Maryland School Assessment-Reading:

Grades 3 through 8

Technical Report:
2008 Administration

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

ACKNOWLEDGEMENTS

The 2008 *Maryland School Assessment-Reading Technical Report* is the product of many individuals at Pearson, the National Psychometric Council, and the Maryland State Department of Education. These acknowledgements recognize those individuals who have made significant contributions to it.

Both Daeryong Seo and Ian Little wrote and produced the chapters of this report, and Yu Sun contributed to the principal data analyses of this report. This report was also supported by Chandra Coombs, William Piferrer, Jessika Mathews, and Susan Hartman.

The National Psychometric Council, Bert Green, Huynh Huynh, Bob Lissitz, Mark Moody, Bill Schafer, and Steve Wise reviewed this report. Special acknowledgement is given to MSDE staff members for their input and guidance: Janet Bagsby, Matthew Dammann, Damon Hartzler, Ann Herrmann, Ray Scott, and Leslie Wilson.

INTRODUCTION

The *Maryland School Assessment (MSA)* is a measure of students' reading and mathematics comprehension. The *MSA* fulfills recommendations of the Visionary Panel for Better Schools and meets the federal testing requirements of the *No Child Left Behind Act (NCLB)* of 2001.

New academic standards were designed to inform parents, teachers, and educators of what students actually learned in schools and to make schools accountable for teaching contents measured by the *MSA*. To this end, the Maryland State Department of Education (MSDE), in collaboration with hundreds of educators across the state, developed a series of reading tests to measure students' achievement against the new academic standards.

In 2003, the MSA-Reading was introduced in grades 3, 5, and 8; grades 4, 6, and 7 were added to the program in 2004.

The purpose of the 2008 *MSA-Reading Technical Report* is to provide users and other interested parties with a general overview and statistical results of the MSA-Reading.

The 2008 *Technical Report* is composed of four section and four appendices. The first section contains the following information:

- General overview and purposes of the MSA-Reading
- Development and review of the MSA-Reading
- Test form design, specifications, and item type
- Test administration
- Scoring procedures
- Operational test analyses
- Field test analyses
- 2008 Operational form construction
- Linking, equating, and scaling
- Score interpretation
- Test validity
- Unidimensionality analyses
- Item bank construction
- Quality assurance

The second section provides the 2008 MSA-Reading results for students in grades 3 through 8. It contains information about the cutoff score and pass rate at each performance level for the 2008 reading tests.

After an overview of statistical summaries in the third section, the last section contains statistical summaries of the 2008 MSA-Reading. This part outlines the statistical and psychometric characteristics of the 2008 MSA-Reading.

Four appendices provide additional information related to the 2008 MSA-Reading: Appendix A contains stratified random sampling results; Appendix B contains scale score histograms and Tukey charts; Appendix C contains both classical and Rasch (One-Parameter Logistic Item Response Theory) item parameters; Appendix D contains test blueprints for grades 3 through 8.

1. OVERVIEW OF THE 2008 *MARYLAND SCHOOL ASSESSMENT-READING*

In 2002, the Maryland State Department of Education (MSDE), in order to conform to the requirements of the new Federal program "No Child Left Behind," retired its award-winning *Maryland School Performance Assessment Program* and adopted a testing program known as the *Maryland School Assessment* (*MSA*). The new program, like its predecessor, was based on the *Voluntary State Curriculum*, which set reasonable academic standards for what teachers were expected to teach and what students were expected to learn in schools.

In 2003, the MSA-Reading was introduced in grades 3, 5, and 8, with grades 4, 6, and 7 being added to the program in 2004. Until 2007 the MSA-Reading was administered along with *Stanford Achievement Test Series, Tenth Edition (SAT10)*, and the SAT10 common items aligned to Maryland curriculum were used exclusively for the purpose of form-to-form and year-to-year linking. In 2007, however, MSDE decided to drop all of the SAT10 items from the 2008 assessment. Due to the decision, MSDE and Pearson team members examined options to replace the SAT10 items removed from the test. The minimum requirement was to develop enough items to cover the same total and subtotal score points that SAT10 common items contributed in previous years (for grade 5, for example, 45 total score points with 15 points each for general reading, literary, and informational reading). In addition, it was decided that only one operational form would be developed for the 2008 administration, and that options for year-to-year equating would focus on items that were originally field-tested in 2006. It should be noted that Maryland-specific selected-response items (i.e., multiple choice items) which appeared both in 2008 and in 2006 were used exclusively for the purpose of year-to-year linking. All scale scores of the 2008 assessment were linked back to the 2003 (for grades 3, 5, and 8) or 2004 (for grades 4, 6, and 7) assessment so that all of the scale scores were on a common scale. It should be noted that more detailed information on the changes to the 2008 reading assessment can be found in section 1.11, *Constructing the 2008 MSA-Reading Operational Forms*.

A Bookmark standard setting was conducted in 2003 to set proficiency-level cut scores for grades 3, 5, and 8. Because 2004 was the first testing year for grades 4, 6, and 7, a second Bookmark standard setting was held in summer 2004 to set cut scores for these additional grades. The performance-level cut scores were used to assign students to three proficiency levels (Basic, Proficient, and Advanced) for AYP reporting under the "No Child Left Behind" act. Information about the Bookmark procedures and results can be obtained from MSDE. It should be noted that these cut scores have been applied since 2003 (for grades 3, 5, and 8) or 2004 (for grades 4, 6, and 7).

1.1 Purposes/Uses of the 2008 MSA-Reading

By measuring students' achievement against the new academic standards, the 2008 MSA-Reading fulfills two main purposes. First, the MSA-Reading was designed to inform parents, teachers, and educators of what students actually learned in schools by providing specific feedback that can be used to improve the quality of schools, classrooms, and individualized instructional programs, and to model effective assessment approaches that can be used in classrooms. Second, the MSA-Reading serves as an accountability tool to measure performance levels of individual students, schools, and districts against the new academic standards.

1.2 The Voluntary State Curriculum

Federal law requires that states align their tests with their state content standards. MSDE worked carefully and rigorously to construct new tests to provide a strong alignment as defined by the U.S. Department of Education.

The *Voluntary State Curriculum* (*VSC*), which defined what students should know and be able to do at each grade level, helped schools understand the standards more clearly, and included more specificity with indicators and objectives. The format of the *VSC* specified standards statements, indicators, and objectives. Standards are broad, measurable statements of what students should know and be able to do. Indicators and objectives provide more specific content knowledge and skills that are unique at each grade level.

The objectives assessed by the MSA at each grade level are embedded in the *VSC*. In addition, they are identified with the notation, ***assessment limit***. Assessment limits provide clarification about the specific skills and content that students are expected to have learned for each assessed objective. Even though some objectives in the VSC may not have an Assessment limit at a given grade-level, these non-assessed objectives still must be included in instruction. They introduce important concepts in preparation for assessed skills and content at subsequent grade levels.

The following provides one example of assessment limit of Grade 3 MSA-Reading:

STANDARD 1.0

General Reading Process

TOPIC:

B. VOCABULARY: Students will apply their knowledge of letter/sound relationships and word structure to decode unfamiliar words

INDICATOR:

1. Use a variety of phonetic skills to read unfamiliar words

OBJECTIVES:

a. Apply phonics skills

Assessment limits:

- Hard and soft consonants
- Initial consonant blends (2 letters)
- Open and closed syllables
- Digraphs

It should be noted that it was not the case that every indicator would necessarily be tested each year even if 100% of the standards should be tested. Consequently, the *VSC* specified curricular indicators and objectives that contributed directly to measuring content standards, which were aligned to the *MSA*. More information on assessment limits and standards can be found in appendix D, *The 2008 MSA-Reading Blueprint*.

1.3 Development and Review of the 2008 MSA-Reading Items and Test

The development of the 2008 MSA-Reading test required the involvement of four groups in addition to MSDE and Pearson. These groups are as follows:

National Psychometric Council

The National Psychometric Council (NPC) took a major role in reviewing and making recommendations to MSDE on the development and implementation of the 2008 MSA-Reading program. For example, they made recommendations to MSDE on issues, such as test blueprints, field test design, item analysis, item selection for scoring purposes, linking, equating and scaling issues, standard setting, and other relevant statistical and psychometric issues. MSDE adopted their guidelines and recommendations.

Content Review Committee

Content Review Committee members ensured that the MSA-Reading was appropriately difficult and fair. Committee members were either specialists in reading for test items, or experts in test construction and measurement. They represented all levels of education as well as the ethnic and social diversity of Maryland students. Committee members were from different areas of the state.

The educators' understanding of Maryland curriculum and extensive classroom experience made them a valuable source of information. They reviewed test items and forms and took a holistic approach to ensure that tests were fair and balanced across reporting categories.

Bias Review Committee

In addition to the Content Review Committee, a separate Bias Review Committee examined each item, passage and art on reading tests. They looked for indications of bias that would impact the performance of an identifiable group of students. Committee members discussed and, if necessary, rejected items based on gender, ethnic, religious, or geographical bias.

Vision Review Committee

A Vision Review Committee reviewed the passages, art, and items for bias to the visually impaired. The committee makes their recommendations to NOT put any item they had a concern with on Form 1.

Table 1.1 identifies responsibilities of each group in developing the 2008 MSA-Reading test.

Table 1.1 The 2008 MSA-Reading Responsibility for Test Development

Development of the 2008 MSA-Reading	Primary Responsibility
Development of Preliminary Blueprints and Item Specifications	Pearson; MSDE; NPC
Development of Preliminary Brief Constructed Response Rubrics	MSDE; NPC
Item Writing	Pearson; MSDE
Item Review	Pearson; MSDE; Content Review Committee
Bias Review	Pearson; MSDE; Bias Review Committee
Vision Review	Pearson; MSDE; Vision Review Committee
Construction of Field Test Forms	Pearson; MSDE
Modification of Special Forms	Pearson; MSDE
Review of Special Forms	MSDE
Pre-Field Test Training Workshops	Pearson; MSDE; LEAs
Field Test Administrations	MSDE; LEAs
Construction of Operational Test Forms	Pearson; MSDE; NPC
Review of Operational Test Forms	MSDE
Final Construction of Operational Test Forms	Pearson; MSDE

1.4 Test Form Design, Specifications, and Item Type

Test Form Design

Each test form included both operational and field test items. The 2008 assessment had 10 test forms for each grade. All 10 forms shared a single set of operational items, but contained unique field test items. It should be noted that MSDE administered two operational test forms every year until 2007. More detailed information about the 2008 test form design can be found in chapter 1.11, *Constructing the 2008 MSA-Reading Operational Forms*.

Test Form Specifications and Reporting Category

Tables 1.2 through 1.9 provide information on the total number of operational items included in the 2008 operational test form and how these items were broken down based on each content standard. It should be noted that the test specifications in these tables represent the targeted test design for each grade and show the targeted distribution of each content standard.

Specifically, each standard was used for reporting purposes (i.e., reporting subscale scores). That is, there were three reporting standards for reading across grades: general reading, literary, and informational processes. The number of raw score points for each reporting standard was identical (i.e., 15) for all grades except for grades 3 and 8.

Item Type

The 2008 MSA-Reading contains two types of items: *selected response* (*SR*) and *brief constructed response* (*BCR*) items. *SR* items required students to select a correct answer from several alternatives. For the 2008 MSA-Reading, students selected an answer from four alternatives. Each *SR* item was scored as right or wrong.

BCR items required students to answer a question with a couple of words or a sentence, or in a more elaborate way. For the 2008 MSA-Reading, these items were scored on a general rubric with maximum values between 0 and 3. For example, the score given was the higher of the first and the second Reader's scores provided the scores were adjacent. A resolution Reader's score was used when two non-adjacent initial scores were received. That is, the resolution Reader's score was used in place of both the first and second Reader's scores. Detailed information on BCR scoring procedures and rules can be found in section 1.6, *MSA-Reading Scoring Procedures.*

Table 1.2 The 2008 MSA-Reading Item Distribution of Each Standard: Grade 3

General Reading			Literary Reading			Informational Reading		
No. of SR	No. of BCR	No. of Total Items	No. of SR	No. of *BCR*	No. of Total Items	No. of SR	No. of *BCR*	No. of Total Items
16	0	16	8	2	10	9	2	11

Table 1.3 The 2008 MSA-Reading Item Distribution of Each Standard: Grade 5

General Reading			Literary Reading			Informational Reading		
No. of SR	No. of BCR	No. of Total Items	No. of SR	No. of *BCR*	No. of Total Items	No. of SR	No. of *BCR*	No. of Total Items
15	0	15	9	2	11	9	2	11

Table 1.4 The 2008 MSA-Reading Item Distribution of Each Standard: Grade 8

General Reading			Literary Reading			Informational Reading		
No. of SR	No. of BCR	No. of Total Items	No. of SR	No. of *BCR*	No. of Total Items	No. of SR	No. of *BCR*	No. of Total Items
16	0	16	8	2	10	9	2	11

Table 1.5 The 2008 MSA-Reading Item Distribution of Each Standard: Grades 4, 6, and 7

General Reading			Literary Reading			Informational Reading		
No. of SR	No. of BCR	No. of Total Items	No. of SR	No. of *BCR*	No. of Total Items	No. of SR	No. of *BCR*	No. of Total Items
15	0	15	9	2	11	9	2	11

Table 1.6 The 2008 MSA-Reading Total and Standard Scores: Grade 3

Total and Standard Scores			
General Reading	Literary Reading	Informational Reading	Total Score
16 (16 MC)	14 (8 MC + 6 BCR)	15 (9 MC + 6 BCR)	45

Table 1.7 The 2008 MSA-Reading Total and Standard Scores: Grade 5

Total and Standard Scores			
General Reading	Literary Reading	Informational Reading	Total Score
15 (15 MC)	15 (9 MC + 6 BCR)	15 (9 MC + 6 BCR)	45

Table 1.8 The 2008 MSA-Reading Total and Standard Scores: Grade 8

Total and Standard Scores			
General Reading	Literary Reading	Informational Reading	Total Score
16 (16 MC)	14 (8 MC + 6 BCR)	15 (9 MC + 6 BCR)	45

Table 1.9 The 2008 MSA-Reading Total and Standard Scores: Grades 4, 6, and 7

Total and Standard Scores			
General Reading	Literary Reading	Informational Reading	Total Score
15 (15 MC)	15 (9 MC + 6 BCR)	15 (9 MC + 6 BCR)	45

1.5 Test Administration of the 2008 MSA-Reading

The 2008 MSA-Reading was administered to all students in grades 3 through 8. Pearson coordinated test administration procedures with MSDE prior to implementation. This section was prepared to provide general information about the 2008 test administration. Detailed information about the 2008 test administration can be obtained from the 2008 Test Administration and Coordination Manual (TACM) and Examiners Manual (EM) which are available from either MSDE or Pearson.

Test Materials

All test materials had to be stored in a secure location prior to test administration. The School Test Coordinator (STC) provided test administration training and test materials to the test examiners. The Daily Testing Materials Tracking Record (or an equivalent form designed by the LEA) was used to track the distribution and return of Test Books.

Before testing began, the Test Examiners (TEs) carefully inventoried all test materials given to them, as they were accountable for the return of all secure materials at the end of testing. TEs checked to ensure they had all the materials they needed for testing.

For the Test Examiner, Pearson provided the following materials:

- Examiner's Manual- Reading

For each student, the following materials were provided by Pearson:

- Test/Answer Book
- Special accommodations testing materials, if necessary

For each student, the following additional materials were provided by school or student:

- Two No. 2 pencils with erasers
- Blank scratch paper

Each classroom used for the assessment also needed the following additional materials:

- Sign for the door reading "Testing: Do not Disturb"
- Digital clock or a watch, or clock with a second hand
- Copy of the Scoring Service Identification Document (SSID) Header Sheet

Two test-related Examiners Manuals (EM) were developed for the 2008 MSA: one version for reading and the other for mathematics for use in all grades 3-8. Developed in partnership with MSDE, the EMs contained instructions for preparation and administration of the test. In addition to the EMs, one Test Administration and Coordination Manual (TACM) was developed for use by the Local Accountability Coordinators (LAC) and building-level School Test Coordinators (STC). Included in this manual were instructions for preparation of materials for testing, monitoring of testing, and packaging of materials for return to Pearson for scoring. The

TACM was distributed and reviewed during a workshop in January for STCs and LACs, with duplicates sent to each school along with its testing materials.

Test Administration Schedule

The primary test window for MSA was established by MSDE (April 1-10, 2008, with make-up testing held April 11-16, 2008). However, each Local Education Agency (LEA) set a specific schedule for administration of the MSA within that window for their district. For a given grade and content area, all testing had to take place on the same schedule. Each LEA schedule was submitted to MSDE in advance and approved for each district by the State. For example, all Grade 3 reading had to be administered on the same days throughout the LEA. In addition, each content area at each grade was tested on two days during the window.

The MSA-Reading testing schedule allowed approximately 2 1/2 hours on each of the two days (including preparation time and breaks).

For the 2008 MSA-Reading, the primary testing days were as follows:

- Test materials delivered to schools (Examiner's Manuals, Test/Answer Books, and Test Coordinator's Kit) — On or Before March 10, 2008
- Reading Primary Testing Window — April 1 – April 10, 2008
- Make-up Testing Window — April 11 – April 16, 2008

Students and parents should be reminded of the importance of students attending school during the administration of the MSA and the importance of student participation in MSA testing. Maryland was held to the 95% participation requirement under NCLB by the US Department of Education, and schools were urged to do all they can to test all students on MSA or Alt-MSA (as applicable).

If a student was absent on the testing days, a make-up test was administered on any two consecutive days within the testing window. If a school had an unscheduled closing or delayed opening that prohibited the administration from occurring on the scheduled testing dates, the STCs were consulted by LACs to determine the testing schedule to be followed.

During the administration of the 2008 MSA-Reading, MSDE had testing monitors in selected schools observing administration procedures and testing conditions. All monitors had identification cards for security purposes. There was no prior notification of which schools would be monitored, but monitors followed local procedures for reporting to the school's main office and giving proper notification that an MSDE monitor was in the building.

Student Participation

All students in grades 3 through 8 had to participate in the 2008 MSA-Reading. The only exception was that students with severe cognitive disabilities were assessed by the *Alternate Maryland School Assessment* (ALT-MSA) instead of the regular MSA-Reading. The criteria that students should need to be tested in the Alt-MSA program instead of the MSA-Reading can be viewed in section 2, Appendix C of the TACM.

On May 9, 2007, the U.S. Department of Education issued guidance for the development of Alternative Assessment based on Modified Academic Achievement Standards (also known as AA-MAAS or "Modified Assessments"). Maryland was in the process of developing the Modified Maryland School Assessment (Mod-MSA), but the assessment was not completed in time for the 2008 administration window. Students, however, might have been identified through the Individualized Education Program (IEP) process in the current school year as takers of the Mod-MSA. For 2008, these students were assessed using the regular MSA-Reading.

Accommodations for Assessment

Accommodations for assessment of students with disabilities (i.e., students having an Individualized Education Program or a Section 504 Plan) and students who are English Language Learners (ELL) had to be approved and documented according to the procedures and requirements outlined in the document entitled "Maryland Accommodations Manual: A Guide to Selecting, Administrating, and Evaluating the Use of Accommodations for Instruction and Assessment" (MAM). A copy of the most recent edition of this document is available electronically on the LAC and STC web pages at https://docushare.msde.state.md.us/docushare.

No accommodations could be made for students merely because they were members of an instructional group. Any accommodation had to be based on individual needs and not on a category of disability area, level of instruction, environment, or other group characteristics. Responsibility for confirming the need and appropriateness of an accommodation rested with the LAC and school-based staff involved with each student's instructional program. A master list of all students and their accommodations had to be maintained by the principal and submitted to the LAC, who provided a copy to MSDE upon request. Please refer to section 1 of the 2008 TACM for further information regarding testing accommodations.

Large-Print and Braille Test Books and Kurzweil™ Test Forms on CD

The MSA-Reading was administered to those requiring (1) large-print Student Test/Answer Books or (2) Braille Test Books, or (3) Kurzweil™ Test Forms on CD for a verbatim reading accommodation. For large-print Test/Answer Books, Braille Test Books, and Kurzweil™ Test Forms on CD, student responses were transcribed into the standard-size Test/Answer Book following testing.

The student's name, LEA number, and school number were written on the large-print Test/Answer Book for proper transcription into the standard-size Test/Answer Book.

The pre-printed student ID label was affixed to the standard-size Test/Answer Book containing the transcribed responses, and not to the large-print Test/Answer Book or Braille books. The bubbles on the demographic page of the standard-size Test/Answer Book were not filled in if there was a pre-printed student ID label for the student.

A certified Test Examiner (TE) transcribed the student responses into a standard-size Test/Answer Book exactly as given by the student. The standard-size Test/Answer Book with the pre-printed or general label attached was returned to Pearson with all other Test/Answer Books.

Large-Print Test/Answer Books and Braille Test/Answer Books containing the original student responses prior to transcription were to be returned with Non-Scorable materials. Any Test/Answer Books which were used as source documents for transcription were invalidated by drawing a large slash across the student demographic page with a black permanent marker.

Once the student responses had been transcribed, the transcribed Test/Answer Book was returned for scoring with the standard-size materials. Specific packing instructions are provided in the 2008 TACM in section 4.

Verbatim Reading Accommodation and Kurzweil™ Test Form on CD

Students who had a verbatim reading accommodation documented in their Individual Education Plan (IEP), ELL Plan, or Section 504 Plan, and who received that accommodation in regular instruction, received the accommodation on the 2008 MSA-Reading. The accommodation was provided by a live reader or through technology. Section 1 of the 2008 TACM provided information on verbatim reading instruction. Technology used to provide the verbatim reading accommodation was Kurzweil™ reading software. Official, secure electronic copies of the test were ordered through the LAC. MSDE encouraged (but did not require) the use of the Kurzweil™ software to ensure uniformity in the delivery of the verbatim reading accommodation throughout the state.

Students using Kurzweil™ software had to familiarize themselves with its operation prior to the test administration. When there were technical difficulties with Kurzweil™ a certified staff member was used instead. Kurzweil™ Test Form CDs were shipped by Pearson. After testing, schools returned the CDs to Pearson with the non-scorable secure materials.

Administration Procedures for Students with IEP, 504 Plan, or ELL Plan Permitting a Dictated Responses or Use of Word Processor

A student whose IEP, 504 Plan, or ELL Plan permitted a dictated response had his/her responses transcribed at the school level by an eligible TE, or by a staff member working under the direct supervision of a certified TE, into the student's Test/Answer Book with a pre-printed or generic ID label attached.

A student whose IEP, 504 Plan, or ELL plan permitted the use of a word processor had his/her responses transcribed by hand or under the direct supervision of an eligible TE or STC exactly as the student entered his/her responses on the word processor. The student's responses were always transcribed at the school level into the student's Test/Answer Book with the pre-printed or generic ID label attached. After the student's responses were transcribed, the memory of the word processor was cleared. The original word-processed print-out was returned to Pearson with the non-scorable materials.

Test Format

All grade levels of the MSA-Reading used a Test Book format in which students wrote their answers directly in the Test Book. There were 10 forms of MSA-Reading. Different test forms were administered to students in each classroom participating in reading tests, and each test form was identified by color and form number/letter. All forms of the MSA Test/Answer Books for each grade had the same grade designation and picture on the front cover. The Test/Answer Books were spiraled within a classroom, and each student used a combined Test/Answer Book.

Since the Test/Answer Books were scanned for scoring, students were encouraged not to use highlighters in any part of the book. Although students might be accustomed to using highlighters in daily instruction, highlighting in the Test/Answer Book could obliterate information in a student's book, creating problems when it was scanned for scoring. As an alternative to highlighting, students were allowed to lightly circle or underline information in test items or perform calculations to help them in responding, as long as markings did not interfere with the bubbled answer choice area and/or the track marks along the outside margins of each page.

Security of Test Materials

The following code of ethics conforms to the Standards for Educational and Psychological Testing developed by the American Educational Research Association, the American Psychological Association, and the National Council on Measurement in Education (Harcourt, 2008):

> It is breach of professional ethics for school personnel to provide verbal or nonverbal clues or answers, teach items on the test, share writing prompts, coach, hint, or in any way influence a student's performance during the testing situation. A breach of ethics may result in invalidation of test results and local education agency or MSDE disciplinary action. (p. 13)

The Test/Answer Books for the 2008 MSA-Reading were confidential and kept secure at all times. Unauthorized use, duplication, or reproduction of any or all portions of the assessment was prohibited, which is reflected by the following statement (Harcourt, 2008):

> Violation of security can result in prosecution and/or penalties as imposed by the Maryland State Board of Education and/or State Superintendent of Schools in accordance with the COMAR 13A.03.04 and 13A.12.05. (p. 13)

All materials were treated as confidential and placed in locked areas. Secure and non-secure test materials were as follows:

- Secure materials: Test/Answer Books (including large-print and Braille), Kurzweil™ test forms on CD, and used scratch paper
- Non-secure materials: TACM, Examiner's Manuals, unused pre-printed student and generic ID labels, unused FedEx return shipping labels, and unused green/orange shipping labels

1.6 Scoring Procedures of the 2008 MSA-Reading

Students' responses to *SR* items were machine-scored, and their responses to *BCR* items were individually read and scored by Pearson.

Once received by Pearson, Test/Answer Books were scanned into an electronic imaging system so that the information necessary to score responses was captured and converted into an electronic format. Students' identification and demographic information, school information, and answers to *SR* items were converted to alphanumeric format; hand-written responses were captured in digital image format.

Machine-Scored Items

After students' responses to *SR* items were converted to text format, the scoring key was applied to the captured item responses. Correct answers were assigned a score of one point. Incorrect answers, blank responses (omits), and responses with multiple marks were also assigned a score of zero.

Hand-Scored Items

Test/Answer Books were scanned into the electronic imaging system, allowing scorers to score these responses online at all scoring sites while maintaining the live documents at the contractor's facility. The imaging system randomly distributed responses, ensuring no one scorer scored a disproportionate number of responses from any one school. This online scoring system maintained a database of actual student responses and the scores associated with those responses. An off-site backup of all images and scores was maintained as well to guard against potential loss of data and images due to system failure. The system also provided continuous, up-to-date monitoring of all scoring activities. Detailed information on MSA scoring specification can be found in the document, *Performance Assessment Scoring Center: Spring 2008 Scoring Specification for MSA-Reading and Math*, which is available from either MSDE or Pearson.

Scoring Staff

The MSDE had one Room Director (RD) dedicated to each grade level, domain (Reading), and site. The RD worked closely with the PASC Training Supervisor and the PASC Language Arts. The PASC Training Supervisor, Language Arts Specialist, and RDs participated in the anchor-pulling sessions in Maryland. (Detailed information about anchor-pulling procedures can be found in the following portion of this section: *Development Procedures for Anchor Pulling*.) The Room Director/Training Team Leader was responsible for maintaining annotations and meeting minutes from all sessions. These notes were a record of the comments and decisions made by the MSDE personnel and members of the Maryland teacher committee. These notes were utilized by the RD responsible for training the Team Leaders (TLs) and Readers for the respective Maryland prompts. For MSDE scoring projects, PASC had qualified alternate RDs available at the beginning of the project to ensure a timely start of training in the event that the primary RD was unavailable to start as scheduled. The alternate RD acted as a TL unless the RD was unable to fulfill his/her duties.

1) Reader/Scorer

A graduate of a four-year accredited college or university who had successfully passed the PASC new reader exam and new reader training. The Readers were eligible to score custom programs for which they had been trained and successfully qualified.

2) Team Leader (TL)

An experienced reader who directly monitored the scoring of a team of Readers and retrained as needed. The reader had successfully completed the PASC TL training program.

3) Room Director (RD)

A knowledgeable team leader who had been selected to work with team leaders and the training supervisor to oversee the scoring of several teams. An RD's main duty was to rule on validity of questionable papers and to maintain consistency in scoring decisions. RDs also served as trainers.

4) Reader's Aide (RA)

PASC storeroom personnel whose main responsibilities during scoring were to do copying and printing for the PASC materials center. During anchor pulling, RA responsibility might include duplicating student papers. They might also be assigned a variety of clerical duties.

5) Developers

An experienced PASC reader that was responsible for selecting a wide variety of student responses for such activities as benchmarking, anchor-pulling, range finding, and training materials. Selected papers were then submitted to MSDE for comment and approval. Developers remained on the project as anchor-pulling participants and trainers whenever possible.

6) Trainers

Experienced personnel who were TLs or RDs and selected by the Training Supervisor to train and qualify Readers for Maryland. Additionally these experienced personnel might also train new readers and do domain-specific training.

Reader Recruitment and Qualifications

All Readers for MSDE had to provide Pearson's staffing vendor their résumé and documentation of a four-year college degree. As part of the initial screening process for recruiting Readers into Pearson's general pool, applicants had to respond to an open-ended prompt. This writing sample ensured that all applicants were able to perform the kinds of tasks they would assess. The writing sample was intended to screen out those who were unable to write standard, idiomatically correct English or who couldn't organize their thoughts clearly. The writing prompt was scored by a qualified PASC staff member. If successful on the preliminary screening, applicants then participated in a one-day general introductory training workshop presented by a PASC staff member. These workshops allowed Pearson to eliminate potential Readers who might seem qualified according to their educational and professional experience but who could not learn to score to a scale consistently or who were otherwise unsuitable for assignment to large-scale scoring projects. The PASC staff member who presented the workshop evaluated each potential Reader and submitted these evaluations to the Training Supervisor/Site Supervisor with his/her recommendations. Those who successfully completed the workshop were added to Pearson's general pool of Readers who were potential scorers of Reading assessments. This addition to the general pool did not necessarily qualify Readers for scoring the MSDE program.

Team Leader Selection and Qualification

The training for new TLs consisted of a two-day course focusing on the duties and responsibilities necessary to successfully manage a team of Readers. The workshop was led by two PASC Training Supervisors. The instruction included a review of PASC policies and procedures, sessions on use of the Reader monitoring reports to track a Reader's speed and accuracy, practice annotating anchors and simulated training of the annotated papers, role-playing activities which explored various situations that could occur with Readers during the scoring of a project, and Reader counseling and retraining guidelines. Hands-on training on the various TL computer applications was also provided in the workshop. Upon completion of the workshop, the two PASC Training Supervisors reviewed each participant's performance, making sure that each had a complete understanding of the TL role and its responsibilities. Any participant who did not perform to their satisfaction was not added to the qualified TL list.

Team Leader Project Training

Project-specific TL training for MSDE was conducted in the days immediately preceding scoring and Reader training. This training began with the RD reading the rubrics aloud and answering any questions the TL or assistant RD might have regarding the rubric. The RD then read each anchor paper aloud to the TLs. Each response in the anchor set was thoroughly explained, including the notes and comments of the anchor-pulling committee. Training set A was reviewed next. The TLs scored the training set individually, recorded the scores on the answer sheet, and then waited for all TLs to complete the scoring. When everyone had completed scoring the training set, the RD discussed the answers one by one, focusing on why it was that score and not another. The RD reviewed with the group the reason for assigning each score point and discussed each paper in its entirety. The TLs were then ready to score Training set B. Training set B was scored and reviewed exactly as Training set A.

Having thoroughly discussed both training sets with the group, the RD explained that in order for a participant to qualify as a TL, it was required that the TL should score at least an 80% perfect match on both of the qualifying sets (Qualification Rules, Attachment M). The TLs scored the first qualifying set individually and recorded their scores on the appropriate answer sheet. As each TL finished scoring, he/she brought the answer sheet to the RD for grading. Each answer was reviewed and any questions the TL had were addressed before the TL attempted the next qualifying set. The TL followed the same procedure with Qualifying set 2. Upon completing the second qualifying set, the TL submitted the answer sheet to the RD for grading. TLs had to score at least an 80% perfect match on two of the three Reading sets as specified in the qualification rules or they would be released from the MSDE project.

After the qualification process, the RD continued the training process with the decision set. This set was read aloud and each paper thoroughly explained and discussed. By following these procedures, the RD ensured that the anchor-pulling committee's notes and comments were completely understood.

Team Leader Duties

TLs were responsible for monitoring the training and qualifying of the Readers assigned to their team. The TLs assisted the RD, if requested, during the training of the Readers. The TL was responsible for grading the Readers' qualifying sets and discussing the results with the Readers so everyone received the same direction. The TL certified to the RD and Training Supervisor that the Reader was qualified and recorded the scores under Qualification scores on the Reader

evaluation form. The TL was also responsible for monitoring each Reader's assignment of scores to the responses. Additionally, the TL reviewed the daily Reader statistical reports with each individual on the team. The TL consulted the RD regarding variations by the team members from the acceptable standards (80% perfect match for Reading). The TL had the initial responsibility to see that the Reader maintained the set standards through individual retraining. The RD monitored the TL by reviewing team statistics and working one-on-one with the TL.

Room Director Selection and Qualification

The candidates for RD had been recommended by the PASC Managers or Training Supervisors. The recommendations were based upon the evaluations the candidates received as Readers and TLs and were part of their personnel file. The Training Supervisors met as a group to discuss who might be considered for the position of RD. The Training Supervisor group reviewed the evaluations and the duties that the potential RDs had performed. The candidates generally had been TLs on large-scale projects for multiple teams, and/or they had served as TLs on small-scale projects where TLs trained their individual teams. They had been evaluated on their ability to train Readers as well as their ability to monitor the scoring accuracy and consistency of Readers. These evaluations were submitted in writing at the end of each scoring project by the Readers and RDs that had observed the work of the RD candidates.

Room Director Project Training

The RDs familiarized themselves with the rubric. Any questions regarding the rubric were addressed by the PASC Language Arts or MSDE. The next step was for the RD/TTL to prepare the anchors by annotating each response to all score points in the Anchor Set utilizing the notes from the anchor-pulling session. The MSDE approved the anchor-pulling notes and the Training Supervisor confirmed that the RD had accurately added the anchor-pulling notes to the training materials. The RD continued the process by annotating the training sets and decision sets with all notes and comments from the anchor-pulling session. Additionally, the RDs became familiar with the wording of all of the other prompts for the administration to which they were assigned.

Room Director Duties

The RD's job was to conduct the training of the TLs and Readers, oversee the actual scoring of the papers, monitor the work of the TL, and act as the decision maker for situations or questions that may arise during the scoring process. For example, all invalid (foreign language, off-topic, off-mode, etc.) responses were reviewed by the RD, who had to confirm any such decision and ensure consistency of decisions. (Blanks were confirmed at the TL level and did not require RD confirmation.) Additionally the RD and TL (after approval of Training Supervisor) conducted all resolution readings. Responses for which scores were non-matching or non-adjacent were automatically routed to the RD for an independent resolution scoring. The resolution score became the reported score.

The RD was familiar with all prompts and trained the TLs and Readers to recognize these alternate prompts. Thus, should the student have written his/her answer in the wrong place, the answer was recognized by the RD, who could electronically move the response to the appropriate space for scoring by a Reader qualified on the appropriate prompt. The RD also reviewed any potential questionable content responses and forwarded those to the Training Supervisor to consult with the MSDE before processing.

The RD was also responsible for daily statistical review and analysis of all monitoring reports to ensure the quality of the scoring within the room. Review of the data allowed the RD not only to

monitor the Reader but also to provide the TL with additional input. Available data included 1) individual Reader agreement rates between two independent scorings; 2) score point distributions by Reader and trend review; 3) prompt statistics for agreement rates and score point distributions; 4) Resolution data.

Project Scoring Parameters

MSDE had a long-standing history of implementing assessments that were composed of multiple item types: selected response (SR) and brief constructed response (BCR). The MSA-Reading contained all such item types for operational scoring, and each of the 10 forms per grade also contained field test items of each of these types. Open-ended items were scored using a generic rubric as follows:

- Reading items were scored on a 0-3 scale (BCRs only in Reading)

All MSA-Reading response documents were image-scanned at Pearson's scoring center in San Antonio, Texas. The image scanner captured document identification (ID), demographic information, SR responses, and created a bi-tonal image of the entire document, allowing images of the BCR responses to be distributed to Readers for human scoring while images of the SR and all other data were made available to Scoring Editing for human review.

All constructed responses were scored by Pearson's Performance Assessment Scoring Center (PASC). The PASC mission was to provide accurate, reliable, on-time scores for all student responses entrusted to our care. PASC maintained large pools of qualified, trained, professional Readers who were well-experienced in scoring a wide range of writing assessments and open-ended assessments in reading, mathematics, science, social science, and other subjects, at each of our scoring sites.

Reader Project Training

Reader training was lead by the RD/TTL and was conducted utilizing our central scoring model. There was one RD responsible for each site, grade, and Domain (Reading). After all student responses were scored for the first item, the RD reconvened the group and trained the second item. Training began with the definition and an overview of holistic scoring. Training continued with a reading and discussion of the generic rubric and then the student responses in the anchor set were read and discussed. In the anchor set the scores had been recorded on the student responses and were arranged in ascending point-scale order. Each annotated anchor response was read aloud and discussed thoroughly. Emphasis was placed on the Readers' understanding of how the responses differed from one another in incremental quality, how each response reflected the description of its score point as generalized in the scoring rubric, and how each reflected the MSDE's standard for application of each score point.

Once Readers had all their questions answered and the discussion of the anchor set was finished, the Readers began to score the first training set. Each Reader independently read and scored the responses in the training set. The trainer scored and recorded each reader's responses on a training record form. The correct scores were then read to the group when everyone had completed the scoring. In addition, each training paper was discussed as to reasons for applying each given score. At this point, Readers interacted with the RD in discussing the characteristics of each response that earned the assigned score point. The same format was followed for each training set. During this process, the job of the Reader was to internalize the scoring scale and adjust his or her individual scoring to conform to that scale. Once all training papers had been scored and fully discussed, Readers began the qualifying process.

For MSDE, there were three qualifying sets. MSDE informed PASC in writing for each specific administration how many qualifying sets were approved and were available to the Readers. Readers had to score at least an 80% match on two of three qualifying sets for Reading.

Inter-Rater Agreement

Pearson's scoring system generated many kinds of internal monitoring reports that enabled the project leadership to monitor the accuracy and consistency of MSDE scoring. These reports were compiled by prompt listing the entire prompt's Readers and providing the results of their scoring for each day. Information on these reports included the number of responses read by the Readers during the period, the number and percent of invalid responses, and the number of responses for which there had been a second reading. The number of responses with second readings provided data that allowed for reporting of the number and percent of responses with perfect agreement; the number and percent of responses on which the first Reader was a point lower than the second Reader; the number and percent of responses on which the first Reader was a point higher than the second Reader (Adjacent); and the number and percent of responses differing by more than one score point (Non-Adjacent/Non-Perfect). The Training Supervisor also reviewed the daily statistical reports to identify individuals or teams who might need retraining in order to provide continuous scoring consistency on the project. MSDE received data summary reports. Statistical summaries of inter-rater reliability can be found in section 3.4, *Inter-Rater Reliability*.

Reader Retraining

When a Reader's performance fell below acceptable parameters for a project, the Reader was retrained. Retraining was the process by which the RD or TL utilized a number of methods such as individual tutoring on problem score points, individual review of selected responses, and anchor and rubric review to get a Reader back on track with the guidelines provided by a specific program. Group retraining was conducted by the RD every Monday (or following any extended break) during the scoring project. In addition, daily retraining occurred as deemed necessary by the MSDE representative and Training Supervisor.

Read Behinds

Pearson's system allowed TLs and/or RDs to conduct read behinds as an additional monitoring method. When conducting read behinds, the TL or RD received images of student responses and the scores assigned by the Reader. Responses selected for read behinds might be randomly selected or might be targeted read behinds (e.g., responses receiving specific scores, etc.). These read behinds were very useful in tracking specific areas of confusion for a given Reader or group of Readers and assisted the TL and RD in knowing just how to direct retraining activities for individual Readers or teams. The initial read behind percentage was set at 50%. This percentage might be adjusted either higher or lower by the TL based upon the performance of the Reader.

Retraining Readers with < 80% Agreement rates

It was the responsibility of the Team Leader (TL) to not only address questions and provide guidance to the Readers, but to also monitor and manage performance; this included Calibrations, Read Behinds, Agreement rates, and Resolution rates. At times, TLs could become easily side-tracked and spend more time acting as a resource for Readers than managing performance. PASC had identified this issue and planned to allocate additional TLs whose primary job responsibility was to manage/monitor performance. This level of staffing allowed us to monitor each Reader daily and provide retraining when the level of acceptable performance had not been met.

Pre-"Live" training on Field Test prompts

For 2008, PASC used scored student responses from the appropriate field test administration. This allowed the Readers to build familiarity with the program prior to live scoring.

Trainers Earlier and Longer

In addition to increasing the number of TLs dedicated to the program, PASC also felt it more effective to expedite and extend the time the Trainers were onsite. PASC trained a qualified individual at each site to act as the remote Trainer once the primary left. This individual was responsible for re-training Readers as needed.

Scoring Rules for MSA-Reading

The following scoring rules were applied to MSA-Reading BCR items:

- Reading BCR items were scored:

  0, 1, 2, or 3 with two readings
- Scores given were the higher of the 1st and 2nd Reader's scores provided they were adjacent.
- For example:

1st Reader	2nd Reader	Final Score
1	2	2
2	3	3

- A resolution reader was used if two non-adjacent initial scores were received.
- The resolution reader's score was used in place of both the 1st and 2nd Reader's scores.
- For example:

1st Reader	2nd Reader	Resolution Reader	Final Score
0	2	1	1
0	3	2	2
1	3	3	3
2	0	1	1
3	0	2	2

Development Procedures for Anchor Pulling

A Developer is a PASC Reader who was selected by the PASC Training Supervisor to prepare sets of papers for client approval. These experienced Readers were judged by the Training Supervisor for their ability to recognize and assemble a wide variety of responses. A Material Development Evaluation was completed by the Language Arts Specialists for review by the Training Supervisor. This evaluation was part of the Developer's personnel file. The Developer also participated with the clients as a facilitator during the anchor-pulling session in order to make notes and be prepared to assemble the finished sets to the client's specifications. In the case of the MSDE, the developer was also the RD. For a given reading prompt, the PASC Developers had the following responsibilities:

1) To know the prompt and the rubric thoroughly

2) To read responses

- Looked for responses that seemed to represent the full range of quality as described in the rubric.
- Searched all orders for responses, with particular emphasis on the state's high-performing districts.
- Included not only papers that were homogeneous in their level of quality but also papers that differed in quality from variable to variable but which could be given an overall classification of High, Medium, or Low.
- Marked High, Medium, and Low papers—marked especially good ones that might potentially receive top scores.
- Identified and flagged problem papers—off-topic, off-task, verbatim copying, strange, potential teacher interference, etc.
- Marked the flag with score range or the nature of the problem and paper ID.

3) To sort copies

- Copies were sorted into piles, reflecting the nature of the flag—all potential high papers were together, all potential medium papers were together, etc., with all problem papers grouped together.
- For problem or decision papers, duplicates of types of problems were culled. The best example of each problem type was retained; the rest were set aside for possible future use.

4) To develop sets for anchor pulling

- Decided which particular papers from the sorted piles should go into which set for anchor pulling. Each paper selected went into only one set.
- Used the following guidelines in deciding for which set a paper was most appropriate.

  A. ***Anchor set***: At least three examples of each score point, depending upon the score scale (no invalids). These had to be clean papers but needed to illustrate different types of the same score point, if there were such clear differences. Once completed, this set was submitted to the Training Supervisor and to MSDE for review and approval.

B. ***Decision set***: This had to be a set of whatever size necessary to illustrate the various kinds of problems that might arise with this prompt or item. If the number of such responses was small, these might be incorporated into the first training set instead of being grouped into a separate additional set.

C. ***Training sets***: These were at least two sets of up to 20 papers each (again, this varied according to the score point scale). They had to contain a range of responses including clean papers, line papers, and problem papers. The responses had to be in random order of quality and unmarked.

D. ***Qualifying sets***: There were three sets of these. Generally there were 10 responses per set, but there could have been fewer, depending upon the score scale. These had to consist heavily of clean papers but not exclusively so. One of the sets might include an example of an invalid response, but it had to be clearly so.

E. ***Calibration sets (validity sets)***: These were composed of five responses of mixed quality, arranged in random order. Pearson created as many different sets as there were expected to be scoring days on a single prompt or group of items—minus one or two for the training day and the initial scoring day.

Comprehensive notes concerning the specific problems presented in these papers (and the solutions as decided by the committee during the anchor-pulling session) were to be recorded by the Pearson representatives (Developers and Training Specialists) and were to be discussed with the Readers during training. Any subsequent notes or communication from MSDE were incorporated into the training material as well.

Anchor Pulling Procedures

The objective of anchor-pulling sessions was for the team members to arrive at a consensus as to the score of each paper in the proposed training materials. These sessions were attended by Maryland educators, MSDE, PASC Language Arts Specialists, Managers, Training Supervisors, and the Developers, who selected and prepared all of the papers that would be reviewed. These papers and their corresponding scores formed the basis of selecting final Anchor Sets, Decision Sets, Training Sets, and Qualifying Sets. Discussions among the team members were important, as they revealed what kinds of qualities characterized certain score points. The most difficult aspects involved balancing widely discrepant qualities found in the same paper and defining the line between adjacent scores.

During formal anchor pulling, the procedure for assigning scores to the papers in each set was as follows:

- Papers were read aloud and discussed by the anchor-pulling panel. Reading aloud focused attention on the ideas presented—or what the student had to say—allowing the panel members to divorce themselves from how the paper looked or how well it had been edited.
- After each response was read, each panel member independently assigned a score. An overall tentative score was assigned to each response on which there seemed to

be consensus. However, all assigned scores at this point, even those on responses for which there were complete agreement, were provisional and subject to change based on later considerations.

- Each subsequent set was read and scored by each panel member, using the tentative scores on the previous sets as guidelines. After each set had been read, the results were recorded on a consensus sheet and discussed.

The responses in which score points were not in perfect agreement were discussed, starting with the lowest, but least controversial, score point. The papers that had the widest discrepancies of assigned scores around this lowest score point were discussed next before moving on to the papers whose assigned scores were in the next higher range. There might be frequent reference to previous sets to make sure that decisions on score points were consistent.

This iterative process of reading, charting, and discussing successive sets had three results:

- It established scores for papers for which there was virtually unanimous agreement.
- It identified papers that were on the line between two adjacent scores, necessitating the clarification of that line.
- It contributed to understanding the rationale behind scoring decisions.

During this process, the tentative scores assigned to papers in earlier sets became firm.

1.7 Classical Analyses for the 2008 MSA-Reading Operational Forms

Table 1.10 shows the descriptive statistics for the 2008 MSA-Reading operational form for each grade. First of all, the following results were obtained with a statewide population, and the total score point of each operational test form was 45 regardless of grade.

Detailed information about the total and subtotal (strand) score points of the 2008 MSA-Reading operational form for each grade can be found in section 1.4, *Test Form Design, Specifications, and Item Type*.

Table 1.10 Classical Descriptive Statistics for the 2008 MSA-Reading: Grades 3 through 8

Grade	N	Total number of Items	Min. Point	Max. Point	Mean	SD	Reliability	SEM
3	58,301	37	0	45	28.69	6.95	0.86	2.60
4	59,697	37	0	45	28.57	6.88	0.87	2.48
5	60,486	37	0	45	29.71	6.81	0.87	2.46
6	61,036	37	0	45	30.14	6.99	0.88	2.42
7	62,513	37	0	45	29.05	7.27	0.88	2.52
8	63,858	37	0	45	29.54	7.26	0.88	2.51

Note. Analysis was conducted with a statewide population.

1.8 P-Value Check with Year-to-Year Linking Common Items

Tables 1.11 through 1.16 provide information about how much the p-values of the 2008 year-to-year linking common items varied from those calculated in previous years. Only SR items were used for the purpose of year-to-year linking. The 2006 p-values were calculated based on a smaller, field-test sample while the 2008 statistics are based on the statewide population. Item sequence numbers appearing the tables were assigned based on the 2008 assessment. Detailed information on the 2008 MSA-Reading test design can be found in chapter 1.11, *Constructing the 2008 MSA-Reading Operational Forms*. In general, we could conclude that most of the 2008 p-values were slightly increased compared to the 2006 p-values across all grades.

Table 1.11 P-Value Comparisons of Linking Common Items for Year 2006 vs. Year 2008: Grade 3

Item Number	Item Type	2006	2008
1	SR	0.89	0.93
14	SR	0.68	0.78
16	SR	0.45	0.46
17	SR	0.49	0.43
19	SR	0.62	0.62
20	SR	0.78	0.85
22	SR	0.76	0.78
23	SR	0.65	0.65
25	SR	0.63	0.64

Note. The 2006 analysis was conducted with a field test sample.
Note. The 2008 analysis was conducted with a statewide population.
Note. Item sequence numbers were assigned based on the 2008 assessment.

Descriptive Statistics of Linking Common Items for Year 2006 vs. Year 2008: Grade 3

Grade	Year	No. of Items	*M*	*SD*
3	2006	9	0.66	0.14
	2008	9	0.68	0.17

Table 1.12 P-Value Comparisons of Linking Common Items for Year 2006 vs. Year 2008: Grade 4

Item Number	Item Type	2006	2008
2	SR	0.80	0.79
6	SR	0.90	0.95
7	SR	0.90	0.96
13	SR	0.64	0.63
15	SR	0.73	0.72
16	SR	0.63	0.68
18	SR	0.61	0.68
19	SR	0.56	0.61
21	SR	0.45	0.49
22	SR	0.85	0.82
24	SR	0.67	0.78

Note. The 2006 analysis was conducted with a field test sample.
Note. The 2008 analysis was conducted with a statewide population.
Note. Item sequence numbers were assigned based on the 2008 assessment.

Descriptive Statistics of Linking Common Items for Year 2006 vs. Year 2008: Grade 4

Grade	Year	No. of Items	*M*	*SD*
4	2006	11	0.70	0.15
	2008	11	0.74	0.14

Table 1.13 P-Value Comparisons of Linking Common Items for Year 2006 vs. Year 2008: Grade 5

Item Number	Item Type	2006	2008
1	SR	0.80	0.86
2	SR	0.73	0.81
3	SR	0.87	0.91
4	SR	0.89	0.94
6	SR	0.88	0.92
7	SR	0.92	0.95
8	SR	0.84	0.89
12	SR	0.70	0.72
14	SR	0.57	0.63
15	SR	0.71	0.80
17	SR	0.70	0.70
18	SR	0.71	0.76
20	SR	0.54	0.62
21	SR	0.69	0.73
23	SR	0.63	0.73

Note. The 2006 analysis was conducted with a field test sample.
Note. The 2008 analysis was conducted with a statewide population.
Note. Item sequence numbers were assigned based on the 2008 assessment.

Descriptive Statistics of Linking Common Items for Year 2006 vs. Year 2008: Grade 5

Grade	Year	No. of Items	*M*	*SD*
5	2006	15	0.75	0.12
	2008	15	0.80	0.11

Table 1.14 P-Value Comparisons of Linking Common Items for Year 2006 vs. Year 2008: Grade 6

Item Number	Item Type	2006	2008
1	SR	0.88	0.92
2	SR	0.93	0.96
4	SR	0.86	0.88
7	SR	0.89	0.92
8	SR	0.51	0.52
9	SR	0.78	0.80
10	SR	0.89	0.93
12	SR	0.57	0.59
14	SR	0.53	0.61
15	SR	0.74	0.73
17	SR	0.74	0.78
18	SR	0.70	0.73
20	SR	0.79	0.84
21	SR	0.29	0.32
23	SR	0.56	0.61

Note. The 2006 analysis was conducted with a field test sample.
Note. The 2008 analysis was conducted with a statewide population.
Note. Item sequence numbers were assigned based on the 2008 assessment.

Descriptive Statistics of Linking Common Items for Year 2006 vs. Year 2008: Grade 6

Grade	Year	No. of Items	*M*	*SD*
6	2006	15	0.71	0.18
	2008	15	0.74	0.18

Table 1.15 P-Value Comparisons of Linking Common Items for Year 2006 vs. Year 2008: Grade 7

Item Number	Item Type	2006	2008
1	SR	0.92	0.95
2	SR	0.89	0.92
3	SR	0.77	0.79
5	SR	0.85	0.90
6	SR	0.91	0.94
8	SR	0.69	0.74
10	SR	0.83	0.87
11	SR	0.55	0.60
13	SR	0.70	0.77
14	SR	0.60	0.59
16	SR	0.63	0.66
17	SR	0.90	0.93
19	SR	0.79	0.82

Note. The 2006 analysis was conducted with a field test sample.
Note. The 2008 analysis was conducted with a statewide population.
Note. Item sequence numbers were assigned based on the 2008 assessment.

Descriptive Statistics of Linking Common Items for Year 2006 vs. Year 2008: Grade 7

Grade	Year	No. of Items	*M*	*SD*
7	2006	13	0.77	0.13
	2008	13	0.81	0.13

Table 1.16 P-Value Comparisons of Linking Common Items for Year 2006 vs. Year 2008: Grade 8

Item Number	Item Type	2006	2008
1	SR	0.91	0.95
2	SR	0.90	0.93
4	SR	0.79	0.84
5	SR	0.80	0.83
6	SR	0.88	0.89
8	SR	0.69	0.76
10	SR	0.71	0.78
11	SR	0.74	0.80
13	SR	0.73	0.73
14	SR	0.51	0.54
16	SR	0.53	0.55
17	SR	0.67	0.65
19	SR	0.55	0.59

Note. The 2006 analysis was conducted with a field test sample.
Note. The 2008 analysis was conducted with a statewide population.
Note. Item sequence numbers were assigned based on the 2008 assessment.

