

**Technical Report # 41**

**Examining the Technical Adequacy of Reading Comprehension  
Measures in a Progress Monitoring Assessment System**

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behavioral research & teaching

Published by

Behavioral Research and Teaching  
University of Oregon • 175 Education  
5262 University of Oregon • Eugene, OR 97403-5262  
Phone: 541-346-3535 • Fax: 541-346-5689  
<http://brt.uoregon.edu>

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## Abstract

This technical report describes the development of progress monitoring measures in the area of Reading Comprehension. Twenty alternate forms were created for grades 3 and 4. This measure was designed to target the comprehension component of a developmental model of reading. Passages were written by teachers and graduate students, and corresponding questions were written by an expert in assessment design. The technical adequacy of these measures was assessed through both content review and statistical analysis. Each form was reviewed by a Title 1 Reading Specialist, the lead author, and a panel of special education students. Statistical analysis consisted of a Rasch analysis, which provided information on item difficulty, and a distractor analysis. Items that were not functioning well according to these analyses were revised.

## *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. 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, Ketterlin-Geller, & Tindal, 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 4. 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.

Table 1  
*Distribution of the Measures Across the Grades*

| Grade        | Measure      |               |                    |                         |                 |                 |
|--------------|--------------|---------------|--------------------|-------------------------|-----------------|-----------------|
|              | Letter Names | Letter Sounds | Phoneme Segmenting | Word & Sentence Reading | Passage Reading | MC Reading Comp |
| Kindergarten | X*           | X             | X                  | X                       |                 |                 |
| Grade 1      | X            | X             | X                  | X                       | X               |                 |
| Grade 2      |              |               | X                  | X                       | X               |                 |
| Grade 3      |              |               |                    | X                       | X               | X               |
| Grade 4      |              |               |                    |                         | X               | X               |

\*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, ease 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 1500 words), characters, settings, and plots. Stories, which were composed between December 2005 and March 2006, 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, 48 stories were written for use in this project: 8 did not pass the criteria required for use in the assessment system, leaving 20 to be piloted at each grade level.

*Writing Multiple Choice Items to Fit Each Story*

The professional item writer we hired created 20 multiple choice questions, each with 3 possible answer options, for each form of the MC Comprehension tests. In all, he wrote 400 multiple choice questions at each grade level 3-4. All third and fourth-grade questions were written in March and April of 2006. For each of the third- and fourth-grade MC Comprehension tests, we wrote 7 questions targeting literal comprehension, 7 questions targeting inferential comprehension, and 6 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 grades 3 and 4). 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 third-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. This same information for the fourth-grade items is displayed in Appendix D.

*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 5 groups, with 5 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 3 for an example of this design at third grade). The overlapping forms serve as the ‘common items’ that allow one to analyze the comparability of test forms. Having students take 5 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.

Table 3  
*Organization of Test Form Groupings for Piloting Different MC Comprehension Forms*

| Group <sup>1</sup> | Test Form |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |
|--------------------|-----------|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|
|                    | 1         | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| 1                  | X         | X | X | X | X |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |
| 2                  |           |   |   |   | X | X | X | X | X |    |    |    |    |    |    |    |    |    |    |    |
| 3                  |           |   |   |   |   |   |   |   | X | X  | X  | X  | X  |    |    |    |    |    |    |    |
| 4                  |           |   |   |   |   |   |   |   |   |    |    |    | X  | X  | X  | X  | X  |    |    |    |
| 5                  | X         |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    | X  | X  | X  | X  |

<sup>1</sup> Each “group” represents approximately 100 students

A convenience sample of teachers from two large school districts in the Pacific Northwest were recruited to participate in the piloting effort. All piloting of the 3<sup>rd</sup>- and 4<sup>th</sup>-grade MC Comprehension tests took place within the same 3-week window the last two weeks in May

and the first week in June, 2006. 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. They were provided with standardized printed instructions for administering the assessments (see Appendix E) along with sufficient paper copies of each of the tests for all of their students to have their own copy. Students recorded their responses on scan sheets that were later machine-scored to collect 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 2006.

#### *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 5 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 ( $n = 28$ ), spacing between the header and the first item ( $n = 31$ ), and font used

( $n = 2$ ). Issues noted in this review process were addressed prior to piloting the tests. In all cases, stories were printed in 12 point Comic Sans MC font. All question stems were written in bold face type. All answer options were written in normal type face. A space was inserted in between the header on each page and the first item set as well as in between each item set, consisting of a question stem and three possible answer choices. See Appendix F for an example of a formatted third-grade comprehension test.

### *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 4 - 43 present the Item Measure, Standard Error of Measure, Mean Square Outfit, and complete Distractor Analyses of the 20 third-grade MC Comprehension measures. All items in Gr3MC1, Gr3MC2, Gr3MC3, Gr3MC5, Gr3MC7, Gr3MC8, and Gr3MC13 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. Four items in Gr3MC4 required further analysis. Items #4, #5, and #13 were over-fit, with Mean Square Outfits slightly less than 0.50, and Item # 9 was slightly under-fit, with a Mean Square Outfit of 1.56. Analysis of the distractors, however, indicated that all four items were functioning appropriately, so they were retained without revisions. Three items in Gr3MC6 required further analysis. Items #1 and #17 were slightly over-fit, and Item #14, with a Mean Square Outfit of 1.73, was under-fit. Again, analysis of the distractors indicated that all three items were functioning appropriately, and they were retained without revisions.

Two items in Gr3MC8 required further analysis. Both Items #3 and #18 were slightly under-fit, but distractor analysis indicated that they were functioning appropriately, so they were retained without changes. Item #12 in Gr3MC9 was slightly under-fit (Mean Square Outfit of 1.53), but distractor analysis indicated no need to revise this item so it was retained as is. In Gr3MC10, Item #12 was also slightly under-fit, and this time, distractor analysis indicated a need to revise the item because the Average Measure of students who selected Distractor B was



higher than the Average Measure of students who selected the correct answer, Option A.

Distractor B was thus revised to make it slightly less appealing to students. In Gr3MC11, Item #9 was slightly under-fit, but distractor analysis suggested no need to revise. One item (#6) in Gr3MC12 was very poor-fitting, with a Mean Square Outfit of 2.56. Analysis of distractors indicated that Distractor C was selected by students with a higher average Measure than the correct answer, Distractor B. Thus, we revised the two distractors on this item to increase the likelihood that students would select the correct answer, Distractor B.

In Gr3MC14, Item #4 was slightly under-fit, with a Mean Square Outfit of 1.56. Distractor analysis indicated a need to revise the item to make the correct answer (Option C) slightly more appealing than Distractor B. This change was made to the item. In Gr3MC15, Item #1 and #4 were both slightly under-fit, but distractor analysis suggested no need to revise the items, so they were left in their original form. In Gr3MC16, Item #5 was slightly over-fit (with a Mean Square Outfit of 0.49), while Item #15 was significantly under-fit (with a Mean Square Outfit of 2.28). Item #5 was not changed, but Item #15 was revised to make the correct answer (Option A) more appealing than Distractor C. In Gr3MC17, two items (#13 and #17) were slightly under-fit. In revising Item #13, the correct response (Option B) was made slightly more appealing than Distractor C. Distractor analysis indicated no revisions to Item #17 were needed.

In Gr3MC18, two items (#18 and #20) were slightly over-fit, but distractor analysis indicated no revisions were needed, so none were made. In Gr3MC19, Item #7 was over-fit, and both Item #15 and #16 were under-fit. Distractor analysis suggested no changes were needed on either Item #7 or #15, but the correct answer (Option C) for Item #16 was revised to make it

slightly more appealing than Distractor B. In Gr3MC20, Item #3 was under-fit, but distractor analysis did not indicate the need for revisions.

Tables 44 – 83 present item-level information for the 20 fourth-grade MC Comprehension measures. All items in Gr4MC1, Gr4MC3, Gr4MC8, Gr4MC14, Gr4MC15, and Gr4MC18, 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.

In Gr4MC2, Item #17 was slightly under-fit, but distractor analysis indicated no need to revise, so the item was left intact. In Gr4MC4, Items #1 and #3 were over-fit and Item #6 was under-fit, but distractor analysis indicated no revisions were needed, so all three items were left in their original form. In Gr4MC5, three items (#12, #15, and #18) were slightly under-fit, but distractor analysis suggested all were functioning appropriately and did not need revision. In Gr4MC6, Item #8 was slightly over-fit, but distractor analysis indicated no need for revision. In Gr4MC7, Items #9 and #16 were slightly under-fit, but distractor analysis did not indicate the need for revision. In Gr4MC8, Item #8 was slightly under-fit and Item #15 was slightly over-fit, but distractor analysis suggested no need for revision.

In Gr4MC10, Item #5 was over-fit and Item #12 was slightly under-fit, but distractor analysis indicated no need to revise either item. In Gr4MC11, Item #3 was slightly over-fit and Item #17 was slightly under-fit, but distractor analysis indicated no revisions were needed. In Gr4MC12, Item #17 was slightly under-fit, with a Mean Square Outfit of 1.52, but distractor analysis did not indicate a need to revise. In Gr4MC13, Item #5 was slightly over-fit and Item #12 was slightly under-fit, but again, distractor analysis suggested no revisions were necessary. In Gr4MC16, Items #3 and #14 were over-fit and Item #15 was under-fit, but distractor analysis indicated no need for revisions.

In Gr4MC17, Items #2, #7, #14, and #16 were all slightly over-fit, and Item # 17 was under-fit, but distractor analysis suggested no need for revisions. In Gr4MC19, Item #10 was over-fit, but distractor analysis indicated no revisions were needed. In Gr4MC20, Items #2 and #7 were slightly over-fit, while Item #17 was slightly under-fit, but distractor analysis suggested no need for revisions.

Table 4

*Item Statistics, Entry Order, Gr3MCI*

| Item Number | Raw Score | Count | Measure | Model Standard Error | Mean Square Outfit |
|-------------|-----------|-------|---------|----------------------|--------------------|
| 1           | 78        | 88    | -1.29   | .35                  | .89                |
| 2           | 54        | 87    | 0.48    | .24                  | .96                |
| 3           | 75        | 88    | -0.96   | .31                  | .80                |
| 4           | 45        | 87    | 0.96    | .23                  | 1.17               |
| 5           | 73        | 88    | -0.77   | .30                  | 1.10               |
| 6           | 62        | 88    | 0.03    | .25                  | .94                |
| 7           | 67        | 89    | -0.24   | .26                  | .91                |
| 8           | 75        | 88    | -0.95   | .31                  | .79                |
| 9           | 79        | 89    | -1.30   | .35                  | .98                |
| 10          | 27        | 89    | 1.98    | .25                  | 1.17               |
| 11          | 69        | 89    | -0.39   | .27                  | .71                |
| 12          | 54        | 89    | 0.53    | .23                  | 1.10               |
| 13          | 69        | 88    | -0.39   | .27                  | .78                |
| 14          | 53        | 89    | 0.54    | .23                  | 1.22               |
| 15          | 75        | 88    | -0.87   | .31                  | .55                |
| 16          | 59        | 87    | 0.22    | .24                  | .86                |
| 17          | 59        | 89    | 0.17    | .25                  | 1.14               |
| 18          | 33        | 89    | 1.64    | .23                  | 1.16               |
| 19          | 45        | 89    | 1.01    | .23                  | 1.05               |
| 20          | 69        | 89    | -0.39   | .27                  | .82                |

Table 5  
*Distractor Analysis, Gr3MCI*

| Entry # | Data Code | Score Value | Count | %  | Average Measure | S.E. Mean |
|---------|-----------|-------------|-------|----|-----------------|-----------|
| 1       | C         | 0           | 6     | 7  | 0.08            | .30       |
|         | B         | 0           | 4     | 5  | 0.90            | .19       |
|         | A         | 1           | 78    | 89 | 1.16            | .11       |
|         | Missing   | **          | 1     | 1  | 2.04            |           |
| 2       | A         | 0           | 22    | 25 | 0.56            | .16       |
|         | C         | 0           | 11    | 13 | 0.73            | .29       |
|         | B         | 1           | 54    | 62 | 1.39            | .14       |
|         | Missing   | **          | 2     | 2  | 0.54            | .21       |
| 3       | C         | 0           | 6     | 7  | 0.06            | .38       |
|         | B         | 0           | 7     | 8  | 0.29            | .32       |
|         | A         | 1           | 75    | 85 | 1.24            | .11       |
|         | Missing   | **          | 1     | 1  | 1.60            |           |
| 4       | A         | 0           | 17    | 20 | 0.62            | .20       |
|         | C         | 0           | 25    | 29 | 1.03            | .15       |
|         | B         | 1           | 45    | 52 | 1.31            | .17       |
|         | Missing   | **          | 2     | 2  | 0.65            | .09       |
| 5       | B         | 0           | 5     | 6  | 0.55            | .21       |
|         | A         | 0           | 10    | 11 | 0.63            | .32       |
|         | C         | 1           | 73    | 83 | 1.19            | .12       |
|         | Missing   | **          | 1     | 1  | 1.16            |           |
| 6       | A         | 0           | 10    | 11 | 0.34            | .23       |
|         | C         | 0           | 16    | 18 | 0.61            | .22       |
|         | B         | 1           | 62    | 70 | 1.33            | .13       |
|         | Missing   | **          | 1     | 1  | 1.21            |           |
| 7       | A         | 0           | 8     | 9  | 0.03            | .24       |
|         | B         | 0           | 14    | 16 | 0.58            | .25       |
|         | C         | 1           | 67    | 75 | 1.32            | .12       |
|         | Missing   | **          | 0     |    |                 |           |
| 8       | C         | 0           | 7     | 8  | 0.29            | .28       |
|         | B         | 0           | 6     | 7  | 0.32            | .29       |
|         | A         | 1           | 75    | 85 | 1.23            | .12       |
|         | Missing   | **          | 1     | 1  | 0.75            |           |
| 9       | A         | 0           | 9     | 10 | 0.52            | .25       |
|         | B         | 0           | 1     | 1  | 0.98            |           |
|         | C         | 1           | 79    | 89 | 1.15            | .12       |
|         | Missing   | **          | 0     |    |                 |           |
| 10      | A         | 0           | 46    | 52 | 0.94            | .15       |
|         | C         | 0           | 16    | 18 | 1.17            | .30       |
|         | B         | 1           | 27    | 30 | 1.29            | .15       |
|         | Missing   | **          | 0     |    |                 |           |

