2	3	0.073	10	1.713	39	3.019
3	4	0.871	10	1.713	40	3.028
4	3	0.073	10	1.713	40	3.028
5	3	0.073	10	1.713	40	3.028
6	7	1.491	18	2.185	42	3.356
7	5	1.362	14	2.008	38	2.924
8	7	1.491	18	2.185	38	2.924
9	4	0.871	14	2.008	39	3.019
10	4	0.871	10	1.713	38	2.924
11	4	0.871	14	2.008	38	2.924
12	4	0.871	14	2.008	38	2.924
13	6	1.475	18	2.185	39	3.019
14	6	1.475	18	2.185	39	3.019
15	6	1.475	18	2.185	41	3.057

16	5	1.362	18	2.185	41	3.057
17	4	0.871	12	1.913	39	3.019
18	5	1.362	15	2.049	41	3.057
19	7	1.491	18	2.185	42	3.356
20	7	1.491	18	2.185	42	3.356
21	9	1.669	24	2.317	42	3.356
22	6	1.475	18	2.185	38	2.924
23	4	0.871	12	1.913	38	2.924
24	5	1.362	14	2.008	42	3.356
25	6	1.475	12	1.913	42	3.356
26	5	1.362	16	2.074	42	3.356
27	7	1.491	15	2.049	41	3.057
28	4	0.871	12	1.913	42	3.356
29	8	1.511	14	2.008	42	3.356
30	7	1.491	12	1.913	37	2.924
31	8	1.511	12	1.913	38	2.924
32	8	1.511	12	1.913	41	3.057
33	7	1.491	18	2.185	42	3.356
34	7	1.491	18	2.185	42	3.356
35	7	1.491	14	2.008	42	3.356
Room Median	6	1.475	14	2.008	40	3.028
SEMedian		0.101		0.037		0.038

Mathematics Grade 7

Round 1						
Panelist	**B/BB**	**RID**	**P/B**	**RID**	**A/P**	**RID**
1	7	2.058	17	2.456	38	3.536
2	8	2.124	12	2.325	39	3.565
3	6	2.034	11	2.241	26	2.851
4	5	1.921	11	2.241	31	3.159
5	4	1.895	8	2.124	33	3.352
6	6	2.034	16	2.410	34	3.364
7	6	2.034	17	2.456	33	3.352
8	4	1.895	15	2.398	44	4.075
9	9	2.221	18	2.531	33	3.352
10	5	1.921	20	2.638	42	4.020
11	7	2.058	20	2.638	42	4.020
12	5	1.921	17	2.456	38	3.536
13	5	1.921	21	2.677	34	3.364
14	6	2.034	20	2.638	41	3.999
15	2	-0.108	16	2.410	38	3.536
16	3	1.501	12	2.325	39	3.565
17	6	2.034	15	2.398	35	3.436
18	4	1.895	20	2.638	38	3.536
Room Median	6	2.034	17	2.456	38	3.536
SEMedian		0.151		0.047		0.095
Round 2						
Panelist	**B/BB**	**RID**	**P/B**	**RID**	**A/P**	**RID**
1	7	2.058	13	2.330	39	3.565
2	3	1.501	12	2.325	39	3.565
3	6	2.034	11	2.241	32	3.183
4	5	1.921	12	2.325	38	3.536
5	3	1.501	10	2.223	33	3.352
6	3	1.501	12	2.325	34	3.364
7	6	2.034	17	2.456	36	3.445
8	4	1.895	12	2.325	44	4.075
9	8	2.124	16	2.410	38	3.536
10	5	1.921	17	2.456	38	3.536
11	6	2.034	17	2.456	42	4.020
12	4	1.895	14	2.350	41	3.999
13	5	1.921	17	2.456	39	3.565
14	3	1.501	14	2.350	40	3.658
15	3	1.501	12	2.325	38	3.536
16	3	1.501	12	2.325	40	3.658
17	3	1.501	13	2.330	39	3.565
18	4	1.895	16	2.410	39	3.565
Room Median	4	1.895	13	2.330	39	3.565
SEMedian		0.073		0.021		0.068
Round 3						

Panelist	B/BB	RID	P/B	RID	A/P	RID
1	3	1.501	15	2.398	39	3.565
2	3	1.501	12	2.325	40	3.658
3	3	1.501	12	2.325	39	3.565
4	3	1.501	12	2.325	39	3.565
5	3	1.501	10	2.223	35	3.436
6	3	1.501	12	2.325	36	3.445
7	4	1.895	16	2.410	40	3.658
8	4	1.895	15	2.398	44	4.075
9	6	2.034	16	2.410	38	3.536
10	5	1.921	17	2.456	39	3.565
11	5	1.921	17	2.456	40	3.658
12	4	1.895	16	2.410	41	3.999
13	5	1.921	17	2.456	39	3.565
14	3	1.501	12	2.325	40	3.658
15	3	1.501	12	2.325	39	3.565
16	3	1.501	12	2.325	39	3.565
17	3	1.501	12	2.325	39	3.565
18	3	1.501	16	2.410	42	4.020
Room Median	3	1.501	14	2.350	39	3.565
SEMedian		0.064		0.019		0.055

Mathematics Grade 8

Round 1						
Panelist	**B/BB**	**RID**	**P/B**	**RID**	**A/P**	**RID**
1	4	2.273	13	2.885	32	4.125
2	4	2.273	11	2.725	31	3.970
3	3	1.531	13	2.885	31	3.970
4	3	1.531	9	2.610	33	4.140
5	3	1.531	4	2.273	31	3.970
6	3	1.531	17	3.193	31	3.970
7	3	1.531	15	3.029	41	4.425
8	6	2.485	17	3.193	32	4.125
9	7	2.569	12	2.732	40	4.389
10	6	2.485	12	2.732	38	4.316
11	3	1.531	15	3.029	41	4.425
12	7	2.569	15	3.029	38	4.316
13	9	2.610	17	3.193	39	4.358
14	4	2.273	14	3.028	41	4.425
15	3	1.531	17	3.193	38	4.316
16	3	1.531	13	2.885	41	4.425
17	3	1.531	14	3.028	41	4.425
18	7	2.569	15	3.029	36	4.299
Room Median	4	2.273	14	3.028	38	4.316
SEMedian		0.144		0.071		0.053
Round 2						
Panelist	**B/BB**	**RID**	**P/B**	**RID**	**A/P**	**RID**
1	4	2.273	13	2.885	32	4.125
2	3	1.531	13	2.885	31	3.970
3	3	1.531	13	2.885	32	4.125
4	3	1.531	9	2.610	31	3.970
5	3	1.531	12	2.732	39	4.358
6	3	1.531	17	3.193	31	3.970
7	3	1.531	12	2.732	39	4.358
8	6	2.485	13	2.885	32	4.125
9	5	2.365	12	2.732	40	4.389
10	3	1.531	12	2.732	31	3.970
11	3	1.531	15	3.029	41	4.425
12	3	1.531	15	3.029	41	4.425
13	4	2.273	15	3.029	41	4.425
14	4	2.273	15	3.029	41	4.425
15	3	1.531	11	2.725	39	4.358
16	3	1.531	11	2.725	38	4.316
17	3	1.531	11	2.725	40	4.389
18	3	1.531	11	2.725	39	4.358
Room Median	3	1.531	13	2.885	39	4.358
SEMedian		0.110		0.047		0.054
Round 3						

Panelist	B/BB	RID	P/B	RID	A/P	RID
1	3	1.531	13	2.885	41	4.425
2	3	1.531	13	2.885	39	4.358
3	3	1.531	13	2.885	40	4.389
4	3	1.531	12	2.732	33	4.140
5	3	1.531	12	2.732	39	4.358
6	3	1.531	12	2.732	38	4.316
7	3	1.531	12	2.732	38	4.316
8	5	2.365	13	2.885	38	4.316
9	3	1.531	12	2.732	40	4.389
10	3	1.531	12	2.732	38	4.316
11	4	2.273	15	3.029	41	4.425
12	3	1.531	15	3.029	41	4.425
13	4	2.273	15	3.029	41	4.425
14	4	2.273	15	3.029	41	4.425
15	3	1.531	12	2.732	39	4.358
16	3	1.531	11	2.725	38	4.316
17	3	1.531	11	2.725	40	4.389
18	3	1.531	11	2.725	39	4.358
Room Median	3	1.531	12	2.732	39	4.358
SEMedian		0.097		0.037		0.020

Mathematics Grade 10

Round 1						
Panelist	**B/BB**	**RID**	**P/B**	**RID**	**A/P**	**RID**
1	4	2.938	14	3.562	34	4.740
2	6	3.077	14	3.562	42	5.304
3	6	3.077	13	3.540	38	4.909
4	2	2.650	11	3.459	39	4.960
5	8	3.259	16	3.711	33	4.704
6	4	2.938	15	3.670	37	4.862
7	5	2.966	11	3.459	44	5.395
8	4	2.938	17	3.740	29	4.542
9	4	2.938	14	3.562	44	5.395
10	4	2.938	11	3.459	35	4.820
11	8	3.259	17	3.740	39	4.960
12	7	3.197	16	3.711	38	4.909
13	8	3.259	16	3.711	42	5.304
14	10	3.399	17	3.740	42	5.304
15	4	2.938	12	3.463	32	4.694
16	4	2.938	11	3.459	36	4.824
17	4	2.938	11	3.459	33	4.704
18	4	2.938	11	3.459	38	4.909
Room Median	4	2.938	14	3.562	38	4.909
SEMedian		0.053		0.035		0.079
Round 2						
Panelist	**B/BB**	**RID**	**P/B**	**RID**	**A/P**	**RID**
1	8	3.259	16	3.711	44	5.395
2	6	3.077	11	3.459	42	5.304
3	4	2.938	13	3.540	39	4.960
4	3	2.751	11	3.459	39	4.960
5	4	2.938	13	3.540	37	4.862
6	4	2.938	14	3.562	37	4.862
7	4	2.938	11	3.459	44	5.395
8	4	2.938	17	3.740	38	4.909
9	4	2.938	14	3.562	44	5.395
10	4	2.938	16	3.711	43	5.366
11	8	3.259	16	3.711	43	5.366
12	8	3.259	16	3.711	44	5.395
13	8	3.259	16	3.711	44	5.395
14	8	3.259	16	3.711	42	5.304
15	4	2.938	14	3.562	38	4.909
16	4	2.938	14	3.562	39	4.960
17	3	2.751	11	3.459	37	4.862
18	4	2.938	13	3.540	39	4.960
Room Median	4	2.938	14	3.562	41	5.092
SEMedian		0.051		0.031		0.070
Round 3						