Descriptive Statistics of Linking Common Items for Year 2006 vs. Year 2008: Grade 8

Grade	Year	No. of Items	*M*	*SD*
8	2006	13	0.72	0.13
	2008	13	0.76	0.14

1.9 Validation Check with the 2008 Operational BCR Items

To collect information about how much the same BCR items that appeared in both 2006 and 2008 changed in terms of item difficulty, indices such as the classical p-value and Rasch item difficulty were calculated.

These items were first field-tested on the 2006 assessment and appeared as operational test items on the 2008 assessment, as shown in Table 1.17. There was only one operational test form at each grade in 2008. The item numbers in Tables 1.18 through 1.35 were assigned based on the 2008 assessment. Detailed information about the specific test design and construction of Year 2008 can be obtained from section 1.4, *Test Structure of the 2008 MSA-Reading* and section 1.11, *Constructing the 2008 MSA-Reading Operational Forms*.

While the 2006 p-value was calculated with a field test sample, the 2008 p-value was calculated with a statewide population. The p-value of a BCR item was the mean item score divided by the item score range. The percentage of "Omits" response to each CR item was low and indicated that a small number of students did not respond at all.

Classical item p-value results indicated that, in general, most of the 2008 p-values increased somewhat compared to the 2006 p-values. For grade 8, however, most of the 2008 p-values slightly decreased compared to the 2006 p-values.

With respect to Rasch item difficulty analysis, most of the 2008 items became easier compared to the 2006 items except in grade 8. For grade 8, most of the 2008 Rasch item difficulties slightly increased compared to the 2006 Rasch item difficulties. It should be noted that all Rasch difficulties were put on the base scale.

In conclusion, both p-value and Rasch difficulty results reflected the same phenomenon, indicating that most of the 2008 items became easier than the 2006 items except for in grade 8.

Table 1.17 Form Identification for Items Appearing in both 2006 and 2008: Grades 3 through 8

Grade	Year 2006	Year 2008
3	Form 1,3	Form 1-10
4	Form 1,2	Form 1-10
5	Form 1,2	Form 1-10
6	Form 1,4	Form 1-10
7	Form 1,2	Form 1-10
8	Form 1,2	Form 1-10

Table 1.18 P-Value Comparisons of BCR Items for Year 2006 vs. Year 2008: Grade 3

Item Number	Item Type	Year 06	Year 08
15	BCR	0.39	0.39
18	BCR	0.46	0.44
21	BCR	0.41	0.46
24	BCR	0.31	0.36

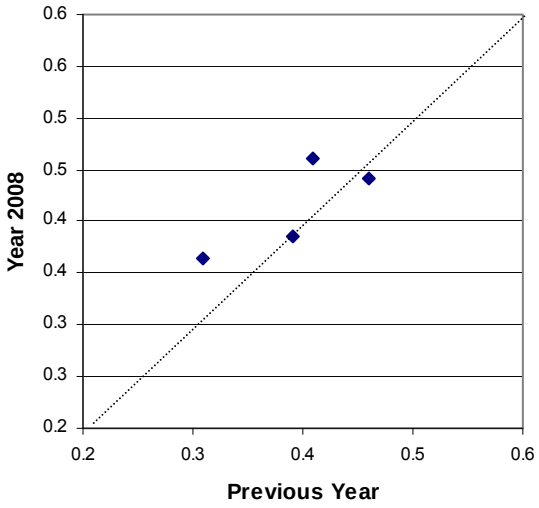


Table 1.19 Score-Point Distribution Comparisons of BCR Items for Year 2006 vs. Year 2008: Grade 3

Year	Item #	Item Type	N	Mean	SD	Score-Point Distribution (%)				
						0	1	2	3	Omit
2006	15	BCR	2,197	1.18	0.68	12.92	54.71	30.00	1.23	1.14
2006	18	BCR	2,450	1.37	0.62	4.93	49.47	43.06	0.41	2.12
2006	21	BCR	2,514	1.24	0.76	16.19	43.79	36.75	2.15	1.11
2006	24	BCR	2,525	0.93	0.76	28.87	47.21	20.63	1.66	1.62
2008	15	BCR	58,301	1.16	0.82	23.92	36.43	36.29	2.19	1.16
2008	18	BCR	58,301	1.33	0.58	3.30	58.51	35.67	0.95	1.57
2008	21	BCR	58,301	1.38	0.75	12.24	39.43	43.96	3.71	0.67
2008	24	BCR	58,301	1.09	0.75	21.44	47.66	28.62	1.37	0.91

Note. The 2006 analysis was conducted with a field test sample.
Note. The 2008 analysis was conducted with a statewide population.
Note. Item sequence numbers were assigned based on the 2008 assessment.

Table 1.20 Rasch Item and Step Difficulty Comparisons of BCR Items for Year 2006 vs. Year 2008: Grade 3

Year	Item #	Item Type	Rasch Difficulty	Step 0-1	Step 1-2	Step 2-3
2006	15	BCR	2.1690	-3.0299	-0.2015	3.2314
2006	18	BCR	2.0716	-3.9839	-0.6980	4.6819
2006	21	BCR	1.9855	-2.3612	-0.5222	2.8835
2006	24	BCR	2.4801	-2.1261	-0.1422	2.2684
2008	15	BCR	2.2206	-1.9595	-0.8455	2.8050
2008	18	BCR	1.5812	-4.1468	0.1837	3.9631
2008	21	BCR	1.6154	-2.4425	-0.5135	2.9561
2008	24	BCR	2.3142	-2.4282	-0.3975	2.8256

Note. Rasch item and step difficulties were placed on a common scale.

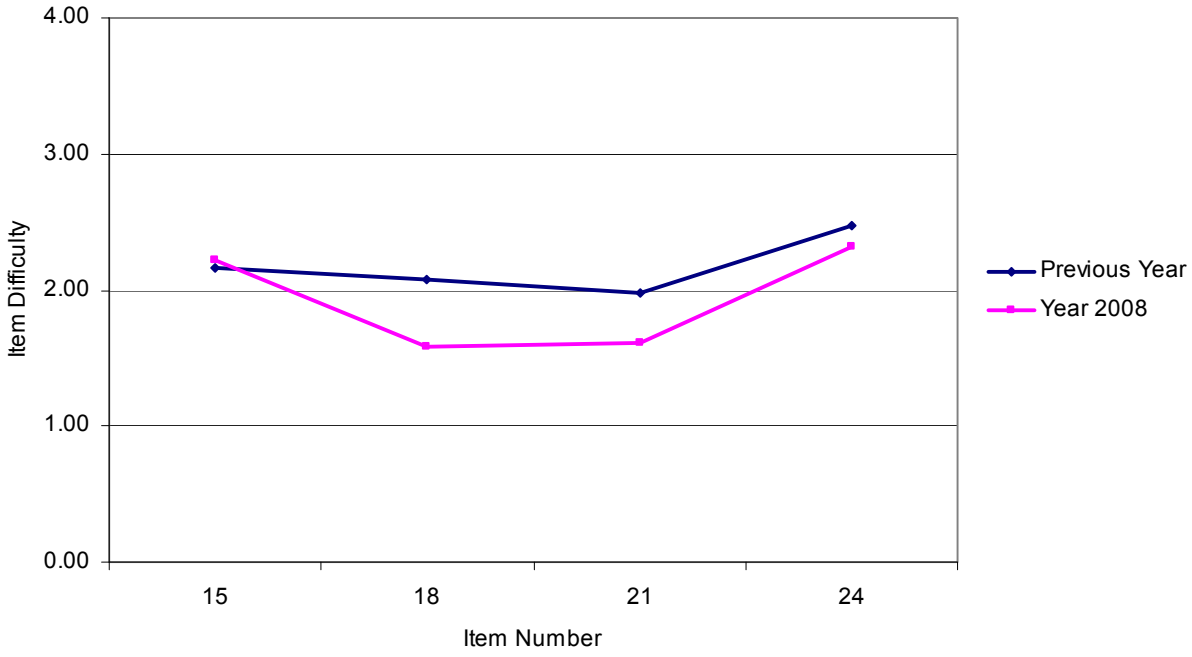


Figure 1.1 Rasch Item Difficulty Comparisons of BCR Items for Year 2006 vs. Year 2008: Grade 3

Table 1.21 P-Value Comparisons of BCR items for Year 2006 vs. Year 2008: Grade 4

Item Number	Item Type	Year 06	Year 08
14	BCR	0.45	0.54
17	BCR	0.42	0.49
20	BCR	0.48	0.52
23	BCR	0.47	0.49

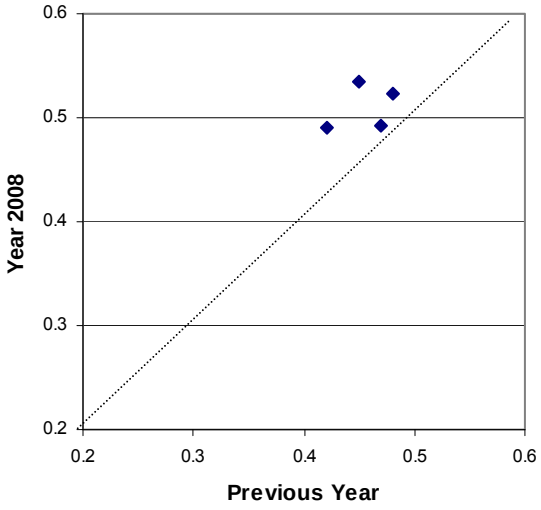


Table 1.22 Score-Point Distribution Comparisons of BCR Items for Year 2006 vs. Year 2008: Grade 4

Year	Item #	Item Type	N	Mean	SD	Score-Point Distribution (%)				
						0	1	2	3	Omit
2006	14	BCR	2,297	1.35	0.55	3.00	58.86	37.35	0.48	0.30
2006	17	BCR	2,458	1.25	0.54	2.97	65.50	29.62	0.24	1.67
2006	20	BCR	2,164	1.45	0.61	5.03	43.39	50.28	0.42	0.88
2006	23	BCR	2,381	1.41	0.55	2.10	54.01	42.80	0.38	0.71
2008	14	BCR	59,697	1.61	0.58	2.10	37.14	57.99	2.46	0.31
2008	17	BCR	59,697	1.47	0.56	1.61	48.10	48.63	0.53	1.13
2008	20	BCR	59,697	1.57	0.58	2.82	37.87	57.33	1.39	0.59
2008	23	BCR	59,697	1.48	0.56	1.91	48.26	48.45	0.88	0.51

Note. The 2006 analysis was conducted with a field test sample.
Note. The 2008 analysis was conducted with a statewide population.
Note. Item sequence numbers were assigned based on the 2008 assessment.

Table 1.23 Rasch Item and Step Difficulty Comparisons of BCR Items for Year 2006 vs. Year 2008: Grade 4

Year	Item #	Item Type	Rasch Difficulty	Step 0-1	Step 1-2	Step 2-3
2006	14	BCR	2.2261	-4.5927	-0.1531	4.7459
2006	17	BCR	2.5343	-4.9127	-0.0318	4.9444
2006	20	BCR	2.3989	-3.8405	-0.9598	4.8003
2006	23	BCR	2.1120	-4.7233	-0.3093	5.0326
2008	14	BCR	1.4129	-3.7214	-0.5028	4.2243
2008	17	BCR	2.4090	-5.5103	-0.8980	6.4084
2008	20	BCR	1.8767	-3.7237	-0.7714	4.4951
2008	23	BCR	2.1074	-4.7107	-0.5710	5.2817

Note. Rasch item and step difficulties were placed on a common scale.

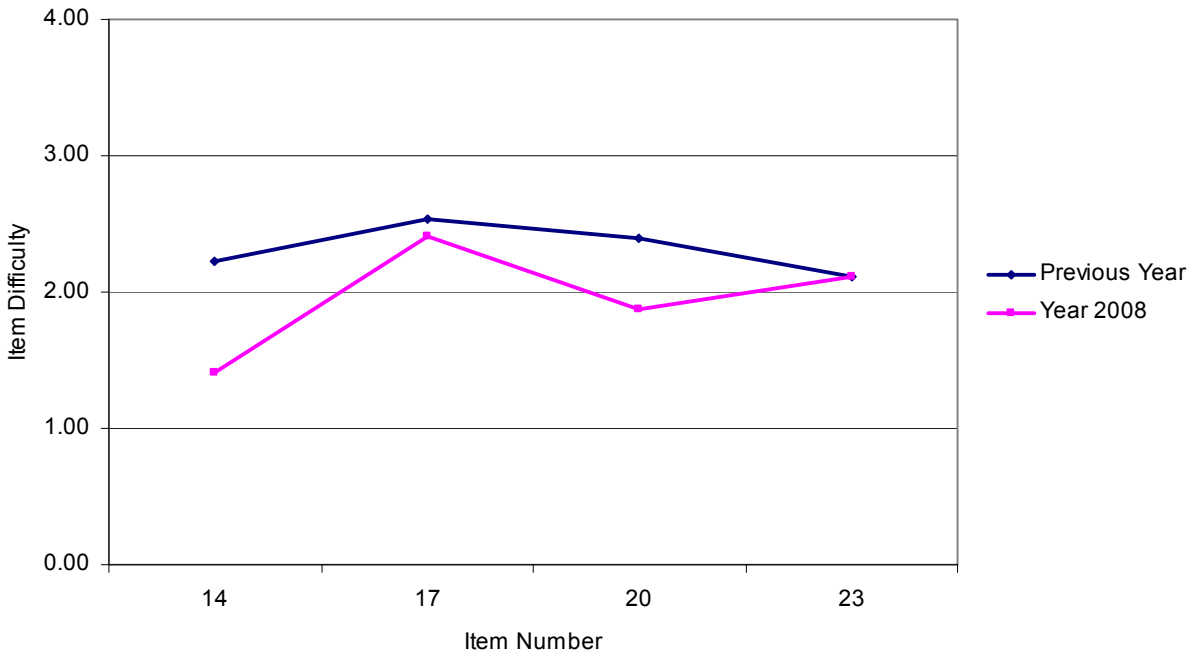


Figure 1.2 Rasch Item Difficulty Comparisons of BCR Items for Year 2006 vs. Year 2008: Grade 4

Table 1.24 P-Value Comparisons of BCR items for Year 2006 vs. Year 2008: Grade 5

Item Number	Item Type	Year 06	Year 08
13	BCR	0.52	0.61
16	BCR	0.48	0.51
19	BCR	0.40	0.45
22	BCR	0.24	0.26

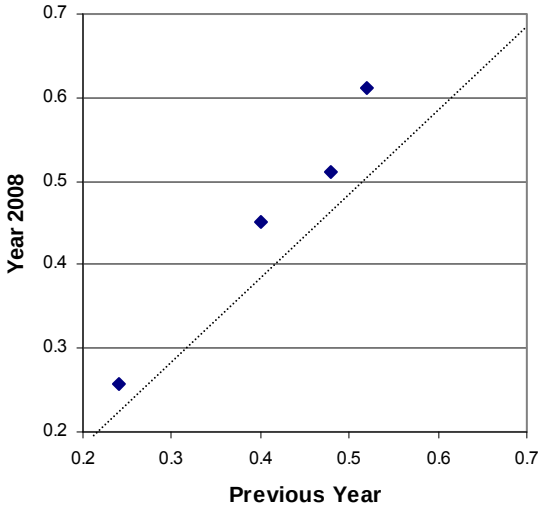


Table 1.25 Score-Point Distribution Comparisons of BCR Items for Year 2006 vs. Year 2008: Grade 5

Year	Item #	Item Type	N	Mean	SD	Score-Point Distribution (%)				
						0	1	2	3	Omit
2006	13	BCR	2,479	1.56	0.62	4.24	33.64	59.46	1.05	1.61
2006	16	BCR	2,423	1.43	0.63	4.29	44.41	48.20	0.70	2.39
2006	19	BCR	2,209	1.20	0.83	21.46	39.11	34.45	4.12	0.86
2006	22	BCR	2,496	0.73	0.68	2.28	37.46	47.40	12.54	0.32
2008	13	BCR	60,486	1.84	0.46	0.66	17.23	78.89	2.89	0.33
2008	16	BCR	60,486	1.54	0.57	2.11	42.52	53.69	1.25	0.43
2008	19	BCR	60,486	1.36	0.78	14.10	39.38	41.57	4.38	0.58
2008	22	BCR	60,486	0.77	0.76	40.15	41.72	15.66	1.44	1.02

Note. The 2006 analysis was conducted with a field test sample.
Note. The 2008 analysis was conducted with a statewide population.
Note. Item sequence numbers were assigned based on the 2008 assessment.

Table 1.26 Rasch Item and Step Difficulty Comparisons of BCR Items for Year 2006 vs. Year 2008: Grade 5

Year	Item #	Item Type	Rasch Difficulty	Step 0-1	Step 1-2	Step 2-3
2006	13	BCR	1.3615	-3.2989	-1.036	4.3349
2006	16	BCR	1.6034	-3.7081	-0.6771	4.3852
2006	19	BCR	1.7248	-1.8343	-0.4197	2.2540
2006	22	BCR	3.1844	-2.5412	-0.2708	2.8119
2008	13	BCR	0.8128	-3.5853	-1.1317	4.7170
2008	16	BCR	1.6931	-4.1387	-0.5787	4.7175
2008	19	BCR	1.9023	-2.1832	-0.5677	2.7509
2008	22	BCR	3.2443	-1.9905	-0.2633	2.2539

Note. Rasch item and step difficulties were placed on a common scale.

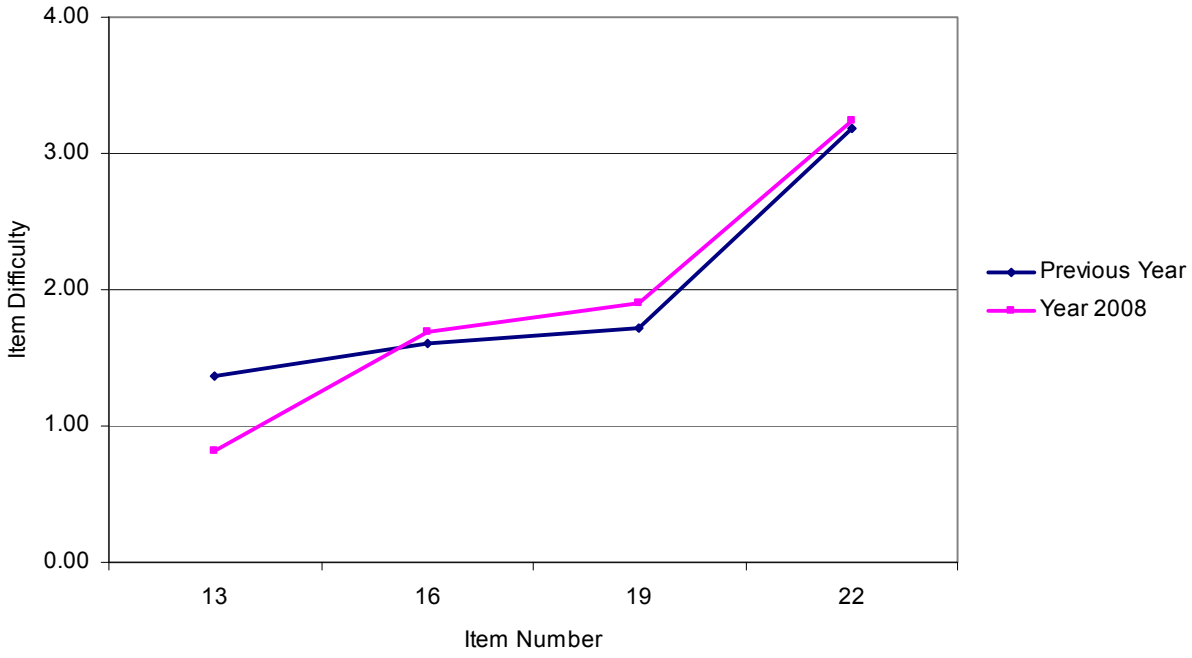


Figure 1.3 Rasch Item Difficulty Comparisons of BCR Items for Year 2006 vs. Year 2008: Grade 5

Table 1.27 P-Value Comparisons of BCR Items for Year 2006 vs. Year 2008: Grade 6

Item Number	Item Type	Year 06	Year 08
13	BCR	0.47	0.51
16	BCR	0.44	0.50
19	BCR	0.47	0.48
22	BCR	0.48	0.55

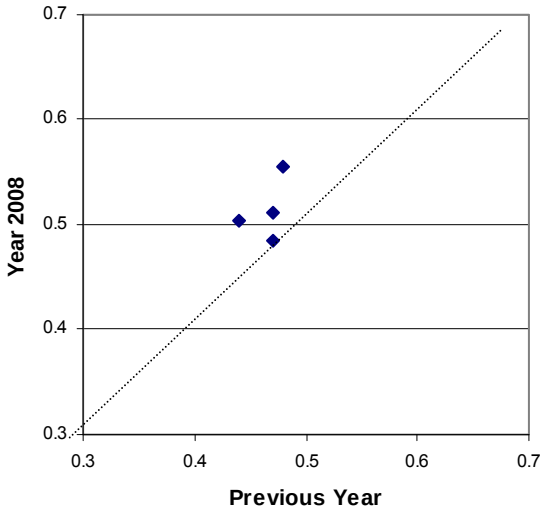


Table 1.28 Score-Point Distribution Comparisons of BCR Items for Year 2006 vs. Year 2008: Grade 6

Year	Item #	Item Type	N	Mean	SD	Score-Point Distribution (%)				
						0	1	2	3	Omit
2006	13	BCR	2,269	1.41	0.64	4.71	52.01	39.40	3.26	0.62
2006	16	BCR	2,493	1.31	0.65	6.82	53.19	36.54	1.60	1.85
2006	19	BCR	2,366	1.42	0.63	2.92	52.83	39.22	3.63	1.39
2006	22	BCR	2,452	1.44	0.71	3.51	45.07	42.01	5.02	4.40
2008	13	BCR	61,036	1.54	0.56	1.17	44.92	51.59	1.83	0.50
2008	16	BCR	61,036	1.51	0.60	2.45	44.39	50.26	2.15	0.75
2008	19	BCR	61,036	1.45	0.59	2.95	49.47	45.35	1.68	0.55
2008	22	BCR	61,036	1.66	0.66	2.37	33.84	55.46	7.20	1.14

Note. The 2006 analysis was conducted with a field test sample.
Note. The 2008 analysis was conducted with a statewide population.
Note. Item sequence numbers were assigned based on the 2008 assessment.

Table 1.29 Rasch Item and Step Difficulty Comparisons of BCR Items for Year 2006 vs. Year 2008: Grade 6

Year	Item #	Item Type	Rasch Difficulty	Step 0-1	Step 1-2	Step 2-3
2006	13	BCR	1.3979	-3.4419	0.1636	3.2783
2006	16	BCR	1.7989	-3.4763	-0.1102	3.5866
2006	19	BCR	1.1271	-3.8493	0.3761	3.4732
2006	22	BCR	1.0466	-3.4049	0.2009	3.2040
2008	13	BCR	1.2440	-4.3701	0.0005	4.3697
2008	16	BCR	1.3674	-3.7982	-0.3367	4.1348
2008	19	BCR	1.6025	-3.9479	-0.1895	4.1374
2008	22	BCR	0.7994	-3.3192	-0.0990	3.4182

Note. Rasch item and step difficulties were placed on a common scale.

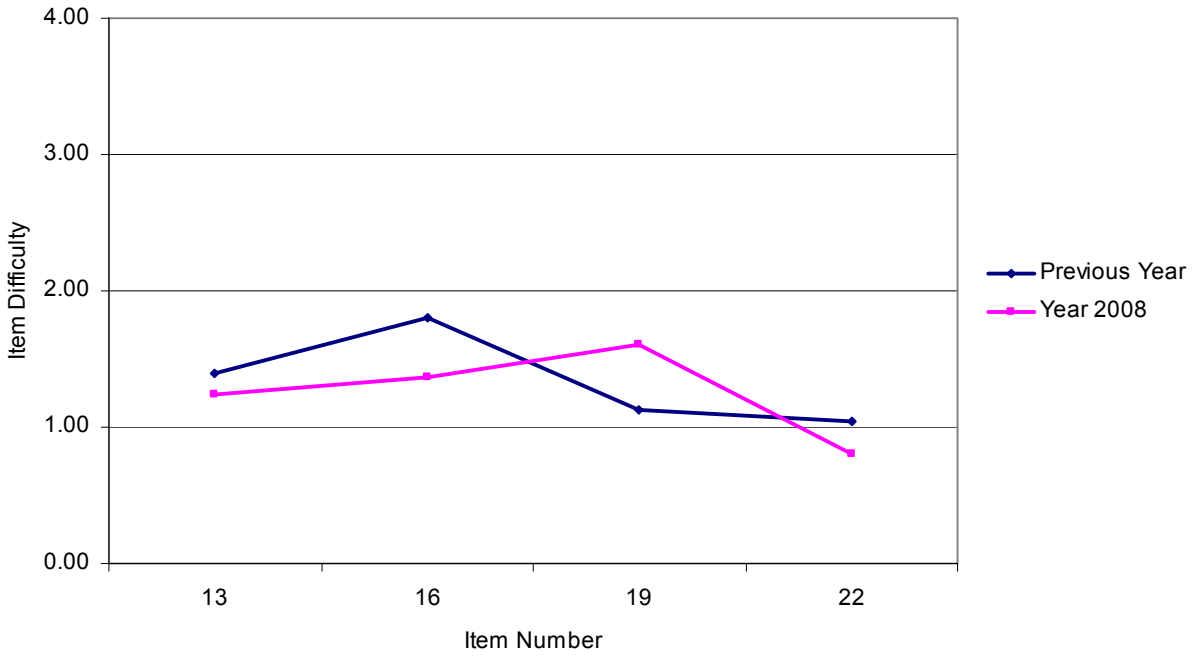


Figure 1.4 Rasch Item Difficulty Comparisons of BCR Items for Year 2006 vs. Year 2008: Grade 6

Table 1.30 P-Value Comparisons of BCR Items for Year 2006 vs. Year 2008: Grade 7

Item Number	Item Type	Year 06	Year 08
9	BCR	0.42	0.48
12	BCR	0.47	0.54
15	BCR	0.46	0.49
18	BCR	0.34	0.41

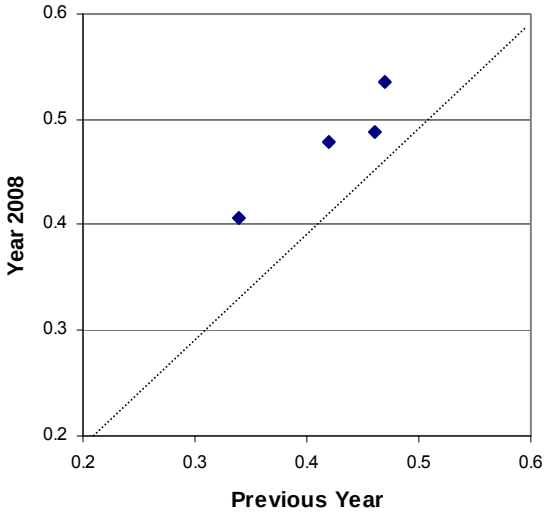


Table 1.31 Score-Point Distribution Comparisons of BCR Items for Year 2006 vs. Year 2008: Grade 7

Year	Item #	Item Type	N	Mean	SD	Score-Point Distribution (%)				
						0	1	2	3	Omit
2006	9	BCR	2,339	1.26	0.72	11.63	47.07	36.47	2.05	2.78
2006	12	BCR	2,417	1.41	0.61	2.36	54.65	39.10	2.57	1.32
2006	15	BCR	2,266	1.38	0.71	9.70	43.95	42.28	3.09	0.97
2006	18	BCR	2,387	1.03	0.65	14.29	61.25	19.15	1.26	4.06
2008	9	BCR	62,513	1.44	0.73	6.79	45.47	40.41	5.86	1.47
2008	12	BCR	62,513	1.61	0.65	1.93	39.76	51.01	6.36	0.95
2008	15	BCR	62,513	1.46	0.76	12.49	31.00	52.25	3.62	0.65
2008	18	BCR	62,513	1.22	0.68	10.80	56.13	29.49	2.32	1.25

Note. The 2006 analysis was conducted with a field test sample.
Note. The 2008 analysis was conducted with a statewide population.
Note. Item sequence numbers were assigned based on the 2008 assessment.

Table 1.32 Rasch Item and Step Difficulty Comparisons of BCR Items for Year 2006 vs. Year 2008: Grade 7

Year	Item #	Item Type	Rasch Difficulty	Step 0-1	Step 1-2	Step 2-3
2006	9	BCR	1.7444	-2.7903	-0.3255	3.1158
2006	12	BCR	1.0754	-4.0074	0.3505	3.6568
2006	15	BCR	1.4679	-2.6513	-0.3766	3.0280
2006	18	BCR	2.2241	-3.1453	0.2696	2.8757
2008	9	BCR	1.3861	-2.8846	0.0487	2.8359
2008	12	BCR	0.5998	-3.4107	0.1328	3.2779
2008	15	BCR	1.8303	-2.1114	-1.141	3.2524
2008	18	BCR	2.0556	-3.0554	0.0723	2.9830

Note. Rasch item and step difficulties were placed on a common scale.

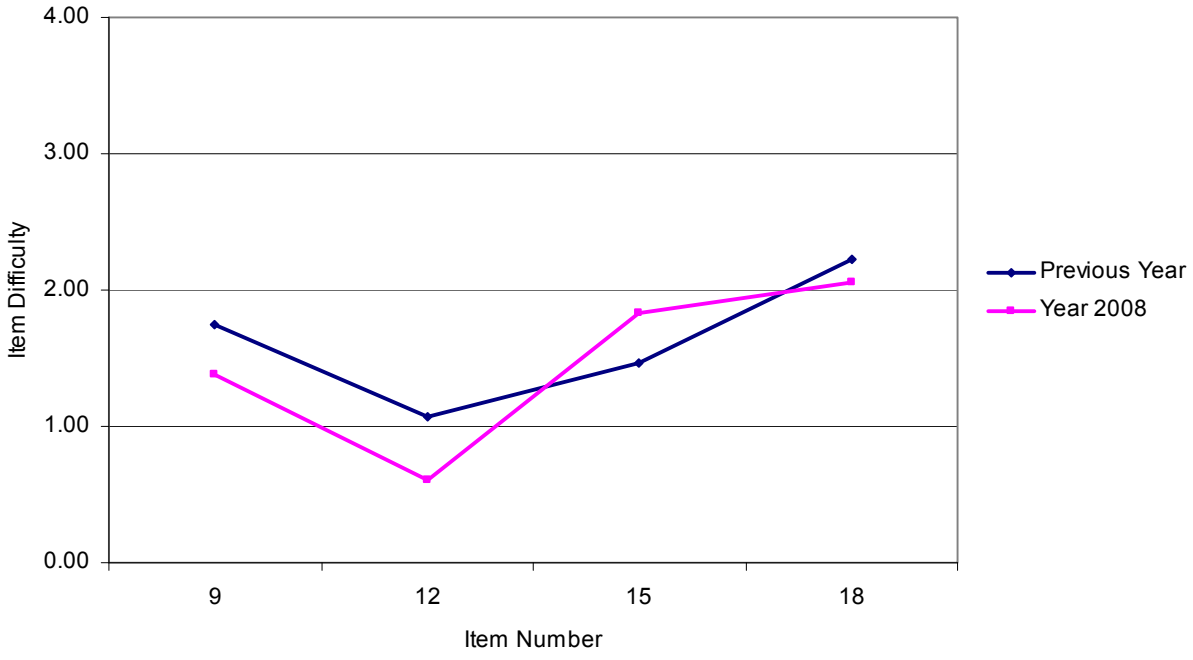


Figure 1.5 Rasch Item Difficulty Comparisons of BCR Items for Year 2006 vs. Year 2008: Grade 7

Table 1.33 P-Value Comparisons of BCR Items for Year 2006 vs. Year 2008: Grade 8

Item Number	Item Type	Year 06	Year 08
9	BCR	0.60	0.56
12	BCR	0.47	0.53
15	BCR	0.54	0.52
18	BCR	0.51	0.48

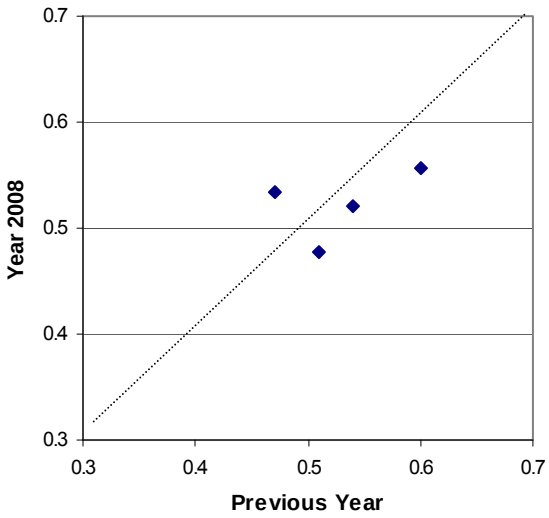


Table 1.34 Score-Point Distribution Comparisons of BCR Items for Year 2006 vs. Year 2008: Grade 8

Year	Item #	Item Type	N	Mean	SD	Score-Point Distribution (%)				
						0	1	2	3	Omit
2006	9	BCR	2,311	1.79	0.69	2.38	25.75	58.76	11.81	1.30
2006	12	BCR	2,465	1.41	0.60	1.74	51.60	42.23	1.58	2.84
2006	15	BCR	2,288	1.61	0.79	6.82	32.34	48.25	10.62	1.97
2006	18	BCR	2,456	1.52	0.75	8.23	34.32	50.16	5.86	1.43
2008	9	BCR	63,858	1.67	0.62	0.79	35.56	56.53	6.21	0.91
2008	12	BCR	63,858	1.60	0.59	0.59	39.35	55.46	3.40	1.20
2008	15	BCR	63,858	1.56	0.74	8.54	27.83	56.97	4.78	1.87
2008	18	BCR	63,858	1.43	0.82	13.39	34.08	44.69	6.61	1.23

Note. The 2006 analysis was conducted with a field test sample.
Note. The 2008 analysis was conducted with a statewide population.
Note. Item sequence numbers were assigned based on the 2008 assessment.

Table 1.35 Rasch Item and Step Difficulty Comparisons of BCR Items for Year 2006 vs. Year 2008: Grade 8

Year	Item #	Item Type	Rasch Difficulty	Step 0-1	Step 1-2	Step 2-3
2006	9	BCR	0.2609	-2.5232	-0.3082	2.8314
2006	12	BCR	1.1084	-4.1786	0.1288	4.0498
2006	15	BCR	0.7647	-2.0470	-0.2576	2.3046
2006	18	BCR	1.0691	-2.1787	-0.5151	2.6938
2008	9	BCR	0.4280	-4.0698	0.1405	3.9293
2008	12	BCR	0.5900	-4.3977	0.2564	4.1412
2008	15	BCR	1.2904	-2.0894	-1.0192	3.1087
2008	18	BCR	1.5867	-1.9730	-0.6017	2.5747

Note. Rasch item and step difficulties were placed on a common scale.

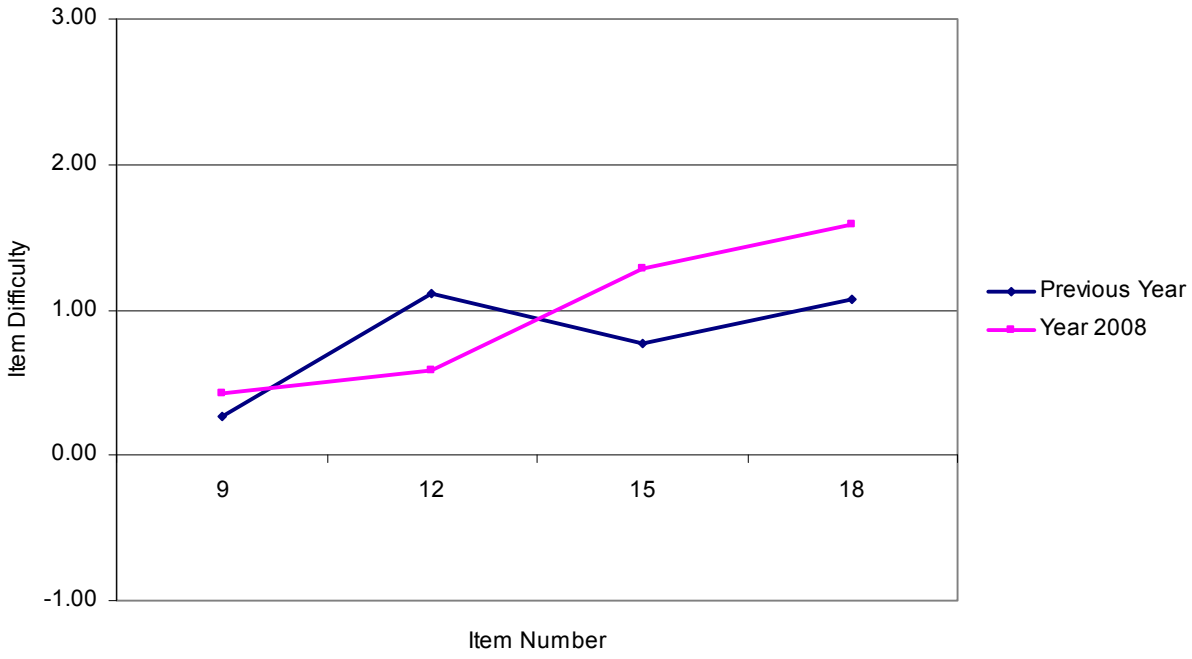


Figure 1.6 Rasch Item Difficulty Comparisons of BCR Items for Year 2006 vs. Year 2008: Grade 8

1.10 Field Test Analyses

All field test items embedded in operational forms were subjected to rigorous analyses for their properties in order to provide information about which items may be included as operational items in the future. All statistical results concerning field test items were preserved in the 2008 item bank. Information on the item bank can be found in section 1.16, *Item Bank Construction*. The following field test analyses were conducted:

- Classical item analyses for *SR* and *BCR* items
- *Differential item functioning* (*DIF*) analyses
- *IRT* analyses

Classical Item Analyses for *SR* and *BCR* items

Classical item analyses for *SR* and *BCR* items were conducted within each field test form.

SR items were flagged for further scrutiny if:

- An item distractor was not selected by any students (i.e., nonfunctional distractor)
- An item was selected by a high proportion of high-ability students while being selected by a low proportion of low-ability students (i.e., ambiguous distractor)
- An item *p*-value was less than .20 or greater than .90.
- An item point-biserial was less than .10 (i.e., poorly discriminating). If an item point-biserial was close to zero or negative, the item was checked for a miskeyed answer.

BCR items were flagged for further scrutiny if:

- An item did not elicit the full range of rubric scores.
- The ratio of mean item score to maximum score was less than .20 or greater than .90.
- An item-total correlation was less than .10.

All items required a careful decision. For example, an item that was flagged as being difficult (*p*-value less than .20) and poorly discriminating (point-biserial less than .10) was considered for being dropped as a possible operational item. However, if the item represented important content that had not been extensively taught, a justification could have been made for including it in an operational test form.

Differential Item Functioning Analyses

Analyses of *Differential item functioning* (*DIF*) are intended to compare the performance of different subgroups of the population on specific items, when the groups have been statistically matched on their tested proficiency.

In present analyses, the gender reference group was males, and the ethnic reference group was Caucasians. The gender focal group was females and the ethnic focal group was African-

Americans. For each operational form, the student's total score was used as the matching variable.

Any *SR* and *BCR* items that were flagged as showing *DIF* were subjected to further examination. For each of these items, for example, reading experts judged whether the differential difficulty of the item was unfairly related to group membership using the following criteria:

- If the differential difficulty of the item is related to group membership, and the difference is deemed unfair, then the item should not be used at all.
- If the differential difficulty of the item is related to group membership, but the difference is not deemed unfair, then the item should only be used if there is no other item matching the test blueprint.

It should be noted that DIF analysis results on all the field test items were archived in the 2008 Maryland item bank. In addition, detailed information about the *DIF* procedures can be found in section 3.7, *Differential Item Functioning*..

Item Response Theory (IRT) Analyses

To put the 2008 field test items on the base scale (i.e., the 2003 scale for grades 3, 5, and 8 and the 2004 scale for grades 4, 6, and 7), each field test item was freely calibrated while the Rasch item and step parameters of the 2008 operational items, which has been already placed on the base scale during the 2008 operational calibration and equating, were fixed to their post-equated values.

It should be noted that all the Rasch item difficulties, step difficulties, and fit statistics (i.e., Rasch Infit and Outfit indices) of the field test items were archived in the 2008 Maryland item bank. These field test items are eligible to be used as operational items in subsequent years.

1.11 Constructing the 2008 MSA-Reading Operational Forms

Due to the decision to remove all of the SAT10 items starting with the 2008 administration, MSDE and Pearson team members examined options to replace the 25 SAT10 items removed from the test.

The minimum requirement was to develop enough items to cover the same total and subtotal score points that SAT10 common items contributed in previous years (for grade 5, for example, 45 total score points with 15 points each for general reading, literary, and informational reading). In addition, it was decided that only one operational form would be developed for the 2008 administration and that options for year-to-year equating would focus on items that were originally field-tested in 2006.

General Overview of the 2003 through 2007 MSA-Reading

- Both NRT and CRT: SAT10 was utilized both as the *norm-referenced test* (NRT) and *curriculum-referenced test* (CRT) for reading assessment. For example, 25 out of 50 SAT10 selected-response (SR) items contributed to the Maryland CRT total score. This is 56% of the 45 total score points for the CRT.
- Reading Test Form: Each reading test form included SAT10 (NRT and CRT) items, Maryland-specific (CRT) operational items, and Maryland-specific (CRT) field test items. For Grade 5, for example, fifty SAT10 items, six (4 SR and 2 *brief constructed-response, or* BCR) operational Literary passage-based items, six (4 SR and 2 BCR) operational Informational passage-based items, and ten (7 SR and 3 BCR items) field-testing Literary or Informational passage-based items appeared on each test form.
- Each Strand Score Point (Subtotal Score Point) of SAT10 Common Items: Content strands covered by the 25 SAT10 common items included General, Literary, and Informational Reading. These common items met the requirement that a possible linking pool should be a mini-version of the whole test. For Grade 5, for example, 15 out of 25 SAT10 items contributed to General Reading (GR), 5 to Literary, and 5 to Informational Reading.
- Common Linking items: Between 2003 and 2007, SAT10 common items were exclusively used for both form-to-form linking and year-to-year linking.
- Continuity and Stability: SAT10 was administered to every student with Sessions 1 and 2 on Day 1 without any changes every year between 2003 and 2007. The test had a total of five sessions and was administered over two days.

Two Operational Forms for the 2003 through 2007 MSA-Reading

- Test Security Issues: Two operational forms (Forms A and B) were developed and administered due to test security concerns. These forms had some operational items in common and some items unique to each form.
- Different Set of Literary and Informational Passages: Different operational forms were implemented by having a different Literary passage (4 SR and 2 BCR items) and Informational passage (4 SR and 2 BCR items) appear on each operational form. In other words, one Literary passage and one Informational passage appears on Form A while another set of passages appear on Form B. It should be noted that these passages were originally developed and field-tested with 7 SR and 3 BCR items. In addition, the

location of these passages when field-tested was in the very last session of either Day 1 or Day 2. For Grade 5, for example, either the Literary or Informational passage was field-tested in Session 3 on Day 1.

Session Design for the 2003 through 2007 MSA-Reading

- Days 1 and 2: The first testing day consisted of 3 sessions and the second day of 2 sessions. For Grade 5, for example, Day 1 consisted of Sessions 1, 2, and 3 and Day 2 of Sessions 4 and 5.
- Sessions 1 and 2: Administered all SAT10 items (e.g., 50 items for Grade 5).
- Session 3: Field-tested either a Literary or Informational passage. Each passage was originally developed with 7 SR and 3 BCR items.
- Session 4: Administered 1 operational Literary passage. The best 4 SR and 2 BCR items were selected from 7 SR and 3 BCR items which were field-tested in Session 3 in previous years.
- Session 5: Administered 1 operational Informational passage. The best 4 SR and 2 BCR items were selected from 7 SR and 3 BCR items which were field-tested in Session 3 in previous years.

General Overview of 2003 through 2007 Linking and Equating Design

- 25 SAT10 SR Items: 25 SAT10 SR items were exclusively used for the purpose of both form-to-form and year-to-year linking and equating.
- Mini-Version of the Whole Test: The 25 SAT10 SR common items met the requirement that a possible linking pool should be a mini version of the whole test: 15 contributed to GR, 5 to Literary, and 5 to Informational.
- Few Context Effects on SAT10 items: Every year the SAT10 common linking items appeared in Sessions 1 and 2 without any changes. Consequently, there was little opportunity for context effects (such as item position, intact reading passages) to be introduced into common item performance from year-to-year.
- Field-Testing Session: Session 3 was assigned to field-test Literary or Informational passages. Each passage included 7 SR and 3 BCR items. All field test items were calibrated together with operational items during field test analysis to put them on the same scale as the operational items, although only a subset of the items field-tested with a passage would subsequently make it into an operational form.
- Uniqueness of Sessions 4 and 5: To enhance test security, operational form A had a different set of Literary and Informational passages than operational form B in Sessions 4 and 5. Each passage was originally field-tested with 7 SR and 3 BCR, but only 4 SR and 2 BCR items were included with operational passages. In addition, the same amount of time was given to students regardless of whether the items were in field-testing or operational sessions. It should be noted that the second day started with Sessions 4 and 5.
- Maryland-Specific Item Parameters: Item parameters of the 25 SAT10 common items were obtained from either the 2003 (Grades 3, 5, and 8) or 2004 (Grades 4, 6, and 7) calibration based on Maryland population. In addition, these item parameters were used to link any reading assessment back to the base year (i.e., 2003 or 2004). For Grade 5, for example, Rasch item difficulties of the 25 SAT10 common items were

generated based on Maryland population during the 2003 calibration and have been used exclusively through the 2007 calibrations. Please refer to Figure 1.7 for the general overview of 2003 through 2007 linking and equating.

- Mean = 400 and SD = 40 of Population: In 2003 (Grades 3, 5, and 8) or 2004 (Grades 4, 6, and 7), item parameters of SAT10 common linking items and equating constants were generated to center 2003 or 2004 populations with *Mean* = 400 and *SD* = 40.

One Operational Form for the 2008 MSA-Reading

- 2006 Field-Tested Session 1 Items: MSDE decided to replace SAT10 SR items of Session 1 with items field-tested in 2006. For Grade 5, for example, 9 SAT10 GR items were replaced with 9 items field-tested in 2006. These items were multiple-meaning words or words in context and were called ***stand-alone*** items because these items were not based on passages. Consequently, these items were able to be embedded and field-tested with SAT10 items in 2006.
- 2008 Session 4 Items: To replace the other SAT10 items (i.e., the 16 SAT10 SR items that appeared in Session 2), Pearson and MSDE content specialists developed 16 items (6 GR, 5 LT and 5 Informational) plus 4 extra items (as an overage) using 2 LT and 2 Informational passages. Each passage was developed with 5 SR items and some of the items for each type of passage were GR items even if the passage was LT or Informational. All of these passages appeared in Session 4 as shown in Table 1,36.
- Procedures for Session 4 Items: The procedures for selecting the best items that replaced the SAT10 items were as follows: 1) In April 2008, Pearson analyzed Session 4 SR items and submitted both classical and IRT-based statistical results to MSDE; 2) MSDE chose the best 16 SR items.
- 2006 Literary Passages: One 2006 field-tested Literary passage (originally developed with 7 SR and 3 BCR items) was chosen as the operational passage (with 4 SR and 2 BCR items). This operational passage was assigned to Session 2 in 2008.
- 2006 Informational Passages: One 2006 field-tested Informational passage (originally developed with 7 SR and 3 BCR items) was chosen as the operational passage (with 4 SR and 2 BCR items). This operational passage was assigned to Session 3 in 2008.

New Session Design for the 2008 MSA-Reading

- Session 1: This session included operational GR items that were originally field-tested in 2006. These items were multiple-meaning words or words in context. For Grade 5, for example, 9 GR items were administered in Session 1. It should be noted that 2 new items were embedded as field test items in this session. These items will be used if some of the 9 items need to be refreshed in the future. Please refer to Table 1.36 for the 2008 MSA-Reading session information.
- Session 2: This session included one operational Literary passage (with 4 SR and 2 BCR items). This passage was originally developed and field-tested (in Session 3) with 7 SR and 3 BCR items in 2006. When administered operationally, 4 SR and 2 BCR items were selected.
- Sessions 3: This session included one operational Informational passage (with 4 SR and 2 BCR items). This passage was originally developed and field-tested (in Session 3)

with 7 SR and 3 BCR items in 2006. When administered operationally, 4 SR and 2 BCR items were selected

- Session 4: This session included 2 Literary passages and 2 Informational passages to replace the SAT10 SR items. Each passage included 5 SR items; some of these items were GR items. When statistics from the operational administration became available, the best 4 items were chosen from these 5 items. For Grade 5, for example, 2 Literary and 2 Informational passages were developed with 20 SR items (5 items for each passage). However, only 16 out of these 20 items (6 GR, 5 Literary, and 5 Informational items) were selected to replace SAT10 items for operational scoring.
- Slot in the middle of Session 4: This slot was assigned to field-test one of 4 field-testing passages (2 Literary and 2 Informational Reading passages). These passages will appear in Session 4 of the 2009 administration with a subset of those items originally field-tested.
- Session 5: This session was assigned to field-test one of 10 passages (5 Literary and 5 Informational Reading). Each passage was developed with 7 SR and 3 BCR items.

General Overview of 2008 Linking and Equating

- Year-to-Year Linking: Only SR items appearing in Sessions 1, 2, and 3 which appeared in both 2006 and 2008 were considered for the purpose of year-to-year linking.
- Item Position of Linking Common Items: Session 1 linking items were embedded and field-tested with SAT10 items in Session 1 in 2006. Session 2 (Literary) and Session 3 (Informational) SR linking items were field-tested in Session 3 in 2006.
- Selection of Linking Common Items: Common items belonging to Literary (Session 2) and Informational (Session 3) passages were originally developed and field-tested with 7 SR and 3 BCR items in 2006 and appeared with 4 SR and 2 BCR items in 2008.

Table 1.36 An Example of the 2008 MSA-Reading Session Table: Grade 5

Day 1		Day 2	
Session 1: General Reading (Stand-Alone) Items (15 min.)	1) 9 operational GR items 2) Questions such as multiple-meaning words or words in context 3) These 9 items were embedded and field-tested with SAT10 items in 2006 Session 1. 4) 2 new field test items were embedded.	**Session 4**: Two Operational Literary and Two Operational Informational Passages Plus One of Four Field-Testing Passages (2 LT and 2 Informational Passages) **(47 min.)**	1) 2 operational Literary passages: Some of the items contributed to LT and others to GR. 2) Each OP LT passage includes 5 SR items. 3) One slot between 2 OP LT and 2 OP Informational passages was assigned to field-test one of 4 passages (2 LT and 2 Informational passages). These passages will be used as 2009 Session 4 operational passage. 4) Each field-testing passage includes 6 SR items. 5) 2 operational Informational passages: Some of the items contributed to Informational and others to GR. 6) Each OP Informational passage includes 5 SR items.
Session 2: One Operational Literary Passage (35 min.)	1) 1 operational Literary passage 2) This operational passage includes 4 SR and 2 BCR items. 3) Original passage was field-tested in Session 3 of the first day. 4) Original passage was developed with 7 SR and 3 BCR items in 2006.	**Session 5**: One of Ten Field-Testing Passage (5 LT and 5 Informational Passages) (35 min.)	1) This session was assigned to field-test one of 10 passages (5 Literary and 5 Informational passages) 2) Each passage was developed with 7 SR and 3 BCR items.
Session 3: One Operational Informational Passage (35 min.)	1) 1 operational Informational passage 2) This operational passage includes 4 SR and 2 BCR items. 3) Original passage was field-tested in Session 3 of the first day. 4) Original passage was developed with 7 SR and 3 BCR items in 2006.		