Table 5  
*Distractor Analysis, Gr3MC1, Continued*

| Entry # | Data Code | Score Value | Count | %  | Average Measure | S.E. Mean |
|---------|-----------|-------------|-------|----|-----------------|-----------|
| 11      | B         | 0           | 5     | 6  | 0.08            | .28       |
|         | C         | 0           | 15    | 17 | 0.30            | .17       |
|         | A         | 1           | 69    | 78 | 1.33            | .12       |
|         | Missing   | **          |       |    |                 |           |
| 12      | B         | 0           | 4     | 4  | 0.57            | .48       |
|         | C         | 0           | 31    | 35 | 0.84            | .11       |
|         | A         | 1           | 54    | 61 | 1.27            | .16       |
|         | Missing   | **          |       |    |                 |           |
| 13      | C         | 0           | 10    | 11 | 0.29            | .27       |
|         | A         | 0           | 10    | 11 | 0.33            | .18       |
|         | B         | 1           | 69    | 78 | 1.31            | .12       |
|         | Missing   | **          |       |    |                 |           |
| 14      | B         | 0           | 15    | 17 | 0.61            | .17       |
|         | C         | 0           | 20    | 23 | 1.07            | .20       |
|         | A         | 1           | 53    | 60 | 1.20            | .15       |
|         | Missing   | **          | 1     | 1  | 2.66            |           |
| 15      | A         | 0           | 8     | 9  | -0.20           | .20       |
|         | B         | 0           | 6     | 7  | 0.13            | .26       |
|         | C         | 1           | 75    | 84 | 1.30            | .11       |
|         | Missing   | **          |       |    |                 |           |
| 16      | A         | 0           | 25    | 28 | 0.44            | .16       |
|         | C         | 0           | 4     | 5  | 0.45            | .44       |
|         | B         | 1           | 59    | 67 | 1.41            | .12       |
|         | Missing   | **          | 1     | 1  | 0.75            |           |
| 17      | B         | 0           | 8     | 9  | 0.72            | .27       |
|         | A         | 0           | 20    | 23 | 0.85            | .15       |
|         | C         | 1           | 59    | 68 | 1.22            | .15       |
|         | Missing   | **          | 2     | 2  | 0.95            | .21       |
| 18      | C         | 0           | 22    | 25 | 0.80            | .16       |
|         | A         | 0           | 34    | 38 | 0.92            | .13       |
|         | B         | 1           | 33    | 37 | 1.45            | .22       |
|         | Missing   | **          |       |    |                 |           |
| 19      | C         | 0           | 18    | 20 | 0.69            | .16       |
|         | B         | 0           | 26    | 29 | 0.81            | .17       |
|         | A         | 1           | 45    | 51 | 1.41            | .16       |
|         | Missing   | **          |       |    |                 |           |
| 20      | A         | 0           | 13    | 15 | 0.30            | .20       |
|         | B         | 0           | 7     | 8  | 0.48            | .33       |
|         | C         | 1           | 69    | 78 | 1.30            | .12       |
|         | Missing   | **          |       |    |                 |           |

Table 6

*Item Statistics, Entry Order, Gr3MC2*

| Item Number | Raw Score | Count | Measure | Model Standard Error | Mean Square Outfit |
|-------------|-----------|-------|---------|----------------------|--------------------|
| 1           | 63        | 87    | -0.09   | 0.26                 | 1.04               |
| 2           | 60        | 87    | 0.11    | 0.25                 | .82                |
| 3           | 51        | 87    | 0.65    | 0.24                 | 1.02               |
| 4           | 50        | 87    | 0.71    | 0.24                 | 1.09               |
| 5           | 51        | 87    | 0.65    | 0.24                 | 1.09               |
| 6           | 69        | 87    | -0.53   | 0.29                 | .57                |
| 7           | 57        | 87    | 0.30    | 0.25                 | 1.07               |
| 8           | 75        | 87    | -1.09   | 0.33                 | .97                |
| 9           | 70        | 87    | -0.61   | 0.29                 | 1.20               |
| 10          | 66        | 87    | -0.30   | 0.27                 | .59                |
| 11          | 60        | 87    | 0.11    | 0.25                 | 1.10               |
| 12          | 67        | 87    | -0.37   | 0.28                 | .75                |
| 13          | 59        | 87    | 0.18    | 0.25                 | .96                |
| 14          | 52        | 87    | 0.59    | 0.24                 | 1.20               |
| 15          | 46        | 87    | 0.93    | 0.23                 | 1.23               |
| 16          | 57        | 87    | 0.30    | 0.25                 | 1.14               |
| 17          | 57        | 87    | 0.30    | 0.25                 | .94                |
| 18          | 76        | 87    | -1.21   | 0.34                 | .58                |
| 19          | 74        | 87    | -0.99   | 0.32                 | 1.24               |
| 20          | 56        | 87    | 0.36    | 0.25                 | .85                |

Table 7  
*Distractor Analysis, Gr3MC2*

| Entry # | Data Code | Score Value | Count | %  | Average Measure | S.E. Mean |
|---------|-----------|-------------|-------|----|-----------------|-----------|
| 1       | C         | 0           | 5     | 6  | -0.21           | .19       |
|         | A         | 0           | 19    | 22 | 0.78            | .18       |
|         | B         | 1           | 63    | 72 | 1.35            | .15       |
|         | Missing   | **          |       |    |                 |           |
| 2       | B         | 0           | 15    | 17 | 0.03            | .23       |
|         | A         | 0           | 10    | 11 | 0.60            | .27       |
|         | C         | 1           | 60    | 69 | 1.18            | .73       |
|         | Missing   | **          | 2     | 2  | 1.51            | .14       |
| 3       | A         | 0           | 31    | 36 | 0.59            | .17       |
|         | C         | 0           | 5     | 6  | 1.04            | .50       |
|         | B         | 1           | 51    | 59 | 1.48            | .16       |
|         | Missing   | **          |       |    |                 |           |
| 4       | A         | 0           | 6     | 7  | -0.23           | .37       |
|         | C         | 0           | 31    | 36 | 0.90            | .16       |
|         | B         | 1           | 50    | 57 | 1.45            | .17       |
|         | Missing   | **          |       |    |                 |           |
| 5       | C         | 0           | 23    | 26 | 0.64            | .18       |
|         | B         | 0           | 12    | 14 | 0.80            | .28       |
|         | A         | 1           | 51    | 59 | 1.45            | .17       |
|         | Missing   | **          | 1     | 1  | 0.93            |           |
| 6       | B         | 0           | 3     | 3  | -0.75           | .08       |
|         | A         | 0           | 14    | 16 | -0.01           | .21       |
|         | C         | 1           | 69    | 79 | 1.47            | .12       |
|         | Missing   | **          | 1     | 1  | -0.21           |           |
| 7       | C         | 0           | 11    | 13 | -0.07           | .21       |
|         | A         | 0           | 19    | 22 | 0.96            | .33       |
|         | B         | 1           | 57    | 66 | 1.43            | .13       |
|         | Missing   | **          |       |    |                 |           |
| 8       | C         | 0           | 7     | 8  | 0.11            | .35       |
|         | B         | 0           | 5     | 6  | 0.46            | .56       |
|         | A         | 1           | 75    | 86 | 1.28            | .13       |
|         | Missing   | **          |       |    |                 |           |
| 9       | A         | 0           | 5     | 6  | 0.41            | .50       |
|         | B         | 0           | 12    | 14 | 0.77            | .26       |
|         | C         | 1           | 70    | 80 | 1.25            | .14       |
|         | Missing   | **          |       |    |                 |           |
| 10      | C         | 0           | 11    | 13 | -0.27           | .21       |
|         | B         | 0           | 9     | 10 | 0.26            | .16       |
|         | A         | 1           | 66    | 76 | 1.50            | .13       |
|         | Missing   | **          | 1     | 1  | 0.45            |           |



Table 7  
*Distractor Analysis, Gr3MC2, Continued*

| Entry # | Data Code | Score Value | Count | %  | Average Measure | S.E. Mean |
|---------|-----------|-------------|-------|----|-----------------|-----------|
| 11      | B         | 0           | 10    | 11 | 0.43            | .37       |
|         | C         | 0           | 17    | 20 | 0.74            | .22       |
|         | A         | 1           | 60    | 69 | 1.37            | .15       |
|         | Missing   | **          |       |    |                 |           |
| 12      | B         | 0           | 6     | 7  | 0.03            | .34       |
|         | A         | 0           | 13    | 15 | 0.33            | .23       |
|         | C         | 1           | 67    | 77 | 1.42            | .13       |
|         | Missing   | **          | 1     | 1  | -0.92           |           |
| 13      | C         | 0           | 11    | 13 | 0.37            | .25       |
|         | A         | 0           | 14    | 16 | 0.64            | .26       |
|         | B         | 1           | 59    | 68 | 1.43            | .15       |
|         | Missing   | **          | 3     | 3  | 0.51            | .73       |
| 14      | C         | 0           | 15    | 17 | 0.24            | .24       |
|         | B         | 0           | 19    | 22 | 1.20            | .27       |
|         | A         | 1           | 52    | 1  | 1.36            | .15       |
|         | Missing   | **          | 1     | 60 | 1.91            |           |
| 15      | A         | 0           | 32    | 37 | 0.68            | .16       |
|         | B         | 0           | 9     | 10 | 1.35            | .51       |
|         | C         | 1           | 46    | 53 | 1.42            | .17       |
|         | Missing   | **          |       |    |                 |           |
| 16      | A         | 0           | 27    | 31 | 0.66            | .21       |
|         | C         | 0           | 1     | 1  | 0.93            |           |
|         | B         | 1           | 57    | 66 | 1.38            | .15       |
|         | Missing   | **          | 2     | 2  | 0.85            | 1.06      |
| 17      | A         | 0           | 17    | 20 | 0.32            | .18       |
|         | C         | 0           | 10    | 11 | 0.42            | .33       |
|         | B         | 1           | 57    | 66 | 1.48            | .15       |
|         | Missing   | **          | 3     | 3  | 1.75            | .41       |
| 18      | A         | 0           | 7     | 8  | -0.28           | .16       |
|         | B         | 0           | 3     | 3  | -0.14           | .32       |
|         | C         | 1           | 76    | 87 | 1.32            | .13       |
|         | Missing   | **          | 1     | 1  | 1.20            |           |
| 19      | B         | 0           | 6     | 7  | 0.10            | .50       |
|         | C         | 0           | 7     | 8  | 0.70            | .46       |
|         | A         | 1           | 74    | 85 | 1.26            | .13       |
|         | Missing   | **          |       |    |                 |           |
| 20      | A         | 0           | 10    | 11 | 0.08            | .28       |
|         | B         | 0           | 17    | 20 | 0.62            | .23       |
|         | C         | 1           | 56    | 64 | 1.55            | .14       |
|         | Missing   | **          | 4     | 5  | 0.18            | .37       |

Table 8

*Statistics, Entry Order, Gr3MC3*

| Item Number | Raw Score | Count | Measure | Model Standard Error | Mean Square Outfit |
|-------------|-----------|-------|---------|----------------------|--------------------|
| 1           | 119       | 133   | -1.52   | .30                  | .87                |
| 2           | 102       | 133   | -0.40   | .23                  | 1.05               |
| 3           | 122       | 133   | -1.82   | .33                  | 1.35               |
| 4           | 100       | 133   | -0.29   | .22                  | .95                |
| 5           | 99        | 133   | -0.25   | .22                  | .73                |
| 6           | 43        | 133   | 1.95    | .20                  | 1.09               |
| 7           | 67        | 133   | 1.05    | .19                  | 1.13               |
| 8           | 117       | 133   | -1.35   | .29                  | .69                |
| 9           | 64        | 133   | 1.16    | .19                  | 1.16               |
| 10          | 108       | 133   | -0.72   | .24                  | .92                |
| 11          | 87        | 133   | 0.28    | .20                  | 1.24               |
| 12          | 67        | 133   | 1.05    | .19                  | 1.22               |
| 13          | 107       | 133   | -0.67   | .24                  | .98                |
| 14          | 99        | 133   | -0.25   | .22                  | .86                |
| 15          | 102       | 133   | -0.40   | .23                  | .86                |
| 16          | 41        | 133   | 2.03    | .20                  | .94                |
| 17          | 104       | 133   | -0.50   | .23                  | .78                |
| 18          | 76        | 133   | 0.71    | .19                  | 1.22               |
| 19          | 96        | 133   | -0.11   | .21                  | .94                |
| 20          | 93        | 133   | 0.03    | .21                  | .76                |

Table 9  
*Distractor Analysis, Gr3MC3*

| Entry # | Data Code | Score Value | Count | %  | Average Measure | S.E. Mean |
|---------|-----------|-------------|-------|----|-----------------|-----------|
| 1       | A         | 0           | 2     | 2  | -1.31           | .80       |
|         | B         | 0           | 12    | 9  | 0.12            | .32       |
|         | C         | 1           | 119   | 89 | 1.21            | .10       |
|         | Missing   | **          |       |    |                 |           |
| 2       | B         | 0           | 9     | 7  | -0.10           | .51       |
|         | C         | 0           | 21    | 16 | 0.32            | .26       |
|         | A         | 1           | 102   | 77 | 1.34            | .09       |
|         | Missing   | **          | 1     | 1  | 0.48            |           |
| 3       | A         | 0           | 5     | 4  | -0.46           | .46       |
|         | B         | 0           | 5     | 4  | 0.49            | .80       |
|         | C         | 1           | 122   | 92 | 1.17            | .10       |
|         | Missing   | **          | 1     | 1  | 0.48            |           |
| 4       | C         | 0           | 3     | 2  | -0.88           | .63       |
|         | B         | 0           | 29    | 22 | 0.35            | .19       |
|         | A         | 1           | 100   | 75 | 1.35            | .10       |
|         | Missing   | **          | 1     | 1  | 0.22            |           |
| 5       | A         | 0           | 23    | 17 | 0.03            | .22       |
|         | C         | 0           | 11    | 8  | 0.17            | .22       |
|         | B         | 1           | 99    | 74 | 1.42            | .10       |
|         | Missing   | **          |       |    |                 |           |
| 6       | C         | 0           | 36    | 27 | 0.65            | .18       |
|         | B         | 0           | 53    | 40 | 1.01            | .17       |
|         | A         | 1           | 43    | 32 | 1.53            | .13       |
|         | Missing   | **          | 1     | 1  | 0.48            |           |
| 7       | A         | 0           | 21    | 16 | 0.17            | .25       |
|         | B         | 0           | 41    | 31 | 0.99            | .13       |
|         | C         | 1           | 67    | 50 | 1.46            | .14       |
|         | Missing   | **          | 4     | 3  | 0.17            | .22       |
| 8       | C         | 0           | 10    | 8  | -0.29           | .28       |
|         | B         | 0           | 6     | 5  | -0.04           | .43       |
|         | A         | 1           | 117   | 88 | 1.25            | .10       |
|         | Missing   | **          |       |    |                 |           |
| 9       | C         | 0           | 33    | 25 | 0.64            | .18       |
|         | A         | 0           | 33    | 25 | 0.88            | .16       |
|         | B         | 1           | 64    | 48 | 1.46            | .14       |
|         | Missing   | **          | 3     | 2  | -0.12           | 1.00      |
| 10      | C         | 0           | 10    | 8  | 0.08            | .44       |
|         | B         | 0           | 14    | 11 | 0.27            | .20       |
|         | A         | 1           | 108   | 81 | 1.28            | .10       |
|         | Missing   | **          | 1     | 1  | -0.02           |           |

Table 9  
*Distractor Analysis, Gr3MC3, Continued*

| Entry # | Data Code | Score Value | Count | %  | Average Measure | S.E. Mean |
|---------|-----------|-------------|-------|----|-----------------|-----------|
| 11      | C         | 0           | 27    | 20 | 0.47            | .17       |
|         | A         | 0           | 18    | 14 | 0.81            | .30       |
|         | B         | 1           | 87    | 65 | 1.32            | .12       |
|         | Missing   | **          | 1     | 1  | 1.02            |           |
| 12      | C         | 0           | 18    | 14 | 0.36            | .30       |
|         | A         | 0           | 48    | 36 | 0.88            | .14       |
|         | B         | 1           | 67    | 50 | 1.41            | .13       |
|         | Missing   | **          |       |    |                 |           |
| 13      | B         | 0           | 12    | 9  | -0.25           | .33       |
|         | A         | 0           | 13    | 10 | 0.51            | .34       |
|         | C         | 1           | 107   | 80 | 1.31            | .10       |
|         | Missing   | **          | 1     | 1  | -0.27           |           |
| 14      | B         | 0           | 5     | 4  | -0.44           | .47       |
|         | A         | 0           | 27    | 20 | 0.26            | .19       |
|         | C         | 1           | 99    | 74 | 1.39            | .10       |
|         | Missing   | **          | 2     | 2  | 0.53            | .80       |
| 15      | C         | 0           | 10    | 8  | -0.26           | .38       |
|         | A         | 0           | 19    | 14 | 0.29            | .23       |
|         | B         | 1           | 102   | 77 | 1.37            | .10       |
|         | Missing   | **          | 2     | 2  | -0.02           | .25       |
| 16      | C         | 0           | 26    | 20 | 0.73            | .15       |
|         | B         | 0           | 63    | 47 | 0.79            | .14       |
|         | A         | 1           | 41    | 31 | 1.83            | .16       |
|         | Missing   | **          | 3     | 2  | -0.19           | .22       |
| 17      | A         | 0           | 5     | 4  | -0.02           | .31       |
|         | B         | 0           | 22    | 17 | 0.06            | .24       |
|         | C         | 1           | 104   | 78 | 1.36            | .10       |
|         | Missing   | **          | 2     | 2  | -0.02           | .25       |
| 18      | B         | 0           | 17    | 13 | 0.68            | .28       |
|         | A         | 0           | 37    | 28 | 0.80            | .20       |
|         | C         | 1           | 76    | 57 | 1.35            | .12       |
|         | Missing   | **          | 3     | 2  | -0.11           | .16       |
| 19      | C         | 0           | 10    | 8  | 0.34            | .42       |
|         | B         | 0           | 22    | 17 | 0.49            | .18       |
|         | A         | 1           | 96    | 72 | 1.35            | .11       |
|         | Missing   | **          | 5     | 4  | -0.17           | .13       |
| 20      | B         | 0           | 21    | 16 | 0.07            | .21       |
|         | C         | 0           | 15    | 11 | 0.08            | .29       |
|         | A         | 1           | 93    | 70 | 1.49            | .09       |
|         | Missing   | **          | 4     | 3  | 0.43            | .29       |