Panelist	B/BB	RID	P/B	RID	A/P	RID
1	8	3.259	16	3.711	43	5.366
2	6	3.077	14	3.562	42	5.304
3	4	2.938	13	3.540	39	4.960
4	4	2.938	11	3.459	39	4.960
5	4	2.938	13	3.540	39	4.960
6	4	2.938	14	3.562	39	4.960
7	4	2.938	14	3.562	43	5.366
8	4	2.938	17	3.740	38	4.909
9	4	2.938	14	3.562	44	5.395
10	4	2.938	16	3.711	43	5.366
11	8	3.259	16	3.711	43	5.366
12	8	3.259	16	3.711	44	5.395
13	8	3.259	16	3.711	44	5.395
14	8	3.259	16	3.711	42	5.304
15	4	2.938	14	3.562	38	4.909
16	4	2.938	14	3.562	39	4.960
17	4	2.938	14	3.562	37	4.862
18	4	2.938	14	3.562	39	4.960
Room Median	4	2.938	14	3.562	41	5.092
SEMedian		0.043		0.026		0.065

Language Usage Grade 3

Round 1						
Panelist	**B/BB**	**RID**	**P/B**	**RID**	**A/P**	**RID**
1	5	-1.368	10	-0.540	37	0.669
2	7	-1.030	11	-0.526	30	0.421
3	4	-1.386	7	-1.030	28	0.292
4	5	-1.368	7	-1.030	29	0.352
5	6	-1.168	16	-0.297	35	0.618
6	4	-1.386	11	-0.526	29	0.352
7	3	-1.394	7	-1.030	34	0.544
8	5	-1.368	11	-0.526	30	0.421
9	5	-1.368	7	-1.030	29	0.352
10	5	-1.368	10	-0.540	37	0.669
11	5	-1.368	10	-0.540	29	0.352
12	5	-1.368	9	-0.708	29	0.352
13	4	-1.386	7	-1.030	35	0.618
Room Median	5	-1.368	10	-0.540	30	0.421
SEMedian		0.038		0.094		0.049
Round 2						
Panelist	**B/BB**	**RID**	**P/B**	**RID**	**A/P**	**RID**
1	4	-1.386	7	-1.030	37	0.669
2	5	-1.368	11	-0.526	30	0.421
3	4	-1.386	7	-1.030	28	0.292
4	5	-1.368	7	-1.030	29	0.352
5	3	-1.394	16	-0.297	35	0.618
6	4	-1.386	10	-0.540	29	0.352
7	4	-1.386	7	-1.030	30	0.421
8	4	-1.386	7	-1.030	26	0.199
9	5	-1.368	9	-0.708	32	0.450
10	5	-1.368	10	-0.540	34	0.544
11	5	-1.368	10	-0.540	34	0.544
12	5	-1.368	9	-0.708	32	0.450
13	5	-1.368	10	-0.540	35	0.618
Room Median	5	-1.368	9	-0.708	32	0.450
SEMedian		0.004		0.091		0.048
Round 3						
Panelist	**B/BB**	**RID**	**P/B**	**RID**	**A/P**	**RID**
1	4	-1.386	7	-1.030	37	0.669
2	5	-1.368	9	-0.708	30	0.421
3	4	-1.386	7	-1.030	26	0.199
4	5	-1.368	7	-1.030	29	0.352
5	3	-1.394	12	-0.520	33	0.474
6	4	-1.386	9	-0.708	29	0.352
7	3	-1.394	7	-1.030	29	0.352
8	4	-1.386	7	-1.030	26	0.199
9	5	-1.368	9	-0.708	32	0.450

10	5	-1.368	10	-0.540	34	0.544
11	5	-1.368	10	-0.540	34	0.544
12	5	-1.368	9	-0.708	32	0.450
13	5	-1.368	9	-0.708	34	0.544
Room Median	5	-1.368	9	-0.708	32	0.450
SEMedian		0.004		0.072		0.047

Language Usage Grade 4

Round 1						
Panelist	**B/BB**	**RID**	**P/B**	**RID**	**A/P**	**RID**
1	6	0.061	9	0.452	30	1.556
2	2	-0.960	7	0.261	35	1.876
3	4	-0.322	9	0.452	35	1.876
4	4	-0.322	9	0.452	32	1.742
5	8	0.340	10	0.589	22	1.153
6	3	-0.405	9	0.452	36	2.064
7	6	0.061	22	1.153	31	1.721
8	5	-0.123	9	0.452	33	1.785
9	4	-0.322	8	0.340	36	2.064
10	3	-0.405	9	0.452	36	2.064
11	3	-0.405	12	0.762	36	2.064
12	4	-0.322	8	0.340	30	1.556
13	4	-0.322	10	0.589	34	1.789
Room Median	4	-0.322	9	0.452	34	1.789
SEMedian		0.108		0.080		0.092
Round 2						
Panelist	**B/BB**	**RID**	**P/B**	**RID**	**A/P**	**RID**
1	4	-0.322	9	0.452	35	1.876
2	2	-0.960	7	0.261	35	1.876
3	4	-0.322	9	0.452	34	1.789
4	4	-0.322	9	0.452	35	1.876
5	8	0.340	10	0.589	25	1.359
6	3	-0.405	8	0.340	35	1.876
7	6	0.061	12	0.762	31	1.721
8	5	-0.123	9	0.452	33	1.785
9	4	-0.322	8	0.340	35	1.876
10	4	-0.322	9	0.452	35	1.876
11	4	-0.322	10	0.589	35	1.876
12	4	-0.322	9	0.452	35	1.876
13	4	-0.322	10	0.589	34	1.789
Room Median	4	-0.322	9	0.452	35	1.876
SEMedian		0.101		0.046		0.050
Round 3						
Panelist	**B/BB**	**RID**	**P/B**	**RID**	**A/P**	**RID**
1	4	-0.322	9	0.452	35	1.876
2	2	-0.960	7	0.261	35	1.876
3	4	-0.322	9	0.452	34	1.789
4	4	-0.322	9	0.452	35	1.876
5	3	-0.405	10	0.589	25	1.359
6	3	-0.405	8	0.340	35	1.876
7	6	0.061	12	0.762	31	1.721
8	4	-0.322	9	0.452	34	1.789
9	4	-0.322	8	0.340	35	1.876

10	4	-0.322	9	0.452	35	1.876
11	4	-0.322	10	0.589	35	1.876
12	4	-0.322	9	0.452	35	1.876
13	4	-0.322	10	0.589	34	1.789
Room Median	4	-0.322	9	0.452	35	1.876
SEMedian		0.075		0.046		0.050

Language Usage Grade 5

Round 1						
Panelist	**B/BB**	**RID**	**P/B**	**RID**	**A/P**	**RID**
1	6	0.661	11	1.238	33	2.250
2	11	1.238	24	1.727	33	2.250
3	3	-0.096	6	0.661	33	2.250
4	6	0.661	11	1.238	40	3.115
5	4	0.341	9	1.043	20	1.581
6	4	0.341	9	1.043	33	2.250
7	4	0.341	9	1.043	21	1.585
8	4	0.341	8	1.013	33	2.250
9	3	-0.096	17	1.438	25	1.728
10	7	0.676	17	1.438	33	2.250
11	4	0.341	11	1.238	29	2.072
12	3	-0.096	9	1.043	31	2.178
13	4	0.341	9	1.043	28	2.030
Room Median	4	0.341	9	1.043	33	2.250
SEMedian		0.130		0.092		0.136
Round 2						
Panelist	**B/BB**	**RID**	**P/B**	**RID**	**A/P**	**RID**
1	3	-0.096	9	1.043	33	2.250
2	3	-0.096	9	1.043	33	2.250
3	3	-0.096	9	1.043	33	2.250
4	4	0.341	9	1.043	35	2.376
5	3	-0.096	9	1.043	24	1.727
6	3	-0.096	9	1.043	33	2.250
7	4	0.341	9	1.043	24	1.727
8	4	0.341	8	1.013	33	2.250
9	3	-0.096	10	1.212	31	2.178
10	5	0.491	10	1.212	33	2.250
11	4	0.341	9	1.043	33	2.250
12	3	-0.096	9	1.043	34	2.358
13	4	0.341	9	1.043	33	2.250
Room Median	3	-0.096	9	1.043	33	2.250
SEMedian		0.084		0.023		0.072
Round 3						
Panelist	**B/BB**	**RID**	**P/B**	**RID**	**A/P**	**RID**
1	3	-0.096	9	1.043	33	2.250
2	3	-0.096	9	1.043	33	2.250
3	3	-0.096	9	1.043	33	2.250
4	4	0.341	9	1.043	33	2.250
5	3	-0.096	9	1.043	33	2.250
6	3	-0.096	5	0.491	33	2.250
7	4	0.341	9	1.043	24	1.727
8	3	-0.096	9	1.043	33	2.250
9	3	-0.096	10	1.212	31	2.178

10	5	0.491	10	1.212	33	2.250
11	3	-0.096	8	1.013	33	2.250
12	3	-0.096	9	1.043	34	2.358
13	3	-0.096	9	1.043	33	2.250
Room Median	3	-0.096	9	1.043	33	2.250
SEMedian		0.075		0.060		0.052