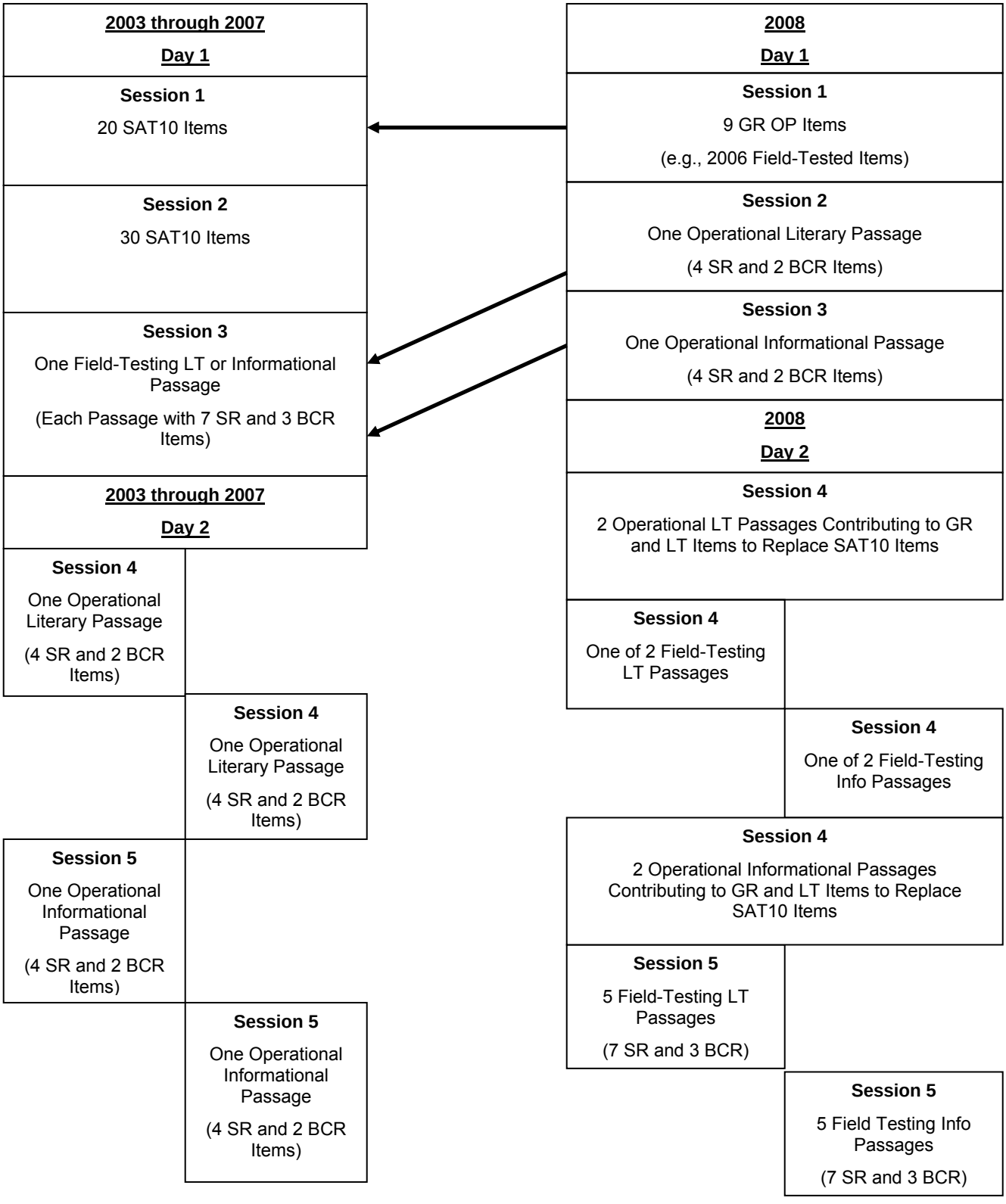


Figure 1.7 An Example of the 2008 MSA-Reading Linking and Equating: Grade 5

1.12 Linking, Equating, and Scaling Procedures

The 2008 reading assessment was calibrated, equated, and scaled by fixing the item parameters of the 2008 operational items with those of the 2006 field test items (i.e., the Rasch item fixed method). This means that the 2006 Rasch item difficulty parameters which were put on a common scale to either the 2003 (for grades 3, 5, and 8) or the 2004 (for grades 4, 6, and 7) assessment were carried and fixed during the 2008 linking and equating process.

Stratified Random Sampling Procedures

To select equating samples, a stratified random sampling method was applied to the 2008 state examinee population. To verify that the sample was representative of the statewide examinee population in terms of school district, gender, and ethnicity, the distributions of LEA, gender, and ethnicity of the 2008 sample were compared with those of the 2008 population. Appendix A, *The 2008 MSA-Reading Stratified Random Sampling* provides the results of the 2008 sampling. These results indicated that the equating samples were well representative of the statewide examinee population in terms of LEA, gender, and ethnicity.

Robust Z Procedures

Robust z values were calculated using the following calculations (South Carolina Department of Education, 2001):

- The mean and standard deviation of the linking pool's item difficulties for each operational form
- The ratio of the standard deviations between operational form A and form F
- The correlation between operational form A and F item difficulties
- The difference between operational form A and F for each item in the linking pool
- The mean of the differences calculated above
- The median of the differences calculated above
- The interquartile range of the differences calculated above
- The robust z is defined as (the difference between the test form1 and other test form item difficulty minus the median of the differences) / (interquartile range multiplied by 0.74).

Guidelines for Selecting Year-to-Year Linking Items

Once the above calculations were made, the following guidelines were followed in determining year-to-year common items used for Rasch linking and equating (SCDE, 2001):

- Try not to include items with an absolute value of robust z exceeding 1.645.
- Should not eliminate more than 20 percent of the linking pool items.
- Try to maintain that the ratio of the standard deviations between two operational forms is in the 90 to 110 percent range.
- Try to maintain the correlation between two operational forms is greater than .95.

Year-to-Year Linking Procedures

The 2008 operational form included a set of year-to-year linking common items that appeared on both 2006 and 2008 test forms. First of all, it should be noted that while the 2006 Rasch item difficulties were generated with a field test sample, the 2008 Rasch item difficulties were generated using the 2008 live, operational data. Second, we utilized the Rasch item fixed equating method for all of the operational items to be put on a common scale within each grade.

The stability of the linking common items was evaluated using robust z values, correlation coefficients, and standard deviation ratios.

Tables 1.37 through 1.42 include Rasch item difficulties used for calculating robust z values, correlation coefficients, and standard deviations. Figures 1.8 through 1.13 depict item difficulty plots between the 2006 and 2008 assessments. It should be noted that the item difficulties of the 2008 operational form were obtained from independent calibration, and those of the 2006 assessment were put on a common scale (i.e., linked back to the 2003 or the 2004 assessment).

Table 1.37 Rasch Item Difficulties and Robust Z Values for 2006 vs. 2008: Grade 3

Item Number	Item Type	Year 2006	Year 2008	Robust Z Value
1	SR	-1.3708	-1.8968	-1.2278
14	**SR**	**.1027**	**-0.4693**	**-1.3558**
16	SR	1.3168	1.3588	.3529
17	SR	1.1695	1.4781	1.0948
19	SR	.4932	0.4367	.0788
20	SR	-.5386	-0.9822	-.9985
22	SR	-.3016	-0.3864	.0000
23	SR	.2707	0.3884	.5635
25	SR	.4743	0.3061	-.2321

One SR item (Item 14) was dropped from the 2008 linking pool based on correlation coefficient, SD ratio, robust z values, and item difficulty plot.

The following correlation coefficient and SD ratio are based on dropping the item:

With Year 2006	Year 2008
Correlation Coefficient	.992
Standard Deviation Ratio	127%

Form Statistics

Form Statistics	Year 2006	Year 2008
Mean	.180	.026
SD	.838	1.084

Correlation and Standard Deviation Ratio

With Year 2006	Year 2008
Correlation	.982
SD ratio	129%

Values Used for Robust Z Statistics

With Year 2006	Year 2008
Mean Diff	-.154
Median Diff	-.085
IQR Diff	.486

Rasch Item Difficulties of Linking Items: Grade 3

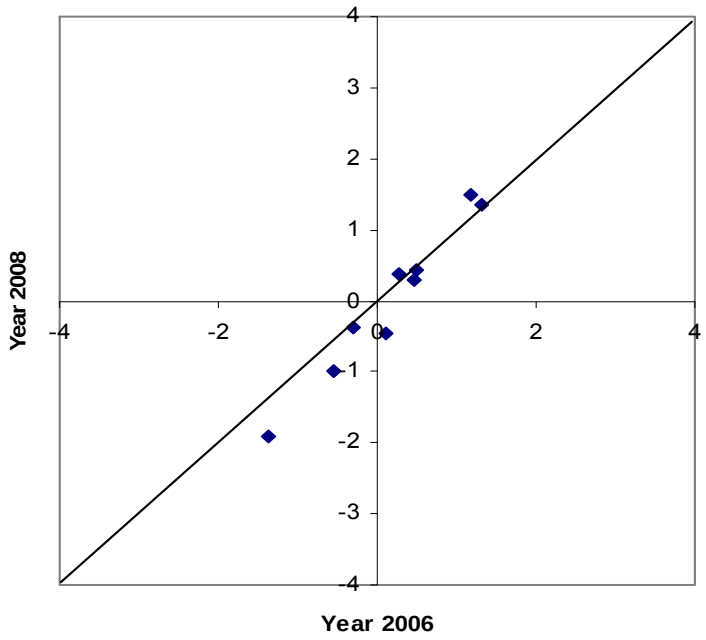


Figure 1.8 Item Difficulty Plot of Base Year Form vs. Current Year Form: Grade 3

Table 1.38 Rasch Item Difficulties and Robust Z Values for 2006 vs. 2008: Grade 4

Item Number	Item Type	Year 2006	Year 2008	Robust Z Value
2	SR	-0.2773	-0.6769	.8047
6	SR	-1.3091	-2.7012	-1.4350
7	**SR**	**-1.4119**	**-3.0542**	**-1.9996**
13	SR	0.7080	0.3306	.8548
15	SR	0.2293	-0.1458	.8600
16	SR	0.7692	0.013	.0000
18	SR	0.8319	0.0729	-.0063
19	SR	1.1764	0.3449	-.1699
21	SR	1.7387	1.0164	.0765
22	SR	-0.6023	-0.9809	.8521
24	**SR**	**0.5815**	**-0.5629**	**-.8760**

Two SR items (Items 7 and 24) were dropped from the 2008 linking pool based on correlation coefficient, SD ratio, robust z values, and item difficulty plot.

The following correlation coefficient and SD ratio are based on dropping the items:

With Year 2006	Year 2008
Correlation Coefficient	.952
Standard Deviation Ratio	113%

Form Statistics

Form Statistics	Year 2006	Year 2008
Mean	.221	-.577
SD	1.009	1.265

Correlation and Standard Deviation Ratio

With Year 2006	Year 2008
Correlation	.952
SD Ratio	125%

Values Used for Robust Z Statistics

With Year 2006	Year 2008
Mean Diff	-.798
Median Diff	-.756
IQR Diff	.599

Rasch Item Difficulties of Linking Items: Grade 4

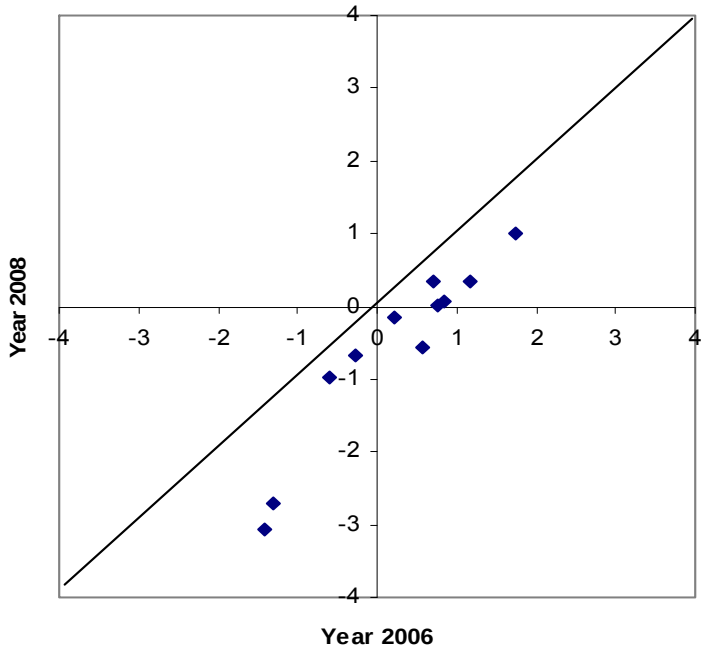


Figure 1.9 Item Difficulty Plot of Base Year Form vs. Current Year Form: Grade 4

Table 1.39 Rasch Item Difficulties and Robust Z Values for 2006 vs. 2008: Grade 5

Item Number	Item Type	Year 2006	Year 2008	Robust Z Value
1	SR	-0.637	-0.891	.0817
2	SR	-0.209	-0.564	-.4714
3	SR	-1.226	-1.588	-.5123
4	SR	-1.483	-1.923	-.9445
6	SR	-1.321	-1.59	.0000
7	SR	-1.871	-2.206	-.3671
8	SR	-1.012	-1.341	-.3307
12	**SR**	**-0.021**	**0.0957**	**2.1264**
14	SR	0.6569	0.6015	1.1786
15	SR	-0.094	-0.422	-.3229
17	**SR**	**-0.094**	**0.1435**	**2.7943**
18	SR	-0.093	-0.282	.4427
20	SR	0.8069	0.6622	.6856
21	SR	0.0189	0.0141	1.4579
23	SR	0.2838	-0.091	-.5846

Two SR items (Items 12 and 17) were dropped from the 2008 linking pool based on correlation coefficient, SD ratio, robust z values, and item difficulty plot.

The following correlation coefficient and SD ratio are based on dropping the items:

With Year 2006	Year 2008
Correlation Coefficient	.994
Standard Deviation Ratio	110%

Form Statistics

Form Statistics	Year 2006	Year 2008
Mean	-.420	-.625
SD	.800	.916

Correlation and Standard Deviation Ratio

With Year 2008	Year 2008
Correlation	.982
SD ratio	114%

Values Used for Robust Z Statistics

With Year 2006	Year 2008
Mean Diff	-.206
Median Diff	-.269
IQR Diff	.245

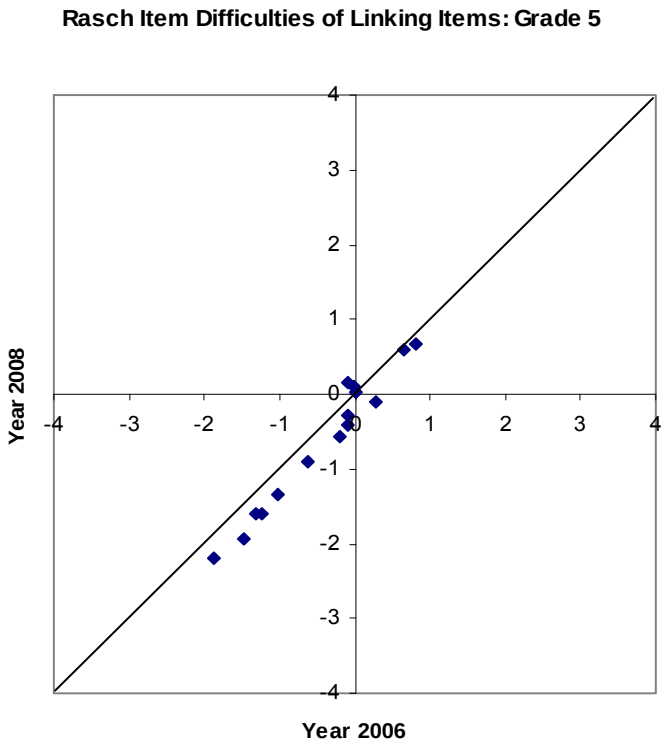


Figure 1.10 Item Difficulty Plot of Base Year Form vs. Current Year Form: Grade 5

Table 1.40 Rasch Item Difficulties and Robust Z Values for 2006 vs. 2008: Grade 6

Item Number	Item Type	Year 2006	Year 2008	Robust Z Value
1	SR	-1.3336	-1.6505	-.861
2	**SR**	**-2.0006**	**-2.8083**	**-3.133**
4	SR	-1.1479	-1.2788	.000
7	SR	-1.4246	-1.6603	-.485
8	SR	1.0944	1.1986	1.088
9	SR	-.4850	-0.4621	.712
10	SR	-1.5147	-1.8875	-1.120
12	SR	.7875	0.7958	.644
14	SR	.9960	0.6738	-.886
15	SR	-.2046	-0.025	1.437
17	SR	-.2090	-0.3122	.128
18	SR	.0837	0.0224	.322
20	SR	-.5605	-0.7016	-.047
21	SR	2.2706	2.3416	.935
23	SR	.8285	0.6361	-.285

One SR item (Item 2) was dropped from the liking pool based on correlation coefficient, SD ratio, robust z values, and item difficulty plot.

The following correlation coefficient and SD ratio are based on dropping the item:

With Year 2006	Year 2008
Correlation Coefficient	.993
Standard Deviation Ratio	108%

Form Statistics

Form Statistics	Year 2006	Year 2008
Mean	-.188	-.341
SD	1.201	1.364

Correlation and Standard Deviation Ratio

With Year 2006	Year 2008
Correlation	.990
SD Ratio	114%

Values Used for Robust Z Statistics

With Year 2006	Year 2008
Mean Diff	-.153
Median Diff	-.131
IQR Diff	.292

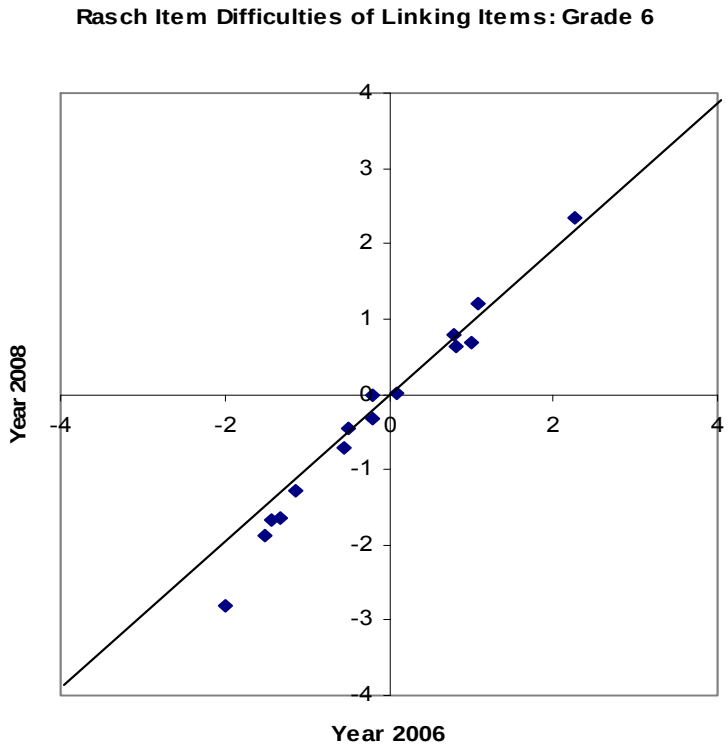


Figure 1.11 Item Difficulty Plot of Base Year Form vs. Current Year Form: Grade 6

Table 1.41 Rasch Item Difficulties and Robust Z Values for 2006 vs. 2008: Grade 7

Item Number	Item Type	Year 2006	Year 2008	Robust Z Value
1	SR	-1.9151	-2.1521	-.391
2	SR	-1.5468	-1.9957	-1.729
3	SR	-.5743	-0.4446	1.923
5	SR	-1.1399	-1.6623	-2.193
6	SR	-1.8025	-2.1441	-1.052
8	SR	.0008	-0.1328	.261
10	SR	-.9289	-1.1039	.000
11	SR	.7491	0.6216	.300
13	SR	-.0919	-0.3838	-.738
14	**SR**	**.4417**	**0.708**	**2.785**
16	SR	.3333	0.2715	.714
17	**SR**	**-1.7057**	**-2.2645**	**-2.422**
19	SR	-.6797	-0.8117	.271

Two SR items (e.g., Items 14 and 17) were dropped from the liking pool based on correlation coefficient, SD ratio, robust z values, and item difficulty plot.

The following correlation coefficient and SD ratio are based on dropping the items:

With Year 2006	Year 2008
Correlation Coefficient	.987
Standard Deviation Ratio	112%

Form Statistics

Form Statistics	Year 2006	Year 2008
Mean	-.682	-.884
SD	.913	1.086

Correlation and Standard Deviation Ratio

With Year 2006	Year 2008
Correlation	.986
SD Ratio	119%

Values Used for Robust Z Statistics

With Year 2006	Year 2008
Mean Diff	-.203
Median Diff	-.175
IQR Diff	.214

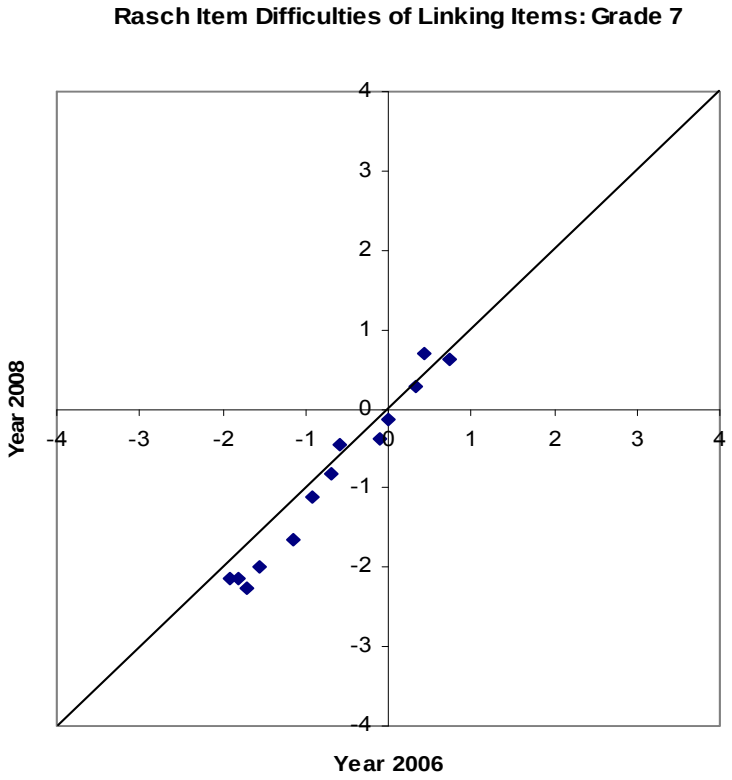


Figure 1.12 Item Difficulty Plot of Base Year Form vs. Current Year Form: Grade 7

Table 1.42 Rasch Item Difficulties and Robust Z Values for 2006 vs. 2008: Grade 8

Item Number	Item Type	Year 2006	Year 2008	Robust Z Value
1	**SR**	**-1.7533**	**-2.3471**	**-2.0178**
2	SR	-1.6274	-1.9423	-.7925
4	SR	-.6076	-0.7495	-.0325
5	SR	-.6192	-0.7537	.0000
6	SR	-1.3966	-1.4625	.3014
8	SR	.0177	-0.251	-.5896
10	SR	-.0768	-0.3545	-.6291
11	SR	-.3084	-0.5622	-.5241
13	SR	-.2440	-0.1674	.9274
14	SR	.9184	0.9573	.7618
16	SR	.8321	0.8786	.7952
17	**SR**	**.1233**	**0.3392**	**1.5394**
19	SR	.7141	0.6512	.3146

Two SR items (Items 1 and 17) were dropped from the 2008 linking pool based on correlation coefficient, SD ratio, robust z values, and item difficulty plot.

The following correlation coefficient and SD ratio are based on dropping the items:

With Year 2006	Year 2008
Correlation Coefficient	.991
Standard Deviation ratio	109%

Form Statistics

Form Statistics	Year 2006	Year 2008
Mean	-.310	-.443
SD	.885	1.031

Correlation and Standard Deviation Ratio

With Year 2006	Year 2008
Correlation	.987
SD Ratio	116%

Values Used for Robust Z Statistics

With Year 2006	Year 2008
Mean Diff	-.134
Median Diff	-.135
IQR Diff	.308

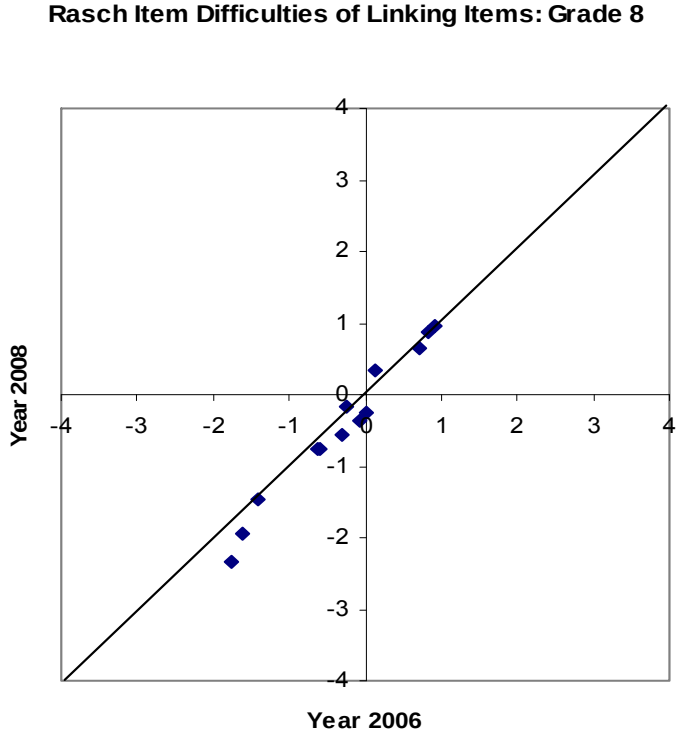


Figure 1.13 Item Difficulty Plot of Base Year Form vs. Current Year Form: Grade 8

Reporting Scale Scores

In order to facilitate the use and interpretation of the results of the 2008 MSA-Reading, the following formula was used to convert each student's ability or theta to the reporting scale score:

$$ReportingAbilityScaleScore = 32.8271 \cdot theta + 362.7449$$

$$ReportingSE = 32.8271 \cdot SE$$

where

theta = the Rasch (i.e., 1-PL *IRT*) ability estimate, and

SE = the conditional standard error of the ability estimate.

The following table contains information about the slopes and intercepts used to generate the 2008 scale scores. It should be noted that these same slopes and intercepts have been used since the 2003 assessment (for grades 3, 5, and 8) or the 2004 assessment (for grades 4, 6, and 7).

Table 1.43 The 2008 MSA-Reading Slope and Intercept: Grades 3 through 8

Grade	Slope	Intercept
3	32.4123	384.8579
4	32.8271	362.7449
5	33.0171	380.0082
6	30.4732	373.0575
7	31.9262	377.0054
8	30.3891	376.8316

1.13 Score Interpretation

To help provide appropriate interpretation of the 2008 MSA-Reading test scores, two types of scores were created: 240-650 scale scores, and performance levels and descriptions.

240-650 Scale Scores

As explained in section 1.12, *Linking, Equating, and Scaling Procedures*, the 2008 MSA-Reading produced scale scores that ranged between 240 and 650. These scale scores have the same meaning within the same grade, but those scores are not comparable across grade levels.

It should be noted that for scale scores, a higher score simply means a higher performance on reading tests. Thus, performance levels and descriptions can give a specific interpretation other than a simple interpretation because they were developed to bring meaning to those scale scores.

Performance Level Descriptors

As previously explained, performance level descriptors provide specific information about students' performance levels and help interpret the 2008 MSA-Reading scale scores. They describe what students at a particular level generally know and can be applicable to all students within each grade level.

Maryland standards are divided into three levels of achievement (*www.marylandpublicshools.org*):

- Advanced is a highly challenging and exemplary level of achievement indicating outstanding accomplishment in meeting the needs of students.
- Proficient is a realistic and rigorous level of achievement indicating proficiency in meeting the needs of students.
- Basic is a level of achievement indicating that more work is needed to attain proficiency in meeting the needs of students.

As Table 2.1 shows a range of scale scores at each performance level; for example, grade 4 reading scale scores from 371 to 436 indicate the level of *Proficient*. Students in this level can read grade-appropriate text and demonstrate the ability to comprehend literature and informational passages. Further information about the 2008 MSA-Reading score interpretation can be obtained from the MSDE.

1.14 Test Validity

As noted in the *Standards for Educational and Psychological Testing* (AERA, APA, & NCME, 1999), "validity is the most important consideration in test evaluation."

Messick (1989) defined validity as follows:

> Validity is an integrated evaluative judgment of the degree to which empirical evidence and theoretical rationales support the adequacy and appropriateness of inferences and actions based on test scores or other modes of assessment. (p.5)

This definition implies that test validation is the process of accumulating evidence to support intended use of test scores. Consequently, test validation is a series of ongoing and independent processes that are essential investigations of the appropriate use or interpretation of test scores from a particular measurement procedure (Suen, 1990).

In addition, test validation embraces all of the experimental, statistical, and philosophical means by which hypotheses and scientific theories can be evaluated. This is the reason that validity is now recognized as a unitary concept (Messick, 1989).

To investigate the validity evidence of the 2008 MSA-Reading, content-related evidence, item development procedures, DIF analysis on gender and ethnicity, and evidence from internal structure were collected.

Content-Related Evidence

Content validity is frequently defined in terms of the sampling adequacy of test items. That is, content validity is the extent to which the items in a test adequately represent the domain of items or the construct of interest (Suen, 1990). Consequently, content validity provides judgmental evidence in support of the domain relevance and representativeness of the content in the test (Messick, 1989).

The 2008 MSA-Reading blueprints provide extensive evidence regarding the alignment between the content in the 2008 MSA-Reading and the *VSC*. It should be noted that the 2008 MSA-Reading operational test forms were built exclusively using a Maryland item bank program which contained both content and statistical information about both operational and field-tested items. Detailed information about the item composition of the operational test forms can be obtained from section 1.3, *Test Form Design, Specifications, Item Type* and session 1.11, *Constructing the 2008 Operational Test Form*. In addition, the 2008 MSA-Reading blueprints are presented in Appendix D

Item Development

Test development for MSA-Reading is ongoing and continuous. Content specialists, teachers from across Maryland, Pearson, and MSDE were greatly involved in developing and reviewing test items. Committees such as content review, bias review, and vision review reviewed all of the items, which were finally stored in the item bank. Specifically, an internal review by MSDE and Pearson staff for alignment and quality required a great deal of time and energy. More specific information on item (test) development and review can be obtained in section 1.3, *Development and Review of the 2008 MSA-Reading*.

Field test items were embedded and administered in one of ten test forms. Once these items were scored, MSDE and Pearson conducted additional item analysis and content review. Any field test items that exhibited statistical results that suggested potential problems were carefully reviewed by both MSDE and Pearson content specialists. A determination was then made as to whether an item should be eliminated, revised, or field-tested again. Information on statistical analyses for field test items can be obtained in section 1.10, *Field Test Analyses*.

Differential Item Functioning **(DIF)**

1) Bias Review of Items

A separate Bias Review Committee examined each reading item, looking for indications of bias that would impact the performance of an identifiable group of students. They discussed or rejected items on a basis of gender, ethnic, religious, or geographical bias.

2) *DIF* Statistics

For DIF analyses, subgroups were first categorized according to either reference or focal groups. For the 2008 MSA-Reading, males and whites were assigned to the reference group and females and African-Americans were assigned to the focal group.

While the Mantel-Haenszel procedure was used for SR items, the standardized mean difference (SMD) and the standard deviation (SD), along with the Mantel statistic, were calculated for BCR items. All of the items were classified based on Educational Testing Service (ETS) guidelines. It should be noted that DIF analyses on the operational items indicated that all the items were satisfactory. All the DIF results were archived in the 2008 Maryland item bank. More information on *DIF* analyses can be obtained in section 3.7, *Differential Item Functioning*.

Evidence from Internal Structure

The 2008 MSA-Reading contains three reading processes: *General Reading*, *Literary Reading*, and *Informational Reading*. Tables 4.3 through 4.8 show correlations among the reading processes.

1.15 Unidimensionality Analyses

Measurement implies order and magnitude along a single dimension (Andrich, 1989). Consequently, in the case of scholastic achievement, a one-dimensional scale is required to reflect this idea of measurement (Andrich, 1988, 1989). However, unidimensionality cannot be strictly met in a real testing situation because students' cognitive, personality, and test-taking factors usually have a unique influence on their test performance to some level (Andrich, 1988; Hambleton, Swaminathan, & Rogers, 1991). Consequently, what is required for unidimensionality to be met is an investigation of the presence of a dominant factor that influences test performance. This dominant factor is considered as the ability measured by the test (Andrich, 1988; Hambleton et al., 1991; Ryan, 1983).

To check the unidimensionality of the 2008 MSA-Reading, we examined the relative sizes of the eigenvalues associated with a principal component analysis of the item set. First, polychoric correlation coefficients were computed with *LISREL 8.5* (Jöreskog & Sörbom, 1993) because of the polytomously scored reading items. Principal component analysis was then applied to produce eigenvalues. The first and the second principal component eigenvalues were compared *without rotation*. Table 1.44 summarizes the results of the first and second principal component eigenvalues of the 2008 MSA-Reading.

A general rule of thumb in exploratory factor analysis suggests that a set of items may represent as many factors as there are eigenvalues greater than 1 in this analysis because there is one unit of information per item and the eigenvalues sum to the total number of items. However, a set of items may have multiple eigenvalues greater than 1 and still be sufficiently unidimensional for analysis with IRT (Loehlin, 1987; Orlando, 2004). As seen from the following table, the first component extracted a substantially larger eigenvalues across all grades: the size of the eigenvalue of the first component was over ten times that of the second eigenvalue for each form at each grade. As a result, we could conclude that the assumption of unidimensionality for the 2008 MSA-Reading was met.

Table 1.44 The 2008 MSA-Reading Eigenvalues between the First and Second Components

Grade	Number of Items	First Eigenvalue	Second Eigenvalue
3	37	11.02	1.44
4	37	11.14	1.57
5	37	11.79	1.55
6	37	11.78	1.48
7	37	11.94	1.45
8	37	11.75	1.41

1.16 Item Bank Construction

The number of test forms to be constructed each year, and the need to replace items that would be released to the public, necessitated the availability of a large pool of items. The 2008 MSA-Reading item bank continued to be maintained by Pearson in the form of computer files and paper copies. This enabled test items to be readily available to both Pearson and MSDE staff for reference, test construction, test book design, and printing.

Pearson maintained a computerized statistical item bank to store supporting and identification information for each item. The information stored in this item bank for each item was as follows:

- CID
- Test administration year and season
- Test form
- Grade level
- Item type
- Item stem and options
- Passage code and title
- Subject code and description
- Process code and description
- Standard code and description
- Indicator code and description
- Objective code and description
- Item status
- Item statistics

It should be noted that each field test item of each form was calibrated by fixing each operational item with its operational Rasch items parameter (i.e., Rasch item fixed equating method). Item difficulties, step difficulties, and infit and outfit fit statistics of all the field test items were stored in the 2008 item bank.

1.17 Quality Control Procedures

A standard quality procedure at Pearson Assessment, Inc. was to create a test deck for MSA programs. The test deck began when Quality Assurance entered mock data into the enrollment system, which was transferred to the materials requisition system; the order was packaged by our Distribution Center, and shipped to the Quality Assurance Department. We then reviewed the packing list against the data entered, the materials algorithms applied, the materials packaged against the packing list, and the actual packaging of the documents. These documents were then used to create a test deck of mock data, along with advance copies of documents that were received from the printer. Advance printer copies were inclusive of documents throughout the print run to assure we were randomly testing printed documents. The Maryland test deck was a comprehensive set of all documents that:

- Verified all scan positions for item responses and demographics to verify scanning setup and scan densities
- Verified all constructed response score points, zoning of image, reader scoring, reader resolution, and reader check scores
- Verified the handling of blank documents through the system
- Tested all demographic and item edits
- Verified pre-id bar code read, match and no-match
- Verified attemptedness rules applied by subtest
- Verified duplicate student handling (same test duplicate, different test duplicate)
- Verified duplicate student with different demographics rules applied
- Verified the document counts to the enrollment, pre-id and actual document receipt
- Verified pre-id matching and application to student record
- Verified various raw score points and access to dummy and live scoring tables
- Verified cut scores applied
- Verified valid score on one subtest and invalid score on other subtest
- Verified scoring applied to Braille and Large Print
- Verified valid multiple choice and invalid constructed response
- Verified valid constructed response and invalid multiple choice
- Verified all special scoring rules
- Verified all summary programs for rounding
- Verified summary inclusion and exclusion (Braille, standard and non-standard student summarization)
- Verified each scoring level for group reporting
- Verified all reporting programs for accuracy in all text and data presented
- Verified class, school, district, and state summary data on home reports
- Verified all data file programs to assure valid information in every field

- Verified data descriptions for accuracy against data file
- Created compare programs to allow for update of files

The Maryland test deck was the first order processed through the Maryland system to verify all aspects of the materials packaging, scanning, editing, scoring, summary, and reporting. Pre-determined conditions were included in the test deck to assure the programs were processing all data to meet the requirements of the program with zero defects. Processing of live orders could not proceed until each phase of the test deck had been approved by our Quality Assurance Department. An Issues Log with sign-off approvals was utilized to assure we were addressing any issues that arose in the review of the test deck data across all functional groups at Pearson.

Prior to release of any order for reporting we received a preliminary file from Scoring Operations to run a key check TRIAN to assure that all scoring keys had been determined and applied accurately. Any item that was not performing as expected was flagged and reviewed by our content specialist and psychometrician. Upon completion of the key check, we proceeded to run the pilot level reports.

We ran the pilot district utilizing live data. The pilot district included multiple buildings, all grades, and any unique accommodations. A formal pilot review process was conducted with Pearson staff experts prior to release of the information to MSDE.

Upon completion of the processing of all district-level data, Pearson Scoring Operations provided the Quality Assurance Department with one or more state-level data files, along with state data for review and approval. Pearson Quality Assurance programmers duplicated all data independently to ensure accurate interpretation of the expected results. A series of SAS programs were run on these files to ensure 100% accuracy. These included but were not limited to:

- Statewide Duplicate Student
- Statewide FD of Demographic Variables
- District/Building/N-Count
- Statewide RS/SS/Cut Score tables
- Proc Means to verify summary statistics
- Item Response listing to verify all constructed responses were scored and within the valid range
- Normative data check for all raw scores
- Reader Resolution report to verify all readings and resolution combinations

Upon complete review and approval by Quality Assurance, we posted the statewide student files to a secure FTP site for review by MSDE.

2. CURRENT RESULTS OF THE 2008 MSA-READING

This part provides information about the 2008 MSA-Reading results for students in grades 3 through 8. Table 2.1 contains information about the cutoff score of each performance level. Table 2.2 contains the pass rate of each performance level based on the cutoff score. It should be noted that the same cutoff scores have been applied since the 2003 assessment (for grades 3, 5, and 8) or the 2004 assessment (for grades 4, 6, and 7).

Table 2.1 MSA-Reading Cut Scores: Grades 3 through 8

Grade	Cut Score of Performance Level	
	Proficient	Advanced
3	388	456
4	371	437
5	384	425
6	381	421
7	385	425
8	391	425

Note. These cut scores have been applied since the 2003 assessment (for grades 3, 5, and 8) or the 2004 assessment (for grades 4, 6, and 7).

Table 2.2 The 2008 MSA-Reading Pass Rates: Grades 3 through 8

Grade	*N*	Percentage of Performance Level		
		Basic	Proficient	Advanced
3	58,301	17.02	66.12	16.87
4	59,697	11.50	60.55	27.95
5	60,486	13.28	35.72	51.00
6	61,036	18.18	38.85	42.97
7	62,513	18.78	38.34	42.88
8	63,858	27.14	38.72	34.14

Note. Percentages may not add to 100% due to rounding.

Note. Analysis was conducted with a statewide population.

3. OVERVIEW OF STATISTICAL SUMMARIES

This section provides general information about statistical and psychometric summaries used for the 2008 MSA-Reading program. Actual statistical results described in this section appear in section 4 and the appendices.

3.1 Classical Descriptive Statistics

Table 4.1 contains the classical descriptive statistics of each form for each grade and includes:

- Number of items
- Numbers of students (These numbers were based on a whole population.)
- Means and standard deviations of raw scores
- Stratified Cronbach's Alpha
- Standard error of measurement (SEM)

Stratified Cronbach's Alpha

The 2008 MSA-Reading included *SR and BCR* items. Consequently, it was necessary to use an adequate reliability coefficient that addressed the different item types. The following formula depicts the reliability coefficient, *Stratified Cronbach Alpha*:

$$Stratified\ \ a = 1 - \frac{((\sigma_{SR}^2(1-\rho_{SR}) + (\sigma_{BCR}^2(1-\rho_{BCR}))}{\sigma_t^2}$$

where

σ_{SR}^2 = variance of score on SR items

σ_{BCR}^2 = variance of score on BCR items

σ_t^2 = variance of total score

ρ_{SR} = reliability coefficient of score on SR items, and

ρ_{BCR} = reliability coefficient of score on BCR items.

Standard Error of Measurement (Based on Classical Test Theory)

The *standard error of measurement* (*SEM*) is commonly used in interpreting and reporting individual test scores and score differences on tests (Harvill, 1991).

Classical test theory is based on the following assumptions (Andrich & Luo, 2004):

- Each person *v* has a true score on the construct, usually denoted by the variable T_v
- The best overall indicator of the person's true score is the sum of the scores on the items and is usually denoted by the variable X_v
- This observed score will have an error for each person which is usually denoted by E_v
- These errors are not correlated with the true score
- Across a population of people, the errors sum to 0 and they are normally distributed.

From these assumptions, the following equations can be derived:

$$X_v = T_v + E_v .$$

Therefore,

$$\sigma_x^2 = \sigma_t^2 + \sigma_e^2$$

where

σ_x^2 = the variance of the observed score in a population of persons,

σ_t^2 = the variance of their true score variance, and

σ_e^2 = the error variance.

The reliability coefficient of the test can be calculated by the following formula:

$$\rho_x = \frac{\sigma_t^2}{\sigma_x^2} = \frac{\sigma_x^2 - \sigma_e^2}{\sigma_x^2}.$$

Thus, the *SEM* is calculated by the following formula:

$$\sigma_e = \sigma_x \sqrt{1 - \rho_x} .$$

For example, consider a student with a score of 90 from a sample of students with a mean score of 60 and variance of 225 on a test with reliability of 0.80. According to the formulas provided above, the obtained score is 90, and its *SEM* is 6.71. Thus, an approximate 68% score band for estimating this students' true score is from 83.29 (90 - 6.71) to 96.71 (90 + 6.71).

Note that this equation is only useful to estimate true score when the test reliability is reasonably high and the obtained score for the examinee is not an extreme deviate from the mean of the appropriate reference group. When we use this equation, consequently, we should be careful with statements so that they do not imply greater precision than is actually involved (Harvill, 1991).

3.2 Scale Score Descriptive Statistics

Table 4.2 provides information about scale score descriptive statistics of each form for each grade and includes:

- Numbers of students (These numbers were calculated based on a whole population.)
- Mean and standard deviation of scale scores
- 10% quantile (P10), 25% quantile (Q1), median (P50), 75% quantile (Q3), 90% quantile, and IQR (Interquantile Range= Q3-Q1)
- Conditional *standard errors* (*SE*) for the proficient and advanced cut scores

Conditional Standard Error of Ability Estimate (Based on the Rasch Model)

Under the Rasch model, the conditional standard error (*SE*, $\sigma_{\hat{\beta}}$) for each person is as follows (Andrich & Luo, 2004):

$$\sigma_{\hat{\beta}} = \frac{1}{\sqrt{\sum_{i=1}^{L} p_{vi}(1-p_{vi})}}$$

where

v = subscript for a person,

i = subscript for an item,

L = length of the test,

$\hat{\beta}$ = ability estimate, and

p_{vi} = the probability that a person answers an item correctly and defined as follows:

$p_{vi} = \frac{e^{\beta_v - \delta_i}}{1+e^{\beta_v - \delta_i}}$ where β_v is person's ability and δ_i is item's difficulty.

A confidence band can be found for use in interpreting the ability estimate. For example, an approximate 68% confidence interval for $\hat{\beta}$ is given by

$\hat{\beta} \pm SE$

3.3 Classical and Rasch (1-Paramater Logistic *IRT*) Item Parameters

Appendix C provides both classical and Rasch (1-parameter logistics IRT) item parameters and includes:

- Item type (*SR* or *BCR*)

- *P*-value: in order for *p*-values of the *BCR* items to be comparable with *p*-values of the *SR* items they were calculated as modified proportions of the maximum obtainable domain scores.
- Point-biserial correlation: a Pearson's *r* between the scored item and the total score
- Rasch item difficulty estimate (D_i)
- Conditional standard error of Rasch item difficulty estimate
- Rasch step difficulty estimate (or structure calibration estimate, F_{ij})
- Mean-square infit
- Mean-square outfit

First of all, it should be noted that all the Rasch item and step difficulty parameters were placed on a common scale (i.e., the 2003 scale for grades 3, 5, and 8; the 2004 scale for grades 4, 6, and 7).

Second, the following formula shows how structure measure estimate (D_{ij}) is calculated from both D_i and F_{ij} directly obtained from a run of Winsteps:

$$D_{ij} = D_i + F_{ij},$$

where D_{ij} = structure measure estimate

D_i = item difficulty estimate,

F_{ij} = structure calibration estimate (i.e., step difficulty estimate).

Finally, the following formulas show how conditional standard error (SE) of item difficulty estimate (D_i) and structure measure estimate (F_{ij}) were driven (Wright & Masters, 1982):

$$\mathrm{SE}(D_i) = 1/\sqrt{\sum_{n=1}^{N}[\sum_{k}^{m_i} k^2 p_{nik} - (\sum_{k}^{m_i} k p_{nik})^2]}$$

$$\mathrm{SE}(F_{ij}) = 1/\sqrt{\sum_{n=1}^{N}(\sum_{k=0}^{j} p_{nik} - (\sum_{k=j+1}^{m_i} p_{nik})^2)}$$

where $P_{nix} = \exp\sum_{j=0}^{x}(\theta_n - D_{ij}) / \sum_{k=0}^{m_i}\left[\exp\sum_{j=0}^{k}(\theta_n - D_{ij})\right]$

$x = 0, 1, ..., m_i$, and

k = 1, 2,…., m_i.

Fit Statistics for the Rasch Model

Fit statistics are used for evaluating the goodness-of-fit of a model to the data. Fit statistics are calculated by comparing the observed and expected trace lines obtained for an item after parameter estimates are obtained using a particular model. *WINSTEPS* provides two kinds of fit statistics called *mean-squares* that show the size of the randomness or amount of distortion of the measurement system.

Outfit mean-squares are influenced by outliers and are usually easy to diagnose and remedy. *Infit* mean-squares, on the other hand, are influenced by response patterns and are harder to diagnose and remedy. Table 3.1 provides a guideline for evaluating mean-square fit statistics (Linacre & Wright, 2000).

In general, mean-squares near 1.0 indicate little distortion of the measurement system, while values less than 1.0 indicate observations are too predictable (redundancy, model overfit). Values greater than 1.0 indicate unpredictability (unmodeled noise, model underfit).

Table 3.1 Criteria to Evaluate Mean-Square Fit Statistics

Mean-Square	Interpretation
> 2.0	Distorts or degrades the measurement system
1.5 – 2.0	Unproductive for construction of measurement, but not degraded
0.5 – 1.5	Productive for measurement
< 0.5	Unproductive for measurement, but not degrading. May produce misleadingly good reliabilities and separations

3.4 Inter-Rater Reliability

Tables 4.29 through 4.34 contain information about the scoring agreement between two ratings received for each item. When the two Readers assigned the same score to a student's answer, the scores were in perfect agreement. Scores differing by one score point were adjacent, and scores differing by two or more score points were in discrepancy. For further information about inter-rater agreement, please see chapter 1.6, *Scoring Procedures of the 2008 MSA-Reading*. For the 2008 MSA-Reading, the adjacent agreement rates were above 97%, and perfect agreement rates were above 70% except for several items across all grades.

3.5 Correlations among Reading Processes

The 2008 MSA-Reading consisted of three subscore reporting standards (processes): *General Reading*, *Literary Reading*, and *Informational Reading*. Tables 4.3 through 4.8 contain correlation coefficients among these reading processes.

3.6 Decision Accuracy and Consistency at the Cut Scores

Tables 4.9 through 4.14 contain the results of analyses performed to estimate the accuracy and consistency of the decisions for passing (proficient) on the 2008 MSA-Reading. The analyses make use of the methods outlined and implemented in Livingston and Lewis (1995), Haertel (1996), and Young and Yoon (1998).

The *accuracy* of a decision is the extent to which it would agree with the decisions that would be made if each student could somehow be tested with all possible parallel forms of the assessments. The *consistency* of a decision is the extent to which it would agree with the decisions that would be made if the students had taken a different form of the examination, equal in difficulty and covering the same content as the form they actually took.

Students can be misclassified in one of two ways. Students who were below the proficiency cut score, but were classified (on the basis of the assessment) as being above a cut score, are considered to be *false positives*. Students who were above the proficiency cut score, but were classified as being below a cut score, are considered to be *false negatives*.

For the 2008 MSA-Reading, Tables 4.9 through 4.14 include:

- Performance level
- Accuracy classifications
- False positives
- False negatives
- Consistency classifications

The tables illustrate the general rule that decision consistency is less than decision accuracy.

3.7 Differential Item Functioning

This section provides information about *differential item functioning* (*DIF*) analyses used for the 2008 MSA-Reading. For the 2008 MSA-Reading *DIF* analyses, the *reference* group was either male or Caucasian students, and the *focal* group was either female or African-American students. DIF analyses on the 2008 operational items indicated that all the items were satisfactory. All the DIF results were archived in the 2008 Maryland item bank.

Since the 2008 MSA-Reading was a mixed-format examination, comprised of both *SR* and *BCR* items, the *DIF* procedure used consists of the Mantel Chi-square (Mantel, 1963) for the *BCR* items and the Mantel-Haenszel procedure (Mantel & Haenszel, 1959) for the *SR* items.

Brief Constructed Response (BCR) Items

To help interpret the Mantel Chi-square (Mantel χ^2), the Educational Testing Service (ETS) *DIF* procedure uses the Mantel statistic in conjunction with the *standardized mean difference* (*SMD*).

Mantel Statistic

The Mantel χ^2 is simply a conditional mean comparison of the ordered response categories for reference and focal groups combined over values of the matching variable score. By "ordered" we mean that a response of 1 on an item is higher than 0, a response of 2 is higher than 1, and so

on. "Conditional," on the other hand, refers to the comparison of members from the two groups who received the same score on the matching variable, i.e., the total test score in our analysis.

Table 3.2 shows a $2 \times T \times K$ contingency table, where T is the number of response categories and K is the number of levels of the matching variable. The values, y_1, y_2, …, y_T are the T scores that can be gained on the item. The values, n_{Ftk} and n_{Rtk}, represent the numbers of focal and reference groups who are at the k^{th} level of the matching variable and gain an item score of y_t. The "+" indicates total number over a particular index (Zwick, Donoghue, & Grima, 1993).

Table 3.2 2 × T Contingency Table at the k^{th} level

Group	Item Score				Total
	y_1	y_2		y_T	
Reference	n_{R1k}	n_{R2k}	…	n_{RTk}	n_{R+k}
Focal	n_{F1k}	n_{F2k}	…	n_{FTk}	n_{F+k}
Total	n_{+1k}	n_{+2k}	…	n_{+Tk}	n_{++k}

Note. This table was cited from Zwick, et al. (1993)

The Mantel statistic is defined as the following formula:

$$\text{Mantel } \chi^2 = \frac{(\sum_k F_k - \sum_k E(F_k))^2}{\sum_k Var(F_k)}$$

where

F_k = the sum of scores for the focal group at the k^{th} level of the matching variable and is defined as follows:

$$F_k = \sum_t y_t n_{Ftk},$$

The expectation of F_k under the null hypothesis is

$$E(F_k) = \frac{n_{F+k}}{n_{++k}} \sum_t y_t n_{+tk}.$$

And, the variance of F_k under the null hypothesis is as follows:

$$Var(F_k) = \frac{n_{R+k} n_{F+k}}{n_{++k}^2 (n_{++k} - 1)} \left[(n_{++k} \sum_t y_t^2 n_{+tk}) - (\sum_t y_t n_{+tk})^2 \right].$$

Under H_0, the Mantel statistic has a chi-square distribution with one degree of freedom. In *DIF* applications, rejecting H_0 suggests that the students of the reference and focal groups who are similar in overall test performance tend to differ in their mean performance. In the case of dichotomous items, on the other hand, the statistic is identical to the Mantel-Haenszel (1959) statistic without the continuity correction (Zwick, Donoghue, & Grima, 1993).

Standardized Mean Difference (SMD)

A summary statistic to accompany the Mantel approach is the *standardized mean difference* (*SMD*) between the reference and focal groups proposed by Dorans and Schmitt (1991). This statistic compares the means of the reference and focal groups, adjusting for differences in the distribution of the reference and focal group members across the values of the matching variable.

$$SMD = \sum_k p_{Fk} m_{Fk} - \sum_k p_{Fk} m_{Rk}$$

where

$p_{Fk} = \frac{n_{F+k}}{n_{F++}}$, the proportion of the focal group members who are at the k^{th} level of the matching variable,

$m_{RK} = \frac{1}{n_{F+k}} \times (\sum_t y_t n_{Ftk})$, the mean item score of the focal group members at the k^{th} level, and

m_{Rk} = the analogous value for the reference group.

As can be seen from the equation above, the *SMD* is the difference between the unweighted item mean of the focal group and the weighted item mean of the reference group. The weights for the reference group are applied to make the weighted number of the reference group students the same as in the focal group within the same ability. A negative *SMD* value implies that the focal group has a lower mean item score than the reference group, conditional on the matching variable.

DIF classification for BCR items

The *SMD* is divided by the total group item standard deviation to obtain an effect-size value for the *SMD*. This effect-size *SMD* is then examined in conjunction with the Mantel χ^2 to obtain *DIF* classifications that are depicted in Table 3.3 below.