Table 10

*Item Statistics, Entry Order, Gr3MC4*

| Item Number | Raw Score | Count | Measure | Model Standard Error | Mean Square Outfit |
|-------------|-----------|-------|---------|----------------------|--------------------|
| 1           | 65        | 79    | -0.67   | 0.33                 | 1.46               |
| 2           | 51        | 79    | 0.52    | 0.27                 | .99                |
| 3           | 65        | 79    | -0.67   | 0.33                 | .83                |
| 4           | 51        | 79    | 0.52    | 0.27                 | 1.41               |
| 5           | 67        | 79    | -0.90   | 0.34                 | .48                |
| 6           | 66        | 79    | -0.78   | 0.34                 | .40                |
| 7           | 51        | 79    | 0.52    | 0.27                 | 1.00               |
| 8           | 65        | 79    | -0.67   | 0.33                 | .88                |
| 9           | 49        | 79    | 0.67    | 0.27                 | 1.56               |
| 10          | 58        | 79    | -0.02   | 0.29                 | .74                |
| 11          | 57        | 79    | 0.06    | 0.29                 | .94                |
| 12          | 59        | 79    | -0.10   | 0.29                 | .89                |
| 13          | 68        | 79    | -1.02   | 0.36                 | .39                |
| 14          | 64        | 79    | -0.57   | 0.32                 | .67                |
| 15          | 63        | 79    | -0.47   | 0.31                 | .70                |
| 16          | 55        | 79    | 0.22    | 0.28                 | .75                |
| 17          | 48        | 79    | 0.74    | 0.26                 | 1.10               |
| 18          | 52        | 79    | 0.45    | 0.27                 | 1.11               |
| 19          | 33        | 79    | 1.72    | 0.26                 | 1.19               |
| 20          | 52        | 79    | 0.45    | 0.27                 | 1.00               |

Table 11  
*Distractor Analysis, Gr3MC4*

| Entry # | Data Code | Score Value | Count | %  | Average Measure | S.E. Mean |
|---------|-----------|-------------|-------|----|-----------------|-----------|
| 1       | C         | 0           | 6     | 8  | 0.28            | .50       |
|         | B         | 0           | 8     | 10 | 0.80            | .55       |
|         | A         | 1           | 65    | 82 | 1.78            | .21       |
|         | Missing   | **          |       |    |                 |           |
| 2       | C         | 0           | 18    | 23 | 0.55            | .22       |
|         | A         | 0           | 9     | 11 | 0.64            | .41       |
|         | B         | 1           | 51    | 65 | 2.10            | .25       |
|         | Missing   | **          | 1     | 1  | 0.93            |           |
| 3       | A         | 0           | 3     | 4  | -0.48           | .46       |
|         | B         | 0           | 10    | 13 | 0.29            | .37       |
|         | C         | 1           | 65    | 82 | 1.90            | .20       |
|         | Missing   | **          | 1     | 1  | -0.94           |           |
| 4       | B         | 0           | 18    | 23 | 0.95            | .27       |
|         | A         | 0           | 10    | 13 | 1.08            | .51       |
|         | C         | 1           | 51    | 65 | 1.88            | .25       |
|         | Missing   | **          |       |    |                 |           |
| 5       | C         | 0           | 6     | 8  | -0.50           | .35       |
|         | B         | 0           | 6     | 8  | -0.31           | .33       |
|         | A         | 1           | 67    | 85 | 1.92            | .19       |
|         | Missing   | **          |       |    |                 |           |
| 6       | A         | 0           | 9     | 11 | -0.57           | .10       |
|         | C         | 0           | 4     | 5  | -0.13           | .40       |
|         | B         | 1           | 66    | 84 | 1.96            | .19       |
|         | Missing   | **          |       |    |                 |           |
| 7       | A         | 0           | 12    | 15 | 0.11            | .25       |
|         | C         | 0           | 16    | 20 | 0.98            | .18       |
|         | B         | 1           | 51    | 65 | 2.10            | .25       |
|         | Missing   | **          |       |    |                 |           |
| 8       | B         | 0           | 9     | 11 | -0.18           | .39       |
|         | A         | 0           | 5     | 6  | 0.53            | .41       |
|         | C         | 1           | 65    | 82 | 1.89            | .20       |
|         | Missing   | **          |       |    |                 |           |
| 9       | C         | 0           | 19    | 24 | 1.11            | .45       |
|         | B         | 0           | 11    | 14 | 1.25            | .62       |
|         | A         | 1           | 49    | 62 | 1.82            | .21       |
|         | Missing   | **          |       |    |                 |           |
| 10      | A         | 0           | 8     | 10 | -0.32           | .24       |
|         | B         | 0           | 12    | 15 | 0.47            | .29       |
|         | C         | 1           | 58    | 73 | 2.07            | .21       |
|         | Missing   | **          | 1     | 1  | 0.93            |           |

Table 11  
*Distractor Analysis, Gr3MC3, Continued*

| Entry # | Data Code | Score Value | Count | %  | Average Measure | S.E. Mean |
|---------|-----------|-------------|-------|----|-----------------|-----------|
| 11      | B         | 0           | 10    | 13 | 0.07            | .32       |
|         | C         | 0           | 12    | 15 | 0.56            | .37       |
|         | A         | 1           | 57    | 72 | 2.04            | .21       |
|         | Missing   | **          |       |    |                 |           |
| 12      | C         | 0           | 8     | 10 | -0.33           | .26       |
|         | A         | 0           | 11    | 14 | 0.52            | .48       |
|         | B         | 1           | 59    | 75 | 2.03            | .20       |
|         | Missing   | **          | 1     | 1  | 1.21            |           |
| 13      | B         | 0           | 4     | 5  | -0.70           | .17       |
|         | C         | 0           | 6     | 8  | -0.43           | .20       |
|         | A         | 1           | 68    | 86 | 1.90            | .19       |
|         | Missing   | **          | 1     | 1  | 0.21            |           |
| 14      | A         | 0           | 4     | 5  | -0.30           | .36       |
|         | B         | 0           | 10    | 13 | 0.24            | .23       |
|         | C         | 1           | 64    | 81 | 1.91            | .21       |
|         | Missing   | **          | 1     | 1  | 0.21            |           |
| 15      | C         | 0           | 7     | 9  | -0.40           | .08       |
|         | A         | 0           | 8     | 10 | 0.22            | .47       |
|         | B         | 1           | 63    | 80 | 1.98            | .20       |
|         | Missing   | **          | 1     | 1  | 0.21            |           |
| 16      | B         | 0           | 12    | 15 | 0.05            | .26       |
|         | A         | 0           | 10    | 13 | 0.55            | .34       |
|         | C         | 1           | 55    | 70 | 2.15            | .22       |
|         | Missing   | **          | 2     | 3  | -0.24           | .45       |
| 17      | B         | 0           | 19    | 24 | 0.72            | .28       |
|         | A         | 0           | 11    | 14 | 0.77            | .51       |
|         | C         | 1           | 48    | 61 | 2.12            | .24       |
|         | Missing   | **          | 1     | 1  | 0.21            |           |
| 18      | A         | 0           | 18    | 23 | 0.65            | .35       |
|         | C         | 0           | 7     | 9  | 0.72            | .23       |
|         | B         | 1           | 52    | 66 | 2.06            | .24       |
|         | Missing   | **          | 2     | 3  | 0.71            | .50       |
| 19      | C         | 0           | 22    | 28 | 0.73            | .23       |
|         | A         | 0           | 23    | 29 | 1.45            | .33       |
|         | B         | 1           | 33    | 42 | 2.25            | .32       |
|         | Missing   | **          | 1     | 1  | .21             |           |
| 20      | B         | 0           | 11    | 14 | 0.29            | .33       |
|         | C         | 0           | 14    | 18 | 0.54            | .29       |
|         | A         | 1           | 52    | 66 | 2.15            | .23       |
|         | Missing   | **          | 2     | 3  | 0.71            | .50       |

Table 12

*Item Statistics, Entry Order, Gr3MC5*

| Item Number | Raw Score | Count | Measure | Model Standard Error | Mean Square Outfit |
|-------------|-----------|-------|---------|----------------------|--------------------|
| 1           | 119       | 136   | -1.4    | 0.28                 | .82                |
| 2           | 83        | 136   | 0.39    | 0.19                 | 1.06               |
| 3           | 120       | 136   | -1.48   | 0.29                 | .61                |
| 4           | 110       | 136   | -0.81   | 0.24                 | .99                |
| 5           | 104       | 136   | -0.5    | 0.22                 | .60                |
| 6           | 55        | 136   | 1.39    | 0.19                 | .87                |
| 7           | 80        | 136   | 0.5     | 0.19                 | 1.34               |
| 8           | 100       | 136   | -0.31   | 0.21                 | 1.08               |
| 9           | 75        | 136   | 0.68    | 0.19                 | 1.02               |
| 10          | 108       | 136   | -0.7    | 0.23                 | .81                |
| 11          | 120       | 136   | -1.48   | 0.29                 | 1.03               |
| 12          | 87        | 136   | 0.24    | 0.2                  | .98                |
| 13          | 103       | 136   | -0.45   | 0.22                 | .78                |
| 14          | 75        | 136   | 0.68    | 0.19                 | 1.00               |
| 15          | 88        | 136   | 0.2     | 0.2                  | 1.05               |
| 16          | 84        | 136   | 0.35    | 0.19                 | .80                |
| 17          | 113       | 136   | -0.99   | 0.25                 | .62                |
| 18          | 74        | 136   | 0.72    | 0.19                 | 1.20               |
| 19          | 65        | 136   | 1.04    | 0.19                 | 1.28               |
| 20          | 41        | 136   | 1.92    | 0.2                  | 1.44               |



Table 13  
*Distractor Analysis, Gr3MC5*

| Entry # | Data Code | Score Value | Count | %  | Average Measure | S.E. Mean |
|---------|-----------|-------------|-------|----|-----------------|-----------|
| 1       | C         | 0           | 8     | 6  | -0.51           | .30       |
|         | A         | 0           | 9     | 7  | 0.39            | .26       |
|         | B         | 1           | 119   | 88 | 1.08            | .10       |
|         | Missing   | **          |       |    |                 |           |
| 2       | C         | 0           | 7     | 5  | -0.71           | .33       |
|         | B         | 0           | 45    | 33 | 0.51            | .13       |
|         | A         | 1           | 83    | 61 | 1.31            | .12       |
|         | Missing   | **          | 1     | 1  | 1.31            |           |
| 3       | C         | 0           | 9     | 7  | -0.60           | .29       |
|         | A         | 0           | 5     | 4  | 0.11            | .33       |
|         | B         | 1           | 120   | 88 | 1.13            | .09       |
|         | Missing   | **          | 2     | 1  | -1.25           | 1.49      |
| 4       | B         | 0           | 13    | 10 | 0.15            | .27       |
|         | A         | 0           | 12    | 9  | 0.19            | .35       |
|         | C         | 1           | 110   | 81 | 1.15            | .10       |
|         | Missing   | **          | 1     | 1  | -2.74           |           |
| 5       | A         | 0           | 13    | 10 | -0.22           | .20       |
|         | C         | 0           | 17    | 13 | -0.16           | .18       |
|         | B         | 1           | 104   | 76 | 1.31            | .09       |
|         | Missing   | **          | 2     | 1  | -1.37           | 1.37      |
| 6       | B         | 0           | 33    | 24 | 0.45            | .15       |
|         | A         | 0           | 47    | 35 | 0.58            | .13       |
|         | C         | 1           | 55    | 40 | 1.61            | .14       |
|         | Missing   | **          | 1     | 1  | -2.74           |           |
| 7       | B         | 0           | 16    | 12 | 0.10            | .23       |
|         | C         | 0           | 38    | 28 | 1.07            | .12       |
|         | A         | 1           | 80    | 59 | 1.11            | .13       |
|         | Missing   | **          | 2     | 1  | -1.37           | 1.37      |
| 8       | C         | 0           | 6     | 4  | -0.33           | .52       |
|         | A         | 0           | 27    | 20 | 0.65            | .17       |
|         | B         | 1           | 100   | 74 | 1.18            | .10       |
|         | Missing   | **          | 3     | 2  | -1.60           | .59       |
| 9       | C         | 0           | 25    | 18 | 0.28            | .26       |
|         | B         | 0           | 34    | 25 | 0.70            | .13       |
|         | A         | 1           | 75    | 55 | 1.34            | .11       |
|         | Missing   | **          | 2     | 1  | -1.37           | 1.37      |
| 10      | A         | 0           | 9     | 7  | -0.16           | .33       |
|         | B         | 0           | 18    | 13 | 0.03            | .26       |
|         | C         | 1           | 108   | 79 | 1.22            | .09       |
|         | Missing   | **          | 1     | 1  | -2.74           |           |

Table 13  
*Distractor Analysis, Gr3MC5, Continued*

| Entry # | Data Code | Score Value | Count | %  | Average Measure | S.E. Mean |
|---------|-----------|-------------|-------|----|-----------------|-----------|
| 11      | A         | 0           | 9     | 7  | -0.21           | .29       |
|         | C         | 0           | 5     | 4  | 0.66            | .70       |
|         | B         | 1           | 120   | 88 | 1.09            | .09       |
|         | Missing   | **          | 2     | 1  | -2.03           | .72       |
| 12      | B         | 0           | 19    | 14 | -0.03           | .20       |
|         | C         | 0           | 27    | 20 | 0.66            | .16       |
|         | A         | 1           | 87    | 64 | 1.30            | .11       |
|         | Missing   | **          | 3     | 2  | -0.66           | 1.43      |
| 13      | A         | 0           | 14    | 10 | -0.14           | .20       |
|         | B         | 0           | 16    | 12 | 0.47            | .18       |
|         | C         | 1           | 103   | 76 | 1.24            | .10       |
|         | Missing   | **          | 3     | 2  | -1.85           | .59       |
| 14      | C         | 0           | 2     | 1  | 0.00            | .24       |
|         | A         | 0           | 55    | 40 | 0.54            | .12       |
|         | B         | 1           | 75    | 55 | 1.35            | .12       |
|         | Missing   | **          | 4     | 3  | -0.55           | 1.08      |
| 15      | C         | 0           | 35    | 26 | 0.43            | .16       |
|         | B         | 0           | 11    | 8  | 0.67            | .34       |
|         | A         | 1           | 88    | 65 | 1.26            | .11       |
|         | Missing   | **          | 2     | 1  | -2.41           | .33       |
| 16      | A         | 0           | 36    | 26 | 0.26            | .13       |
|         | B         | 0           | 14    | 10 | 0.39            | .28       |
|         | C         | 1           | 84    | 62 | 1.41            | .10       |
|         | Missing   | **          | 2     | 1  | -2.41           | .33       |
| 17      | B         | 0           | 11    | 8  | -0.37           | .18       |
|         | C         | 0           | 10    | 7  | 0.02            | .32       |
|         | A         | 1           | 113   | 83 | 1.21            | .09       |
|         | Missing   | **          | 2     | 1  | -2.41           | .33       |
| 18      | B         | 0           | 26    | 19 | 0.72            | .19       |
|         | A         | 0           | 31    | 23 | 0.75            | .18       |
|         | C         | 1           | 74    | 54 | 1.19            | .13       |
|         | Missing   | **          | 5     | 4  | -0.33           | .89       |
| 19      | B         | 0           | 8     | 6  | 0.47            | .29       |
|         | C         | 0           | 60    | 44 | 0.80            | .11       |
|         | A         | 1           | 65    | 48 | 1.24            | .15       |
|         | Missing   | **          | 3     | 2  | -1.44           | .98       |
| 20      | C         | 0           | 19    | 14 | 0.56            | .26       |
|         | A         | 0           | 74    | 54 | 1.02            | .13       |
|         | B         | 1           | 41    | 30 | 1.15            | .14       |
|         | Missing   | **          | 2     | 1  | -2.41           | .33       |

