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Examining the Technical Adequacy of Fifth-Grade Reading

Comprehension Measures in a Progress Monitoring Assessment System

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Abstract

This technical report describes the development and piloting of reading comprehension measures developed for use by fifth-grade students as part of an online progress monitoring assessment system, http://easycbm.com. Each comprehension measure is comprised of an original work of narrative fiction approximately 1500 words in length followed by 20 selected response questions that sample literal, inferential, and evaluative comprehension. All measures were piloted with fifth-grade students attending public schools in the Pacific Northwest, and results were analyzed using Item Response Theory (IRT). Complete results of the pilot testing are presented and discussed.

Introduction

In this technical report, we describe the development and piloting of reading comprehension measures as part of a comprehensive progress monitoring literacy assessment system developed in 2006 for use with students in Kindergarten through Fifth grade (Alonzo, Tindal, Ulmer, & Glasgow, 2006). We begin with a brief overview of the two conceptual frameworks underlying the assessment system: progress monitoring and developmental theories of reading. We then provide context for how the comprehension measures fit into the full assessment system. Additional technical reports provide similar information about measures of early literacy (Alonzo & Tindal, 2007a) and fluency (Alonzo & Tindal, 2007b). *Conceptual Framework: Progress Monitoring and Literacy Assessment*

Early work related to curriculum-based measurement (CBM) led by Deno and Mirkin at the University of Minnesota (*c.f.a.*, Deno & Mirkin, 1977) was instrumental in promoting the use of short, easily-administered assessments to provide educators with information about student skill development useful for instructional planning. In the three decades since, such *progress monitoring probes* as they have come to be called have increased in popularity, and they are now a regular part of many schools' educational programs (Alonzo, Tindal, & Ketterlin-Geller, 2007). However, CBMs – even those widely used across the United States – often lack the psychometric properties expected of modern technically-adequate assessments. Although the precision of instrument development has advanced tremendously in the past 30 years with the advent of more sophisticated statistical techniques for analyzing tests on an item by item basis rather than relying exclusively on comparisons of means and standard deviations to evaluate comparability of alternate forms, the world of CBMs has not always kept pace with these statistical advances. A key feature of assessments designed for progress monitoring is that alternate forms must be as equivalent as possible to allow meaningful interpretation of student performance data across time. Without such cross-form equivalence, changes in scores from one testing session to the next are difficult to attribute to changes in student skill or knowledge. Improvements in student scores may, in fact, be an artifact of the second form of the assessment being easier than the form that was administered first. The advent of more sophisticated data analysis techniques (such as the Rasch modeling used in this study) have made it possible to increase the precision with which we develop and evaluate the quality of assessment tools. In this technical report, we document the development of a progress monitoring assessment in reading, designed for use with students in Kindergarten through Grade 5. This assessment system was developed to be used by elementary school educators interested in monitoring the progress their students make in the area of early reading skill acquisition.

Reading is a fluid construct, shifting over time from a focus on discrete skills necessary for working with language in both written and spoken forms, to those more complex combinations of skills associated with decoding, and finally to comprehension—a construct in which all prior literacy skills are called upon in the act of reading. Reading assessment typically follows this general progression as well (Reading First, 2006). Assessments of emerging literacy skills evaluate student mastery of the alphabetic principle. These tests measure students' ability to correctly identify and/or produce letters and the sounds associated with them. They measure students' ability to manipulate individual phonemes (sound units) within words, when, for example, students are asked to blend a list of phonemes into a word, segment a word into its corresponding phonemes, or identify the sounds which begin or end a word (Ritchey & Speece, 2006). As student reading skill progresses, it is necessary to use different reading measures to be able to continue to track the progress students are making as developing readers. Oral reading fluency, which measures a combination of students' sight vocabulary and their ability to decode novel words rapidly and accurately, is consistently identified in the literature as one of the best predictors of student reading comprehension in the early grades (Graves, Plasencia-Peinado, Deno, & Johnson, 2005; Hasbrouck & Tindal, 2005). Eventually, however, the information provided by measures of oral reading fluency is limited. Readers attain a fluency threshold that enables them to attend to comprehension rather than decoding (Ehri, 1991, 2005). Once this threshold has been reached, fluency is no longer sensitive to increases in reading comprehension. At this point, one must turn to measures designed to assess comprehension more directly. Although this technical report provides information specifically related to the comprehension measures developed for use in our Progress Monitoring assessment system, it is important to provide an overview of the complete system so readers can understand how the comprehension measures fit into the system as a whole.

The Measures that Comprise Our Complete Assessment System

Based on previous empirical studies of early literacy assessment (see, for example, the report from the National Reading Panel), we developed two measures of alphabetic principle (Letter Names and Letter Sounds), one measure of phonological awareness (Phoneme Segmenting), three measures of fluency (Word Reading Fluency, Sentence Reading Fluency, and Passage Reading Fluency), and one measure of comprehension (Multiple Choice Reading Comprehension). Table 1 presents information about the measures we developed for use in different grade levels. The specific technical specifications for the reading comprehension measure are described in the methods section of this technical report. First, we describe the specific requirements related to the intended use of the measures in our assessment system.

	Measure								
Grade	Letter Names	Letter Sounds	Phoneme Segmenting	Word & Sentence Reading	Passage Reading	MC Reading Comp			
Kindergarten	\mathbf{X}^{*}	Х	Х	Х					
Grade 1	Х	Х	Х	X	Х				
Grade 2			Х	X	Х	Х			
Grade 3				X	Х	Х			
Grade 4					Х	Х			
Grade 5					Х	Х			

Table 1Distribution of the Measures Across the Grades

^{*}Note: Each "X" represents 20 alternate forms of the measure for that grade level.

When one is interested in monitoring the progress students are making in attaining specific skills, it is important to have sufficient measures to sample student performance frequently. Thus, our goal was to create 20 alternate forms of each measure in our assessment system at each grade level where the measure was designed to be used. Because these alternate forms are designed to be used for progress monitoring, it is essential that all forms of a particular measure in a given grade level be both sensitive to showing growth in a discrete skill area over short periods of time (1-2 weeks of instruction) and comparable in difficulty. These two equally important needs informed all parts of our measurement development effort: the construction of the technical specifications for each of the measures, the design of the studies used to gather data on item and test functioning, the analytic approaches we used to interpret the results of the pilot

studies, and subsequent revision of the measures. In all cases, we sought approaches that would provide us with enough information to evaluate the *sensitivity of the individual measures* to detect small differences in student performance and the *comparability of the different forms* of each measure to allow for meaningful interpretation of growth over time.

In the section that follows, we describe the methods we used to construct, pilot, and analyze the performance of the measures in terms of reliability and validity for use in a progress monitoring assessment system.

Methods

We selected the format of the comprehension measures based on prior empirical work with local school districts (Alonzo & Tindal, 2004a, 2004b, 2004c). In this work, teachers had expressed their desire for tests that closely resembled the types of readings students regularly encountered in their classes. At the same time, concerns about increasing the reliability, easy of use, and cost-effectiveness of our measures prompted us to use selected response rather than open ended question types in our comprehension measures. Accordingly, we developed the MC Comprehension Tests in a two-step process. First, we wrote the stories that were used as the basis for each test. Then, we wrote the test items associated with each story. We embedded quality control and content review processes in both these steps throughout instrument development.

Two people, selected for their expertise in instrument development and language arts, were principally involved with overseeing the creation of the comprehension tests. The lead author, who oversaw the creation and revision of the stories and test items earned her Bachelor of Arts degree in Literature from Carleton College in 1990, worked for twelve years as an English teacher in California public schools, was awarded National Board for Professional Teaching Standards certification in Adolescent and Young Adulthood English Language Arts in 2002, and was a Ph.D. candidate in the area of Learning Assessments / System Performance at the University of Oregon at the time the measures were created. The man hired to write the multiple choice comprehension items earned his Ph.D. in education psychology, measurement and methodology from the University of Arizona. He has worked in education at the elementary and middle school levels, as well as in higher education and at the state level. He held a position as associate professor in the distance learning program for Northern Arizona University and served as director of assessment for a large metropolitan school district in Phoenix, Arizona. In addition, he served as state Director of Assessment and Deputy Associate Superintendent for Standards and Assessment at the Arizona Department of Education. He was a test development manager for Harcourt Assessment and has broad experience in assessment and test development. *Creation of Original Fictitious Narratives*

The lead author and the professional item writer hired for this project worked together to create documentation for story writers to use while creating their stories (see Appendix A). This written documentation was provided to increase the comparability of story structure and reduce the likelihood of construct irrelevant variance related to variation in story type affecting student performance on the different forms of the comprehension measures. Story creation specifications provided information about the length of the stories (approximately 1,500 words), characters, settings, and plots. Stories, which were composed between June 2006 and January 2007, were written by a variety of people who were either elementary and secondary school teachers or graduate students in the College of Education. In all, 24 stories were written for use in this project: 4 did not pass the criteria required for use in the assessment system, leaving 20 to be piloted at the Fifth grade level.

Writing Multiple Choice Items to Fit Each Story

The professional item writer we hired created 20 multiple choice questions, each with three possible answer options, for each form of the Fifth-grade MC Comprehension tests. In all, he wrote 400 multiple choice questions. All Fifth-grade questions were written between July and October of 2007. For each of the Fifth-grade MC Comprehension tests, we wrote seven questions targeting literal comprehension, seven questions targeting inferential comprehension, and six questions targeting evaluative comprehension, for a total of 20 items on each form of the test. Within each type of comprehension, item-writing specifications called for a range of difficulty such that each form of each test contained some easy, moderate, and difficult items in each of the types of comprehension assessed on that test. Item-writing specifications also guided the ordering of the items on each form of the MC Comprehension test. In all cases, we followed a similar pattern of item ordering, beginning with the easiest literal comprehension item and continuing with items of increasing difficulty, ending with an item designed to be one of the most challenging, pulled from the highest level of comprehension assessed in that grade level (evaluative comprehension in grade 5). Appendix B provides a more detailed description of the item ordering specifications followed in test construction.

Once the multiple choice items were written, the stories and item lists were formatted into individual tests, each comprised of a story and 20 multiple choice test items. Appendix C provides tables listing each Fifth-grade multiple choice test item by its unique identifying item name, the cognitive attribute and assessment objective it was designed to sample, the degree of difficulty the item writer believed the item demonstrated, and the final ordering of the items on the test.

Pilot Testing

We used a common-person / common item piloting design to collect information on how each of the MC Comprehension measures functioned. In this design, the 20 different forms of each grade level measure are clustered into five groups, with five forms in each group. These five different forms are administered to different groups of students in a relatively short period of time. Each test grouping contains two overlapping forms, enabling concurrent analysis of all measures across the different student samples (see Table 2 for an example of this design at Fifth grade). The overlapping forms serve as the 'common items' that allow one to analyze the comparability of test forms. Having students take five different forms of the test provides 'common person' information, in which each person acts as his/her own 'control.' This design allows test developers to increase the reliability of item difficulty estimation because all different forms of the measures are analyzed simultaneously, and the overlap in people and test forms increases the statistical power of analyses.

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Table 2Organization of Test Form Groupings for Piloting Different MC Comprehension Forms

¹ Each "group" represents approximately 100 students

A convenience sample of teachers from two large school districts in the Pacific Northwest was recruited to participate in the piloting effort. All piloting of the 5th-grade MC Comprehension tests took place within the same five-week window in April and May of 2007. Teachers were recruited for participation through email notices sent by their school districts on behalf of the researchers. District personnel specifically recruited teachers who worked with students with a wide range of skill in reading, as the statistical analyses used in our item development are enhanced by increasing the variance among test takers. Teachers were compensated \$50 for participating in the pilot. All items were piloted using a computer delivered online test platform. Teachers brought their classes to a computer lab to participate in the piloting. The computer captured item-level response information for analysis.

Analysis of Technical Adequacy

We evaluated the technical adequacy of the MC Reading Comprehension measures in two primary ways: (a) content review of the stories and test items and (b) statistical analysis of data obtained when the measures were piloted in the spring of 2007.

Content Review

Content and grade-level appropriateness of each of the MC Reading Comprehension measures was analyzed in four ways: grade-level appropriateness, adequate story structure for the types of items called for in the test specification documents, bias in language or story elements, and formatting.

Reviewing the content and grade-level appropriateness. First, each of the passages was reviewed by an elementary school educator employed as a Title I Reading Specialist in the school district where we piloted the measures. This review focused on evaluating the degree to which the stories used in the measures were appropriate in tone, content, and language for their target grade-level audience. We used feedback from this review to revise two stories prior to

sending them to the item writer for question development. The remaining stories met content and grade-level appropriateness standards on first review.

Concurrent review and revision to address item-writing specifications. Second, during the item-writing phase, the professional item writer and the lead author worked in tandem to review and revise each of the stories as items were being written. This ongoing review and revision process focused on replacing vocabulary words that were deemed out of grade level (based on Taylor, Frackenpohl, & White's 1989 A Revised Core Vocabulary) and on re-writing sections of the stories to create more uniform story structures across different forms of the tests. In particular, revisions were made to ensure adequate opportunities for the development of higher-order inferential and evaluative questions related to the stories. Slight revisions to all of the stories were made during this process.

Attending to potential bias for students with special needs and diverse backgrounds. In the third step of the review process, all tests (stories and questions) were reviewed by students enrolled in the third term of a Special Education Master's seminar on assessment issues related to special-needs students. Each student read and provided feedback on five complete tests. Their feedback was shared with the item writer and lead author. Because this review process did not lead to any suggested revisions, tests were sent on for reviews related to formatting without further alterations as a result of this step in the review process.

Formatting consistency and issues related to ease of access. During the final step of the content review process, two Master's students in the College of Education read all of the revised and formatted tests, looking for issues related to consistency and appropriateness of formatting for elementary school students. Specific formatting issues included inconsistency in using bold or normal typeface (n = 11), spacing between the header and the first item (n = 9), and font used

(n = 2). Issues noted in this review process were addressed prior to piloting the tests. In all cases, stories were presented on the computer in a sans serif font style to increase readability for students with visual impairments. During the piloting, students were able to look back at the story as they were answering the test questions. The format in which the test items were piloted is an exact replica of the computer delivered test format used on the end system (easycbm.com). *Statistical Analysis*

We analyzed data from the pilot testing of the MC Comprehension measures with a one parameter logistic Rasch analysis using the software Winsteps3.61.1 (Linacre, 2006). Rasch analyses differ from approaches using classical statistics in that they consider patterns of responses across individuals, using this information to provide a level of specificity in results unattainable with approaches based on classical statistics used in the development of most CBMs. In a complex iterative process, a Rasch analysis concurrently estimates the difficulty of individual test items and the ability level of each individual test taker. The results one obtains from this analysis, relevant to our discussion here, include an estimation of the difficulty (referred to as the 'measure' of each item), the standard error of measure associated with each item's estimated difficulty, and the degree to which each item 'fits' the measurement model (referred to as the 'mean square outfit' of each item). In addition, a Rasch analysis can provide information about the average estimated ability of students who selected each of the possible answer choices. All of this information must be considered when evaluating the technical adequacy of the measures, as described below.

Considering each item's estimated difficulty. Rasch analyses, which examine each item's reliability, provide a more precise treatment of reliability than classical statistics, which examine the issue only at a more global test level. The most reliable estimation of a test-taker's ability can

be gained from tests comprised of items that represent the fullest range of difficulty possible for the population with which the test is intended to be used. Thus, in evaluating the technical adequacy of our MC Comprehension measures, we looked for items representing a range of difficulties. In Rasch analyses, this information is gleaned from examining each item's *measure*. Easy items will have measures represented with negative numbers; difficult items will have measures represented with positive numbers. A measure of zero indicates an item that a person of average ability would be expected to have a 50% chance of getting correct. Thus, we sought a full range of measures on every MC Comprehension test.

Examining the standard error of measure. Rasch analyses provide information about the standard error of measure associated with the estimation of each item's measure. In general, the smaller the standard error of measure, the more reliable the estimation. We sought small standard errors of measure on all items on our tests.

Using the mean square outfit to evaluate goodness of fit. An additional piece of information used to evaluate technical adequacy in a Rasch model is the mean square outfit associated with each item. Values in the range of 0.50 to 1.50 are considered *acceptable fit*. Mean square outfits falling outside this acceptable range indicate the need for further evaluation of item functioning. In general, items with a mean square outfit less than 0.50 are considered less worrisome than items with mean square outfits higher than 1.50. In all cases, distractor analysis provides useful information to further evaluate the technical adequacy of each item.

Analyzing distractor selection information. A distractor analysis provides information on the average estimated ability of test takers who selected a particular distractor on a test. In evaluating the technical adequacy of an assessment instrument, one hopes to see that the correct answer is selected by test-takers with the highest average estimated ability and the remaining

distractors are selected by test-takers with lower estimated abilities. In addition, every distractor in a well-constructed measure will be selected by at least some test-takers. We considered all of these features in evaluating the technical adequacy of the MC Comprehension measures.

Results

Tables 3 - 42 present the Item Measure, Standard Error of Measure, Mean Square Outfit, and complete Distractor Analyses of the 20 Fifth-grade MC Comprehension measures. All items in Gr5MC13 and Gr5MC15 passed the pre-set adequate model fit selection criteria, falling within the Mean Square Outfit range of 0.5 to 1.5, with every distractor selected by at least one student.

Five items in Gr5MC1 required further analysis. Item #8 was over-fit, with a Mean Square Outfit slightly less than 0.50. Items #1, #5, #12, and #20 was under-fit, with a Mean Square Outfit above 1.50. Analysis of the distractors, however, indicated that all five items were functioning appropriately, so they were retained without revisions. One item in Gr5MC2 required further analysis. Item #7 was under-fit, with a Mean Square Outfit above 1.50. Analysis of the distractors, however, outfit above 1.50. Analysis of the distractors, however, indicated that it was functioning appropriately, so it was retained without revisions. Three items in Gr5MC3 required further analysis. Item #2 was over-fit, with a Mean Square Outfit less than 0.50. Items #6 and #11 were under-fit, with a Mean Square Outfit above 1.50. Analysis of the distractors, however, indicated that all three items were functioning appropriately, so they were retained without revisions.

Four items in Gr5MC4 required further analysis. Items #2 and 7 were over-fit, with a Mean Square Outfit slightly less than 0.50. Items #1 and #6 were under-fit, with a Mean Square Outfit above 1.50. Analysis of the distractors, however, indicated that all four items were functioning appropriately, so they were retained without revisions. One item in Gr5MC5 required further analysis. Item #2 was over-fit, with a Mean Square Outfit below 0.50. Analysis of the distractors, however, indicated that it was functioning appropriately, so it was retained without revisions. One item in Gr5MC6 required further analysis. Item #20 was under-fit, with a Mean Square Outfit greater than 1.50. Analysis of the distractors, however, indicated that all three items were functioning appropriately, so they were retained without revisions.