Table 3.3 DIF Classification for BCR Items

Category	Description	Criterion
AA	No *DIF*	Non-significant Mantel χ^2 or Significant Mantel χ^2 and |SMD/SD| ≤ .17
BB	Weak *DIF*	Significant Mantel χ^2 and .17 < |SMD/SD| ≤ .25
CC	Strong *DIF*	Significant Mantel χ^2 and .25 < |SMD/SD|

Note. SD is the total group standard deviation of the item score in its original metric.

Selected Response (SR) Items

For the *SR* items, the Mantel-Haenszel Chi-square (M-H χ^2) is used in conjunction with the M-H odds ratio transferred to what ETS calls the *delta scale* (D).

The Odds Ratio

The odds of a correct response (proportion passing divided by proportion failing) are *P/Q* or *P/(1-P)*. The odds ratio, on the other hand, is simply the odds of a correct response of the reference group divided by the odds of a correct response of the focal group.

For a given item, the odds ratio is defined as follows:

$$\alpha_{M-H} = \frac{P_r / Q_r}{P_f / Qf}.$$

The corresponding null hypothesis is that the odds of getting the item correct are equal for the two groups. Thus, the odds ratio is equal to 1:

$$H_0\text{: } \alpha_{M-H} = \frac{P_r / Q_r}{P_f / Qf} = 1.$$

The Delta Scale

In order to make the odds ratio symmetrical around zero with its range being in the interval $-\infty$ to $+\infty$, the odds ratio is transformed into a log odds ratio as per the following:

$$\beta_{M-H} = \ln(\alpha_{\text{M-H}}).$$

The simple natural logarithm transformation of this odds ratio is symmetrical about zero in which zero has the interpretation of equal odds. This *DIF* measure is a signed index where a positive value signifies *DIF* in favor of the reference group while a negative value indicates *DIF* in favor of the focal group. β_{M-H} also has the advantage of being transformed linearly to other interval scale metrics (Camilli & Shepard, 1994). This fact is utilized by ETS in creating their delta scale (D), which is defined as follows:

$$\text{D} = -2.35 \cdot \beta_{M-H}.$$

DIF classification for SR items

The following table depicts *DIF* classifications for SR items to examine the M-H χ^2 in conjunction with the delta scale (D):

Table 3.4 DIF Classification for SR Items

Category	Description	Criterion
A	No *DIF*	Non-significant M-H χ^2 or |D| < 1.0
C	Strong *DIF*	Significant M-H χ^2 and $\|D\| \geq 1.5$
B	Weak *DIF*	Otherwise classified as B

3.8 Equating and Scaling

Tables 4.15 through 4.28 contain the 2008 MSA-Reading total and subtotal raw score to scale score (RS/SS) conversion tables. It should be noted that the total RS/SS tables for verbatim students were created after excluding general reading items (16 items for grade 3 and 15 items for grade 4). Because of these procedures verbatim students did not receive general reading raw scores and scale scores. Conditional standard errors for the total and subtotal scale scores are also included.

The Rasch and Partial Credit Models

The most basic expression of the Rasch model is in the *item characteristic curve* (ICC). It shows the probability of a correct response to an item as a function of the ability level. The probability of a correct response is bounded by 1 (certainty of a correct response) and 0 (certainty of an incorrect response).

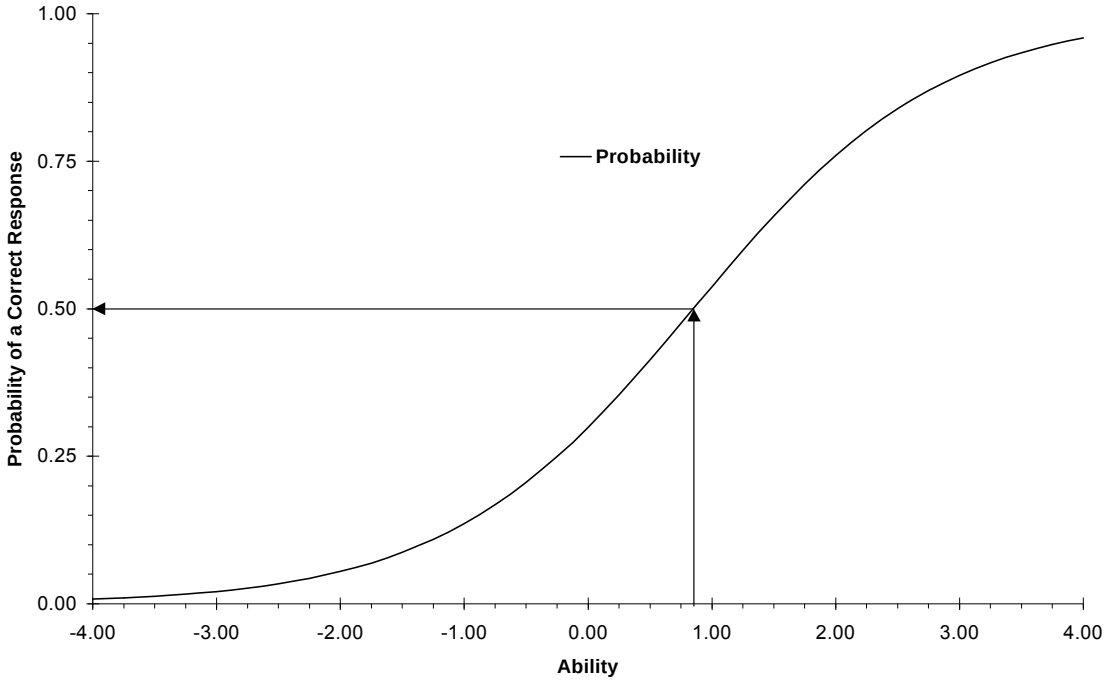
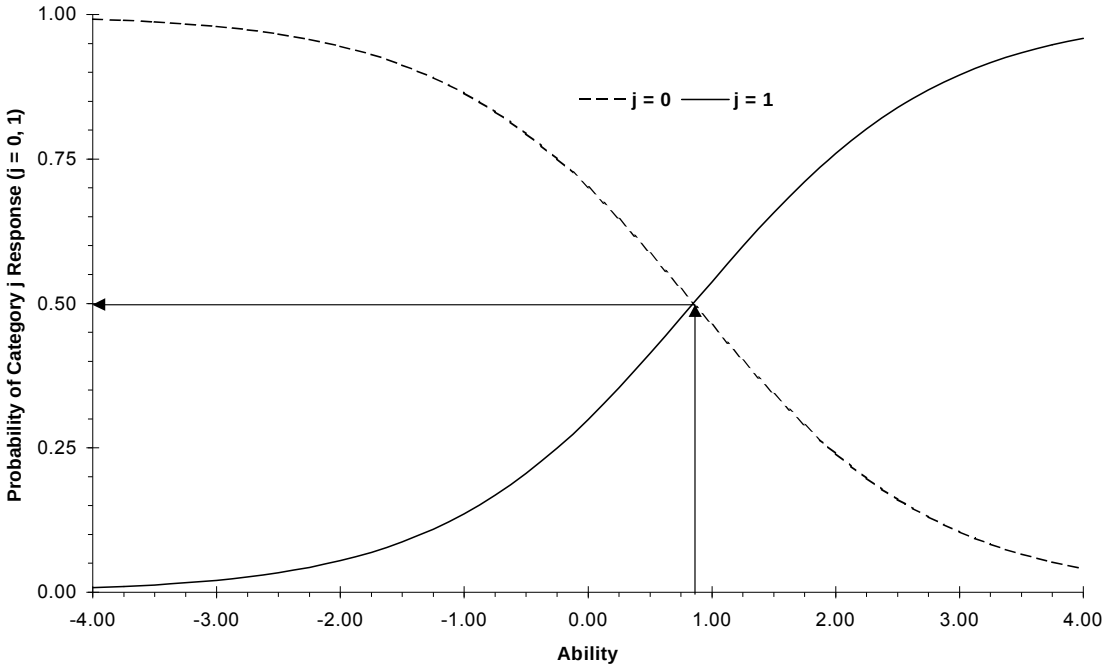


Figure 3.1 Item Characteristic Curve

As an example, consider Figure 3.1, which depicts an item that falls at approximately 0.85 on the ability (horizontal) scale. When a person answers an item at the same level as their ability, then that person has a probability of roughly 50% of answering the item correctly. Another way of expressing this is that if we have a group of 100 people, all of whom have an ability of 0.85, we would expect about 50% of them to answer the item correctly. A person whose ability was above 0.85 would a higher probability of getting the item right, while a person whose ability is below 0.85 would have a lower probability of getting the item right. This makes intuitive sense and is the basic formulation of Rasch measurement for test items having only 2 possible categories (i.e., wrong or right).



Figugure 3.2 Category Response Curves for a One-Step Item

Figure 3.2 extends this formulation to show the probabilities of obtaining a wrong answer or a right answer. The curve on the left ($j = 0$) shows the probability of getting a score of "0" while the curve on the right ($j = 1$) shows the probability of getting a score of "1." The point at which the two curves cross indicates the transition point on the ability scale where the most likely response changes from a "0" to a "1." Here, the probability of answering the item correctly is 50%.

The key step in the formulation, and the point at which the Rasch dichotomous model merges with the PCM, requires us to assume an additional response category. Suppose that, rather than scoring items as completely wrong or completely right, we add a category representing answers

that, though not totally correct, are still clearly not totally incorrect. These relationships are shown in Figure 3.3.

The left-most curve ($j = 0$) in Figure 3.3 represents the probability for all examinees getting a score of "0" (completely incorrect) on the item, given their ability. Those of very low ability (i.e., below - 2) are very likely to be in this category and, in fact, are more likely to be in this category than the other two. Those receiving a "1" (partial credit) tend to fall in the middle range of abilities (the middle curve, $j = 1$). The final, right-most curve ($j = 2$) represents the probability for those receiving scores of "2" (completely correct). Very high-ability people are clearly more likely to be in this category than in any other, but there are still some of average and low ability that can get full credit for the item.

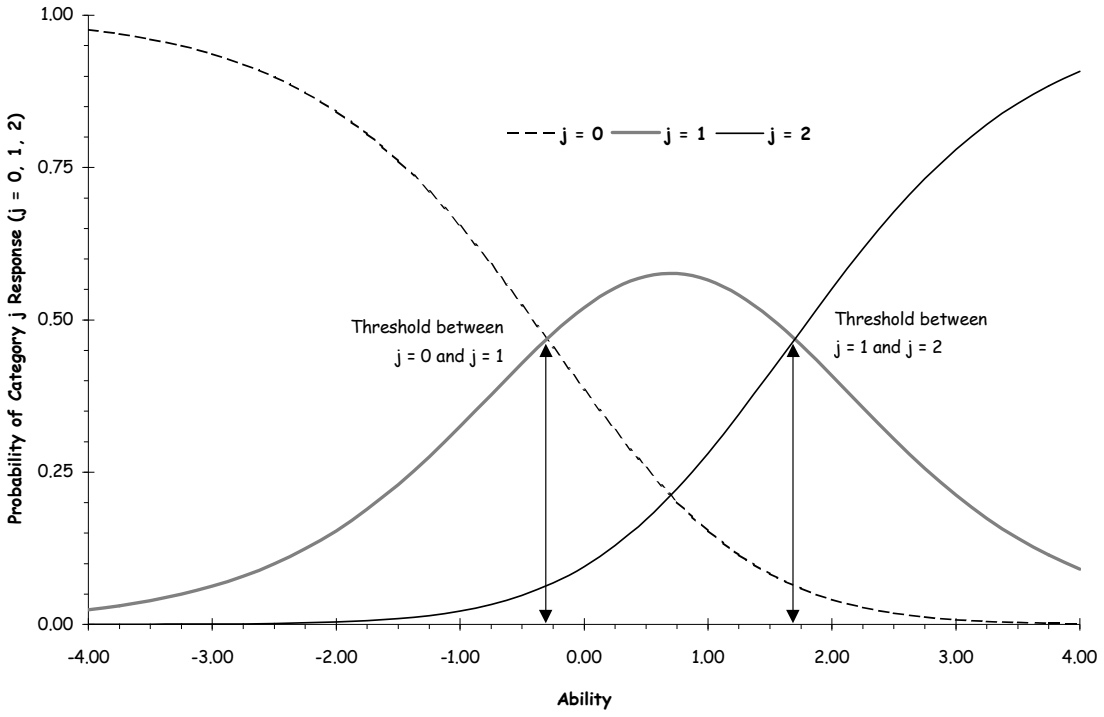


Figure 3.3 Category Response Curves for a Two-Step Item

Although the actual computations are quite complex, the points at which lines cross each other have a similar interpretation as for the dichotomous case. Consider the point at which the $j = 0$ line crosses the $j = 1$ line, indicated by the left arrow. For abilities to the left of (or less than) this point, the probability is greatest for a "0" response. To the right of (or above) this point, and up to the point at which the $j = 1$ and $j = 2$ lines cross (marked by the right arrow), the most likely response is a "1". For abilities to the right of this point, the most likely response is a "2".

Note that the probability of scoring a "1" response ($j = 1$) declines in both directions as ability decreases to the low extreme or increases to the high extreme. These points, then, may be thought of as the difficulties of crossing the *thresholds* between categories.

An important implication of the formulation can be summarized as follows: If the commonly used Rasch model applied to dichotomously (right/wrong) scored items can be thought of as simply a special case of the PCM, then the act of scaling multiple-choice items together with polytomous items, whether they have three or more response categories, is a straightforward process of applying the measurement model. The quality of the scaling can then be assessed in terms of known procedures.

One important property of the PCM is its ability to separate the estimation of item/task parameters from the person parameters. With the PCM, as with the Rasch model, the total score given by the sum of the categories in which a person responds is a sufficient statistic for estimating person ability (i.e., no additional information need be estimated). The total number of responses across examinees in a particular category is a sufficient statistic for estimating the step difficulty for that category. Thus with PCM, the same total score will yield the same ability estimate for different examinees.

The PCM is a direct extension of the dichotomous one-parameter logistic *IRT* model developed by Rasch (Rasch, 1980). For an item/task involving m_i score categories, one general expression for the probability of scoring x on item/task i is given by

$$P_{nix} = \exp\sum_{j=0}^{x}(\theta_n - D_{ij}) / \sum_{k=0}^{m_i}\left[\exp\sum_{j=0}^{k}(\theta_n - D_{ij})\right] \qquad x = 0, 1, ..., m_i,$$

where $\sum_{j=0}^{0}(\theta - D_{ij}) = 0$ and

$$\exp\sum_{j=0}^{0}(\theta - D_{ij}) = 1.$$

The above equation gives the probability of scoring x on the i-th test item as a function of ability (θ) and the difficulty of the m_i steps of the task (Masters, 1982).

According to this model, the probability of an examinee scoring in a particular category (step) is the sum of the logit (log-odds) differences between θ and D_{ij} of all the completed steps, divided by the sum of the differences of all the steps of a task. Thissen and Steinberg (1986) refers to this model as a divide-by-total model. The parameters estimated by this model are (1) an ability estimate for each person (or ability estimate at each raw score level) and (2) m_i threshold (difficulty) estimates for each task with $m_i + 1$ score categories.

4. THE 2008 MSA-READING STATISTICAL SUMMARY

Table 4.1 Classical Descriptive Statistics for the 2008 MSA-Reading: Grades 3 through 8

Grade	Total number of Items	N	Mean	SD	Reliability	SEM
3	37	58,301	28.69	6.95	0.86	2.60
4	37	59,697	28.57	6.88	0.87	2.48
5	37	60,486	29.71	6.81	0.87	2.46
6	37	61,036	30.14	6.99	0.88	2.42
7	37	62,513	29.05	7.27	0.88	2.52
8	37	63,858	29.54	7.26	0.88	2.51

Note. Analysis was conducted with a statewide population.

Table 4.2 The 2008 MSA-Reading Scale Score Descriptive Statistics: Grades 3 through 8

Grade	*N*	*M*	*SD*	*P10*	*Q1*	*Mdn*	*Q3*	*P90*	*IQR*	*SE* at Cut-Points	
										Prof.	Adv.
3	58,301	415.6	39.6	364	392	417	443	464	51	11	16
4	59,697	413.5	37.7	367	389	411	438	461	49	12	14
5	60,486	427.2	38.1	379	400	428	452	478	52	12	13
6	61,036	413.3	37.1	366	390	411	440	456	50	11	13
7	62,513	416.0	36.8	370	394	416	443	457	49	11	13
8	63,858	413.4	35.6	368	390	415	436	457	46	11	13

Note. Analyses were conducted with a whole population.

Table 4.3 The 2008 MSA-Reading Standard Correlations: Grade 3

Cluster	*N*	Mean	*SD*	1	2	3
1. General Reading	58,301	12.03	2.61	1.00		
2. Literary Reading	58,301	7.57	2.54	0.65	1.00	
3. Information Reading	58,301	9.09	2.76	0.66	0.66	1.00

Note. Analysis was conducted with a statewide population.

Table 4.4 The 2008 MSA-Reading Standard Correlations: Grade 4

Cluster	*N*	Mean	*SD*	1	2	3
1. General Reading	59,697	10.66	2.55	1.00		
2. Literary Reading	59,697	9.03	2.57	0.63	1.00	
3. Information Reading	59,697	8.88	2.70	0.67	0.68	1.00

Note. Analysis was conducted with a statewide population.

Table 4.5 The 2008 MSA-Reading Standard Correlations: Grade 5

Cluster	*N*	Mean	*SD*	1	2	3
1. General Reading	60,486	11.94	2.31	1.00		
2. Literary Reading	60,486	9.24	2.56	0.65	1.00	
3. Information Reading	60,486	8.53	2.85	0.64	0.70	1.00

Note. Analysis was conducted with a statewide population.

Table 4.6 The 2008 MSA-Reading Standard Correlations: Grade 6

Cluster	*N*	Mean	*SD*	1	2	3
1. General Reading	61,036	12.10	2.44	1.00		
2. Literary Reading	61,036	9.12	2.69	0.67	1.00	
3. Information Reading	61,036	8.93	2.73	0.67	0.72	1.00

Note. Analysis was conducted with a statewide population.

Table 4.7 The 2008 MSA-Reading Standard Correlations: Grade 7

Cluster	*N*	Mean	*SD*	1	2	3
1. General Reading	62,513	10.93	2.58	1.00		
2. Literary Reading	62,513	9.04	2.90	0.69	1.00	
3. Information Reading	62,513	9.09	2.66	0.67	0.71	1.00

Note. Analysis was conducted with a statewide population.

Table 4.8 The 2008 MSA-Reading Standard Correlations: Grade 8

Cluster	*N*	Mean	*SD*	1	2	3
1. General Reading	63,858	11.14	2.71	1.00		
2. Literary Reading	63,858	9.35	2.70	0.70	1.00	
3. Information Reading	63,858	9.06	2.75	0.65	0.72	1.00

Note. Analysis was conducted with a statewide population.

Table 4.9 The 2008 MSA-Reading Decision Accuracy and Consistency Indices: Grade 3

Grade	Performance Cut	Accuracy	False Positive	False Negative	Consistency
3	*B : PA*	0.91	0.03	0.05	0.88
	BP : A	0.92	0.05	0.03	0.89

Note. B:PA denotes the cut between Basic and Proficient, while BP:A denotes the cut between Proficient and Advanced.

Table 4.10 The 2008 MSA-Reading Decision Accuracy and Consistency Indices: Grade 4

Grade	Performance Cut	Accuracy	False Positive	False Negative	Consistency
4	*B : PA*	0.93	0.02	0.04	0.91
	BP : A	0.91	0.05	0.04	0.87

Note. B:PA denotes the cut between Basic and Proficient, while BP:A denotes the cut between Proficient and Advanced.

Table 4.11 The 2008 MSA-Reading Decision Accuracy and Consistency Indices: Grade 5

Grade	Performance Cut	Accuracy	False Positive	False Negative	Consistency
5	*B : PA*	0.93	0.02	0.05	0.90
	BP : A	0.88	0.06	0.06	0.84

Note. B:PA denotes the cut between Basic and Proficient, while BP:A denotes the cut between Proficient and Advanced.

Table 4.12 The 2008 MSA-Reading Decision Accuracy and Consistency Indices: Grade 6

Grade	Performance Cut	Accuracy	False Positive	False Negative	Consistency
6	*B : PA*	0.91	0.03	0.06	0.87
	BP : A	0.90	0.05	0.05	0.86

Note. B:PA denotes the cut between Basic and Proficient, while BP:A denotes the cut between Proficient and Advanced.

Table 4.13 The 2008 MSA-Reading Decision Accuracy and Consistency Indices: Grade 7

Grade	Performance Cut	Accuracy	False Positive	False Negative	Consistency
7	B : PA	0.92	0.03	0.05	0.89
	BP : A	0.89	0.06	0.05	0.85

Note. B:PA denotes the cut between Basic and Proficient, while BP:A denotes the cut between Proficient and Advanced.

Table 4.14 The 2008 MSA-Reading Decision Accuracy and Consistency Indices: Grade 8

Grade	Performance Cut	Accuracy	False Positive	False Negative	Consistency
8	*B : PA*	0.90	0.04	0.06	0.87
	BP : A	0.90	0.05	0.05	0.86

Note. B:PA denotes the cut between Basic and Proficient, while BP:A denotes the cut between Proficient and Advanced.

Table 4.15 The 2008 MSA-Reading Total Raw Score to Scale Score Conversion Table: Grade 3

	Grade 3			
Raw Score	Scale Score (SS)	Standard Error (*SE*)	SS – 1*SE*	SS + 1*SE*
0	240[a]	47	240[a]	262
1	240	34	240[a]	274
2	265	25	240	290
3	281	21	260	302
4	293	19	274	312
5	303	17	286	320
6	311	16	295	327
7	318	15	303	333
8	325	14	311	339
9	331	14	317	345
10	336	13	323	349
11	341	13	328	354
12	346	12	334	358
13	351	12	339	363
14	355	12	343	367
15	360	12	348	372
16	364	12	352	376
17	368	11	357	379
18	372	11	361	383
19	376	11	365	387
20	380	11	369	391
21	384	11	373	395
22	388	11	377	399
23	392	11	381	403
24	396	11	385	407
25	400	11	389	411
26	404	12	392	416
27	408	12	396	420
28	412	12	400	424
29	417	12	405	429
30	421	12	409	433
31	426	13	413	439
32	431	13	418	444
33	437	14	423	451
34	443	14	429	457
35	449	15	434	464
36	456	16	440	472
37	464	17	447	481
38	474	18	456	492
39	485	20	465	505
40	498	22	476	520
41	515	24	491	539
42	535	26	509	561
43	558	29	529	587
44	590	37	553	627
45	617	49	568	650[b]

Note. [a]LOSS was set to 240. [b]HOSS was set to 650.

Table 4.16 The 2008 MSA-Reading Subtotal Raw Score to Scale Score Conversion Table: Grade 3

		Grade 3			
Strand	Raw Score	Scale Score (SS)	Standard Error (*SE*)	SS – 1*SE*	SS + 1*SE*
GR	0	240[a]	48	240[a]	281
GR	1	259	36	240[a]	295
GR	2	288	27	261	315
GR	3	307	23	284	330
GR	4	322	21	301	343
GR	5	334	20	314	354
GR	6	346	19	327	365
GR	7	357	18	339	375
GR	8	367	18	349	385
GR	9	377	19	358	396
GR	10	388	19	369	407
GR	11	400	20	380	420
GR	12	413	21	392	434
GR	13	428	23	405	451
GR	14	447	27	420	474
GR	15	476	36	440	512
GR	16	502	48	454	550
LI	0	267	50	240[a]	317
LI	1	295	38	257	333
LI	2	328	29	299	357
LI	3	350	25	325	375
LI	4	367	23	344	390
LI	5	382	21	361	403
LI	6	396	21	375	417
LI	7	409	21	388	430
LI	8	422	21	401	443
LI	9	437	22	415	459
LI	10	454	25	429	479
LI	11	477	30	447	507
LI	12	513	38	475	551
LI	13	562	42	520	604
LI	14	595	52	543	647
IN	0	277	47	240[a]	324
IN	1	301	34	267	335
IN	2	327	25	302	352
IN	3	344	22	322	366
IN	4	358	20	338	378
IN	5	369	19	350	388
IN	6	381	19	362	400
IN	7	392	19	373	411
IN	8	403	19	384	422
IN	9	415	20	395	435
IN	10	429	22	407	451
IN	11	445	25	420	470
IN	12	468	30	438	498
IN	13	502	36	466	538
IN	14	549	42	507	591
IN	15	581	52	529	633

Note. [a]LOSS was set to 240. [b]HOSS was set to 650.

Note. GR= General Reading, LI=Literary, IN=Informational

Table 4.17 The 2008 MSA-Reading Total Raw Score to Scale Score Conversion Table for Verbatim Students: Grade 3

	Grade 3			
Raw Score	Scale Score (SS)	Standard Error (*SE*)	SS – 1*SE*	SS + 1*SE*
0	247	47	240[a]	294
1	272	34	240[a]	306
2	298	25	273	323
3	315	21	294	336
4	328	19	309	347
5	338	18	320	356
6	347	16	331	363
7	355	16	339	371
8	362	15	347	377
9	369	15	354	384
10	375	14	361	389
11	381	14	367	395
12	387	14	373	401
13	394	14	380	408
14	400	14	386	414
15	406	14	392	420
16	412	14	398	426
17	419	15	404	434
18	425	15	410	440
19	433	16	417	449
20	441	17	424	458
21	450	18	432	468
22	460	19	441	479
23	473	21	452	494
24	488	24	464	512
25	507	26	481	533
26	530	28	502	558
27	555	30	525	585
28	588	37	551	625
29	615	49	566	650[b]

Note. [a]LOSS was set to 240. [b]HOSS was set to 650.

Table 4.18 The 2008 MSA-Reading Subtotal Raw Score to Scale Score Conversion Table for Verbatim Students: Grade 3

		Grade 3			
Strand	Raw Score	Scale Score (SS)	Standard Error (*SE*)	SS – 1*SE*	SS + 1*SE*
LI	0	267	50	240[a]	317
LI	1	295	38	257	333
LI	2	328	29	299	357
LI	3	350	25	325	375
LI	4	367	23	344	390
LI	5	382	21	361	403
LI	6	396	21	375	417
LI	7	409	21	388	430
LI	8	422	21	401	443
LI	9	437	22	415	459
LI	10	454	25	429	479
LI	11	477	30	447	507
LI	12	513	38	475	551
LI	13	562	42	520	604
LI	14	595	52	543	647
IN	0	277	47	240[a]	324
IN	1	301	34	267	335
IN	2	327	25	302	352
IN	3	344	22	322	366
IN	4	358	20	338	378
IN	5	369	19	350	388
IN	6	381	19	362	400
IN	7	392	19	373	411
IN	8	403	19	384	422
IN	9	415	20	395	435
IN	10	429	22	407	451
IN	11	445	25	420	470
IN	12	468	30	438	498
IN	13	502	36	466	538
IN	14	549	42	507	591
IN	15	581	52	529	633

Note. [a]LOSS was set to 240. [b]HOSS was set to 650.

Note. LI=Literary, IN=Informational

Table 4.19 The 2008 MSA-Reading Total Raw Score to Scale Score Conversion Table: Grade 4

	Grade 4			
Raw Score	Scale Score (SS)	Standard Error (*SE*)	SS – 1*SE*	SS + 1*SE*
0	240[a]	48	240[a]	240[a]
1	240[a]	35	240[a]	250
2	242	26	240[a]	268
3	258	22	240[a]	280
4	271	20	251	291
5	282	18	264	300
6	291	17	274	308
7	300	16	284	316
8	307	15	292	322
9	314	15	299	329
10	321	14	307	335
11	327	14	313	341
12	332	14	318	346
13	338	13	325	351
14	343	13	330	356
15	348	13	335	361
16	353	13	340	366
17	358	12	346	370
18	362	12	350	374
19	367	12	355	379
20	371	12	359	383
21	376	12	364	388
22	380	12	368	392
23	384	12	372	396
24	389	12	377	401
25	393	12	381	405
26	397	12	385	409
27	402	12	390	414
28	406	12	394	418
29	411	12	399	423
30	416	13	403	429
31	421	13	408	434
32	426	13	413	439
33	432	14	418	446
34	438	14	424	452
35	444	15	429	459
36	452	16	436	468
37	461	18	443	479
38	471	19	452	490
39	484	22	462	506
40	502	26	476	528
41	527	31	496	558
42	559	34	525	593
43	596	36	560	632
44	642	43	599	650[b]
45	650[b]	53	623	650[b]

Note. [a]LOSS was set to 240. [b]HOSS was set to 650.

Note. GR= General Reading, LI=Literary, IN=Informational

Table 4.20 The 2008 MSA-Reading Subtotal Raw Score to Scale Score Conversion Table: Grade 4

		Grade 4			
Strand	Raw Score	Scale Score (SS)	Standard Error (*SE*)	SS – 1*SE*	SS + 1*SE*
GR	0	240[a]	49	240[a]	276
GR	1	253	36	240[a]	289
GR	2	282	28	254	310
GR	3	303	24	279	327
GR	4	319	23	296	342
GR	5	334	22	312	356
GR	6	348	21	327	369
GR	7	361	21	340	382
GR	8	374	21	353	395
GR	9	387	21	366	408
GR	10	400	21	379	421
GR	11	414	22	392	436
GR	12	430	24	406	454
GR	13	449	27	422	476
GR	14	477	35	442	512
GR	15	503	48	455	551
LI	0	240[a]	51	240[a]	279
LI	1	258	40	240[a]	298
LI	2	295	31	264	326
LI	3	321	27	294	348
LI	4	340	24	316	364
LI	5	355	22	333	377
LI	6	369	21	348	390
LI	7	382	20	362	402
LI	8	394	20	374	414
LI	9	407	21	386	428
LI	10	421	23	398	444
LI	11	439	26	413	465
LI	12	464	33	431	497
LI	13	513	48	465	561
LI	14	602	60	542	650[b]
LI	15	650[b]	61	596	650[b]
IN	0	240[a]	50	240[a]	288
IN	1	266	38	240[a]	304
IN	2	299	29	270	328
IN	3	322	26	296	348
IN	4	341	24	317	365
IN	5	356	22	334	378
IN	6	371	21	350	392
IN	7	385	21	364	406
IN	8	398	21	377	419
IN	9	412	22	390	434
IN	10	427	23	404	450
IN	11	446	26	420	472
IN	12	472	33	439	505
IN	13	522	48	474	570
IN	14	591	46	545	637
IN	15	628	54	574	650[b]

Note. [a]LOSS was set to 240. [b]HOSS was set to 650.

Note. GR= General Reading, LI=Literary, IN=Informational

Table 4.21 The 2008 MSA-Reading Total Raw Score to Scale Score Conversion Table: Grade 5

	Grade 5			
Raw Score	Scale Score (SS)	Standard Error (*SE*)	SS – 1*SE*	SS + 1*SE*
0	240[a]	48	240[a]	261
1	240[a]	34	240[a]	271
2	262	25	240[a]	287
3	278	21	257	299
4	290	19	271	309
5	300	17	283	317
6	308	16	292	324
7	315	15	300	330
8	322	14	308	336
9	328	14	314	342
10	334	13	321	347
11	339	13	326	352
12	344	13	331	357
13	349	13	336	362
14	353	12	341	365
15	358	12	346	370
16	362	12	350	374
17	367	12	355	379
18	371	12	359	383
19	375	12	363	387
20	379	12	367	391
21	383	12	371	395
22	387	12	375	399
23	392	12	380	404
24	396	12	384	408
25	400	12	388	412
26	404	12	392	416
27	409	12	397	421
28	413	12	401	425
29	418	13	405	431
30	423	13	410	436
31	428	13	415	441
32	433	14	419	447
33	439	14	425	453
34	445	15	430	460
35	452	15	437	467
36	459	16	443	475
37	468	17	451	485
38	478	19	459	497
39	489	21	468	510
40	504	23	481	527
41	522	26	496	548
42	544	28	516	572
43	570	31	539	601
44	605	38	567	643
45	633	50	583	650[b]

Note. [a]LOSS was set to 240. [b]HOSS was set to 650.

Table 4.22 The 2008 MSA-Reading Subtotal Raw Score to Scale Score Conversion Table: Grade 5

		Grade 5			
Strand	Raw Score	Scale Score (SS)	Standard Error (*SE*)	SS – 1*SE*	SS + 1*SE*
GR	0	240	48	240[a]	288
GR	1	265	35	240[a]	300
GR	2	292	26	266	318
GR	3	309	22	287	331
GR	4	323	21	302	344
GR	5	335	20	315	355
GR	6	346	19	327	365
GR	7	357	19	338	376
GR	8	368	19	349	387
GR	9	380	20	360	400
GR	10	392	20	372	412
GR	11	405	22	383	427
GR	12	420	24	396	444
GR	13	440	27	413	467
GR	14	469	36	433	505
GR	15	495	49	446	544
LI	0	245	50	240[a]	295
LI	1	274	38	240[a]	312
LI	2	307	30	277	337
LI	3	330	26	304	356
LI	4	348	23	325	371
LI	5	364	22	342	386
LI	6	378	21	357	399
LI	7	391	21	370	412
LI	8	404	21	383	425
LI	9	418	22	396	440
LI	10	433	23	410	456
LI	11	452	26	426	478
LI	12	477	32	445	509
LI	13	521	43	478	564
LI	14	581	45	536	626
LI	15	617	54	563	650[b]
IN	0	280	49	240[a]	329
IN	1	306	36	270	342
IN	2	334	27	307	361
IN	3	353	23	330	376
IN	4	367	21	346	388
IN	5	380	20	360	400
IN	6	392	20	372	412
IN	7	404	20	384	424
IN	8	416	20	396	436
IN	9	429	21	408	450
IN	10	443	23	420	466
IN	11	461	25	436	486
IN	12	483	29	454	512
IN	13	514	35	479	549
IN	14	557	42	515	599
IN	15	589	52	537	641

Note. [a]LOSS was set to 240. [b]HOSS was set to 650.

Note. GR= General Reading, LI=Literary, IN=Informational

Table 4.23 The 2008 MSA-Reading Total Raw Score to Scale Score Conversion Table: Grade 6

Grade 6				
Raw Score	Scale Score (SS)	Standard Error (*SE*)	SS – 1*SE*	SS + 1*SE*
0	240[a]	44	240[a]	252
1	240[a]	32	240[a]	262
2	254	23	240[a]	277
3	269	20	249	289
4	280	18	262	298
5	290	16	274	306
6	298	15	283	313
7	305	14	291	319
8	311	14	297	325
9	317	13	304	330
10	323	13	310	336
11	328	12	316	340
12	333	12	321	345
13	337	12	325	349
14	342	12	330	354
15	346	11	335	357
16	350	11	339	361
17	355	11	344	366
18	359	11	348	370
19	363	11	352	374
20	366	11	355	377
21	370	11	359	381
22	374	11	363	385
23	378	11	367	389
24	382	11	371	393
25	386	11	375	397
26	390	11	379	401
27	394	11	383	405
28	398	11	387	409
29	402	12	390	414
30	407	12	395	419
31	411	12	399	423
32	416	12	404	428
33	421	13	408	434
34	427	13	414	440
35	433	14	419	447
36	440	15	425	455
37	448	16	432	464
38	456	17	439	473
39	467	19	448	486
40	480	21	459	501
41	497	24	473	521
42	518	26	492	544
43	542	28	514	570
44	573	35	538	608
45	599	46	553	645

Note. [a]LOSS was set to 240.

Note. GR= General Reading, LI=Literary, IN=Informational

Table 4.24 The 2008 MSA-Reading Subtotal Raw Score to Scale Score Conversion Table: Grade 6

		Grade 6			
Strand	Raw Score	Scale Score (SS)	Standard Error (*SE*)	SS – 1*SE*	SS + 1*SE*
GR	0	240[a]	45	240[a]	283
GR	1	261	33	240[a]	294
GR	2	287	24	263	311
GR	3	304	21	283	325
GR	4	317	19	298	336
GR	5	328	18	310	346
GR	6	338	17	321	355
GR	7	348	17	331	365
GR	8	358	17	341	375
GR	9	367	17	350	384
GR	10	378	18	360	396
GR	11	389	19	370	408
GR	12	402	21	381	423
GR	13	419	24	395	443
GR	14	444	33	411	477
GR	15	468	45	423	513
LI	0	244	47	240[a]	291
LI	1	271	36	240[a]	307
LI	2	304	28	276	332
LI	3	327	24	303	351
LI	4	344	22	322	366
LI	5	359	20	339	379
LI	6	371	19	352	390
LI	7	383	19	364	402
LI	8	395	19	376	414
LI	9	407	20	387	427
LI	10	420	21	399	441
LI	11	436	24	412	460
LI	12	458	29	429	487
LI	13	496	38	458	534
LI	14	546	40	506	586
LI	15	578	49	529	627
IN	0	252	46	240[a]	298
IN	1	277	35	242	312
IN	2	307	27	280	334
IN	3	328	24	304	352
IN	4	345	22	323	367
IN	5	360	20	340	380
IN	6	373	20	353	393
IN	7	386	19	367	405
IN	8	398	19	379	417
IN	9	411	20	391	431
IN	10	425	21	404	446
IN	11	441	23	418	464
IN	12	462	27	435	489
IN	13	491	33	458	524
IN	14	534	41	493	575
IN	15	567	50	517	617

Note. [a]LOSS was set to 240. [b]HOSS was set to 650.

Note. GR= General Reading, LI=Literary, IN=Informational

Table 4.25 The 2008 MSA-Reading Total Raw Score to Scale Score Conversion Table: Grade 7

Grade 7				
Raw Score	Scale Score (SS)	Standard Error (*SE*)	SS – 1*SE*	SS + 1*SE*
0	240[a]	46	240[a]	261
1	240[a]	33	240[a]	271
2	262	24	240[a]	286
3	277	20	257	297
4	289	18	271	307
5	298	16	282	314
6	306	15	291	321
7	313	15	298	328
8	319	14	305	333
9	325	13	312	338
10	330	13	317	343
11	335	13	322	348
12	340	12	328	352
13	345	12	333	357
14	349	12	337	361
15	354	12	342	366
16	358	12	346	370
17	362	11	351	373
18	366	11	355	377
19	370	11	359	381
20	374	11	363	385
21	378	11	367	389
22	382	11	371	393
23	386	11	375	397
24	390	11	379	401
25	394	11	383	405
26	398	12	386	410
27	402	12	390	414
28	407	12	395	419
29	411	12	399	423
30	416	12	404	428
31	420	13	407	433
32	426	13	413	439
33	431	13	418	444
34	437	14	423	451
35	443	14	429	457
36	450	15	435	465
37	457	16	441	473
38	465	17	448	482
39	475	18	457	493
40	487	20	467	507
41	500	22	478	522
42	516	24	492	540
43	537	28	509	565
44	567	36	531	603
45	593	48	545	641

Note. [a]LOSS was set to 240.

Table 4.26 The 2008 MSA-Reading Subtotal Raw Score to Scale Score Conversion Table: Grade 7

		Grade 7			
Strand	Raw Score	Scale Score (SS)	Standard Error (*SE*)	SS – 1*SE*	SS + 1*SE*
GR	0	245	47	240[a]	292
GR	1	269	34	240[a]	303
GR	2	296	26	270	322
GR	3	313	22	291	335
GR	4	328	20	308	348
GR	5	340	19	321	359
GR	6	351	19	332	370
GR	7	363	19	344	382
GR	8	374	19	355	393
GR	9	385	19	366	404
GR	10	398	20	378	418
GR	11	411	21	390	432
GR	12	427	23	404	450
GR	13	446	27	419	473
GR	14	474	35	439	509
GR	15	499	47	452	546
LI	0	252	49	240[a]	301
LI	1	279	36	243	315
LI	2	310	28	282	338
LI	3	331	24	307	355
LI	4	348	22	326	370
LI	5	362	21	341	383
LI	6	375	20	355	395
LI	7	387	20	367	407
LI	8	400	20	380	420
LI	9	412	20	392	432
LI	10	426	21	405	447
LI	11	441	23	418	464
LI	12	460	26	434	486
LI	13	485	30	455	515
LI	14	521	38	483	559
LI	15	549	49	500	598
IN	0	260	47	240[a]	307
IN	1	286	35	251	321
IN	2	314	26	288	340
IN	3	333	23	310	356
IN	4	348	21	327	369
IN	5	361	20	341	381
IN	6	373	19	354	392
IN	7	385	19	366	404
IN	8	397	20	377	417
IN	9	410	21	389	431
IN	10	424	22	402	446
IN	11	442	25	417	467
IN	12	465	30	435	495
IN	13	499	36	463	535
IN	14	545	41	504	586
IN	15	576	51	525	627

Note. [a]LOSS was set to 240. [b]HOSS was set to 650.

Note. GR= General Reading, LI=Literary, IN=Informational

Table 4.27 The 2008 MSA-Reading Total Raw Score to Scale Score Conversion Table: Grade 8

	Grade 8			
Raw Score	Scale Score (SS)	Standard Error (*SE*)	SS – 1*SE*	SS + 1*SE*
0	240[a]	45	240[a]	252
1	240[a]	33	240[a]	264
2	257	24	240[a]	281
3	274	21	253	295
4	286	18	268	304
5	296	17	279	313
6	305	15	290	320
7	312	14	298	326
8	318	14	304	332
9	324	13	311	337
10	330	13	317	343
11	335	12	323	347
12	340	12	328	352
13	344	12	332	356
14	348	11	337	359
15	352	11	341	363
16	356	11	345	367
17	360	11	349	371
18	364	11	353	375
19	368	11	357	379
20	372	11	361	383
21	375	11	364	386
22	379	11	368	390
23	383	11	372	394
24	386	11	375	397
25	390	11	379	401
26	394	11	383	405
27	398	11	387	409
28	402	11	391	413
29	406	11	395	417
30	410	12	398	422
31	415	12	403	427
32	419	12	407	431
33	424	13	411	437
34	430	13	417	443
35	436	14	422	450
36	442	14	428	456
37	449	15	434	464
38	457	16	441	473
39	466	17	449	483
40	477	19	458	496
41	490	21	469	511
42	506	23	483	529
43	525	26	499	551
44	552	33	519	585
45	576	45	531	621

Note. [a]LOSS was set to 240.

Table 4.28 The 2008 MSA-Reading Subtotal Raw Score to Scale Score Conversion Table: Grade 8

		Grade 8			
Strand	Raw Score	Scale Score (SS)	Standard Error (*SE*)	SS – 1*SE*	SS + 1*SE*
GR	0	251	45	240[a]	296
GR	1	275	33	242	308
GR	2	300	25	275	325
GR	3	317	21	296	338
GR	4	331	20	311	351
GR	5	343	19	324	362
GR	6	354	18	336	372
GR	7	365	18	347	383
GR	8	375	18	357	393
GR	9	385	18	367	403
GR	10	396	18	378	414
GR	11	407	19	388	426
GR	12	420	20	400	440
GR	13	434	22	412	456
GR	14	451	25	426	476
GR	15	477	33	444	510
GR	16	501	45	456	546
LI	0	240[a]	48	240[a]	272
LI	1	253	37	240[a]	290
LI	2	290	31	259	321
LI	3	316	26	290	342
LI	4	335	23	312	358
LI	5	351	21	330	372
LI	6	364	20	344	384
LI	7	376	19	357	395
LI	8	389	20	369	409
LI	9	402	21	381	423
LI	10	419	23	396	442
LI	11	440	28	412	468
LI	12	474	36	438	510
LI	13	520	40	480	560
LI	14	551	49	502	600
IN	0	273	45	240[a]	318
IN	1	296	33	263	329
IN	2	322	24	298	346
IN	3	339	21	318	360
IN	4	352	19	333	371
IN	5	364	18	346	382
IN	6	375	18	357	393
IN	7	385	18	367	403
IN	8	396	18	378	414
IN	9	407	19	388	426
IN	10	420	20	400	440
IN	11	434	22	412	456
IN	12	453	26	427	479
IN	13	480	31	449	511
IN	14	517	37	480	554
IN	15	546	48	498	594

Note. [a]LOSS was set to 240. [b]HOSS was set to 650.

Note. GR= General Reading, LI=Literary, IN=Informational

Table 4.29 The 2008 MSA-Reading Score Difference between Rater 1 and Rater 2: Grade 3

Grade	Item No.	Perfect		Adjacent		Discrepancy		Total	
		N	%	*N*	%	*N*	%	*N*	%
3	15	42,582	73.0	15,015	25.8	704	1.2	58,301	100.0
	18	45,471	78.0	12,554	21.5	276	0.5	58,301	100.0
	21	39,916	68.5	17,637	30.3	748	1.3	58,301	100.0
	24	43,104	73.9	14,813	25.4	384	0.7	58,301	100.0

Note. Analyses were conducted with a statewide population.

Table 4.30 The 2008 MSA-Reading Score Difference between Rater 1 and Rater 2: Grade 4

Grade	Item No.	Perfect		Adjacent		Discrepancy		Total	
		N	%	*N*	%	*N*	%	*N*	%
4	14	45,992	77.0	13,531	22.7	174	0.3	59,697	100.0
	17	47,901	80.2	11,646	19.5	150	0.3	59,697	100.0
	20	42,080	70.5	17,365	29.1	252	0.4	59,697	100.0
	23	46,717	78.3	12,872	21.6	108	0.2	59,697	100.0

Note. Analyses were conducted with a statewide population.

Table 4.31 The 2008 MSA-Reading Score Difference between Rater 1 and Rater 2: Grade 5

Grade	Item No.	Perfect		Adjacent		Discrepancy		Total	
		N	%	*N*	%	*N*	%	*N*	%
5	13	44,044	72.8	16,233	26.8	209	0.4	60,486	100.0
	16	42,783	70.7	17,619	29.1	84	0.1	60,486	100.0
	19	39,349	65.1	19,783	32.7	1,354	2.2	60,486	100.0
	22	44,799	74.1	15,369	25.4	318	0.5	60,486	100.0

Note. Analyses were conducted with a statewide population.

Table 4.32 The 2008 MSA-Reading Score Difference between Rater 1 and Rater 2: Grade 6

Grade	Item No.	Perfect		Adjacent		Discrepancy		Total	
		N	%	*N*	%	*N*	%	*N*	%
6	13	44,316	72.6	16,514	27.1	206	0.3	61,036	100.0
	16	45,080	73.9	15,827	25.9	129	0.2	61,036	100.0
	19	47,666	78.1	12,972	21.3	398	0.7	61,036	100.0
	22	46,089	75.5	14,725	24.1	222	0.4	61,036	100.0

Note. Analyses were conducted with a statewide population.

Table 4.33 The 2008 MSA-Reading Score Difference between Rater 1 and Rater 2: Grade 7

Grade	Item No.	Perfect		Adjacent		Discrepancy		Total	
		N	%	*N*	%	*N*	%	*N*	%
7	9	43,657	69.8	18,330	29.3	526	0.8	62,513	100.0
	12	46,557	74.5	15,716	25.1	240	0.4	62,513	100.0
	15	50,309	80.5	11,828	18.9	376	0.6	62,513	100.0
	18	42,285	67.6	19,424	31.1	804	1.3	62,513	100.0

Note. Analyses were conducted with a statewide population.

Table 4.34 The 2008 MSA-Reading Score Difference between Rater 1 and Rater 2: Grade 8

Grade	Item No.	Perfect		Adjacent		Discrepancy		Total	
		N	%	*N*	%	*N*	%	*N*	%
8	9	45,572	71.4	18,018	28.2	268	0.4	63,858	100.0
	12	48,345	75.7	15,401	24.1	112	0.2	63,858	100.0
	15	45,859	71.8	17,396	27.2	603	0.9	63,858	100.0
	18	47,362	74.2	16,209	25.4	287	0.5	63,858	100.0

Note. Analyses were conducted with a statewide population.

REFERENCES

AERA, APA, & NCME (1999). *Standards for educational and psychological testing*. Washington, D.C.: Author.

Allen, N. L., Donoghue, J. R., & Schoeps, T. L. (2001). *The NAEP 1998 technical report* (Technical Report). Washington, DC: National Center for Educational Statistics.

Andrich, A. (1988). *Rasch models for measurement*. Newbury Park, CA: SAGE Publications, Inc.

Andrich, A. (1989). Distinctions between assumptions and requirements in measurement in the social sciences. In J. A. Keats, R. Taft, R. A. Heath, & H. H. Lovibond (Eds.) *Mathematical and theoretical systems*. North-Holland: Elsevier Science Publisher B.V.

Andrich, A., & Luo, G. (2004). *Modern measurement and analysis in social science*. Murdoch University, Perth, Western Australia.

Camilli, G., & Shepard, L. A. (1994). *Methods for identifying biased test items.* Thousand Oaks, CA: SAGE Publications.

Crocker, L., & Algina, J. (1986). *Introduction to classical and modern test theory*. New York, NY: Holt Rinehart Wilson.

CTB/McGraw-Hill (2004, August). *The Maryland standard setting technical report*. (Technical Report). Monterey, CA: CTB/McGraw-Hill.

Dorans, N. J., & Schmitt, A. P. (1991). *Constructed-response and differential item functioning: A pragmatic approach* (ETS Research Report No. 91-49). Princeton, NJ: Educational Testing Service.

Embretson, S., & Reise, S. (2000). *Item response theory for psychologists.* New Jersey: Lawrence Erlbaum Associates, Publishers.

Haertel, E. H. (1996). *Estimating the decision consistency from a single administration of a performance assessment battery. A report on the National Board of Professional Teaching Standards McGEN Assessment*. Palo Alto, CA: Stanford University.

Harcourt, Inc. (2008, January). *Maryland School Assessment-Reading and Mathematics: Test administration and coordination manual*. San Antonio, TX: Harcourt Inc.

Hambleton, R. K., Swaminathan, H., & Rogers, H. J. (1991). *Fundamentals of item response theory*. Newbury Park, CA: SAGE Publications, Inc.

Harvill, L. M. (1991). Standard error of measurement. *Educational Measurement: Issues and Practice,* 10, 181-189.

Huynh, H., Meyer III, J. P., & Barton, K. (2000). *Technical documentation for the 1999 Palmetto achievement challenge tests of English language arts and mathematics, grades three through eight* (Technical Report). Columbia: South Carolina Department of Education.

Jöreskog, K. G., & Sörbom, D. (1993). *LISREL 8 & PRELIS 2: User's reference guide*. Chicago: Scientific Software International.

Linacre, J. M., & Wright, B. D. (2000). *A user's guide to WINSTEPS: Rasch-model computer program.* Chicago, IL: MESA Press.

Livingston, S. A., & Lewis, C. (1995). Estimating the consistency and accuracy of classifications based on test scores. *Journal of Educational Measurement, 32,* 179-197.

Loehlin, J. C. (1987). *Latent variable models.* NJ: Lawrence Erlbaum Associates, Publishers.

Lord, F. M., & Wingersky, M. S. (1984). Comparison of IRT true-score and equipercentile observed-score "equatings." *Applied Psychological Measurement, 8,* 452-461.

Mantel, N. (1963). Chi-square tests with one degree of freedom: Extensions of the Mantel-Haenszel procedure. *Journal of the American Statistical Association, 58,* 690-700.

Mantel, N., & Haenszel, W. (1959). Statistical aspects of the analysis of data from retrospective studies of disease. *Journal of the National Cancer Institute, 22,* 719-748.

Masters, G. N. (1982). A Rasch model for partial credit scoring. *Psychometrica, 47,* 149-174.

Maryland State Department of Education. (2008). *2008 Maryland School Assessment- Grades 3 through 8 Reading and Mathematics: Test Administration and Coordination Manual*. Baltimore: Maryland State Department of Education.

Messick, S. (1989). Meaning and values in test validation: The science and ethics of assessment. *Educational Researcher, 18,* 5-11.

Mitzel, H. C., Lewis, D. M., Patz, R. J., & Green, D. R. (2001). The Bookmark procedure: Psychological perspectives. In G. J. Cizek (Ed.), *Setting performance standards* (pp. 249-282). Mahwah, NJ: Lawrence Erlbaum Associates, Publishers.

Orlando, M. (2004, June). *Critical issues to address when applying item response theory (IRT) models*. Paper presented at the The Drug Information Association, Bethesda, MD.

Qualls, A. L. (1995). Estimating the reliability of a test containing multiple item formats, *Applied Measurement in Education,* 8, 111-120.

Rasch, G. (1980). *Probabilistic models for some intelligence and attainment tests.* Chicago, IL: University of Chicago Press.

Ryan, J. P. (1983). Introduction to latent trait analysis and item response theory. In W. E. Hathaway (Ed.), *Testing in the schools. New directions for testing and measurement, 19,* San Francisco: Jossey-Bass.

South Carolina Department of Education. (2001). *Technical documentation for the 2000 Palmetto achievement challenge tests of English language arts and mathematics* (Technical Report). Columbia: South Carolina Department of Education.

Suen, H. K. (1990). *Principles of test theories*. Hillsdale, New Jersey: Lawrence Erlbaum Associates, Publishers.

Thissen, D., & Steinberg, L. (1986). A taxonomy of item response models. *Psychometrica, 51,* 567-577.

Wright, B. D., & Masters, G. N. (1982). *Rating scale analysis,* MESA PRESS, Chicago.

Young, M. J., & Yoon, B. (1998, April). *Estimating the consistency and accuracy of classifications in a standards-referenced assessment.* (CSE Technical Report 475). Center

for the Study of Evaluation, Standards, and Student Testing. Los Angeles, CA: University of California, Los Angeles.