Table 14

*Item Statistics, Entry Order, Gr3MC6*

| Item Number | Raw Score | Count | Measure | Model Standard Error | Mean Square Outfit |
|-------------|-----------|-------|---------|----------------------|--------------------|
| 1           | 82        | 86    | -2.35   | 0.54                 | .45                |
| 2           | 57        | 86    | 0.44    | 0.26                 | .89                |
| 3           | 57        | 86    | 0.44    | 0.26                 | .97                |
| 4           | 76        | 86    | -1.21   | 0.36                 | .52                |
| 5           | 75        | 86    | -1.08   | 0.35                 | .93                |
| 6           | 67        | 86    | -0.28   | 0.29                 | .70                |
| 7           | 73        | 86    | -0.85   | 0.33                 | .74                |
| 8           | 69        | 86    | -0.46   | 0.3                  | .88                |
| 9           | 62        | 86    | 0.10    | 0.27                 | .86                |
| 10          | 57        | 86    | 0.44    | 0.26                 | 1.07               |
| 11          | 62        | 86    | 0.10    | 0.27                 | 1.01               |
| 12          | 29        | 86    | 2.09    | 0.25                 | 1.63               |
| 13          | 53        | 86    | 0.69    | 0.25                 | 1.20               |
| 14          | 74        | 86    | -0.96   | 0.34                 | 1.73               |
| 15          | 60        | 86    | 0.24    | 0.26                 | .72                |
| 16          | 33        | 86    | 1.86    | 0.24                 | 1.83               |
| 17          | 74        | 86    | -0.96   | 0.34                 | .48                |
| 18          | 33        | 86    | 1.86    | 0.24                 | 1.47               |
| 19          | 67        | 86    | -0.28   | 0.29                 | .69                |
| 20          | 61        | 86    | 0.17    | 0.26                 | .90                |

Table 15  
*Distractor Analysis, Gr3MC6*

| Entry # | Data Code | Score Value | Count | %  | Average Measure | S.E. Mean    |
|---------|-----------|-------------|-------|----|-----------------|--------------|
| 1       | C         | 0           | 1     | 1  | -0.51           | 0.66<br>0.13 |
|         | A         | 0           | 3     | 3  | -0.41           |              |
|         | B         | 1           | 82    | 95 | 1.42            |              |
|         | Missing   | **          |       |    |                 |              |
| 2       | C         | 0           | 5     | 6  | -0.91           | .25          |
|         | B         | 0           | 24    | 28 | 0.84            | .18          |
|         | A         | 1           | 57    | 66 | 1.73            | .15          |
|         | Missing   | **          |       |    |                 |              |
| 3       | C         | 0           | 20    | 23 | 0.48            | .26          |
|         | B         | 0           | 9     | 10 | 0.86            | .32          |
|         | A         | 1           | 57    | 66 | 1.70            | .15          |
|         | Missing   | **          |       |    |                 |              |
| 4       | A         | 0           | 3     | 3  | -0.92           | .49          |
|         | C         | 0           | 7     | 8  | -0.23           | .40          |
|         | B         | 1           | 76    | 88 | 1.56            | .12          |
|         | Missing   | **          |       |    |                 |              |
| 5       | B         | 0           | 6     | 7  | -0.87           | .30          |
|         | A         | 0           | 5     | 6  | 0.78            | .59          |
|         | C         | 1           | 75    | 87 | 1.54            | .13          |
|         | Missing   | **          |       |    |                 |              |
| 6       | C         | 0           | 14    | 16 | 0.03            | .25          |
|         | A         | 0           | 4     | 5  | 0.45            | .39          |
|         | B         | 1           | 67    | 78 | 1.66            | .14          |
|         | Missing   | **          | 1     | 1  | 0.75            |              |
| 7       | A         | 0           | 4     | 5  | 0.01            | .59          |
|         | B         | 0           | 9     | 10 | 0.37            | .18          |
|         | C         | 1           | 73    | 85 | 1.52            | .14          |
|         | Missing   | **          |       |    |                 |              |
| 8       | C         | 0           | 7     | 8  | 0.02            | .42          |
|         | A         | 0           | 10    | 12 | 0.48            | .33          |
|         | B         | 1           | 69    | 80 | 1.59            | .14          |
|         | Missing   | **          |       |    |                 |              |
| 9       | B         | 0           | 15    | 17 | 0.26            | .30          |
|         | C         | 0           | 9     | 10 | 0.45            | .39          |
|         | A         | 1           | 62    | 72 | 1.72            | .14          |
|         | Missing   | **          |       |    |                 |              |
| 10      | A         | 0           | 25    | 29 | 0.61            | .21          |
|         | B         | 0           | 4     | 5  | 1.19            | .67          |
|         | C         | 1           | 57    | 66 | 1.66            | .16          |
|         | Missing   | **          |       |    |                 |              |

Table 15  
*Distractor Analysis, Gr3MC6, Continued*

| Entry # | Data Code | Score Value | Count | %  | Average Measure | S.E. Mean |
|---------|-----------|-------------|-------|----|-----------------|-----------|
| 11      | B         | 0           | 6     | 7  | 0.09            | .51       |
|         | C         | 0           | 16    | 19 | 0.64            | .30       |
|         | A         | 1           | 62    | 72 | 1.64            | .15       |
|         | Missing   | **          | 2     | 2  | 0.92            | .43       |
| 12      | B         | 0           | 45    | 52 | 1.04            | .19       |
|         | A         | 0           | 12    | 14 | 1.51            | .27       |
|         | C         | 1           | 29    | 34 | 1.71            | .24       |
|         | Missing   | **          |       |    |                 |           |
| 13      | A         | 0           | 7     | 8  | 0.32            | .46       |
|         | C         | 0           | 25    | 29 | 1.00            | .13       |
|         | B         | 1           | 53    | 62 | 1.62            | .19       |
|         | Missing   | **          | 1     | 1  | 1.03            |           |
| 14      | B         | 0           | 6     | 7  | -0.51           | .41       |
|         | A         | 0           | 5     | 6  | 0.58            | .37       |
|         | C         | 1           | 74    | 86 | 1.53            | .14       |
|         | Missing   | **          | 1     | 1  | 1.03            |           |
| 15      | B         | 0           | 21    | 24 | 0.24            | .23       |
|         | C         | 0           | 5     | 6  | 0.54            | .36       |
|         | A         | 1           | 60    | 70 | 1.78            | .14       |
|         | Missing   | **          |       |    |                 |           |
| 16      | A         | 0           | 3     | 3  | -0.10           | .22       |
|         | C         | 0           | 50    | 58 | 1.28            | .15       |
|         | B         | 1           | 33    | 38 | 1.54            | .25       |
|         | Missing   | **          |       |    |                 |           |
| 17      | C         | 0           | 4     | 5  | -0.46           | .26       |
|         | A         | 0           | 6     | 7  | -0.15           | .46       |
|         | B         | 1           | 74    | 86 | 1.61            | .12       |
|         | Missing   | **          | 2     | 2  | -0.86           | .84       |
| 18      | C         | 0           | 8     | 9  | 0.13            | .27       |
|         | B         | 0           | 43    | 50 | 1.45            | .17       |
|         | A         | 1           | 33    | 38 | 1.60            | .21       |
|         | Missing   | **          | 2     | 2  | -0.86           | .84       |
| 19      | C         | 0           | 5     | 6  | -0.40           | .35       |
|         | B         | 0           | 12    | 14 | 0.53            | .24       |
|         | A         | 1           | 67    | 78 | 1.67            | .14       |
|         | Missing   | **          | 2     | 2  | -0.86           | .84       |
| 20      | B         | 0           | 7     | 8  | 0.44            | .30       |
|         | A         | 0           | 16    | 19 | 0.65            | .27       |
|         | C         | 1           | 61    | 71 | 1.68            | .15       |
|         | Missing   | **          | 2     | 2  | -0.86           | .84       |

Table 16

*Item Statistics, Entry Order, Gr3MC7*

| Item Number | Raw Score | Count | Measure | Model Standard Error | Mean Square Outfit |
|-------------|-----------|-------|---------|----------------------|--------------------|
| 1           | 70        | 105   | 0.12    | 0.23                 | 1.44               |
| 2           | 59        | 105   | 0.65    | 0.21                 | .83                |
| 3           | 91        | 105   | -1.25   | 0.3                  | 1.11               |
| 4           | 59        | 105   | 0.65    | 0.21                 | 1.08               |
| 5           | 76        | 105   | -0.2    | 0.24                 | .95                |
| 6           | 36        | 105   | 1.7     | 0.22                 | 1.42               |
| 7           | 64        | 105   | 0.41    | 0.22                 | 1.35               |
| 8           | 85        | 105   | -0.77   | 0.27                 | .79                |
| 9           | 86        | 105   | -0.84   | 0.27                 | .62                |
| 10          | 74        | 105   | -0.09   | 0.23                 | .98                |
| 11          | 84        | 105   | -0.7    | 0.26                 | .69                |
| 12          | 49        | 105   | 1.1     | 0.21                 | .92                |
| 13          | 73        | 105   | -0.04   | 0.23                 | 1.01               |
| 14          | 40        | 105   | 1.51    | 0.22                 | 1.23               |
| 15          | 84        | 105   | -0.7    | 0.26                 | .82                |
| 16          | 85        | 105   | -0.77   | 0.27                 | .76                |
| 17          | 73        | 105   | -0.04   | 0.23                 | 1.15               |
| 18          | 50        | 105   | 1.06    | 0.21                 | 1.04               |
| 19          | 91        | 105   | -1.25   | 0.3                  | .65                |
| 20          | 82        | 105   | -0.56   | 0.25                 | .89                |

Table 17  
*Distractor Analysis, Gr3MC7*

| Entry # | Data Code | Score Value | Count | %  | Average Measure | S.E. Mean |
|---------|-----------|-------------|-------|----|-----------------|-----------|
| 1       | C         | 0           | 1     | 1  | -0.02           |           |
|         | A         | 0           | 34    | 32 | 0.87            | .17       |
|         | B         | 1           | 70    | 67 | 1.02            | .12       |
|         | Missing   | **          |       |    |                 |           |
| 2       | A         | 0           | 11    | 10 | 0.33            | .22       |
|         | B         | 0           | 35    | 33 | 0.36            | .14       |
|         | C         | 1           | 59    | 56 | 1.43            | .12       |
|         | Missing   | **          |       |    |                 |           |
| 3       | B         | 0           | 1     | 1  | -1.28           |           |
|         | C         | 0           | 13    | 12 | 0.42            | .26       |
|         | A         | 1           | 91    | 87 | 1.06            | .10       |
|         | Missing   | **          |       |    |                 |           |
| 4       | C         | 0           | 13    | 12 | 0.38            | .29       |
|         | A         | 0           | 33    | 31 | 0.68            | .17       |
|         | B         | 1           | 59    | 56 | 1.25            | .13       |
|         | Missing   | **          |       |    |                 |           |
| 5       | C         | 0           | 12    | 11 | 0.22            | .26       |
|         | A         | 0           | 16    | 15 | 0.31            | .26       |
|         | B         | 1           | 76    | 72 | 1.22            | .11       |
|         | Missing   | **          | 1     | 1  | 0.71            |           |
| 6       | B         | 0           | 11    | 10 | 0.16            | .22       |
|         | C         | 0           | 58    | 55 | 0.90            | .11       |
|         | A         | 1           | 36    | 34 | 1.31            | .20       |
|         | Missing   | **          |       |    |                 |           |
| 7       | B         | 0           | 18    | 17 | 0.62            | .25       |
|         | A         | 0           | 21    | 20 | 1.04            | .24       |
|         | C         | 1           | 64    | 61 | 1.06            | .12       |
|         | Missing   | **          | 2     | 2  | -0.01           | .72       |
| 8       | B         | 0           | 10    | 10 | -0.09           | .34       |
|         | A         | 0           | 10    | 10 | 0.19            | .23       |
|         | C         | 1           | 85    | 81 | 1.17            | .10       |
|         | Missing   | **          |       |    |                 |           |
| 9       | A         | 0           | 6     | 6  | -0.31           | .37       |
|         | C         | 0           | 13    | 12 | -0.03           | .15       |
|         | B         | 1           | 86    | 82 | 1.20            | .10       |
|         | Missing   | **          |       |    |                 |           |
| 10      | B         | 0           | 8     | 8  | -0.34           | .30       |
|         | C         | 0           | 23    | 22 | 0.61            | .20       |
|         | A         | 1           | 74    | 70 | 1.21            | .11       |
|         | Missing   | **          |       |    |                 |           |

Table 17  
*Distractor Analysis, Gr3MC7, Continued*

| Entry # | Data Code | Score Value | Count | %  | Average Measure | S.E. Mean |
|---------|-----------|-------------|-------|----|-----------------|-----------|
| 11      | A         | 0           | 11    | 10 | -0.06           | .30       |
|         | B         | 0           | 8     | 8  | 0.00            | .27       |
|         | C         | 1           | 84    | 80 | 1.23            | .10       |
|         | Missing   | **          | 2     | 2  | -0.77           | .51       |
| 12      | C         | 0           | 21    | 20 | 0.49            | .17       |
|         | B         | 0           | 34    | 32 | 0.50            | .15       |
|         | A         | 1           | 49    | 47 | 1.49            | .14       |
|         | Missing   | **          | 1     | 1  | 0.46            |           |
| 13      | A         | 0           | 8     | 8  | -0.43           | .22       |
|         | B         | 0           | 23    | 22 | 0.61            | .20       |
|         | C         | 1           | 73    | 70 | 1.23            | .11       |
|         | Missing   | **          | 1     | 1  | 0.71            |           |
| 14      | C         | 0           | 16    | 15 | 0.50            | .25       |
|         | A         | 0           | 49    | 47 | 0.87            | .14       |
|         | B         | 1           | 40    | 38 | 1.25            | .16       |
|         | Missing   | **          |       |    |                 |           |
| 15      | B         | 0           | 19    | 18 | -0.06           | .23       |
|         | A         | 0           | 2     | 2  | 0.71            | .00       |
|         | C         | 1           | 84    | 80 | 1.20            | .10       |
|         | Missing   | **          |       |    |                 |           |
| 16      | C         | 0           | 12    | 11 | -0.18           | .19       |
|         | B         | 0           | 8     | 8  | 0.42            | .64       |
|         | A         | 1           | 85    | 81 | 1.17            | .10       |
|         | Missing   | **          |       |    |                 |           |
| 17      | A         | 0           | 4     | 4  | -0.26           | .38       |
|         | C         | 0           | 26    | 25 | 0.55            | .24       |
|         | B         | 1           | 73    | 70 | 1.18            | .10       |
|         | Missing   | **          | 2     | 2  | 0.72            | .26       |
| 18      | A         | 0           | 28    | 27 | 0.54            | .15       |
|         | B         | 0           | 27    | 26 | 0.64            | .18       |
|         | C         | 1           | 50    | 48 | 1.37            | .15       |
|         | Missing   | **          |       |    |                 |           |
| 19      | A         | 0           | 9     | 9  | -0.55           | .23       |
|         | C         | 0           | 4     | 4  | 0.32            | .63       |
|         | B         | 1           | 91    | 87 | 1.15            | .09       |
|         | Missing   | **          | 1     | 1  | -0.25           |           |
| 20      | B         | 0           | 14    | 13 | 0.18            | .24       |
|         | C         | 0           | 9     | 9  | 0.32            | .25       |
|         | A         | 1           | 82    | 78 | 1.16            | .11       |
|         | Missing   | **          |       |    |                 |           |