Language Usage Grade 6

Round 1						
Panelist	**B/BB**	**RID**	**P/B**	**RID**	**A/P**	**RID**
1	6	0.951	13	1.747	28	2.495
2	8	1.211	20	2.145	28	2.495
3	9	1.275	16	1.988	38	3.424
4	7	0.987	30	2.644	37	3.377
5	10	1.331	19	2.032	32	2.762
6	3	0.338	9	1.275	30	2.644
7	2	-0.486	8	1.211	33	2.921
8	5	0.861	14	1.763	26	2.381
9	7	0.987	27	2.385	31	2.669
10	6	0.951	23	2.240	28	2.495
11	2	-0.486	6	0.951	34	2.978
12	6	0.951	20	2.145	28	2.495
13	10	1.331	15	1.871	32	2.762
14	7	0.987	12	1.589	32	2.762
15	6	0.951	9	1.275	37	3.377
16	12	1.589	22	2.183	32	2.762
17	4	0.533	15	1.871	38	3.424
18	9	1.275	21	2.180	32	2.762
19	8	1.211	12	1.589	32	2.762
20	6	0.951	10	1.331	24	2.289
21	4	0.533	7	0.987	32	2.762
22	3	0.338	4	0.533	32	2.762
23	3	0.338	15	1.871	24	2.289
24	5	0.861	6	0.951	15	1.871
25	9	1.275	15	1.871	26	2.381
26	2	-0.486	9	1.275	32	2.762
27	11	1.517	18	2.016	33	2.921
Room Median	6	0.951	15	1.871	32	2.762
SEMedian		0.139		0.124		0.089
Round 2						
Panelist	**B/BB**	**RID**	**P/B**	**RID**	**A/P**	**RID**
1	6	0.951	13	1.747	32	2.762
2	6	0.951	13	1.747	32	2.762
3	9	1.275	13	1.747	32	2.762
4	7	0.987	21	2.180	32	2.762
5	10	1.331	19	2.032	32	2.762
6	4	0.533	13	1.747	32	2.762
7	5	0.861	13	1.747	33	2.921
8	5	0.861	15	1.871	29	2.624
9	6	0.951	15	1.871	32	2.762
10	6	0.951	17	2.007	29	2.624
11	3	0.338	8	1.211	32	2.762
12	6	0.951	20	2.145	34	2.978
13	4	0.533	15	1.871	32	2.762
14	6	0.951	15	1.871	32	2.762
15	6	0.951	15	1.871	32	2.762

16	6	0.951	15	1.871	32	2.762
17	4	0.533	15	1.871	32	2.762
18	6	0.951	15	1.871	32	2.762
19	6	0.951	9	1.275	32	2.762
20	6	0.951	9	1.275	32	2.762
21	4	0.533	9	1.275	32	2.762
22	3	0.338	4	0.533	32	2.762
23	5	0.861	11	1.517	31	2.669
24	5	0.861	9	1.275	21	2.180
25	6	0.951	12	1.589	30	2.644
26	4	0.533	9	1.275	32	2.762
27	7	0.987	13	1.747	32	2.762
Room Median	6	0.951	13	1.747	32	2.762
SEMedian		0.060		0.087		0.032
Round 3						
Panelist	**B/BB**	**RID**	**P/B**	**RID**	**A/P**	**RID**
1	6	0.951	13	1.747	32	2.762
2	3	0.338	9	1.275	32	2.762
3	9	1.275	13	1.747	32	2.762
4	6	0.951	13	1.747	32	2.762
5	10	1.331	19	2.032	32	2.762
6	4	0.533	13	1.747	32	2.762
7	6	0.951	13	1.747	33	2.921
8	6	0.951	13	1.747	33	2.921
9	6	0.951	15	1.871	32	2.762
10	6	0.951	14	1.763	32	2.762
11	3	0.338	8	1.211	32	2.762
12	6	0.951	10	1.331	32	2.762
13	4	0.533	7	0.987	32	2.762
14	6	0.951	10	1.331	32	2.762
15	6	0.951	15	1.871	32	2.762
16	6	0.951	13	1.747	32	2.762
17	4	0.533	10	1.331	32	2.762
18	6	0.951	10	1.331	32	2.762
19	5	0.861	7	0.987	32	2.762
20	5	0.861	7	0.987	32	2.762
21	5	0.861	7	0.987	32	2.762
22	4	0.533	7	0.987	32	2.762
23	5	0.861	12	1.589	32	2.762
24	5	0.861	12	1.589	32	2.762
25	6	0.951	12	1.589	30	2.644
26	4	0.533	12	1.589	32	2.762
27	6	0.951	12	1.589	32	2.762
Room Median	6	0.951	12	1.589	32	2.762
SEMedian		0.059		0.077		0.012

Language Usage Grade 7

Round 1						
Panelist	**B/BB**	**RID**	**P/B**	**RID**	**A/P**	**RID**
1	2	0.348	12	1.809	30	3.013
2	17	2.163	21	2.427	27	2.719
3	2	0.348	8	1.513	29	2.901
4	10	1.764	16	2.084	36	3.177
5	6	1.142	11	1.780	27	2.719
6	2	0.348	4	0.782	27	2.719
7	3	0.704	14	1.942	25	2.683
8	2	0.348	9	1.580	27	2.719
9	7	1.483	13	1.822	31	3.062
10	5	1.134	12	1.809	31	3.062
11	8	1.513	14	1.942	31	3.062
12	6	1.142	15	1.971	31	3.062
13	6	1.142	14	1.942	31	3.062
14	2	0.348	14	1.942	29	2.901
Room Median	6	1.142	14	1.942	30	3.013
SEMedian		0.202		0.123		0.058
Round 2						
Panelist	**B/BB**	**RID**	**P/B**	**RID**	**A/P**	**RID**
1	2	0.348	8	1.513	36	3.177
2	5	1.134	11	1.780	29	2.901
3	5	1.134	8	1.513	29	2.901
4	2	0.348	16	2.084	36	3.177
5	4	0.782	11	1.780	27	2.719
6	4	0.782	8	1.513	27	2.719
7	3	0.704	14	1.942	25	2.683
8	2	0.348	8	1.513	31	3.062
9	6	1.142	12	1.809	31	3.062
10	5	1.134	12	1.809	29	2.901
11	4	0.782	12	1.809	31	3.062
12	4	0.782	14	1.942	30	3.013
13	6	1.142	14	1.942	31	3.062
14	2	0.348	9	1.580	29	2.901
Room Median	4	0.782	12	1.809	30	3.013
SEMedian		0.110		0.065		0.055
Round 3						
Panelist	**B/BB**	**RID**	**P/B**	**RID**	**A/P**	**RID**
1	2	0.348	8	1.513	36	3.177
2	5	1.134	11	1.780	31	3.062
3	4	0.782	9	1.580	31	3.062
4	5	1.134	16	2.084	36	3.177
5	4	0.782	8	1.513	27	2.719
6	4	0.782	8	1.513	29	2.901
7	5	1.134	14	1.942	25	2.683

8	2	0.348	8	1.513	37	3.185
9	5	1.134	12	1.809	31	3.062
10	5	1.134	12	1.809	31	3.062
11	4	0.782	12	1.809	31	3.062
12	4	0.782	14	1.942	31	3.062
13	6	1.142	14	1.942	31	3.062
14	2	0.348	9	1.580	31	3.062
Room Median	4	0.782	12	1.809	31	3.062
SEMedian		0.105		0.067		0.052

Language Usage Grade 8

Round 1						
Panelist	B/BB	RID	P/B	RID	A/P	RID
1	2	-0.021	11	1.805	35	3.443
2	9	1.605	15	2.279	33	3.259
3	3	0.684	11	1.805	29	2.953
4	3	0.684	11	1.805	34	3.380
5	8	1.592	15	2.279	31	3.003
6	8	1.592	21	2.498	32	3.043
7	3	0.684	14	2.115	33	3.259
8	6	1.347	11	1.805	28	2.943
9	5	1.243	11	1.805	29	2.953
10	2	-0.021	11	1.805	30	2.997
11	6	1.347	14	2.115	32	3.043
12	4	1.088	11	1.805	35	3.443
13	7	1.487	14	2.115	38	3.832
14	6	1.347	15	2.279	33	3.259
Room Median	6	1.347	13	2.037	33	3.259
SEMedian		0.188		0.082		0.087
Round 2						
Panelist	B/BB	RID	P/B	RID	A/P	RID
1	3	0.684	11	1.805	35	3.443
2	4	1.088	11	1.805	33	3.259
3	3	0.684	11	1.805	35	3.443
4	4	1.088	11	1.805	31	3.003
5	8	1.592	14	2.115	35	3.443
6	7	1.487	14	2.115	32	3.043
7	3	0.684	13	2.037	33	3.259
8	3	0.684	11	1.805	33	3.259
9	4	1.088	11	1.805	29	2.953
10	3	0.684	11	1.805	35	3.443
11	5	1.243	12	1.977	33	3.259
12	4	1.088	14	2.115	35	3.443
13	4	1.088	14	2.115	35	3.443
14	4	1.088	14	2.115	35	3.443
Room Median	4	1.088	12	1.977	34	3.380
SEMedian		0.101		0.050		0.060
Round 3						
Panelist	B/BB	RID	P/B	RID	A/P	RID
1	2	-0.021	11	1.805	35	3.443
2	4	1.088	11	1.805	33	3.259
3	3	0.684	11	1.805	35	3.443
4	5	1.243	11	1.805	31	3.003
5	4	1.088	13	2.037	35	3.443
6	4	1.088	11	1.805	32	3.043
7	3	0.684	11	1.805	33	3.259
8	3	0.684	11	1.805	33	3.259
9	4	1.088	11	1.805	33	3.259

10	3	0.684	11	1.805	33	3.259
11	5	1.243	12	1.977	35	3.443
12	5	1.243	11	1.805	35	3.443
13	4	1.088	14	2.115	35	3.443
14	4	1.088	14	2.115	35	3.443
Room Median	4	1.088	11	1.805	34	3.380
SEMedian		0.117		0.042		0.051

Language Usage Grade 10

Round 1						
Panelist	**B/BB**	**RID**	**P/B**	**RID**	**A/P**	**RID**
1	3	1.306	9	2.068	33	3.782
2	4	1.397	14	2.376	36	4.125
3	6	1.903	14	2.376	35	3.946
4	6	1.903	11	2.175	33	3.782
5	5	1.596	11	2.175	32	3.694
6	5	1.596	15	2.414	27	3.403
7	5	1.596	28	3.568	32	3.694
8	4	1.397	14	2.376	32	3.694
9	6	1.903	18	2.716	36	4.125
10	6	1.903	11	2.175	33	3.782
11	6	1.903	12	2.302	36	4.125
12	6	1.903	12	2.302	32	3.694
13	6	1.903	19	2.792	32	3.694
14	6	1.903	15	2.414	36	4.125
Room Median	6	1.903	14	2.376	33	3.782
SEMedian		0.077		0.127		0.074
Round 2						
Panelist	**B/BB**	**RID**	**P/B**	**RID**	**A/P**	**RID**
1	5	1.596	11	2.175	35	3.946
2	6	1.903	11	2.175	34	3.945
3	6	1.903	11	2.175	36	4.125
4	6	1.903	11	2.175	34	3.945
5	6	1.903	11	2.175	36	4.125
6	5	1.596	15	2.414	33	3.782
7	5	1.596	14	2.376	32	3.694
8	5	1.596	11	2.175	37	4.408
9	6	1.903	18	2.716	36	4.125
10	5	1.596	11	2.175	36	4.125
11	6	1.903	12	2.302	36	4.125
12	6	1.903	14	2.376	34	3.945
13	6	1.903	15	2.414	36	4.125
14	5	1.596	14	2.376	36	4.125
Room Median	6	1.903	12	2.302	36	4.125
SEMedian		0.053		0.053		0.059
Round 3						
Panelist	**B/BB**	**RID**	**P/B**	**RID**	**A/P**	**RID**
1	5	1.596	11	2.175	35	3.946
2	6	1.903	11	2.175	34	3.945
3	6	1.903	11	2.175	36	4.125
4	5	1.596	11	2.175	34	3.945
5	6	1.903	11	2.175	36	4.125
6	5	1.596	14	2.376	33	3.782
7	5	1.596	13	2.363	32	3.694