Zwick, R., Donoghue, J. R., & Grima, A. (1993). Assessment of differential item functioning for performance tasks. *Journal of Educational Measurement, 30,* 233-251.

APPENDIX A: THE 2008 MSA-READING STRATIFIED RANDOM SAMPLING

Reporting deadlines made it impossible to use almost 100% of the 2008 population as the 2008 calibration and equating data set, MSDE and NPC recommended that Pearson use equating samples instead of the 2008 population. Pearson chose Local Education Agency (LEA) as one of the most important variables for stratification. Based on the population percentage of each LEA, Pearson randomly selected about 3,000 students for each grade from first-waved documents (i.e., 50% of the statewide population) which were randomly distributed and completely scored. It should be noted that this method has been applied since the 2006 assessment.

To verify that the sample was representative of the statewide examinee population in terms of gender and ethnicity, the distributions of gender and ethnicity of the 2008 samples were compared with the 2008 population. The results are shown in this appendix. The percentages of male and female students were within 2.3 percentage points of the target values across all grades. The percentages of students from the five major ethnic groups were all within 1.5 percentage points of the target values across all grades. We conclude that the 2008 equating samples were representative of the 2008 statewide examinee population in terms of LEA, gender, and ethnicity.

Table A.1 The 2008 MSA-Reading Population and Stratified Random Sampling (S.R.S.): Grade 3 LEA

LEA	Grade 3			
	2008 Pop. %	2008 S. R. S.	% of 2008 S. R. S.	% of Differ.
1	1.08	33	1.10	-0.02
2	8.92	268	8.93	-0.01
3	12.58	377	12.57	0.01
4	2.01	60	2.00	0.01
5	0.58	17	0.57	0.01
6	3.19	96	3.20	-0.01
7	1.98	59	1.97	0.01
8	2.89	87	2.90	-0.01
9	0.51	15	0.50	0.01
10	4.80	144	4.80	0.00
11	0.53	16	0.53	0.00
12	4.73	142	4.73	0.00
13	5.72	172	5.73	-0.01
14	0.26	8	0.27	-0.01
15	16.29	489	16.30	-0.01
16	14.44	433	14.43	0.01
17	0.90	27	0.90	0.00
18	2.00	60	2.00	0.00
19	0.35	10	0.33	0.02
20	0.48	15	0.50	-0.02
21	2.68	80	2.67	0.01
22	1.92	58	1.93	-0.01
23	0.77	23	0.77	0.00
24	0.21	6	0.20	0.01
30	10.17	305	10.17	0.00
Total	100.00	3000	100.00	0.000

Note: 1. Allegany; 2. Anne Arundel; 3. Baltimore; 4. Calvert; 5. Caroline; 6. Carroll; 7. Cecil; 8. Charles; 9. Dorchester; 10. Frederick; 11. Garrett; 12. Harford; 13. Howard; 14. Kent; 15. Montgomery; 16. Prince George's; 17. Queen Anne's; 18. St. Mary's; 19. Somerset; 20. Talbot; 21. Washington; 22. Wicomico; 23. Worcester; 24. LEA 24; 30. Baltimore City

Table A.2 The 2008 MSA-Reading Population and Stratified Random Sampling (S.R.S.): Grade 3 Ethnicity

Race	Grade 3			
	2008 Pop. %	2008 S. R. S.	% of 2008 S. R. S.	% of Differ.
1	0.42	17	0.57	-0.15
2	5.81	163	5.43	0.38
3	37.92	1112	37.07	0.85
4	46.50	1384	46.13	0.37
5	9.20	321	10.70	-1.50
Miss	0.15	3	0.10	0.05
Total	100.00	3000	100.00	0.00

Note: 1. American Indian; 2. Asian American; 3. African American; 4. White; 5. Hispanic; Miss: Missing

Table A.3 The 2008 MSA-Reading Population and Stratified Random Sampling (S.R.S.): Grade 3 Gender

Gender	Grade 3			
	2008 Pop. %	2008 S. R. S.	% of 2008 S. R. S.	% of Differ.
F	51.39	1569	52.30	-0.91
M	48.49	1428	47.60	0.89
Miss	0.11	3	0.10	0.01
Total	100.00	3000	100.00	0.00

Note: F. Female; M. Male; Miss: Missing

Table A.4 The 2008 MSA-Reading Population and Stratified Random Sampling (S.R.S.): Grade 4 LEA

LEA	Grade 4			
	2008 Pop. %	2008 S. R. S.	% of 2008 S. R. S.	% of Differ.
1	1.11	33	1.10	0.01
2	9.03	271	9.04	-0.01
3	12.31	369	12.31	0.00
4	2.05	61	2.03	0.02
5	0.60	18	0.60	0.00
6	3.38	101	3.37	0.01
7	2.02	61	2.03	-0.01
8	3.04	91	3.04	0.00
9	0.46	14	0.47	-0.01
10	4.84	145	4.84	0.00
11	0.53	16	0.53	0.00
12	4.79	144	4.80	-0.01
13	6.02	181	6.04	-0.02
14	0.24	7	0.23	0.01
15	16.12	483	16.11	0.01
16	14.68	440	14.68	0.00
17	0.88	26	0.87	0.01
18	1.92	58	1.93	-0.01
19	0.28	8	0.27	0.01
20	0.48	14	0.47	0.01
21	2.65	80	2.67	-0.02
22	1.84	55	1.83	0.01
23	0.74	22	0.73	0.01
24	0.26	8	0.27	-0.01
30	9.73	292	9.74	-0.01
Total	100.00	2998	100.00	0.00

Note: 1. Allegany; 2. Anne Arundel; 3. Baltimore; 4. Calvert; 5. Caroline; 6. Carroll; 7. Cecil; 8. Charles; 9. Dorchester; 10. Frederick; 11. Garrett; 12. Harford; 13. Howard; 14. Kent; 15. Montgomery; 16. Prince George's; 17. Queen Anne's; 18. St. Mary's; 19. Somerset; 20. Talbot; 21. Washington; 22. Wicomico; 23. Worcester; 24. LEA 24; 30. Baltimore City

Table A.5 The 2008 MSA-Reading Population and Stratified Random Sampling (S.R.S.): Grade 4 Ethnicity

Race	Grade 4			
	2008 Pop. %	2008 S. R. S.	% of 2008 S. R. S.	% of Differ.
1	0.39	14	0.47	-0.08
2	5.75	173	5.77	-0.02
3	37.72	1135	37.86	-0.14
4	47.05	1383	46.13	0.92
5	8.94	291	9.71	-0.76
Miss	0.15	2	0.07	0.08
Total	100.00	2998	100.00	0.00

Note: 1. American Indian; 2. Asian American; 3. African American; 4. White; 5. Hispanic; Miss: Missing

Table A.6 The 2008 MSA-Reading Population and Stratified Random Sampling (S.R.S.): Grade 4 Gender

Gender	Grade 4			
	2008 Pop. %	2008 S. R. S.	% of 2008 S. R. S.	% of Differ.
F	50.91	1536	51.23	-0.33
M	48.98	1460	48.70	0.29
Miss	0.11	2	0.07	0.04
Total	100.00	2998	100.00	0.00

Note: F. Female; M. Male; Miss: Missing

Table A.7 The 2008 MSA-Reading Population and Stratified Random Sampling (S.R.S.): Grade 5 LEA

LEA	Grade 5			
	2008 Pop. %	2008 S. R. S.	% of 2008 S. R. S.	% of Differ.
1	1.12	34	1.13	-0.01
2	8.82	265	8.83	-0.01
3	12.24	367	12.23	0.01
4	2.03	61	2.03	0.00
5	0.71	21	0.70	0.01
6	3.27	98	3.27	0.00
7	1.94	58	1.93	0.01
8	3.26	98	3.27	-0.01
9	0.58	18	0.60	-0.02
10	4.86	146	4.87	-0.01
11	0.50	15	0.50	0.00
12	4.83	145	4.83	0.00
13	6.12	184	6.13	-0.01
14	0.27	8	0.27	0.00
15	16.00	480	16.00	0.00
16	14.90	447	14.90	0.00
17	0.91	27	0.90	0.01
18	2.05	62	2.07	-0.02
19	0.30	9	0.30	0.00
20	0.48	14	0.47	0.01
21	2.68	80	2.67	0.01
22	1.87	56	1.87	0.00
23	0.75	23	0.77	-0.02
24	0.29	9	0.30	-0.01
30	9.17	275	9.17	0.00
Total	100.00	3000	100.01	-0.01

Note: 1. Allegany; 2. Anne Arundel; 3. Baltimore; 4. Calvert; 5. Caroline; 6. Carroll; 7. Cecil; 8. Charles; 9. Dorchester; 10. Frederick; 11. Garrett; 12. Harford; 13. Howard; 14. Kent; 15. Montgomery; 16. Prince George's; 17. Queen Anne's; 18. St. Mary's; 19. Somerset; 20. Talbot; 21. Washington; 22. Wicomico; 23. Worcester; 24. LEA 24; 30. Baltimore City

Table A.8 The 2008 MSA-Reading Population and Stratified Random Sampling (S.R.S.): Grade 5 Ethnicity

Race	Grade 5			
	2008 Pop. %	2008 S. R. S.	% of 2008 S. R. S.	% of Differ.
1	0.37	6	0.20	0.17
2	5.79	173	5.77	0.02
3	37.54	1144	38.13	-0.59
4	47.11	1401	46.70	0.41
5	9.04	269	8.97	0.07
Miss	0.14	7	0.23	-0.09
Total	100.00	3000	100.00	0.00

Note: 1. American Indian; 2. Asian American; 3. African American; 4. White; 5. Hispanic; Miss: Missing

Table A.9 The 2008 MSA-Reading Population and Stratified Random Sampling (S.R.S.): Grade 5 Gender

Gender	Grade 5			
	2008 Pop. %	2008 S. R. S.	% of 2008 S. R. S.	% of Differ.
F	51.36	1543	51.43	-0.07
M	48.53	1452	48.40	0.13
Miss	0.11	5	0.17	-0.06
Total	100.00	3000	100.00	0.00

Note: F. Female; M. Male; Miss: Missing

Table A.10 The 2008 MSA-Reading Population and Stratified Random Sampling (S.R.S.): Grade 6 LEA

LEA	Grade 6			
	2008 Pop. %	2008 S. R. S.	% of 2008 S. R. S.	% of Differ.
1	1.05	32	1.07	-0.02
2	8.75	263	8.76	-0.01
3	12.08	362	12.06	0.02
4	2.15	65	2.17	-0.02
5	0.59	18	0.60	-0.01
6	3.47	104	3.46	0.01
7	1.96	59	1.97	-0.01
8	3.22	97	3.23	-0.01
9	0.52	16	0.53	-0.01
10	4.89	147	4.90	-0.01
11	0.53	16	0.53	0.00
12	4.80	144	4.80	0.00
13	6.14	184	6.13	0.01
14	0.23	7	0.23	0.00
15	16.51	495	16.49	0.02
16	15.13	454	15.12	0.01
17	1.01	30	1.00	0.01
18	1.96	59	1.97	-0.01
19	0.36	11	0.37	-0.01
20	0.53	16	0.53	0.00
21	2.63	79	2.63	0.00
22	1.51	45	1.50	0.01
23	0.74	22	0.73	0.01
24	0.39	12	0.40	-0.01
30	8.84	265	8.83	0.01
Total	100.00	3002	100.01	-0.01

Note: 1. Allegany; 2. Anne Arundel; 3. Baltimore; 4. Calvert; 5. Caroline; 6. Carroll; 7. Cecil; 8. Charles; 9. Dorchester; 10. Frederick; 11. Garrett; 12. Harford; 13. Howard; 14. Kent; 15. Montgomery; 16. Prince George's; 17. Queen Anne's; 18. St. Mary's; 19. Somerset; 20. Talbot; 21. Washington; 22. Wicomico; 23. Worcester; 24. LEA 24; 30. Baltimore City

Table A.11 The 2008 MSA-Reading Population and Stratified Random Sampling (S.R.S.): Grade 6 Ethnicity

Race	Grade 6			
	2008 Pop. %	2008 S. R. S.	% of 2008 S. R. S.	% of Differ.
1	0.31	12	0.40	-0.09
2	5.57	146	4.86	0.70
3	37.43	1137	37.87	-0.45
4	47.68	1419	47.27	0.41
5	8.85	281	9.36	-0.51
Miss	0.17	7	0.23	-0.06
Total	100.00	3002	100.00	0.00

Note: 1. American Indian; 2. Asian American; 3. African American; 4. White; 5. Hispanic; Miss: Missing

Table A.12 The 2008 MSA-Reading Population and Stratified Random Sampling (S.R.S.): Grade 6 Gender

Gender	Grade 6			
	2008 Pop. %	2008 S. R. S.	% of 2008 S. R. S.	% of Differ.
F	50.89	1466	48.83	2.06
M	48.99	1531	51.00	-2.01
Miss	0.12	5	0.17	-0.05
Total	100.00	3002	100.00	0.00

Note: F. Female; M. Male; Miss: Missing

Table A.13 The 2008 MSA-Reading Population and Stratified Random Sampling (S.R.S.): Grade 7 LEA

LEA	Grade 7			
	2008 Pop. %	2008 S. R. S.	% of 2008 S. R. S.	% of Differ.
1	1.07	32	1.07	0.00
2	8.80	264	8.80	0.00
3	12.31	369	12.30	0.01
4	2.19	66	2.20	-0.01
5	0.64	19	0.63	0.01
6	3.39	102	3.40	-0.01
7	1.97	59	1.97	0.00
8	3.27	98	3.27	0.00
9	0.51	15	0.50	0.01
10	5.01	150	5.00	0.01
11	0.58	17	0.57	0.01
12	4.80	144	4.80	0.00
13	6.51	195	6.50	0.01
14	0.25	8	0.27	-0.02
15	16.20	486	16.19	0.01
16	14.76	443	14.76	0.00
17	0.92	28	0.93	-0.01
18	1.90	57	1.90	0.00
19	0.36	11	0.37	-0.01
20	0.50	15	0.50	0.00
21	2.45	73	2.43	0.02
22	1.49	45	1.50	-0.01
23	0.73	22	0.73	0.00
24	0.52	16	0.53	-0.01
30	8.90	267	8.90	0.00
Total	100.00	3001	100.02	-0.02

Note: 1. Allegany; 2. Anne Arundel; 3. Baltimore; 4. Calvert; 5. Caroline; 6. Carroll; 7. Cecil; 8. Charles; 9. Dorchester; 10. Frederick; 11. Garrett; 12. Harford; 13. Howard; 14. Kent; 15. Montgomery; 16. Prince George's; 17. Queen Anne's; 18. St. Mary's; 19. Somerset; 20. Talbot; 21. Washington; 22. Wicomico; 23. Worcester; 24. LEA 24; 30. Baltimore City

Table A.14 The 2008 MSA-Reading Population and Stratified Random Sampling (S.R.S.): Grade 7 Ethnicity

Race	Grade 7			
	2008 Pop. %	2008 S. R. S.	% of 2008 S. R. S.	% of Differ.
1	0.41	10	0.33	0.08
2	5.41	159	5.30	0.11
3	38.05	1155	38.49	-0.43
4	47.65	1418	47.25	0.40
5	8.26	251	8.36	-0.11
Miss	0.22	8	0.27	-0.05
Total	100.00	3001	100.00	0.00

Note: 1. American Indian; 2. Asian American; 3. African American; 4. White; 5. Hispanic; Miss: Missing

Table A.15 The 2008 MSA-Reading Population and Stratified Random Sampling (S.R.S.): Grade 7 Gender

Gender	Grade 7			
	2008 Pop. %	2008 S. R. S.	% of 2008 S. R. S.	% of Differ.
F	51.22	1535	51.15	0.07
M	48.63	1460	48.65	-0.02
Miss	0.14	6	0.20	-0.06
Total	100.00	3001	100.00	0.00

Note: F. Female; M. Male; Miss: Missing

Table A.16 The 2008 MSA-Reading Population and Stratified Random Sampling (S.R.S.): Grade 8 LEA

LEA	Grade 8			
	2008 Pop. %	2008 S. R. S.	% of 2008 S. R. S.	% of Differ.
1	1.01	30	1.00	0.01
2	8.55	257	8.56	-0.01
3	12.18	366	12.20	-0.02
4	2.08	63	2.10	-0.02
5	0.63	19	0.63	0.00
6	3.53	106	3.53	0.00
7	1.96	59	1.97	-0.01
8	3.38	101	3.37	0.01
9	0.57	17	0.57	0.00
10	4.71	141	4.70	0.01
11	0.57	17	0.57	0.00
12	4.72	142	4.73	-0.01
13	6.06	182	6.06	0.00
14	0.26	8	0.27	-0.01
15	15.93	478	15.93	0.00
16	15.49	465	15.49	0.00
17	0.98	29	0.97	0.01
18	2.04	61	2.03	0.01
19	0.33	10	0.33	0.00
20	0.50	15	0.50	0.00
21	2.53	76	2.53	0.00
22	1.54	46	1.53	0.01
23	0.83	25	0.83	0.00
24	0.73	22	0.73	0.00
30	8.87	266	8.86	0.01
Total	100.00	3001	99.99	0.01

Note: 1. Allegany; 2. Anne Arundel; 3. Baltimore; 4. Calvert; 5. Caroline; 6. Carroll; 7. Cecil; 8. Charles; 9. Dorchester; 10. Frederick; 11. Garrett; 12. Harford; 13. Howard; 14. Kent; 15. Montgomery; 16. Prince George's; 17. Queen Anne's; 18. St. Mary's; 19. Somerset; 20. Talbot; 21. Washington; 22. Wicomico; 23. Worcester; 24. LEA 24; 30. Baltimore City

Table A.17 The 2008 MSA-Reading Population and Stratified Random Sampling (S.R.S.): Grade 8 Ethnicity

Race	Grade 8			
	2008 Pop. %	2008 S. R. S.	% of 2008 S. R. S.	% of Differ.
1	0.39	14	0.47	-0.07
2	5.26	166	5.53	-0.27
3	39.04	1207	40.22	-1.18
4	47.23	1379	45.95	1.28
5	7.88	229	7.63	0.25
Miss	0.19	6	0.20	-0.01
Total	100.00	3001	100.00	0.00

Note: 1. American Indian; 2. Asian American; 3. African American; 4. White; 5. Hispanic; Miss: Missing

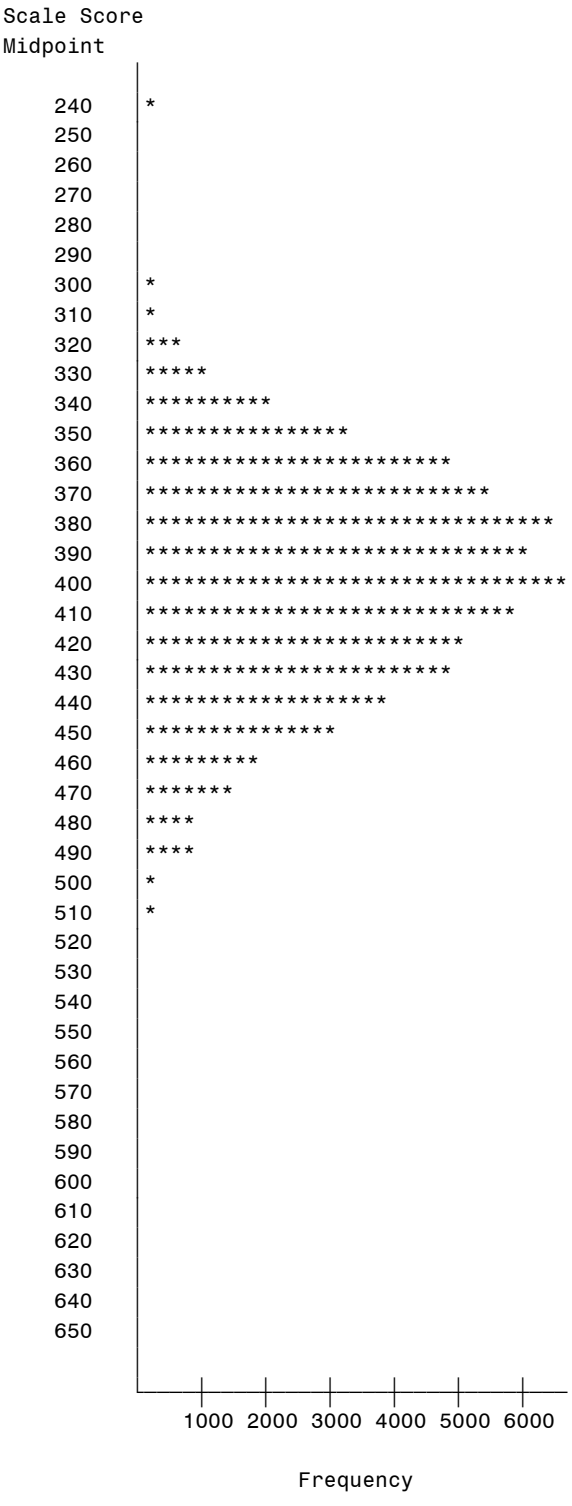
Table A.18 The 2008 MSA-Reading Population and Stratified Random Sampling (S.R.S.): Grade 8 Gender

Gender	Grade 8			
	2008 Pop. %	2008 S. R. S.	% of 2008 S. R. S.	% of Differ.
F	51.41	1581	52.68	-1.27
M	48.45	1416	47.18	1.26
Miss	0.14	4	0.13	0.01
Total	100.00	3001	100.00	0.00

Note: F. Female; M. Male; Miss: Missing

APPENDIX B: SCALE SCORE HISTOGRAMS AND TUKEY CHARTS

Year 2003 Grade=3 (Base Year)



Scale Score Midpoint	Freq	Cum. Freq	Percent	Cum. Percent
240	175	175	0.27	0.27
250	3	178	0.00	0.28
260	3	181	0.00	0.28
270	15	196	0.02	0.30
280	21	217	0.03	0.34
290	31	248	0.05	0.38
300	102	350	0.16	0.54
310	227	577	0.35	0.89
320	519	1096	0.81	1.70
330	1075	2171	1.67	3.37
340	2017	4188	3.13	6.50
350	3126	7314	4.85	11.34
360	4782	12096	7.42	18.76
370	5482	17578	8.50	27.26
380	6300	23878	9.77	37.04
390	6025	29903	9.35	46.38
400	6565	36468	10.18	56.56
410	5755	42223	8.93	65.49
420	5027	47250	7.80	73.29
430	4773	52023	7.40	80.69
440	3782	55805	5.87	86.56
450	3057	58862	4.74	91.30
460	1896	60758	2.94	94.24
470	1395	62153	2.16	96.40
480	892	63045	1.38	97.79
490	737	63782	1.14	98.93
500	281	64063	0.44	99.37
510	201	64264	0.31	99.68
520	67	64331	0.10	99.78
530	56	64387	0.09	99.87
540	28	64415	0.04	99.91
550	20	64435	0.03	99.94
560	22	64457	0.03	99.98
570	0	64457	0.00	99.98
580	10	64467	0.02	99.99
590	2	64469	0.00	100.00
600	2	64471	0.00	100.00
610	0	64471	0.00	100.00
620	0	64471	0.00	100.00
630	0	64471	0.00	100.00
640	0	64471	0.00	100.00
650	0	64471	0.00	100.00

Figure B.1 Year 2003 Scale Score Distribution: Grade3

Year 2008 Grade=3

Scale Score Midpoint		Freq	Cum. Freq	Percent	Cum. Percent
240		4	4	0.01	0.01
250		0	4	0.00	0.01
260		0	4	0.00	0.01
270		17	21	0.03	0.04
280		41	62	0.07	0.11
290		68	130	0.12	0.22
300	*	130	260	0.22	0.45
310	*	228	488	0.39	0.84
320	*	296	784	0.51	1.34
330	****	746	1530	1.28	2.62
340	******	1109	2639	1.90	4.53
350	*******	1426	4065	2.45	6.97
360	**********	2684	6749	4.60	11.58
370	**********	2154	8903	3.69	15.27
380	**********	3898	12801	6.69	21.96
390	**********	3161	15962	5.42	27.38
400	**********	5817	21779	9.98	37.36
410	**********	4897	26676	8.40	45.76
420	**********	5764	32440	9.89	55.64
430	**********	6324	38764	10.85	66.49
440	**********	6654	45418	11.41	77.90
450	**********	3227	48645	5.54	83.44
460	**********	5389	54034	9.24	92.68
470	*********	1833	55867	3.14	95.83
480		0	55867	0.00	95.83
490	******	1241	57108	2.13	97.95
500	***	694	57802	1.19	99.14
510		0	57802	0.00	99.14
520	**	340	58142	0.58	99.73
530		0	58142	0.00	99.73
540	*	118	58260	0.20	99.93
550		0	58260	0.00	99.93
560		29	58289	0.05	99.98
570		0	58289	0.00	99.98
580		0	58289	0.00	99.98
590		10	58299	0.02	100.00
600		0	58299	0.00	100.00
610		0	58299	0.00	100.00
620		2	58301	0.00	100.00
630		0	58301	0.00	100.00
640		0	58301	0.00	100.00
650		0	58301	0.00	100.00

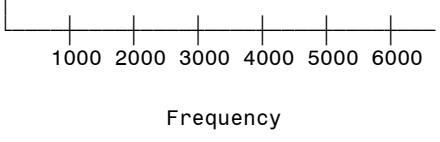


Figure B.2 Year 2008 Scale Score Distribution: Grade 3

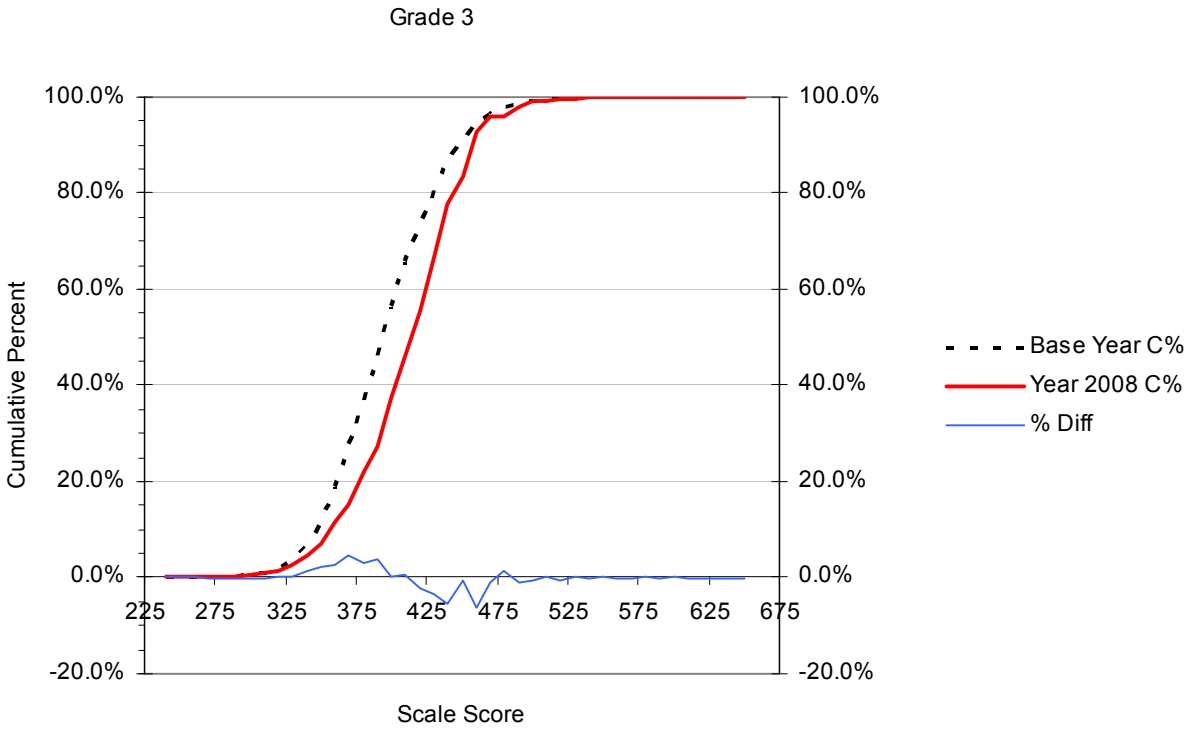


Figure B.3 Cumulative Distribution Functions (CDFs) for the Year 2003 vs. Year 2008 Scale Scores with the Percent Differences between CDFs: Grade 3

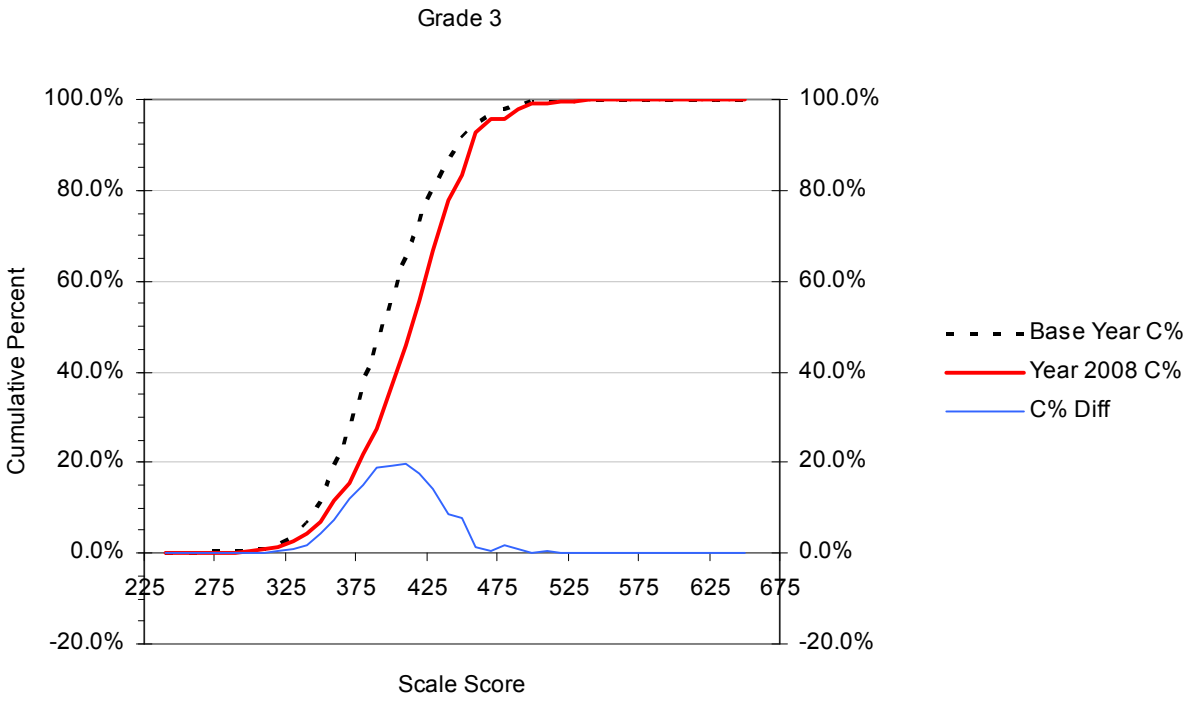


Figure B.4 Cumulative Distribution Functions (CDFs) for the Year 2003 vs. Year 2008 Scale Scores with the Cumulative Percent Differences between CDFs: Grade 3

Year 2004 Grade=4 (Base Year)

Scale Score Midpoint		Freq	Cum. Freq	Percent	Cum. Percent
240		72	72	0.12	0.12
250		3	75	0.00	0.12
260		1	76	0.00	0.12
270		11	87	0.02	0.14
280		75	162	0.12	0.26
290		75	237	0.12	0.38
300	*	273	510	0.44	0.83
310	**	347	857	0.56	1.39
320	****	896	1753	1.45	2.84
330	********	1516	3269	2.46	5.30
340	**********	2255	5524	3.65	8.95
350	**********	2552	8076	4.13	13.08
360	**********	3552	11628	5.75	18.84
370	**********	4251	15879	6.89	25.72
380	**********	4738	20617	7.68	33.40
390	**********	5806	26423	9.41	42.80
400	**********	6760	33183	10.95	53.76
410	**********	4626	37809	7.49	61.25
420	**********	7417	45226	12.02	73.26
430	**********	4696	49922	7.61	80.87
440	**********	4619	54541	7.48	88.35
450	**********	2514	57055	4.07	92.43
460	*********	1852	58907	3.00	95.43
470	*******	1352	60259	2.19	97.62
480	***	659	60918	1.07	98.68
490	*	239	61157	0.39	99.07
500	*	297	61454	0.48	99.55
510	*	110	61564	0.18	99.73
520		77	61641	0.12	99.86
530		31	61672	0.05	99.91
540		26	61698	0.04	99.95
550		9	61707	0.01	99.96
560		4	61711	0.01	99.97
570		8	61719	0.01	99.98
580		4	61723	0.01	99.99
590		7	61730	0.01	100.00
600		0	61730	0.00	100.00
610		0	61730	0.00	100.00
620		0	61730	0.00	100.00
630		0	61730	0.00	100.00
640		0	61730	0.00	100.00
650		0	61730	0.00	100.00

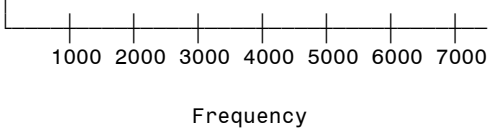


Figure B.5 Year 2004 Scale Score Distribution: Grade 4

Year 2008 Grade=4

Scale Score Midpoint		Freq	Cum. Freq	Percent	Cum. Percent
240		1	1	0.00	0.00
250		0	1	0.00	0.00
260		2	3	0.00	0.01
270		6	9	0.01	0.02
280		8	17	0.01	0.03
290		24	41	0.04	0.07
300		29	70	0.05	0.12
310	*	141	211	0.24	0.35
320	*	131	342	0.22	0.57
330	**	483	825	0.81	1.38
340	*****	920	1745	1.54	2.92
350	*******	1493	3238	2.50	5.42
360	**********	2268	5506	3.80	9.22
370	**********	2944	8450	4.93	14.15
380	**********	5887	14337	9.86	24.02
390	**********	4592	18929	7.69	31.71
400	**********	5384	24313	9.02	40.73
410	**********	5871	30184	9.83	50.56
420	**********	6364	36548	10.66	61.22
430	**********	6464	43012	10.83	72.05
440	**********	6542	49554	10.96	83.01
450	**********	2880	52434	4.82	87.83
460	**********	2471	54905	4.14	91.97
470	**********	2009	56914	3.37	95.34
480	*******	1483	58397	2.48	97.82
490		0	58397	0.00	97.82
500	****	844	59241	1.41	99.24
510		0	59241	0.00	99.24
520		0	59241	0.00	99.24
530	**	344	59585	0.58	99.81
540		0	59585	0.00	99.81
550		0	59585	0.00	99.81
560		82	59667	0.14	99.95
570		0	59667	0.00	99.95
580		0	59667	0.00	99.95
590		0	59667	0.00	99.95
600		23	59690	0.04	99.99
610		0	59690	0.00	99.99
620		0	59690	0.00	99.99
630		0	59690	0.00	99.99
640		4	59694	0.01	99.99
650		3	59697	0.01	100.00

1000 2000 3000 4000 5000 6000

Frequency

Figure B.6 Year 2008 Scale Score Distribution: Grade 4

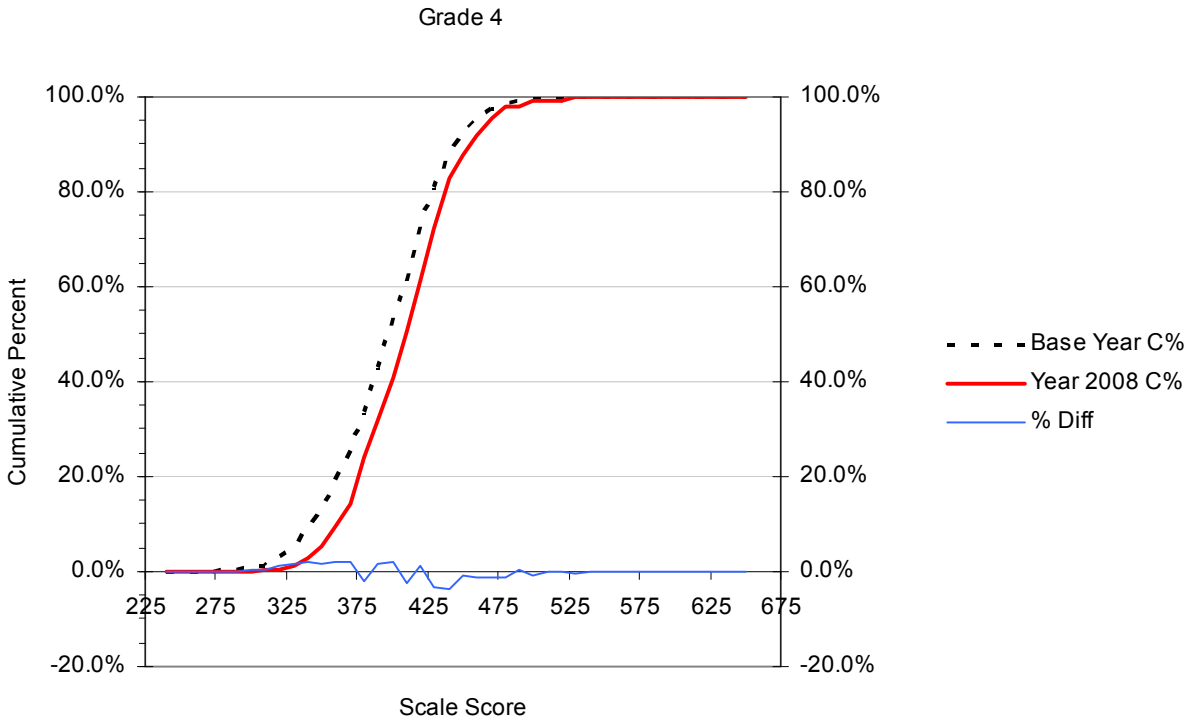


Figure B.7 Cumulative Distribution Functions (CDFs) for the Year 2004 vs. Year 2008 Scale Scores with the Percent Differences between CDFs: Grade 4

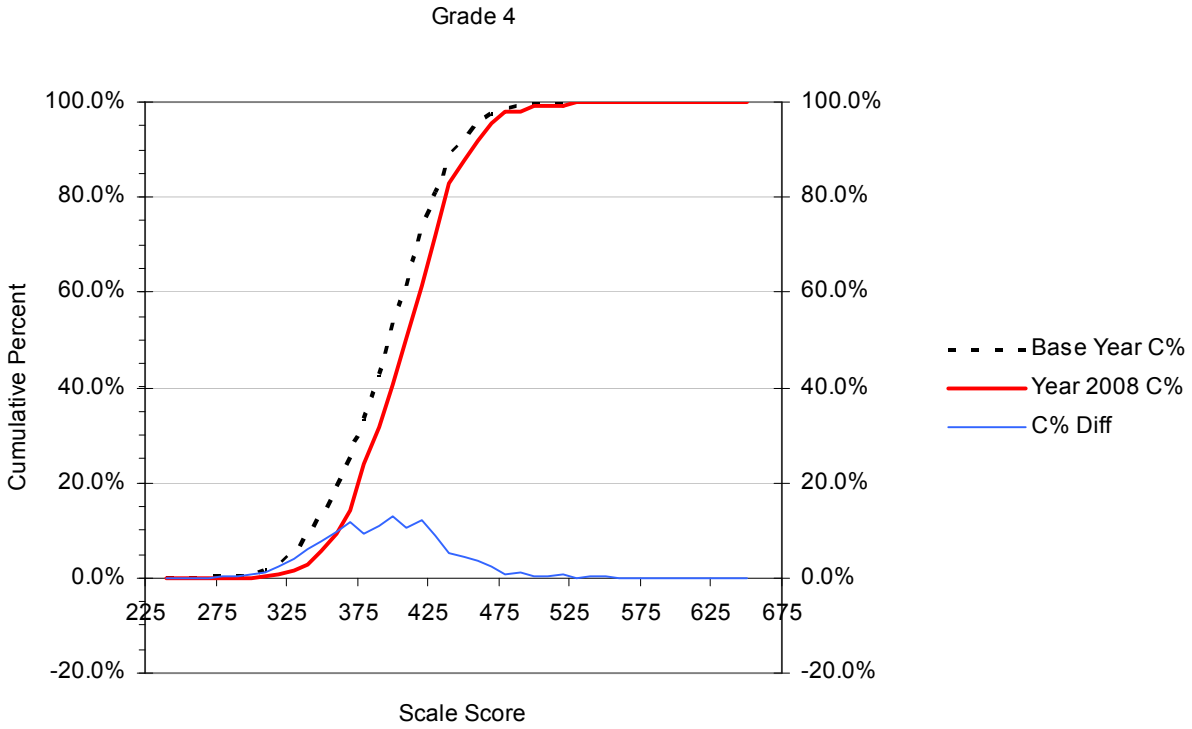


Figure B.8 Cumulative Distribution Functions (CDFs) for the Year 2004 vs. Year 2008 Scale Scores with the Cumulative percent Differences between CDFs: Grade 4

Year 2003 Grade=5 (Base Year)

Scale Score Midpoint		Freq	Cum. Freq	Percent	Cum. Percent
240	*	134	134	0.20	0.20
250		4	138	0.01	0.20
260		14	152	0.02	0.22
270		15	167	0.02	0.25
280		36	203	0.05	0.30
290		59	262	0.09	0.39
300	*	160	422	0.24	0.62
310	**	395	817	0.58	1.21
320	****	721	1538	1.06	2.27
330	*******	1342	2880	1.98	4.25
340	**********	2255	5135	3.33	7.58
350	**********	2989	8124	4.41	12.00
360	**********	4227	12351	6.24	18.24
370	**********	5685	18036	8.39	26.63
380	**********	5646	23682	8.34	34.97
390	**********	6664	30346	9.84	44.81
400	**********	6750	37096	9.97	54.78
410	**********	6814	43910	10.06	64.84
420	**********	5659	49569	8.36	73.19
430	**********	5052	54621	7.46	80.65
440	**********	4698	59319	6.94	87.59
450	**********	2996	62315	4.42	92.02
460	**********	1996	64311	2.95	94.96
470	*******	1463	65774	2.16	97.12
480	****	720	66494	1.06	98.19
490	**	452	66946	0.67	98.85
500	**	383	67329	0.57	99.42
510	*	147	67476	0.22	99.64
520	*	121	67597	0.18	99.82
530		58	67655	0.09	99.90
540		20	67675	0.03	99.93
550		17	67692	0.03	99.96
560		14	67706	0.02	99.98
570		12	67718	0.02	99.99
580		2	67720	0.00	100.00
590		2	67722	0.00	100.00
600		0	67722	0.00	100.00
610		0	67722	0.00	100.00
620		0	67722	0.00	100.00
630		0	67722	0.00	100.00
640		0	67722	0.00	100.00
650		0	67722	0.00	100.00

1000 2000 3000 4000 5000 6000

Frequency

Figure B.9 Year 2003 Scale Score Distribution: Grade 5

Year 2008 Grade=5

Scale Score Midpoint		Freq	Cum. Freq	Percent	Cum. Percent
240		4	4	0.01	0.01
250		0	4	0.00	0.01
260		3	7	0.00	0.01
270		0	7	0.00	0.01
280		1	8	0.00	0.01
290		3	11	0.00	0.02
300		11	22	0.02	0.04
310		19	41	0.03	0.07
320	*	103	144	0.17	0.24
330	*	207	351	0.34	0.58
340	**	421	772	0.70	1.28
350	****	724	1496	1.20	2.47
360	******	1134	2630	1.87	4.35
370	********	1635	4265	2.70	7.05
380	******************	3765	8030	6.22	13.28
390	*****************	3380	11410	5.59	18.86
400	*********************************	6538	17948	10.81	29.67
410	**************************	5419	23367	8.96	38.63
420	*******************************	6270	29637	10.37	49.00
430	**********************************	6921	36558	11.44	60.44
440	******************	3563	40121	5.89	66.33
450	**********************************	7076	47197	11.70	78.03
460	*****************	3344	50541	5.53	83.56
470	***************	3017	53558	4.99	88.55
480	************	2648	56206	4.38	92.92
490	**********	1987	58193	3.29	96.21
500	******	1282	59475	2.12	98.33
510		0	59475	0.00	98.33
520	***	662	60137	1.09	99.42
530		0	60137	0.00	99.42
540	*	250	60387	0.41	99.84
550		0	60387	0.00	99.84
560		0	60387	0.00	99.84
570		72	60459	0.12	99.96
580		0	60459	0.00	99.96
590		0	60459	0.00	99.96
600		0	60459	0.00	99.96
610		24	60483	0.04	100.00
620		0	60483	0.00	100.00
630		3	60486	0.00	100.00
640		0	60486	0.00	100.00
650		0	60486	0.00	100.00

1000 2000 3000 4000 5000 6000 7000

Frequency

Figure B.10 Year 2008 Scale Score Distribution: Grade 5

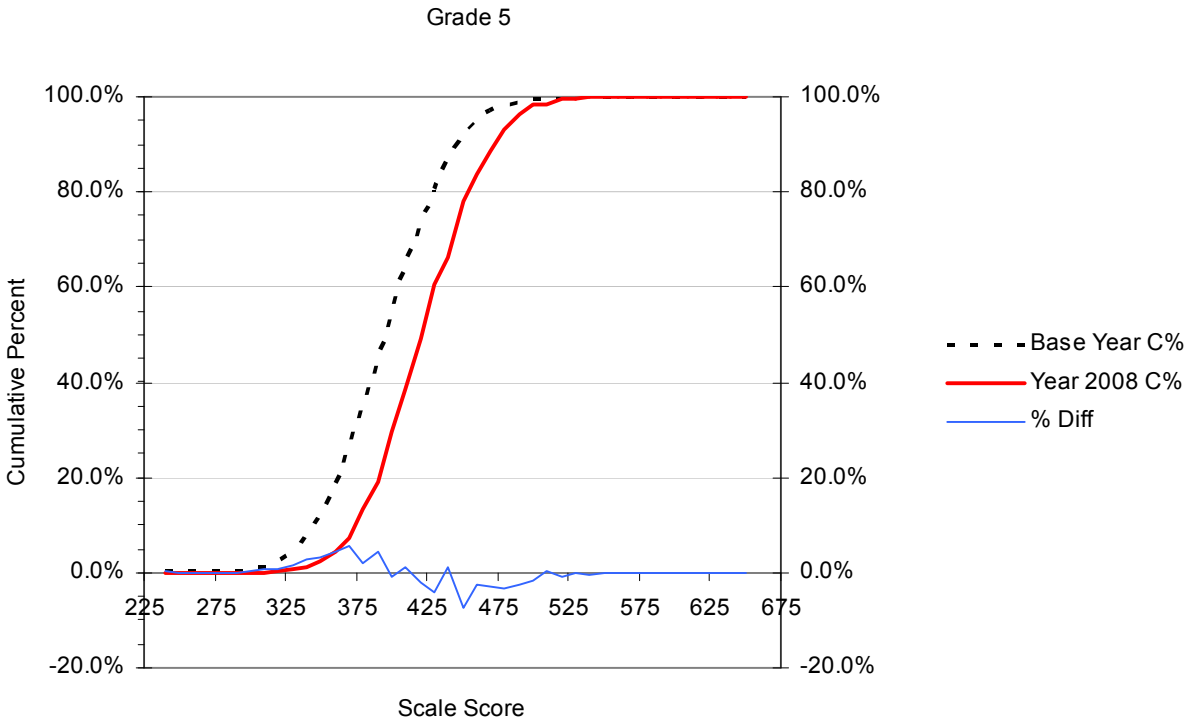


Figure B.11 Cumulative Distribution Functions (CDFs) for the Year 2003 vs. Year 2008 Scale Scores with the Percent Differences between CDFs: Grade 5

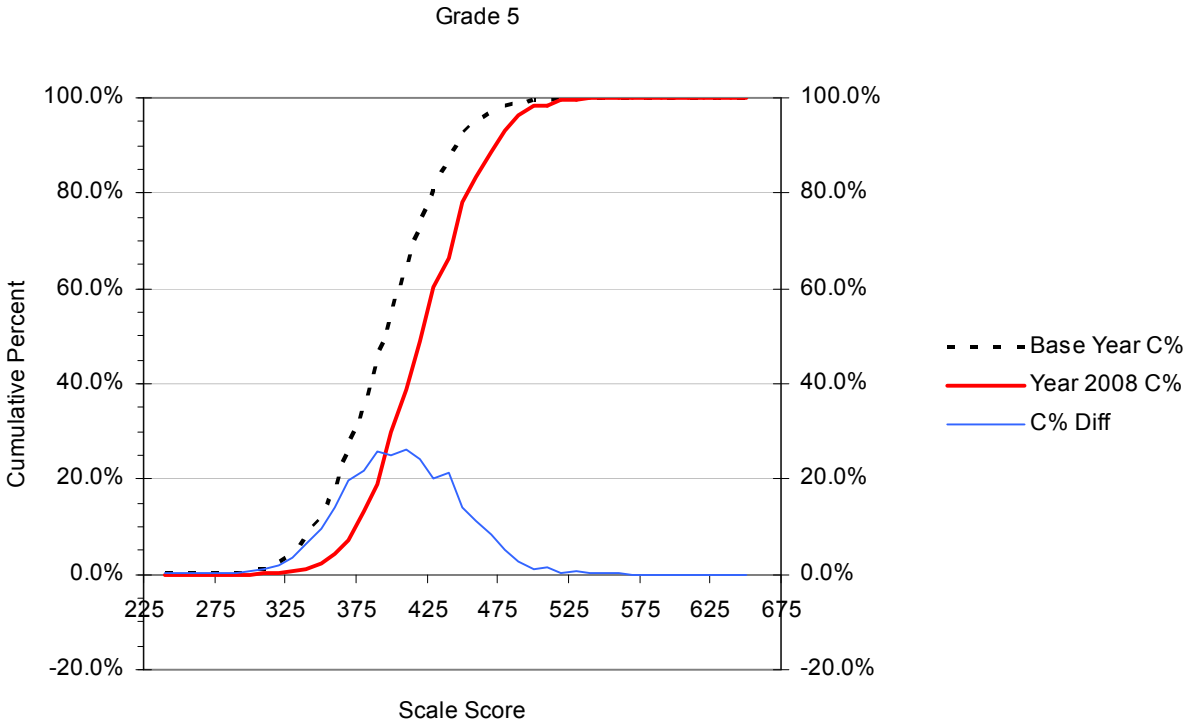


Figure B.12 Cumulative Distribution Functions (CDFs) for the Year 2003 vs. Year 2008 Scale Scores with the Cumulative Percent Differences between CDFs: Grade 5

Year 2004 Grade=6 (Base Year)

Scale Score Midpoint		Freq	Cum. Freq	Percent	Cum. Percent
240	*	277	277	0.41	0.41
250		12	289	0.02	0.42
260		8	297	0.01	0.44
270		14	311	0.02	0.46
280		33	344	0.05	0.51
290		61	405	0.09	0.59
300	*	108	513	0.16	0.75
310	**	317	830	0.47	1.22
320	***	624	1454	0.92	2.13
330	*******	1351	2805	1.98	4.12
340	**********	2070	4875	3.04	7.16
350	***************	3040	7915	4.46	11.62
360	*********************	4285	12200	6.29	17.91
370	**************************	5602	17802	8.23	26.14
380	*****************************	5716	23518	8.39	34.53
390	**********************************	6849	30367	10.06	44.59
400	*********************************	6684	37051	9.81	54.40
410	**********************************	7001	44052	10.28	64.68
420	*****************************	5803	49855	8.52	73.20
430	*****************************	5801	55656	8.52	81.72
440	*******************	3799	59455	5.58	87.30
450	***************	2997	62452	4.40	91.70
460	*********	1706	64158	2.50	94.20
470	*********	1780	65938	2.61	96.82
480	*****	1001	66939	1.47	98.29
490	***	564	67503	0.83	99.11
500	*	146	67649	0.21	99.33
510	*	298	67947	0.44	99.77
520		0	67947	0.00	99.77
530		66	68013	0.10	99.86
540		51	68064	0.07	99.94
550		22	68086	0.03	99.97
560		6	68092	0.01	99.98
570		9	68101	0.01	99.99
580		4	68105	0.01	100.00
590		1	68106	0.00	100.00
600		0	68106	0.00	100.00
610		0	68106	0.00	100.00
620		0	68106	0.00	100.00
630		0	68106	0.00	100.00
640		0	68106	0.00	100.00
650		0	68106	0.00	100.00