Table 18

*Item Statistics, Entry Order, Gr3MC8*

| Item Number | Raw Score | Count | Measure | Model Standard Error | Mean Square Outfit |
|-------------|-----------|-------|---------|----------------------|--------------------|
| 1           | 73        | 85    | -1.31   | 0.33                 | .82                |
| 2           | 68        | 85    | -0.84   | 0.29                 | .72                |
| 3           | 81        | 85    | -2.61   | 0.52                 | .61                |
| 4           | 61        | 85    | -0.33   | 0.26                 | .99                |
| 5           | 76        | 85    | -1.67   | 0.37                 | .78                |
| 6           | 55        | 85    | 0.05    | 0.24                 | 1.08               |
| 7           | 54        | 85    | 0.11    | 0.24                 | .80                |
| 8           | 71        | 85    | -1.11   | 0.31                 | .65                |
| 9           | 58        | 85    | -0.13   | 0.25                 | .87                |
| 10          | 51        | 85    | 0.28    | 0.24                 | 1.06               |
| 11          | 54        | 85    | 0.11    | 0.24                 | .94                |
| 12          | 16        | 85    | 2.37    | 0.29                 | 1.31               |
| 13          | 35        | 85    | 1.15    | 0.24                 | 1.21               |
| 14          | 63        | 85    | -0.46   | 0.26                 | .97                |
| 15          | 45        | 85    | 0.61    | 0.23                 | 1.16               |
| 16          | 32        | 85    | 1.32    | 0.24                 | 1.17               |
| 17          | 51        | 85    | 0.28    | 0.24                 | 1.09               |
| 18          | 25        | 85    | 1.73    | 0.25                 | 1.11               |
| 19          | 54        | 85    | 0.11    | 0.24                 | .89                |
| 20          | 50        | 85    | 0.34    | 0.24                 | 1.03               |

Table 19  
*Distractor Analysis, Gr3MC8*

| Entry # | Data Code | Score Value | Count | %  | Average Measure | S.E. Mean |
|---------|-----------|-------------|-------|----|-----------------|-----------|
| 1       | B         | 0           | 3     | 4  | -0.34           | .57       |
|         | A         | 0           | 9     | 11 | 0.10            | .24       |
|         | C         | 1           | 73    | 86 | 0.86            | .09       |
|         | Missing   | **          |       |    |                 |           |
| 2       | A         | 0           | 7     | 8  | -0.57           | .29       |
|         | C         | 0           | 9     | 11 | 0.30            | .22       |
|         | B         | 1           | 68    | 80 | 0.95            | .09       |
|         | Missing   | **          | 1     | 1  | -0.76           |           |
| 3       | A         | 0           | 1     | 1  | -0.76           |           |
|         | B         | 0           | 3     | 4  | -0.25           | .51       |
|         | C         | 1           | 81    | 95 | 0.79            | .09       |
|         | Missing   | **          |       |    |                 |           |
| 4       | C         | 0           | 11    | 13 | -0.24           | .24       |
|         | A         | 0           | 13    | 15 | 0.64            | .24       |
|         | B         | 1           | 61    | 72 | 0.93            | .09       |
|         | Missing   | **          |       |    |                 |           |
| 5       | C         | 0           | 2     | 2  | -0.47           | 1.25      |
|         | B         | 0           | 7     | 8  | -0.06           | .30       |
|         | A         | 1           | 76    | 89 | 0.84            | .09       |
|         | Missing   | **          |       |    |                 |           |
| 6       | A         | 0           | 6     | 7  | 0.05            | .30       |
|         | C         | 0           | 23    | 27 | 0.44            | .17       |
|         | B         | 1           | 55    | 65 | 0.92            | .11       |
|         | Missing   | **          | 1     | 1  | 1.06            |           |
| 7       | B         | 0           | 4     | 5  | -0.05           | .35       |
|         | C         | 0           | 27    | 32 | 0.18            | .15       |
|         | A         | 1           | 54    | 64 | 1.07            | .09       |
|         | Missing   | **          |       |    |                 |           |
| 8       | C         | 0           | 7     | 8  | -0.31           | .30       |
|         | A         | 0           | 7     | 8  | -0.14           | .28       |
|         | B         | 1           | 71    | 84 | .92             | .09       |
|         | Missing   | **          |       |    |                 |           |
| 9       | B         | 0           | 11    | 13 | -0.10           | .24       |
|         | A         | 0           | 15    | 18 | 0.25            | .24       |
|         | C         | 1           | 58    | 68 | 1.01            | .09       |
|         | Missing   | **          | 1     | 1  | 1.37            |           |
| 10      | C         | 0           | 12    | 14 | 0.12            | .32       |
|         | B         | 0           | 22    | 26 | 0.57            | .15       |
|         | A         | 1           | 51    | 60 | 0.95            | .11       |
|         | Missing   | **          |       |    |                 |           |

Table 19  
*Distractor Analysis, Gr3MC8, Continued*

| Entry # | Data Code | Score Value | Count | %  | Average Measure | S.E. Mean |
|---------|-----------|-------------|-------|----|-----------------|-----------|
| 11      | B         | 0           | 13    | 15 | 0.15            | .16       |
|         | A         | 0           | 17    | 20 | 0.47            | .21       |
|         | C         | 1           | 54    | 64 | 0.99            | .11       |
|         | Missing   | **          | 1     | 1  | -0.76           |           |
| 12      | A         | 0           | 5     | 6  | -0.20           | .26       |
|         | C         | 0           | 64    | 75 | 0.76            | .10       |
|         | B         | 1           | 16    | 19 | 0.92            | .20       |
|         | Missing   | **          |       |    |                 |           |
| 13      | B         | 0           | 30    | 35 | 0.51            | .12       |
|         | C         | 0           | 20    | 24 | 0.57            | .18       |
|         | A         | 1           | 35    | 41 | 1.02            | .16       |
|         | Missing   | **          |       |    |                 |           |
| 14      | C         | 0           | 11    | 13 | 0.19            | .27       |
|         | A         | 0           | 11    | 13 | 0.26            | .28       |
|         | B         | 1           | 63    | 74 | 0.91            | .10       |
|         | Missing   | **          |       |    |                 |           |
| 15      | A         | 0           | 11    | 13 | 0.32            | .28       |
|         | B         | 0           | 29    | 34 | 0.66            | .16       |
|         | C         | 1           | 45    | 53 | 0.89            | .12       |
|         | Missing   | **          |       |    |                 |           |
| 16      | B         | 0           | 6     | 7  | -0.34           | .28       |
|         | C         | 0           | 46    | 54 | 0.75            | .12       |
|         | A         | 1           | 32    | 38 | 0.93            | .15       |
|         | Missing   | **          | 1     | 1  | 0.26            |           |
| 17      | B         | 0           | 17    | 20 | 0.24            | .21       |
|         | C         | 0           | 17    | 20 | 0.69            | .19       |
|         | A         | 1           | 51    | 60 | 0.91            | .11       |
|         | Missing   | **          |       |    |                 |           |
| 18      | A         | 0           | 7     | 8  | -0.50           | .32       |
|         | C         | 0           | 52    | 61 | 0.80            | .11       |
|         | B         | 1           | 25    | 29 | 0.98            | .13       |
|         | Missing   | **          | 1     | 1  | -0.50           |           |
| 19      | B         | 0           | 21    | 25 | 0.13            | .18       |
|         | A         | 0           | 9     | 11 | 0.58            | .17       |
|         | C         | 1           | 54    | 64 | 1.00            | .11       |
|         | Missing   | **          | 1     | 1  | 0.26            |           |
| 20      | B         | 0           | 25    | 29 | 0.40            | .16       |
|         | C         | 0           | 10    | 12 | 0.43            | .27       |
|         | A         | 1           | 50    | 59 | 0.96            | .11       |
|         | Missing   | **          |       |    |                 |           |

Table 20

*Item Statistics, Entry Order, Gr3MC9*

| Item Number | Raw Score | Count | Measure | Model Standard Error | Mean Square Outfit |
|-------------|-----------|-------|---------|----------------------|--------------------|
| 1           | 74        | 85    | -1.4    | 0.35                 | .89                |
| 2           | 58        | 85    | -0.03   | 0.26                 | 1.16               |
| 3           | 79        | 85    | -2.15   | 0.44                 | 1.55               |
| 4           | 68        | 85    | -0.79   | 0.3                  | .53                |
| 5           | 65        | 85    | -0.54   | 0.28                 | .70                |
| 6           | 58        | 85    | -0.03   | 0.26                 | 1.01               |
| 7           | 64        | 85    | -0.46   | 0.28                 | .57                |
| 8           | 63        | 85    | -0.38   | 0.27                 | .64                |
| 9           | 37        | 85    | 1.24    | 0.24                 | .87                |
| 10          | 40        | 85    | 1.07    | 0.24                 | 1.19               |
| 11          | 68        | 85    | -0.79   | 0.3                  | .76                |
| 12          | 52        | 85    | 0.36    | 0.25                 | 1.14               |
| 13          | 70        | 85    | -0.97   | 0.31                 | .59                |
| 14          | 48        | 85    | 0.6     | 0.24                 | 1.22               |
| 15          | 34        | 85    | 1.42    | 0.24                 | 1.15               |
| 16          | 55        | 85    | 0.17    | 0.25                 | .80                |
| 17          | 60        | 85    | -0.17   | 0.26                 | .80                |
| 18          | 35        | 85    | 1.36    | 0.24                 | 1.58               |
| 19          | 44        | 85    | 0.83    | 0.24                 | 1.19               |
| 20          | 47        | 85    | 0.66    | 0.24                 | 1.22               |

Table 21  
*Distractor Analysis, Gr3MC9*

| Entry # | Data Code | Score Value | Count | %  | Average Measure | S.E. Mean |
|---------|-----------|-------------|-------|----|-----------------|-----------|
| 1       | B         | 0           | 6     | 7  | -0.55           | .54       |
|         | C         | 0           | 5     | 6  | 0.16            | .25       |
|         | A         | 1           | 74    | 87 | 1.13            | .13       |
|         | Missing   | **          |       |    |                 |           |
| 2       | B         | 0           | 6     | 7  | -0.47           | .43       |
|         | A         | 0           | 21    | 25 | 0.66            | .22       |
|         | C         | 1           | 58    | 68 | 1.20            | .15       |
|         | Missing   | **          |       |    |                 |           |
| 3       | C         | 0           | 1     | 1  | 0.01            | .65       |
|         | A         | 0           | 5     | 6  | 0.32            | .13       |
|         | B         | 1           | 79    | 93 | 1.00            | .13       |
|         | Missing   | **          |       |    |                 |           |
| 4       | B         | 0           | 4     | 5  | -0.50           | .45       |
|         | A         | 0           | 13    | 15 | -0.38           | .19       |
|         | C         | 1           | 68    | 80 | 1.29            | .12       |
|         | Missing   | **          |       |    |                 |           |
| 5       | B         | 0           | 4     | 5  | -0.76           | .34       |
|         | C         | 0           | 15    | 18 | 0.03            | .23       |
|         | A         | 1           | 65    | 76 | 1.30            | .13       |
|         | Missing   | **          | 1     | 1  | -1.00           |           |
| 6       | A         | 0           | 3     | 4  | -0.24           | .52       |
|         | B         | 0           | 24    | 28 | 0.39            | .18       |
|         | C         | 1           | 58    | 68 | 1.24            | .15       |
|         | Missing   | **          |       |    |                 |           |
| 7       | A         | 0           | 1     | 1  | -1.29           | .16       |
|         | C         | 0           | 20    | 24 | -0.24           | .12       |
|         | B         | 1           | 64    | 75 | 1.36            | .12       |
|         | Missing   | **          |       |    |                 |           |
| 8       | A         | 0           | 15    | 18 | -0.35           | .20       |
|         | B         | 0           | 7     | 8  | 0.10            | .32       |
|         | C         | 1           | 63    | 74 | 1.36            | .13       |
|         | Missing   | **          |       |    |                 |           |
| 9       | C         | 0           | 10    | 12 | -0.52           | .26       |
|         | A         | 0           | 38    | 45 | 0.64            | .13       |
|         | B         | 1           | 37    | 44 | 1.67            | .18       |
|         | Missing   | **          |       |    |                 |           |
| 10      | C         | 0           | 2     | 2  | -0.49           | .51       |
|         | B         | 0           | 43    | 51 | 0.65            | .16       |
|         | A         | 1           | 40    | 47 | 1.34            | .18       |
|         | Missing   | **          |       |    |                 |           |

Table 21  
*Distractor Analysis, Gr3MC9, Continued*

| Entry # | Data Code | Score Value | Count | %  | Average Measure | S.E. Mean |
|---------|-----------|-------------|-------|----|-----------------|-----------|
| 11      | C         | 0           | 10    | 12 | -0.21           | .30       |
|         | B         | 0           | 7     | 8  | -0.20           | .42       |
|         | A         | 1           | 68    | 80 | 1.24            | .13       |
|         | Missing   | **          |       |    |                 |           |
| 12      | C         | 0           | 15    | 18 | 0.09            | .23       |
|         | A         | 0           | 17    | 20 | 0.80            | .21       |
|         | B         | 1           | 52    | 61 | 1.25            | .17       |
|         | Missing   | **          | 1     | 1  | 0.75            |           |
| 13      | B         | 0           | 9     | 11 | -0.50           | .26       |
|         | C         | 0           | 6     | 7  | -0.25           | .40       |
|         | A         | 1           | 70    | 82 | 1.24            | .12       |
|         | Missing   | **          |       |    |                 |           |
| 14      | C         | 0           | 31    | 36 | 0.58            | .18       |
|         | B         | 0           | 5     | 6  | 0.65            | .60       |
|         | A         | 1           | 48    | 56 | 1.26            | .17       |
|         | Missing   | **          | 1     | 1  | -1.00           |           |
| 15      | C         | 0           | 9     | 11 | 0.37            | .66       |
|         | A         | 0           | 42    | 49 | 0.76            | .17       |
|         | B         | 1           | 34    | 40 | 1.34            | .15       |
|         | Missing   | **          |       |    |                 |           |
| 16      | B         | 0           | 21    | 25 | 0.01            | .21       |
|         | A         | 0           | 9     | 11 | 0.31            | .38       |
|         | C         | 1           | 55    | 65 | 1.41            | .13       |
|         | Missing   | **          |       |    |                 |           |
| 17      | C         | 0           | 3     | 4  | -0.52           | .77       |
|         | A         | 0           | 22    | 26 | 0.13            | .17       |
|         | B         | 1           | 60    | 71 | 1.33            | .14       |
|         | Missing   | **          |       |    |                 |           |
| 18      | C         | 0           | 14    | 16 | 0.57            | .27       |
|         | B         | 0           | 35    | 41 | 0.97            | .18       |
|         | A         | 1           | 35    | 41 | 1.13            | .22       |
|         | Missing   | **          | 1     | 1  | -1.00           |           |
| 19      | B         | 0           | 7     | 8  | 0.12            | .48       |
|         | A         | 0           | 34    | 40 | 0.67            | .17       |
|         | C         | 1           | 44    | 52 | 1.30            | .18       |
|         | Missing   | **          |       |    |                 |           |
| 20      | B         | 0           | 18    | 21 | 0.28            | .24       |
|         | A         | 0           | 19    | 22 | 0.92            | .20       |
|         | C         | 1           | 47    | 55 | 1.26            | .18       |
|         | Missing   | **          | 1     | 1  | -1.00           |           |