8	5	1.596	11	2.175	37	4.408
9	5	1.596	18	2.716	36	4.125
10	5	1.596	11	2.175	33	3.782
11	6	1.903	12	2.302	36	4.125
12	6	1.903	14	2.376	36	4.125
13	6	1.903	14	2.376	36	4.125
14	5	1.596	14	2.376	36	4.125
Room Median	5	1.596	12	2.302	36	4.125
SEMedian		0.053		0.052		0.063

Science Grade 5

Round 1						
Panelist	**B/BB**	**RID**	**P/B**	**RID**	**A/P**	**RID**
1	7	-0.529	18	0.578	41	1.733
2	4	-0.910	26	0.945	40	1.688
3	6	-0.632	13	0.196	35	1.419
4	3	-1.356	8	-0.323	41	1.733
5	7	-0.529	11	0.016	40	1.688
6	9	-0.280	21	0.738	39	1.626
7	11	0.016	24	0.871	39	1.626
8	7	-0.529	20	0.691	35	1.419
9	2	-1.587	7	-0.529	33	1.324
10	7	-0.529	16	0.530	32	1.250
11	3	-1.356	18	0.578	39	1.626
12	8	-0.323	15	0.386	36	1.436
13	3	-1.356	16	0.530	35	1.419
14	5	-0.805	19	0.606	41	1.733
Room Median	7	-0.529	17	0.546	39	1.626
SEMedian		0.162		0.145		0.056
Round 2						
Panelist	**B/BB**	**RID**	**P/B**	**RID**	**A/P**	**RID**
1	5	-0.805	18	0.578	41	1.733
2	5	-0.805	18	0.578	40	1.688
3	5	-0.805	18	0.578	41	1.733
4	8	-0.323	18	0.578	41	1.733
5	5	-0.805	14	0.383	41	1.733
6	5	-0.805	17	0.546	39	1.626
7	8	-0.323	14	0.383	39	1.626
8	8	-0.323	18	0.578	39	1.626
9	6	-0.632	14	0.383	40	1.688
10	7	-0.529	16	0.530	35	1.419
11	5	-0.805	14	0.383	39	1.626
12	7	-0.529	14	0.383	36	1.436
13	6	-0.632	14	0.383	35	1.419
14	5	-0.805	18	0.578	41	1.733
Room Median	6	-0.632	17	0.546	40	1.688
SEMedian		0.067		0.032		0.040
Round 3						
Panelist	**B/BB**	**RID**	**P/B**	**RID**	**A/P**	**RID**
1	5	-0.805	16	0.530	41	1.733
2	5	-0.805	16	0.530	39	1.626
3	5	-0.805	16	0.530	37	1.530
4	5	-0.805	16	0.530	39	1.626
5	5	-0.805	14	0.383	39	1.626
6	6	-0.632	18	0.578	39	1.626
7	7	-0.529	18	0.578	39	1.626
8	8	-0.323	18	0.578	39	1.626
9	6	-0.632	14	0.383	39	1.626

10	7	-0.529	16	0.530	36	1.436
11	5	-0.805	12	0.162	39	1.626
12	7	-0.529	12	0.162	36	1.436
13	6	-0.632	14	0.383	36	1.436
14	5	-0.805	16	0.530	39	1.626
Room Median	6	-0.632	16	0.530	39	1.626
SEMedian		0.052		0.048		0.030

Science Grade 7

Round 1						
Panelist	**B/BB**	**RID**	**P/B**	**RID**	**A/P**	**RID**
1	4	-0.067	6	0.133	37	1.744
2	4	-0.067	7	0.589	37	1.744
3	9	0.755	24	1.289	40	1.881
4	9	0.755	26	1.368	47	2.440
5	7	0.589	15	0.998	33	1.617
6	12	0.809	26	1.368	45	2.035
7	13	0.958	26	1.368	43	2.007
8	7	0.589	21	1.230	38	1.809
9	13	0.958	29	1.422	37	1.744
10	9	0.755	22	1.231	36	1.718
11	11	0.783	26	1.368	41	1.932
12	11	0.783	21	1.230	31	1.535
13	6	0.133	9	0.755	33	1.617
14	7	0.589	14	0.981	40	1.881
15	7	0.589	12	0.809	36	1.718
16	7	0.589	16	1.045	39	1.865
17	7	0.589	21	1.230	43	2.007
18	7	0.589	15	0.998	40	1.881
19	4	-0.067	13	0.958	26	1.368
20	9	0.755	15	0.998	39	1.865
21	9	0.755	17	1.121	41	1.932
22	7	0.589	18	1.187	35	1.704
23	3	-0.531	11	0.783	35	1.704
24	9	0.755	27	1.379	35	1.704
25	15	0.998	20	1.219	41	1.932
26	13	0.958	27	1.379	39	1.865
27	8	0.646	18	1.187	39	1.865
28	4	-0.067	11	0.783	35	1.704
29	3	-0.531	8	0.646	46	2.048
30	5	0.037	13	0.958	33	1.617
31	8	0.646	18	1.187	39	1.865
32	3	-0.531	8	0.646	41	1.932
33	12	0.809	21	1.230	33	1.617
Room Median	7	0.589	18	1.187	39	1.865
SEMedian		0.099		0.064		0.042
Round 2						
Panelist	**B/BB**	**RID**	**P/B**	**RID**	**A/P**	**RID**
1	4	-0.067	11	0.783	39	1.865
2	4	-0.067	8	0.646	39	1.865
3	8	0.646	19	1.215	40	1.881
4	7	0.589	18	1.187	40	1.881
5	7	0.589	15	0.998	35	1.704
6	12	0.809	24	1.289	45	2.035
7	13	0.958	26	1.368	43	2.007
8	7	0.589	18	1.187	36	1.718
9	7	0.589	18	1.187	36	1.718

10	7	0.589	18	1.187	35	1.704
11	7	0.589	18	1.187	36	1.718
12	7	0.589	18	1.187	35	1.704
13	7	0.589	11	0.783	33	1.617
14	7	0.589	15	0.998	43	2.007
15	7	0.589	15	0.998	35	1.704
16	7	0.589	16	1.045	39	1.865
17	7	0.589	20	1.219	42	1.969
18	7	0.589	15	0.998	42	1.969
19	7	0.589	14	0.981	26	1.368
20	7	0.589	15	0.998	39	1.865
21	7	0.589	15	0.998	35	1.704
22	7	0.589	15	0.998	35	1.704
23	9	0.755	18	1.187	35	1.704
24	9	0.755	18	1.187	35	1.704
25	9	0.755	18	1.187	35	1.704
26	9	0.755	18	1.187	35	1.704
27	9	0.755	18	1.187	35	1.704
28	9	0.755	15	0.998	35	1.704
29	7	0.589	15	0.998	46	2.048
30	8	0.646	15	0.998	37	1.744
31	8	0.646	18	1.187	39	1.865
32	3	-0.531	9	0.755	41	1.932
33	7	0.589	15	0.998	36	1.718
Room Median	7	0.589	16	1.045	36	1.718
SEMedian		0.060		0.036		0.032
Round 3						
Panelist	**B/BB**	**RID**	**P/B**	**RID**	**A/P**	**RID**
1	4	-0.067	7	0.589	46	2.048
2	4	-0.067	8	0.646	46	2.048
3	7	0.589	18	1.187	39	1.865
4	7	0.589	16	1.045	41	1.932
5	7	0.589	15	0.998	41	1.932
6	7	0.589	22	1.231	45	2.035
7	10	0.770	25	1.354	43	2.007
8	7	0.589	18	1.187	45	2.035
9	7	0.589	18	1.187	45	2.035
10	7	0.589	18	1.187	46	2.048
11	5	0.037	18	1.187	45	2.035
12	7	0.589	18	1.187	35	1.704
13	7	0.589	11	0.783	41	1.932
14	7	0.589	15	0.998	43	2.007
15	7	0.589	15	0.998	39	1.865
16	7	0.589	16	1.045	41	1.932
17	7	0.589	20	1.219	42	1.969
18	7	0.589	15	0.998	45	2.035
19	7	0.589	14	0.981	43	2.007
20	7	0.589	15	0.998	41	1.932
21	7	0.589	15	0.998	41	1.932

22	7	0.589	18	1.187	39	1.865
23	7	0.589	18	1.187	40	1.881
24	7	0.589	18	1.187	40	1.881
25	7	0.589	18	1.187	40	1.881
26	7	0.589	18	1.187	41	1.932
27	9	0.755	20	1.219	41	1.932
28	9	0.755	21	1.230	40	1.881
29	7	0.589	15	0.998	46	2.048
30	8	0.646	15	0.998	45	2.035
31	8	0.646	18	1.187	42	1.969
32	3	-0.531	9	0.755	41	1.932
33	7	0.589	15	0.998	43	2.007
Room Median	7	0.589	18	1.187	41	1.932
SEMedian		0.059		0.038		0.017