One item in Gr5MC7 required further analysis. Item #3 was under-fit, with a Mean Square Outfit slightly greater than 1.50. Analysis of the distractors, however, indicated that it was functioning appropriately, so it was retained without revisions. Four items in Gr5MC8 required further analysis. Item #7 was over-fit, with a Mean Square Outfit less than 0.50. Items #10, #18, and #20 were under-fit, with a Mean Square Outfit greater than 1.50. Analysis of the distractors, however, indicated that the items were functioning appropriately, so they were retained without revisions. Two items in Gr5MC9 required further analysis. Items #1 and 8 were over-fit, with a Mean Square Outfit less than 0.50. Items #6 and #11 were under-fit, with a Mean Square Outfit above 1.50. Analysis of the distractors, however, indicated that were functioning appropriately, so they were set appropriately. So they were retained without revisions.

Three items in Gr5MC10 required further analysis. Item #1 was over-fit, with a Mean Square Outfit less than 0.50. Items #2 and #14 were under-fit, with Mean Square Outfits slightly greater than 1.50. Analysis of the distractors, however, indicated that they were functioning appropriately, so they were retained without revisions. Three items in Gr5MC11 required further analysis. Items #5, #6, and #9 were under-fit, with a Mean Square Outfit greater than 1.50. Analysis of the distractors, however, indicated that the items were functioning appropriately, so they were retained without revisions. Three items in Gr5MC11 required further analysis of the distractors, however, indicated that the items were functioning appropriately, so they were retained without revisions. Two items in Gr5MC12 required further analysis. Items #17 and #18 were under-fit, with a Mean Square Outfit above 1.50. Analysis of the distractors,

however, indicated that all three items were functioning appropriately, so they were retained without revisions.

Five items in Gr5MC14 required further analysis. Items #1 and #4 were over-fit, with a Mean Square Outfit less than 0.50. Items #15, #19, and #20 were under-fit, with a Mean Square Outfit greater than 1.50. Analysis of the distractors, however, indicated that it was functioning appropriately, so it was retained without revisions. Six items in Gr5MC16 required further analysis. Items #1, #2, #5, and #7 were over-fit, with a Mean Square Outfit less than 0.50. Items #4 and #11 were under-fit, with a Mean Square Outfit greater than 1.50. Analysis of the distractors, however, indicated that the items were functioning appropriately, so they were retained without revisions. Two items in Gr5MC17 required further analysis. Item #1 was underfit, with a Mean Square Outfit above 1.50. Item #15 was slightly over-fit, with a Mean Square Outfit below 0.50. Analysis of the distractors, however, indicated that all three items were functioning appropriately, so they were

Two items in Gr5MC18 required further analysis. Items #10 and #12 were under-fit, with a Mean Square Outfit slightly greater than 1.50. Analysis of the distractors, however, indicated that it was functioning appropriately, so it was retained without revisions. Three items in Gr5MC19 required further analysis. Item #1 was over-fit, with a Mean Square Outfit less than 0.50. Items #14 and #16 were under-fit, with a Mean Square Outfit greater than 1.50. Analysis of the distractors, however, indicated that the items were functioning appropriately, so they were retained without revisions. Six items in Gr5MC20 required further analysis. Items #1 and #15 were over-fit, with a Mean Square Outfit less than 0.50. Items #2, #4, #10, and #20 were under-fit, with a Mean Square Outfit above 1.50. Analysis of the distractors, however, indicated that all three items were functioning appropriately, so they appropriately, so they appropriately, so they were retained without revisions.

Item Number	Raw Score	Count	Measure	Model Standard Error	Mean Square Outfit
1	155	176	-2.27	0.26	2.64
2	105	176	0.01	0.19	0.61
3	106	176	-0.03	0.20	0.52
4	103	176	0.09	0.19	0.58
5	145	176	-1.70	0.23	2.96
6	143	176	-1.59	0.22	1.20
7	84	176	0.78	0.19	0.69
8	111	176	-0.22	0.20	0.46
9	129	176	-0.95	0.21	1.09
10	101	175	0.15	0.19	0.71
11	108	175	-0.11	0.20	0.56
12	43	174	2.27	0.20	1.73
13	75	174	1.10	0.19	0.98
14	113	174	-0.32	0.20	0.64
15	65	174	1.46	0.19	1.47
16	99	174	0.22	0.19	0.98
17	108	174	-0.13	0.20	0.50
18	114	174	-0.36	0.20	0.73
19	93	174	0.44	0.19	0.95
20	73	174	1.17	0.19	1.72

Item Statistics, Entry Order, Gr5MC1

Entry #	Data Code	Score Value	Count	%	Average Measure	S.E. Mean
	А	0	12	7	-0.67	0.30
1	С	0	9	5	0.75	0.41
1	В	1	155	88	0.81	0.15
	Missing	**				
	А	0	51	29	-1.25	0.13
2	С	0	20	11	0.03	0.23
2	В	1	105	60	1.79	0.14
	Missing	**				
	С	0	55	31	-1.12	0.13
3	В	0	15	9	-0.35	0.26
3	А	1	106	60	1.81	0.14
	Missing	**				
	А	0	59	34	-1.04	0.14
4	С	0	14	8	-0.09	0.27
4	В	1	103	59	1.82	0.14
	Missing	**				
	В	0	4	2	-0.44	0.51
5	А	0	27	15	0.50	0.23
5	С	1	145	82	0.78	0.16
	Missing	**				
		0	12	7	-0.54	0.14
6		0	21	12	-0.41	0.27
0		1	143	81	0.98	0.16
	Missing	**				
	В	0	60	34	-0.97	0.14
7	А	0	32	18	0.37	0.23
7	С	1	84	48	2.04	0.15
	Missing	**				
	С	0	47	27	-1.28	0.11
0	В	0	18	10	-0.55	0.23
0	А	1	111	63	1.76	0.14
	Missing	**				
	В	0	22	13	-1.21	0.25
0	С	0	25	14	-0.51	0.24
2	А	1	129	73	1.27	0.15
	Missing	**				
	В	0	45	26	-1.11	0.15
10	А	0	29	16	-0.17	0.22
10	С	1	101	57	1.8	0.15
	Missing	**	1	1	-1.51	0

Table 4Distractor Analysis, Gr5MC1

Entry #	Data Code	Score Value	Count	%	Average Measure	S.E. Mean
	С	0	49	28	-1.17	0.14
11	В	0	18	10	-0.38	0.23
11	А	1	108	61	1.76	0.14
	Missing	**	1	1	-1.51	0
	А	0	68	39	-0.43	0.19
10	В	0	63	36	1.38	0.19
12	С	1	43	24	1.62	0.28
	Missing	**	2	1	-1.11	0.40
	А	0	66	38	-0.46	0.19
12	В	0	33	19	0.35	0.22
15	С	1	75	43	1.95	0.18
	Missing	**	2	1	-1.11	0.40
	С	0	46	26	-1.19	0.14
14	В	0	15	9	-0.08	0.27
14	А	1	113	64	1.62	0.15
	Missing	**	2	1	-1.11	0.40
	В	0	55	31	-1.00	0.15
15	А	0	54	31	1.41	0.20
13	С	1	65	37	1.64	0.20
	Missing	**	2	1	-1.11	0.40
	А	0	51	29	-0.94	0.17
16	С	0	24	14	0.46	0.26
10	В	1	99	56	1.65	0.16
	Missing	**	2	1	-1.11	0.40
	В	0	55	31	-1.09	0.12
17	С	0	11	6	-0.46	0.31
17	А	1	108	61	1.78	0.14
	Missing	**	2	1	-1.11	0.40
	В	0	34	19	-1.01	0.18
10	А	0	26	15	-0.60	0.23
10	С	1	114	65	1.55	0.15
	Missing	**	2	1	-1.11	0.40
	С	0	34	19	-0.46	0.23
10	В	0	47	27	-0.43	0.22
19	А	1	93	53	1.75	0.16
	Missing	**	2	1	-1.11	0.40
	A	0	48	27	0.08	0.22
20	С	0	53	30	0.26	0.24
20	В	1	73	41	1.50	0.22
	Missing	**	2	1	-1.11	0.40

Table 4Distractor Analysis, Gr5MC1 (Continued)

Item Number	Raw Score	Count	Measure	Model Standard Error	Mean Square Outfit
1	70	72	-3.56	0.73	0.87
2	60	72	-1.22	0.34	0.99
3	52	72	-0.43	0.29	0.80
4	31	72	1.16	0.27	1.14
5	56	72	-0.80	0.31	0.89
6	36	72	0.79	0.27	1.21
7	21	72	1.94	0.29	1.91
8	38	72	0.65	0.27	1.17
9	43	72	0.28	0.27	1.13
10	37	72	0.72	0.27	1.15
11	53	72	-0.52	0.30	0.60
12	47	72	-0.02	0.28	0.86
13	42	72	0.36	0.27	0.69
14	46	72	0.05	0.28	0.74
15	56	72	-0.80	0.31	0.64
16	47	72	-0.02	0.28	0.70
17	52	72	-0.43	0.29	0.65
18	25	72	1.61	0.28	0.93
19	34	72	0.94	0.27	1.20
20	55	72	-0.70	0.31	0.90

Item Statistics, Entry Order, Gr5MC2

Entry #	Data Code	Score Value	Count	%	Average Measure	S.E. Mean
	В	0	2	3	-0.21	0.76
1	А	0	0	0	0	0
1	С	1	70	97	0.96	0.18
	Missing	**				
	А	0	5	7	-0.22	0.55
2	С	0	7	10	0.04	0.37
2	В	1	60	83	1.12	0.19
	Missing	**				
	С	0	5	7	-0.24	0.21
3	В	0	15	21	-0.12	0.20
5	А	1	52	72	1.34	0.21
	Missing	**				
	В	0	21	29	0.15	0.22
4	А	0	20	28	0.73	0.33
-	С	1	31	43	1.57	0.27
	Missing	**				
5	С	0	5	7	-0.70	0.09
	В	0	11	15	0.09	0.34
	А	1	56	78	1.23	0.20
	Missing	**				
	С	0	14	19	0.20	0.28
6	В	0	22	31	0.53	0.34
0	А	1	36	50	1.45	0.24
	Missing	**				
	С	0	9	13	0.59	0.37
7	А	0	42	58	0.74	0.19
,	В	1	21	29	1.43	0.44
	Missing	**				
	В	0	16	22	-0.29	0.19
8	A	0	18	25	0.97	0.22
C	C	1	38	53	1.42	0.27
	Missing	**				
	A	0	13	18	-0.05	0.26
9	В	0	16	22	0.60	0.26
-	С	1	43	60	1.34	0.25
	Missing	**	• :		0.51	
	C	0	24	33	0.21	0.21
10	В	0	11	15	0.69	0.34
	A	1	37	51	1.46	0.27
	Missing	**				

Table 6Distractor Analysis, Gr5MC2

Entry #	Data Code	Score Value	Count	%	Average Measure	S.E. Mean
	С	0	12	17	-0.48	0.18
11	А	0	7	10	-0.26	0.31
11	В	1	53	74	1.40	0.19
	Missing	**				
	С	0	11	15	-0.33	0.17
12	В	0	14	19	0.09	0.32
12	А	1	47	65	1.47	0.21
	Missing	**				
	А	0	11	15	-0.10	0.21
13	В	0	19	26	-0.09	0.22
15	С	1	42	58	1.65	0.22
	Missing	**				
	А	0	10	14	-0.35	0.15
14	С	0	16	22	-0.01	0.25
17	В	1	46	64	1.53	0.21
	Missing	**				
	В	0	7	10	-0.47	0.34
15	С	0	9	13	-0.33	0.24
15	А	1	56	78	1.30	0.19
	Missing	**				
	С	0	14	19	-0.21	0.25
16	А	0	11	15	-0.11	0.18
10	В	1	47	65	1.51	0.21
	Missing	**				
	В	0	12	17	-0.48	0.21
17	С	0	8	11	-0.03	0.25
17	А	1	52	72	1.40	0.20
	Missing	**				
	В	0	36	50	0.37	0.18
18	А	0	11	15	0.39	0.31
10	С	1	25	35	1.95	0.33
	Missing	**				
	С	0	11	15	-0.18	0.20
19	В	0	27	38	0.69	0.27
.,	А	1	34	47	1.47	0.26
	Missing	**				
	В	0	7	10	-0.15	0.32
20	А	0	10	14	0.08	0.22
	С	1	55	76	1.21	0.21
	Missing	**				

Table 6Distractor Analysis, Gr5MC2 (Continued)

Item Number	Raw Score	Count	Measure	Model Standard Error	Mean Square Outfit
1	61	72	-0.84	0.35	0.99
2	69	72	-2.47	0.61	0.32
3	54	72	-0.13	0.30	0.92
4	38	72	1.06	0.26	0.77
5	59	72	-0.61	0.33	0.60
6	26	72	1.89	0.27	1.51
7	62	72	-0.97	0.36	1.03
8	64	72	-1.26	0.40	0.60
9	59	72	-0.61	0.33	0.94
10	56	72	-0.31	0.31	0.79
11	58	72	-0.51	0.32	1.69
12	24	72	2.04	0.27	0.96
13	33	72	1.40	0.26	1.29
14	56	72	-0.31	0.31	0.76
15	56	72	-0.31	0.31	1.12
16	41	72	0.86	0.26	1.12
17	64	72	-1.26	0.40	1.32
18	15	72	2.77	0.31	1.49
19	55	72	-0.22	0.30	0.81
20	55	72	-0.22	0.30	0.84

Item Statistics, Entry Order, Gr5MC3

Entry #	Data Code	Score Value	Count	%	Average Measure	S.E. Mean
	С	0	1	1	0.47	0
1	В	0	10	14	0.55	0.33
1	А	1	61	85	1.42	0.16
	Missing	**				
	С	0	2	3	-1.05	0.73
2	А	0	1	1	-0.06	0.00
2	В	1	69	96	1.37	0.15
	Missing	**				
	В	0	2	3	-0.92	0.86
3	А	0	16	22	0.72	0.17
5	С	1	54	75	1.53	0.18
	Missing	**				
	В	0	11	15	0.41	0.26
4	С	0	23	32	0.64	0.18
•	А	1	38	53	1.93	0.20
	Missing	**				
5	А	0	11	15	-0.05	0.26
	С	0	2	3	0.35	0.41
	В	1	59	82	1.56	0.15
	Missing	**				
	В	0	11	15	0.42	0.31
6	А	0	35	49	1.33	0.18
0	С	1	26	36	1.59	0.30
	Missing	**				
	A	0	4	6	0.51	0.36
7	С	0	6	8	0.76	0.29
	В	1	62	86	1.38	0.17
	Missing	**				
	C	0	5	7	-0.01	0.24
8	A	0	3	4	0.14	0.46
C	В	1	64	89	1.44	0.16
	Missing	**				
	В	0	9	13	-0.12	0.27
9	A	0	4	6	0.57	0.84
2	С	1	59	82	1.55	0.15
	Missing	**		-		
	C	0	6	8	-0.06	0.43
10	A	0	10	14	0.62	0.19
- •	В	1	56	78	1.55	0.17
	Missing	**				

Table 8Distractor Analysis, Gr5MC3

Entry #	Data Code	Score Value	Count	%	Average Measure	S.E. Mean
	С	0	2	3	-0.46	0.39
11	В	0	12	17	0.64	0.52
11	А	1	58	81	1.48	0.14
	Missing	**				
	В	0	20	28	0.79	0.21
12	А	0	28	39	0.93	0.17
12	С	1	24	33	2.11	0.31
	Missing	**				
	В	0	8	11	0.98	0.26
13	С	0	31	43	1.01	0.17
15	А	1	33	46	1.61	0.27
	Missing	**				
	В	0	3	4	-0.32	0.30
14	С	0	13	18	0.33	0.27
11	А	1	56	78	1.59	0.16
	Missing	**				
	А	0	9	13	0.29	0.28
15	С	0	7	10	1.13	0.26
15	В	1	56	78	1.46	0.18
	Missing	**				
	В	0	8	11	0.10	0.27
16	С	0	23	32	1.09	0.21
10	А	1	41	57	1.62	0.21
	Missing	**				
	A	0	6	8	0.53	0.46
17	С	0	2	3	1.24	0.17
17	В	1	64	89	1.36	0.16
	Missing	**				
	В	0	27	38	1.09	0.20
18	A	0	30	42	1.20	0.22
-	C	1	15	21	1.81	0.45
	Missing	**		10	0.10	0.15
	В	0	7	10	-0.10	0.17
19	C	0	10	14	0.34	0.38
	A	1	55	76	1.63	0.16
	Missing	**	10	17	0.24	0.00
	C	0	12	17	0.24	0.29
20	B	0	5	7	0.71	0.39
	A	1	55	76	1.56	0.17
	Missing	**				

Table 8Distractor Analysis, Gr5MC3 (Continued)

Item Number	Raw Score	Count	Measure	Model Standard Error	Mean Square Outfit
1	41	67	1.28	0.28	1.57
2	63	67	-1.53	0.55	0.23
3	44	67	1.04	0.29	1.06
4	52	67	0.30	0.33	0.79
5	62	67	-1.24	0.50	0.57
6	51	67	0.41	0.32	1.63
7	58	67	-0.46	0.39	0.44
8	58	67	-0.46	0.39	0.51
9	54	67	0.08	0.34	1.25
10	37	67	1.58	0.27	0.86
11	58	67	-0.46	0.39	0.60
12	63	67	-1.53	0.55	1.16
13	44	67	1.04	0.29	0.88
14	59	67	-0.63	0.41	0.81
15	49	67	0.61	0.31	1.32
16	50	67	0.51	0.31	0.61
17	57	67	-0.31	0.38	1.42
18	61	67	-1.01	0.46	0.61
19	48	67	0.70	0.30	1.09
20	54	67	0.08	0.34	0.77

Item Statistics, Entry Order, Gr5MC4

Entry #	Data Code	Score Value	Count	%	Average Measure	S.E. Mean
	С	0	9	13	1.97	0.52
1	А	0	17	25	1.98	0.41
1	В	1	41	61	2.41	0.28
	Missing	**				
	С	0	1	1	-0.99	0.00
2	А	0	3	4	-0.41	0.36
2	В	1	63	94	2.42	0.20
	Missing	**				
	С	0	3	4	0.42	0.30
3	В	0	20	30	1.40	0.24
3	А	1	44	66	2.75	0.27
	Missing	**				
	В	0	7	10	0.30	0.53
1	А	0	8	12	1.11	0.37
4	С	1	52	78	2.68	0.22
	Missing	**				
	В	0	3	4	0.18	0.66
5	С	0	2	3	0.41	0.88
	А	1	62	93	2.40	0.21
	Missing	**				
	С	0	0	0	0	0
6	В	0	16	24	1.83	0.47
0	А	1	51	76	2.37	0.23
	Missing	**				
	А	0	3	4	-0.14	0.72
7	В	0	6	9	0.26	0.31
/	С	1	58	87	2.57	0.21
	Missing	**				
	А	0	6	9	0.15	0.43
8	С	0	3	4	0.23	0.70
0	В	1	58	87	2.56	0.21
	Missing	**				
	В	0	5	7	0.89	0.46
Q	С	0	8	12	1.41	0.73
)	А	1	54	81	2.49	0.22
	Missing	**				
	С	0	5	7	0.81	0.71
10	В	0	25	37	1.38	0.26
10	А	1	37	55	3.02	0.26
	Missing	**				