Table 22

*Item Statistics, Entry Order, Gr3MC10*

| Item Number | Raw Score | Count | Measure | Model Standard Error | Mean Square Outfit |
|-------------|-----------|-------|---------|----------------------|--------------------|
| 1           | 123       | 153   | -1.04   | 0.22                 | 1.13               |
| 2           | 87        | 153   | 0.28    | 0.18                 | 1.03               |
| 3           | 39        | 153   | 1.84    | 0.2                  | 1.19               |
| 4           | 85        | 153   | 0.34    | 0.18                 | 1.10               |
| 5           | 126       | 153   | -1.19   | 0.23                 | .72                |
| 6           | 117       | 153   | -0.78   | 0.2                  | .84                |
| 7           | 97        | 153   | -0.04   | 0.18                 | .94                |
| 8           | 100       | 153   | -0.14   | 0.18                 | .93                |
| 9           | 91        | 153   | 0.15    | 0.18                 | .91                |
| 10          | 118       | 153   | -0.82   | 0.21                 | .90                |
| 11          | 107       | 153   | -0.39   | 0.19                 | 1.13               |
| 12          | 34        | 153   | 2.04    | 0.21                 | 1.53               |
| 13          | 89        | 153   | 0.21    | 0.18                 | 1.08               |
| 14          | 135       | 153   | -1.72   | 0.26                 | .68                |
| 15          | 116       | 153   | -0.73   | 0.2                  | .82                |
| 16          | 109       | 153   | -0.46   | 0.19                 | .77                |
| 17          | 111       | 153   | -0.54   | 0.2                  | .89                |
| 18          | 78        | 153   | 0.55    | 0.18                 | .91                |
| 19          | 46        | 153   | 1.58    | 0.19                 | 1.05               |
| 20          | 68        | 153   | 0.86    | 0.18                 | 1.26               |

Table 23  
*Distractor Analysis, Gr3MC10*

| Entry # | Data Code | Score Value | Count | %  | Average Measure | S.E. Mean |
|---------|-----------|-------------|-------|----|-----------------|-----------|
| 1       | B         | 0           | 19    | 12 | 0.11            | .18       |
|         | A         | 0           | 10    | 7  | 0.35            | .18       |
|         | C         | 1           | 123   | 80 | 0.70            | .09       |
|         | Missing   | **          | 1     | 1  | 1.31            |           |
| 2       | B         | 0           | 36    | 24 | 0.12            | .16       |
|         | C         | 0           | 29    | 19 | 0.47            | .12       |
|         | A         | 1           | 87    | 57 | 0.88            | .11       |
|         | Missing   | **          | 1     | 1  | -0.77           |           |
| 3       | A         | 0           | 23    | 15 | 0.02            | .20       |
|         | C         | 0           | 90    | 59 | 0.58            | .09       |
|         | B         | 1           | 39    | 25 | 1.00            | .18       |
|         | Missing   | **          | 1     | 1  | 1.31            |           |
| 4       | B         | 0           | 51    | 33 | 0.24            | .13       |
|         | A         | 0           | 15    | 10 | 0.27            | .17       |
|         | C         | 1           | 85    | 56 | 0.87            | .10       |
|         | Missing   | **          | 2     | 1  | 1.31            | .00       |
| 5       | A         | 0           | 16    | 10 | -0.45           | .21       |
|         | C         | 0           | 10    | 7  | -0.27           | .18       |
|         | B         | 1           | 126   | 82 | 0.81            | .08       |
|         | Missing   | **          | 1     | 1  | 1.00            |           |
| 6       | A         | 0           | 15    | 10 | -0.28           | .22       |
|         | B         | 0           | 19    | 12 | -0.05           | .18       |
|         | C         | 1           | 117   | 76 | 0.84            | .08       |
|         | Missing   | **          | 2     | 1  | -0.02           | .74       |
| 7       | C         | 0           | 10    | 7  | -0.52           | .28       |
|         | B         | 0           | 44    | 29 | 0.18            | .12       |
|         | A         | 1           | 97    | 63 | 0.92            | .09       |
|         | Missing   | **          | 2     | 1  | 0.46            | .00       |
| 8       | C         | 0           | 33    | 22 | 0.01            | .16       |
|         | A         | 0           | 18    | 12 | 0.12            | .21       |
|         | B         | 1           | 100   | 65 | 0.91            | .09       |
|         | Missing   | **          | 2     | 1  | -0.28           | .49       |
| 9       | A         | 0           | 18    | 12 | -0.11           | .17       |
|         | B         | 0           | 44    | 29 | 0.19            | .14       |
|         | C         | 1           | 91    | 59 | 0.96            | .09       |
|         | Missing   | **          |       |    |                 |           |
| 10      | A         | 0           | 6     | 4  | -1.10           | .17       |
|         | C         | 0           | 28    | 18 | 0.11            | .17       |
|         | B         | 1           | 118   | 77 | 0.83            | .08       |
|         | Missing   | **          | 1     | 1  | -0.77           |           |



Table 23  
*Distractor Analysis, Gr3MC10, Continued*

| Entry # | Data Code | Score Value | Count | %  | Average Measure | S.E. Mean |
|---------|-----------|-------------|-------|----|-----------------|-----------|
| 11      | B         | 0           | 23    | 15 | 0.00            | .21       |
|         | A         | 0           | 22    | 14 | 0.39            | .19       |
|         | C         | 1           | 107   | 70 | 0.78            | .09       |
|         | Missing   | **          | 1     | 1  | 1.31            |           |
| 12      | C         | 0           | 50    | 33 | 0.18            | .13       |
|         | B         | 0           | 69    | 45 | 0.84            | .10       |
|         | A         | 1           | 34    | 22 | 0.77            | .19       |
|         | Missing   | **          |       |    |                 |           |
| 13      | A         | 0           | 10    | 7  | -0.43           | .21       |
|         | C         | 0           | 53    | 35 | 0.43            | .11       |
|         | B         | 1           | 89    | 58 | 0.85            | .10       |
|         | Missing   | **          | 1     | 1  | -0.77           |           |
| 14      | A         | 0           | 11    | 7  | -0.46           | .26       |
|         | B         | 0           | 6     | 4  | -0.32           | .35       |
|         | C         | 1           | 135   | 88 | 0.74            | .08       |
|         | Missing   | **          | 1     | 1  | -0.27           |           |
| 15      | B         | 0           | 7     | 5  | -0.59           | .41       |
|         | C         | 0           | 30    | 20 | -0.04           | .13       |
|         | A         | 1           | 116   | 76 | 0.85            | .08       |
|         | Missing   | **          |       |    |                 |           |
| 16      | A         | 0           | 17    | 11 | -0.24           | .16       |
|         | C         | 0           | 25    | 16 | -0.04           | .18       |
|         | B         | 1           | 109   | 71 | 0.92            | .08       |
|         | Missing   | **          | 2     | 1  | -0.77           | .00       |
| 17      | A         | 0           | 20    | 13 | -0.22           | .17       |
|         | B         | 0           | 16    | 10 | -0.20           | .26       |
|         | C         | 1           | 11    | 73 | 0.87            | .08       |
|         | Missing   | **          | 6     | 4  | 0.62            | .45       |
| 18      | B         | 0           | 40    | 26 | 0.15            | .14       |
|         | A         | 0           | 32    | 21 | 0.22            | .14       |
|         | C         | 1           | 78    | 51 | 1.03            | .11       |
|         | Missing   | **          | 3     | 2  | -0.02           | .38       |
| 19      | C         | 0           | 36    | 24 | 0.01            | .14       |
|         | A         | 0           | 69    | 45 | 0.66            | .10       |
|         | B         | 1           | 46    | 30 | 1.07            | .15       |
|         | Missing   | **          | 2     | 1  | -0.64           | .13       |
| 20      | C         | 0           | 5     | 3  | -0.54           | .33       |
|         | B         | 0           | 79    | 52 | 0.53            | .11       |
|         | A         | 1           | 68    | 44 | 0.81            | .11       |
|         | Missing   | **          | 1     | 1  | -0.52           |           |

Table 24

*Item Statistics, Entry Order, Gr3MC11*

| Item Number | Raw Score | Count | Measure | Model Standard Error | Mean Square Outfit |
|-------------|-----------|-------|---------|----------------------|--------------------|
| 1           | 61        | 115   | 0.84    | 0.21                 | 1.07               |
| 2           | 86        | 115   | -0.32   | 0.23                 | .75                |
| 3           | 82        | 115   | -0.11   | 0.23                 | .82                |
| 4           | 73        | 115   | 0.32    | 0.21                 | 1.28               |
| 5           | 85        | 115   | -0.26   | 0.23                 | .92                |
| 6           | 89        | 115   | -0.49   | 0.24                 | .70                |
| 7           | 104       | 115   | -1.67   | 0.34                 | .56                |
| 8           | 80        | 115   | -0.01   | 0.22                 | .85                |
| 9           | 42        | 115   | 1.64    | 0.21                 | 1.52               |
| 10          | 82        | 115   | -0.11   | 0.23                 | .82                |
| 11          | 81        | 115   | -0.06   | 0.22                 | .96                |
| 12          | 89        | 115   | -0.49   | 0.24                 | 1.01               |
| 13          | 74        | 115   | 0.28    | 0.21                 | .94                |
| 14          | 80        | 115   | -0.01   | 0.22                 | .75                |
| 15          | 81        | 115   | -0.06   | 0.22                 | .97                |
| 16          | 88        | 115   | -0.43   | 0.24                 | 1.25               |
| 17          | 81        | 115   | -0.06   | 0.22                 | 1.21               |
| 18          | 55        | 115   | 1.09    | 0.2                  | 1.05               |
| 19          | 72        | 115   | 0.37    | 0.21                 | .88                |
| 20          | 89        | 115   | -0.49   | 0.24                 | .89                |

Table 25  
*Distractor Analysis, Gr3MC11*

| Entry # | Data Code | Score Value | Count | %  | Average Measure | S.E. Mean |
|---------|-----------|-------------|-------|----|-----------------|-----------|
| 1       | A         | 0           | 51    | 44 | 0.66            | .14       |
|         | C         | 0           | 2     | 2  | 1.20            | .00       |
|         | B         | 1           | 61    | 53 | 1.40            | .15       |
|         | Missing   | **          | 1     | 1  | -1.92           |           |
| 2       | B         | 0           | 8     | 7  | -0.77           | .44       |
|         | A         | 0           | 21    | 18 | 0.33            | .15       |
|         | C         | 1           | 86    | 75 | 1.38            | .11       |
|         | Missing   | **          |       |    |                 |           |
| 3       | C         | 0           | 14    | 12 | 0.06            | .26       |
|         | A         | 0           | 19    | 17 | 0.26            | .24       |
|         | B         | 1           | 82    | 71 | 1.39            | .11       |
|         | Missing   | **          |       |    |                 |           |
| 4       | B         | 0           | 8     | 7  | 0.13            | .49       |
|         | C         | 0           | 34    | 30 | 0.82            | .21       |
|         | A         | 1           | 73    | 63 | 1.24            | .12       |
|         | Missing   | **          |       |    |                 |           |
| 5       | A         | 0           | 7     | 6  | -0.20           | .41       |
|         | B         | 0           | 23    | 20 | 0.46            | .16       |
|         | C         | 1           | 85    | 74 | 1.30            | .12       |
|         | Missing   | **          |       |    |                 |           |
| 6       | B         | 0           | 8     | 7  | -0.25           | .34       |
|         | C         | 0           | 18    | 16 | 0.13            | .17       |
|         | A         | 1           | 89    | 77 | 1.34            | .11       |
|         | Missing   | **          |       |    |                 |           |
| 7       | A         | 0           | 6     | 5  | -0.70           | .28       |
|         | B         | 0           | 4     | 3  | -0.02           | .42       |
|         | C         | 1           | 104   | 90 | 1.19            | .11       |
|         | Missing   | **          | 1     | 1  | 0.67            |           |
| 8       | C         | 0           | 17    | 15 | -0.15           | .21       |
|         | A         | 0           | 18    | 16 | 0.54            | .25       |
|         | B         | 1           | 80    | 70 | 1.41            | .12       |
|         | Missing   | **          |       |    |                 |           |
| 9       | B         | 0           | 28    | 24 | 1.01            | .26       |
|         | C         | 0           | 44    | 38 | 1.03            | .16       |
|         | A         | 1           | 42    | 37 | 1.12            | .17       |
|         | Missing   | **          | 1     | 1  | -0.93           |           |
| 10      | A         | 0           | 16    | 14 | -0.24           | .17       |
|         | C         | 0           | 17    | 15 | 0.47            | .29       |
|         | B         | 1           | 82    | 71 | 1.41            | .11       |
|         | Missing   | **          |       |    |                 |           |

Table 25  
*Distractor Analysis, Gr3MC11, Continued*

| Entry # | Data Code | Score Value | Count | %  | Average Measure | S.E. Mean |
|---------|-----------|-------------|-------|----|-----------------|-----------|
| 11      | C         | 0           | 13    | 11 | 0.26            | .25       |
|         | A         | 0           | 21    | 18 | 0.35            | .26       |
|         | B         | 1           | 81    | 70 | 1.34            | .12       |
|         | Missing   | **          |       |    |                 |           |
| 12      | C         | 0           | 6     | 5  | -0.24           | .45       |
|         | B         | 0           | 20    | 17 | 0.31            | .27       |
|         | A         | 1           | 89    | 77 | 1.29            | .11       |
|         | Missing   | **          |       |    |                 |           |
| 13      | C         | 0           | 18    | 16 | 0.36            | .26       |
|         | B         | 0           | 23    | 20 | 0.36            | .19       |
|         | A         | 1           | 74    | 64 | 1.42            | .13       |
|         | Missing   | **          |       |    |                 |           |
| 14      | B         | 0           | 8     | 7  | -0.17           | .34       |
|         | A         | 0           | 27    | 23 | 0.26            | .17       |
|         | C         | 1           | 80    | 70 | 1.43            | .12       |
|         | Missing   | **          |       |    |                 |           |
| 15      | C         | 0           | 9     | 8  | -0.23           | .17       |
|         | A         | 0           | 25    | 22 | 0.58            | .18       |
|         | B         | 1           | 81    | 70 | 1.32            | .13       |
|         | Missing   | **          |       |    |                 |           |
| 16      | B         | 0           | 11    | 10 | 0.47            | .37       |
|         | C         | 0           | 16    | 14 | 0.74            | .20       |
|         | A         | 1           | 88    | 77 | 1.17            | .13       |
|         | Missing   | **          |       |    |                 |           |
| 17      | A         | 0           | 7     | 6  | 0.05            | .36       |
|         | C         | 0           | 27    | 23 | 0.74            | .20       |
|         | B         | 1           | 81    | 70 | 1.23            | .13       |
|         | Missing   | **          |       |    |                 |           |
| 18      | B         | 0           | 23    | 20 | 0.50            | .21       |
|         | C         | 0           | 36    | 31 | 0.71            | .17       |
|         | A         | 1           | 55    | 48 | 1.47            | .16       |
|         | Missing   | **          | 1     | 1  | 1.93            |           |
| 19      | A         | 0           | 14    | 12 | -0.01           | .35       |
|         | B         | 0           | 29    | 25 | 0.51            | .15       |
|         | C         | 1           | 72    | 63 | 1.46            | .12       |
|         | Missing   | **          |       |    |                 |           |
| 20      | A         | 0           | 15    | 13 | 0.20            | .28       |
|         | B         | 0           | 11    | 10 | 0.33            | .20       |
|         | C         | 1           | 89    | 77 | 1.27            | .12       |
|         | Missing   | **          |       |    |                 |           |