Science Grade 10

Round 1						
Panelist	B/BB	RID	P/B	RID	A/P	RID
1	16	1.676	24	2.012	45	2.971
2	10	1.438	31	2.360	45	2.971
3	10	1.438	25	2.047	45	2.971
4	8	1.251	32	2.371	45	2.971
5	7	1.154	30	2.201	46	3.056
6	12	1.494	24	2.012	44	2.969
7	9	1.253	19	1.698	40	2.638
8	9	1.253	21	1.737	38	2.623
9	9	1.253	21	1.737	42	2.749
10	5	1.083	18	1.698	50	3.768
11	7	1.154	10	1.438	46	3.056
12	9	1.253	18	1.698	46	3.056
13	30	2.201	41	2.732	50	3.768
14	11	1.492	30	2.201	49	3.391
15	12	1.494	24	2.012	47	3.139
16	7	1.154	10	1.438	43	2.801
17	10	1.438	22	1.827	47	3.139
18	5	1.083	13	1.515	45	2.971
19	12	1.494	46	3.056	48	3.365
Room Median	9	1.253	24	2.012	45	2.971
SEMedian		0.075		0.123		0.091
Round 2						
Panelist	B/BB	RID	P/B	RID	A/P	RID
1	10	1.438	25	2.047	44	2.969
2	10	1.438	31	2.360	45	2.971
3	10	1.438	31	2.360	46	3.056
4	8	1.251	32	2.371	45	2.971
5	9	1.253	32	2.371	46	3.056
6	9	1.253	22	1.827	43	2.801
7	9	1.253	22	1.827	43	2.801
8	9	1.253	21	1.737	38	2.623
9	9	1.253	21	1.737	43	2.801
10	9	1.253	16	1.676	50	3.768
11	7	1.154	13	1.515	43	2.801
12	9	1.253	18	1.698	46	3.056
13	9	1.253	22	1.827	42	2.749
14	10	1.438	30	2.201	49	3.391
15	10	1.438	22	1.827	46	3.056
16	7	1.154	21	1.737	43	2.801
17	10	1.438	19	1.698	45	2.971
18	5	1.083	18	1.698	44	2.969
19	10	1.438	21	1.737	45	2.971
Room Median	9	1.253	22	1.827	45	2.971
SEMedian		0.033		0.081		0.073
Round 3						

Panelist	B/BB	RID	P/B	RID	A/P	RID
1	10	1.438	24	2.012	45	2.971
2	9	1.253	31	2.360	45	2.971
3	10	1.438	32	2.371	46	3.056
4	8	1.251	32	2.371	45	2.971
5	9	1.253	32	2.371	45	2.971
6	9	1.253	23	1.996	44	2.969
7	9	1.253	21	1.737	45	2.971
8	9	1.253	21	1.737	38	2.623
9	9	1.253	22	1.827	44	2.969
10	9	1.253	16	1.676	45	2.971
11	7	1.154	14	1.638	43	2.801
12	9	1.253	20	1.735	46	3.056
13	9	1.253	22	1.827	41	2.732
14	10	1.438	30	2.201	45	2.971
15	11	1.492	23	1.996	46	3.056
16	7	1.154	21	1.737	43	2.801
17	10	1.438	24	2.012	45	2.971
18	5	1.083	21	1.737	45	2.971
19	10	1.438	21	1.737	45	2.971
Room Median	9	1.253	22	1.827	45	2.971
SEMedian		0.033		0.076		0.033

Appendix U: Exit Exam Data

Table U.1. Fall 2010 Exit Exam Retest Reading: Raw to Scale Conversion

Raw Score	Ability	Scale Score	SEM	Proficiency Level	Frequency Grade 11	Frequency Grade 12	Frequency Total
0	-3.510	165	18.36	Below Basic	0	0	0
1	-2.279	177	10.19	Below Basic	0	1	1
2	-1.547	185	7.34	Below Basic	0	0	0
3	-1.102	189	6.11	Below Basic	1	1	2
4	-0.775	192	5.38	Below Basic	1	0	1
5	-0.511	195	4.90	Below Basic	3	0	3
6	-0.289	197	4.55	Below Basic	5	0	5
7	-0.094	199	4.29	Below Basic	9	7	16
8	0.081	201	4.08	Below Basic	15	9	24
9	0.241	202	3.92	Below Basic	24	11	35
10	0.389	204	3.78	Below Basic	51	14	65
11	0.527	205	3.67	Below Basic	44	28	72
12	0.658	207	3.57	Below Basic	52	26	78
13	0.783	208	3.50	Below Basic	75	36	111
14	0.903	209	3.43	Below Basic	67	41	108
15	1.019	210	3.37	Below Basic	70	24	94
16	1.131	211	3.33	Basic	81	45	126
17	1.240	212	3.29	Basic	100	50	150
18	1.348	213	3.26	Basic	98	42	140
19	1.453	215	3.24	Basic	94	41	135
20	1.557	216	3.22	Basic	96	39	135
21	1.661	217	3.21	Basic	97	47	144
22	1.763	218	3.20	Basic	112	40	152
23	1.866	219	3.20	Basic	130	45	175
24	1.969	220	3.21	Proficient	146	34	180
25	2.072	221	3.22	Proficient	131	48	179
26	2.177	222	3.24	Proficient	141	40	181
27	2.282	223	3.26	Proficient	140	40	180
28	2.390	224	3.29	Proficient	122	40	162
29	2.500	225	3.33	Proficient	112	26	138
30	2.612	226	3.38	Proficient	104	20	124
31	2.728	227	3.43	Proficient	99	28	127
32	2.848	228	3.50	Proficient	102	32	134
33	2.974	230	3.58	Proficient	94	20	114
34	3.105	231	3.67	Proficient	74	28	102
35	3.244	232	3.79	Proficient	65	25	90
36	3.392	234	3.92	Proficient	56	22	78
37	3.552	236	4.09	Advanced	41	10	51
38	3.728	237	4.29	Advanced	40	17	57
39	3.923	239	4.56	Advanced	43	20	63
40	4.146	241	4.90	Advanced	25	17	42
41	4.410	244	5.39	Advanced	20	10	30
42	4.737	247	6.11	Advanced	17	14	31
43	5.183	252	7.35	Advanced	13	1	14
44	5.915	259	10.19	Advanced	2	5	7
45	7.147	271	18.36	Advanced	0	1	1

Table U.2. Fall 2010 Exit Exam Retest Mathematics: Raw to Scale Conversion

Raw Score	Ability	Scale Score	SEM	Proficiency Level	Frequency Grade 11	Grade 12	Total
0	-1.999	180	18.36	Below Basic	0	0	0
1	-0.768	192	10.19	Below Basic	0	0	0
2	-0.036	200	7.34	Below Basic	1	0	1
3	0.409	204	6.11	Below Basic	0	0	0
4	0.737	207	5.39	Below Basic	1	1	2
5	1.001	210	4.91	Below Basic	2	2	4
6	1.225	212	4.57	Below Basic	3	0	3
7	1.422	214	4.31	Below Basic	13	9	22
8	1.599	216	4.11	Below Basic	16	9	25
9	1.761	218	3.95	Below Basic	34	13	47
10	1.911	219	3.81	Below Basic	43	26	69
11	2.052	221	3.71	Below Basic	59	31	90
12	2.186	222	3.62	Below Basic	66	44	110
13	2.314	223	3.54	Below Basic	95	53	148
14	2.438	224	3.48	Below Basic	103	56	159
15	2.557	226	3.43	Below Basic	113	52	165
16	2.673	227	3.39	Below Basic	125	76	201
17	2.787	228	3.35	Below Basic	110	88	198
18	2.898	229	3.33	Below Basic	162	78	240
19	3.008	230	3.31	Basic	203	98	301
20	3.117	231	3.29	Basic	181	94	275
21	3.225	232	3.29	Basic	226	99	325
22	3.333	233	3.28	Basic	232	118	350
23	3.441	234	3.29	Basic	240	102	342
24	3.549	235	3.29	Basic	256	122	378
25	3.658	237	3.31	Basic	271	117	388
26	3.768	238	3.33	Proficient	276	102	378
27	3.880	239	3.36	Proficient	216	84	300
28	3.994	240	3.39	Proficient	211	69	280
29	4.110	241	3.43	Proficient	195	78	273
30	4.229	242	3.48	Proficient	155	55	210
31	4.352	244	3.53	Proficient	145	51	196
32	4.479	245	3.60	Proficient	117	32	149
33	4.612	246	3.68	Proficient	105	36	141
34	4.751	248	3.78	Proficient	64	20	84
35	4.897	249	3.89	Proficient	57	15	72
36	5.054	251	4.03	Advanced	60	12	72
37	5.223	252	4.19	Advanced	38	16	54
38	5.407	254	4.40	Advanced	33	16	49
39	5.612	256	4.66	Advanced	24	14	38
40	5.844	258	5.00	Advanced	20	11	31
41	6.118	261	5.48	Advanced	22	10	32
42	6.456	265	6.20	Advanced	17	8	25
43	6.912	269	7.42	Advanced	10	5	15
44	7.656	277	10.25	Advanced	9	2	11
45	8.896	289	18.40	Advanced	6	3	9

Table U.3. Fall 2010 Exit Exam Retest Language Usage: Raw to Scale Conversion

Raw Score	Ability	Scale Score	SEM	Proficiency Level*	Frequency Grade 11	Frequency Grade 12	Frequency Total
0	-3.065	169	18.35	Below Basic	1	0	1
1	-1.839	182	10.16	Below Basic	1	0	1
2	-1.113	189	7.30	Below Basic	0	0	0
3	-0.674	193	6.06	Below Basic	0	0	0
4	-0.353	196	5.33	Below Basic	4	2	6
5	-0.095	199	4.84	Below Basic	1	1	2
6	0.122	201	4.49	Below Basic	8	5	13
7	0.311	203	4.22	Below Basic	18	6	24
8	0.481	205	4.02	Below Basic	20	9	29
9	0.635	206	3.85	Below Basic	47	19	66
10	0.778	208	3.71	Below Basic	51	18	69
11	0.912	209	3.60	Below Basic	78	44	122
12	1.037	210	3.50	Below Basic	105	55	160
13	1.157	212	3.42	Below Basic	108	51	159
14	1.272	213	3.36	Below Basic	117	76	193
15	1.383	214	3.30	Below Basic	125	74	199
16	1.491	215	3.26	Below Basic	145	84	229
17	1.595	216	3.22	Below Basic	164	79	243
18	1.698	217	3.19	Below Basic	184	97	281
19	1.799	218	3.17	Basic	222	95	317
20	1.899	219	3.15	Basic	240	105	345
21	1.997	220	3.14	Basic	249	116	365
22	2.096	221	3.13	Basic	298	131	429
23	2.194	222	3.13	Basic	294	132	426
24	2.292	223	3.14	Basic	293	121	414
25	2.391	224	3.15	Basic	286	125	411
26	2.491	225	3.17	Basic	304	142	446
27	2.593	226	3.20	Proficient	255	103	358
28	2.696	227	3.23	Proficient	267	101	368
29	2.801	228	3.27	Proficient	257	91	348
30	2.910	229	3.32	Proficient	209	84	293
31	3.022	230	3.37	Proficient	178	65	243
32	3.138	231	3.44	Proficient	159	44	203
33	3.259	233	3.52	Proficient	142	38	180
34	3.387	234	3.62	Proficient	97	36	133
35	3.522	235	3.73	Proficient	82	21	103
36	3.666	237	3.87	Proficient	63	28	91
37	3.823	238	4.04	Proficient	44	18	62
38	3.994	240	4.25	Proficient	31	14	45
39	4.186	242	4.52	Advanced	29	11	40
40	4.406	244	4.87	Advanced	21	8	29
41	4.667	247	5.36	Advanced	22	12	34
42	4.991	250	6.09	Advanced	15	9	24
43	5.434	254	7.33	Advanced	13	5	18
44	6.164	262	10.18	Advanced	5	1	6
45	7.394	274	18.36	Advanced	4	1	5