Table 10Distractor Analysis, Gr5MC4

Entry #	Data Code	Score Value	Count	%	Average Measure	S.E. Mean
	А	0	0	0	0	0
11	В	0	9	13	0.35	0.35
11	С	1	58	87	2.53	0.21
	Missing	**				
12	С	0	0	0	0	0
	А	0	4	6	0.56	0.83
12	В	1	63	94	2.35	0.21
	Missing	**				
	С	0	9	13	0.99	0.39
13	А	0	14	21	1.08	0.23
13	В	1	44	66	2.87	0.25
	Missing	**		% $nrefageMeasure00130.35872.530060.56942.35130.99211.08662.876-0.6161.58882.48150.94122.20732.51190.5960.64752.80100.8742.44852.4040.1440.43912.4370.57211.55722.6290.56100.90812.60$		
	А	0	4	6	-0.61	0.24
14	В	0	4	6	1.58	0.40
14	С	1	59	88	2.48	0.21
	Missing	**				
	В	0	10	15	0.94	0.60
15	С	0	8	12	2.20	0.46
15	А	1	49	73	2.51	0.23
	Missing	**				
	В	0	13	19	0.59	0.32
16	А	0	4	6	0.64	0.39
10	С	1	50	75	2.80	0.22
	Missing	**				
	В	0	7	10	0.87	0.51
17	А	0	3	4	2.44	1.30
1,	С	1	57	85	2.40	0.22
	Missing	**				
	А	0	3	4	0.14	0.74
18	С	0	3	4	0.43	0.72
	В	1	61	91	2.43	0.21
	Missing	**				<u> </u>
	A	0	5	7	0.57	0.34
19	B	0	14	21	1.55	0.47
-	C	1	48	72	2.62	0.23
	Missing	**			0.7.5	0.50
	A ~	0	6	9	0.56	0.58
20	C	0	7	10	0.90	0.33
-	B	1	54	81	2.60	0.22
	Missing	**				

Table 10Distractor Analysis, Gr5MC4 (Continued)

Item Number	Raw Score	Count	Measure	Model Standard Error	Mean Square Outfit
1	68	72	-1.66	0.55	0.85
2	71	72	-4.94	1.00	0.06
3	64	72	-0.76	0.41	0.99
4	67	72	-1.37	0.50	1.19
5	68	72	-1.66	0.55	0.66
6	44	72	1.18	0.26	0.96
7	62	72	-0.46	0.37	0.95
8	49	72	0.82	0.28	0.73
9	36	72	1.71	0.26	1.06
10	47	72	0.97	0.27	1.07
11	61	72	-0.32	0.36	1.01
12	57	72	0.13	0.32	1.01
13	57	72	0.13	0.32	0.88
14	52	72	0.58	0.29	0.86
15	66	72	-1.14	0.46	0.71
16	57	72	0.13	0.32	0.83
17	60	72	-0.20	0.35	0.74
18	22	72	2.64	0.27	1.49
19	30	72	2.10	0.26	1.02
20	30	72	2.10	0.26	1.26

Item Statistics, Entry Order, Gr5MC5

Entry #	Data Code	Score Value	Count	%	Average Measure	S.E. Mean
	А	0	2	3	-0.99	0.80
1	С	0	2	3	1.62	0
1	В	1	68	94	1.80	0.12
	Missing	**			%Average Measure3 -0.99 3 1.62 94 1.80 1 -1.79 0099 1.76 1 -0.18 10 1.02 89 1.82 6 0.70 1 2 93 1.77 4 -1.13 1 2 94 1.84 4 0.39 35 1.26 61 2.07 6 0.02 8 1.35 86 1.86 11 0.04 21 1.26 68 2.13 13 0.77 38 1.59 50 2.04 24 1.02 11 1.80 65 1.95	
	С	0	1	1	-1.79	0
2	В	0	0	0	0	0
2	А	1	71	99	1.76	0.12
	Missing	**				
	А	0	1	1	-0.18	0
3	В	0	7	10	1.02	0.45
5	С	1	64	89	1.82	0.13
	Missing	**				
	В	0	4	6	0.70	0.72
4	С	0	1	1	2	0
-	А	1	67	93	1.77	0.13
	Missing	**				
	В	0	3	4	-1.13	0.49
5	А	0	1	1	2	0
5	С	1	68	94	1.84	0.11
	Missing	**				
	С	0	3	4	0.39	1.13
6	А	0	25	35	1.26	0.21
0	В	1	44	61	2.07	0.13
	Missing	**				
	С	0	4	6	0.02	0.55
7	А	0	6	8	1.35	0.34
,	В	1	62	86	1.86	0.13
	Missing	**				
	А	0	8	11	0.04	0.41
8	В	0	15	21	1.26	0.20
0	С	1	49	68	2.13	0.11
	Missing	**				
	С	0	9	13	0.77	0.51
9	В	0	27	38	1.59	0.22
)	А	1	36	50	2.04	0.12
	Missing	**				
	А	0	17	24	1.02	0.29
10	С	0	8	11	1.80	0.19
10	В	1	47	65	1.95	0.15
	Missing	**				

Table 12Distractor Analysis, Gr5MC5

Entry #	Data Code	Score Value	Count	%	Average Measure	S.E. Mean
	В	0	9	13	0.28	0.45
11	А	0	2	3	1.64	1.54
11	С	1	61	85	1.93	0.11
	Missing	**				
12	С	0	8	11	0.89	0.39
	В	0	7	10	1.22	0.34
12	А	1	57	79	1.89	0.14
	Missing	**				
	В	0	10	14	0.63	0.38
13	С	0	5	7	1.21	0.40
15	А	1	57	79	1.95	0.13
	Missing	**			%Average Measure13 0.28 3 1.64 85 1.93 11 0.89 10 1.22 79 1.89 14 0.63 7 1.21 79 1.95 8 0.44 19 1.11 72 2.02 4 -0.64 4 0.93 92 1.86 7 0.78 14 0.83 79 1.95 11 0.53 6 0.68 83 1.94 31 1.81 17 1.00 42 1.57 42 2.15 6 0.30 53 1.66 42 1.97	
	В	0	6	8	0.44	0.45
14	А	0	14	19	1.11	0.31
14	С	1	52	72	2.02	0.12
	Missing	**				
	С	0	3	4	-0.64	0.97
15	А	0	3	4	0.93	0.63
15	В	1	66	92	1.86	0.11
	Missing	**				
	С	0	5	7	0.78	0.43
16	В	0	10	14	0.83	0.36
10	А	1	57	79	1.95	0.13
	Missing	**				
	А	0	8	11	0.53	0.46
17	С	0	4	6	0.68	0.20
17	В	1	60	83	1.94	0.12
	Missing	**				
	С	0	24	33	1.39	0.24
18	В	0	26	36	1.94	0.17
10	А	1	22	31	1.81	0.25
	Missing	**				
	А	0	12	17	1.00	0.42
19	С	0	30	42	1.57	0.14
.,	В	1	30	42	2.15	0.19
	Missing	**				
	В	0	4	6	0.30	0.57
20	А	0	38	53	1.66	0.16
-0	С	1	30	42	1.97	0.20
	Missing	**				

Table 12Distractor Analysis, Gr5MC5 (Continued)

Item Number	Raw Score	Count	Measure	Model Standard Error	Mean Square Outfit
1	27	51	-0.13	0.32	0.76
2	25	51	0.07	0.32	0.93
3	31	51	-0.55	0.32	0.86
4	28	51	-0.24	0.32	0.92
5	35	50	-1.06	0.34	0.89
6	23	50	0.24	0.33	1.01
7	30	50	-0.50	0.33	0.71
8	30	50	-0.50	0.33	0.64
9	20	50	0.57	0.33	1.09
10	32	50	-0.72	0.33	0.59
11	22	50	0.35	0.33	1.02
12	14	50	1.28	0.36	0.91
13	20	50	0.57	0.33	1.30
14	33	50	-0.83	0.33	0.70
15	21	50	0.46	0.33	1.41
16	22	50	0.35	0.33	1.09
17	21	50	0.46	0.33	0.79
18	21	50	0.46	0.33	1.17
19	38	50	-1.43	0.36	0.97
20	15	50	1.15	0.35	2.03

Item Statistics, Entry Order, Gr5MC6

Entry #	Data Code	Score Value	Count	%	Average Measure	S.E. Mean
	В	0	9	18	-0.87	0.19
1	А	0	15	29	-0.68	0.26
1	С	1	27	53	0.86	0.24
	Missing	**				
2	В	0	13	25	-0.69	0.12
	А	0	13	25	-0.50	0.23
2	С	1	25	49	0.83	0.30
	Missing	**				
	А	0	13	25	-0.81	0.16
3	С	0	7	14	-0.40	0.19
5	В	1	31	61	0.60	0.26
	Missing	**				
	С	0	6	12	-1.03	0.21
4	В	0	17	33	-0.49	0.26
4	А	1	28	55	0.70	0.25
	Missing	**				
	С	0	7	14	-0.84	0.13
5	А	0	8	16	-0.83	0.43
	В	1	35	69	0.52	0.22
	Missing	**	1	2	-0.21	0
	В	0	15	29	-0.74	0.19
6	А	0	12	24	-0.07	0.35
0	С	1	23	45	0.76	0.3
	Missing	**	1	2	-0.21	0
	С	0	12	24	-0.90	0.25
7	В	0	8	16	-0.75	0.18
/	А	1	30	59	0.74	0.24
	Missing	**	1	2	-0.21	0
	С	0	4	8	-1.01	0.07
8	В	0	16	31	-0.87	0.18
0	А	1	30	59	0.78	0.23
	Missing	**	1	2	-0.21	0
	С	0	7	14	-1.21	0.24
0	В	0	23	45	-0.08	0.21
2	А	1	20	39	0.79	0.33
	Missing	**	1	2	-0.21	0
	В	0	13	25	-1.10	0.19
10	А	0	5	10	-0.75	0.18
10	С	1	32	63	0.74	0.22
	Missing	**	1	2	-0.21	0

Table 14Distractor Analysis, Gr5MC6

Entry #	Data Code	Score Value	Count	%	Average Measure	S.E. Mean
	А	0	11	22	-0.61	0.38
11	С	0	17	33	-0.34	0.21
11	В	1	22	43	0.82	0.30
	Missing	**	1	2	-0.21	0
12	В	0	12	24	-0.78	0.18
	А	0	24	47	-0.09	0.23
12	С	1	14	27	1.21	0.40
	Missing	**	1	2	-0.21	0
	В	0	13	25	-0.50	0.27
13	А	0	17	33	-0.10	0.26
15	С	1	20	39	0.69	0.35
	Missing	**	1	%Measure22-0.6133-0.34430.822-0.2124-0.7847-0.09271.212-0.2125-0.5033-0.10390.692-0.2116-1.0318-0.80650.642-0.2118-0.3539-0.09410.492-0.2116-0.6839-0.28430.752-0.2135-0.7722-0.23411.042-0.2133-0.5724-0.1210-0.36750.362-0.2118-0.78510.38290.172-0.21	0	
	С	0	8	16	-1.03	0.27
14	А	0	9	18	-0.80	0.27
17	В	1	33	65	0.64	0.23
	Missing	**	1	2	-0.21	0
	С	0	9	18	-0.35	0.34
15	В	0	20	39	-0.09	0.29
15	А	1	21	41	0.49	0.33
	Missing	**	1	2	-0.21	0
	А	0	8	16	-0.68	0.25
16	В	0	20	39	-0.28	0.27
10	С	1	22	43	0.75	0.30
	Missing	**	1	2	-0.21	0
	В	0	18	35	-0.77	0.18
17	А	0	11	22	-0.23	0.30
17	С	1	21	41	1.04	0.30
	Missing	**	1	2	-0.21	0
	В	0	17	33	-0.57	0.18
18	А	0	12	24	-0.12	0.39
10	С	1	21	41	0.79	0.32
	Missing	**	1	2	-0.21	0
	А	0	7	14	-0.91	0.20
19	С	0	5	10	-0.36	0.42
17	В	1	38	75	0.36	0.23
	Missing	**	1	2	-0.21	0
	В	0	9	18	-0.78	0.17
20	С	0	26	51	0.38	0.30
20	А	1	15	29	0.17	0.32
	Missing	**	1	2	-0.21	0

Table 14Distractor Analysis, Gr5MC6 (Continued)
Item Number	Raw Score	Count	Measure	Model Standard Error	Mean Square Outfit
1	44	52	-1.60	0.41	0.51
2	41	52	-1.15	0.37	1.26
3	27	52	0.46	0.33	1.67
4	24	52	0.78	0.33	1.01
5	28	52	0.35	0.33	1.01
6	36	52	-0.53	0.34	0.58
7	42	52	-1.29	0.38	0.79
8	34	52	-0.30	0.33	0.67
9	32	52	-0.08	0.33	1.20
10	26	52	0.56	0.33	1.45
11	37	52	-0.64	0.34	0.63
12	35	52	-0.41	0.34	0.74
13	23	52	0.89	0.33	1.26
14	25	51	0.58	0.33	0.77
15	26	51	0.47	0.33	0.80
16	26	51	0.47	0.33	0.60
17	20	51	1.13	0.34	1.37
18	26	51	0.47	0.33	0.84
19	35	51	-0.52	0.34	0.57
20	27	51	0.36	0.33	0.83

Item Statistics, Entry Order, Gr5MC7

Entry #	Data Code	Score Value	Count	%	Average Measure	S.E. Mean
	С	0	2	4	-0.81	0.13
1	В	0	6	12	-0.79	0.18
1	А	1	44	85	1.11	0.26
	Missing	**				
	В	0	1	2	-0.21	0
2	А	0	10	19	0.04	0.29
2	С	1	41	79	1.03	0.29
	Missing	**				
	С	0	7	13	0.13	0.46
3	А	0	18	35	0.54	0.34
5	В	1	27	52	1.17	0.38
	Missing	**				
	А	0	12	23	-0.32	0.23
4	С	0	16	31	0.22	0.29
4	В	1	24	46	1.77	0.39
	Missing	**				
	А	0	11	21	-0.18	0.3
5	В	0	13	25	0.03	0.32
5	С	1	28	54	1.57	0.35
	Missing	**				
	В	0	11	21	-0.60	0.15
6	С	0	5	10	-0.57	0.26
0	А	1	36	69	1.44	0.29
	Missing	**				
	С	0	5	10	-1.14	0.18
7	В	0	5	10	0.15	0.33
7	А	1	42	81	1.12	0.27
	Missing	**				
	С	0	9	17	-0.47	0.25
8	А	0	9	17	-0.45	0.20
0	В	1	34	65	1.49	0.30
	Missing	**				
	С	0	9	17	-0.48	0.14
9	А	0	11	21	0.37	0.53
	В	1	32	62	1.33	0.31
	Missing	**				
	В	0	10	19	-0.17	0.14
10	А	0	16	31	0.47	0.35
10	С	1	26	50	1.41	0.39
	Missing	**				_

Table 16Distractor Analysis, Gr5MC7

Entry #	Data Code	Score Value	Count	%	Average Measure	S.E. Mean
	С	0	6	12	-0.59	0.22
11	В	0	9	17	-0.48	0.14
11	А	1	37	71	1.36	0.29
	Missing	**				
	С	0	6	12	-0.74	0.28
12	А	0	11	21	-0.18	0.17
12	В	1	35	67	1.39	0.30
	Missing	**				
	В	0	15	29	-0.46	0.20
13	А	0	14	27	1.04	0.54
15	С	1	23	44	1.51	0.33
	Missing	**				
	С	0	9	17	-0.25	0.22
14	В	0	17	33	-0.21	0.25
17	А	1	25	48	1.76	0.34
	Missing	**	1	2	4.21	0
	А	0	9	17	-0.58	0.18
15	В	0	16	31	-0.05	0.26
13	С	1	26	50	1.70	0.33
	Missing	**	1	2	4.21	0
	В	0	16	31	-0.45	0.15
16	А	0	9	17	-0.29	0.28
10	С	1	26	50	1.84	0.32
	Missing	**	1	2	4.21	0
	В	0	13	25	-0.35	0.22
17	С	0	18	35	0.79	0.37
17	А	1	20	38	1.42	0.42
	Missing	**	1	2	4.21	0
	А	0	11	21	-0.35	0.24
18	С	0	14	27	-0.15	0.23
10	В	1	26	50	1.69	0.35
	Missing	**	1	2	4.21	0
	В	0	11	21	-0.66	0.18
19	С	0	5	10	-0.55	0.20
	А	1	35	67	1.37	0.28
	Missing	**	1	2	4.21	0
	С	0	14	27	-0.59	0.16
20	А	0	10	19	0.19	0.26
	В	1	27	52	1.64	0.34
	Missing	**	1	2	4.21	0

Table 16Distractor Analysis, Gr5MC7 (Continued)

Item Number	Raw Score	Count	Measure	Model Standard Error	Mean Square Outfit
1	33	50	-0.49	0.34	0.69
2	34	50	-0.61	0.34	0.81
3	36	50	-0.85	0.35	0.91
4	32	50	-0.38	0.34	0.50
5	31	50	-0.27	0.33	1.01
6	30	50	-0.16	0.33	0.60
7	30	50	-0.16	0.33	0.45
8	34	50	-0.61	0.34	0.75
9	26	50	0.27	0.33	0.89
10	24	50	0.49	0.33	1.59
11	23	50	0.60	0.33	1.15
12	31	50	-0.27	0.33	1.38
13	27	50	0.17	0.33	0.85
14	28	50	0.06	0.33	0.57
15	29	50	-0.05	0.33	0.62
16	31	50	-0.27	0.33	1.06
17	23	50	0.60	0.33	1.29
18	16	49	1.35	0.35	1.86
19	25	49	0.33	0.33	1.03
20	26	49	0.22	0.33	1.61

Item Statistics, Entry Order, Gr5MC8

Entry #	Data Code	Score Value	Count	%	Average Measure	S.E. Mean
	В	0	12	24	-0.71	0.26
1	С	0	5	10	-0.54	0.43
1	А	1	33	66	1.15	0.26
	Missing	**				
	В	0	10	20	-0.73	0.33
2	С	0	6	12	-0.29	0.42
2	А	1	34	68	1.05	0.27
	Missing	**				
	А	0	8	16	-0.74	0.38
3	С	0	6	12	-0.08	0.34
5	В	1	36	72	0.92	0.27
	Missing	**				
	В	0	6	12	-0.99	0.20
4	А	0	12	24	-0.76	0.22
4	С	1	32	64	1.30	0.25
	Missing	**				
	С	0	5	10	-0.59	0.23
5	В	0	14	28	-0.21	0.26
5	А	1	31	62	1.05	0.31
	Missing	**				
	А	0	10	20	-0.67	0.22
6	В	0	10	20	-0.65	0.23
0	С	1	30	60	1.33	0.28
	Missing	**				
	В	0	13	26	-0.84	0.18
7	А	0	7	14	-0.81	0.21
7	С	1	30	60	1.44	0.25
	Missing	**				
	А	0	9	18	-0.73	0.39
Q	С	0	7	14	-0.52	0.19
0	В	1	34	68	1.08	0.26
	Missing	**				
	А	0	9	18	-0.75	0.27
9	С	0	15	30	0.01	0.28
	В	1	26	52	1.28	0.32
	Missing	**				
	В	0	11	22	-0.48	0.20
10	С	0	15	30	0.50	0.24
10	А	1	24	48	1.02	0.40
	Missing	**				_