Table 26

*Item Statistics, Entry Order, Gr3MC12*

| Item Number | Raw Score | Count | Measure | Model Standard Error | Mean Square Outfit |
|-------------|-----------|-------|---------|----------------------|--------------------|
| 1           | 93        | 115   | -0.88   | 0.26                 | .78                |
| 2           | 102       | 115   | -1.61   | 0.32                 | .66                |
| 3           | 67        | 115   | 0.53    | 0.22                 | 1.08               |
| 4           | 87        | 115   | -0.5    | 0.24                 | 1.04               |
| 5           | 92        | 115   | -0.81   | 0.26                 | .82                |
| 6           | 17        | 115   | 3.1     | 0.28                 | 2.52               |
| 7           | 50        | 115   | 1.32    | 0.22                 | 1.20               |
| 8           | 101       | 115   | -1.51   | 0.31                 | .70                |
| 9           | 74        | 115   | 0.2     | 0.22                 | 1.37               |
| 10          | 64        | 115   | 0.67    | 0.22                 | .92                |
| 11          | 86        | 115   | -0.44   | 0.24                 | .69                |
| 12          | 69        | 115   | 0.44    | 0.22                 | .69                |
| 13          | 96        | 115   | -1.09   | 0.27                 | .53                |
| 14          | 81        | 115   | -0.16   | 0.23                 | 1.10               |
| 15          | 77        | 115   | 0.05    | 0.23                 | 1.14               |
| 16          | 56        | 115   | 1.04    | 0.21                 | 1.36               |
| 17          | 86        | 115   | -0.44   | 0.24                 | .75                |
| 18          | 69        | 115   | 0.44    | 0.22                 | .83                |
| 19          | 97        | 115   | -1.17   | 0.28                 | .63                |
| 20          | 61        | 115   | 0.81    | 0.22                 | .77                |

Table 27  
*Distractor Analysis, Gr3MC12*

| Entry # | Data Code | Score Value | Count | %  | Average Measure | S.E. Mean |
|---------|-----------|-------------|-------|----|-----------------|-----------|
| 1       | C         | 0           | 7     | 6  | -0.64           | .27       |
|         | A         | 0           | 15    | 13 | 0.04            | .23       |
|         | B         | 1           | 93    | 81 | 1.37            | .15       |
|         | Missing   | **          |       |    |                 |           |
| 2       | B         | 0           | 8     | 7  | -0.49           | .32       |
|         | C         | 0           | 5     | 4  | -0.36           | .45       |
|         | A         | 1           | 102   | 89 | 1.27            | .14       |
|         | Missing   | **          |       |    |                 |           |
| 3       | A         | 0           | 40    | 35 | 0.26            | .16       |
|         | C         | 0           | 8     | 7  | 0.95            | .40       |
|         | B         | 1           | 67    | 58 | 1.58            | .19       |
|         | Missing   | **          |       |    |                 |           |
| 4       | B         | 0           | 3     | 3  | -1.07           | .16       |
|         | A         | 0           | 25    | 22 | 0.26            | .20       |
|         | C         | 1           | 87    | 76 | 1.38            | .16       |
|         | Missing   | **          |       |    |                 |           |
| 5       | B         | 0           | 18    | 16 | -0.21           | .24       |
|         | A         | 0           | 5     | 4  | 0.06            | .33       |
|         | C         | 1           | 92    | 80 | 1.38            | .15       |
|         | Missing   | **          |       |    |                 |           |
| 6       | A         | 0           | 51    | 44 | 0.63            | .19       |
|         | C         | 0           | 47    | 41 | 1.49            | .21       |
|         | B         | 1           | 17    | 15 | 1.25            | .39       |
|         | Missing   | **          |       |    |                 |           |
| 7       | A         | 0           | 16    | 14 | 0.40            | .22       |
|         | B         | 0           | 49    | 43 | 0.58            | .15       |
|         | C         | 1           | 50    | 43 | 1.78            | .24       |
|         | Missing   | **          |       |    |                 |           |
| 8       | C         | 0           | 1     | 1  | -0.80           |           |
|         | A         | 0           | 13    | 11 | -0.34           | .26       |
|         | B         | 1           | 101   | 88 | 1.27            | .14       |
|         | Missing   | **          |       |    |                 |           |
| 9       | B         | 0           | 20    | 17 | -0.03           | .17       |
|         | C         | 0           | 21    | 18 | 1.06            | .28       |
|         | A         | 1           | 74    | 64 | 1.38            | .18       |
|         | Missing   | **          |       |    |                 |           |
| 10      | A         | 0           | 19    | 17 | 0.16            | .24       |
|         | B         | 0           | 32    | 28 | 0.26            | .19       |
|         | C         | 1           | 64    | 56 | 1.75            | .18       |
|         | Missing   | **          |       |    |                 |           |

Table 27  
*Distractor Analysis, Gr3MC12, Continued*

| Entry # | Data Code | Score Value | Count | %  | Average Measure | S.E. Mean |
|---------|-----------|-------------|-------|----|-----------------|-----------|
| 11      | A         | 0           | 15    | 13 | -0.19           | .22       |
|         | B         | 0           | 14    | 12 | -0.08           | .22       |
|         | C         | 1           | 86    | 75 | 1.48            | .15       |
|         | Missing   | **          |       |    |                 |           |
| 12      | A         | 0           | 11    | 10 | -0.22           | .28       |
|         | B         | 0           | 35    | 30 | 0.06            | .12       |
|         | C         | 1           | 69    | 60 | 1.80            | .17       |
|         | Missing   | **          |       |    |                 |           |
| 13      | A         | 0           | 9     | 8  | -0.61           | .18       |
|         | C         | 0           | 10    | 9  | -0.32           | .26       |
|         | B         | 1           | 96    | 83 | 1.38            | .14       |
|         | Missing   | **          |       |    |                 |           |
| 14      | A         | 0           | 4     | 3  | 0.21            | .26       |
|         | B         | 0           | 29    | 25 | 0.23            | .22       |
|         | C         | 1           | 81    | 70 | 1.45            | .16       |
|         | Missing   | **          | 1     | 1  | -1.07           |           |
| 15      | C         | 0           | 12    | 10 | -0.03           | .28       |
|         | B         | 0           | 26    | 23 | 0.50            | .21       |
|         | A         | 1           | 77    | 67 | 1.44            | .17       |
|         | Missing   | **          |       |    |                 |           |
| 16      | C         | 0           | 29    | 25 | 0.54            | .20       |
|         | A         | 0           | 30    | 26 | 0.79            | .29       |
|         | B         | 1           | 56    | 49 | 1.51            | .20       |
|         | Missing   | **          |       |    |                 |           |
| 17      | A         | 0           | 14    | 12 | -0.21           | .23       |
|         | B         | 0           | 15    | 13 | -0.01           | .23       |
|         | C         | 1           | 86    | 75 | 1.47            | .15       |
|         | Missing   | **          |       |    |                 |           |
| 18      | A         | 0           | 30    | 26 | 0.13            | .18       |
|         | C         | 0           | 16    | 14 | 0.18            | .23       |
|         | B         | 1           | 69    | 60 | 1.69            | .17       |
|         | Missing   | **          |       |    |                 |           |
| 19      | B         | 0           | 6     | 5  | -0.75           | .32       |
|         | C         | 0           | 11    | 10 | -0.21           | .31       |
|         | A         | 1           | 97    | 84 | 1.35            | .14       |
|         | Missing   | **          | 1     | 1  | -0.80           |           |
| 20      | C         | 0           | 15    | 13 | -0.55           | .19       |
|         | B         | 0           | 39    | 34 | 0.42            | .13       |
|         | A         | 1           | 61    | 53 | 1.89            | .18       |
|         | Missing   | **          |       |    |                 |           |

Table 28

*Item Statistics, Entry Order, Gr3MC13*

| Item Number | Raw Score | Count | Measure | Model Standard Error | Mean Square Outfit |
|-------------|-----------|-------|---------|----------------------|--------------------|
| 1           | 86        | 108   | -1.07   | 0.25                 | .77                |
| 2           | 70        | 108   | -0.21   | 0.22                 | 1.12               |
| 3           | 55        | 108   | 0.45    | 0.21                 | 1.17               |
| 4           | 58        | 108   | 0.32    | 0.21                 | 1.10               |
| 5           | 83        | 108   | -0.89   | 0.24                 | .93                |
| 6           | 89        | 108   | -1.28   | 0.27                 | .69                |
| 7           | 51        | 108   | 0.63    | 0.21                 | .89                |
| 8           | 65        | 108   | 0.02    | 0.21                 | .83                |
| 9           | 60        | 108   | 0.24    | 0.21                 | .96                |
| 10          | 45        | 108   | 0.89    | 0.21                 | 1.06               |
| 11          | 88        | 108   | -1.21   | 0.26                 | 1.12               |
| 12          | 54        | 108   | 0.5     | 0.21                 | 1.18               |
| 13          | 96        | 108   | -1.87   | 0.32                 | .62                |
| 14          | 53        | 108   | 0.54    | 0.21                 | .98                |
| 15          | 45        | 108   | 0.89    | 0.21                 | 1.17               |
| 16          | 61        | 108   | 0.19    | 0.21                 | 1.03               |
| 17          | 58        | 108   | 0.32    | 0.21                 | .95                |
| 18          | 65        | 108   | 0.02    | 0.21                 | 1.00               |
| 19          | 73        | 108   | -0.36   | 0.22                 | .99                |
| 20          | 25        | 108   | 1.88    | 0.24                 | 1.07               |



Table 29  
*Distractor Analysis, Gr3MC13*

| Entry # | Data Code | Score Value | Count | %  | Average Measure | S.E. Mean |
|---------|-----------|-------------|-------|----|-----------------|-----------|
| 1       | C         | 0           | 7     | 6  | -0.48           | .41       |
|         | A         | 0           | 14    | 13 | -0.24           | .16       |
|         | B         | 1           | 86    | 80 | 0.72            | .10       |
|         | Missing   | **          | 1     | 1  | 0.73            |           |
| 2       | A         | 0           | 19    | 18 | 0.19            | .16       |
|         | C         | 0           | 18    | 17 | 0.21            | .18       |
|         | B         | 1           | 70    | 65 | 0.70            | .13       |
|         | Missing   | **          | 1     | 1  | -0.22           |           |
| 3       | B         | 0           | 9     | 8  | -0.27           | .38       |
|         | C         | 0           | 43    | 40 | 0.43            | .10       |
|         | A         | 1           | 55    | 51 | 0.72            | .15       |
|         | Missing   | **          | 1     | 1  | 0.25            |           |
| 4       | A         | 0           | 16    | 15 | 0.10            | .23       |
|         | B         | 0           | 33    | 31 | 0.28            | .16       |
|         | C         | 1           | 58    | 54 | 0.78            | .13       |
|         | Missing   | **          | 1     | 1  | -0.22           |           |
| 5       | C         | 0           | 6     | 6  | -0.47           | .14       |
|         | A         | 0           | 19    | 18 | 0.04            | .19       |
|         | B         | 1           | 83    | 77 | 0.70            | .11       |
|         | Missing   | **          |       |    |                 |           |
| 6       | B         | 0           | 3     | 3  | -1.17           | .10       |
|         | C         | 0           | 15    | 14 | -0.39           | .23       |
|         | A         | 1           | 89    | 82 | 0.73            | .09       |
|         | Missing   | **          | 1     | 1  | 0.25            |           |
| 7       | A         | 0           | 19    | 18 | 0.08            | .19       |
|         | C         | 0           | 37    | 34 | 0.19            | .12       |
|         | B         | 1           | 51    | 47 | 0.98            | .13       |
|         | Missing   | **          | 1     | 1  | -2.71           |           |
| 8       | A         | 0           | 19    | 18 | -0.17           | .16       |
|         | B         | 0           | 24    | 22 | -0.01           | .19       |
|         | C         | 1           | 65    | 60 | 0.91            | .11       |
|         | Missing   | **          |       |    |                 |           |
| 9       | B         | 0           | 31    | 29 | 0.03            | .14       |
|         | C         | 0           | 16    | 15 | 0.26            | .19       |
|         | A         | 1           | 60    | 56 | 0.84            | .13       |
|         | Missing   | **          | 1     | 1  | 0.25            |           |
| 10      | B         | 0           | 32    | 30 | 0.22            | .14       |
|         | A         | 0           | 28    | 26 | 0.30            | .16       |
|         | C         | 1           | 45    | 42 | 0.90            | .16       |
|         | Missing   | **          | 3     | 3  | -0.07           | .42       |

Table 29  
*Distractor Analysis, Gr3MC13, Continued*

| Entry # | Data Code | Score Value | Count | %  | Average Measure | S.E. Mean |
|---------|-----------|-------------|-------|----|-----------------|-----------|
| 11      | A         | 0           | 10    | 9  | -0.42           | .36       |
|         | C         | 0           | 10    | 9  | 0.26            | .28       |
|         | B         | 1           | 88    | 81 | 0.65            | .10       |
|         | Missing   | **          |       |    |                 |           |
| 12      | B         | 0           | 14    | 13 | -0.25           | .20       |
|         | C         | 0           | 39    | 36 | 0.51            | .15       |
|         | A         | 1           | 54    | 50 | 0.73            | .13       |
|         | Missing   | **          | 1     | 1  | 0.25            |           |
| 13      | C         | 0           | 5     | 5  | -0.93           | .51       |
|         | A         | 0           | 6     | 6  | -0.56           | .18       |
|         | B         | 1           | 96    | 89 | 0.66            | .09       |
|         | Missing   | **          | 1     | 1  | 0.73            |           |
| 14      | B         | 0           | 12    | 11 | -0.07           | .15       |
|         | A         | 0           | 42    | 39 | 0.21            | .14       |
|         | C         | 1           | 53    | 49 | 0.90            | .14       |
|         | Missing   | **          | 1     | 1  | 0.48            |           |
| 15      | A         | 0           | 36    | 33 | 0.29            | .16       |
|         | B         | 0           | 25    | 23 | 0.37            | .16       |
|         | C         | 1           | 45    | 42 | 0.77            | .15       |
|         | Missing   | **          | 2     | 2  | 0.81            | .79       |
| 16      | C         | 0           | 30    | 28 | 0.03            | .23       |
|         | B         | 0           | 16    | 15 | 0.20            | .18       |
|         | A         | 1           | 61    | 56 | 0.86            | .10       |
|         | Missing   | **          | 1     | 1  | -0.46           |           |
| 17      | C         | 0           | 13    | 12 | -0.31           | .28       |
|         | A         | 0           | 36    | 33 | 0.27            | .10       |
|         | B         | 1           | 58    | 54 | 0.88            | .13       |
|         | Missing   | **          | 1     | 1  | -0.71           |           |
| 18      | C         | 0           | 17    | 16 | -0.24           | .28       |
|         | B         | 0           | 25    | 23 | 0.33            | .13       |
|         | A         | 1           | 65    | 60 | 0.80            | .12       |
|         | Missing   | **          | 1     | 1  | -0.22           |           |
| 19      | B         | 0           | 13    | 12 | -0.36           | .28       |
|         | A         | 0           | 22    | 20 | 0.15            | .18       |
|         | C         | 1           | 73    | 68 | 0.78            | .10       |
|         | Missing   | **          |       |    |                 |           |
| 20      | C         | 0           | 28    | 26 | 0.16            | .20       |
|         | B         | 0           | 55    | 51 | 0.46            | .10       |
|         | A         | 1           | 25    | 23 | 1.05            | .24       |
|         | Missing   | **          |       |    |                 |           |