Table U.4. Fall 2010 Exit Exam Retest Scale Score Descriptive Statistics

Grade	Subject	N	Min	Max	Mean	Median	Standard Deviation	Skewness	Kurtosis
11	Reading	2812	189	259	220.74	221	9.469	0.280	0.365
12	Reading	1045	177	271	219.89	219	10.694	0.628	0.975
11	Mathematics	4335	200	289	235.75	235	8.892	0.796	0.983
12	Mathematics	1927	207	289	234.46	234	8.944	2.965	3.287
11	Language Usage	5256	169	274	223.06	223	8.036	0.438	2.710
12	Language Usage	2277	196	274	222.18	222	7.931	0.603	2.019

Table U.5. Fall 2010 Exit Exam Retest Grade 11: Summary of Student Demographics

	Reading		Mathematics		Lang. Usage	
	N	%	N	%	N	%
ALL STUDENTS	2812	100.0	4335	100.0	5256	100.0
GENDER						
Male	1637	58.2	2288	52.8	3071	58.4
Female	1175	41.8	2047	47.2	2185	41.6
ETHNICITY						
American Indian/Alaskan Native	114	4.1	184	4.2	191	3.6
Asian	59	2.1	65	1.5	83	1.6
Black/African American	56	2.0	78	1.8	84	1.6
Hawaiian/Other Pacific Islander	19	.7	32	.7	28	.5
White	1855	66.0	3043	70.2	3666	69.7
Hispanic or Latino	679	24.1	888	20.5	1155	22.0
Two or More Races	30	1.1	45	1.0	49	.9
FREE OR REDUCED LUNCH						
No	1575	56.0	2538	58.5	3015	57.4
Yes	1237	44.0	1797	41.5	2241	42.6
LIMITED ENGLISH PROFICIENCY						
Not LEP	2404	85.5	3880	89.5	4682	89.1
LEP	355	12.6	363	8.4	466	8.9
LEP in first year of school	12	.4	26	.6	9	.2
LEP exited in past 1 year	30	1.1	39	.9	55	1.0
LEP exited in past 2 years	11	.4	27	.6	44	.8
TITLE I						
No	2537	90.2	3900	90.0	4802	91.4
Yes	275	9.8	435	10.0	454	8.6
MIGRANT STATUS						
No	2766	98.4	4282	98.8	5189	98.7
Yes	46	1.6	53	1.2	67	1.3
GIFTED AND TALENTED						
No	2809	99.9	4326	99.8	5247	99.8
Yes	3	.1	9	.2	9	.2
NEGLECTED OR DELINQUENT						
No	2788	99.1	4297	99.1	5225	99.4
Yes	24	.9	38	.9	31	.6
HOMELESS						
No	2774	98.6	4283	98.8	5203	99.0
Yes	38	1.4	52	1.2	53	1.0
SPECIAL EDUCATION						
No	2090	74.3	3435	79.2	4308	82.0
Yes	691	24.6	851	19.6	889	16.9
SPE exited in past 1 year	21	.7	32	.7	38	.7
SPE exited in past 2 years	10	.4	17	.4	21	.4
504 PLAN						
No	2754	97.9	4237	97.7	5156	98.1
Yes	58	2.1	98	2.3	100	1.9

Table U.6. Fall 2010 Exit Exam Retest Grade 12: Summary of Student Demographics

	Reading		Mathematics		Lang. Usage	
	N	%	N	%	N	%
ALL STUDENTS	1045	100.0	1927	100.0	2277	100.0
GENDER						
Male	599	57.3	991	51.4	1320	58.0
Female	446	42.7	936	48.6	957	42.0
ETHNICITY						
American Indian/Alaskan Native	43	4.1	82	4.3	101	4.4
Asian	24	2.3	24	1.2	35	1.5
Black/African American	24	2.3	39	2.0	35	1.5
Hawaiian/Other Pacific Islander	6	.6	9	.5	11	.5
White	646	61.8	1286	66.7	1468	64.5
Hispanic or Latino	293	28.0	467	24.2	609	26.7
Two or More Races	9	.9	20	1.0	18	.8
FREE OR REDUCED LUNCH						
No	581	55.6	1098	57.0	1262	55.4
Yes	464	44.4	829	43.0	1015	44.6
LIMITED ENGLISH PROFICIENCY						
Not LEP	889	85.1	1705	88.5	1946	85.5
LEP	147	14.1	185	9.6	266	11.7
LEP in first year of school	3	.3	5	.3	3	.1
LEP exited in past 1 year	5	.5	20	1.0	33	1.4
LEP exited in past 2 years	1	.1	12	.6	29	1.3
TITLE I						
No	938	89.8	1725	89.5	2052	90.1
Yes	107	10.2	202	10.5	225	9.9
MIGRANT STATUS						
No	1031	98.7	1914	99.3	2252	98.9
Yes	14	1.3	13	.7	25	1.1
GIFTED AND TALENTED						
No	1043	99.8	1923	99.8	2274	99.9
Yes	2	.2	4	.2	3	.1
NEGLECTED OR DELINQUENT						
No	1010	96.7	1874	97.2	2230	97.9
Yes	35	3.3	53	2.8	47	2.1
HOMELESS						
No	1035	99.0	1907	99.0	2254	99.0
Yes	10	1.0	20	1.0	23	1.0
SPECIAL EDUCATION						
No	691	66.1	1405	72.9	1716	75.4
Yes	340	32.5	486	25.2	522	22.9
SPE exited in past 1 year	10	1.0	26	1.3	27	1.2
SPE exited in past 2 years	4	.4	10	.5	12	.5
504 PLAN						
No	1035	99.0	1887	97.9	2229	97.9
Yes	10	1.0	40	2.1	48	2.1

Table U.7. Spring 2011 Exit Exam Reading: Raw to Scale Conversion

Raw Score	Ability	Scale Score	SEM	Proficiency Level	Frequency Grade 11	Grade 12	Total
0	-3.491	165	18.35	Below Basic	1	0	1
1	-2.262	177	10.18	Below Basic	0	0	0
2	-1.533	185	7.33	Below Basic	0	0	0
3	-1.090	189	6.09	Below Basic	1	0	1
4	-0.765	192	5.37	Below Basic	0	0	0
5	-0.504	195	4.89	Below Basic	0	0	0
6	-0.282	197	4.54	Below Basic	6	0	6
7	-0.088	199	4.28	Below Basic	4	0	4
8	0.086	201	4.08	Below Basic	25	2	27
9	0.245	202	3.91	Below Basic	16	1	17
10	0.393	204	3.78	Below Basic	46	3	49
11	0.532	205	3.67	Below Basic	36	2	38
12	0.663	207	3.58	Below Basic	58	4	62
13	0.789	208	3.51	Below Basic	78	5	83
14	0.910	209	3.44	Below Basic	68	5	73
15	1.026	210	3.39	Below Basic	65	4	69
16	1.140	211	3.35	Basic	64	4	68
17	1.251	213	3.31	Basic	68	5	73
18	1.360	214	3.29	Basic	51	3	54
19	1.467	215	3.27	Basic	60	4	64
20	1.573	216	3.25	Basic	68	5	73
21	1.679	217	3.24	Basic	82	5	87
22	1.784	218	3.24	Basic	69	5	74
23	1.889	219	3.24	Basic	66	4	70
24	1.994	220	3.25	Proficient	60	4	64
25	2.100	221	3.26	Proficient	58	4	62
26	2.207	222	3.28	Proficient	54	4	58
27	2.315	223	3.31	Proficient	47	3	50
28	2.426	224	3.34	Proficient	50	3	53
29	2.538	225	3.37	Proficient	32	2	34
30	2.654	227	3.42	Proficient	41	3	44
31	2.773	228	3.48	Proficient	31	2	33
32	2.896	229	3.54	Proficient	21	1	22
33	3.024	230	3.62	Proficient	25	2	27
34	3.158	232	3.71	Proficient	27	2	29
35	3.300	233	3.82	Proficient	19	1	20
36	3.451	235	3.96	Advanced	19	1	20
37	3.614	236	4.12	Advanced	21	1	22
38	3.792	238	4.33	Advanced	17	1	18
39	3.990	240	4.59	Advanced	18	1	19
40	4.216	242	4.93	Advanced	10	1	11
41	4.482	245	5.41	Advanced	10	1	11
42	4.812	248	6.13	Advanced	3	0	3
43	5.259	253	7.36	Advanced	3	0	3
44	5.994	260	10.20	Advanced	2	0	2
45	7.226	272	18.37	Advanced	1	0	1