Table 18Distractor Analysis, Gr5MC8

$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Entry #	Data Code	Score Value	Count	%	Average Measure	S.E. Mean
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		В	0	10	20	-0.54	0.39
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	11	А	0	17	34	0.21	0.34
$\begin{tabular}{ c c c c c c c c c c c c c c c c c c c$	11	С	1	23	46	1.23	0.33
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		Missing	**				
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		С	0	13	26	0.03	0.35
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	10	А	0	6	12	0.11	0.42
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	12	В	1	31	62	0.82	0.31
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		Missing	**				
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		С	0	10	20	-0.62	0.27
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	12	А	0	13	26	-0.23	0.31
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	13	В	1	27	54	1.33	0.30
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		Missing	**				
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		В	0	10	20	-0.65	0.33
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	1 /	А	0	12	24	-0.62	0.13
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	14	С	1	28	56	1.45	0.28
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		Missing	**				
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		С	0	8	16	-0.72	0.37
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	15	А	0	13	26	-0.54	0.14
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	15	В	1	29	58	1.36	0.28
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		Missing	**				
$\begin{array}{cccccccccccccccccccccccccccccccccccc$		В	0	12	24	-0.27	0.36
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	16	С	0	7	14	-0.26	0.24
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	10	А	1	31	62	1.02	0.30
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		Missing	**				
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		В	0	13	26	-0.31	0.31
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	17	А	0	14	28	0.24	0.28
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	17	С	1	23	46	1.19	0.38
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		Missing	**				
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		С	0	18	36	0.43	0.31
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	10	А	0	15	30	0.44	0.44
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	16	В	1	16	32	0.76	0.46
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		Missing	**	1	2	0.26	0
$\begin{array}{cccccccccccccccccccccccccccccccccccc$		А	0	7	14	-0.88	0.22
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	10	В	0	17	34	0.13	0.28
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	19	С	1	25	50	1.22	0.34
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		Missing	**	1	2	0.26	0
20 C 0 16 32 0.72 0.40 A 1 26 52 0.87 0.30 Missing ** 1 2 0.26 0		B	0	7	14	-1.11	0.26
A 1 26 52 0.87 0.30 Missing ** 1 2 0.26 0	20	С	0	16	32	0.72	0.40
Missing ** 1 2 0.26 0	20	А	1	26	52	0.87	0.30
		Missing	**	1	2	0.26	0

Table 18Distractor Analysis, Gr5MC8 (Continued)

Item Number	Raw Score	Count	Measure	Model Standard Error	Mean Square Outfit
1	87	103	-1.32	0.30	0.46
2	88	103	-1.41	0.30	0.92
3	67	103	0.03	0.24	0.65
4	90	103	-1.61	0.32	0.48
5	68	103	-0.03	0.24	1.04
6	34	103	1.80	0.24	1.20
7	38	103	1.58	0.24	1.70
8	93	103	-1.95	0.35	0.46
9	67	103	0.03	0.24	0.66
10	54	103	0.73	0.23	1.49
11	80	103	-0.78	0.26	0.76
12	61	103	0.36	0.23	0.63
13	44	103	1.26	0.23	1.01
14	66	103	0.09	0.24	0.94
15	51	103	0.89	0.23	1.17
16	72	103	-0.26	0.25	0.85
17	70	103	-0.14	0.24	1.37
18	73	103	-0.32	0.25	0.72
19	78	103	-0.64	0.26	0.89
20	36	103	1.69	0.24	1.10

Item Statistics, Entry Order, Gr5MC9

Entry #	Data Code	Score Value	Count	%	Average Measure	S.E. Mean
	А	0	7	7	-0.82	0.26
1	В	0	9	9	-0.64	0.14
1	С	1	87	84	1.32	0.16
	Missing	**				
	В	0	5	5	-1.38	0.17
2	С	0	10	10	0.42	0.20
2	А	1	88	85	1.21	0.17
	Missing	**				
	В	0	20	19	-0.33	0.17
3	А	0	16	16	-0.18	0.24
5	С	1	67	65	1.69	0.18
	Missing	**				
	А	0	10	10	-0.94	0.15
1	С	0	3	3	-0.57	0.83
4	В	1	90	87	1.28	0.16
	Missing	**				
5	С	0	16	16	-0.05	0.26
	А	0	19	18	0.15	0.27
5	В	1	68	66	1.50	0.19
	Missing	**				
	В	0	39	38	0.50	0.21
6	А	0	30	29	0.74	0.31
0	С	1	34	33	1.83	0.27
	Missing	**				
	В	0	40	39	0.31	0.19
7	С	0	25	24	1.36	0.23
,	А	1	38	37	1.51	0.31
	Missing	**				
	В	0	2	2	-1.07	0.29
8	А	0	8	8	-0.67	0.20
0	С	1	93	90	1.20	0.16
	Missing	**				
	В	0	15	15	-0.49	0.14
9	А	0	21	20	-0.08	0.22
	С	1	67	65	1.68	0.18
	Missing	**				
	А	0	16	16	0.41	0.43
10	С	0	33	32	0.64	0.24
10	В	1	54	52	1.41	0.22
	Missing	**				

Table 20Distractor Analysis, Gr5MC9

Entry #	Data Code	Score Value	Count	%	Average Measure	S.E. Mean
	А	0	11	11	-0.38	0.25
11	С	0	12	12	-0.20	0.30
11	В	1	80	78	1.38	0.17
	Missing	**				
	В	0	18	17	-0.40	0.19
12	С	0	24	23	0	0.18
12	А	1	61	59	1.82	0.19
	Missing	**				
	В	0	38	37	0.24	0.17
13	С	0	21	20	0.57	0.29
15	А	1	44	43	1.88	0.26
	Missing	**				
	С	0	16	16	-0.40	0.26
14	В	0	21	20	0.38	0.21
11	А	1	66	64	1.55	0.20
	Missing	**				
	В	0	31	30	0.32	0.18
15	А	0	21	20	0.36	0.33
10	С	1	51	50	1.70	0.23
	Missing	**				
	А	0	17	17	-0.35	0.18
16	С	0	14	14	0.23	0.19
10	В	1	72	70	1.48	0.19
	Missing	**				
	С	0	12	12	0.26	0.25
17	А	0	21	20	0.40	0.25
	В	1	70	68	1.32	0.21
	Missing	**				
	В	0	15	15	-0.30	0.22
18	С	0	15	15	-0.23	0.24
10	A	1	73	71	1.53	0.18
	Missing	**				
	В	0	10	10	-0.79	0.22
19	A	0	15	15	0.14	0.27
17	С	1	78	76	1.41	0.18
	Missing	**		. –		
	A	0	18	17	0.22	0.25
20	В	0	49	48	0.48	0.16
20	С	1	36	35	2.12	0.30
	Missing	**				

Table 20Distractor Analysis, Gr5MC9 (Continued)

Item Number	Raw Score	Count	Measure	Model Standard Error	Mean Square Outfit
1	49	50	-4.66	0.98	0.17
2	34	50	0.61	0.33	1.53
3	43	50	-0.60	0.43	1.03
4	42	50	-0.43	0.41	1.11
5	42	50	-0.43	0.41	0.97
6	37	50	0.27	0.35	1.05
7	28	50	1.21	0.31	0.96
8	44	50	-0.79	0.45	0.88
9	41	50	-0.27	0.39	0.99
10	24	50	1.60	0.31	1.05
11	37	50	0.27	0.35	1.16
12	38	50	0.14	0.35	0.82
13	34	50	0.61	0.33	0.77
14	47	50	-1.66	0.61	1.69
15	32	50	0.82	0.32	1.06
16	39	50	0.01	0.36	1.22
17	37	50	0.27	0.35	0.70
18	28	50	1.21	0.31	0.90
19	28	50	1.21	0.31	0.87
20	34	50	0.61	0.33	1.01

Item Statistics, Entry Order, Gr5MC10

Entry #	Data Code	Score Value	Count	%	Average Measure	S.E. Mean
	В	0	1	2	-0.59	0
1	С	0	0	0	0	0
1	А	1	49	98	1.87	0.22
	Missing	**				
	А	0	9	18	1.44	0.50
2	С	0	7	14	1.70	0.72
2	В	1	34	68	1.95	0.27
	Missing	**				
	С	0	2	4	0.79	1.38
3	В	0	5	10	0.97	0.31
5	А	1	43	86	1.97	0.25
	Missing	**				
	С	0	0	0	0	0
4	В	0	8	16	1.16	0.23
4	А	1	42	84	1.95	0.26
	Missing	**				
	А	0	4	8	0.70	0.61
5	В	0	4	8	1.11	0.30
5	С	1	42	84	2.00	0.25
	Missing	**				
	С	0	2	4	0.51	0.12
6	А	0	11	22	1.25	0.19
0	В	1	37	74	2.06	0.29
	Missing	**				
	А	0	11	22	0.94	0.26
7	В	0	11	22	1.22	0.27
7	С	1	28	56	2.40	0.34
	Missing	**				
	С	0	4	8	0.57	0.12
0	В	0	2	4	1.28	0.89
0	А	1	44	88	1.96	0.24
	Missing	**				
	В	0	7	14	0.64	0.24
9	А	0	2	4	1.72	1.10
	С	1	41	82	2.03	0.25
	Missing	**				
	A	0	12	24	1.04	0.16
10	С	0	14	28	1.17	0.18
10	В	1	24	48	2.59	0.39
	Missing	**				

Table 22Distractor Analysis, Gr5MC10

Entry #	Data Code	Score Value	Count	%	Average Measure	S.E. Mean
	С	0	3	6	0.06	0.33
11	А	0	10	20	1.43	0.44
11	В	1	37	74	2.07	0.26
	Missing	**				
	А	0	4	8	0.82	0.20
12	В	0	8	16	0.86	0.24
12	С	1	38	76	2.13	0.27
	Missing	**				
	А	0	6	12	0.72	0.17
13	В	0	10	20	0.77	0.30
15	С	1	34	68	2.33	0.28
	Missing	**				
	С	0	1	2	0.39	0.00
14	В	0	2	4	1.37	1.46
11	А	1	47	94	1.87	0.23
	Missing	**				_
	С	0	8	16	0.64	0.30
15	В	0	10	20	1.52	0.46
15	А	1	32	64	2.21	0.29
	Missing	**				
	С	0	2	4	-0.34	0.25
16	А	0	9	18	1.31	0.53
10	В	1	39	78	2.05	0.25
	Missing	**				
	С	0	4	8	0.51	0.23
17	В	0	9	18	0.78	0.21
1,	А	1	37	74	2.22	0.27
	Missing	**				
	В	0	13	26	0.55	0.17
18	A	0	9	18	1.77	0.45
- •	С	1	28	56	2.43	0.31
	Missing	**		1.0		
	A	0	5	10	1.01	0.40
19	C	0	17	34	1.03	0.30
	В	1	28	56	2.45	0.30
	Missing	**		10	0.00	0.00
	A	0	9	18	0.88	0.20
20	B	0	7	14	1.25	0.39
20	C	1	34	68	2.19	0.30
	Missing	**				

Table 22Distractor Analysis, Gr5MC10 (Continued)

Table 23

Item Number	Raw Score	Count	Measure	Model Standard Error	Mean Square Outfit
1	41	52	-1.37	0.37	0.52
2	39	52	-1.12	0.35	0.65
3	42	52	-1.51	0.38	0.71
4	28	52	0.02	0.31	0.99
5	3	52	3.38	0.61	3.92
6	13	52	1.5	0.34	1.75
7	29	52	-0.08	0.31	1.09
8	48	52	-2.69	0.54	0.52
9	9	52	2.02	0.38	1.77
10	27	51	0.06	0.31	1.03
11	22	51	0.54	0.31	1.28
12	32	51	-0.43	0.32	1.04
13	31	51	-0.33	0.32	1.42
14	37	51	-0.97	0.34	0.89
15	27	51	0.06	0.31	0.69
16	32	51	-0.43	0.32	1.03
17	33	51	-0.53	0.32	0.51
18	18	51	0.93	0.32	1.17
19	35	51	-0.75	0.33	0.88
20	11	51	1.72	0.36	1.31

Item Statistics, Entry Order, Gr5MC11

Entry #	Data Code	Score Value	Count	%	Average Measure	S.E. Mean
	В	0	6	12	-1.13	0.21
1	С	0	5	10	-0.82	0.19
1	А	1	41	79	0.51	0.13
	Missing	**				
	А	0	7	13	-0.88	0.29
2	В	0	6	12	-0.70	0.19
2	С	1	39	75	0.52	0.13
	Missing	**				
	В	0	6	12	-0.65	0.38
3	С	0	4	8	-1.27	0.32
5	А	1	42	81	0.45	0.13
	Missing	**				
	А	0	8	15	-0.30	0.28
Λ	С	0	16	31	-0.22	0.25
4	В	1	28	54	0.57	0.16
	Missing	**				
	В	0	9	17	0.81	0.23
5	С	0	40	77	0.10	0.15
5	А	1	3	6	-0.52	0.66
	Missing	**				
	В	0	36	69	0.20	0.16
6	С	0	3	6	-0.23	0.50
0	А	1	13	25	0.24	0.29
	Missing	**				
	А	0	17	33	-0.03	0.23
7	С	0	6	12	-0.63	0.37
7	В	1	29	56	0.49	0.17
	Missing	**				
	А	0	0	0	0	0
8	В	0	4	8	-1.03	0.27
0	С	1	48	92	0.29	0.13
	Missing	**				
	А	0	40	77	0.22	0.14
0	С	0	3	6	-1.07	0.25
9	В	1	9	17	0.47	0.42
	Missing	**				
	А	0	20	38	-0.13	0.20
10	С	0	4	8	-0.67	0.20
10	В	1	27	52	0.55	0.18
	Missing	**	1	2	0.26	0

Table 24Distractor Analysis, Gr5MC11

Entry #	Data Code	Score Value	Count	%	Average Measure	S.E. Mean
	В	0	4	8	-0.60	0.15
11	С	0	25	48	0.04	0.20
11	А	1	22	42	0.50	0.20
	Missing	**	1	2	0.26	0
	В	0	13	25	-0.34	0.26
10	С	0	6	12	-0.21	0.42
12	А	1	32	62	0.48	0.16
	Missing	**	1	2	0.26	0
	А	0	6	12	0.92	0.11
12	С	0	14	27	-0.26	0.28
15	В	1	31	60	0.25	0.17
	Missing	**	1	2	0.26	0
	А	0	5	10	-1.04	0.15
1/	В	0	9	17	-0.33	0.35
14	С	1	37	71	0.48	0.14
	Missing	**	1	2	0.26	0
	В	0	18	35	-0.47	0.16
15	С	0	6	12	-0.66	0.34
15	А	1	27	52	0.82	0.14
	Missing	**	1	2	0.26	0
	А	0	5	10	0.22	0.49
16	В	0	14	27	-0.46	0.25
10	С	1	32	62	0.47	0.16
	Missing	**	1	2	0.26	0
	В	0	11	21	-0.93	0.12
17	С	0	7	13	-0.81	0.31
1/	А	1	33	63	0.77	0.10
	Missing	**	1	2	0.26	0
	А	0	20	38	-0.31	0.19
18	С	0	13	25	0.31	0.24
10	В	1	18	35	0.65	0.24
	Missing	**	1	2	0.26	0
	А	0	5	10	-0.43	0.33
19	В	0	11	21	-0.54	0.29
	С	1	35	67	0.51	0.15
	Missing	**	1	2	0.26	0
	В	0	12	23	-0.36	0.31
20	С	0	28	54	0.3	0.17
20	А	1	11	21	0.49	0.28
	Missing	**	1	2	0.26	0

Table 24Distractor Analysis, Gr5MC11 (Continued)

Table 25

Item Number	Raw Score	Count	Measure	Model Standard Error	Mean Square Outfit
1	40	50	-0.32	0.39	1.07
2	45	50	-1.29	0.51	0.67
3	38	50	-0.03	0.37	1.42
4	45	50	-1.29	0.51	1.09
5	44	50	-1.05	0.47	0.78
6	38	50	-0.03	0.37	0.94
7	33	50	0.58	0.34	0.97
8	44	50	-1.05	0.47	0.54
9	33	50	0.58	0.34	1.34
10	36	50	0.23	0.35	1.42
11	40	50	-0.32	0.39	0.50
12	21	50	1.83	0.32	1.02
13	15	50	2.45	0.34	0.77
14	34	50	0.47	0.34	0.94
15	30	50	0.91	0.33	1.19
16	16	50	2.34	0.33	0.96
17	45	50	-1.29	0.51	0.37
18	47	50	-1.97	0.63	0.38
19	37	50	0.10	0.36	1.00
20	43	50	-0.84	0.44	0.55

Item Statistics, Entry Order, Gr5MC12

Entry #	Data Code	Score Value	Count	%	Average Measure	S.E. Mean
	С	0	2	4	0.21	0.26
1	А	0	8	16	0.85	0.34
1	В	1	40	80	1.69	0.22
	Missing	**				
	В	0	3	6	-0.94	0.25
2	С	0	2	4	0.86	0.91
Z	А	1	45	90	1.69	0.18
	Missing	**				
	А	0	7	14	0.70	0.53
3	В	0	5	10	0.93	0.76
5	С	1	38	76	1.72	0.20
	Missing	**				
	В	0	1	2	-0.57	0
1	С	0	4	8	0.67	0.64
4	А	1	45	90	1.62	0.20
	Missing	**				
	В	0	4	8	0.16	0.35
5	А	0	2	4	0.93	0.46
5	С	1	44	88	1.65	0.20
	Missing	**				
	А	0	3	6	-0.40	0.75
6	С	0	9	18	0.88	0.31
0	В	1	38	76	1.80	0.21
	Missing	**				
	С	0	9	18	0.47	0.33
7	В	0	8	16	0.89	0.45
1	А	1	33	66	1.93	0.22
	Missing	**				
	С	0	3	6	-0.13	0.71
8	А	0	3	6	-0.04	0.40
0	В	1	44	88	1.72	0.19
	Missing	**				
	А	0	5	10	0.58	0.52
9	В	0	12	24	1.25	0.37
	С	1	33	66	1.73	0.24
	Missing	**				
	А	0	6	12	0.63	0.61
10	В	0	8	16	0.99	0.65
10	С	1	36	72	1.76	0.19
	Missing	**				