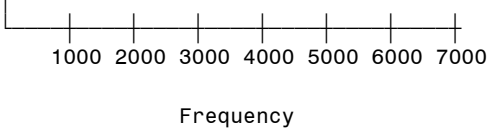


Figure B.13 Year 2004 Scale Score Distribution: Grade 6

Year 2008 Grade=6

Scale Score Midpoint		Freq	Cum. Freq	Percent	Cum. Percent
240		3	3	0.00	0.00
250		2	5	0.00	0.01
260		0	5	0.00	0.01
270		1	6	0.00	0.01
280		8	14	0.01	0.02
290		12	26	0.02	0.04
300		19	45	0.03	0.07
310		96	141	0.16	0.23
320	*	177	318	0.29	0.52
330	**	436	754	0.71	1.24
340	****	744	1498	1.22	2.45
350	******	1151	2649	1.89	4.34
360	**********	2661	5310	4.36	8.70
370	**********	4121	9431	6.75	15.45
380	**********	3568	12999	5.85	21.30
390	**********	6823	19822	11.18	32.48
400	**********	5449	25271	8.93	41.40
410	**********	6192	31463	10.14	51.55
420	**********	6817	38280	11.17	62.72
430	**********	7230	45510	11.85	74.56
440	**********	3407	48917	5.58	80.14
450	**********	3279	52196	5.37	85.52
460	**********	2932	55128	4.80	90.32
470	**********	2574	57702	4.22	94.54
480	*********	1749	59451	2.87	97.40
490		0	59451	0.00	97.40
500	*****	959	60410	1.57	98.97
510		0	60410	0.00	98.97
520	**	414	60824	0.68	99.65
530		0	60824	0.00	99.65
540	*	145	60969	0.24	99.89
550		0	60969	0.00	99.89
560		0	60969	0.00	99.89
570		59	61028	0.10	99.99
580		0	61028	0.00	99.99
590		0	61028	0.00	99.99
600		8	61036	0.01	100.00
610		0	61036	0.00	100.00
620		0	61036	0.00	100.00
630		0	61036	0.00	100.00
640		0	61036	0.00	100.00
650		0	61036	0.00	100.00

1000 2000 3000 4000 5000 6000 7000

Frequency

Figure B.14 Year 2008 Scale Score Distribution: Grade 6

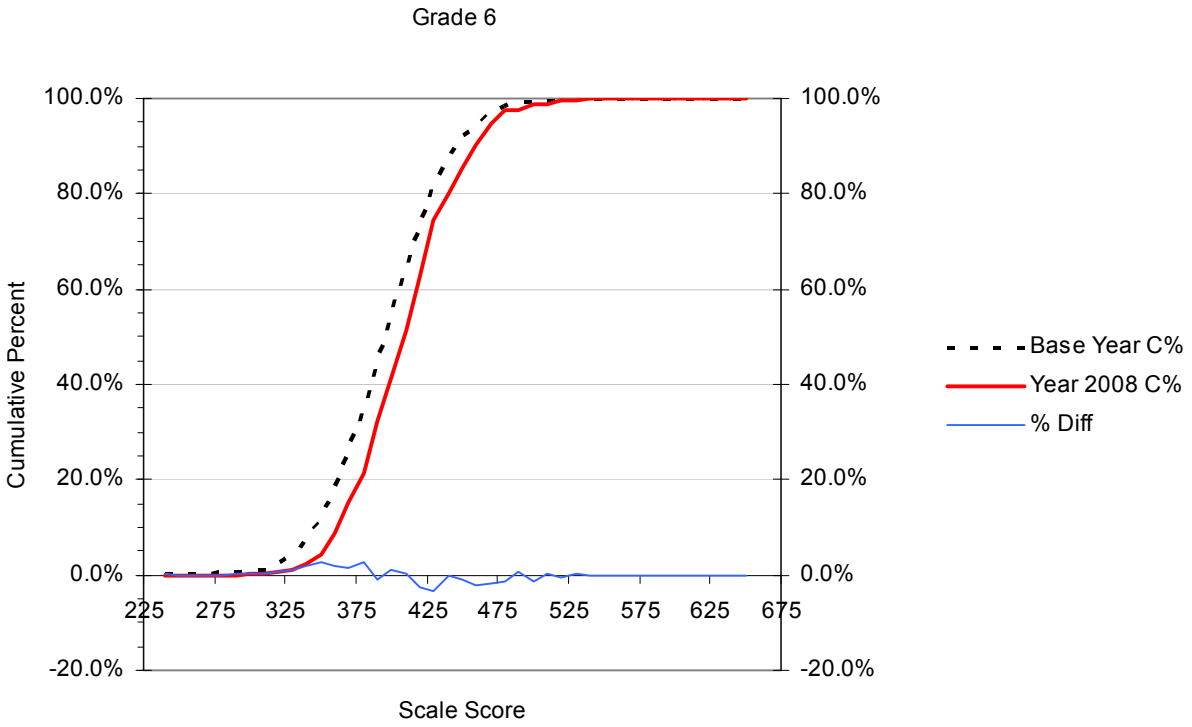


Figure B.15 Cumulative Distribution Functions (CDFs) for the Year 2004 vs. Year 2008 Scale Scores with the Percent Differences between CDFs: Grade 6

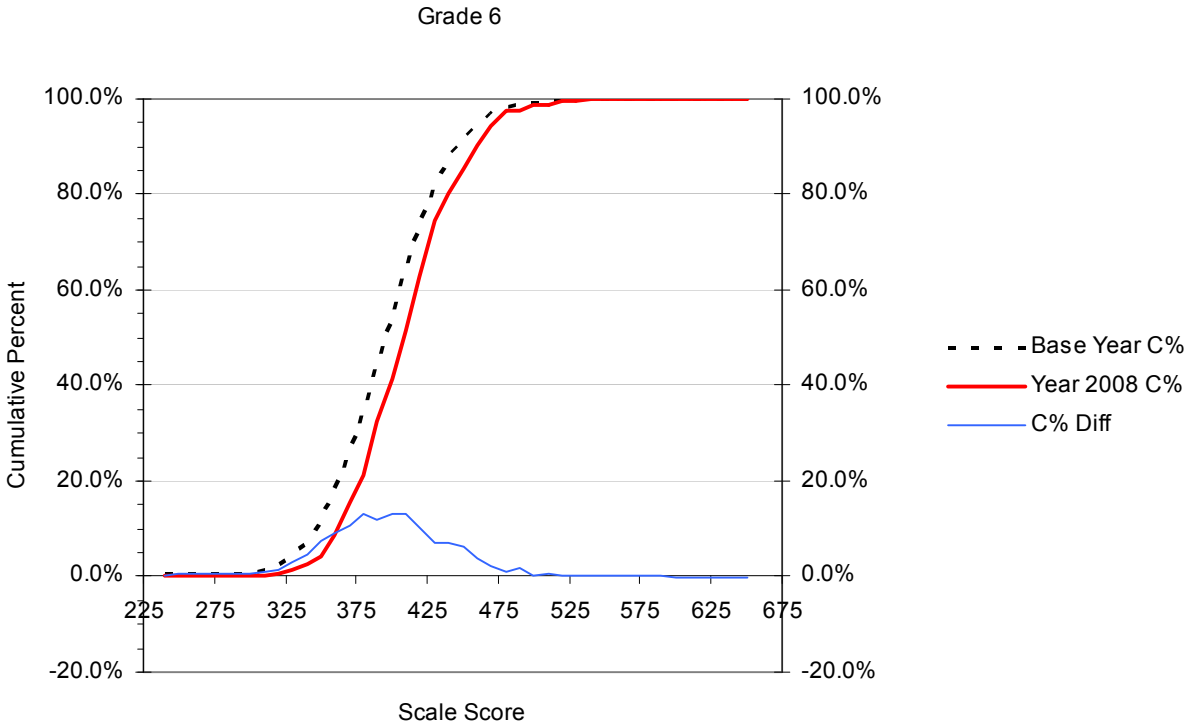


Figure B.16 Cumulative Distribution Functions (CDFs) for the Year 2004 vs. Year 2008 Scale Scores with the Cumulative Percent Differences between CDFs: Grade 6

Year 2004 Grade=7 (Base Year)

Scale Score Midpoint		Freq	Cum. Freq	Percent	Cum. Percent
240	**	436	436	0.63	0.63
250		0	436	0.00	0.63
260		31	467	0.04	0.68
270		12	479	0.02	0.69
280		32	511	0.05	0.74
290		62	573	0.09	0.83
300	*	134	707	0.19	1.02
310	**	410	1117	0.59	1.62
320	****	776	1893	1.12	2.74
330	******	1288	3181	1.86	4.60
340	*********	1778	4959	2.57	7.17
350	**********	2797	7756	4.04	11.21
360	**********	3648	11404	5.27	16.49
370	**********	5034	16438	7.28	23.77
380	**********	5865	22303	8.48	32.25
390	**********	7817	30120	11.30	43.55
400	**********	6965	37085	10.07	53.62
410	**********	7175	44260	10.37	63.99
420	**********	6773	51033	9.79	73.79
430	**********	5910	56943	8.55	82.33
440	**********	4679	61622	6.77	89.10
450	**********	2633	64255	3.81	92.90
460	*********	1782	66037	2.58	95.48
470	********	1546	67583	2.24	97.72
480	**	414	67997	0.60	98.31
490	***	563	68560	0.81	99.13
500	*	257	68817	0.37	99.50
510		94	68911	0.14	99.64
520	*	128	69039	0.19	99.82
530		54	69093	0.08	99.90
540		32	69125	0.05	99.95
550		11	69136	0.02	99.96
560		14	69150	0.02	99.98
570		5	69155	0.01	99.99
580		5	69160	0.01	100.00
590		1	69161	0.00	100.00
600		0	69161	0.00	100.00
610		2	69163	0.00	100.00
620		0	69163	0.00	100.00
630		0	69163	0.00	100.00
640		0	69163	0.00	100.00
650		0	69163	0.00	100.00

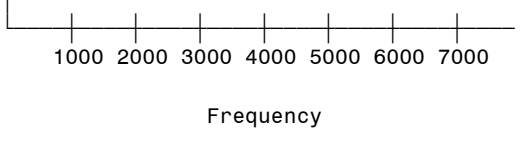


Figure B.17 Year 2004 Scale Score Distribution: Grade 7

Year 2008 Grade=7

Scale Score Midpoint		Freq	Cum. Freq	Percent	Cum. Percent
240		9	9	0.01	0.01
250		0	9	0.00	0.01
260		0	9	0.00	0.01
270		0	9	0.00	0.01
280		8	17	0.01	0.03
290		19	36	0.03	0.06
300		42	78	0.07	0.12
310	*	151	229	0.24	0.37
320	*	146	375	0.23	0.60
330	**	480	855	0.77	1.37
340	****	716	1571	1.15	2.51
350	*********	1757	3328	2.81	5.32
360	*********	1732	5060	2.77	8.09
370	**********	3485	8545	5.57	13.67
380	**********	3195	11740	5.11	18.78
390	**********	6001	17741	9.60	28.38
400	**********	5192	22933	8.31	36.69
410	**********	6058	28991	9.69	46.38
420	**********	6719	35710	10.75	57.12
430	**********	7294	43004	11.67	68.79
440	**********	7164	50168	11.46	80.25
450	**********	3261	53429	5.22	85.47
460	**********	2847	56276	4.55	90.02
470	**********	2298	58574	3.68	93.70
480	*********	1720	60294	2.75	96.45
490	*****	1052	61346	1.68	98.13
500	***	635	61981	1.02	99.15
510		0	61981	0.00	99.15
520	**	335	62316	0.54	99.68
530		0	62316	0.00	99.68
540	*	144	62460	0.23	99.92
550		0	62460	0.00	99.92
560		0	62460	0.00	99.92
570		47	62507	0.08	99.99
580		0	62507	0.00	99.99
590		6	62513	0.01	100.00
600		0	62513	0.00	100.00
610		0	62513	0.00	100.00
620		0	62513	0.00	100.00
630		0	62513	0.00	100.00
640		0	62513	0.00	100.00
650		0	62513	0.00	100.00

1000 2000 3000 4000 5000 6000 7000

Frequency

Figure B.18 Year 2008 Scale Score Distribution: Grade 7

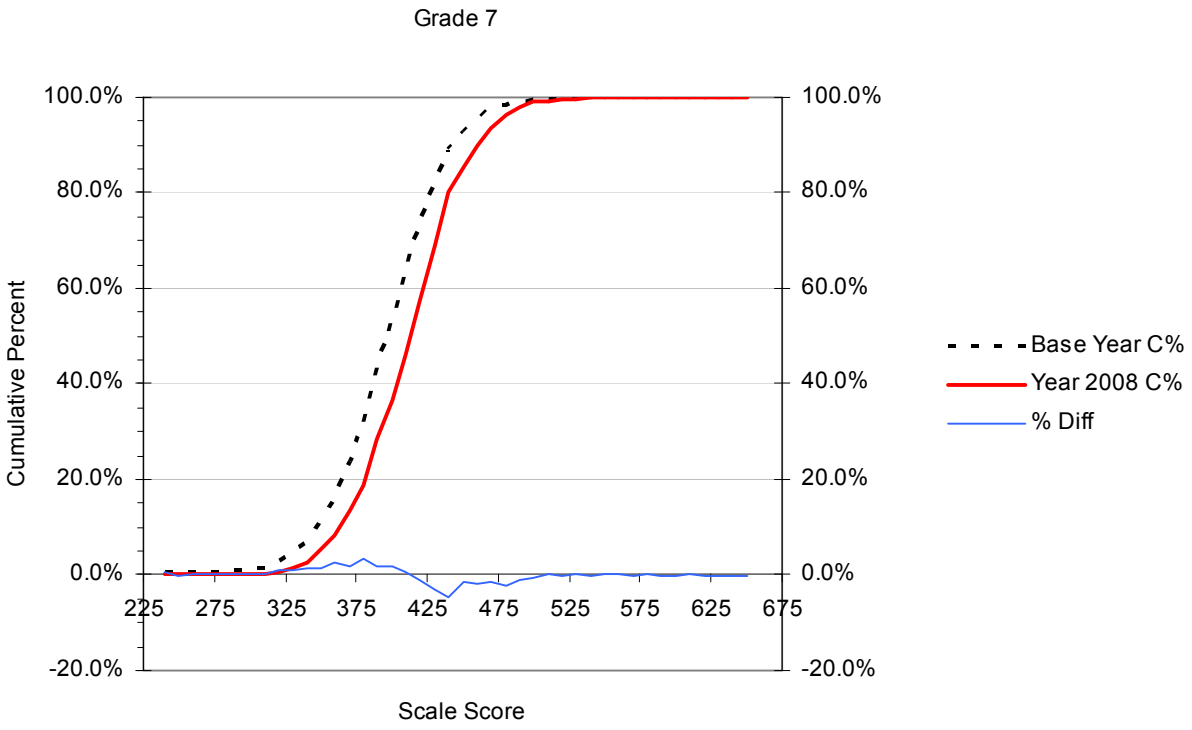


Figure B.19 Cumulative Distribution Functions (CDFs) for the Year 2004 vs. Year 2008 Scale Scores with the Percent Differences between CDFs: Grade 7

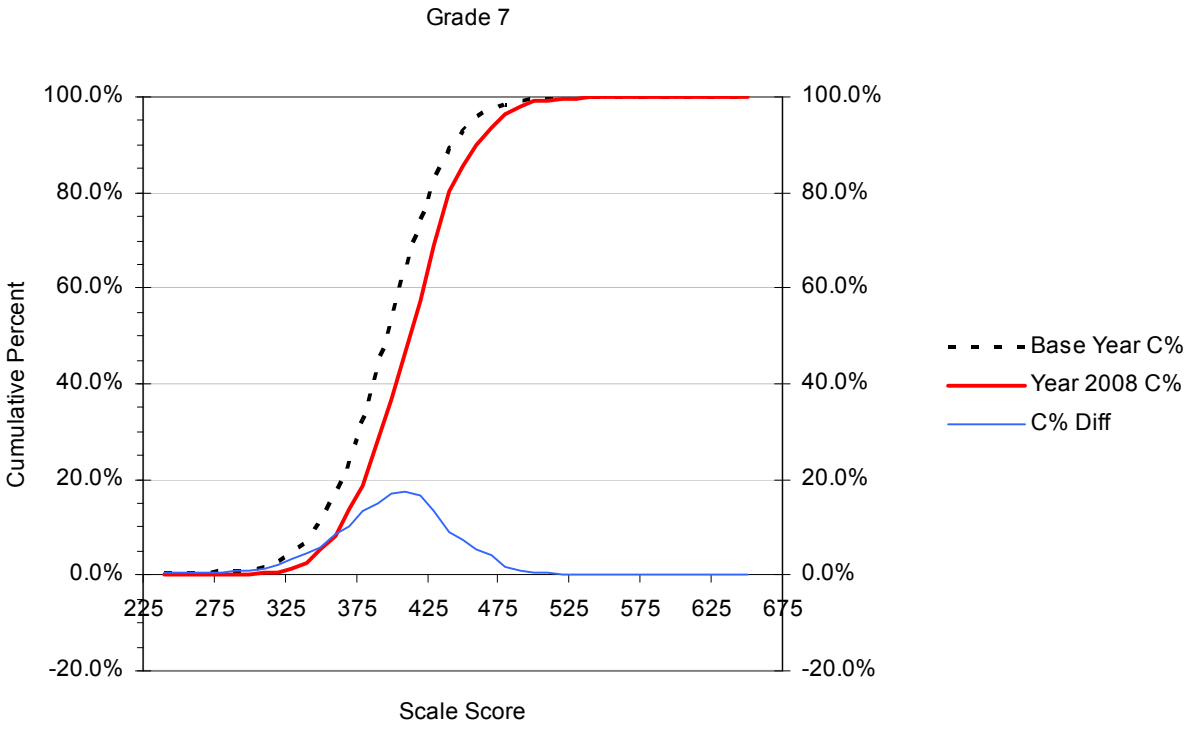


Figure B.20 Cumulative Distribution Functions (CDFs) for the Year 2004 vs. Year 2008 Scale Scores with the Cumulative Percent Differences between CDFs: Grade 7

Year 2003 Grade=8 (Base Year)

Scale Score Midpoint		Freq	Cum. Freq	Percent	Cum. Percent
240	***	552	552	0.82	0.82
250		0	552	0.00	0.82
260		10	562	0.01	0.83
270		12	574	0.02	0.85
280		34	608	0.05	0.90
290		76	684	0.11	1.01
300	*	136	820	0.20	1.21
310	*	214	1034	0.32	1.53
320	***	566	1600	0.84	2.36
330	****	864	2464	1.28	3.64
340	**********	1923	4387	2.84	6.48
350	************	2609	6996	3.85	10.33
360	********************	3998	10994	5.90	16.24
370	**************************	5525	16519	8.16	24.40
380	*************************	5473	21992	8.08	32.48
390	**********************************	7195	29187	10.63	43.11
400	**	7935	37122	11.72	54.83
410	*******************************	6409	43531	9.47	64.29
420	********************************	6584	50115	9.72	74.02
430	**************************	5539	55654	8.18	82.20
440	********************	3943	59597	5.82	88.02
450	*****************	3316	62913	4.90	92.92
460	**********	1998	64911	2.95	95.87
470	******	1276	66187	1.88	97.76
480	***	699	66886	1.03	98.79
490	*	166	67052	0.25	99.03
500	**	403	67455	0.60	99.63
510		19	67474	0.03	99.66
520	*	140	67614	0.21	99.86
530		27	67641	0.04	99.90
540		33	67674	0.05	99.95
550		28	67702	0.04	99.99
560		0	67702	0.00	99.99
570		3	67705	0.00	100.00
580		1	67706	0.00	100.00
590		0	67706	0.00	100.00
600		0	67706	0.00	100.00
610		0	67706	0.00	100.00
620		0	67706	0.00	100.00
630		0	67706	0.00	100.00
640		0	67706	0.00	100.00
650		0	67706	0.00	100.00

1000 2000 3000 4000 5000 6000 7000 8000

Frequency

Figure B.21 Year 2003 Scale Score Distribution: Grade 8

Year 2008 Grade=8

Scale Score Midpoint		Freq	Cum. Freq	Percent	Cum. Percent
240		11	11	0.02	0.02
250		0	11	0.00	0.02
260		9	20	0.01	0.03
270		9	29	0.01	0.05
280		0	29	0.00	0.05
290		11	40	0.02	0.06
300		27	67	0.04	0.10
310	*	100	167	0.16	0.26
320	*	269	436	0.42	0.68
330	*	190	626	0.30	0.98
340	******	1100	1726	1.72	2.70
350	******	1197	2923	1.87	4.58
360	**********	2551	5474	3.99	8.57
370	**********	2471	7945	3.87	12.44
380	**********	5086	13031	7.96	20.41
390	**********	6754	19785	10.58	30.98
400	**********	5620	25405	8.80	39.78
410	**********	6193	31598	9.70	49.48
420	**********	10462	42060	16.38	65.86
430	**********	3563	45623	5.58	71.44
440	**********	6832	52455	10.70	82.14
450	**********	3248	55703	5.09	87.23
460	**********	2716	58419	4.25	91.48
470	**********	2260	60679	3.54	95.02
480	**********	1517	62196	2.38	97.40
490	**********	880	63076	1.38	98.78
500		0	63076	0.00	98.78
510	**	473	63549	0.74	99.52
520		0	63549	0.00	99.52
530	*	220	63769	0.34	99.86
540		0	63769	0.00	99.86
550		71	63840	0.11	99.97
560		0	63840	0.00	99.97
570		0	63840	0.00	99.97
580		18	63858	0.03	100.00
590		0	63858	0.00	100.00
600		0	63858	0.00	100.00
610		0	63858	0.00	100.00
620		0	63858	0.00	100.00
630		0	63858	0.00	100.00
640		0	63858	0.00	100.00
650		0	63858	0.00	100.00

2000 4000 6000 8000 10000

Frequency

Figure B.22 Year 2008 Scale Score Distribution: Grade 8

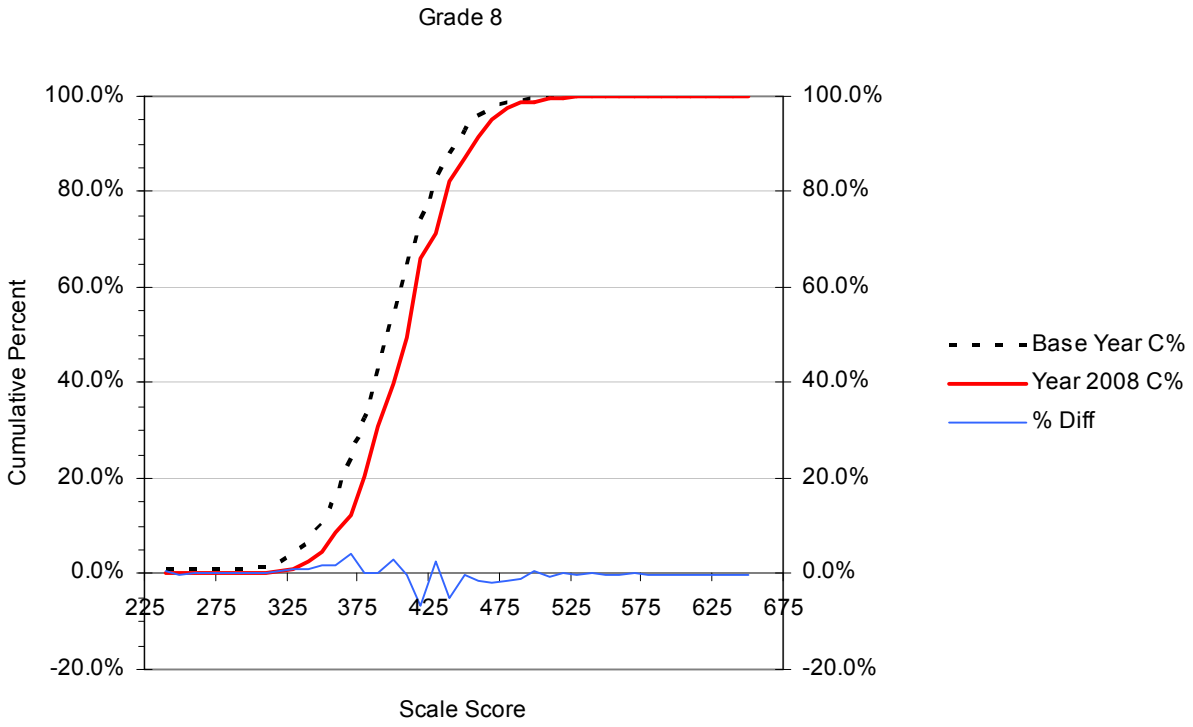


Figure B.23 Cumulative Distribution Functions (CDFs) for the Year 2003 vs. Year 2008 Scale Scores with the Percent Differences between CDFs: Grade 8

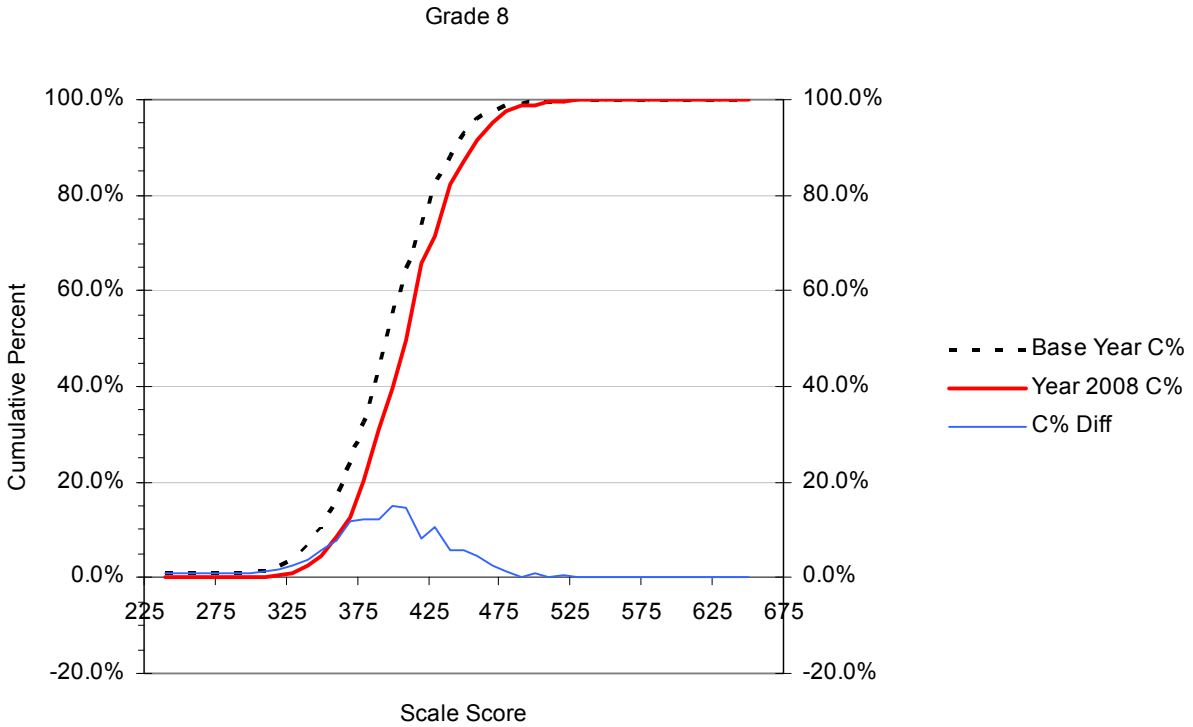


Figure B.24 Cumulative Distribution Functions (CDFs) for the Year 2003 vs. Year 2008 Scale Scores with the Cumulative Percent Differences between CDFs: Grade 8

APPENDIX C: THE 2008 MSA-READING CLASSICAL AND RASCH ITEM PARAMETERS

Table C.1 The 2008 MSA-Reading Classical and Rasch Item Parameters: Grade 3

Item Number	Item Type	P-Value	Point-Biserial	Rasch Difficulty	*SE*	Ms. Infit	Ms. Outfit	Step 0-1	Step 1-2	Step 2-3
1	SR	0.93	0.24	-1.3708	0.0615	0.70	0.63			
3	SR	0.98	0.28	-3.3089	0.1314	0.89	0.26			
4	SR	0.74	0.47	-0.1994	0.0457	0.88	0.78			
6	SR	0.87	0.32	-1.1969	0.0582	0.98	0.94			
7	SR	0.89	0.32	-1.4394	0.0628	0.96	1.07			
8	SR	0.94	0.31	-2.1425	0.0806	0.92	0.53			
10	SR	0.68	0.34	0.1005	0.0435	1.03	1.00			
11	SR	0.64	0.38	0.4026	0.0420	0.96	0.90			
12	SR	0.77	0.35	-0.3764	0.0474	0.99	0.88			
14	SR	0.78	0.48	-0.4995	0.0486	0.89	0.78			
15	BCR	0.39	0.51	2.2206	0.0274	0.97	0.96	-1.9595	-0.8455	2.8050
16	SR	0.46	0.25	1.3168	0.0407	1.12	1.22			
17	SR	0.43	0.27	1.1695	0.0406	1.06	1.10			
18	BCR	0.44	0.42	1.5812	0.0370	0.98	0.98	-4.1468	0.1837	3.9631
19	SR	0.62	0.32	0.4932	0.0421	1.04	1.05			
20	SR	0.85	0.25	-0.5386	0.0491	0.86	0.85			
21	BCR	0.46	0.49	1.6154	0.0298	0.97	0.95	-2.4425	-0.5135	2.9561
22	SR	0.78	0.44	-0.3016	0.0467	0.85	0.72			
23	SR	0.65	0.42	0.2707	0.0430	0.97	0.94			
24	BCR	0.36	0.38	2.3142	0.0293	1.17	1.19	-2.4282	-0.3975	2.8256
25	SR	0.64	0.40	0.4743	0.0419	0.92	0.88			
26	SR	0.74	0.39	-0.2474	0.0461	0.96	0.92			
28	SR	0.67	0.47	0.2192	0.0429	0.90	0.82			
29	SR	0.82	0.39	-0.7230	0.0512	0.92	0.83			
30	SR	0.85	0.38	-1.1049	0.0568	0.95	0.85			
31	SR	0.68	0.25	0.1164	0.0434	1.09	1.12			
32	SR	0.79	0.34	-0.5607	0.0492	1.00	0.93			
33	SR	0.80	0.39	-0.6244	0.0500	0.93	0.79			
34	SR	0.38	0.14	1.6450	0.0414	1.20	1.35			
42	SR	0.68	0.27	0.1366	0.0434	1.09	1.12			
43	SR	0.32	0.12	1.9814	0.0429	1.20	1.48			
44	SR	0.86	0.35	-1.2669	0.0598	0.95	0.90			
45	SR	0.66	0.34	0.2368	0.0430	1.04	1.06			
48	SR	0.54	0.36	0.8086	0.0410	1.01	1.01			
49	SR	0.72	0.35	-0.1374	0.0457	1.02	1.03			
50	SR	0.81	0.44	-0.8040	0.0528	0.90	0.75			
51	SR	0.73	0.44	-0.3685	0.0477	0.94	0.87			

Table C.2 The 2008 MSA-Reading Classical and Rasch Item Parameters: Grade 4

Item Number	Item Type	P-Value	Point-Biserial	Rasch Difficulty	*SE*	Ms. Infit	Ms. Outfit	Step 0-1	Step 1-2	Step 2-3
1	SR	0.65	0.45	0.8485	0.0420	0.93	0.86			
2	SR	0.79	0.39	-0.2773	0.0508	1.06	0.89			
3	SR	0.78	0.39	-0.0474	0.0482	0.97	0.83			
4	SR	0.94	0.33	-1.6940	0.0798	0.94	0.59			
6	SR	0.95	0.32	-1.3091	0.0692	0.49	0.31			
7	SR	0.96	0.27	-2.4973	0.1111	0.91	0.42			
8	SR	0.55	0.20	1.2863	0.0409	1.20	1.26			
10	SR	0.94	0.28	-1.7138	0.0810	0.94	0.88			
11	SR	0.89	0.32	-0.9493	0.0618	0.96	0.88			
13	SR	0.63	0.25	0.7080	0.0427	1.20	1.33			
14	BCR	0.54	0.36	1.4129	0.0366	1.07	1.09	-3.7214	-0.5028	4.2243
15	SR	0.72	0.46	0.2293	0.0458	0.97	0.93			
16	SR	0.68	0.38	0.7692	0.0425	0.96	0.93			
17	BCR	0.49	0.45	2.4090	0.0392	0.96	0.95	-5.5103	-0.8980	6.4084
18	SR	0.68	0.26	0.8319	0.0423	1.07	1.17			
19	SR	0.61	0.35	1.1764	0.0411	0.99	0.99			
20	BCR	0.52	0.43	1.8767	0.0361	1.01	1.00	-3.7237	-0.7714	4.4951
21	SR	0.49	0.37	1.7387	0.0409	1.02	1.08			
22	SR	0.82	0.43	-0.6023	0.0557	1.01	0.88			
23	BCR	0.49	0.45	2.1074	0.0380	0.96	0.96	-4.7107	-0.5710	5.2817
24	SR	0.78	0.42	-0.0068	0.0480	0.92	0.89			
25	SR	0.48	0.37	1.5995	0.0408	1.01	1.00			
26	SR	0.78	0.36	0.0078	0.0477	0.97	0.93			
27	SR	0.64	0.48	0.9086	0.0418	0.90	0.86			
29	SR	0.44	0.34	1.8308	0.0412	1.02	1.07			
30	SR	0.84	0.39	-0.4906	0.0538	0.94	0.81			
32	SR	0.56	0.30	1.2561	0.0411	1.09	1.11			
33	SR	0.74	0.43	0.1900	0.0461	0.94	0.85			
34	SR	0.65	0.39	0.8154	0.0424	0.96	0.94			
41	SR	0.67	0.35	0.6252	0.0433	1.04	0.99			
42	SR	0.50	0.26	1.5863	0.0410	1.14	1.25			
43	SR	0.79	0.40	-0.1066	0.0494	0.94	0.83			
45	SR	0.73	0.45	0.1261	0.0477	0.89	0.80			
47	SR	0.44	0.26	1.8120	0.0416	1.15	1.24			
48	SR	0.62	0.38	0.7931	0.0430	1.00	0.98			
49	SR	0.32	0.20	2.3987	0.0437	1.18	1.38			
50	SR	0.42	0.38	1.9232	0.0419	0.95	0.95			

Table C.3 The 2008 MSA-Reading Classical and Rasch Item Parameters: Grade 5

Item Number	Item Type	P-Value	Point-Biserial	Rasch Difficulty	*SE*	Ms. Infit	Ms. Outfit	Step 0-1	Step 1-2	Step 2-3
1	SR	0.86	0.20	-0.6371	0.0543	1.08	1.46			
2	SR	0.81	0.06	-0.2093	0.0490	1.14	1.49			
3	SR	0.91	0.28	-1.2263	0.0648	0.86	0.79			
4	SR	0.94	0.31	-1.4827	0.0705	0.77	0.56			
6	SR	0.92	0.37	-1.3213	0.0668	0.85	0.60			
7	SR	0.95	0.28	-1.8707	0.0814	0.81	0.63			
8	SR	0.89	0.36	-1.0118	0.0606	0.85	0.69			
9	SR	0.50	0.10	1.4561	0.0412	1.29	1.44			
10	SR	0.93	0.37	-1.7612	0.0782	0.91	0.55			
12	SR	0.72	0.35	0.2674	0.0449	1.03	1.15			
13	BCR	0.61	0.41	0.8128	0.0431	0.94	0.92	-3.5853	-1.1317	4.7170
14	SR	0.63	0.38	0.6569	0.0428	0.99	0.95			
15	SR	0.80	0.41	-0.0942	0.0480	0.90	0.98			
16	BCR	0.51	0.36	1.6931	0.0373	1.08	1.08	-4.1387	-0.5787	4.7175
17	SR	0.70	0.45	0.3150	0.0447	0.91	0.87			
18	SR	0.76	0.34	-0.0933	0.0479	1.01	1.04			
19	BCR	0.45	0.51	1.9023	0.0288	0.97	0.97	-2.1832	-0.5677	2.7509
20	SR	0.62	0.38	0.8069	0.0422	0.99	0.95			
21	SR	0.73	0.50	0.0189	0.0469	0.90	0.76			
22	BCR	0.26	0.45	3.2443	0.0298	0.97	0.97	-1.9905	-0.2633	2.2539
23	SR	0.73	0.40	0.2838	0.0450	0.87	0.81			
24	SR	0.66	0.51	0.6301	0.0429	0.85	0.76			
25	SR	0.92	0.40	-1.4082	0.0688	0.88	0.62			
26	SR	0.69	0.24	0.3943	0.0443	1.16	1.30			
28	SR	0.80	0.40	-0.3381	0.0511	0.94	0.91			
29	SR	0.62	0.21	0.8241	0.0422	1.17	1.29			
30	SR	0.67	0.36	0.5393	0.0433	1.01	1.03			
32	SR	0.58	0.38	1.0171	0.0417	1.01	0.99			
33	SR	0.45	0.33	1.6175	0.0414	1.05	1.13			
40	SR	0.76	0.53	-0.0038	0.0473	0.83	0.69			
42	SR	0.79	0.41	-0.3507	0.0510	0.97	0.90			
43	SR	0.41	0.36	1.8451	0.0419	0.99	1.05			
44	SR	0.83	0.50	-0.6512	0.0552	0.84	0.60			
45	SR	0.48	0.22	1.4492	0.0414	1.21	1.31			
46	SR	0.82	0.44	-0.6214	0.0546	0.90	0.75			
48	SR	0.77	0.41	-0.2335	0.0499	0.96	0.89			
49	SR	0.55	0.38	1.0879	0.0419	1.03	1.05			

Table C.4 The 2008 MSA-Reading Classical and Rasch Item Parameters: Grade 6

Item Number	Item Type	P-Value	Point-Biserial	Rasch Difficulty	*SE*	Ms. Infit	Ms. Outfit	Step 0-1	Step 1-2	Step 2-3
1	SR	0.92	0.29	-1.3336	0.0645	0.80	0.64			
2	SR	0.96	0.26	-2.7550	0.1110	0.93	0.75			
3	SR	0.85	0.20	-0.9089	0.0569	1.11	1.57			
4	SR	0.88	0.29	-1.1479	0.0609	0.97	0.94			
5	SR	0.81	0.28	-0.5668	0.0521	1.09	1.26			
7	SR	0.92	0.40	-1.4246	0.0666	0.78	0.54			
8	SR	0.52	0.36	1.0944	0.0418	1.08	1.13			
9	SR	0.80	0.37	-0.4850	0.0514	1.01	0.90			
10	SR	0.93	0.32	-1.5147	0.0688	0.74	0.49			
12	SR	0.59	0.17	0.7875	0.0423	1.28	1.54			
13	BCR	0.51	0.41	1.2440	0.0375	1.01	1.01	-4.3701	0.0005	4.3697
14	SR	0.61	0.40	0.9960	0.0418	0.95	0.96			
15	SR	0.73	0.34	-0.2046	0.0482	1.11	1.16			
16	BCR	0.50	0.49	1.3674	0.0363	0.94	0.93	-3.7982	-0.3367	4.1348
17	SR	0.78	0.37	-0.2090	0.0484	0.96	1.06			
18	SR	0.73	0.41	0.0837	0.0458	0.97	0.90			
19	BCR	0.48	0.47	1.6025	0.0362	0.99	0.99	-3.9479	-0.1895	4.1374
20	SR	0.84	0.49	-0.5605	0.0521	0.84	0.69			
21	SR	0.32	0.34	2.2706	0.0442	0.98	1.25			
22	BCR	0.55	0.49	0.7994	0.0341	0.98	0.98	-3.3192	-0.0990	3.4182
23	SR	0.61	0.47	0.8285	0.0424	0.89	0.84			
24	SR	0.66	0.34	0.5185	0.0433	1.04	1.05			
26	SR	0.71	0.41	0.0913	0.0458	0.96	0.98			
27	SR	0.76	0.48	-0.1405	0.0476	0.89	0.71			
28	SR	0.57	0.34	0.8582	0.0422	1.08	1.13			
29	SR	0.88	0.39	-0.9772	0.0580	0.92	1.11			
30	SR	0.50	0.31	1.2935	0.0416	1.12	1.21			
32	SR	0.84	0.36	-0.7374	0.0545	0.96	1.04			
33	SR	0.78	0.34	-0.3487	0.0498	1.02	1.40			
40	SR	0.58	0.34	0.8946	0.0421	1.08	1.10			
41	SR	0.80	0.41	-0.4198	0.0505	0.96	0.90			
43	SR	0.57	0.35	0.9591	0.0420	1.09	1.22			
44	SR	0.70	0.32	0.1688	0.0454	1.07	1.05			
45	SR	0.55	0.46	1.0247	0.0420	0.90	0.91			
46	SR	0.72	0.47	0.0542	0.0462	0.91	0.79			
47	SR	0.71	0.50	0.1787	0.0455	0.85	0.72			
49	SR	0.84	0.39	-0.8128	0.0558	0.95	0.80			

Table C.5 The 2008 MSA-Reading Classical and Rasch Item Parameters: Grade 7

Item Number	Item Type	P-Value	Point-Biserial	Rasch Difficulty	*SE*	Ms. Infit	Ms. Outfit	Step 0-1	Step 1-2	Step 2-3
1	SR	0.95	0.31	-1.9151	0.0763	0.83	0.70			
2	SR	0.92	0.22	-1.5468	0.0672	0.84	0.97			
3	SR	0.79	0.46	-0.5743	0.0509	1.04	0.91			
5	SR	0.90	0.17	-1.1399	0.0591	0.87	1.15			
6	SR	0.94	0.35	-1.8025	0.0735	0.77	0.56			
8	SR	0.74	0.42	0.0008	0.0454	0.94	0.90			
9	BCR	0.48	0.59	1.3861	0.0314	0.84	0.84	-2.8846	0.0487	2.8359
10	SR	0.87	0.34	-0.9289	0.0556	0.91	0.87			
11	SR	0.60	0.47	0.7491	0.0416	0.89	0.86			
12	BCR	0.54	0.54	0.5998	0.0333	0.87	0.87	-3.4107	0.1328	3.2779
13	SR	0.77	0.35	-0.0919	0.0464	0.95	0.93			
14	SR	0.59	0.29	0.7935	0.0415	1.11	1.25			
15	BCR	0.49	0.49	1.8303	0.0293	1.07	1.09	-2.1114	-1.1410	3.2524
16	SR	0.66	0.46	0.3333	0.0433	0.92	0.88			
17	SR	0.93	0.33	-2.1691	0.0842	0.95	0.84			
18	BCR	0.41	0.50	2.0556	0.0325	0.92	0.92	-3.0554	0.0723	2.9830
19	SR	0.82	0.45	-0.6797	0.0524	0.89	0.76			
20	SR	0.51	0.29	1.1226	0.0410	1.11	1.17			
21	SR	0.79	0.47	-0.4955	0.0500	0.89	0.83			
23	SR	0.75	0.38	-0.1968	0.0470	0.99	1.00			
24	SR	0.52	0.15	1.1334	0.0411	1.26	1.38			
26	SR	0.81	0.36	-0.6434	0.0517	1.00	0.96			
27	SR	0.40	0.25	1.7803	0.0419	1.12	1.23			
28	SR	0.68	0.45	0.2558	0.0438	0.93	0.85			
29	SR	0.75	0.43	-0.2030	0.0472	0.90	0.80			
30	SR	0.63	0.28	0.5811	0.0422	1.15	1.24			
31	SR	0.77	0.47	-0.2244	0.0472	0.89	0.79			
33	SR	0.86	0.48	-1.0806	0.0582	0.86	0.59			
34	SR	0.40	0.13	1.7686	0.0420	1.29	1.56			
41	SR	0.81	0.50	-0.5236	0.0505	0.85	0.70			
43	SR	0.69	0.39	0.2049	0.0444	0.99	0.99			
44	SR	0.80	0.46	-0.6169	0.0517	0.91	0.73			
45	SR	0.77	0.37	-0.3848	0.0491	1.00	1.09			
46	SR	0.39	0.26	1.7151	0.0419	1.14	1.31			
48	SR	0.48	0.31	1.2654	0.0414	1.07	1.12			
49	SR	0.60	0.36	0.6987	0.0422	1.02	0.99			
50	SR	0.43	0.35	1.5470	0.0416	1.01	1.11			

Table C.6 The 2008 MSA-Reading Classical and Rasch Item Parameters: Grade 8

Item Number	Item Type	P-Value	Point-Biserial	Rasch Difficulty	*SE*	Ms. Infit	Ms. Outfit	Step 0-1	Step 1-2	Step 2-3
1	SR	0.95	0.25	-2.2921	0.0865	0.98	0.78			
2	SR	0.93	0.35	-1.6274	0.0678	0.73	0.47			
4	SR	0.84	0.38	-0.6076	0.0504	0.93	0.89			
5	SR	0.83	0.33	-0.6192	0.0506	0.98	0.99			
6	SR	0.89	0.40	-1.3966	0.0627	0.89	0.72			
8	SR	0.76	0.41	0.0177	0.0447	0.89	0.84			
9	BCR	0.56	0.57	0.4280	0.0359	0.83	0.82	-4.0698	0.1405	3.9293
10	SR	0.78	0.41	-0.0768	0.0454	0.88	0.79			
11	SR	0.80	0.47	-0.3084	0.0473	0.80	0.65			
12	BCR	0.53	0.56	0.5900	0.0366	0.84	0.84	-4.3977	0.2564	4.1412
13	SR	0.73	0.45	-0.2440	0.0470	1.00	0.89			
14	SR	0.54	0.41	0.9184	0.0412	0.97	0.95			
15	BCR	0.52	0.50	1.2904	0.0305	0.99	1.01	-2.0894	-1.0192	3.1087
16	SR	0.55	0.31	0.8321	0.0413	1.11	1.18			
17	SR	0.65	0.33	0.3891	0.0426	1.05	1.09			
18	BCR	0.48	0.50	1.5867	0.0280	1.04	1.04	-1.9730	-0.6017	2.5747
19	SR	0.59	0.28	0.7141	0.0418	1.11	1.13			
21	SR	0.79	0.32	-0.4404	0.0485	1.03	1.19			
22	SR	0.80	0.32	-0.5587	0.0499	1.02	1.01			
23	SR	0.81	0.27	-0.5660	0.0499	1.06	1.33			
24	SR	0.44	0.32	1.5274	0.0415	1.05	1.11			
25	SR	0.84	0.39	-0.8348	0.0534	0.96	0.88			
27	SR	0.88	0.28	-1.3197	0.0614	1.04	1.10			
28	SR	0.92	0.37	-1.7200	0.0700	0.93	0.70			
29	SR	0.75	0.32	-0.2055	0.0465	1.06	1.14			
30	SR	0.76	0.41	-0.1837	0.0463	0.97	0.92			
31	SR	0.33	0.14	2.1227	0.0439	1.30	1.61			
32	SR	0.63	0.40	0.4497	0.0427	1.00	0.99			
33	SR	0.65	0.37	0.4272	0.0425	1.03	1.06			
41	SR	0.71	0.53	0.0382	0.0448	0.85	0.73			
42	SR	0.76	0.45	-0.2902	0.0473	0.93	0.80			
43	SR	0.57	0.40	0.8115	0.0416	0.97	0.95			
44	SR	0.39	0.33	1.6957	0.0422	1.04	1.19			
47	SR	0.41	0.20	1.6410	0.0422	1.22	1.34			
48	SR	0.82	0.50	-0.8105	0.0540	0.85	0.63			
49	SR	0.47	0.26	1.3038	0.0416	1.13	1.19			
50	SR	0.72	0.41	-0.0163	0.0457	0.97	0.95			

APPENDIX D: THE 2008 MSA-READING BLUEPRINTS

Table D.1 The 2008 MSA-Reading Blueprint: Grade 3

Code	Standard / Objective statement	No. of Augmented Items (Form 1)		No. of Augmented Items (Form 2)		No. of Augmented Items (Form 3)		No. of Augmented Items (Form 4)		No. of Augmented Items (Form 5)	
		SR	*BCR*	*SR*	*BCR*	*SR*	*BCR*	*SR*	*BCR*	*SR*	*BCR*
1	**General Reading Process**	***16***	***(7)***	***16***	***(7)***	***16***	***(7)***	***16***	***(7)***	***16***	***(7)***
1.B	**General Reading Process: Vocabulary: Students will apply their knowledge of letter/sound relationships and word structure to decode unfamiliar words**										
1.B.1	**Use a variety of phonetic skills to read unfamiliar words**										
1.B.1.a	Apply phonics skills										
1.B.2	**Decode words in grade-level texts**										
1.B.2.a	Sound out common word parts										
1.B.2.b	Break words into familiar parts										
1.D	**General Reading Process: Vocabulary: Students will use a variety of strategies and opportunities to understand word meanings and to increase vocabulary**										
1.D.2	**Develop a conceptual understanding of new words**										
1.D.2.b	Identify and explain word relationships to determine the meanings of words										
1.D.3	**Understand, acquire, and use new vocabulary**										
1.D.3.a	Use context to determine the meanings of words										
1.D.3.b	Use word structure to determine the meanings of words										
1.D.3.c	Use resources to determine the meanings of words										
1.E	**General Reading Processes: Comprehension: Students will use a variety of strategies to understand what they read (construct meaning)**										
1.E.4	**Use strategies to demonstrate understanding of the text (after reading)**										
1.E.4.a	Identify and explain the main idea										

Note. Number in parentheses indicates the total number of field test items.

Code	Standard / Objective statement	No. of Augmented Items (Form 6)		No. of Augmented Items (Form 7)		No. of Augmented Items (Form 8)		No. of Augmented Items (Form 9)		No. of Augmented Items (Form 10)	
		SR	*BCR*	*SR*	*BCR*	*SR*	*BCR*	*SR*	*BCR*	*SR*	*BCR*
1	**General Reading Process**	***16 (7)***		***16 (7)***		***16 (7)***		***16 (7)***		***16 (7)***	
1.B	**General Reading Process: Vocabulary: Students will apply their knowledge of letter/sound relationships and word structure to decode unfamiliar words**										
1.B.1	**Use a variety of phonetic skills to read unfamiliar words**										
1.B.1.a	Apply phonics skills										
1.B.2	**Decode words in grade-level texts**										
1.B.2.a	Sound out common word parts										
1.B.2.b	Break words into familiar parts										
1.D	**General Reading Process: Vocabulary: Students will use a variety of strategies and opportunities to understand word meanings and to increase vocabulary**										
1.D.2	**Develop a conceptual understanding of new words**										
1.D.2.b	Identify and explain word relationships to determine the meanings of words										
1.D.3	**Understand, acquire, and use new vocabulary**										
1.D.3.a	Use context to determine the meanings of words										
1.D.3.b	Use word structure to determine the meanings of words										
1.D.3.c	Use resources to determine the meanings of words										
1.E	**General Reading Processes: Comprehension: Students will use a variety of strategies to understand what they read (construct meaning)**										
1.E.4	**Use strategies to demonstrate understanding of the text (after reading)**										
1.E.4.a	Identify and explain the main idea										

Note. Number in parentheses indicates the total number of field test items.

Code	Standard / Objective Statement	No. of Augmented Items (Form 1)		No. of Augmented Items (Form 2)		No. of Augmented Items (Form 3)		No. of Augmented Items (Form 4)		No. of Augmented Items (Form 5)	
		SR	*BCR*	*SR*	*BCR*	*SR*	*BCR*	*SR*	*BCR*	*SR*	*BCR*
1.E.4.b	Identify and explain what is directly stated in the text										
1.E.4.c	Identify and explain what is not directly stated in the text by drawing inferences										
1.E.4.d	Draw conclusions based on the text and prior knowledge										
1.E.4.e	Confirm, refute, or make predictions and form new ideas										
1.E.4.f	Paraphrase the main idea of the text										
1.E.4.g	Summarize the text										
1.E.4.h	Connect the text to prior knowledge or personal experience										
2	**Comprehension of Informational Text**	***9***	***2***	***9***	***2***	***9***	***2***	***9***	***2***	***9***	***2***
		(3)		***(10)***	***(3)***			***(6)***	***(3***		
2.A	**Comprehension of Informational Text: Students will read, comprehend, interpret, analyze, and evaluate informational texts**										
2.A.1	**Develop comprehension skills by reading a variety of self-selected and assigned informational texts**										
2.A.1.a	Read, use, and identify the characteristics of nonfiction materials to gain information and content knowledge										
2.A.1.b	Read, use, and identify the characteristics of functional documents										
2.A.2	**Identify and use text features to facilitate understanding of informational texts**										
2.A.2.a	Use print features										
2.A.2.b	Use graphic aids										
2.A.2.c	Use informational aids										
2.A.2.d	Use organizational aids										
2.A.2.e	Use online features										
2.A.2.f	Identify and explain the contributions of text features to meaning										

Note. Number in parentheses indicates the total number of field test items.

Code	Standard / Objective Statement	No. of Augmented Items (Form 6)		No. of Augmented Items (Form 7)		No. of Augmented Items (Form 8)		No. of Augmented Items (Form 9)		No. of Augmented Items (Form 10)	
		SR	*BCR*	*SR*	*BCR*	*SR*	*BCR*	*SR*	*BCR*	*SR*	*BCR*
1.E.4.b	Identify and explain what is directly stated in the text										
1.E.4.c	Identify and explain what is not directly stated in the text by drawing inferences										
1.E.4.d	Draw conclusions based on the text and prior knowledge										
1.E.4.e	Confirm, refute, or make predictions and form new ideas										
1.E.4.f	Paraphrase the main idea of the text										
1.E.4.g	Summarize the text										
1.E.4.h	Connect the text to prior knowledge or personal experience										
2	**Comprehension of Informational Text**	***9***	***2***	***9***	***2***	***9***	***2***	***9***	***2***	***9***	***2***
		(11)	***(3)***			***(6)***	***(3)***	***(3)***		***(10)***	***(3)***
2.A	**Comprehension of Informational Text: Students will read, comprehend, interpret, analyze, and evaluate informational texts**										
2.A.1	**Develop comprehension skills by reading a variety of self-selected and assigned informational texts**										
2.A.1.a	Read, use, and identify the characteristics of nonfiction materials to gain information and content knowledge										
2.A.1.b	Read, use, and identify the characteristics of functional documents										
2.A.2	**Identify and use text features to facilitate understanding of informational texts**										
2.A.2.a	Use print features										
2.A.2.b	Use graphic aids										
2.A.2.c	Use informational aids										
2.A.2.d	Use organizational aids										
2.A.2.e	Use online features										
2.A.2.f	Identify and explain the contributions of text features to meaning										

Note. Number in parentheses indicates the total number of field test items.