Table U.8. Spring 2011 Exit Exam Mathematics: Raw to Scale Conversion

Raw Score	Ability	Scale Score	SEM	Proficiency Level	Frequency Grade 11	Grade 12	Total
0	-1.961	180	18.37	Below Basic	0	0	0
1	-0.728	193	10.21	Below Basic	0	0	0
2	0.007	200	7.36	Below Basic	0	0	0
3	0.453	205	6.12	Below Basic	0	0	0
4	0.782	208	5.40	Below Basic	0	0	0
5	1.046	210	4.91	Below Basic	5	0	5
6	1.270	213	4.56	Below Basic	3	0	3
7	1.466	215	4.30	Below Basic	25	1	26
8	1.641	216	4.09	Below Basic	28	1	29
9	1.801	218	3.92	Below Basic	32	1	33
10	1.950	220	3.79	Below Basic	62	2	64
11	2.089	221	3.67	Below Basic	92	3	95
12	2.220	222	3.58	Below Basic	80	3	83
13	2.345	223	3.50	Below Basic	105	4	109
14	2.466	225	3.44	Below Basic	100	4	104
15	2.582	226	3.38	Below Basic	112	4	116
16	2.695	227	3.34	Below Basic	116	4	120
17	2.805	228	3.30	Below Basic	114	4	118
18	2.913	229	3.27	Below Basic	129	5	134
19	3.020	230	3.25	Basic	118	4	122
20	3.125	231	3.24	Basic	131	5	136
21	3.229	232	3.23	Basic	123	5	128
22	3.333	233	3.22	Basic	132	5	137
23	3.437	234	3.22	Basic	167	6	173
24	3.541	235	3.23	Basic	128	5	133
25	3.646	236	3.24	Basic	129	5	134
26	3.752	238	3.26	Proficient	123	5	128
27	3.859	239	3.29	Proficient	114	4	118
28	3.968	240	3.32	Proficient	100	4	104
29	4.080	241	3.36	Proficient	59	2	61
30	4.194	242	3.41	Proficient	82	3	85
31	4.312	243	3.46	Proficient	56	2	58
32	4.434	244	3.53	Proficient	44	2	46
33	4.561	246	3.61	Proficient	36	1	37
34	4.694	247	3.70	Proficient	38	1	39
35	4.835	248	3.81	Proficient	31	1	32
36	4.986	250	3.95	Proficient	19	1	20
37	5.148	251	4.11	Advanced	17	1	18
38	5.325	253	4.32	Advanced	16	1	17
39	5.523	255	4.58	Advanced	12	0	12
40	5.748	257	4.92	Advanced	9	0	9
41	6.013	260	5.40	Advanced	4	0	4
42	6.343	263	6.12	Advanced	2	0	2
43	6.790	268	7.36	Advanced	5	0	5
44	7.524	275	10.20	Advanced	5	0	5
45	8.756	288	18.37	Advanced	4	0	4

Table U.9. Spring 2011 Exit Exam Language Usage: Raw to Scale Conversion

Raw Score	Ability	Scale Score	SEM	Proficiency Level	Frequency Grade 11	Grade 12	Total
0	-3.236	168	18.36	Below Basic	0	0	0
1	-2.007	180	10.18	Below Basic	0	0	0
2	-1.277	187	7.33	Below Basic	2	0	2
3	-0.834	192	6.09	Below Basic	0	0	0
4	-0.508	195	5.37	Below Basic	1	0	1
5	-0.246	198	4.89	Below Basic	2	0	2
6	-0.024	200	4.55	Below Basic	6	0	6
7	0.171	202	4.29	Below Basic	12	0	12
8	0.346	203	4.08	Below Basic	24	1	25
9	0.506	205	3.92	Below Basic	33	1	34
10	0.655	207	3.79	Below Basic	37	1	38
11	0.794	208	3.68	Below Basic	71	2	73
12	0.926	209	3.59	Below Basic	73	2	75
13	1.053	211	3.52	Below Basic	92	3	95
14	1.174	212	3.46	Below Basic	97	3	100
15	1.292	213	3.41	Below Basic	97	3	100
16	1.407	214	3.37	Below Basic	129	4	133
17	1.519	215	3.33	Below Basic	129	4	133
18	1.629	216	3.31	Below Basic	145	4	149
19	1.738	217	3.29	Below Basic	156	4	160
20	1.845	218	3.27	Basic	178	5	183
21	1.952	220	3.27	Basic	207	6	213
22	2.059	221	3.26	Basic	207	6	213
23	2.165	222	3.27	Basic	229	7	236
24	2.272	223	3.28	Basic	218	6	224
25	2.380	224	3.29	Basic	219	6	225
26	2.489	225	3.31	Basic	197	6	203
27	2.600	226	3.34	Proficient	192	6	198
28	2.712	227	3.37	Proficient	151	4	155
29	2.828	228	3.41	Proficient	131	4	135
30	2.946	229	3.46	Proficient	87	2	89
31	3.068	231	3.52	Proficient	85	2	87
32	3.194	232	3.59	Proficient	65	2	67
33	3.326	233	3.67	Proficient	55	2	57
34	3.464	235	3.77	Proficient	38	1	39
35	3.610	236	3.88	Proficient	29	1	30
36	3.765	238	4.02	Proficient	19	1	20
37	3.933	239	4.18	Proficient	25	1	26
38	4.117	241	4.39	Proficient	12	0	12
39	4.321	243	4.65	Advanced	3	0	3
40	4.553	246	5.00	Advanced	8	0	8
41	4.826	248	5.48	Advanced	7	0	7
42	5.165	252	6.20	Advanced	7	0	7
43	5.621	256	7.43	Advanced	4	0	4
44	6.366	264	10.26	Advanced	4	0	4
45	7.607	276	18.40	Advanced	0	0	0

Table U.10. Spring 2011 Exit Exam Scale Score Descriptive Statistics

Grade	Subject	N	Min	Max	Mean	Median	Standard Deviation	Skewness	Kurtosis
11	Reading	1501	165	272	217.65	217.00	9.901	0.639	1.492
12	Reading	436	177	260	217.83	216.50	10.785	0.782	1.271
11	Mathematics	2707	210	288	232.71	232.00	8.799	0.862	3.096
12	Mathematics	913	210	275	231.73	231.00	9.046	1.049	2.736
11	Language Usage	3483	187	264	221.19	222.00	7.853	0.359	1.906
12	Language Usage	1106	192	276	220.30	221.00	8.202	0.590	2.307

Table U.11. Spring 2011 Exit Exam Grade 11: Summary of Student Demographics

	Reading		Mathematics		Lang. Usage	
	N	%	N	%	N	%
ALL STUDENTS	1501	100.0	2707	100.0	3483	100.0
GENDER						
Male	900	60.0	1462	54.0	2093	60.1
Female	601	40.0	1245	46.0	1390	39.9
ETHNICITY						
American Indian/Alaskan Native	72	4.8	116	4.3	149	4.3
Asian	46	3.1	44	1.6	69	2.0
Black/African American	45	3.0	65	2.4	71	2.0
Hawaiian/Other Pacific Islander	12	.8	14	.5	21	.6
White	920	61.3	1865	68.9	2337	67.1
Hispanic or Latino	392	26.1	574	21.2	798	22.9
Two or More Races	14	.9	29	1.1	38	1.1
FREE OR REDUCED LUNCH						
No	619	41.2	1257	46.4	1623	46.6
Yes	882	58.8	1450	53.6	1860	53.4
LIMITED ENGLISH PROFICIENCY						
Not LEP	1187	79.1	2361	87.2	2960	85.0
LEP	267	17.8	273	10.1	407	11.7
LEP in first year of school	19	1.3	28	1.0	15	.4
LEP exited in past 1 year	17	1.1	21	.8	59	1.7
LEP exited in past 2 years	11	.7	24	.9	42	1.2
TITLE I						
No	1300	86.6	2357	87.1	3114	89.4
Yes	201	13.4	350	12.9	369	10.6
MIGRANT STATUS						
No	1470	97.9	2676	98.9	3437	98.7
Yes	31	2.1	31	1.1	46	1.3
GIFTED AND TALENTED						
No	1501	100.0	2702	99.8	3476	99.8
Yes	0	.0	5	.2	7	.2
NEGLECTED OR DELINQUENT						
No	1462	97.4	2660	98.3	3439	98.7
Yes	39	2.6	47	1.7	44	1.3
HOMELESS						
No	1466	97.7	2655	98.1	3426	98.4
Yes	35	2.3	52	1.9	57	1.6
SPECIAL EDUCATION						
No	958	63.8	1923	71.0	2636	75.7
Yes	521	34.7	751	27.7	794	22.8
SPE exited in past 1 year	17	1.1	23	.8	35	1.0
SPE exited in past 2 years	5	.3	10	.4	18	.5
504 PLAN						
No	1478	98.5	2635	97.3	3395	97.5
Yes	23	1.5	72	2.7	88	2.5

Table U.12. Spring 2011 Exit Exam Grade 12: Summary of Student Demographics

	Reading		Mathematics		Lang. Usage	
	N	%	N	%	N	%
ALL STUDENTS	436	100.0	913	100.0	1106	100.0
GENDER						
Male	263	60.3	485	53.1	661	59.8
Female	173	39.7	428	46.9	445	40.2
ETHNICITY						
American Indian/Alaskan Native	16	3.7	39	4.3	49	4.4
Asian	9	2.1	11	1.2	14	1.3
Black/African American	6	1.4	12	1.3	11	1.0
Hawaiian/Other Pacific Islander	5	1.1	7	.8	6	.5
White	254	58.3	590	64.6	675	61.0
Hispanic or Latino	138	31.7	242	26.5	338	30.6
Two or More Races	8	1.8	12	1.3	13	1.2
FREE OR REDUCED LUNCH						
No	175	40.1	409	44.8	472	42.7
Yes	261	59.9	504	55.2	634	57.3
LIMITED ENGLISH PROFICIENCY						
Not LEP	343	78.7	798	87.4	898	81.2
LEP	87	20.0	95	10.4	153	13.8
LEP in first year of school	1	.2	1	.1	1	.1
LEP exited in past 1 year	3	.7	10	1.1	36	3.3
LEP exited in past 2 years	2	.5	9	1.0	18	1.6
TITLE I						
No	384	88.1	789	86.4	950	85.9
Yes	52	11.9	124	13.6	156	14.1
MIGRANT STATUS						
No	427	97.9	902	98.8	1093	98.8
Yes	9	2.1	11	1.2	13	1.2
GIFTED AND TALENTED						
No	433	99.3	911	99.8	1104	99.8
Yes	3	.7	2	.2	2	.2
NEGLECTED OR DELINQUENT						
No	401	92.0	858	94.0	1060	95.8
Yes	35	8.0	55	6.0	46	4.2
HOMELESS						
No	425	97.5	889	97.4	1078	97.5
Yes	11	2.5	24	2.6	28	2.5
SPECIAL EDUCATION						
No	258	59.2	612	67.0	787	71.2
Yes	170	39.0	276	30.2	293	26.5
SPE exited in past 1 year	6	1.4	18	2.0	19	1.7
SPE exited in past 2 years	2	.5	7	.8	7	.6
504 PLAN						
No	428	98.2	888	97.3	1076	97.3
Yes	8	1.8	25	2.7	30	2.7