Table 26Distractor Analysis, Gr5MC12

Entry #	Data Code	Score Value	Count	%	Average Measure	S.E. Mean
	С	0	2	4	-0.33	1.09
11	А	0	8	16	0.06	0.20
11	В	1	40	80	1.88	0.19
	Missing	**				
	В	0	23	46	0.94	0.25
12	С	0	6	12	1.38	0.44
12	А	1	21	42	2.15	0.29
	Missing	**				
	С	0	9	18	0.75	0.33
13	А	0	26	52	1.12	0.22
15	В	1	15	30	2.60	0.34
	Missing	**				
	В	0	4	8	0.41	0.50
14	С	0	12	24	0.66	0.28
17	А	1	34	68	1.92	0.22
	Missing	**				
	В	0	19	38	0.78	0.18
15	А	0	1	2	2.96	0.00
15	С	1	30	60	1.91	0.26
	Missing	**				
	В	0	7	14	0.38	0.49
16	С	0	27	54	1.42	0.26
10	А	1	16	32	2.13	0.27
	Missing	**				
	С	0	1	2	-0.57	0.00
17	А	0	4	8	-0.39	0.40
17	В	1	45	90	1.71	0.18
	Missing	**				
	С	0	1	2	-1.41	0.00
18	А	0	2	4	-0.04	0.52
10	В	1	47	94	1.63	0.19
	Missing	**				
	В	0	4	8	0.36	0.63
19	С	0	9	18	0.87	0.35
	А	1	37	74	1.78	0.22
	Missing	**				
	А	0	2	4	-0.33	1.09
20	В	0	5	10	0.12	0.31
	С	1	43	86	1.74	0.19
	Missing	**				

Table 26Distractor Analysis, Gr5MC12 (Continued)

Item Number	Raw Score	Count	Measure	Model Standard Error	Mean Square Outfit
1	95	105	-1.66	0.35	0.87
2	87	105	-0.89	0.28	0.96
3	91	105	-1.23	0.31	0.68
4	45	105	1.34	0.22	1.04
5	92	105	-1.33	0.32	0.94
6	82	105	-0.54	0.26	0.85
7	85	105	-0.74	0.27	0.70
8	68	105	0.26	0.22	0.84
9	48	105	1.20	0.21	1.03
10	84	105	-0.67	0.26	0.74
11	87	105	-0.89	0.28	0.60
12	52	105	1.02	0.21	1.16
13	47	105	1.25	0.22	1.43
14	76	105	-0.17	0.24	0.96
15	77	105	-0.23	0.24	0.90
16	56	105	0.83	0.22	1.09
17	79	105	-0.35	0.25	0.84
18	59	105	0.69	0.22	1.41
19	49	105	1.15	0.21	1.13
20	53	105	0.97	0.21	0.97

Item Statistics, Entry Order, Gr5MC13

Entry #	Data Code	Score Value	Count	%	Average Measure	S.E. Mean
	А	0	6	6	-0.55	0.39
1	С	0	4	4	0.67	0.39
1	В	1	95	90	1.14	0.11
	Missing	**				
	А	0	9	9	-0.07	0.27
2	С	0	9	9	0.48	0.36
2	В	1	87	83	1.20	0.12
	Missing	**				
	В	0	11	10	-0.23	0.28
3	С	0	3	3	0.08	0.22
5	А	1	91	87	1.21	0.11
	Missing	**				
	С	0	4	4	-0.20	0.45
1	В	0	56	53	0.69	0.12
4	А	1	45	43	1.56	0.18
	Missing	**				
	А	0	8	8	0.14	0.36
5	С	0	5	5	0.33	0.41
5	В	1	92	88	1.14	0.12
	Missing	**				
	В	0	10	10	-0.50	0.20
6	А	0	13	12	0.50	0.28
0	С	1	82	78	1.30	0.11
	Missing	**				
	А	0	7	7	-0.34	0.34
7	С	0	13	12	0.16	0.20
7	В	1	85	81	1.27	0.11
	Missing	**				
	С	0	8	8	-0.19	0.34
8	В	0	29	28	0.42	0.17
0	А	1	68	65	1.43	0.12
	Missing	**				
	В	0	11	10	-0.08	0.33
9	А	0	46	44	0.80	0.13
	С	1	48	46	1.50	0.16
	Missing	**				
	С	0	10	10	-0.39	0.32
10	В	0	11	10	0.25	0.24
10	А	1	84	80	1.30	0.11
	Missing	**				_

Table 28Distractor Analysis, Gr5MC13

Entry #	Data Code	Score Value	Count	%	Average Measure	S.E. Mean
	А	0	3	3	-1.03	0.16
11	В	0	15	14	-0.06	0.21
11	С	1	87	83	1.29	0.11
	Missing	**				
	А	0	22	21	0.46	0.22
12	В	0	31	30	0.91	0.18
12	С	1	52	50	1.34	0.16
	Missing	**				
	А	0	10	10	-0.06	0.23
13	С	0	48	46	1.08	0.13
15	В	1	47	45	1.21	0.18
	Missing	**				
	В	0	7	7	-0.35	0.37
14	А	0	22	21	0.47	0.20
11	С	1	76	72	1.32	0.12
	Missing	**				
	С	0	15	14	0.20	0.21
15	А	0	13	12	0.48	0.21
10	В	1	77	73	1.28	0.13
	Missing	**				
	В	0	12	11	-0.20	0.20
16	С	0	37	35	0.91	0.20
10	А	1	56	53	1.37	0.13
	Missing	**				
	В	0	20	19	-0.05	0.19
17	А	0	6	6	0.70	0.48
	С	1	79	75	1.33	0.11
	Missing	**				
	В	0	28	27	0.77	0.22
18	С	0	18	17	0.97	0.24
10	A	1	59	56	1.17	0.15
	Missing	**				
	С	0	30	29	0.56	0.19
19	A	0	26	25	0.68	0.14
	В	1	49	47	1.50	0.17
	Missing	**				
	C	0	21	20	0.12	0.23
20	A	0	31	30	0.87	0.15
20	В	1	53	50	1.48	0.15
	Missing	**				

Table 28Distractor Analysis, Gr5MC13 (Continued)

Item Number	Raw Score	Count	Measure	Model Standard Error	Mean Square Outfit
1	46	53	-1.39	0.43	0.39
2	40	53	-0.49	0.35	1.29
3	42	53	-0.76	0.37	1.03
4	46	53	-1.39	0.43	0.37
5	35	53	0.08	0.33	1.32
6	46	53	-1.39	0.43	0.58
7	27	53	0.89	0.31	1.03
8	47	53	-1.59	0.46	0.41
9	34	53	0.19	0.32	0.80
10	44	53	-1.05	0.40	0.83
11	28	53	0.80	0.32	0.77
12	44	53	-1.05	0.40	0.77
13	34	53	0.19	0.32	0.90
14	25	53	1.09	0.31	1.15
15	25	53	1.09	0.31	1.55
16	29	53	0.70	0.32	0.78
17	31	53	0.50	0.32	0.79
18	30	53	0.60	0.32	1.08
19	16	53	2.01	0.33	2.01
20	26	53	0.99	0.31	1.60

Item Statistics, Entry Order, Gr5MC14

Entry #	Data Code	Score Value	Count	%	Average Measure	S.E. Mean
	А	0	6	11	-0.73	0.17
1	В	0	1	2	-0.50	0.00
1	С	1	46	87	1.31	0.19
	Missing	**				
	С	0	5	9	-0.35	0.22
2	В	0	8	15	0.47	0.54
2	А	1	40	75	1.33	0.21
	Missing	**				
	С	0	6	11	-0.42	0.16
3	В	0	5	9	0.26	0.66
5	А	1	42	79	1.34	0.20
	Missing	**				
	А	0	4	8	-0.85	0.21
4	В	0	3	6	-0.59	0.09
-	С	1	46	87	1.31	0.19
	Missing	**				
	А	0	5	9	0.39	0.57
5	С	0	13	25	0.49	0.33
5	В	1	35	66	1.34	0.24
	Missing	**				
	В	0	3	6	-0.51	0.31
6	С	0	4	8	-0.18	0.34
0	А	1	46	87	1.25	0.20
	Missing	**				
	А	0	11	21	-0.19	0.28
7	С	0	15	28	0.86	0.20
7	В	1	27	51	1.64	0.28
	Missing	**				
	В	0	6	11	-0.70	0.22
8	С	0	0	0	0	0
0	А	1	47	89	1.26	0.19
	Missing	**				
	А	0	15	28	0.11	0.18
9	С	0	4	8	0.11	0.55
	В	1	34	64	1.56	0.24
	Missing	**				
	В	0	4	8	0	0.53
10	С	0	5	9	0	0.39
10	А	1	44	83	1.25	0.21
	Missing	**				

Table 30Distractor Analysis, Gr5MC14

B 0 12 23 0.13 0.26 A 0 13 25 0.22 0.21 C 1 28 53 1.82 0.26 Missing ** 2 1.82 0.26 12 A 0 6 11 -0.09 0.37 B 1 44 83 1.30 0.20 Missing ** 33 0.55 0.21 0.26 Missing ** 34 64 1.53 0.24 Missing ** 0 13 25 0.29 0.27 A 0 13 25 0.29 0.27 A 0 15 28 0.55 0.19 C 1 25 47 1.30 0.30 Missing ** 0 11 21 0.86 0.49 B 1 29 55 1.77 0.25 </th <th>Entry #</th> <th>Data Code</th> <th>Score Value</th> <th>Count</th> <th>%</th> <th>Average Measure</th> <th>S.E. Mean</th>	Entry #	Data Code	Score Value	Count	%	Average Measure	S.E. Mean
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		В	0	12	23	0.13	0.26
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	11	А	0	13	25	0.22	0.21
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	11	С	1	28	53	1.82	0.26
$\begin{array}{cccccccccccccccccccccccccccccccccccc$		Missing	**				
$\begin{array}{cccccccccccccccccccccccccccccccccccc$		С	0	3	6	-0.54	0.66
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	10	А	0	6	11	-0.09	0.37
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	12	В	1	44	83	1.30	0.20
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		Missing	**				
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		В	0	6	11	0.08	0.35
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	12	А	0	13	25	0.21	0.26
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	15	С	1	34	64	1.53	0.24
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		Missing	**				
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		В	0	13	25	0.29	0.27
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	1 /	А	0	15	28	0.55	0.19
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	14	С	1	25	47	1.73	0.31
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		Missing	**				
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		А	0	17	32	0.78	0.25
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	15	С	0	11	21	0.86	0.49
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	15	В	1	25	47	1.30	0.30
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		Missing	**				
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		А	0	12	23	0.16	0.18
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	16	С	0	12	23	0.16	0.30
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	10	В	1	29	55	1.77	0.25
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		Missing	**				
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		А	0	7	13	-0.33	0.27
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	17	В	0	15	28	0.32	0.26
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	17	С	1	31	58	1.70	0.23
$\begin{array}{cccccccccccccccccccccccccccccccccccc$		Missing	**				
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		С	0	11	21	0.17	0.50
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	10	В	0	12	23	0.52	0.32
$\frac{\text{Missing}}{19} \begin{array}{c ccccccccccccccccccccccccccccccccccc$	10	А	1	30	57	1.57	0.21
$\begin{array}{cccccccccccccccccccccccccccccccccccc$		Missing	**				
$\begin{array}{cccccccccccccccccccccccccccccccccccc$		С	0	9	17	0.39	0.32
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	10	В	0	28	53	0.99	0.21
Missing ** B 0 13 25 0.76 0.30 A 0 14 26 0.88 0.36 C 1 26 49 1.27 0.31	19	А	1	16	30	1.51	0.47
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		Missing	**				
20 A 0 14 26 0.88 0.36 C 1 26 49 1.27 0.31		B	0	13	25	0.76	0.30
C 1 26 49 1.27 0.31	20	А	0	14	26	0.88	0.36
Missing **	20	С	1	26	49	1.27	0.31
INISSING THE		Missing	**				

Table 30Distractor Analysis, Gr5MC14 (Continued)

Item Number	Raw Score	Count	Measure	Model Standard Error	Mean Square Outfit
1	44	54	-0.68	0.38	1.13
2	42	54	-0.40	0.36	0.89
3	33	54	0.58	0.31	1.18
4	41	54	-0.28	0.35	1.03
5	44	54	-0.68	0.38	0.92
6	40	54	-0.16	0.34	0.55
7	45	54	-0.82	0.39	0.54
8	46	54	-0.99	0.41	0.62
9	39	54	-0.04	0.34	1.12
10	39	54	-0.04	0.34	0.70
11	36	54	0.28	0.32	0.87
12	30	54	0.87	0.31	1.44
13	34	54	0.48	0.32	1.26
14	43	54	-0.54	0.37	0.69
15	43	54	-0.54	0.37	0.87
16	25	54	1.33	0.31	1.32
17	37	54	0.17	0.33	0.88
18	35	54	0.38	0.32	1.09
19	22	54	1.61	0.31	0.85
20	43	54	-0.54	0.37	0.95

Item Statistics, Entry Order, Gr5MC15

Entry #	Data Code	Score Value	Count	%	Average Measure	S.E. Mean
	С	0	2	4	-0.13	0.11
1	В	0	8	15	0.59	0.40
1	А	1	44	81	1.47	0.20
	Missing	**				
	А	0	6	11	0.19	0.31
2	В	0	6	11	0.48	0.46
2	С	1	42	78	1.55	0.21
	Missing	**				
	В	0	2	4	0.34	0.58
3	С	0	19	35	0.82	0.25
5	А	1	33	61	1.60	0.25
	Missing	**				
	С	0	9	17	0.49	0.18
4	А	0	4	7	0.86	0.55
-	В	1	41	76	1.49	0.23
	Missing	**				
	С	0	5	9	0.01	0.66
5	А	0	5	9	0.21	0.33
5	В	1	44	81	1.54	0.19
	Missing	**				
	А	0	8	15	-0.10	0.19
6	В	0	6	11	0.10	0.17
0	С	1	40	74	1.73	0.20
	Missing	**				
	С	0	4	7	-0.24	0.24
7	В	0	5	9	-0.02	0.32
,	А	1	45	83	1.56	0.19
	Missing	**				
	А	0	4	7	-0.25	0.23
8	В	0	4	7	0.03	0.51
0	С	1	46	85	1.52	0.19
	Missing	**				
	В	0	2	4	-0.02	0.22
9	А	0	13	24	0.56	0.35
	С	1	39	72	1.58	0.21
	Missing	**				
	С	0	5	9	0.07	0.21
10	А	0	10	19	0.20	0.28
10	В	1	39	72	1.71	0.21
	Missing	**				

Table 32Distractor Analysis, Gr5MC15

Entry #	Data Code	Score Value	Count	%	Average Measure	S.E. Mean
	В	0	10	19	0.10	0.36
11	С	0	8	15	0.70	0.25
11	А	1	36	67	1.73	0.22
	Missing	**				
	С	0	5	9	-0.06	0.22
12	В	0	19	35	1.31	0.30
12	А	1	30	56	1.48	0.25
	Missing	**				
	А	0	10	19	0.32	0.26
13	С	0	10	19	1.29	0.48
15	В	1	34	63	1.56	0.23
	Missing	**				
	А	0	8	15	-0.10	0.15
14	С	0	3	6	0.33	0.85
11	В	1	43	80	1.60	0.20
	Missing	**				
	В	0	5	9	-0.39	0.31
15	А	0	6	11	0.57	0.44
10	С	1	43	80	1.57	0.20
	Missing	**				
	В	0	19	35	0.91	0.24
16	А	0	10	19	0.98	0.36
10	С	1	25	46	1.68	0.31
	Missing	**				
	С	0	7	13	0.37	0.31
17	В	0	10	19	0.38	0.34
1,	A	1	37	69	1.69	0.22
	Missing	**				
	С	0	5	9	0.55	0.56
18	A	0	14	26	0.60	0.28
10	В	1	35	65	1.65	0.23
	Missing	**				
	В	0	5	9	0.55	0.56
19	A	0	14	26	0.60	0.28
	С	1	35	65	1.65	0.23
	Missing	**			0.5-	
	C	0	4	7	0.27	0.24
20	B	0	7	13	0.49	0.38
20	A	1	43	80	1.50	0.21
	Missing	**				

Table 32Distractor Analysis, Gr5MC15 (Continued)

Table 33

Item Number	Raw Score	Count	Measure	Model Standard Error	Mean Square Outfit
1	52	55	-1.75	0.63	0.20
2	53	55	-2.38	0.76	0.26
3	43	55	0.17	0.36	0.95
4	17	55	2.74	0.32	1.54
5	53	55	-2.38	0.76	0.15
6	47	55	-0.43	0.42	0.60
7	54	55	-4.68	1.00	0.07
8	50	55	-1.07	0.51	0.67
9	49	55	-0.83	0.47	0.94
10	21	55	2.35	0.31	1.10
11	51	55	-1.36	0.56	1.78
12	37	55	0.86	0.32	1.15
13	49	55	-0.83	0.47	0.58
14	41	55	0.42	0.34	1.26
15	28	55	1.71	0.30	1.32
16	29	55	1.62	0.30	0.95
17	21	55	2.35	0.31	1.24
18	21	55	2.35	0.31	0.92
19	45	55	-0.11	0.39	0.76
20	33	55	1.25	0.31	0.87

Item Statistics, Entry Order, Gr5MC16

Entry #	Data Code	Score Value	Count	%	Average Measure	S.E. Mean
	С	0	1	2	-1.57	0
1	А	0	2	4	-0.38	0.16
1	В	1	52	95	2.04	0.19
	Missing	**				
	С	0	2	4	-0.38	0.16
2	А	0	0	0	0	0
2	В	1	53	96	1.98	0.20
	Missing	**				
	В	0	4	7	0.11	0.43
3	А	0	8	15	1.39	0.20
5	С	1	43	78	2.15	0.24
	Missing	**				
	С	0	2	4	-0.89	0.67
Δ	В	0	36	65	1.88	0.24
-	А	1	17	31	2.23	0.33
	Missing	**				
	С	0	1	2	-1.57	0.00
5	А	0	1	2	-0.55	0.00
5	В	1	53	96	2.00	0.20
	Missing	**				_
	В	0	5	9	-0.28	0.57
6	С	0	3	5	1.11	0.00
0	А	1	47	85	2.17	0.20
	Missing	**				
	В	0	1	2	-1.57	0.00
7	А	0	0	0	0.00	0.00
,	С	1	54	98	1.95	0.20
	Missing	**				
	В	0	0	0	0	0
8	С	0	5	9	0.31	0.59
0	А	1	50	91	2.05	0.21
	Missing	**				
	А	0	5	9	0.40	0.70
9	С	0	1	2	1.46	0.00
)	В	1	49	89	2.05	0.21
	Missing	**				
	А	0	18	33	1.13	0.24
10	С	0	16	29	1.72	0.35
10	В	1	21	38	2.68	0.35
	Missing	**				

Table 34Distractor Analysis, Gr5MC16

Entry #	Data Code	Score Value	Count	%	Average Measure	S.E. Mean
	В	0	2	4	1.11	0.00
11	С	0	2	4	1.92	0.81
11	А	1	51	93	1.92	0.22
	Missing	**				
	С	0	6	11	0.61	0.46
12	В	0	12	22	1.58	0.27
12	А	1	37	67	2.20	0.27
	Missing	**				
	А	0	3	5	0.33	0.61
13	В	0	3	5	0.44	0.38
15	С	1	49	89	2.07	0.21
	Missing	**				
	В	0	3	5	0.45	1.53
14	С	0	11	20	1.18	0.31
14	А	1	41	75	2.19	0.23
	Missing	**				
	В	0	1	2	-0.55	0.00
15	А	0	26	47	1.34	0.17
15	С	1	28	51	2.49	0.33
	Missing	**				
	А	0	8	15	0.64	0.45
16	В	0	18	33	1.43	0.19
10	С	1	29	53	2.52	0.30
	Missing	**				
	С	0	8	15	1.17	0.41
17	В	0	26	47	1.51	0.20
17	А	1	21	38	2.64	0.40
	Missing	**				
	С	0	21	38	1.31	0.26
18	А	0	13	24	1.35	0.26
10	В	1	21	38	2.80	0.37
	Missing	**				
	А	0	4	7	0.11	0.43
19	С	0	6	11	0.55	0.64
17	В	1	45	82	2.23	0.20
	Missing	**				
	С	0	12	22	0.75	0.26
20	В	0	10	18	1.38	0.33
20	А	1	33	60	2.46	0.27
	Missing	**				