Code	Standard / Objective Statement	No. of Augmented Items (Form 1)		No. of Augmented Items (Form 2)		No. of Augmented Items (Form 3)		No. of Augmented Items (Form 4)		No. of Augmented Items (Form 5)	
		SR	*BCR*	*SR*	*BCR*	*SR*	*BCR*	*SR*	*BCR*	*SR*	*BCR*
2.A.3	**Develop knowledge of organizational structure of informational text to understand what is read**										
2.A.3.a	Identify and analyze the organization of texts										
2.A.3.b	Identify and use words and phrases associated with common organizational patterns										
2.A.4	**Determine important ideas and messages in informational text**										
2.A.4.a	Identify and explain the author's/text's purpose and intended audience										
2.A.4.b	Identify and explain the author's opinion										
2.A.4.c	State and support main ideas or messages										
2.A.4.d	Summarize the text or a portion of text										
2.A.4.e	Identify and explain information not related to the main idea										
2.A.4.f	Identify and explain relationships between and among ideas										
2.A.4.g	Draw conclusions and make generalizations from text to form new understanding										
2.A.4.h	Distinguish between a fact and an opinion										
2.A.4.i	Identify and explain how someone might use the text										
2.A.4.j	Connect the text to prior knowledge or experience										
2.A.5	**Identify and explain the author's use of language**										
2.A.5.a	Identify and explain specific words or phrases that contribute to the meaning of a text										
2.A.5.b	Identify and explain specific words and punctuation that create tone										
2.A.5.c	Identify and explain the effect of repetition of words or phrases										
2.A.6	**Read critically to evaluate informational text**										
2.A.6.a	Explain whether the text fulfills the reading purpose										

Note. The number in the parenthesis indicates the total number of field test items.

Code	Standard / Objective Statement	No. of Augmented Items (Form 6)		No. of Augmented Items (Form 7)		No. of Augmented Items (Form 8)		No. of Augmented Items (Form 9)		No. of Augmented Items (Form 10)	
		SR	*BCR*	*SR*	*BCR*	*SR*	*BCR*	*SR*	*BCR*	*SR*	*BCR*
2.A.3	**Develop knowledge of organizational structure of informational text to understand what is read**										
2.A.3.a	Identify and analyze the organization of texts										
2.A.3.b	Identify and use words and phrases associated with common organizational patterns										
2.A.4	**Determine important ideas and messages in informational text**										
2.A.4.a	Identify and explain the author's/text's purpose and intended audience										
2.A.4.b	Identify and explain the author's opinion										
2.A.4.c	State and support main ideas or messages										
2.A.4.d	Summarize the text or a portion of text										
2.A.4.e	Identify and explain information not related to the main idea										
2.A.4.f	Identify and explain relationships between and among ideas										
2.A.4.g	Draw conclusions and make generalizations from text to form new understanding										
2.A.4.h	Distinguish between a fact and an opinion										
2.A.4.i	Identify and explain how someone might use the text										
2.A.4.j	Connect the text to prior knowledge or experience										
2.A.5	**Identify and explain the author's use of language**										
2.A.5.a	Identify and explain specific words or phrases that contribute to the meaning of a text										
2.A.5.b	Identify and explain specific words and punctuation that create tone										
2.A.5.c	Identify and explain the effect of repetition of words or phrases										
2.A.6	**Read critically to evaluate informational text**										
2.A.6.a	Explain whether the text fulfills the reading purpose										

Note. Number in parentheses indicates the total number of field test items.

Code	Standard / Objective Statement	No. of Augmented Items (Form 1)		No. of Augmented Items (Form 2)		No. of Augmented Items (Form 3)		No. of Augmented Items (Form 4)		No. of Augmented Items (Form 5)	
		SR	*BCR*	*SR*	*BCR*	*SR*	*BCR*	*SR*	*BCR*	*SR*	*BCR*
2.A.6.b	Identify and explain additions or changes that would make the text easier to understand										
2.A.6.c	Identify and explain what makes the text a reliable source of information										
2.A.6.d	Explain whether or not the author's opinion is presented fairly										
2.A.6.e	Identify and explain information not included in the text that would have made it easier to understand the author's point										
2.A.6.f	Identify and explain words that affect the reader's feelings										
3	**Comprehension of Literary Text**	***8***	***2***	***8***	***2***	***8***	***2***	***8***	***2***	***8***	***2***
		(8)	***(3)***			***(10)***	***(3)***	***(3)***		***(10)***	***(3)***
3.A.	**Comprehension of Literary Text: Students will read, comprehend, interpret, analyze, and evaluate literary texts**										
3.A.2	**Use text features to facilitate understanding of literary texts**										
3.A.2.a	Identify and explain how organizational aids contribute to meaning										
3.A.2.b	Identify and explain how graphic aids contribute to meaning										
3.A.2.c	Identify and explain how informational aids contribute to meaning										
3.A.3	**Use elements of narrative texts to facilitate understanding**										
3.A.3.a	Identify and use structural features to distinguish among types of narrative text										
3.A.3.b	Identify and explain the elements of a story										
3.A.3.c	Identify and describe the setting										
3.A.3.d	Identify and analyze the characters										
3.A.3.e	Identify and explain the relationships between and among characters and events										
3.A.3.f	Identify and describe the narrator of the story										
3.A.4	**Use elements of poetry to facilitate understanding**										

Note. Number in parentheses indicates the total number of field test items.

Code	Standard / Objective Statement	No. of Augmented Items (Form 6)		No. of Augmented Items (Form 7)		No. of Augmented Items (Form 8)		No. of Augmented Items (Form 9)		No. of Augmented Items (Form 10)	
		SR	*BCR*	*SR*	*BCR*	*SR*	*BCR*	*SR*	*BCR*	*SR*	*BCR*
2.A.6.b	Identify and explain additions or changes that would make the text easier to understand										
2.A.6.c	Identify and explain what makes the text a reliable source of information										
2.A.6.d	Explain whether or not the author's opinion is presented fairly										
2.A.6.e	Identify and explain information not included in the text that would have made it easier to understand the author's point										
2.A.6.f	Identify and explain words that affect the reader's feelings										
3	**Comprehension of Literary Text**	***8***	***2***	***8***	***2***	***8***	***2***	***8***	***2***	***8***	***2***
		(8)	***(2)***	***(10)***	***(3)***	***(3)***		***(7)***	***(3)***		
3.A.	**Comprehension of Literary Text: Students will read, comprehend, interpret, analyze, and evaluate literary texts**										
3.A.2	**Use text features to facilitate understanding of literary texts**										
3.A.2.a	Identify and explain how organizational aids contribute to meaning										
3.A.2.b	Identify and explain how graphic aids contribute to meaning										
3.A.2.c	Identify and explain how informational aids contribute to meaning										
3.A.3	**Use elements of narrative texts to facilitate understanding**										
3.A.3.a	Identify and use structural features to distinguish among types of narrative text										
3.A.3.b	Identify and explain the elements of a story										
3.A.3.c	Identify and describe the setting										
3.A.3.d	Identify and analyze the characters										
3.A.3.e	Identify and explain the relationships between and among characters and events										
3.A.3.f	Identify and describe the narrator of the story										
3.A.4	**Use elements of poetry to facilitate understanding**										

Note. Number in parentheses indicates the total number of field test items.

Code	Standard / Objective Statement	No. of Augmented Items (Form 1)		No. of Augmented Items (Form 2)		No. of Augmented Items (Form 3)		No. of Augmented Items (Form 4)		No. of Augmented Items (Form 5)	
		SR	*BCR*	*SR*	*BCR*	*SR*	*BCR*	*SR*	*BCR*	*SR*	*BCR*
3.A.4.a	Use structural features to identify poetry as a literary form										
3.A.4.b	Identify and explain the meaning of words, lines, and stanzas										
3.A.4.c	Identify and explain sound elements of poetry										
3.A.5	**Use elements of drama to facilitate understanding**										
3.A.5.a	Use structural features to identify a play as a literary form										
3.A.5.b	Identify and explain the action of a scene										
3.A.5.c	Identify and explain stage directions that help to create character and movement										
3.A.5.d	Identify and explain stage directions and dialogue that help to create character										
3.A.6	**Determine important ideas and messages in literary texts**										
3.A.6.a	Identify and explain main ideas and universal themes										
3.A.6.b	Identify and explain a similar theme in more than one text										
3.A.6.c	Retell the text										
3.A.6.d	Summarize the text										
3.A.6.e	Identify and explain personal connections to the text										
3.A.7	**Identify and describe the author's use of language**										
3.A.7.a	Identify and explain how the author's use of dialogue contributes to a story										
3.A.7.b	Identify and explain specific words and phrases that contribute to the meaning of a text										
3.A.7.c	Identify and explain words and punctuation that create tone										
3.A.7.d	Identify and explain figurative language										
3.A.7.e	Identify and explain language that appeals to the senses and feelings										
3.A.7.f	Identify and explain repetition and exaggeration										

Note. The number in the parenthesis indicates the total number of field test items.

Code	Standard / Objective Statement	No. of Augmented Items (Form 6)		No. of Augmented Items (Form 7)		No. of Augmented Items (Form 8)		No. of Augmented Items (Form 9)		No. of Augmented Items (Form 10)	
		SR	*BCR*	*SR*	*BCR*	*SR*	*BCR*	*SR*	*BCR*	*SR*	*BCR*
3.A.4.a	Use structural features to identify poetry as a literary form										
3.A.4.b	Identify and explain the meaning of words, lines, and stanzas										
3.A.4.c	Identify and explain sound elements of poetry										
3.A.5	**Use elements of drama to facilitate understanding**										
3.A.5.a	Use structural features to identify a play as a literary form										
3.A.5.b	Identify and explain the action of a scene										
3.A.5.c	Identify and explain stage directions that help to create character and movement										
3.A.5.d	Identify and explain stage directions and dialogue that help to create character										
3.A.6	**Determine important ideas and messages in literary texts**										
3.A.6.a	Identify and explain main ideas and universal themes										
3.A.6.b	Identify and explain a similar theme in more than one text										
3.A.6.c	Retell the text										
3.A.6.d	Summarize the text										
3.A.6.e	Identify and explain personal connections to the text										
3.A.7	**Identify and describe the author's use of language**										
3.A.7.a	Identify and explain how the author's use of dialogue contributes to a story										
3.A.7.b	Identify and explain specific words and phrases that contribute to the meaning of a text										
3.A.7.c	Identify and explain words and punctuation that create tone										
3.A.7.d	Identify and explain figurative language										
3.A.7.e	Identify and explain language that appeals to the senses and feelings										
3.A.7.f	Identify and explain repetition and exaggeration										

Note. Number in parentheses indicates the total number of field test items.

Code	Standard / Objective Statement	No. of Augmented Items (Form 1)		No. of Augmented Items (Form 2)		No. of Augmented Items (Form 3)		No. of Augmented Items (Form 4)		No. of Augmented Items (Form 5)	
		SR	*BCR*	*SR*	*BCR*	*SR*	*BCR*	*SR*	*BCR*	*SR*	*BCR*
3.A.8	**Read critically to evaluate literary texts**										
3.A.8.a	Identify and explain the believability of the characters' actions and the story's events										
3.A.8.b	Identify and explain questions left unanswered by the text										

Note. Number in parentheses indicates the total number of field test items.

Code	Standard / Objective Statement	No. of Augmented Items (Form 6)		No. of Augmented Items (Form 7)		No. of Augmented Items (Form 8)		No. of Augmented Items (Form 9)		No. of Augmented Items (Form 10)	
		SR	*BCR*	*SR*	*BCR*	*SR*	*BCR*	*SR*	*BCR*	*SR*	*BCR*
3.A.8	**Read critically to evaluate literary texts**										
3.A.8.a	Identify and explain the believability of the characters' actions and the story's events										
3.A.8.b	Identify and explain questions left unanswered by the text										

Note. Number in parentheses indicates the total number of field test items.

Table D.2 The 2008 MSA-Reading Blueprint: Grade 4

Code	Standard / Objective Statement	No. of Augmented Items (Form 1)		No. of Augmented Items (Form 2)		No. of Augmented Items (Form 3)		No. of Augmented Items (Form 4)		No. of Augmented Items (Form 5)	
		SR	*BCR*	*SR*	*BCR*	*SR*	*BCR*	*SR*	*BCR*	*SR*	*BCR*
1	**General Reading Process**	**15**		**15**		**15**		**15**		**15**	
		(6)		**(6)**		**(6)**		**(6)**		**(6)**	
1.B	**General Reading Process: Phonics: Students will apply knowledge of letter/sound relationships and word structure to decode words**										
1.B.1	**Use a variety of phonetic skills to read unfamiliar words**										
1.B.1.a	Apply phonics skills										
1.B.2	**Decode words in grade-level texts**										
1.B.2.a	Sound out common word parts										
1.B.2.b	Break words into familiar parts										
1.D	**General Reading Process: Vocabulary: Students will use a variety of strategies and opportunities to understand word meanings and to increase vocabulary**										
1.D.2	**Develop a conceptual understanding of new words**										
1.D.2.b	Identify and explain word relationships to determine the meanings of words										
1.D.3	**Understand, acquire, and use new vocabulary**										
1.D.3.a	Use context to determine the meanings of words										
1.D.3.b	Use word structure to determine the meanings of words										
1.D.3.c	Use resources to determine the meanings of words										
1.E	**General Reading Processes: Comprehension: Students will use a variety of strategies to understand what they read (construct meaning)**										
1.E.4	**Use strategies to demonstrate understanding of the text (after reading)**										

Note. The number in the parenthesis indicates the total number of field test items.

Code	Standard / Objective Statement	No. of Augmented Items (Form 6)		No. of Augmented Items (Form 7)		No. of Augmented Items (Form 8)		No. of Augmented Items (Form 9)		No. of Augmented Items (Form 10)	
		SR	*BCR*	*SR*	*BCR*	*SR*	*BCR*	*SR*	*BCR*	*SR*	*BCR*
1	**General Reading Process**	**15 (6)**		**15 (6)**		**15 (6)**		**15 (6)**		**15 (6)**	
1.B	**General Reading Process: Phonics: Students will apply knowledge of letter/sound relationships and word structure to decode words**										
1.B.1	**Use a variety of phonetic skills to read unfamiliar words**										
1.B.1.a	Apply phonics skills										
1.B.2	**Decode words in grade-level texts**										
1.B.2.a	Sound out common word parts										
1.B.2.b	Break words into familiar parts										
1.D	**General Reading Process: Vocabulary: Students will use a variety of strategies and opportunities to understand word meanings and to increase vocabulary**										
1.D.2	**Develop a conceptual understanding of new words**										
1.D.2.b	Identify and explain word relationships to determine the meanings of words										
1.D.3	**Understand, acquire, and use new vocabulary**										
1.D.3.a	Use context to determine the meanings of words										
1.D.3.b	Use word structure to determine the meanings of words										
1.D.3.c	Use resources to determine the meanings of words										
1.E	**General Reading Processes: Comprehension: Students will use a variety of strategies to understand what they read (construct meaning)**										
1.E.4	**Use strategies to demonstrate understanding of the text (after reading)**										

Note. Number in parentheses indicates the total number of field test items.

Code	Standard / Objective Statement	No. of Augmented Items (Form 1)		No. of Augmented Items (Form 2)		No. of Augmented Items (Form 3)		No. of Augmented Items (Form 4)		No. of Augmented Items (Form 5)	
		SR	*BCR*	*SR*	*BCR*	*SR*	*BCR*	*SR*	*BCR*	*SR*	*BCR*
1.E.4.a	Identify and explain the main idea										
1.E.4.b	Identify and explain what is directly stated in the text										
1.E.4.c	Identify and explain what is not directly stated in the text by drawing inferences										
1.E.4.d	Draw conclusions or make generalizations about the text										
1.E.4.e	Confirm, refute, or make predictions and form new ideas										
1.E.4.f	Paraphrase the main idea of the text										
1.E.4.g	Summarize the text										
1.E.4.h	Connect the text to prior knowledge or personal experience										
2	**Comprehension of Informational Text**	***9***	***2***	***9***	***2***	***9***	***2***	***9***	***2***	***9***	***2***
		(1)		***(9)***	***(3)***			***(7)***	***(3)***	***(3)***	
2.A	**Comprehension of Informational Text: Students will read, comprehend, interpret, analyze, and evaluate informational texts**										
2.A.1	**Develop comprehension skills by reading a variety of self-selected and assigned informational texts**										
2.A.1.a	Read, use, and identify the characteristics of nonfiction materials to gain information and content knowledge										
2.A.1.b	Read, use, and identify the characteristics of functional documents										
2.A.2	**Identify and use text features to facilitate understanding of informational texts**										
2.A.2.a	Use print features										
2.A.2.b	Use graphic aids										

2.A.2.c	Use informational aids										

Note. The number in the parenthesis indicates the total number of field test items.

Code	Standard / Objective Statement	No. of Augmented Items (Form 6)		No. of Augmented Items (Form 7)		No. of Augmented Items (Form 8)		No. of Augmented Items (Form 9)		No. of Augmented Items (Form 10)	
		SR	*BCR*	*SR*	*BCR*	*SR*	*BCR*	*SR*	*BCR*	*SR*	*BCR*
1.E.4.a	Identify and explain the main idea										
1.E.4.b	Identify and explain what is directly stated in the text										
1.E.4.c	Identify and explain what is not directly stated in the text by drawing inferences										
1.E.4.d	Draw conclusions or make generalizations about the text										
1.E.4.e	Confirm, refute, or make predictions and form new ideas										
1.E.4.f	Paraphrase the main idea of the text										
1.E.4.g	Summarize the text										
1.E.4.h	Connect the text to prior knowledge or personal experience										
2	**Comprehension of Informational Text**	***9***	***2***	***9***	***2***	***9***	***2***	***9***	***2***	***9***	***2***
		(7)	***(3)***			***(7)***	***(3)***	***(3)***		***(10)***	***(3)***
2.A	**Comprehension of Informational Text: Students will read, comprehend, interpret, analyze, and evaluate informational texts**										
2.A.1	**Develop comprehension skills by reading a variety of self-selected and assigned informational texts**										
2.A.1.a	Read, use, and identify the characteristics of nonfiction materials to gain information and content knowledge										
2.A.1.b	Read, use, and identify the characteristics of functional documents										
2.A.2	**Identify and use text features to facilitate understanding of informational texts**										
2.A.2.a	Use print features										

2.A.2.b	Use graphic aids					
2.A.2.c	Use informational aids					

Note. The number in the parenthesis indicates the total number of field test items.

Code	Standard / Objective Statement	No. of Augmented Items (Form 1)		No. of Augmented Items (Form 2)		No. of Augmented Items (Form 3)		No. of Augmented Items (Form 4)		No. of Augmented Items (Form 5)	
		SR	*BCR*	*SR*	*BCR*	*SR*	*BCR*	*SR*	*BCR*	*SR*	*BCR*
2.A.2.d	Use organizational aids										
2.A.2.e	Use online features										
2.A.2.f	Identify and explain the contributions of text features to meaning										
2.A.3	**Develop knowledge of organizational structure of informational text to understand what is read**										
2.A.3.a	Identify and analyze the organization of texts										
2.A.3.b	Identify and use words and phrases associated with common organizational patterns										
2.A.4	**Determine important ideas and messages in informational text**										
2.A.4.a	Identify and explain the author's/text's purpose and intended audience										
2.A.4.b	Identify and explain the author's opinion										
2.A.4.c	State and support main ideas or messages										
2.A.4.d	Summarize the text or a portion of text										
2.A.4.e	Identify and explain information not related to the main idea										
2.A.4.f	Identify and explain relationships between and among ideas										
2.A.4.g	Draw conclusions and make generalizations from text to form new understanding										
2.A.4.h	Distinguish between a fact and an opinion										
2.A.4.i	Identify and explain how someone might use the text										

2.A.4.j	Connect the text to prior knowledge or experience					
2.A.5	**Identify and explain the author's use of language**					

Note. The number in the parenthesis indicates the total number of field test items.

Code	Standard / Objective Statement	No. of Augmented Items (Form 6)		No. of Augmented Items (Form 7)		No. of Augmented Items (Form 8)		No. of Augmented Items (Form 9)		No. of Augmented Items (Form 10)	
		SR	*BCR*	*SR*	*BCR*	*SR*	*BCR*	*SR*	*BCR*	*SR*	*BCR*
2.A.2.d	Use organizational aids										
2.A.2.e	Use online features										
2.A.2.f	Identify and explain the contributions of text features to meaning										
2.A.3	**Develop knowledge of organizational structure of informational text to understand what is read**										
2.A.3.a	Identify and analyze the organization of texts										
2.A.3.b	Identify and use words and phrases associated with common organizational patterns										
2.A.4	**Determine important ideas and messages in informational text**										
2.A.4.a	Identify and explain the author's/text's purpose and intended audience										
2.A.4.b	Identify and explain the author's opinion										
2.A.4.c	State and support main ideas or messages										
2.A.4.d	Summarize the text or a portion of text										
2.A.4.e	Identify and explain information not related to the main idea										
2.A.4.f	Identify and explain relationships between and among ideas										
2.A.4.g	Draw conclusions and make generalizations from text to form new understanding										
2.A.4.h	Distinguish between a fact and an opinion										
2.A.4.i	Identify and explain how someone might use the text										

2.A.4.j	Connect the text to prior knowledge or experience										
2.A.5	Identify and explain the author's use of language										

Note. Number in parentheses indicates the total number of field test items.

Code	Standard / Objective Statement	No. of Augmented Items (Form 1)		No. of Augmented Items (Form 2)		No. of Augmented Items (Form 3)		No. of Augmented Items (Form 4)		No. of Augmented Items (Form 5)	
		SR	*BCR*	*SR*	*BCR*	*SR*	*BCR*	*SR*	*BCR*	*SR*	*BCR*
2.A.5.a	Identify and explain specific words or phrases that contribute to the meaning of a text										
2.A.5.b	Identify and explain specific words and punctuation that create tone										
2.A.5.c	Identify and explain the effect of repetition of words or phrases										
2.A.6	**Read critically to evaluate informational text**										
2.A.6.a	Explain whether the text fulfills the reading purpose										
2.A.6.b	Identify and explain additions or changes that would make the text easier to understand										
2.A.6.c	Identify and explain what makes the text a reliable source of information										
2.A.6.d	Explain whether or not the author's opinion is presented fairly										
2.A.6.e	Identify and explain information not included in the text that would have made it easier to understand the author's point										
2.A.6.f	Identify and explain words that affect the reader's feelings										
3	**Comprehension of Literary Text**	***9***	***2***	***9***	***2***	***9***	***2***	***9***	***2***	***9***	***2***
		(7)	***(3)***			***(10)***	***(3)***	***(3)***		***(7)***	***(3)***
3.A.	**Comprehension of Literary Text: Students will read, comprehend, interpret, analyze, and evaluate literary texts**										
3.A.2	**Use text features to facilitate understanding of literary texts**										
3.A.2.a	Identify and explain how organizational aids contribute to meaning										

3.A.2.b	Identify and explain how print features contribute to meaning										
3.A.2.c	Identify and explain how informational aids contribute to meaning										

Note. Number in parentheses indicates the total number of field test items.

Code	Standard / Objective Statement	No. of Augmented Items (Form 6)		No. of Augmented Items (Form 7)		No. of Augmented Items (Form 8)		No. of Augmented Items (Form 9)		No. of Augmented Items (Form 10)	
		SR	*BCR*	*SR*	*BCR*	*SR*	*BCR*	*SR*	*BCR*	*SR*	*BCR*
2.A.5.a	Identify and explain specific words or phrases that contribute to the meaning of a text										
2.A.5.b	Identify and explain specific words and punctuation that create tone										
2.A.5.c	Identify and explain the effect of repetition of words or phrases										
2.A.6	**Read critically to evaluate informational text**										
2.A.6.a	Explain whether the text fulfills the reading purpose										
2.A.6.b	Identify and explain additions or changes that would make the text easier to understand										
2.A.6.c	Identify and explain what makes the text a reliable source of information										
2.A.6.d	Explain whether or not the author's opinion is presented fairly										
2.A.6.e	Identify and explain information not included in the text that would have made it easier to understand the author's point										
2.A.6.f	Identify and explain words that affect the reader's feelings										
3	**Comprehension of Literary Text**	***9***	***2***	***9***	***2***	***9***	***2***	***9***	***2***	***9***	***2***
		(3)		***(10)***	***(3)***	***(3)***		***(7)***	***(3)***		
3.A.	**Comprehension of Literary Text: Students will read, comprehend, interpret, analyze, and evaluate literary texts**										
3.A.2	**Use text features to facilitate understanding of literary texts**										
3.A.2.a	Identify and explain how organizational aids contribute to										

	meaning								
3.A.2.b	Identify and explain how print features contribute to meaning								
3.A.2.c	Identify and explain how informational aids contribute to meaning								

Note. The number in the parenthesis indicates the total number of field test items.

Code	Standard / Objective Statement	No. of Augmented Items (Form 1)		No. of Augmented Items (Form 2)		No. of Augmented Items (Form 3)		No. of Augmented Items (Form 4)		No. of Augmented Items (Form 5)	
		SR	*BCR*	*SR*	*BCR*	*SR*	*BCR*	*SR*	*BCR*	*SR*	*BCR*
3.A.3	**Use elements of narrative texts to facilitate understanding**										
3.A.3.a	Identify and use structural features to distinguish among types of narrative text										
3.A.3.b	Identify and explain the elements of a story										
3.A.3.c	Identify and describe the setting										
3.A.3.d	Identify and analyze the characters										
3.A.3.e	Identify and explain the relationships between and among characters and events										
3.A.3.f	Identify and describe the narrator of the story										
3.A.4	**Use elements of poetry to facilitate understanding**										
3.A.4.a	Use structural features to identify poetry as a literary form										
3.A.4.b	Identify and explain the meaning of words, lines, and stanzas										
3.A.4.c	Identify and explain sound elements of poetry										
3.A.5	**Use elements of drama to facilitate understanding**										
3.A.5.a	Use structural features to identify a play as a literary form										
3.A.5.b	Identify and explain the action of a scene										

3.A.5.c	Identify and explain stage directions that help to create character and movement								
3.A.5.d	Identify and explain stage directions and dialogue that help to create character								

Note. Number in parentheses indicates the total number of field test items.

Code	Standard / Objective Statement	No. of Augmented Items (Form 6)		No. of Augmented Items (Form 7)		No. of Augmented Items (Form 8)		No. of Augmented Items (Form 9)		No. of Augmented Items (Form 10)	
		SR	*BCR*	*SR*	*BCR*	*SR*	*BCR*	*SR*	*BCR*	*SR*	*BCR*
3.A.3	**Use elements of narrative texts to facilitate understanding**										
3.A.3.a	Identify and use structural features to distinguish among types of narrative text										
3.A.3.b	Identify and explain the elements of a story										
3.A.3.c	Identify and describe the setting										
3.A.3.d	Identify and analyze the characters										
3.A.3.e	Identify and explain the relationships between and among characters and events										
3.A.3.f	Identify and describe the narrator of the story										
3.A.4	**Use elements of poetry to facilitate understanding**										
3.A.4.a	Use structural features to identify poetry as a literary form										
3.A.4.b	Identify and explain the meaning of words, lines, and stanzas										
3.A.4.c	Identify and explain sound elements of poetry										
3.A.5	**Use elements of drama to facilitate understanding**										
3.A.5.a	Use structural features to identify a play as a literary form										
3.A.5.b	Identify and explain the action of a scene										

3.A.5.c	Identify and explain stage directions that help to create character and movement								
3.A.5.d	Identify and explain stage directions and dialogue that help to create character								

Note. Number in parentheses indicates the total number of field test items.

Code	Standard / Objective Statement	No. of Augmented Items (Form 1)		No. of Augmented Items (Form 2)		No. of Augmented Items (Form 3)		No. of Augmented Items (Form 4)		No. of Augmented Items (Form 5)	
		SR	*BCR*	*SR*	*BCR*	*SR*	*BCR*	*SR*	*BCR*	*SR*	*BCR*
3.A.6.a	Identify and explain main ideas and universal themes										
3.A.6.b	Identify and explain a similar theme in more than one text										
3.A.6.c	Paraphrase the text										
3.A.6.d	Summarize the text										
3.A.6.e	Identify and explain personal connections to the text										
3.A.7	Identify and describe the author's use of language										
3.A.7.a	Identify and explain how the author's use of dialogue contributes to a story										
3.A.7.b	Identify and explain specific words and phrases that contribute to the meaning of a text										
3.A.7.c	Identify and explain words and punctuation that create tone										
3.A.7.d	Identify and explain figurative language										
3.A.7.e	Identify and explain language that appeals to the senses and feelings										
3.A.7.f	Identify and explain repetition and exaggeration										
3.A.8	Read critically to evaluate literary texts										
3.A.8.a	Identify and explain the believability of the characters' actions and the story's events										

3.A.8.b	Identify and explain questions left unanswered by the text					
3.A.8.c	Identify and explain the relationship between a literary text and its historical context					

Note. Number in parentheses indicates the total number of field test items.

Code	Standard / Objective Statement	No. of Augmented Items (Form 6)		No. of Augmented Items (Form 7)		No. of Augmented Items (Form 8)		No. of Augmented Items (Form 9)		No. of Augmented Items (Form 10)	
		SR	*BCR*	*SR*	*BCR*	*SR*	*BCR*	*SR*	*BCR*	*SR*	*BCR*
3.A.6.a	Identify and explain main ideas and universal themes										2
3.A.6.b	Identify and explain a similar theme in more than one text										
3.A.6.c	Paraphrase the text										
3.A.6.d	Summarize the text										
3.A.6.e	Identify and explain personal connections to the text										
3.A.7	**Identify and describe the author's use of language**										
3.A.7.a	Identify and explain how the author's use of dialogue contributes to a story										
3.A.7.b	Identify and explain specific words and phrases that contribute to the meaning of a text										
3.A.7.c	Identify and explain words and punctuation that create tone										
3.A.7.d	Identify and explain figurative language										
3.A.7.e	Identify and explain language that appeals to the senses and feelings										
3.A.7.f	Identify and explain repetition and exaggeration										
3.A.8	**Read critically to evaluate literary texts**										
3.A.8.a	Identify and explain the believability of the characters' actions and the story's events										

3.A.8.b	Identify and explain questions left unanswered by the text					
3.A.8.c	Identify and explain the relationship between a literary text and its historical context					

Note. Number in parentheses indicates the total number of field test items.

Table D.3 The 2008 MSA-Reading Blueprint: Grade 5

Code	Standard / Objective Statement	No. of Augmented Items (Form 1)		No. of Augmented Items (Form 2)		No. of Augmented Items (Form 3)		No. of Augmented Items (Form 4)		No. of Augmented Items (Form 5)	
		SR	*BCR*	*SR*	*BCR*	*SR*	*BCR*	*SR*	*BCR*	*SR*	*BCR*
1	**General Reading Process**	***15***		***15***		***15***		***15***		***15***	
1.D	**General Reading Process: Vocabulary: Students will use a variety of strategies and opportunities to understand word meanings and to increase vocabulary**	(5)		(5)		(5)		(5)		(5)	
1.D.2	**Develop and apply a conceptual understanding of new words**										
1.D.2.b	Identify and explain relationships between and among words										
1.D.3	**Understand, acquire, and use new vocabulary**										
1.D.3.a	Use context to determine the meanings of words										
1.D.3.b	Use word structure to determine the meanings of words										
1.D.3.c	Use resources to confirm definitions and gather further information about words										
1.E	**General Reading Processes: Comprehension: Students will use a variety of strategies to understand what they read (construct meaning)**										
1.E.4	**Use strategies to demonstrate understanding of the text (after reading)**										
1.E.4.a	Identify and explain the main idea										
1.E.4.b	Identify and explain what is directly stated in the text										
1.E.4.c	Identify and explain what is not directly stated in the text by drawing inferences										
1.E.4.d	Draw conclusions or make generalizations about the text										
1.E.4.e	Confirm, refute, or make predictions and form new ideas										
1.E.4.f	Paraphrase the main idea of the text										
1.E.4.g	Summarize the text										

Note. The number in the parenthesis indicates the total number of field test items.

Code	Standard / Objective Statement	No. of Augmented Items (Form 6)		No. of Augmented Items (Form 7)		No. of Augmented Items (Form 8)		No. of Augmented Items (Form 9)		No. of Augmented Items (Form 10)	
		SR	*BCR*	*SR*	*BCR*	*SR*	*BCR*	*SR*	*BCR*	*SR*	*BCR*
1	**General Reading Process**	***15***		***15***		***15***		***15***		***15***	
1.D	**General Reading Process: Vocabulary: Students will use a variety of strategies and opportunities to understand word meanings and to increase vocabulary**	(5)		(5)		(5)		(5)		(5)	
1.D.2	**Develop and apply a conceptual understanding of new words**										
1.D.2.b	Identify and explain relationships between and among words										
1.D.3	**Understand, acquire, and use new vocabulary**										
1.D.3.a	Use context to determine the meanings of words										
1.D.3.b	Use word structure to determine the meanings of words										
1.D.3.c	Use resources to confirm definitions and gather further information about words										
1.E	**General Reading Processes: Comprehension: Students will use a variety of strategies to understand what they read (construct meaning)**										
1.E.4	**Use strategies to demonstrate understanding of the text (after reading)**										
1.E.4.a	Identify and explain the main idea										
1.E.4.b	Identify and explain what is directly stated in the text										
1.E.4.c	Identify and explain what is not directly stated in the text by drawing inferences										
1.E.4.d	Draw conclusions or make generalizations about the text										
1.E.4.e	Confirm, refute, or make predictions and form new ideas										
1.E.4.f	Paraphrase the main idea of the text										
1.E.4.g	Summarize the text										

Note. The number in the parenthesis indicates the total number of field test items.

Code	Standard / Objective Statement	No. of Augmented Items (Form 1)		No. of Augmented Items (Form 2)		No. of Augmented Items (Form 3)		No. of Augmented Items (Form 4)		No. of Augmented Items (Form 5)	
		SR	*BCR*	*SR*	*BCR*	*SR*	*BCR*	*SR*	*BCR*	*SR*	*BCR*
1.E.4.h	Connect the text to prior knowledge or personal experience										
2	**Comprehension of Informational Text**	***9***	***2***	***9***	***2***	***9***	***2***	***9***	***2***	***9***	***2***
		(3)		***(10)***	***(3)***			***(7)***	***(2)***		
2.A	**Comprehension of Informational Text: Students will read, comprehend, interpret, analyze, and evaluate informational texts**										
2.A.1	**Develop and apply comprehension skills by reading a variety of self-selected and assigned print and electronic informational texts**										
2.A.1.a	Read, use, and identify the characteristics of nonfiction materials to gain information and content knowledge										
2.A.1.b	Read, use, and identify the characteristics of functional documents										
2.A.2	**Identify and use text features to facilitate understanding of informational texts**										
2.A.2.a	Use print features										
2.A.2.b	Use graphic aids										
2.A.2.c	Use informational aids										
2.A.2.d	Use organizational aids										
2.A.2.e	Use online features										
2.A.2.f	Identify and explain the contributions of text features to meaning										
2.A.3	**Develop and apply knowledge of organizational structure of informational text to understand what is read**										
2.A.3.a	Identify and analyze the organizational patterns of texts										
2.A.3.b	Identify and use words and phrases associated with common organizational patterns										
2.A.4	**Determine and analyze important ideas and messages in informational text**										

Note. The number in the parenthesis indicates the total number of field test items.

Code	Standard / Objective Statement	No. of Augmented Items (Form 6)		No. of Augmented Items (Form 7)		No. of Augmented Items (Form 8)		No. of Augmented Items (Form 9)		No. of Augmented Items (Form 10)	
		SR	*BCR*	*SR*	*BCR*	*SR*	*BCR*	*SR*	*BCR*	*SR*	*BCR*
1.E.4.h	Connect the text to prior knowledge or personal experience										
2	**Comprehension of Informational Text**	***9***	***2***	***9***	***2***	***9***	***2***	***9***	***2***	***9***	***2***
		(10)	***(3)***			***(7)***	***(2)***	***(3)***		***(10)***	***(3)***
2.A	**Comprehension of Informational Text: Students will read, comprehend, interpret, analyze, and evaluate informational texts**										
2.A.1	**Develop and apply comprehension skills by reading a variety of self-selected and assigned print and electronic informational texts**										
2.A.1.a	Read, use, and identify the characteristics of nonfiction materials to gain information and content knowledge										
2.A.1.b	Read, use, and identify the characteristics of functional documents										
2.A.2	**Identify and use text features to facilitate understanding of informational texts**										
2.A.2.a	Use print features										
2.A.2.b	Use graphic aids										
2.A.2.c	Use informational aids										
2.A.2.d	Use organizational aids										
2.A.2.e	Use online features										
2.A.2.f	Identify and explain the contributions of text features to meaning										
2.A.3	**Develop and apply knowledge of organizational structure of informational text to understand what is read**										
2.A.3.a	Identify and analyze the organizational patterns of texts										
2.A.3.b	Identify and use words and phrases associated with common organizational patterns										
2.A.4	**Determine and analyze important ideas and messages in informational text**										

Note. The number in the parenthesis indicates the total number of field test items.

Code	Standard / Objective Statement	No. of Augmented Items (Form 1)		No. of Augmented Items (Form 2)		No. of Augmented Items (Form 3)		No. of Augmented Items (Form 4)		No. of Augmented Items (Form 5)	
		SR	*BCR*	*SR*	*BCR*	*SR*	*BCR*	*SR*	*BCR*	*SR*	*BCR*
2.A.4.a	Identify and explain the author's/text's purpose and intended audience										
2.A.4.b	Identify and explain the author's opinion										
2.A.4.c	State and support main ideas or messages										
2.A.4.d	Summarize the text or a portion of text										
2.A.4.e	Identify and explain information not related to the main idea										
2.A.4.f	Identify and explain relationships between and among ideas										
2.A.4.g	Draw conclusions and make generalizations from text to form new understanding										
2.A.4.h	Distinguish between a fact and an opinion										
2.A.4.i	Identify and explain how someone might use the text										
2.A.4.j	Connect the text to prior knowledge or experience										
2.A.5	**Identify and explain the author's use of language**										
2.A.5.a	Identify and explain specific words or phrases that contribute to the meaning of a text										
2.A.5.b	Identify and explain specific words and punctuation that create tone										
2.A.5.c	Identify and explain the effect of repetition of words and phrases										
2.A.6	**Read critically to evaluate informational text**										
2.A.6.a	Explain whether the text fulfills the reading purpose										
2.A.6.b	Identify and explain additions and changes that would make the text easier to understand										
2.A.6.c	Identify and explain what makes the text a reliable source of information										

Note. The number in the parenthesis indicates the total number of field test items.

Code	Standard / Objective Statement	No. of Augmented Items (Form 6)		No. of Augmented Items (Form 7)		No. of Augmented Items (Form 8)		No. of Augmented Items (Form 9)		No. of Augmented Items (Form 10)	
		SR	*BCR*	*SR*	*BCR*	*SR*	*BCR*	*SR*	*BCR*	*SR*	*BCR*
2.A.4.a	Identify and explain the author's/text's purpose and intended audience										
2.A.4.b	Identify and explain the author's opinion										
2.A.4.c	State and support main ideas or messages										
2.A.4.d	Summarize the text or a portion of text										
2.A.4.e	Identify and explain information not related to the main idea										
2.A.4.f	Identify and explain relationships between and among ideas										
2.A.4.g	Draw conclusions and make generalizations from text to form new understanding										
2.A.4.h	Distinguish between a fact and an opinion										
2.A.4.i	Identify and explain how someone might use the text										
2.A.4.j	Connect the text to prior knowledge or experience										
2.A.5	Identify and explain the author's use of language										
2.A.5.a	Identify and explain specific words or phrases that contribute to the meaning of a text										
2.A.5.b	Identify and explain specific words and punctuation that create tone										
2.A.5.c	Identify and explain the effect of repetition of words and phrases										
2.A.6	Read critically to evaluate informational text										
2.A.6.a	Explain whether the text fulfills the reading purpose										
2.A.6.b	Identify and explain additions and changes that would make the text easier to understand										
2.A.6.c	Identify and explain what makes the text a reliable source of information										

Note. Number in parentheses indicates the total number of field test items.

Code	Standard / Objective Statement	No. of Augmented Items (Form 1)		No. of Augmented Items (Form 2)		No. of Augmented Items (Form 3)		No. of Augmented Items (Form 4)		No. of Augmented Items (Form 5)	
		SR	*BCR*	*SR*	*BCR*	*SR*	*BCR*	*SR*	*BCR*	*SR*	*BCR*
2.A.6.d	Determine and explain whether or not the author's opinion is presented fairly										
2.A.6.e	Identify and explain information not included in the text that would have clarified the author's point										
2.A.6.f	Identify and explain words the author uses to appeal to emotion										
3	**Comprehension of Literary Text**	***9***	***2***	***9***	***2***	***9***	***2***	***9***	***2***	***9***	***2***
		(6)	***(3)***			***(10)***	***(3)***	***(3)***		***(10)***	***(3)***
3.A.	**Comprehension of Literary Text: Students will read, comprehend, interpret, analyze, and evaluate literary texts**										
3.A.2	**Analyze text features to facilitate understanding of literary texts**										
3.A.2.a	Identify and explain how organizational aids contribute to meaning										
3.A.2.b	Identify and explain how print features contribute to meaning										
3.A.2.c	Identify and explain how informational aids contribute to meaning										
3.A.3	**Analyze elements of narrative texts to facilitate understanding and interpretation**										
3.A.3.a	Identify and use structural features to distinguish among types of narrative text										
3.A.3.b	Identify and explain the conflict and the events of the plot										
3.A.3.c	Identify and describe the setting and explain how the setting affects the characters and the mood										
3.A.3.d	Analyze the characterization										
3.A.3.e	Identify and explain relationships between and among characters and events										
3.A.3.f	Identify and explain how the actions of the character(s) affect the plot										

Note. The number in the parenthesis indicates the total number of field test items.

Code	Standard / Objective Statement	No. of Augmented Items (Form 6)		No. of Augmented Items (Form 7)		No. of Augmented Items (Form 8)		No. of Augmented Items (Form 9)		No. of Augmented Items (Form 10)	
		SR	*BCR*	*SR*	*BCR*	*SR*	*BCR*	*SR*	*BCR*	*SR*	*BCR*
2.A.6.d	Determine and explain whether or not the author's opinion is presented fairly										
2.A.6.e	Identify and explain information not included in the text that would have clarified the author's point										
2.A.6.f	Identify and explain words the author uses to appeal to emotion										
3	**Comprehension of Literary Text**	***9***	***2***	***9***	***2***	***9***	***2***	***9***	***2***	***9***	***2***
				(10)	***(3)***	***(3)***		***(7)***	***(3)***		
3.A.	**Comprehension of Literary Text: Students will read, comprehend, interpret, analyze, and evaluate literary texts**										
3.A.2	**Analyze text features to facilitate understanding of literary texts**										
3.A.2.a	Identify and explain how organizational aids contribute to meaning										
3.A.2.b	Identify and explain how print features contribute to meaning										
3.A.2.c	Identify and explain how informational aids contribute to meaning										
3.A.3	**Analyze elements of narrative texts to facilitate understanding and interpretation**										
3.A.3.a	Identify and use structural features to distinguish among types of narrative text										
3.A.3.b	Identify and explain the conflict and the events of the plot										
3.A.3.c	Identify and describe the setting and explain how the setting affects the characters and the mood										
3.A.3.d	Analyze the characterization										
3.A.3.e	Identify and explain relationships between and among characters and events										
3.A.3.f	Identify and explain how the actions of the character(s) affect the plot										

Note. Number in parentheses indicates the total number of field test items.

Code	Standard / Objective Statement	No. of Augmented Items (Form 1)		No. of Augmented Items (Form 2)		No. of Augmented Items (Form 3)		No. of Augmented Items (Form 4)		No. of Augmented Items (Form 5)	
		SR	*BCR*	*SR*	*BCR*	*SR*	*BCR*	*SR*	*BCR*	*SR*	*BCR*
3.A.3.g	Identify and describe the narrator										
3.A.4	**Analyze elements of poetry to facilitate understanding and interpretation**										
3.A.4.a	Use structural features to identify poetry as a literary form and distinguish among types of poems										
3.A.4.b	Identify and explain the meaning of words, lines, and stanzas										
3.A.4.c	Identify and explain sound elements of poetry										
3.A.5	**Analyze elements of drama to facilitate understanding**										
3.A.5.a	Use structural features to identify a play as a literary form and distinguish among types of plays										
3.A.5.b	Identify and explain the action of a scene										
3.A.5.c	Identify and explain how stage directions create character and movement										
3.A.6	**Determine important ideas and messages in literary texts**										
3.A.6.a	Identify and explain main ideas and universal themes										
3.A.6.b	Identify and explain similar themes across multiple texts										
3.A.6.c	Paraphrase the text										
3.A.6.d	Summarize the text										
3.A.6.e	Identify and explain personal connections to the text										
3.A.6.f	Explain the implications for the reader and/or society										
3.A.7	**Identify and describe the author's use of language**										
3.A.7.a	Identify and explain how the author's use of dialogue contributes to a story										

Note. The number in the parenthesis indicates the total number of field test items.

Code	Standard / Objective Statement	No. of Augmented Items (Form 6)		No. of Augmented Items (Form 7)		No. of Augmented Items (Form 8)		No. of Augmented Items (Form 9)		No. of Augmented Items (Form 10)	
		SR	*BCR*	*SR*	*BCR*	*SR*	*BCR*	*SR*	*BCR*	*SR*	*BCR*
3.A.3.g	Identify and describe the narrator										
3.A.4	**Analyze elements of poetry to facilitate understanding and interpretation**										
3.A.4.a	Use structural features to identify poetry as a literary form and distinguish among types of poems										
3.A.4.b	Identify and explain the meaning of words, lines, and stanzas										
3.A.4.c	Identify and explain sound elements of poetry										
3.A.5	**Analyze elements of drama to facilitate understanding**										
3.A.5.a	Use structural features to identify a play as a literary form and distinguish among types of plays										
3.A.5.b	Identify and explain the action of a scene										
3.A.5.c	Identify and explain how stage directions create character and movement										
3.A.6	**Determine important ideas and messages in literary texts**										
3.A.6.a	Identify and explain main ideas and universal themes										
3.A.6.b	Identify and explain similar themes across multiple texts										
3.A.6.c	Paraphrase the text										
3.A.6.d	Summarize the text										
3.A.6.e	Identify and explain personal connections to the text										
3.A.6.f	Explain the implications for the reader and/or society										
3.A.7	**Identify and describe the author's use of language**										
3.A.7.a	Identify and explain how the author's use of dialogue contributes to a story										

Note. Number in parentheses indicates the total number of field test items.

Code	Standard / Objective Statement	No. of Augmented Items (Form 1)		No. of Augmented Items (Form 2)		No. of Augmented Items (Form 3)		No. of Augmented Items (Form 4)		No. of Augmented Items (Form 5)	
		SR	*BCR*	*SR*	*BCR*	*SR*	*BCR*	*SR*	*BCR*	*SR*	*BCR*
3.A.7.b	Identify and explain specific words and phrases that contribute to the meaning of a text										
3.A.7.c	Identify and explain words and phrases that create tone										
3.A.7.d	Identify and explain figurative language that contributes to meaning										
3.A.7.e	Identify and explain language that appeals to the senses and feelings										
3.A.7.f	Identify and explain repetition and exaggeration contribute to meaning										
3.A.8	**Read critically to evaluate literary texts**										
3.A.8.a	Determine and explain the plausibility of the characters' actions and the plot										
3.A.8.b	Identify and explain questions left unanswered by the text										
3.A.8.c	Identify and explain the relationship between a literary text and its historical context										

Note. Number in parentheses indicates the total number of field test items.

Code	Standard / Objective Statement	No. of Augmented Items (Form 6)		No. of Augmented Items (Form 7)		No. of Augmented Items (Form 8)		No. of Augmented Items (Form 9)		No. of Augmented Items (Form 10)	
		SR	*BCR*	*SR*	*BCR*	*SR*	*BCR*	*SR*	*BCR*	*SR*	*BCR*
3.A.7.b	Identify and explain specific words and phrases that contribute to the meaning of a text										
3.A.7.c	Identify and explain words and phrases that create tone										
3.A.7.d	Identify and explain figurative language that contributes to meaning										
3.A.7.e	Identify and explain language that appeals to the senses and feelings										
3.A.7.f	Identify and explain repetition and exaggeration contribute to meaning										
3.A.8	**Read critically to evaluate literary texts**										
3.A.8.a	Determine and explain the plausibility of the characters' actions and the plot										
3.A.8.b	Identify and explain questions left unanswered by the text										
3.A.8.c	Identify and explain the relationship between a literary text and its historical context										

Note. Number in parentheses indicates the total number of field test items.

Table D.4 The 2008 MSA-Reading Blueprint: Grade 6

Code	Standard / Objective Statement	No. of Augmented Items (Form 1)		No. of Augmented Items (Form 2)		No. of Augmented Items (Form 3)		No. of Augmented Items (Form 4)		No. of Augmented Items (Form 5)	
		SR	*BCR*	*SR*	*BCR*	*SR*	*BCR*	*SR*	*BCR*	*SR*	*BCR*
1	**General Reading Process**	***15***		***15***		***15***		***15***		***15***	
1.D	**General Reading Process: Vocabulary: Students will use a variety of strategies and opportunities to understand word meanings and to increase vocabulary**	(5)		(5)		(5)		(5)		(5)	
1.D.2	**Apply a conceptual understanding of new words**										
1.D.2.b	Explain relationships between and among words										
1.D.3	**Understand, acquire, and use new vocabulary**										
1.D.3.a	Use context to determine the meanings of words										
1.D.3.b	Use word structure to determine the meanings of words										
1.D.3.c	Use resources to confirm definitions and gather further information about words										
1.E	**General Reading Processes: Comprehension: Students will use a variety of strategies to understand what they read (construct meaning)**										
1.E.4	**Use strategies to demonstrate understanding of the text (after reading)**										
1.E.4.a	Identify and explain the main idea										
1.E.4.b	Identify and explain what is directly stated in the text										
1.E.4.c	Identify and explain what is not directly stated in the text by drawing inferences										
1.E.4.d	Draw conclusions or make generalizations about the text										
1.E.4.e	Confirm, refute, or make predictions and form new ideas										

Note. The number in the parenthesis indicates the total number of field test items.

Code	Standard / Objective Statement	No. of Augmented Items (Form 6)		No. of Augmented Items (Form 7)		No. of Augmented Items (Form 8)		No. of Augmented Items (Form 9)		No. of Augmented Items (Form 10)	
		SR	*BCR*	*SR*	*BCR*	*SR*	*BCR*	*SR*	*BCR*	*SR*	*BCR*
1	**General Reading Process**	***15***		***15***		***15***		***15***		***15***	
1.D	**General Reading Process: Vocabulary: Students will use a variety of strategies and opportunities to understand word meanings and to increase vocabulary**	(5)		(5)		(5)		(5)		(5)	
1.D.2	**Apply a conceptual understanding of new words**										
1.D.2.b	Explain relationships between and among words										
1.D.3	**Understand, acquire, and use new vocabulary**										
1.D.3.a	Use context to determine the meanings of words										
1.D.3.b	Use word structure to determine the meanings of words										
1.D.3.c	Use resources to confirm definitions and gather further information about words										
1.E	**General Reading Processes: Comprehension: Students will use a variety of strategies to understand what they read (construct meaning)**										
1.E.4	**Use strategies to demonstrate understanding of the text (after reading)**										
1.E.4.a	Identify and explain the main idea										
1.E.4.b	Identify and explain what is directly stated in the text										
1.E.4.c	Identify and explain what is not directly stated in the text by drawing inferences										
1.E.4.d	Draw conclusions or make generalizations about the text										
1.E.4.e	Confirm, refute, or make predictions and form new ideas										

Note. Number in parentheses indicates the total number of field test items.

Code	Standard / Objective Statement	No. of Augmented Items (Form 1)		No. of Augmented Items (Form 2)		No. of Augmented Items (Form 3)		No. of Augmented Items (Form 4)		No. of Augmented Items (Form 5)	
		SR	*BCR*	*SR*	*BCR*	*SR*	*BCR*	*SR*	*BCR*	*SR*	*BCR*
1.E.4.f	Paraphrase the main idea of the text										
1.E.4.g	Summarize the text										
1.E.4.h	Connect the text to prior knowledge or personal experience										
2	**Comprehension of Informational Text**	***9*** ***(3)***	***2***	***9*** ***(10)***	***2*** ***(3)***	***9***	***2***	***9*** ***(7)***	***2*** ***(3)***	***9*** ***(3)***	***2***
2.A	**Comprehension of Informational Text: Students will read, comprehend, interpret, analyze, and evaluate informational texts**										
2.A.1	**Develop and apply comprehension skills by reading a variety of self-selected and assigned print and electronic informational texts**										
2.A.1.a	Read, use, and identify the characteristics of nonfiction materials to gain information and content knowledge										
2.A.1.b	Read, use, and identify the characteristics of functional documents										
2.A.2	**Identify and use text features to facilitate understanding of informational texts**										
2.A.2.a	Use print features										
2.A.2.b	Use graphic aids										
2.A.2.c	Use informational aids										
2.A.2.d	Use organizational aids										
2.A.2.e	Use online features										
2.A.2.f	Identify and explain the contributions of text features to supporting the main idea of the text										
2.A.3	**Develop and apply knowledge of organizational structure of informational text to facilitate understanding**										

Note. Number in parentheses indicates the total number of field test items.