Appendix V: Ninth Grade Practice Exam Data

Table V.1. Spring 2011 Practice Exam Reading: Raw to Scale Conversion

Raw Score	Ability	Scale Score	SEM	Proficiency Level	Frequency
0	-3.491	165	18.35	Below Basic	0
1	-2.262	177	10.18	Below Basic	0
2	-1.533	185	7.33	Below Basic	0
3	-1.090	189	6.09	Below Basic	2
4	-0.765	192	5.37	Below Basic	1
5	-0.504	195	4.89	Below Basic	5
6	-0.282	197	4.54	Below Basic	9
7	-0.088	199	4.28	Below Basic	26
8	0.086	201	4.08	Below Basic	53
9	0.245	202	3.91	Below Basic	73
10	0.393	204	3.78	Below Basic	99
11	0.532	205	3.67	Below Basic	145
12	0.663	207	3.58	Below Basic	153
13	0.789	208	3.51	Below Basic	202
14	0.910	209	3.44	Below Basic	211
15	1.026	210	3.39	Below Basic	219
16	1.140	211	3.35	Basic	260
17	1.251	213	3.31	Basic	255
18	1.360	214	3.29	Basic	298
19	1.467	215	3.27	Basic	325
20	1.573	216	3.25	Basic	355
21	1.679	217	3.24	Basic	404
22	1.784	218	3.24	Basic	422
23	1.889	219	3.24	Basic	460
24	1.994	220	3.25	Proficient	509
25	2.100	221	3.26	Proficient	527
26	2.207	222	3.28	Proficient	617
27	2.315	223	3.31	Proficient	688
28	2.426	224	3.34	Proficient	742
29	2.538	225	3.37	Proficient	762
30	2.654	227	3.42	Proficient	855
31	2.773	228	3.48	Proficient	892
32	2.896	229	3.54	Proficient	1005
33	3.024	230	3.62	Proficient	983
34	3.158	232	3.71	Proficient	1028
35	3.300	233	3.82	Proficient	1074
36	3.451	235	3.96	Advanced	1119
37	3.614	236	4.12	Advanced	1095
38	3.792	238	4.33	Advanced	1082
39	3.990	240	4.59	Advanced	993
40	4.216	242	4.93	Advanced	928
41	4.482	245	5.41	Advanced	792
42	4.812	248	6.13	Advanced	621
43	5.259	253	7.36	Advanced	411
44	5.994	260	10.20	Advanced	231
45	7.226	272	18.37	Advanced	63

Table V.2. Spring 2011 Practice Exam Mathematics: Raw to Scale Conversion

Raw Score	Ability	Scale Score	SEM	Proficiency Level	Frequency
0	-1.961	180	18.37	Below Basic	1
1	-0.728	193	10.21	Below Basic	1
2	0.007	200	7.36	Below Basic	3
3	0.453	205	6.12	Below Basic	2
4	0.782	208	5.40	Below Basic	10
5	1.046	210	4.91	Below Basic	9
6	1.270	213	4.56	Below Basic	32
7	1.466	215	4.30	Below Basic	54
8	1.641	216	4.09	Below Basic	84
9	1.801	218	3.92	Below Basic	123
10	1.950	220	3.79	Below Basic	163
11	2.089	221	3.67	Below Basic	211
12	2.220	222	3.58	Below Basic	227
13	2.345	223	3.50	Below Basic	253
14	2.466	225	3.44	Below Basic	281
15	2.582	226	3.38	Below Basic	307
16	2.695	227	3.34	Below Basic	336
17	2.805	228	3.30	Below Basic	366
18	2.913	229	3.27	Below Basic	402
19	3.020	230	3.25	Basic	420
20	3.125	231	3.24	Basic	485
21	3.229	232	3.23	Basic	477
22	3.333	233	3.22	Basic	483
23	3.437	234	3.22	Basic	547
24	3.541	235	3.23	Basic	543
25	3.646	236	3.24	Basic	594
26	3.752	238	3.26	Proficient	628
27	3.859	239	3.29	Proficient	672
28	3.968	240	3.32	Proficient	707
29	4.080	241	3.36	Proficient	744
30	4.194	242	3.41	Proficient	782
31	4.312	243	3.46	Proficient	769
32	4.434	244	3.53	Proficient	746
33	4.561	246	3.61	Proficient	788
34	4.694	247	3.70	Proficient	779
35	4.835	248	3.81	Proficient	807
36	4.986	250	3.95	Proficient	819
37	5.148	251	4.11	Advanced	835
38	5.325	253	4.32	Advanced	791
39	5.523	255	4.58	Advanced	814
40	5.748	257	4.92	Advanced	812
41	6.013	260	5.40	Advanced	757
42	6.343	263	6.12	Advanced	792
43	6.790	268	7.36	Advanced	675
44	7.524	275	10.20	Advanced	586
45	8.756	288	18.37	Advanced	334

Table V.3. Spring 2011 Practice Exam Language Usage: Raw to Scale Conversion

Raw Score	Ability	Scale Score	SEM	Proficiency Level	Frequency
0	-3.236	168	18.36	Below Basic	0
1	-2.007	180	10.18	Below Basic	1
2	-1.277	187	7.33	Below Basic	0
3	-0.834	192	6.09	Below Basic	0
4	-0.508	195	5.37	Below Basic	1
5	-0.246	198	4.89	Below Basic	9
6	-0.024	200	4.55	Below Basic	19
7	0.171	202	4.29	Below Basic	21
8	0.346	203	4.08	Below Basic	57
9	0.506	205	3.92	Below Basic	87
10	0.655	207	3.79	Below Basic	112
11	0.794	208	3.68	Below Basic	171
12	0.926	209	3.59	Below Basic	204
13	1.053	211	3.52	Below Basic	260
14	1.174	212	3.46	Below Basic	292
15	1.292	213	3.41	Below Basic	318
16	1.407	214	3.37	Below Basic	357
17	1.519	215	3.33	Below Basic	407
18	1.629	216	3.31	Below Basic	431
19	1.738	217	3.29	Below Basic	494
20	1.845	218	3.27	Basic	526
21	1.952	220	3.27	Basic	568
22	2.059	221	3.26	Basic	618
23	2.165	222	3.27	Basic	652
24	2.272	223	3.28	Basic	672
25	2.380	224	3.29	Basic	756
26	2.489	225	3.31	Basic	782
27	2.600	226	3.34	Proficient	828
28	2.712	227	3.37	Proficient	827
29	2.828	228	3.41	Proficient	838
30	2.946	229	3.46	Proficient	854
31	3.068	231	3.52	Proficient	893
32	3.194	232	3.59	Proficient	888
33	3.326	233	3.67	Proficient	870
34	3.464	235	3.77	Proficient	902
35	3.610	236	3.88	Proficient	849
36	3.765	238	4.02	Proficient	843
37	3.933	239	4.18	Proficient	841
38	4.117	241	4.39	Proficient	754
39	4.321	243	4.65	Advanced	744
40	4.553	246	5.00	Advanced	600
41	4.826	248	5.48	Advanced	546
42	5.165	252	6.20	Advanced	466
43	5.621	256	7.43	Advanced	379
44	6.366	264	10.26	Advanced	206
45	7.607	276	18.40	Advanced	58

Table V.4. Spring 2011 Practice Exam Scale Score Descriptive Statistics

Grade	Subject	N	Min	Max	Mean	Median	Standard Deviation	Skewness	Kurtosis
9	Reading	20994	189	272	229.47	229.00	11.453	0.119	0.292
9	Mathematics	21051	180	288	244.54	243.00	14.004	0.523	0.462
9	Language Usage	21001	180	276	229.83	229.00	11.775	0.424	0.419

Table V.5. Spring 2011 Practice Exam Grade 9: Summary of Student Demographics

	Reading		Mathematics		Lang. Usage	
	N	%	N	%	N	%
ALL STUDENTS	20994	100	21051	100	21001	100
GENDER						
Male	10766	51.3	10805	51.3	10773	51.3
Female	10228	48.7	10246	48.7	10228	48.7
ETHNICITY						
American Indian/Alaskan Native	283	1.3	283	1.3	284	1.4
Asian	276	1.3	305	1.4	273	1.3
Black/African American	247	1.2	255	1.2	249	1.2
Hawaiian/Other Pacific Islander	94	0.4	95	0.5	92	0.4
White	16725	79.7	16724	79.4	16736	79.7
Hispanic or Latino	3077	14.7	3099	14.7	3077	14.7
Two or More Races	292	1.4	290	1.4	290	1.4
FREE OR REDUCED LUNCH						
No	11999	57.2	11997	57	11996	57.1
Yes	8995	42.8	9054	43	9005	42.9
LIMITED ENGLISH PROFICIENCY						
Not LEP	19910	94.8	19900	94.5	19918	94.8
LEP	753	3.6	755	3.6	755	3.6
LEP in first year of school	20	0.1	90	0.4	19	0.1
LEP exited in past 1 year	158	0.8	156	0.7	157	0.7
LEP exited in past 2 years	153	0.7	150	0.7	152	0.7
TITLE I						
No	18571	88.5	18555	88.1	18553	88.3
Yes	2423	11.5	2496	11.9	2448	11.7
MIGRANT STATUS						
No	20858	99.4	20912	99.3	20864	99.3
Yes	136	0.6	139	0.7	137	0.7
GIFTED AND TALENTED						
No	20177	96.1	20237	96.1	20186	96.1
Yes	817	3.9	814	3.9	815	3.9
NEGLECTED OR DELINQUENT						
No	20954	99.8	21007	99.8	20956	99.8
Yes	40	0.2	44	0.2	45	0.2
HOMELESS						
No	20847	99.3	20899	99.3	20848	99.3
Yes	147	0.7	152	0.7	153	0.7
SPECIAL EDUCATION						
No	19368	92.3	19430	92.3	19379	92.3
Yes	1462	7	1455	6.9	1457	6.9
SPE exited in past 1 year	103	0.5	104	0.5	104	0.5
SPE exited in past 2 years	61	0.3	62	0.3	61	0.3
504 PLAN						
No	20583	98	20643	98.1	20588	98
Yes	411	2	408	1.9	413	2