Table 34Distractor Analysis, Gr5MC16 (Continued)

Table 35

Item Number	Raw Score	Count	Measure	Model Standard Error	Mean Square Outfit
1	4	109	4.88	0.52	1.78
2	99	109	-1.41	0.36	1.02
3	79	109	0.19	0.24	0.78
4	85	109	-0.18	0.26	0.96
5	89	109	-0.46	0.27	1.41
6	82	109	0.01	0.25	0.98
7	94	109	-0.87	0.3	0.61
8	87	109	-0.31	0.26	1.02
9	98	109	-1.29	0.34	0.84
10	73	109	0.51	0.23	1.14
11	97	109	-1.17	0.33	0.83
12	70	108	0.63	0.22	1.12
13	79	108	0.15	0.24	0.75
14	98	108	-1.4	0.36	0.53
15	95	108	-1.05	0.32	0.42
16	58	108	1.2	0.21	1.27
17	74	108	0.42	0.23	1.05
18	53	108	1.43	0.21	1.04
19	91	108	-0.68	0.29	1.35
20	90	108	-0.6	0.28	0.83

Item Statistics, Entry Order, Gr5MC17

Entry #	Data Code	Score Value	Count	%	Average Measure	S.E. Mean
	В	0	102	94	1.33	0.11
1	С	0	3	3	2.86	1.44
1	А	1	4	94	1.96	1.14
	Missing	**				
	А	0	6	6	-0.18	0.4
2	В	0	4	4	1.15	0.55
2	С	1	99	91	1.5	0.12
	Missing	**				
	В	0	15	14	0.27	0.21
3	С	0	15	14	0.61	0.26
5	А	1	79	72	1.76	0.13
	Missing	**				
	В	0	3	3	-1.46	0.18
4	С	0	21	19	0.79	0.18
4	А	1	85	78	1.65	0.12
	Missing	**				
	А	0	0	0	0	0
5	С	0	20	18	0.61	0.33
5	В	1	89	82	1.57	0.11
	Missing	**				
	А	0	22	20	0.88	0.19
6	В	0	5	5	-1.04	0.43
0	С	1	82	75	1.68	0.12
	Missing	**				
	В	0	8	7	-0.34	0.45
7	С	0	7	6	0.11	0.36
7	А	1	94	86	1.64	0.11
	Missing	**				
	А	0	8	7	0.75	0.47
Q	С	0	14	13	0.5	0.22
0	В	1	87	80	1.6	0.13
	Missing	**				
	А	0	6	6	-0.1	0.42
0	С	0	5	5	0.72	0.5
У	В	1	98	90	1.52	0.12
	Missing	**				
	А	0	21	19	0.97	0.2
10	В	0	15	14	0.71	0.32
10	С	1	73	67	1.66	0.14
	Missing	**				_

Table 36Distractor Analysis, Gr5MC17

Entry #	Data Code	Score Value	Count	%	Average Measure	S.E. Mean
	В	0	5	5	-0.71	0.54
11	С	0	7	6	0.54	0.45
11	А	1	97	89	1.57	0.11
	Missing	**				
	A	0	18	17	0.32	0.23
10	С	0	20	18	1.33	0.14
12	В	1	70	64	1.7	0.15
	Missing	**	1	1	0.99	0
	А	0	11	10	0.98	0.2
12	В	0	18	17	0.06	0.25
13	С	1	79	72	1.76	0.12
	Missing	**	1	1	0.99	0
	А	0	5	5	0.02	0.27
1.4	В	0	5	5	-0.78	0.61
14	С	1	98	90	1.58	0.11
	Missing	**	1	1	1.58	0
	В	0	8	7	-0.35	0.36
15	С	0	5	5	-0.51	0.37
15	А	1	95	87	1.65	0.11
	Missing	**	1	1	1.58	0
	Α	0	39	36	1.1	0.2
16	С	0	11	10	0.37	0.29
10	В	1	58	53	1.79	0.14
	Missing	**	1	1	1.58	0
	А	0	7	6	0.37	0.48
17	В	0	27	25	0.84	0.19
1/	С	1	74	68	1.7	0.14
	Missing	**	1	1	1.58	0
	В	0	38	35	1.13	0.19
10	С	0	17	16	0.62	0.23
18	А	1	53	49	1.84	0.16
	Missing	**	1	1	1.58	0
	В	0	3	3	-0.67	0.82
10	С	0	14	13	1.03	0.29
19	А	1	91	83	1.52	0.12
	Missing	**	1	1	1.58	0
	A	0	4	4	0.26	0.36
20	В	0	14	13	0.31	0.33
20	С	1	90	83	1.62	0.12
	Missing	**	1	1	1.58	0

Table 36Distractor Analysis, Gr5MC17 (Continued)

Item Number	Raw Score	Count	Measure	Model Standard Error	Mean Square Outfit
1	43	55	-0.87	0.36	0.70
2	42	55	-0.75	0.35	1.20
3	49	55	-1.82	0.45	0.58
4	28	55	0.66	0.30	0.88
5	43	55	-0.87	0.36	0.78
6	32	55	0.29	0.31	0.82
7	30	55	0.48	0.30	0.72
8	39	55	-0.41	0.33	0.81
9	29	55	0.57	0.30	1.28
10	7	55	2.96	0.42	1.76
11	35	55	0.00	0.31	1.01
12	32	55	0.29	0.31	1.63
13	43	55	-0.87	0.36	0.82
14	42	53	-0.93	0.37	0.72
15	22	53	1.16	0.31	1.18
16	39	53	-0.55	0.35	0.93
17	25	53	0.88	0.31	1.28
18	39	53	-0.55	0.35	0.61
19	39	53	-0.55	0.35	0.72
20	25	53	0.88	0.31	1.11

Item Statistics, Entry Order, Gr5MC18

Entry #	Data Code	Score Value	Count	%	Average Measure	S.E. Mean
	С	0	1	2	-1.04	0.00
1	В	0	11	20	-0.26	0.20
1	А	1	43	78	0.99	0.16
	Missing	**				
	А	0	2	4	-0.90	0.13
2	С	0	11	20	0.06	0.33
2	В	1	42	76	0.95	0.15
	Missing	**				
	С	0	1	2	-0.77	0.00
3	А	0	5	9	-0.35	0.18
5	В	1	49	89	0.85	0.15
	Missing	**				
	А	0	1	2	-0.77	0.00
4	В	0	26	47	0.18	0.21
7	С	1	28	51	1.25	0.16
	Missing	**				
	А	0	10	18	-0.31	0.26
5	С	0	2	4	0.27	0.17
5	В	1	43	78	0.96	0.16
	Missing	**				
	В	0	6	11	-0.39	0.23
6	А	0	17	31	0.14	0.23
0	С	1	32	58	1.21	0.17
	Missing	**				_
	В	0	4	7	-0.78	0.10
7	С	0	21	38	0.08	0.19
,	А	1	30	55	1.34	0.15
	Missing	**				
	В	0	11	20	-0.26	0.24
8	C	0	5	9	-0.02	0.47
0	А	1	39	71	1.08	0.16
	Missing	**				
	В	0	2	4	-0.42	0.62
9	А	0	24	44	0.44	0.22
フ	С	1	29	53	1.00	0.19
	Missing	**				
	С	0	10	18	0.47	0.43
10	В	0	38	69	0.73	0.17
10	A	1	7	13	0.93	0.41
	Missing	**				

Table 38Distractor Analysis, Gr5MC18

Entry #	Data Code	Score Value	Count	%	Average Measure	S.E. Mean
	В	0	11	20	-0.21	0.31
11	С	0	9	16	0.50	0.31
11	А	1	35	64	1.05	0.17
	Missing	**				
	В	0	4	7	0.37	0.73
12	А	0	19	35	0.74	0.24
12	С	1	32	58	0.73	0.20
	Missing	**				
	А	0	3	5	-0.46	0.58
13	С	0	9	16	-0.20	0.32
15	В	1	43	78	0.98	0.15
	Missing	**				
	В	0	7	13	-0.43	0.30
14	А	0	4	7	-0.27	0.55
17	С	1	42	76	1.02	0.15
	Missing	**	2	4	0.10	0.00
	С	0	23	42	0.33	0.20
15	В	0	8	15	0.37	0.33
15	А	1	22	40	1.28	0.24
	Missing	**	2	4	0.10	0.00
	С	0	3	5	-0.13	0.5
16	А	0	11	20	0.06	0.27
10	В	1	39	71	0.99	0.17
	Missing	**	2	4	0.10	0.00
	В	0	8	15	-0.02	0.39
17	А	0	20	36	0.65	0.22
17	С	1	25	45	1.04	0.22
	Missing	**	2	4	0.10	0.00
	А	0	8	15	-0.57	0.18
18	С	0	6	11	-0.12	0.30
10	В	1	39	71	1.13	0.15
	Missing	**	2	4	0.10	0.00
	В	0	11	20	-0.36	0.31
19	А	0	3	5	-0.20	0.08
17	С	1	39	71	1.11	0.15
	Missing	**	2	4	0.10	0.00
	А	0	2	4	-0.66	0.38
20	С	0	26	47	0.41	0.20
20	В	1	25	45	1.17	0.21
	Missing	**	2	4	0.10	0.00

 Table 38

 Distractor Analysis, Gr5MC18 (Continued)
Table 39

Item Number	Raw Score	Count	Measure	Model Standard Error	Mean Square Outfit
1	49	54	-1.89	0.50	0.29
2	45	54	-1.13	0.40	1.03
3	33	53	0.32	0.32	1.13
4	46	53	-1.37	0.44	0.75
5	39	53	-0.34	0.35	1.08
6	27	53	0.89	0.31	0.68
7	44	53	-1.02	0.40	1.34
8	44	53	-1.02	0.40	0.73
9	38	53	-0.22	0.34	0.98
10	26	53	0.99	0.31	0.99
11	42	53	-0.72	0.37	0.82
12	41	53	-0.59	0.36	1.29
13	16	53	1.96	0.33	1.11
14	42	53	-0.72	0.37	1.87
15	21	53	1.46	0.31	1.00
16	15	53	2.06	0.33	1.53
17	35	53	0.11	0.32	0.88
18	33	53	0.32	0.32	1.30
19	35	53	0.11	0.32	0.65
20	28	53	0.80	0.31	0.83

Item Statistics, Entry Order, Gr5MC19

Entry #	Data Code	Score Value	Count	%	Average Measure	S.E. Mean
	С	0	4	7	-1.31	0.19
1	А	0	1	2	-0.53	0.00
1	В	1	49	91	1.14	0.16
	Missing	**				
	С	0	2	4	-0.95	0.42
2	В	0	7	13	0.15	0.47
2	А	1	45	83	1.13	0.18
	Missing	**				
	С	0	1	2	-1.37	0.00
3	А	0	19	35	0.54	0.24
5	В	1	33	61	1.29	0.21
	Missing	**	1	2	-1.36	0.00
	С	0	4	7	-0.87	0.18
4	В	0	3	6	0.76	0.16
-	А	1	46	85	1.14	0.17
	Missing	**	1	2	-1.36	0.00
	А	0	8	15	-0.16	0.28
5	В	0	6	11	0.77	0.51
5	С	1	39	72	1.23	0.19
	Missing	**	1	2	-1.36	0.00
	В	0	14	26	-0.01	0.27
6	А	0	12	22	0.46	0.22
0	С	1	27	50	1.71	0.2
	Missing	**	1	2	-1.36	0.00
	В	0	5	9	-0.11	0.41
7	С	0	4	7	0.68	0.8
7	А	1	44	81	1.12	0.18
	Missing	**	1	2	-1.36	0.00
	А	0	5	9	-0.23	0.36
8	С	0	4	7	0.01	0.59
0	В	1	44	81	1.20	0.18
	Missing	**	1	2	-1.36	0.00
	В	0	4	7	-0.12	0.5
9	А	0	11	20	0.31	0.31
,	С	1	38	70	1.28	0.19
	Missing	**	1	2	-1.36	0.00
	В	0	3	6	-0.45	0.23
10	С	0	24	44	0.58	0.23
10	А	1	26	48	1.50	0.22
	Missing	**	1	2	-1.36	0.00

Table 40Distractor Analysis, Gr5MC19

Entry #	Data Code	Score Value	Count	%	Average Measure	S.E. Mean
	А	0	3	6	-0.29	0.40
11	С	0	8	15	0.16	0.34
11	В	1	42	78	1.21	0.18
	Missing	**	1	2	-1.36	0.00
	С	0	5	9	-0.07	0.39
10	А	0	7	13	0.59	0.51
12	В	1	41	76	1.16	0.19
	Missing	**	1	2	-1.36	0.00
	В	0	19	35	0.61	0.25
13	С	0	18	33	0.76	0.25
13	А	1	16	30	1.64	0.34
	Missing	**	1	2	-1.36	0.00
	А	0	4	7	-0.64	0.40
14	В	0	7	13	0.60	0.83
14	С	1	42	78	1.19	0.14
	Missing	**	1	2	-1.36	0.00
	В	0	2	4	-0.66	0.13
15	С	0	30	56	0.63	0.19
15	А	1	21	39	1.62	0.27
	Missing	**	1	2	-1.36	0.00
	А	0	19	35	0.83	0.27
16	В	0	19	35	0.87	0.25
10	С	1	15	28	1.28	0.38
	Missing	**	1	2	-1.36	0.00
	В	0	14	26	0.03	0.23
17	А	0	4	7	0.76	0.55
17	С	1	35	65	1.37	0.20
	Missing	**	1	2	-1.36	0.00
	С	0	13	24	0.36	0.38
18	А	0	7	13	1.00	0.23
10	В	1	33	61	1.21	0.21
	Missing	**	1	2	-1.36	0.00
	В	0	7	13	-0.23	0.35
19	С	0	11	20	0.02	0.30
17	А	1	35	65	1.51	0.17
	Missing	**	1	2	-1.36	0.00
	С	0	12	22	0.14	0.32
20	А	0	13	24	0.46	0.26
20	В	1	28	52	1.57	0.21
	Missing	**	1	2	-1.36	0.00

Table 40Distractor Analysis, Gr5MC19 (Continued)

Table 41

Item Number	Raw Score	Count	Measure	Model Standard Error	Mean Square Outfit
1	52	54	-2.66	0.75	0.28
2	48	54	-1.13	0.47	1.68
3	50	54	-1.67	0.56	0.59
4	15	54	2.54	0.33	1.73
5	46	54	-0.74	0.42	1.35
6	46	54	-0.74	0.42	0.68
7	32	54	0.95	0.31	0.93
8	46	54	-0.74	0.42	0.57
9	46	54	-0.74	0.42	0.51
10	9	54	3.27	0.38	2.22
11	48	54	-1.13	0.47	0.62
12	8	54	3.42	0.40	1.30
13	41	54	-0.01	0.35	0.83
14	43	54	-0.27	0.37	1.39
15	50	54	-1.67	0.56	0.32
16	36	54	0.56	0.32	1.12
17	42	54	-0.13	0.36	1.10
18	20	54	2.05	0.31	0.70
19	45	54	-0.57	0.40	0.88
20	45	53	-0.61	0.41	1.59

Item Statistics, Entry Order, Gr5MC20

Entry #	Data Code	Score Value	Count	%	Average Measure	S.E. Mean
	В	0	1	2	-1.29	0.00
1	А	0	1	2	-0.17	0.00
1	С	1	52	96	1.45	0.14
	Missing	**				
	С	0	0	0	0.00	0.00
2	В	0	6	11	0.88	0.56
2	А	1	48	89	1.43	0.15
	Missing	**				
	А	0	1	2	0.12	0.00
3	С	0	3	6	0.23	0.27
5	В	1	50	93	1.47	0.15
	Missing	**				
	А	0	6	11	1.27	0.33
Δ	В	0	33	61	1.36	0.20
-	С	1	15	28	1.43	0.29
	Missing	**				
	А	0	5	9	0.57	0.76
5	С	0	3	6	0.75	0.65
5	В	1	46	85	1.50	0.14
	Missing	**				
	В	0	5	9	-0.10	0.32
6	С	0	3	6	0.79	0.37
0	А	1	46	85	1.57	0.15
	Missing	**				
	С	0	10	19	0.37	0.40
7	В	0	12	22	0.95	0.22
,	А	1	32	59	1.84	0.15
	Missing	**				_
	В	0	5	9	-0.44	0.48
8	А	0	3	6	0.76	0.20
0	С	1	46	85	1.61	0.13
	Missing	**				
	А	0	3	6	-0.42	0.61
9	С	0	5	9	-0.01	0.52
/	В	1	46	85	1.64	0.13
	Missing	**				
	В	0	12	22	0.73	0.37
10	С	0	33	61	1.56	0.16
	A	1	9	17	1.55	0.40
	Missing	**				

Table 42Distractor Analysis, Gr5MC20

Entry #	Data Code	Score Value	Count	%	Average Measure	S.E. Mean
	С	0	4	7	-0.35	0.59
11	А	0	2	4	0.12	1.41
11	В	1	48	89	1.57	0.13
	Missing	**				
	В	0	20	37	1.06	0.20
12	А	0	26	48	1.41	0.23
12	С	1	8	15	2.01	0.38
	Missing	**				
	С	0	8	15	0.34	0.44
13	В	0	5	9	0.50	0.39
15	А	1	41	76	1.68	0.14
	Missing	**				
	А	0	4	7	-0.47	0.86
14	В	0	7	13	1.41	0.36
17	С	1	43	80	1.54	0.14
	Missing	**				
	С	0	3	6	-0.82	0.57
15	В	0	1	2	-0.17	0.00
15	А	1	50	93	1.53	0.13
	Missing	**				
	В	0	4	7	0.78	0.72
16	С	0	14	26	0.90	0.29
10	А	1	36	67	1.62	0.17
16	Missing	**				
	А	0	3	6	-0.42	0.61
17	В	0	9	17	0.73	0.48
17	С	1	42	78	1.64	0.13
	Missing	**				
	А	0	6	11	0.40	0.39
18	С	0	28	52	0.97	0.18
10	В	1	20	37	2.23	0.15
	Missing	**				
	С	0	3	6	-0.07	0.98
19	А	0	6	11	0.68	0.43
17	В	1	45	83	1.56	0.14
	Missing	**				
	В	0	3	6	0.21	0.68
20	А	0	5	9	0.98	0.78
20	С	1	45	83	1.57	0.12
	Missing	**	1	2	-1.86	0.00

Table 42Distractor Analysis, Gr5MC20 (Continued)

Discussion

Having met the criteria for acceptable model fit, final versions of each of the 20 alternate forms of the Fifth-grade reading comprehension tests were saved as PDF files and added to the easyCBM website for use as part of the online assessment system.