Code	Standard / Objective Statement	No. of Augmented Items (Form 6)		No. of Augmented Items (Form 7)		No. of Augmented Items (Form 8)		No. of Augmented Items (Form 9)		No. of Augmented Items (Form 10)	
		SR	*BCR*	*SR*	*BCR*	*SR*	*BCR*	*SR*	*BCR*	*SR*	*BCR*
1.E.4.f	Paraphrase the main idea of the text										
1.E.4.g	Summarize the text										
1.E.4.h	Connect the text to prior knowledge or personal experience										
2	**Comprehension of Informational Text**	***9***	***2***	***9***	***2***	***9***	***2***	***9***	***2***	***9***	***2***
		(10)	***(3)***			***(7)***	***(3)***	***(3)***		***(10)***	***(3)***
2.A	**Comprehension of Informational Text: Students will read, comprehend, interpret, analyze, and evaluate informational texts**										
2.A.1	**Develop and apply comprehension skills by reading a variety of self-selected and assigned print and electronic informational texts**										
2.A.1.a	Read, use, and identify the characteristics of nonfiction materials to gain information and content knowledge										
2.A.1.b	Read, use, and identify the characteristics of functional documents										
2.A.2	**Identify and use text features to facilitate understanding of informational texts**										
2.A.2.a	Use print features										
2.A.2.b	Use graphic aids										
2.A.2.c	Use informational aids										
2.A.2.d	Use organizational aids										
2.A.2.e	Use online features										
2.A.2.f	Identify and explain the contributions of text features to supporting the main idea of the text										
2.A.3	**Develop and apply knowledge of organizational structure of informational text to facilitate understanding**										

Note. Number in parentheses indicates the total number of field test items.

Code	Standard / Objective Statement	No. of Augmented Items (Form 1)		No. of Augmented Items (Form 2)		No. of Augmented Items (Form 3)		No. of Augmented Items (Form 4)		No. of Augmented Items (Form 5)	
		SR	*BCR*	*SR*	*BCR*	*SR*	*BCR*	*SR*	*BCR*	*SR*	*BCR*
2.A.3.a	Identify and analyze the organizational patterns of texts										
2.A.3.b	Explain how the organizational pattern clarifies and reinforces meaning and supports the author's/text's purpose										
2.A.4	**Determine and analyze important ideas and messages in informational text**										
2.A.4.a	Identify and explain the author's/text's purpose and intended audience										
2.A.4.b	Identify and explain the author's opinion										
2.A.4.c	State and support main ideas or messages.										
2.A.4.d	Summarize the text or a portion of text										
2.A.4.e	Identify and explain information not related to the main idea										
2.A.4.f	Explain relationships between and among ideas										
2.A.4.g	Synthesize ideas from text to form new understanding										
2.A.4.h	Distinguish between a fact and an opinion										
2.A.4.i	Explain how someone might use the text										
2.A.4.j	Connect the text to prior knowledge or experience										
2.A.5	**Analyze purposeful use of language**										
2.A.5.a	Analyze specific words or phrases that contribute to the meaning of a text										
2.A.5.b	Analyze specific language choices that create tone										

Note. Number in parentheses indicates the total number of field test items.

Code	Standard / Objective Statement	No. of Augmented Items (Form 6)		No. of Augmented Items (Form 7)		No. of Augmented Items (Form 8)		No. of Augmented Items (Form 9)		No. of Augmented Items (Form 10)	
		SR	*BCR*	*SR*	*BCR*	*SR*	*BCR*	*SR*	*BCR*	*SR*	*BCR*
2.A.3.a	Identify and analyze the organizational patterns of texts										
2.A.3.b	Explain how the organizational pattern clarifies and reinforces meaning and supports the author's/text's purpose										
2.A.4	**Determine and analyze important ideas and messages in informational text**										
2.A.4.a	Identify and explain the author's/text's purpose and intended audience										
2.A.4.b	Identify and explain the author's opinion										
2.A.4.c	State and support main ideas or messages.										
2.A.4.d	Summarize the text or a portion of text										
2.A.4.e	Identify and explain information not related to the main idea										
2.A.4.f	Explain relationships between and among ideas										
2.A.4.g	Synthesize ideas from text to form new understanding										
2.A.4.h	Distinguish between a fact and an opinion										
2.A.4.i	Explain how someone might use the text										
2.A.4.j	Connect the text to prior knowledge or experience										
2.A.5	**Analyze purposeful use of language**										
2.A.5.a	Analyze specific words or phrases that contribute to the meaning of a text										
2.A.5.b	Analyze specific language choices that create tone										

Note. Number in parentheses indicates the total number of field test items.

Code	Standard / Objective Statement	No. of Augmented Items (Form 1)		No. of Augmented Items (Form 2)		No. of Augmented Items (Form 3)		No. of Augmented Items (Form 4)		No. of Augmented Items (Form 5)	
		SR	*BCR*	*SR*	*BCR*	*SR*	*BCR*	*SR*	*BCR*	*SR*	*BCR*
2.A.5.c	Analyze the effect of repetition of words or phrases on meaning										
2.A.6	**Read critically to evaluate informational text**										
2.A.6.a	Explain whether the text fulfills the reading purpose										
2.A.6.b	Analyze changes or additions to the structures and features of the text that would make the text easier to understand										
2.A.6.c	Analyze the text and its information for reliability										
2.A.6.d	Determine and explain whether or not the author's argument or position is presented fairly										
2.A.6.e	Identify and explain information not included in the text that would have clarified the author's point.										
2.A.6.f	Identify and explain language intended to persuade the reader										
3	**Comprehension of Literary Text**	***9***	***2***	***9***	***2***	***9***	***2***	***9***	***2***	***9***	***2***
		(7)	***(3)***			***(10)***	***(3)***	***(2)***		***(7)***	***(3)***
3.A.	**Comprehension of Literary Text: Students will read, comprehend, interpret, analyze, and evaluate literary texts**										
3.A.2	**Analyze text features to facilitate understanding of literary texts**										
3.A.2.a	Identify and explain how organizational aids contribute to meaning										
3.A.2.b	Identify and explain how print features contribute to meaning										
3.A.2.c	Identify and explain how informational aids contribute to meaning										
3.A.3	**Analyze elements of narrative texts to facilitate understanding and interpretation**										

3.A.3.a	Identify and use structural features to distinguish among types of narrative text								

Note. Number in parentheses indicates the total number of field test items.

Code	Standard / Objective Statement	No. of Augmented Items (Form 6)		No. of Augmented Items (Form 7)		No. of Augmented Items (Form 8)		No. of Augmented Items (Form 9)		No. of Augmented Items (Form 10)	
		SR	*BCR*	*SR*	*BCR*	*SR*	*BCR*	*SR*	*BCR*	*SR*	*BCR*
2.A.5.c	Analyze the effect of repetition of words or phrases on meaning										
2.A.6	**Read critically to evaluate informational text**										
2.A.6.a	Explain whether the text fulfills the reading purpose										
2.A.6.b	Analyze changes or additions to the structures and features of the text that would make the text easier to understand										
2.A.6.c	Analyze the text and its information for reliability										
2.A.6.d	Determine and explain whether or not the author's argument or position is presented fairly										
2.A.6.e	Identify and explain information not included in the text that would have clarified the author's point.										
2.A.6.f	Identify and explain language intended to persuade the reader										
3	**Comprehension of Literary Text**	***9***	***2***	***9***	***2***	***9***	***2***	***9***	***2***	***9***	***2***
		(7)	***(3)***	***(3)***		***(3)***		***(7)***	***(3)***		
3.A.	**Comprehension of Literary Text: Students will read, comprehend, interpret, analyze, and evaluate literary texts**										
3.A.2	**Analyze text features to facilitate understanding of literary texts**										
3.A.2.a	Identify and explain how organizational aids contribute to meaning										
3.A.2.b	Identify and explain how print features contribute to meaning										
3.A.2.c	Identify and explain how informational aids contribute to meaning										
3.A.3	**Analyze elements of narrative texts to facilitate understanding and**										

	interpretation					
3.A.3.a	Identify and use structural features to distinguish among types of narrative text					

Note. Number in parentheses indicates the total number of field test items.

Code	Standard / Objective Statement	No. of Augmented Items (Form 1)		No. of Augmented Items (Form 2)		No. of Augmented Items (Form 3)		No. of Augmented Items (Form 4)		No. of Augmented Items (Form 5)	
		SR	*BCR*	*SR*	*BCR*	*SR*	*BCR*	*SR*	*BCR*	*SR*	*BCR*
3.A.3.b	Analyze the conflict and the events of the plot										
3.A.3.c	Analyze details that provide information about the setting, the mood created by the setting, and ways in which the setting affects the characters										
3.A.3.d	Analyze the characterization										
3.A.3.e	Analyze relationships between and among characters and events										
3.A.3.f	Identify and explain how the actions of the character(s) affect the plot										
3.A.3.g	Analyze conflicts that motivate characters and those that advance the plot										
3.A.3.h	Identify and explain the author's approach to issues of time in a narrative										
3.A.3.i	Identify and explain the point of view										
3.A.4	**Analyze elements of poetry to facilitate understanding and interpretation**										
3.A.4.a	Use structural features to distinguish among types of poems										
3.A.4.b	Identify and explain the meaning of words, lines, and stanzas										
3.A.4.c	Identify and explain how sound elements of poetry contribute to meaning										
3.A.4.d											
3.A.5	**Analyze elements of drama to facilitate understanding**										

3.A.5.a	Use structural features to distinguish among types of plays								
3.A.5.b	Identify and explain the action of scenes and acts								
3.A.5.c	Identify and explain how stage directions create character and movement								

Note. Number in parentheses indicates the total number of field test items.

Code	Standard / Objective Statement	No. of Augmented Items (Form 6)		No. of Augmented Items (Form 7)		No. of Augmented Items (Form 8)		No. of Augmented Items (Form 9)		No. of Augmented Items (Form 10)	
		SR	*BCR*	*SR*	*BCR*	*SR*	*BCR*	*SR*	*BCR*	*SR*	*BCR*
3.A.3.b	Analyze the conflict and the events of the plot										
3.A.3.c	Analyze details that provide information about the setting, the mood created by the setting, and ways in which the setting affects the characters										
3.A.3.d	Analyze the characterization										
3.A.3.e	Analyze relationships between and among characters and events										
3.A.3.f	Identify and explain how the actions of the character(s) affect the plot										
3.A.3.g	Analyze conflicts that motivate characters and those that advance the plot										
3.A.3.h	Identify and explain the author's approach to issues of time in a narrative										
3.A.3.i	Identify and explain the point of view										
3.A.4	**Analyze elements of poetry to facilitate understanding and interpretation**										
3.A.4.a	Use structural features to distinguish among types of poems										
3.A.4.b	Identify and explain the meaning of words, lines, and stanzas										
3.A.4.c	Identify and explain how sound elements of poetry contribute to meaning										
3.A.4.d											

3.A.5	**Analyze elements of drama to facilitate understanding**										
3.A.5.a	Use structural features to distinguish among types of plays										
3.A.5.b	Identify and explain the action of scenes and acts										
3.A.5.c	Identify and explain how stage directions create character and movement										

Note. Number in parentheses indicates the total number of field test items.

Code	Standard / Objective Statement	No. of Augmented Items (Form 1)		No. of Augmented Items (Form 2)		No. of Augmented Items (Form 3)		No. of Augmented Items (Form 4)		No. of Augmented Items (Form 5)	
		SR	*BCR*	*SR*	*BCR*	*SR*	*BCR*	*SR*	*BCR*	*SR*	*BCR*
3.A.5.d	Identify and explain stage directions and dialogue that help to create character										
3.A.6	**Determine important ideas and messages in literary texts**										
3.A.6.a	Analyze main ideas and universal themes										
3.A.6.b	Analyze similar themes across multiple texts										
3.A.6.c	Paraphrase the text										
3.A.6.d	Summarize the text										
3.A.6.e	Identify and explain personal connections to the text										
3.A.6.f	Explain the implications for the reader and/or society										
3.A.7	**Analyze the author's purposeful use of language**										
3.A.7.a	Analyze specific words and phrases that contribute to the meaning of a text										
3.A.7.b	Analyze words and phrases that create tone										
3.A.7.c	Identify and explain figurative language that contributes to meaning										
3.A.7.d	Analyze how sensory language contributes to meaning										
3.A.7.e	Analyze how repetition and exaggeration contribute to meaning										
3.A.8	**Read critically to evaluate literary texts**										

3.A.8.a	Determine and explain the plausibility of the characters' actions and the plot										
3.A.8.b	Identify and explain questions left unanswered by the text										
3.A.8.c	Identify and explain the relationship between a literary text and its historical and social context										

Note. Number in parentheses indicates the total number of field test items.

Code	Standard / Objective Statement	No. of Augmented Items (Form 6)		No. of Augmented Items (Form 7)		No. of Augmented Items (Form 8)		No. of Augmented Items (Form 9)		No. of Augmented Items (Form 10)	
		SR	*BCR*	*SR*	*BCR*	*SR*	*BCR*	*SR*	*BCR*	*SR*	*BCR*
3.A.5.d	Identify and explain stage directions and dialogue that help to create character										
3.A.6	**Determine important ideas and messages in literary texts**										
3.A.6.a	Analyze main ideas and universal themes										
3.A.6.b	Analyze similar themes across multiple texts										
3.A.6.c	Paraphrase the text										
3.A.6.d	Summarize the text										
3.A.6.e	Identify and explain personal connections to the text										
3.A.6.f	Explain the implications for the reader and/or society										
3.A.7	**Analyze the author's purposeful use of language**										
3.A.7.a	Analyze specific words and phrases that contribute to the meaning of a text										
3.A.7.b	Analyze words and phrases that create tone										
3.A.7.c	Identify and explain figurative language that contributes to meaning										
3.A.7.d	Analyze how sensory language contributes to meaning										
3.A.7.e	Analyze how repetition and exaggeration contribute to meaning										
3.A.8	**Read critically to evaluate literary texts**										
3.A.8.a	Determine and explain the plausibility of the characters' actions and the plot										

3.A.8.b	Identify and explain questions left unanswered by the text					
3.A.8.c	Identify and explain the relationship between a literary text and its historical and social context					

Note. Number in parentheses indicates the total number of field test items.

Table D.5 The 2008 MSA-Reading Blueprint: Grade 7

Code	Standard / Objective Statement	No. of Augmented Items (Form 1)		No. of Augmented Items (Form 2)		No. of Augmented Items (Form 3)		No. of Augmented Items (Form 4)		No. of Augmented Items (Form 5)	
		SR	*BCR*	*SR*	*BCR*	*SR*	*BCR*	*SR*	*BCR*	*SR*	*BCR*
1	**General Reading Process**	**15**		**15**		**15**		**15**		**15**	
1.D	**General Reading Process: Vocabulary: Students will use a variety of strategies and opportunities to understand word meanings and to increase vocabulary**	**(5)**		**(5)**		**(5)**		**(5)**		**(5)**	
1.D.2	**Apply a conceptual understanding of new words**										
1.D.2.b	Explain relationships between and among words										
1.D.3	**Understand, acquire, and use new vocabulary**										
1.D.3.a	Use context to determine the meanings of words										
1.D.3.b	Use word structure to determine the meanings of words										
1.D.3.c	Use resources to confirm definitions and gather further information about words										
1.E	**General Reading Processes: Comprehension: Students will use a variety of strategies to understand what they read (construct meaning)**										
1.E.4	**Use strategies to demonstrate understanding of the text (after reading)**										
1.E.4.a	Identify and explain the main idea										
1.E.4.b	Identify and explain information directly stated in the text										
1.E.4.c	Draw inferences and/or conclusions or make generalizations										
1.E.4.d	Confirm, refute, or make predictions and form new ideas										
1.E.4.e	Summarize or paraphrase the text										
1.E.4.f	Connect the text to prior knowledge or personal experience										

Note. Number in parentheses indicates the total number of field test items.

Code	Standard / Objective Statement	No. of Augmented Items (Form 6)		No. of Augmented Items (Form 7)		No. of Augmented Items (Form 8)		No. of Augmented Items (Form 9)		No. of Augmented Items (Form 10)	
		SR	*BCR*	*SR*	*BCR*	*SR*	*BCR*	*SR*	*BCR*	*SR*	*BCR*
1	**General Reading Process**	**15**		**15**		**15**		**15**		**15**	
1.D	**General Reading Process: Vocabulary: Students will use a variety of strategies and opportunities to understand word meanings and to increase vocabulary**	**(5)**		**(5)**		**(5)**		**(5)**		**(5)**	
1.D.2	**Apply a conceptual understanding of new words**										
1.D.2.b	Explain relationships between and among words										
1.D.3	**Understand, acquire, and use new vocabulary**										
1.D.3.a	Use context to determine the meanings of words										
1.D.3.b	Use word structure to determine the meanings of words										
1.D.3.c	Use resources to confirm definitions and gather further information about words										
1.E	**General Reading Processes: Comprehension: Students will use a variety of strategies to understand what they read (construct meaning)**										
1.E.4	**Use strategies to demonstrate understanding of the text (after reading)**										
1.E.4.a	Identify and explain the main idea										
1.E.4.b	Identify and explain information directly stated in the text										
1.E.4.c	Draw inferences and/or conclusions or make generalizations										
1.E.4.d	Confirm, refute, or make predictions and form new ideas										
1.E.4.e	Summarize or paraphrase the text										
1.E.4.f	Connect the text to prior knowledge or personal experience										

Note. Number in parentheses indicates the total number of field test items.

Code	Standard / Objective Statement	No. of Augmented Items (Form 1)		No. of Augmented Items (Form 2)		No. of Augmented Items (Form 3)		No. of Augmented Items (Form 4)		No. of Augmented Items (Form 5)	
		SR	*BCR*	*SR*	*BCR*	*SR*	*BCR*	*SR*	*BCR*	*SR*	*BCR*
2	**Comprehension of Informational Text**	***9***	***2***	***9***	***2***	***9***	***2***	***9***	***2***	***9***	***2***
		(3)		***(10)***	***(3)***			***(7)***	***(3)***		
2.A	**Comprehension of Informational Text: Students will read, comprehend, interpret, analyze, and evaluate informational texts**										
2.A.1	**Apply comprehension skills by selecting, reading, and interpreting a variety of print and electronic informational texts**										
2.A.1.a	Read, use, and identify the characteristics of primary and secondary sources of academic information										
2.A.1.b	Read, use, and identify the characteristics of workplace and other real-world documents										
2.A.2	**Analyze text features to facilitate understanding of informational texts**										
2.A.2.a	Analyze print features that contribute to meaning										
2.A.2.b	Analyze graphic aids that contribute to meaning										
2.A.2.c	Analyze informational aids that contribute to meaning										
2.A.2.d	Analyze organizational aids that contribute to meaning										
2.A.2.e	Analyze online features that contribute to meaning										
2.A.2.f	Analyze the relationship between the text features and the content of the text as a whole										
2.A.3	**Apply knowledge of organizational patterns of informational text to facilitate understanding**										
2.A.3.a	Analyze the organizational patterns of texts										
2.A.3.b	Analyze the contribution of the organizational pattern to clarifying or reinforcing meaning and supporting the author's purpose and/or argument										

Note. Number in parentheses indicates the total number of field test items.

Code	Standard / Objective Statement	No. of Augmented Items (Form 6)		No. of Augmented Items (Form 7)		No. of Augmented Items (Form 8)		No. of Augmented Items (Form 9)		No. of Augmented Items (Form 10)	
		SR	*BCR*	*SR*	*BCR*	*SR*	*BCR*	*SR*	*BCR*	*SR*	*BCR*
2	**Comprehension of Informational Text**	**9 (10)**	**2 (3)**	**9**	**2**	**9 (7)**	**2 (3)**	**9 (3)**	**2**	**9 (7)**	**2 (3)**
2.A	**Comprehension of Informational Text: Students will read, comprehend, interpret, analyze, and evaluate informational texts**										
2.A.1	**Apply comprehension skills by selecting, reading, and interpreting a variety of print and electronic informational texts**										
2.A.1.a	Read, use, and identify the characteristics of primary and secondary sources of academic information										
2.A.1.b	Read, use, and identify the characteristics of workplace and other real-world documents										
2.A.2	**Analyze text features to facilitate understanding of informational texts**										
2.A.2.a	Analyze print features that contribute to meaning										
2.A.2.b	Analyze graphic aids that contribute to meaning										
2.A.2.c	Analyze informational aids that contribute to meaning										
2.A.2.d	Analyze organizational aids that contribute to meaning										
2.A.2.e	Analyze online features that contribute to meaning										
2.A.2.f	Analyze the relationship between the text features and the content of the text as a whole										
2.A.3	**Apply knowledge of organizational patterns of informational text to facilitate understanding**										
2.A.3.a	Analyze the organizational patterns of texts										
2.A.3.b	Analyze the contribution of the organizational pattern to clarifying or reinforcing meaning and supporting the author's purpose and/or argument										

Note. Number in parentheses indicates the total number of field test items.

Code	Standard / Objective Statement	No. of Augmented Items (Form 1)		No. of Augmented Items (Form 2)		No. of Augmented Items (Form 3)		No. of Augmented Items (Form 4)		No. of Augmented Items (Form 5)	
		SR	*BCR*	*SR*	*BCR*	*SR*	*BCR*	*SR*	*BCR*	*SR*	*BCR*
2.A.3.c	Use organizational structure to locate specific information										
2.A.4	**Analyze important ideas and messages in informational text**										
2.A.4.a	Identify and explain the author's/text's purpose and intended audience										
2.A.4.b	Identify and explain the author's argument, viewpoint, or perspective										
2.A.4.c	State and support main ideas and messages										
2.A.4.d	Summarize the text or a portion of text										
2.A.4.e	Identify and explain information or ideas peripheral to the main idea or message										
2.A.4.f	Explain relationships between and among ideas										
2.A.4.g	Synthesize ideas from text to form new understanding										
2.A.4.h	Distinguish between a fact and an opinion										
2.A.4.i	Explain how someone might use the text										
2.A.4.j	Connect the text to prior knowledge or experience										
2.A.5	**Analyze purposeful use of language**										
2.A.5.a	Analyze specific word choice that contributes to meaning and/or creates style										
2.A.5.b	Analyze specific language choices to determine tone										
2.A.5.c	Analyze repetition and variation of specific words and phrases that contribute to meaning										
2.A.6	**Read critically to evaluate informational text**										

Note. Number in parentheses indicates the total number of field test items.

Code	Standard / Objective Statement	No. of Augmented Items (Form 6)		No. of Augmented Items (Form 7)		No. of Augmented Items (Form 8)		No. of Augmented Items (Form 9)		No. of Augmented Items (Form 10)	
		SR	*BCR*	*SR*	*BCR*	*SR*	*BCR*	*SR*	*BCR*	*SR*	*BCR*
2.A.3.c	Use organizational structure to locate specific information										
2.A.4	**Analyze important ideas and messages in informational text**										
2.A.4.a	Identify and explain the author's/text's purpose and intended audience										
2.A.4.b	Identify and explain the author's argument, viewpoint, or perspective										
2.A.4.c	State and support main ideas and messages										
2.A.4.d	Summarize the text or a portion of text										
2.A.4.e	Identify and explain information or ideas peripheral to the main idea or message										
2.A.4.f	Explain relationships between and among ideas										
2.A.4.g	Synthesize ideas from text to form new understanding										
2.A.4.h	Distinguish between a fact and an opinion										
2.A.4.i	Explain how someone might use the text										
2.A.4.j	Connect the text to prior knowledge or experience										
2.A.5	**Analyze purposeful use of language**										
2.A.5.a	Analyze specific word choice that contributes to meaning and/or creates style										
2.A.5.b	Analyze specific language choices to determine tone										
2.A.5.c	Analyze repetition and variation of specific words and phrases that contribute to meaning										
2.A.6	**Read critically to evaluate informational text**										

Note. Number in parentheses indicates the total number of field test items.

Code	Standard / Objective Statement	No. of Augmented Items (Form 1)		No. of Augmented Items (Form 2)		No. of Augmented Items (Form 3)		No. of Augmented Items (Form 4)		No. of Augmented Items (Form 5)	
		SR	*BCR*	*SR*	*BCR*	*SR*	*BCR*	*SR*	*BCR*	*SR*	*BCR*
2.A.6.a	Analyze the extent to which the text fulfills the reading purpose										
2.A.6.b	Analyze the extent to which the structure and features of the text clarify the purpose and the information										
2.A.6.c	Analyze the text and its information for reliability										
2.A.6.d	Analyze the author's argument or position for clarity and/or bias										
2.A.6.e	Analyze additional information that would clarify or strengthen the author's argument or viewpoint										
2.A.6.f	Analyze language intended to persuade the reader										
3	**Comprehension of Literary Text**	**9**	**2**	**9**	**2**	**9**	**2**	**9**	**2**	**9**	**2**
		(7)	**(3)**			**(10)**	**(3)**			**(10)**	**(3)**
3.A.	**Comprehension of Literary Text: Students will read, comprehend, interpret, analyze, and evaluate literary texts**										
3.A.2	**Analyze text features to facilitate understanding of literary texts**										
3.A.2.a	Analyze text features that contribute to meaning										
3.A.3	**Analyze elements of narrative texts to facilitate understanding and interpretation**										
3.A.3.a	Use structural features to distinguish among types of narrative text										
3.A.3.b	Analyze the conflict and the events of the plot										
3.A.3.c	Analyze details that provide information about the setting, the mood created by the setting, and ways in which the setting affects the characters										
3.A.3.d	Analyze the characterization										
3.A.3.e	Analyze relationships between and among characters and events										
3.A.3.f	Analyze the actions of characters that serve to advance the plot										

Note. Number in parentheses indicates the total number of field test items.

Code	Standard / Objective Statement	No. of Augmented Items (Form 6)		No. of Augmented Items (Form 7)		No. of Augmented Items (Form 8)		No. of Augmented Items (Form 9)		No. of Augmented Items (Form 10)	
		SR	*BCR*	*SR*	*BCR*	*SR*	*BCR*	*SR*	*BCR*	*SR*	*BCR*
2.A.6.a	Analyze the extent to which the text fulfills the reading purpose										
2.A.6.b	Analyze the extent to which the structure and features of the text clarify the purpose and the information										
2.A.6.c	Analyze the text and its information for reliability										
2.A.6.d	Analyze the author's argument or position for clarity and/or bias										
2.A.6.e	Analyze additional information that would clarify or strengthen the author's argument or viewpoint										
2.A.6.f	Analyze language intended to persuade the reader										
3	**Comprehension of Literary Text**	**9**	**2**	**9**	**2**	**9**	**2**	**9**	**2**	**9**	**2**
				(10)	**(3)**			**(7)**	**(3)**	**(3)**	
3.A.	**Comprehension of Literary Text: Students will read, comprehend, interpret, analyze, and evaluate literary texts**										
3.A.2	**Analyze text features to facilitate understanding of literary texts**										
3.A.2.a	Analyze text features that contribute to meaning										
3.A.3	**Analyze elements of narrative texts to facilitate understanding and interpretation**										
3.A.3.a	Use structural features to distinguish among types of narrative text										
3.A.3.b	Analyze the conflict and the events of the plot										
3.A.3.c	Analyze details that provide information about the setting, the mood created by the setting, and ways in which the setting affects the characters										
3.A.3.d	Analyze the characterization										
3.A.3.e	Analyze relationships between and among characters and events										
3.A.3.f	Analyze the actions of characters that serve to advance the plot										

Note. Number in parentheses indicates the total number of field test items.

Code	Standard / Objective Statement	No. of Augmented Items (Form 1)		No. of Augmented Items (Form 2)		No. of Augmented Items (Form 3)		No. of Augmented Items (Form 4)		No. of Augmented Items (Form 5)	
		SR	*BCR*	*SR*	*BCR*	*SR*	*BCR*	*SR*	*BCR*	*SR*	*BCR*
3.A.3.g	Analyze conflicts that motivate characters and those that advance the plot										
3.A.3.h	Analyze the author's approach to issues of time in a narrative										
3.A.3.i	Analyze the point of view										
3.A.3.j	Analyze the interactions among narrative elements and their contribution to meaning										
3.A.4	**Analyze elements of poetry to facilitate understanding and interpretation**										
3.A.4.a	Use structural features to distinguish among types of poems										
3.A.4.b	Analyze language and structural features to determine meaning										
3.A.4.c	Analyze sound elements of poetry that contribute to meaning										
3.A.4.d	Analyze other poetic elements, such as setting, mood, tone, etc. that contribute to meaning										
3.A.5	**Analyze elements of drama to facilitate understanding**										
3.A.5.a	Use structural features to distinguish among types of plays										
3.A.5.b	Analyze the action of individual scenes and acts and its relationship to the plot										
3.A.5.c	Analyze how stage directions affect dialogue, characters, and plot										
3.A.6	**Analyze important ideas and messages in literary texts**										
3.A.6.a	Analyze main ideas and universal themes										
3.A.6.b	Analyze similar themes across multiple texts										
3.A.6.c	Summarize or paraphrase the text										
3.A.6.d	Reflect on and explain personal connections to the text										

Note. Number in parentheses indicates the total number of field test items.

Code	Standard / Objective Statement	No. of Augmented Items (Form 6)		No. of Augmented Items (Form 7)		No. of Augmented Items (Form 8)		No. of Augmented Items (Form 9)		No. of Augmented Items (Form 10)	
		SR	*BCR*	*SR*	*BCR*	*SR*	*BCR*	*SR*	*BCR*	*SR*	*BCR*
3.A.3.g	Analyze conflicts that motivate characters and those that advance the plot										
3.A.3.h	Analyze the author's approach to issues of time in a narrative										
3.A.3.i	Analyze the point of view										
3.A.3.j	Analyze the interactions among narrative elements and their contribution to meaning										
3.A.4	**Analyze elements of poetry to facilitate understanding and interpretation**										
3.A.4.a	Use structural features to distinguish among types of poems										
3.A.4.b	Analyze language and structural features to determine meaning										
3.A.4.c	Analyze sound elements of poetry that contribute to meaning										
3.A.4.d	Analyze other poetic elements, such as setting, mood, tone, etc. that contribute to meaning										
3.A.5	**Analyze elements of drama to facilitate understanding**										
3.A.5.a	Use structural features to distinguish among types of plays										
3.A.5.b	Analyze the action of individual scenes and acts and its relationship to the plot										
3.A.5.c	Analyze how stage directions affect dialogue, characters, and plot										
3.A.6	**Analyze important ideas and messages in literary texts**										
3.A.6.a	Analyze main ideas and universal themes										
3.A.6.b	Analyze similar themes across multiple texts										
3.A.6.c	Summarize or paraphrase the text										
3.A.6.d	Reflect on and explain personal connections to the text										

Note. Number in parentheses indicates the total number of field test items.

Code	Standard / Objective Statement	No. of Augmented Items (Form 1)		No. of Augmented Items (Form 2)		No. of Augmented Items (Form 3)		No. of Augmented Items (Form 4)		No. of Augmented Items (Form 5)	
		SR	*BCR*	*SR*	*BCR*	*SR*	*BCR*	*SR*	*BCR*	*SR*	*BCR*
3.A.6.e	Explain the implications for the reader and/or society										
3.A.7	**Analyze the author's purposeful use of language**										
3.A.7.a	Analyze how specific language choices contribute to meaning and create style										
3.A.7.b	Analyze language choices that create tone										
3.A.7.c	Analyze figurative language that contributes to meaning and/or creates style										
3.A.7.d	Analyze imagery that contributes to meaning and/or creates style										
3.A.7.e	Analyze elements of style and their contribution to meaning										
3.A.8	**Read critically to evaluate literary texts**										
3.A.8.a	Analyze the plausibility of the plot and the credibility of the characters										
3.A.8.b	Analyze the extent to which the text contains ambiguities, subtleties, or contradictions										
3.A.8.c	Analyze and evaluate the relationship between a literary text and its historical, social, and political contexts										

Note. Number in parentheses indicates the total number of field test items.

.

Code	Standard / Objective Statement	No. of Augmented Items (Form 6)		No. of Augmented Items (Form 7)		No. of Augmented Items (Form 8)		No. of Augmented Items (Form 9)		No. of Augmented Items (Form 10)	
		SR	*BCR*	*SR*	*BCR*	*SR*	*BCR*	*SR*	*BCR*	*SR*	*BCR*
3.A.6.e	Explain the implications for the reader and/or society										
3.A.7	**Analyze the author's purposeful use of language**										
3.A.7.a	Analyze how specific language choices contribute to meaning and create style										
3.A.7.b	Analyze language choices that create tone										
3.A.7.c	Analyze figurative language that contributes to meaning and/or creates style										
3.A.7.d	Analyze imagery that contributes to meaning and/or creates style										
3.A.7.e	Analyze elements of style and their contribution to meaning										
3.A.8	**Read critically to evaluate literary texts**										
3.A.8.a	Analyze the plausibility of the plot and the credibility of the characters										
3.A.8.b	Analyze the extent to which the text contains ambiguities, subtleties, or contradictions										
3.A.8.c	Analyze and evaluate the relationship between a literary text and its historical, social, and political contexts										

Note. Number in parentheses indicates the total number of field test items.

Table D.6 The 2008 MSA-Reading Blueprint: Grade 8

Code	Standard / Objective Statement	No. of Augmented Items (Form 1)		No. of Augmented Items (Form 2)		No. of Augmented Items (Form 3)		No. of Augmented Items (Form 4)		No. of Augmented Items (Form 5)	
		SR	*BCR*	*SR*	*BCR*	*SR*	*BCR*	*SR*	*BCR*	*SR*	*BCR*
1	**General Reading Process**	***16***		***16***		***16***		***16***		***16***	
1.D	**General Reading Process: Vocabulary: Students will use a variety of strategies and opportunities to understand word meanings and to increase vocabulary**	(5)		(5)		(5)		(5)		(5)	
1.D.2	**Apply a conceptual understanding of new words**										
1.D.2.b	Explain relationships between and among words										
1.D.3	**Understand, acquire, and use new vocabulary**										
1.D.3.a	Use context to determine the meanings of words										
1.D.3.b	Use word structure to determine the meanings of words										
1.D.3.c	Select and use resources to confirm definitions and gather further information about words										
1.E	**General Reading Processes: Comprehension: Students will use a variety of strategies to understand what they read (construct meaning)**										
1.E.4	Use strategies to demonstrate understanding of the text (after reading)										
1.E.4.a	Identify and explain the main idea or argument										
1.E.4.b	Identify and explain information directly stated in the text										
1.E.4.c	Draw inferences and/or conclusions or make generalizations										
1.E.4.d	Confirm, refute, or make predictions and form new ideas										
1.E.4.e	Summarize or paraphrase the text										
1.E.4.f	Connect the text to prior knowledge or personal experience										

Note. Number in parentheses indicates the total number of field test items.

Code	Standard / Objective Statement	No. of Augmented Items (Form 6)		No. of Augmented Items (Form 7)		No. of Augmented Items (Form 8)		No. of Augmented Items (Form 9)		No. of Augmented Items (Form 10)	
		SR	*BCR*	*SR*	*BCR*	*SR*	*BCR*	*SR*	*BCR*	*SR*	*BCR*
1	**General Reading Process**	***16***		***16***		***16***		***16***		***16***	
1.D	**General Reading Process: Vocabulary: Students will use a variety of strategies and opportunities to understand word meanings and to increase vocabulary**	(5)		(5)		(5)		(5)		(5)	
1.D.2	**Apply a conceptual understanding of new words**										
1.D.2.b	Explain relationships between and among words										
1.D.3	**Understand, acquire, and use new vocabulary**										
1.D.3.a	Use context to determine the meanings of words										
1.D.3.b	Use word structure to determine the meanings of words										
1.D.3.c	Select and use resources to confirm definitions and gather further information about words										
1.E	**General Reading Processes: Comprehension: Students will use a variety of strategies to understand what they read (construct meaning)**										
1.E.4	Use strategies to demonstrate understanding of the text (after reading)										
1.E.4.a	Identify and explain the main idea or argument										
1.E.4.b	Identify and explain information directly stated in the text										
1.E.4.c	Draw inferences and/or conclusions or make generalizations										
1.E.4.d	Confirm, refute, or make predictions and form new ideas										
1.E.4.e	Summarize or paraphrase the text										
1.E.4.f	Connect the text to prior knowledge or personal experience										

Note. Number in parentheses indicates the total number of field test items.

Code	Standard / Objective Statement	No. of Augmented Items (Form 1)		No. of Augmented Items (Form 2)		No. of Augmented Items (Form 3)		No. of Augmented Items (Form 4)		No. of Augmented Items (Form 5)	
		SR	*BCR*	*SR*	*BCR*	*SR*	*BCR*	*SR*	*BCR*	*SR*	*BCR*
2	**Comprehension of Informational Text**	***9***	***2***	***9***	***2***	***9***	***2***	***9***	***2***	***9***	***2***
		(3)		***(10)***	***(3)***			***(7)***	***(3)***		
2.A	**Comprehension of Informational Text: Students will read, comprehend, interpret, analyze, and evaluate informational texts**										
2.A.1	**Apply comprehension skills by selecting, reading, and interpreting a variety of print and electronic informational texts**										
2.A.1.a	Read, use, and identify the characteristics of primary and secondary sources of academic information										
2.A.1.b	Read, use, and identify the characteristics of workplace and other real-world documents										
2.A.2	**Analyze text features to facilitate and extend understanding of informational texts**										
2.A.2.a	Analyze print features that contribute to meaning										
2.A.2.b	Analyze graphic aids that contribute to meaning										
2.A.2.c	Analyze informational aids that contribute to meaning										
2.A.2.d	Analyze organizational aids that contribute to meaning										
2.A.2.e	Analyze online features that contribute to meaning										
2.A.2.f	Analyze the relationship between the text features and the content of the text as a whole										
2.A.3	**Apply knowledge of organizational patterns of informational text to facilitate understanding**										
2.A.3.a	Analyze the organizational patterns of texts										
2.A.3.b	Analyze the contribution of the organizational pattern to clarifying or reinforcing meaning and supporting the author's purpose and/or argument										
2.A.3.c	Analyze shifts in organizational patterns										

Note. Number in parentheses indicates the total number of field test items.

Code	Standard / Objective Statement	No. of Augmented Items (Form 6)		No. of Augmented Items (Form 7)		No. of Augmented Items (Form 8)		No. of Augmented Items (Form 9)		No. of Augmented Items (Form 10)	
		SR	*BCR*	*SR*	*BCR*	*SR*	*BCR*	*SR*	*BCR*	*SR*	*BCR*
2	**Comprehension of Informational Text**	**9**	**2**	**9**	**2**	**9**	**2**	**9**	**2**	**9**	**2**
		(10)	**(3)**			**(7)**	**(3)**	**(3)**		**(7)**	**(3)**
2.A	**Comprehension of Informational Text: Students will read, comprehend, interpret, analyze, and evaluate informational texts**										
2.A.1	**Apply comprehension skills by selecting, reading, and interpreting a variety of print and electronic informational texts**										
2.A.1.a	Read, use, and identify the characteristics of primary and secondary sources of academic information										
2.A.1.b	Read, use, and identify the characteristics of workplace and other real-world documents										
2.A.2	**Analyze text features to facilitate and extend understanding of informational texts**										
2.A.2.a	Analyze print features that contribute to meaning										
2.A.2.b	Analyze graphic aids that contribute to meaning										
2.A.2.c	Analyze informational aids that contribute to meaning										
2.A.2.d	Analyze organizational aids that contribute to meaning										
2.A.2.e	Analyze online features that contribute to meaning										
2.A.2.f	Analyze the relationship between the text features and the content of the text as a whole										
2.A.3	**Apply knowledge of organizational patterns of informational text to facilitate understanding**										
2.A.3.a	Analyze the organizational patterns of texts										
2.A.3.b	Analyze the contribution of the organizational pattern to clarifying or reinforcing meaning and supporting the author's purpose and/or argument										
2.A.3.c	Analyze shifts in organizational patterns										

Note. Number in parentheses indicates the total number of field test items.

Code	Standard / Objective Statement	No. of Augmented Items (Form 1)		No. of Augmented Items (Form 2)		No. of Augmented Items (Form 3)		No. of Augmented Items (Form 4)		No. of Augmented Items (Form 5)	
		SR	*BCR*	*SR*	*BCR*	*SR*	*BCR*	*SR*	*BCR*	*SR*	*BCR*
2.A.3.d	Use organizational structure to locate specific information										
2.A.4	**Analyze important ideas and messages in informational text**										
2.A.4.a	Analyze the author's/text's purpose and intended audience										
2.A.4.b	Analyze the author's argument, viewpoint, or perspective										
2.A.4.c	State and support main ideas and messages										
2.A.4.d	Summarize the text or a portion of text										
2.A.4.e	Analyze information or ideas peripheral to the main idea or message										
2.A.4.f	Analyze relationships between and among ideas										
2.A.4.g	Synthesize ideas from text to form new understanding										
2.A.4.h	Explain the implications of the text or now someone might use the text										
2.A.4.i	Connect the text to prior knowledge or experience										
2.A.5	**Analyze purposeful use of language**										
2.A.5.a	Analyze specific word choice that contributes to meaning and/or creates style										
2.A.5.b	Analyze specific language choices to determine tone										
2.A.5.c	Analyze the appropriateness of tone										
2.A.5.d	Analyze repetition and variation of specific words and phrases that contribute to meaning										
2.A.6	**Read critically to evaluate informational text**										
2.A.6.a	Analyze the extent to which the text fulfills the reading purpose										

Note. Number in parentheses indicates the total number of field test items.

Code	Standard / Objective Statement	No. of Augmented Items (Form 6)		No. of Augmented Items (Form 7)		No. of Augmented Items (Form 8)		No. of Augmented Items (Form 9)		No. of Augmented Items (Form 10)	
		SR	*BCR*	*SR*	*BCR*	*SR*	*BCR*	*SR*	*BCR*	*SR*	*BCR*
2.A.3.d	Use organizational structure to locate specific information										
2.A.4	**Analyze important ideas and messages in informational text**										
2.A.4.a	Analyze the author's/text's purpose and intended audience										
2.A.4.b	Analyze the author's argument, viewpoint, or perspective										
2.A.4.c	State and support main ideas and messages										
2.A.4.d	Summarize the text or a portion of text										
2.A.4.e	Analyze information or ideas peripheral to the main idea or message										
2.A.4.f	Analyze relationships between and among ideas										
2.A.4.g	Synthesize ideas from text to form new understanding										
2.A.4.h	Explain the implications of the text or now someone might use the text										
2.A.4.i	Connect the text to prior knowledge or experience										
2.A.5	**Analyze purposeful use of language**										
2.A.5.a	Analyze specific word choice that contributes to meaning and/or creates style										
2.A.5.b	Analyze specific language choices to determine tone										
2.A.5.c	Analyze the appropriateness of tone										
2.A.5.d	Analyze repetition and variation of specific words and phrases that contribute to meaning										
2.A.6	**Read critically to evaluate informational text**										
2.A.6.a	Analyze the extent to which the text fulfills the reading purpose										

Note. Number in parentheses indicates the total number of field test items.

Code	Standard / Objective Statement	No. of Augmented Items (Form 1)		No. of Augmented Items (Form 2)		No. of Augmented Items (Form 3)		No. of Augmented Items (Form 4)		No. of Augmented Items (Form 5)	
		SR	*BCR*	*SR*	*BCR*	*SR*	*BCR*	*SR*	*BCR*	*SR*	*BCR*
2.A.6.b	Analyze the extent to which the structure and features of the text clarify the purpose and the information										
2.A.6.c	Analyze the text and its information for reliability										
2.A.6.d	Analyze the author's argument or position for clarity and/or bias										
2.A.6.e	Analyze additional information that would clarify or strengthen the author's argument or viewpoint										
2.A.6.f	Analyze the effectiveness of persuasive techniques to sway the reader to a particular point of view										
2.A.6.g	Analyze the effect of elements of style on meaning										
3	**Comprehension of Literary Text**	***8***	***2***	***8***	***2***	***8***	***2***	***8***	***2***	***8***	***2***
		(7)	***(3)***			***(10)***	***(3)***	***(3)***		***(7)***	***(3)***
3.A.	**Comprehension of Literary Text: Students will read, comprehend, interpret, analyze, and evaluate literary texts**										
3.A.2	**Analyze and evaluate text features to facilitate and extend understanding of literary texts**										
3.A.2.a	Analyze text features that contribute to meaning										
3.A.3	**Analyze elements of narrative texts to facilitate understanding and interpretation**										
3.A.3.a	Use structural features to distinguish among types of narrative text										
3.A.3.b	Analyze the conflict and its role in advancing the plot										
3.A.3.c	Analyze details that provide information about the setting, the mood created by the setting, and the role the setting plays in the text										
3.A.3.d	Analyze the characterization										
3.A.3.e	Analyze relationships between and among characters and events										

Note. Number in parentheses indicates the total number of field test items.

Code	Standard / Objective Statement	No. of Augmented Items (Form 6)		No. of Augmented Items (Form 7)		No. of Augmented Items (Form 8)		No. of Augmented Items (Form 9)		No. of Augmented Items (Form 10)	
		SR	*BCR*	*SR*	*BCR*	*SR*	*BCR*	*SR*	*BCR*	*SR*	*BCR*
2.A.6.b	Analyze the extent to which the structure and features of the text clarify the purpose and the information										
2.A.6.c	Analyze the text and its information for reliability										
2.A.6.d	Analyze the author's argument or position for clarity and/or bias										
2.A.6.e	Analyze additional information that would clarify or strengthen the author's argument or viewpoint										
2.A.6.f	Analyze the effectiveness of persuasive techniques to sway the reader to a particular point of view										
2.A.6.g	Analyze the effect of elements of style on meaning										
3	**Comprehension of Literary Text**	**8**	**2**	**8**	**2**	**8**	**2**	**8**	**2**	**8**	**2**
				(10)	**(3)**			**(7)**	**(3)**	**(3)**	
3.A.	**Comprehension of Literary Text: Students will read, comprehend, interpret, analyze, and evaluate literary texts**										
3.A.2	**Analyze and evaluate text features to facilitate and extend understanding of literary texts**										
3.A.2.a	Analyze text features that contribute to meaning										
3.A.3	**Analyze elements of narrative texts to facilitate understanding and interpretation**										
3.A.3.a	Use structural features to distinguish among types of narrative text										
3.A.3.b	Analyze the conflict and its role in advancing the plot										
3.A.3.c	Analyze details that provide information about the setting, the mood created by the setting, and the role the setting plays in the text										
3.A.3.d	Analyze the characterization										
3.A.3.e	Analyze relationships between and among characters and events										

Note. Number in parentheses indicates the total number of field test items.

Code	Standard / Objective Statement	No. of Augmented Items (Form 1)		No. of Augmented Items (Form 2)		No. of Augmented Items (Form 3)		No. of Augmented Items (Form 4)		No. of Augmented Items (Form 5)	
		SR	*BCR*	*SR*	*BCR*	*SR*	*BCR*	*SR*	*BCR*	*SR*	*BCR*
3.A.3.f	Analyze the actions of characters that serve to advance the plot										
3.A.3.g	Analyze conflicts that motivate characters and those that advance the plot										
3.A.3.h	Analyze the author's approach to issues of time in a narrative										
3.A.3.i	Analyze the point of view and its effect on meaning										
3.A.3.j	Analyze the interactions among narrative elements and their contribution to meaning										
3.A.4	**Analyze and evaluate elements of poetry to facilitate understanding and interpretation**										
3.A.4.a	Use structural features to distinguish among types of poems										
3.A.4.b	Analyze language and structural features to determine meaning										
3.A.4.c	Analyze sound elements of poetry that contribute to meaning										
3.A.4.d	Analyze other poetic elements, such as, setting, mood, tone, etc. that contribute to meaning										
3.A.5	**Analyze and evaluate elements of drama to facilitate understanding**										
3.A.5.a	Use structural features to distinguish among types of dramas										
3.A.5.b	Analyze structural features of drama that contribute to meaning										
3.A.5.c	Analyze how dialogue and stage directions work together to create characters and plot										
3.A.6	**Analyze important ideas and messages in literary texts**										
3.A.6.a	Analyze main ideas and universal themes										
3.A.6.b	Analyze similar themes across multiple texts										
3.A.6.c	Summarize or paraphrase the text										

Note. Number in parentheses indicates the total number of field test items.

Code	Standard / Objective Statement	No. of Augmented Items (Form 6)		No. of Augmented Items (Form 7)		No. of Augmented Items (Form 8)		No. of Augmented Items (Form 9)		No. of Augmented Items (Form 10)	
		SR	*BCR*	*SR*	*BCR*	*SR*	*BCR*	*SR*	*BCR*	*SR*	*BCR*
3.A.3.f	Analyze the actions of characters that serve to advance the plot										
3.A.3.g	Analyze conflicts that motivate characters and those that advance the plot										
3.A.3.h	Analyze the author's approach to issues of time in a narrative										
3.A.3.i	Analyze the point of view and its effect on meaning										
3.A.3.j	Analyze the interactions among narrative elements and their contribution to meaning										
3.A.4	**Analyze and evaluate elements of poetry to facilitate understanding and interpretation**										
3.A.4.a	Use structural features to distinguish among types of poems										
3.A.4.b	Analyze language and structural features to determine meaning										
3.A.4.c	Analyze sound elements of poetry that contribute to meaning										
3.A.4.d	Analyze other poetic elements, such as, setting, mood, tone, etc. that contribute to meaning										
3.A.5	**Analyze and evaluate elements of drama to facilitate understanding**										
3.A.5.a	Use structural features to distinguish among types of dramas										
3.A.5.b	Analyze structural features of drama that contribute to meaning										
3.A.5.c	Analyze how dialogue and stage directions work together to create characters and plot										
3.A.6	**Analyze important ideas and messages in literary texts**										
3.A.6.a	Analyze main ideas and universal themes										
3.A.6.b	Analyze similar themes across multiple texts										
3.A.6.c	Summarize or paraphrase the text										

Note. Number in parentheses indicates the total number of field test items.

Code	Standard / Objective Statement	No. of Augmented Items (Form 1)		No. of Augmented Items (Form 2)		No. of Augmented Items (Form 3)		No. of Augmented Items (Form 4)		No. of Augmented Items (Form 5)	
		SR	*BCR*	*SR*	*BCR*	*SR*	*BCR*	*SR*	*BCR*	*SR*	*BCR*
3.A.6.d	Reflect on and explain personal connections to the text										
3.A.6.e	Explain the implications for the reader and/or society										
3.A.7	**Analyze and evaluate the author's purposeful use of language**										
3.A.7.a	Analyze and evaluate how specific language choices contribute to meaning and create style										
3.A.7.b	Analyze and evaluate language choices that create tone										
3.A.7.c	Analyze the appropriateness of a particular tone										
3.A.7.d	Analyze and evaluate figurative language that contributes to meaning and/or creates style										
3.A.7.e	Analyze imagery that contributes to meaning and/or creates style										
3.A.7.f	Analyze elements of style and their contribution to meaning										
3.A.8	**Read critically to evaluate literary texts**										
3.A.8.a	Analyze and evaluate the plausibility of the plot and the credibility of the characters										
3.A.8.b	Analyze and evaluate the extent to which the text contains ambiguities, subtleties, or contradictions										
3.A.8.c	Analyze and evaluate the relationship between a literary text and its historical, social, and political contexts										
3.A.8.d	Analyze the relationship between the structure and the purpose of the text										

Note. Number in parentheses indicates the total number of field test items.

Code	Standard / Objective Statement	No. of Augmented Items (Form 6)		No. of Augmented Items (Form 7)		No. of Augmented Items (Form 8)		No. of Augmented Items (Form 9)		No. of Augmented Items (Form 10)	
		SR	*BCR*	*SR*	*BCR*	*SR*	*BCR*	*SR*	*BCR*	*SR*	*BCR*
3.A.6.d	Reflect on and explain personal connections to the text										
3.A.6.e	Explain the implications for the reader and/or society										
3.A.7	**Analyze and evaluate the author's purposeful use of language**										
3.A.7.a	Analyze and evaluate how specific language choices contribute to meaning and create style										
3.A.7.b	Analyze and evaluate language choices that create tone										
3.A.7.c	Analyze the appropriateness of a particular tone										
3.A.7.d	Analyze and evaluate figurative language that contributes to meaning and/or creates style										
3.A.7.e	Analyze imagery that contributes to meaning and/or creates style										
3.A.7.f	Analyze elements of style and their contribution to meaning										
3.A.8	**Read critically to evaluate literary texts**										
3.A.8.a	Analyze and evaluate the plausibility of the plot and the credibility of the characters										
3.A.8.b	Analyze and evaluate the extent to which the text contains ambiguities, subtleties, or contradictions										
3.A.8.c	Analyze and evaluate the relationship between a literary text and its historical, social, and political contexts										
3.A.8.d	Analyze the relationship between the structure and the purpose of the text										

Note. Number in parentheses indicates the total number of field test items.