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Appendix A Item Specifications for MC Comprehension PASSAGE CRITERIA

1. Passage type criteria

Fiction – Text that is read for enjoyment (Realistic fiction; folktales; fables; tall tales; animal stories).

2. Content criteria

Reflect a range of multi-cultural content.

Avoid stereotyping and be free from bias.

Avoid controversial, confusing, or emotionally-charged topics.

- Represent various family structures.
- 3. Passage source criteria

Original work – do not use previously published stories.

4. Passage quality criteria

Passages reflect good writing.

Fictional passages contain elements of good fiction and have a beginning, middle, and end. Passages are intact, stand-alone pieces.

Passages are interesting and appropriate for the grade level.

Topics of passages are timely and not something that would quickly become dated.

Writing must show sensitivity to level of complexity needed in terms of grade level.

5. Criteria related to possible passage modification

Commissioned passages will have changes made to allow for specific item requirements. Explanations, definitions for words, or other clarification will be footnoted, boxed, or otherwise provided for student as needed.

6. Reading level criteria

Reading level must be appropriate for the grade level in terms of difficulty and the beginning and end of the grade level expectations.

Readability formulas should be used as guides only.

7. Diversity criteria

Reading passages must reflect the diversity of the world's peoples.

Some passages may be specific to the diversity of the state.

Passages must be written so that no group of students is advantaged or disadvantaged.

8. Passage length criteria

Average length of 2^{nd} -grade passages will range from 500 – 700 words.

Average length of 3rd-5th-grade passages will range 1,300 – 1,500.

Longer passages typically should be lower in readability level and concept load than shorter passages.

9. Passage suitability for Items

Passage content should allow a sufficient number of items.

Passage content should allow a sufficient range of item difficulty.

Passage content should accommodate measurement of factual/literal, interpretative/inferential, and critical/evaluative comprehension.

Passage content should accommodate assessment objectives (cognitive tasks).

Appendix B

Suggested Guidelines for ordering items for test pull and test form development.

Treat all items with the following understanding:

1) Although the cognitive categories dictate the degree of difficulty, there is a range of objectives within each category which will likely produce total-scale-score difficulty values that overlap among categories.

2) The assessment-objective difficulty designations assigned to the items by the professional item writer are estimates (based on the design of each item in terms of expected student responses).

The following diagram shows the difficulty relationship among assessment-objective designations. Ll would be the least difficult item(s) on a test form, and Hh would be the most difficult item(s) on the test. Lh, Mm, and Hl would be items of similar difficulty based on an overall "reading comprehension scale."

Ll	Lm	Lh		
	Ml	Mm	Mh	
		Hl	Hm	Hh

Below is a table for recommended item ordering based on objective by category difficulties. Where the specific difficulty is not available, a second (or third) choice can be made using the above diagram. For example, if there are not enough Mh items for a particular form, then Hm would be a good substitute. When a second (or third) choice is not available, then whatever items are left over can be inserted using what seems to be the closest match. It would probably be best to fill out as many matches to the table as possible and then start making second choices; however, there may be times when you will want to manipulate as you go.

Item number	Difficulty
1	Ll
2	Ll
3	Ml
4	Mm
5	Lm
6	Mm
7	Hl
8	Lm
9	Mm
10	Hm
11	Lh
12	Mh
13	Hm
14	L1
15	Mm
16	Hm
17	Lh
18	Hh
19	Ml
20	Hm

Appendix C

Item	Cognitive Category	Assessment Objective	Degree of Difficulty	Order for Test
GR5MC1_L1	Factual/Literal	Detail (causal)	I l	1031
GR5MC1_L2	Factual/Literal	Detail		2
GR5MC1_L3	Factual/Literal	Detail (discriminate)	Lm	5
GR5MC1_L4	Factual/Literal	Detail (character)	Lm	8
GR5MC1_L5	Factual/Literal	Character (attitude)	Lh	11
GR5MC1_L6	Factual/Literal	Causal (detail)	Lh	17
GR5MC1_L7	Factual/Literal	Detail (prob resolution)	Lm	14
GR5MC1_M1	Interpretive/Inferential	Causal (detail)	Mm	4
GR5MC1_M2	Interpretive/Inferential	Causal (inferential)	Mm	6
GR5MC1_M3	Interpretive/Inferential	Sequence	MI	3
GR5MC1_M4	Interpretive/Inferential	Main idea (inferential)	Mm	9
GR5MC1_M5	Interpretive/Inferential	Causal (detail)	Mm	15
GR5MC1_M6	Interpretive/Inferential	Sequence (event)	Mh	12
GR5MC1 M7	Interpretive/Inferential	Character (attitude)	Mh	19
GR5MC1 H1	Critical/Evaluative	Prediction (character)	Hm	10
GR5MC1 H2	Critical/Evaluative	Character (attitude)	HI	7
GR5MC1 H3	Critical/Evaluative	Main idea	Hm	13
GR5MC1 H4	Critical/Evaluative	Conflict (character)	Hh	18
GR5MC1 H5	Critical/Evaluative	Causal (detail)	Hm	16
GR5MC1_H6	Critical/Evaluative	Prediction (story ending)	Hm	20
GR5MC2_L1	Factual/Literal	Detail (character)	Ll	1
GR5MC2_L2	Factual/Literal	Detail (character)	Lm	2
GR5MC2_L3	Factual/Literal	Detail (discriminate)	Lh	14
GR5MC2_L4	Factual/Literal	Detail (sequence)	Lm	5
GR5MC2_L5	Factual/Literal	Causal (detail)	Lh	11
GR5MC2_L6	Factual/Literal	Detail (character/respon)	Lm	8
GR5MC2_L7	Factual/Literal	Detail (causal)	Lh	17
GR5MC2_M1	Interpretive/Inferential	Causal (inference)	Ml	3
GR5MC2_M2	Interpretive/Inferential	Main idea	Mm	4
GR5MC2_M3	Interpretive/Inferential	Sequence (detail)	Mm	6
GR5MC2_M4	Interpretive/Inferential	Sequence (detail)	Mm	9
GR5MC2_M5	Interpretive/Inferential	Detail (character)	Mm	15
GR5MC2_M6	Interpretive/Inferential	Character (detail)	Mh	12
GR5MC2_M7	Interpretive/Inferential	Causal (character)	Mm	19
GR5MC2_H1	Critical/Evaluative	Inference (detail)	Hl	7
GR5MC2_H2	Critical/Evaluative	Causal (critical thinking)	Hh	18
GR5MC2_H3	Critical/Evaluative	Character (inference)	Hm	10
GR5MC2_H4	Critical/Evaluative	Character (inference)	Hm	13
GR5MC2_H5	Critical/Evaluative	Character (detail)	Hm	16
GR5MC2_H6	Critical/Evaluative	Story end (conflict resol)	Hm	20

Item Ordering Tables for Fifth Grade, Story 1 and 2

Item Ordering Tables for Fifth Grade, Story 3 and 4					
Item	Cognitive Category	Assessment Objective	Degree of Difficulty	Order for Test	
GR5MC3 L1	Factual/Literal	Detail (causal)	Lm	5	
GR5MC3 L2	Factual/Literal	Detail (causal)	Ll	1	
GR5MC3 L3	Factual/Literal	Detail (causal)	Lm	8	
GR5MC3 L4	Factual/Literal	Causal (detail)	Lm	14	
GR5MC3 L5	Factual/Literal	Causal (detail)	Lh	11	
GR5MC3 L6	Factual/Literal	Problem (detail)	Lm	19	
GR5MC3 L7	Factual/Literal	Detail (sequence)	Ll	2	
GR5MC3 M1	Interpretive/Inferential	Causal (inference)	Mm	4	
GR5MC3 M2	Interpretive/Inferential	Inference (causal)	Mm	6	
GR5MC3 M3	Interpretive/Inferential	Causal (inference)	Mh	12	
GR5MC3 M4	Interpretive/Inferential	Sequence (detail)	Mm	9	
GR5MC3 M5	Interpretive/Inferential	Detail (infer/sequence)	Ml	3	
GR5MC3 M6	Interpretive/Inferential	Conflict (detail)	Mm	15	
GR5MC3 M7	Interpretive/Inferential	Inference (causal)	Mm	17	
GR5MC3 H1	Critical/Evaluative	Character (inference)	Hl	7	
GR5MC3 H2	Critical/Evaluative	Character (inference)	Hm	10	
GR5MC3 H3	Critical/Evaluative	Problem (inference)	Hh	18	
GR5MC3 H4	Critical/Evaluative	Main idea (inference)	Hm	13	
GR5MC3 H5	Critical/Evaluative	Detail (discriminate)	Hm	16	
GR5MC3 H6	Critical/Evaluative	Inference (causal)	Hh	20	
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GR5MC4 L1	Factual/Literal	Detail (attitude)	Lm	1	
GR5MC4 L2	Factual/Literal	Detail (character)	Ll	2	
GR5MC4 L3	Factual/Literal	Character (inference)	Lh	11	
GR5MC4 L4	Factual/Literal	Detail (character)	Lm	5	
GR5MC4 L5	Factual/Literal	Causal (detail)	Lh	14	
GR5MC4 L6	Factual/Literal	Detail (character)	Lm	8	
GR5MC4 L7	Factual/Literal	Causal (detail)	Lh	17	
GR5MC4_M1	Interpretive/Inferential	Causal (inference)	Mm	4	
GR5MC4 M2	Interpretive/Inferential	Sequence (event)	Mm	6	
GR5MC4 M3	Interpretive/Inferential	Causal (inference)	Mm	9	
GR5MC4 M4	Interpretive/Inferential	Causal (detail)	Ml	3	
GR5MC4 M5	Interpretive/Inferential	Causal (character)	Mh	12	
GR5MC4_M6	Interpretive/Inferential	Main idea	Mh	15	
GR5MC4_M7	Interpretive/Inferential	Story end (conflict resol)	Mh	19	
GR5MC4_H1	Critical/Evaluative	Character (evaluate)	Hl	7	
GR5MC4 H2	Critical/Evaluative	Causal (character)	Hm	10	
GR5MC4 H3	Critical/Evaluative	Character (attitude)	Hm	13	
GR5MC2_H4	Critical/Evaluative	Character (inference)	Hm	13	
GR5MC2_H5	Critical/Evaluative	Character (detail)	Hm	16	
GR5MC2_H6	Critical/Evaluative	Story end (conflict resol)	Hm	20	

Item Ordering Tables for Fifth Grade, Story 3 and 4

Itom	Cognitive Category	Assassment Objective	Degree of	Order
Item	Cognitive Category	Assessment Objective	Difficulty	for Test
GR5MC5_L1	Factual/Literal	Detail (character)	Lm	2
GR5MC5_L2	Factual/Literal	Detail (attitude)	Lm	5
GR5MC5_L3	Factual/Literal	Detail (sequence)	Lh	11
GR5MC5_L4	Factual/Literal	Detail (character)	Lm	8
GR5MC5_L5	Factual/Literal	Causal (detail)	Lh	17
GR5MC5_L6	Factual/Literal	Detail (causal)	Ll	1
GR5MC5_L7	Factual/Literal	Detail (inference)	Lm	14
GR5MC5_M1	Interpretive/Inferential	Causal (detail)	Mm	4
GR5MC5_M2	Interpretive/Inferential	Causal (trait)	Ml	3
GR5MC5_M3	Interpretive/Inferential	Causal (inference)	Mm	6
GR5MC5_M4	Interpretive/Inferential	Problem (detail)	Mm	9
GR5MC5_M5	Interpretive/Inferential	Causal (inference)	Mm	15
GR5MC5_M6	Interpretive/Inferential	Sequence	Mh	12
GR5MC5_M7	Interpretive/Inferential	Main idea	Mm	19
GR5MC5_H1	Critical/Evaluative	Character (traits)	Hl	7
GR5MC5_H2	Critical/Evaluative	Causal (inference)	Hh	18
GR5MC5_H3	Critical/Evaluative	Causal (inference)	Hm	10
GR5MC5_H4	Critical/Evaluative	Character (attitude)	Hm	13
GR5MC5_H5	Critical/Evaluative	Character (attitude)	Hm	16
GR5MC5_H6	Critical/Evaluative	Prediction (inference)	Hh	20
GR5MC6_L1	Factual/Literal	Detail	Ll	1
GR5MC6_L2	Factual/Literal	Detail (discriminate)	Lh	11
GR5MC6_L3	Factual/Literal	Detail (resolution)	Lm	5
GR5MC6_L4	Factual/Literal	Causal (detail)	Lm	8
GR5MC6_L5	Factual/Literal	Detail (causal)	Ll	2
GR5MC6_L6	Factual/Literal	Detail (discriminate)	Lh	17
GR5MC6_L7	Factual/Literal	Detail (sequence)	Lm	14
GR5MC6_M1	Interpretive/Inferential	Causal (detail)	Ml	3
GR5MC6_M2	Interpretive/Inferential	Character (trait)	Ml	19
GR5MC6_M3	Interpretive/Inferential	Sequence (detail)	Mh	12
GR5MC6_M4	Interpretive/Inferential	Causal (sequence)	Mm	6
GR5MC6_M5	Interpretive/Inferential	Main idea	Mh	9
GR5MC6_M6	Interpretive/Inferential	Character (attitude)	Mm	4
GR5MC6_M7	Interpretive/Inferential	Causal (inference)	Mh	15
GR5MC6_H1	Critical/Evaluative	Causal (trait/attitude)	Hm	13
GR5MC6_H2	Critical/Evaluative	Character (trait)	Hm	16
GR5MC6_H3	Critical/Evaluative	Character (trait)	Hm	10
GR5MC6_H4	Critical/Evaluative	Character (attitude)	Hl	7
GR5MC6_H5	Critical/Evaluative	Conflict (character)	Hh	18
GR5MC6_H6	Critical/Evaluative	Story ending	Hm	20

Item Ordering Tables for Fifth Grade, Story 5 and 6

Itom	Cognitive Cotogomy	Assagment Objective	Degree of	Order
Item	Cognitive Category	Assessment Objective	Difficulty	for Test
GR5MC7_L1	Factual/Literal	Detail (setting)	Ll	1
GR5MC7_L2	Factual/Literal	Causal (detail)	Lm	2
GR5MC7_L3	Factual/Literal	Detail (sequence)	Lm	5
GR5MC7_L4	Factual/Literal	Detail (causal)	Lm	8
GR5MC7_L5	Factual/Literal	Character (detail)	Lh	11
GR5MC7_L6	Factual/Literal	Sequence (detail)	Lh	17
GR5MC7_L7	Factual/Literal	Sequence (detail)	Lm	14
GR5MC7_M1	Interpretive/Inferential	Sequence (detail)	Ml	3
GR5MC7_M2	Interpretive/Inferential	Causal (inference)	Mh	13
GR5MC7_M3	Interpretive/Inferential	Causal (detail)	Mm	4
GR5MC7_M4	Interpretive/Inferential	Character (attitude)	Mm	6
GR5MC7_M5	Interpretive/Inferential	Sequence (detail)	Mm	9
GR5MC7_M6	Interpretive/Inferential	Causal (sequence)	Mh	12
GR5MC7_M7	Interpretive/Inferential	Causal (inference)	Mm	15
GR5MC7_H1	Critical/Evaluative	Character (traits)	Hl	7
GR5MC7_H2	Critical/Evaluative	Character (attitude)	Hl	19
GR5MC7_H3	Critical/Evaluative	Character (traits)	Hh	18
GR5MC7_H4	Critical/Evaluative	Main idea (critical)	Hh	20
GR5MC7_H5	Critical/Evaluative	Character (attitude)	Hm	10
GR5MC7 H6	Critical/Evaluative	Story ending (character)	Hm	16
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GR5MC8_L1	Factual/Literal	Detail (causal)	Lm	8
GR5MC8_L2	Factual/Literal	Causal (detail)	Ll	1
GR5MC8_L3	Factual/Literal	Detail	Ll	2
GR5MC8_L4	Factual/Literal	Causal (attitude)	Lm	5
GR5MC8_L5	Factual/Literal	Detail (discriminate)	Lh	11
GR5MC8_L6	Factual/Literal	Sequence (detail)	Lh	17
CD5MC0 I7	E	Causal	т 1.	14
GR3MC8_L/	Factual/Literal	(detail/discriminate)	Ln	14
GR5MC8_M1	Interpretive/Inferential	Character (attitude)	Ml	3
GR5MC8_M2	Interpretive/Inferential	Problem (detail)	Mm	4
GR5MC8_M3	Interpretive/Inferential	Causal (character)	Mm	6
GR5MC8 M4	Interpretive/Inferential	Detail (inference)	Mm	9
GR5MC8 M5	Interpretive/Inferential	Sequence	Mh	12
GR5MC8 M6	Interpretive/Inferential	Story ending	Mm	15
GR5MC8 M7	Interpretive/Inferential	Causal (sequence)	Mh	19
GR5MC8 H1	Critical/Evaluative	Character (attitude)	Hl	7
GR5MC8 H2	Critical/Evaluative	Character (attitude)	Hm	10
GR5MC8 H3	Critical/Evaluative	Causal (resolution)	Hh	18
GR5MC8 H4	Critical/Evaluative	Causal (character)	Hm	13
GR5MC8 H5	Critical/Evaluative	Main idea	Hh	20
GR5MC8_H6	Critical/Evaluative	Character (inference)	Hm	16

Item Ordering Tables for Fifth Grade, Story 7 and 8

Item	Cognitive Category	Assessment Objective	Degree of	Order
			Difficulty	for Test
GR5MC9_L1	Factual/Literal	Detail	Ll	8
GR5MC9_L2	Factual/Literal	Detail (discriminate)	Lm	1
GR5MC9_L3	Factual/Literal	Sequence (detail)	Lh	2
GR5MC9_L4	Factual/Literal	Character (detail)	Lm	5
GR5MC9_L5	Factual/Literal	Detail (sequence)	Lm	11
GR5MC9_L6	Factual/Literal	Detail (character)	Lm	17
GR5MC9_L7	Factual/Literal	Causal (detail)	Lh	14
GR5MC9_M1	Interpretive/Inferential	Causal (character)	Ml	3
GR5MC9_M2	Interpretive/Inferential	Character (attitude)	Mm	4
GR5MC9_M3	Interpretive/Inferential	Sequence	Ml	6
GR5MC9_M4	Interpretive/Inferential	Causal (inference)	Mm	9
GR5MC9_M5	Interpretive/Inferential	Problem (resolution)	Mm	12
GR5MC9_M6	Interpretive/Inferential	Story ending	Ml	19
GR5MC9_M7	Interpretive/Inferential	Prediction	Mh	15
GR5MC9_H1	Critical/Evaluative	Character (attitude)	Hl	7
GR5MC9_H2	Critical/Evaluative	Problem/Conflict	Hh	10
GR5MC9_H3	Critical/Evaluative	Character (causal)	Hm	18
GR5MC9_H4	Critical/Evaluative	Main idea	Hm	13
GR5MC9_H5	Critical/Evaluative	Causal	Hm	20
GR5MC9_H6	Critical/Evaluative	Character (traits)	Hl	16
GR5MC10_L1	Factual/Literal	Character (attitude)	Lm	5
GR5MC10_L2	Factual/Literal	Causal (detail)	Lm	8
GR5MC10_L3	Factual/Literal	Character (detail)	Ll	1
GR5MC10_L4	Factual/Literal	Character (attitude)	Lm	14
GR5MC10_L5	Factual/Literal	Detail	Ll	2
GR5MC10_L6	Factual/Literal	Causal (detail)	Lm	17
GR5MC10_L7	Factual/Literal	Causal (detail)	Lh	11
GR5MC10_M1	Interpretive/Inferential	Causal (detail)	Ml	3
GR5MC10_M2	Interpretive/Inferential	Sequence (event)	Mm	4
GR5MC10_M3	Interpretive/Inferential	Causal (detail)	Mm	6
GR5MC10_M4	Interpretive/Inferential	Causal (inference)	Mh	12
GR5MC10_M5	Interpretive/Inferential	Causal (inference)	Mm	9
GR5MC10_M6	Interpretive/Inferential	Prediction (inference)	Mm	15
GR5MC10_M7	Interpretive/Inferential	Main idea (theme)	Mh	19
GR5MC10_H1	Critical/Evaluative	Character (attitude)	Hl	7
GR5MC10_H2	Critical/Evaluative	Problem (causal)	Hm	10
GR5MC10_H3	Critical/Evaluative	Character (attitude/detail)	Hm	13
GR5MC10_H4	Critical/Evaluative	Causal (character)	Hm	16
GR5MC10_H5	Critical/Evaluative	Causal (character)	Hm	20
GR5MC10_H6	Critical/Evaluative	Character (attitude)	Hh	18

Item Ordering Tables for Fifth Grade, Story 9 and 10

			Dograa of	Order
Item	Cognitive Category	Assessment Objective	Degree of	for
			Difficulty	Test
GR5MC11_L1	Factual/Literal	Detail	Ll	1
GR5MC11_L2	Factual/Literal	Character (attitude)	Lh	11
GR5MC11_L3	Factual/Literal	Detail	Lm	5
GR5MC11_L4	Factual/Literal	Detail (causal)	Lm	8
GR5MC11_L5	Factual/Literal	Detail (discriminate)	Ll	2
GR5MC11_L6	Factual/Literal	Attitude (detail)	Lh	17
GR5MC11_L7	Factual/Literal	Resolution (detail)	Lm	14
GR5MC11_M1	Interpretive/Inferential	Causal (inferential)	Ml	3
GR5MC11_M2	Interpretive/Inferential	Causal (inferential)	Mm	4
GR5MC11_M3	Interpretive/Inferential	Causal (attitude)	Mm	6
GR5MC11_M4	Interpretive/Inferential	Causal (detail/inference)	Mm	9
GR5MC11_M5	Interpretive/Inferential	Inference (attitude)	Mm	15
GR5MC11_M6	Interpretive/Inferential	Causal (inference)	Ml	19
GR5MC11 M7	Interpretive/Inferential	Sequence (events)	Mh	12
GR5MC11_H1	Critical/Evaluative	Character (attitude)	Hl	7
GR5MC11 H2	Critical/Evaluative	Character (traits)	Hm	10
GR5MC11 H3	Critical/Evaluative	Character (attitude)	Hm	13
GR5MC11_H4	Critical/Evaluative	Main idea	Hm	16
CD5MC11 U5	Critical/Exclustive	Character	Um	20
GROMUTI_HO	Critical/Evaluative	(attitude/sequence)	HIII	20
GR5MC11_H6	Critical/Evaluative	Problem (conflict)	Hh	18
GR5MC12_L1	Factual/Literal	Detail	Ll	1
GR5MC12_L2	Factual/Literal	Detail (sequence)	Lm	5
GR5MC12_L3	Factual/Literal	Character attitude (detail)	Lm	8
GR5MC12_L4	Factual/Literal	Detail (discriminate)	Lm	14
GR5MC12_L5	Factual/Literal	Detail (inference)	Lh	11
GR5MC12_L6	Factual/Literal	Character (attitude)	Lh	17
GR5MC12_L7	Factual/Literal	Detail (sequence)	Ll	2
GR5MC12_M1	Interpretive/Inferential	Causal (detail)	Ml	3
GR5MC12_M2	Interpretive/Inferential	Character (sequence)	Mm	4
GR5MC12_M3	Interpretive/Inferential	Causal (character attitude)	Mm	6
GR5MC12_M4	Interpretive/Inferential	Causal (inference)	Mm	9
GR5MC12_M5	Interpretive/Inferential	Sequence	Mh	12
GR5MC12_M6	Interpretive/Inferential	Causal (inference)	Mm	15
GR5MC12_M7	Interpretive/Inferential	Story ending (character)	Ml	19
GR5MC12_H1	Critical/Evaluative	Character (attitude)	Hl	7
GR5MC12_H2	Critical/Evaluative	Character (inference)	Hm	10
GR5MC12_H3	Critical/Evaluative	Causal (inference)	Hh	18
GR5MC12_H4	Critical/Evaluative	Main idea	Hm	13
GR5MC12_H5	Critical/Evaluative	Problem resolution	Hm	16
GR5MC12_H6	Critical/Evaluative	Inference (char. attitude)	Hm	20

Item Ordering Tables for Fifth Grade, Story 11 and 12

			Degree	Order
Item	Cognitive Category	Assessment Objective	of	for
			Difficulty	Test
GR5MC13_L1	Factual/Literal	Detail (causal)	Ll	1
GR5MC13_L2	Factual/Literal	Causal (detail)	Lh	14
GR5MC13_L3	Factual/Literal	Detail (causal)	Lh	11
GR5MC13_L4	Factual/Literal	Detail (character)	Lm	8
GR5MC13_L5	Factual/Literal	Detail (discriminate)	Lm	5
GR5MC13_L6	Factual/Literal	Causal (detail/discriminate)	Lh	17
GR5MC13_L7	Factual/Literal	Detail	Ll	2
GR5MC13_M1	Interpretive/Inferential	Main Idea	Mh	12
GR5MC13_M2	Interpretive/Inferential	Character (attitude)	Ml	3
GR5MC13_M3	Interpretive/Inferential	Story ending	Mm	4
GR5MC13_M4	Interpretive/Inferential	Causal (inference)	Mh	19
GR5MC13_M5	Interpretive/Inferential	Sequence (causal)	Mm	6
GR5MC13_M6	Interpretive/Inferential	Sequence	Mm	9
GR5MC13_M7	Interpretive/Inferential	Prediction (inference)	Mm	15
GR5MC13_H1	Critical/Evaluative	Character (traits)	Hl	7
GR5MC13_H2	Critical/Evaluative	Character (attitude)	Hm	10
GR5MC13_H3	Critical/Evaluative	Character (attitude)	Hm	13
GR5MC13_H4	Critical/Evaluative	Causal (problem)	Hh	18
GR5MC13_H5	Critical/Evaluative	Prediction	Hm	16
GR5MC13_H6	Critical/Evaluative	Problem/Conflict	Hm	20
GR5MC14_L1	Factual/Literal	Detail (causal)	Lm	14
GR5MC14_L2	Factual/Literal	Detail	Ll	1
GR5MC14_L3	Factual/Literal	Detail (discriminate)	Lm	5
GR5MC14_L4	Factual/Literal	Detail	Ll	2
GR5MC14_L5	Factual/Literal	Detail (sequence)	Lm	8
GR5MC14_L6	Factual/Literal	Sequence (detail)	Lh	11
GR5MC14_L7	Factual/Literal	Problem resolution (detail)	Lh	17
GR5MC14_M1	Interpretive/Inferential	Causal (inference)	Ml	3
GR5MC14_M2	Interpretive/Inferential	Sequence	Mh	12
GR5MC14_M3	Interpretive/Inferential	Inference (causal)	Mm	4
GR5MC14_M4	Interpretive/Inferential	Inference (causal)	Mm	6
GR5MC14_M5	Interpretive/Inferential	Sequence	Mh	20
GR5MC14 M6	Interpretive/Inferential	Character (detail)	Mm	9
GR5MC14_M7	Interpretive/Inferential	Story ending	Mm	15
GR5MC14 H1	Critical/Evaluative	Character (attitude)	Hl	7
GR5MC14 H2	Critical/Evaluative	Character (traits)	Hm	10
GR5MC14 H3	Critical/Evaluative	Main idea	Hl	19
GR5MC14 H4	Critical/Evaluative	Problem (main/causal)	Hh	18
GR5MC14 H5	Critical/Evaluative	Character (traits)	Hm	13
GR5MC14_H6	Critical/Evaluative	Character (attitude/conflict)	Hm	16

Item Ordering Tables for Fifth Grade, Story 13 and 14

Item	Cognitive Category	Assessment Objective	Degree of	Order for Test
CD5MC15 L 1	F 1/ _ _1/ _ _1/1/1	$\mathbf{D} = \{1, \dots, n\}$	Difficulty	5
GR5MC15_L1	Factual/Literal	Detail (causal)		5
GR5MC15_L2	Factual/Literal	Detail (causal)		1
GR5MC15_L3	Factual/Literal	Detail (causal)	Lm	8
GR5MC15_L4	Factual/Literal	Causal (detail)	Lm	14
GR5MC15_L5	Factual/Literal	Causal (detail)	Lh	11
GR5MC15_L6	Factual/Literal	Problem (detail)	Lm	19
GR5MC15_L7	Factual/Literal	Detail (sequence)	LI	2
GR5MC15_M1	Interpretive/Inferential	Causal (inference)	Mm	4
GR5MC15_M2	Interpretive/Inferential	Inference (causal)	Mm	6
GR5MC15_M3	Interpretive/Inferential	Causal (inference)	Mh	12
GR5MC15_M4	Interpretive/Inferential	Sequence (detail)	Mm	9
GR5MC15_M5	Interpretive/Inferential	Detail (infer/sequence)	Ml	3
GR5MC15_M6	Interpretive/Inferential	Conflict (detail)	Mm	15
GR5MC15_M7	Interpretive/Inferential	Inference (causal)	Mm	17
GR5MC15_H1	Critical/Evaluative	Character (inference)	Hl	7
GR5MC15_H2	Critical/Evaluative	Character (inference)	Hm	10
GR5MC15_H3	Critical/Evaluative	Problem (inference)	Hh	18
GR5MC15_H4	Critical/Evaluative	Main idea (inference)	Hm	13
GR5MC15_H5	Critical/Evaluative	Detail (discriminate)	Hm	16
GR5MC15_H6	Critical/Evaluative	Inference (causal)	Hh	20
GR5MC16_L1	Factual/Literal	Detail (attitude)	Lm	1
GR5MC16_L2	Factual/Literal	Detail (character)	Ll	2
GR5MC16_L3	Factual/Literal	Character (inference)	Lh	11
GR5MC16_L4	Factual/Literal	Detail (character)	Lm	5
GR5MC16_L5	Factual/Literal	Causal (detail)	Lh	14
GR5MC16_L6	Factual/Literal	Detail (character)	Lm	8
GR5MC16_L7	Factual/Literal	Causal (detail)	Lh	17
GR5MC16_M1	Interpretive/Inferential	Causal (inference)	Mm	4
GR5MC16_M2	Interpretive/Inferential	Sequence (event)	Mm	6
GR5MC16 M3	Interpretive/Inferential	Causal (inference)	Mm	9
GR5MC16 M4	Interpretive/Inferential	Causal (detail)	Ml	3
GR5MC16 M5	Interpretive/Inferential	Causal (character)	Mh	12
GR5MC16 M6	Interpretive/Inferential	Main idea	Mh	15
GR5MC16 M7	Interpretive/Inferential	Story end (conflict resol)	Mh	19
GR5MC16 H1	Critical/Evaluative	Character (evaluate)	HI	7
GR5MC16 H2	Critical/Evaluative	Causal (character)	Hm	10
GR5MC16 H3	Critical/Evaluative	Character (attitude)	Hm	13
GR5MC16 H4	Critical/Evaluative	Character (inference)	Hm	13
GR5MC16 H5	Critical/Evaluative	Character (detail)	Hm	16
GR5MC16_H6	Critical/Evaluative	Story end (conflict resol)	Hm	20

Item Ordering Tables for Fifth Grade, Story 15 and 16

Item	Cognitive Category	Assessment Objective	Degree of	Order for Test
	F (1/ T) (1)		Difficulty	
GR5MC17_L1	Factual/Literal	Detail (causal)	Lm	5
GR5MC17_L2	Factual/Literal	Detail (causal)		1
GR5MC17_L3	Factual/Literal	Detail (causal)	Lm	8
GR5MC1/_L4	Factual/Literal	Causal (detail)	Lm	14
GR5MC17_L5	Factual/Literal	Causal (detail)	Lh	11
GR5MC17_L6	Factual/Literal	Problem (detail)	Lm	19
GR5MC17_L7	Factual/Literal	Detail (sequence)	LI	2
GR5MC17_M1	Interpretive/Inferential	Causal (inference)	Mm	4
GR5MC17_M2	Interpretive/Inferential	Inference (causal)	Mm	6
GR5MC17_M3	Interpretive/Inferential	Causal (inference)	Mh	12
GR5MC17_M4	Interpretive/Inferential	Sequence (detail)	Mm	9
GR5MC17_M5	Interpretive/Inferential	Detail (infer/sequence)	Ml	3
GR5MC17_M6	Interpretive/Inferential	Conflict (detail)	Mm	15
GR5MC17_M7	Interpretive/Inferential	Inference (causal)	Mm	17
GR5MC17_H1	Critical/Evaluative	Character (inference)	Hl	7
GR5MC17_H2	Critical/Evaluative	Character (inference)	Hm	10
GR5MC17_H3	Critical/Evaluative	Problem (inference)	Hh	18
GR5MC17_H4	Critical/Evaluative	Main idea (inference)	Hm	13
GR5MC17 H5	Critical/Evaluative	Detail (discriminate)	Hm	16
GR5MC17_H6	Critical/Evaluative	Inference (causal)	Hh	20
GR5MC18_L1	Factual/Literal	Detail (attitude)	Lm	1
GR5MC18_L2	Factual/Literal	Detail (character)	Ll	2
GR5MC18_L3	Factual/Literal	Character (inference)	Lh	11
GR5MC18_L4	Factual/Literal	Detail (character)	Lm	5
GR5MC18_L5	Factual/Literal	Causal (detail)	Lh	14
GR5MC18_L6	Factual/Literal	Detail (character)	Lm	8
GR5MC18_L7	Factual/Literal	Causal (detail)	Lh	17
GR5MC18_M1	Interpretive/Inferential	Causal (inference)	Mm	4
GR5MC18_M2	Interpretive/Inferential	Sequence (event)	Mm	6
GR5MC18_M3	Interpretive/Inferential	Causal (inference)	Mm	9
GR5MC18_M4	Interpretive/Inferential	Causal (detail)	Ml	3
GR5MC18_M5	Interpretive/Inferential	Causal (character)	Mh	12
GR5MC18 M6	Interpretive/Inferential	Main idea	Mh	15
GR5MC18 M7	Interpretive/Inferential	Story end (conflict resol)	Mh	19
GR5MC18 H1	Critical/Evaluative	Character (evaluate)	HI	7
GR5MC18 H2	Critical/Evaluative	Causal (character)	Hm	10
GR5MC18 H3	Critical/Evaluative	Character (attitude)	Hm	13
GR5MC18 H4	Critical/Evaluative	Character (inference)	Hm	13
GR5MC18 H5	Critical/Evaluative	Character (detail)	Hm	16
GR5MC18_H6	Critical/Evaluative	Story end (conflict resol)	Hm	20

Item Ordering Tables for Fifth Grade, Story 17 and 18

Itom	Cognitive Cotogomy	Assagement Objective	Degree	Order
Item	Cognitive Category	Assessment Objective	01 Difficulty	for Test
GR5MC19 L1	Factual/Literal	Detail (causal)	Lm	5
GR5MC19_L2	Factual/Literal	Detail (causal)	Ll	1
GR5MC19_L3	Factual/Literal	Detail (causal)	Lm	8
GR5MC19_L4	Factual/Literal	Causal (detail)	Lm	14
GR5MC19_L5	Factual/Literal	Causal (detail)	Lh	11
GR5MC19_L6	Factual/Literal	Problem (detail)	Lm	19
GR5MC19 L7	Factual/Literal	Detail (sequence)	Ll	2
GR5MC19 M1	Interpretive/Inferential	Causal (inference)	Mm	4
GR5MC19 M2	Interpretive/Inferential	Inference (causal)	Mm	6
GR5MC19_M3	Interpretive/Inferential	Causal (inference)	Mh	12
GR5MC19_M4	Interpretive/Inferential	Sequence (detail)	Mm	9
GR5MC19 M5	Interpretive/Inferential	Detail (infer/sequence)	Ml	3
GR5MC19 M6	Interpretive/Inferential	Conflict (detail)	Mm	15
GR5MC19 M7	Interpretive/Inferential	Inference (causal)	Mm	17
GR5MC19 H1	Critical/Evaluative	Character (inference)	HI	7
GR5MC19 H2	Critical/Evaluative	Character (inference)	Hm	10
GR5MC19 H3	Critical/Evaluative	Problem (inference)	Hh	18
GR5MC19 H4	Critical/Evaluative	Main idea (inference)	Hm	13
GR5MC19 H5	Critical/Evaluative	Detail (discriminate)	Hm	16
GR5MC19 H6	Critical/Evaluative	Inference (causal)	Hh	20
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GR5MC20_L1	Factual/Literal	Detail (attitude)	Lm	1
GR5MC20_L2	Factual/Literal	Detail (character)	Ll	2
GR5MC20_L3	Factual/Literal	Character (inference)	Lh	11
GR5MC20_L4	Factual/Literal	Detail (character)	Lm	5
GR5MC20_L5	Factual/Literal	Causal (detail)	Lh	14
GR5MC20_L6	Factual/Literal	Detail (character)	Lm	8
GR5MC20_L7	Factual/Literal	Causal (detail)	Lh	17
GR5MC20_M1	Interpretive/Inferential	Causal (inference)	Mm	4
GR5MC20_M2	Interpretive/Inferential	Sequence (event)	Mm	6
GR5MC20_M3	Interpretive/Inferential	Causal (inference)	Mm	9
GR5MC20_M4	Interpretive/Inferential	Causal (detail)	Ml	3
GR5MC20_M5	Interpretive/Inferential	Causal (character)	Mh	12
GR5MC20_M6	Interpretive/Inferential	Main idea	Mh	15
GR5MC20_M7	Interpretive/Inferential	Story end (conflict resol)	Mh	19
GR5MC20_H1	Critical/Evaluative	Character (evaluate)	Hl	7
GR5MC20_H2	Critical/Evaluative	Causal (character)	Hm	10
GR5MC20_H3	Critical/Evaluative	Character (attitude)	Hm	13
GR5MC20_H4	Critical/Evaluative	Character (inference)	Hm	13
GR5MC20_H5	Critical/Evaluative	Character (detail)	Hm	16
GR5MC20_H6	Critical/Evaluative	Story end (conflict resol)	Hm	20

Item Ordering Tables for Fifth Grade, Story 19 and 20