Table 30

*Item Statistics, Entry Order, Gr3MC14*

| Item Number | Raw Score | Count | Measure | Model Standard Error | Outfit Mean Square |
|-------------|-----------|-------|---------|----------------------|--------------------|
| 1           | 79        | 107   | -0.31   | 0.24                 | .89                |
| 2           | 89        | 107   | -0.96   | 0.28                 | .79                |
| 3           | 87        | 107   | -0.81   | 0.27                 | .85                |
| 4           | 34        | 107   | 1.8     | 0.22                 | 1.56               |
| 5           | 78        | 107   | -0.25   | 0.24                 | .87                |
| 6           | 93        | 107   | -1.3    | 0.31                 | 1.18               |
| 7           | 92        | 107   | -1.21   | 0.3                  | .61                |
| 8           | 88        | 107   | -0.89   | 0.27                 | .79                |
| 9           | 66        | 107   | 0.36    | 0.22                 | .98                |
| 10          | 81        | 107   | -0.42   | 0.24                 | .79                |
| 11          | 58        | 107   | 0.72    | 0.21                 | .87                |
| 12          | 47        | 107   | 1.21    | 0.21                 | 1.09               |
| 13          | 40        | 107   | 1.52    | 0.22                 | 1.39               |
| 14          | 80        | 107   | -0.36   | 0.24                 | .89                |
| 15          | 92        | 107   | -1.21   | 0.3                  | .94                |
| 16          | 77        | 107   | -0.2    | 0.23                 | .91                |
| 17          | 83        | 107   | -0.55   | 0.25                 | .79                |
| 18          | 50        | 107   | 1.07    | 0.21                 | 1.46               |
| 19          | 80        | 107   | -0.36   | 0.24                 | .93                |
| 20          | 27        | 107   | 2.16    | 0.24                 | 1.08               |

Table 31  
*Distractor Analysis, Gr3MC14*

| Entry # | Data Code | Score Value | Count | %  | Average Measure | S.E. Mean |
|---------|-----------|-------------|-------|----|-----------------|-----------|
| 1       | C         | 0           | 6     | 6  | -0.26           | .27       |
|         | B         | 0           | 22    | 21 | 0.23            | .25       |
|         | A         | 1           | 79    | 74 | 1.18            | .09       |
|         | Missing   | **          |       |    |                 |           |
| 2       | A         | 0           | 4     | 4  | -0.87           | .17       |
|         | C         | 0           | 14    | 13 | -0.12           | .30       |
|         | B         | 1           | 89    | 83 | 1.14            | .08       |
|         | Missing   | **          |       |    |                 |           |
| 3       | A         | 0           | 9     | 8  | -0.25           | .45       |
|         | B         | 0           | 10    | 9  | -0.11           | .25       |
|         | C         | 1           | 87    | 81 | 1.14            | .08       |
|         | Missing   | **          | 1     | 1  | 1.01            |           |
| 4       | A         | 0           | 8     | 7  | -0.45           | .41       |
|         | B         | 0           | 64    | 60 | 1.04            | .10       |
|         | C         | 1           | 34    | 32 | 0.98            | .17       |
|         | Missing   | **          | 1     | 1  | 0.20            |           |
| 5       | C         | 0           | 13    | 12 | 0.10            | .24       |
|         | A         | 0           | 14    | 13 | 0.20            | .16       |
|         | B         | 1           | 78    | 73 | 1.17            | .99       |
|         | Missing   | **          | 2     | 2  | 0.70            | .10       |
| 6       | B         | 0           | 4     | 4  | 0.10            | .59       |
|         | C         | 0           | 10    | 9  | 0.31            | .42       |
|         | A         | 1           | 93    | 87 | 1.00            | .09       |
|         | Missing   | **          |       |    |                 |           |
| 7       | A         | 0           | 11    | 10 | -0.40           | .35       |
|         | B         | 0           | 4     | 4  | -0.31           | .35       |
|         | C         | 1           | 92    | 86 | 1.11            | .08       |
|         | Missing   | **          |       |    |                 |           |
| 8       | B         | 0           | 8     | 7  | -0.10           | .28       |
|         | C         | 0           | 10    | 9  | -0.10           | .25       |
|         | A         | 1           | 88    | 82 | 1.10            | .09       |
|         | Missing   | **          | 1     | 1  | 1.69            |           |
| 9       | B         | 0           | 18    | 17 | 0.11            | .23       |
|         | A         | 0           | 21    | 20 | 0.66            | .22       |
|         | C         | 1           | 66    | 62 | 1.20            | .10       |
|         | Missing   | **          | 2     | 2  | 0.89            | .44       |
| 10      | C         | 0           | 11    | 10 | -0.20           | .36       |
|         | A         | 0           | 14    | 13 | 0.16            | .20       |
|         | B         | 1           | 81    | 76 | 1.17            | .09       |
|         | Missing   | **          | 1     | 1  | 1.69            |           |

Table 31  
*Distractor Analysis, Gr3MC14, Continued*

| Entry # | Data Code | Score Value | Count | %  | Average Measure | S.E. Mean |
|---------|-----------|-------------|-------|----|-----------------|-----------|
| 11      | A         | 0           | 31    | 29 | 0.30            | .19       |
|         | C         | 0           | 17    | 16 | 0.55            | .20       |
|         | B         | 1           | 58    | 54 | 1.33            | .10       |
|         | Missing   | **          | 1     | 1  | 1.01            |           |
| 12      | B         | 0           | 31    | 29 | 0.50            | .16       |
|         | A         | 0           | 28    | 26 | 0.72            | .18       |
|         | C         | 1           | 47    | 44 | 1.28            | .14       |
|         | Missing   | **          | 1     | 1  | 0.46            |           |
| 13      | A         | 0           | 16    | 15 | 0.23            | .21       |
|         | B         | 0           | 51    | 48 | 0.97            | .13       |
|         | C         | 1           | 40    | 37 | 1.08            | .15       |
|         | Missing   | **          |       |    |                 |           |
| 14      | C         | 0           | 6     | 6  | -0.40           | .53       |
|         | B         | 0           | 20    | 19 | 0.34            | .20       |
|         | A         | 1           | 80    | 75 | 1.14            | .09       |
|         | Missing   | **          | 1     | 1  | 1.01            |           |
| 15      | A         | 0           | 10    | 9  | 0.02            | .43       |
|         | B         | 0           | 4     | 4  | 0.09            | .34       |
|         | C         | 1           | 92    | 86 | 1.03            | .09       |
|         | Missing   | **          | 1     | 1  | 0.73            |           |
| 16      | C         | 0           | 17    | 16 | -0.01           | .17       |
|         | B         | 0           | 13    | 12 | 0.46            | .39       |
|         | A         | 1           | 77    | 72 | 1.18            | .09       |
|         | Missing   | **          |       |    |                 |           |
| 17      | A         | 0           | 13    | 12 | -0.04           | .24       |
|         | C         | 0           | 11    | 10 | 0.19            | .34       |
|         | B         | 1           | 83    | 78 | 1.14            | .09       |
|         | Missing   | **          |       |    |                 |           |
| 18      | A         | 0           | 11    | 10 | -0.02           | .33       |
|         | C         | 0           | 45    | 42 | 1.04            | .14       |
|         | B         | 1           | 50    | 47 | .98             | .13       |
|         | Missing   | **          | 1     | 1  | 1.01            |           |
| 19      | C         | 0           | 15    | 14 | .14             | .17       |
|         | B         | 0           | 12    | 11 | .38             | .35       |
|         | A         | 1           | 80    | 75 | 1.12            | .10       |
|         | Missing   | **          |       |    |                 |           |
| 20      | C         | 0           | 26    | 24 | 0.23            | .21       |
|         | A         | 0           | 53    | 50 | 1.00            | .12       |
|         | B         | 1           | 27    | 25 | 1.34            | .15       |
|         | Missing   | **          | 1     | 1  | 1.69            |           |

Table 32

*Item Statistics, Entry Order, Gr3MC15*

| Item Number | Raw Score | Count | Measure | Model Standard Error | Mean Square Outfit |
|-------------|-----------|-------|---------|----------------------|--------------------|
| 1           | 17        | 103   | 2.71    | 0.28                 | 1.67               |
| 2           | 40        | 103   | 1.42    | 0.22                 | 1.14               |
| 3           | 43        | 103   | 1.28    | 0.21                 | 1.12               |
| 4           | 43        | 103   | 1.28    | 0.21                 | 1.54               |
| 5           | 55        | 103   | 0.74    | 0.21                 | .96                |
| 6           | 60        | 103   | 0.51    | 0.22                 | 1.02               |
| 7           | 62        | 103   | 0.42    | 0.22                 | 1.07               |
| 8           | 64        | 103   | 0.33    | 0.22                 | 1.01               |
| 9           | 68        | 103   | 0.13    | 0.22                 | .84                |
| 10          | 69        | 103   | 0.08    | 0.23                 | .96                |
| 11          | 76        | 103   | -0.3    | 0.24                 | 1.07               |
| 12          | 76        | 103   | -0.3    | 0.24                 | 1.27               |
| 13          | 77        | 103   | -0.36   | 0.24                 | .85                |
| 14          | 78        | 103   | -0.42   | 0.25                 | .83                |
| 15          | 83        | 103   | -0.75   | 0.27                 | .80                |
| 16          | 84        | 103   | -0.82   | 0.27                 | .77                |
| 17          | 84        | 103   | -0.82   | 0.27                 | .66                |
| 18          | 89        | 103   | -1.23   | 0.31                 | .78                |
| 19          | 93        | 103   | -1.66   | 0.35                 | .87                |
| 20          | 97        | 103   | -2.27   | 0.44                 | .53                |

Table 33  
*Distractor Analysis, Gr3MC15*

| Entry # | Data Code | Score Value | Count | %  | Average Measure | S.E. Mean |
|---------|-----------|-------------|-------|----|-----------------|-----------|
| 1       | A         | 0           | 5     | 5  | -0.22           | .30       |
|         | B         | 0           | 5     | 5  | 0.38            | .40       |
|         | C         | 1           | 93    | 90 | 1.00            | .10       |
|         | Missing   | **          |       |    |                 |           |
| 2       | A         | 0           | 4     | 4  | -0.91           | .66       |
|         | C         | 0           | 2     | 2  | -0.15           | .64       |
|         | B         | 1           | 97    | 94 | 1.00            | .09       |
|         | Missing   | **          |       |    |                 |           |
| 3       | B         | 0           | 3     | 3  | -0.01           | .99       |
|         | C         | 0           | 24    | 23 | 0.48            | .20       |
|         | A         | 1           | 76    | 74 | 1.08            | .10       |
|         | Missing   | **          |       |    |                 |           |
| 4       | A         | 0           | 8     | 8  | -0.29           | .32       |
|         | B         | 0           | 17    | 17 | 0.41            | .19       |
|         | C         | 1           | 78    | 76 | 1.14            | .10       |
|         | Missing   | **          |       |    |                 |           |
| 5       | B         | 0           | 29    | 28 | 0.16            | .17       |
|         | C         | 0           | 6     | 6  | 0.89            | .27       |
|         | A         | 1           | 68    | 66 | 1.22            | .10       |
|         | Missing   | **          |       |    |                 |           |
| 6       | A         | 0           | 34    | 33 | 0.53            | .15       |
|         | C         | 0           | 25    | 24 | 0.90            | .17       |
|         | B         | 1           | 43    | 42 | 1.24            | .16       |
|         | Missing   | **          | 1     | 1  | -0.27           |           |
| 7       | B         | 0           | 32    | 31 | 0.46            | .17       |
|         | C         | 0           | 9     | 9  | 0.96            | .27       |
|         | A         | 1           | 62    | 60 | 1.13            | .12       |
|         | Missing   | **          |       |    |                 |           |
| 8       | B         | 0           | 6     | 6  | 0.58            | .30       |
|         | A         | 0           | 20    | 19 | 0.58            | .24       |
|         | C         | 1           | 76    | 74 | 1.02            | .11       |
|         | Missing   | **          | 1     | 1  | 1.04            |           |
| 9       | A         | 0           | 14    | 14 | -0.14           | .30       |
|         | C         | 0           | 6     | 6  | 0.33            | .18       |
|         | B         | 1           | 83    | 81 | 1.12            | .09       |
|         | Missing   | **          |       |    |                 |           |
| 10      | C         | 0           | 21    | 20 | 0.32            | .22       |
|         | B         | 0           | 27    | 26 | 0.64            | .10       |
|         | A         | 1           | 55    | 53 | 1.26            | .13       |
|         | Missing   | **          |       |    |                 |           |

Table 33  
*Distractor Analysis, Gr3MC15, Continued*

| Entry # | Data Code | Score Value | Count | %  | Average Measure | S.E. Mean |
|---------|-----------|-------------|-------|----|-----------------|-----------|
| 11      | A         | 0           | 12    | 12 | 0.38            | .27       |
|         | C         | 0           | 22    | 21 | 0.39            | .22       |
|         | B         | 1           | 69    | 67 | 1.16            | .11       |
|         | Missing   | **          |       |    |                 |           |
| 12      | B         | 0           | 15    | 15 | 0.39            | .26       |
|         | A         | 0           | 28    | 27 | 0.61            | .16       |
|         | C         | 1           | 60    | 58 | 1.17            | .12       |
|         | Missing   | **          |       |    |                 |           |
| 13      | C         | 0           | 6     | 6  | 0.12            | .34       |
|         | A         | 0           | 20    | 19 | 0.20            | .23       |
|         | B         | 1           | 77    | 75 | 1.15            | .10       |
|         | Missing   | **          |       |    |                 |           |
| 14      | B         | 0           | 7     | 7  | -0.26           | .40       |
|         | A         | 0           | 12    | 12 | 0.21            | .26       |
|         | C         | 1           | 84    | 82 | 1.10            | .09       |
|         | Missing   | **          |       |    |                 |           |
| 15      | C         | 0           | 4     | 4  | 0.55            | .81       |
|         | A         | 0           | 81    | 79 | 0.94            | .11       |
|         | B         | 1           | 17    | 17 | 0.83            | .19       |
|         | Missing   | **          | 1     | 1  | 0.76            |           |
| 16      | B         | 0           | 14    | 14 | 0.16            | .22       |
|         | C         | 0           | 48    | 47 | 0.76            | .10       |
|         | A         | 1           | 40    | 39 | 1.34            | .17       |
|         | Missing   | **          | 1     | 1  | 0.76            |           |
| 17      | B         | 0           | 17    | 17 | 0.18            | .26       |
|         | A         | 0           | 21    | 20 | 0.76            | .18       |
|         | C         | 1           | 64    | 62 | 1.15            | .11       |
|         | Missing   | **          | 1     | 1  | 0.76            |           |
| 18      | A         | 0           | 16    | 16 | -0.30           | .24       |
|         | B         | 0           | 2     | 2  | -0.02           | .77       |
|         | C         | 1           | 84    | 82 | 1.16            | .09       |
|         | Missing   | **          | 1     | 1  | 1.04            |           |
| 19      | B         | 0           | 9     | 9  | -0.33           | .28       |
|         | C         | 0           | 3     | 3  | 0.35            | .62       |
|         | A         | 1           | 89    | 86 | 1.05            | .10       |
|         | Missing   | **          | 2     | 2  | 0.90            | .14       |
| 20      | C         | 0           | 6     | 6  | -0.19           | .52       |
|         | A         | 0           | 54    | 52 | 0.93            | .09       |
|         | B         | 1           | 43    | 42 | 1.03            | .18       |
|         | Missing   | **          |       |    |                 |           |



Table 34

*Item Statistics, Entry Order, Gr3MC16*

| Item Number | Raw Score | Count | Measure | Model Standard Error | Mean Square Outfit |
|-------------|-----------|-------|---------|----------------------|--------------------|
| 1           | 74        | 85    | -1.22   | 0.36                 | 1.34               |
| 2           | 65        | 85    | -0.28   | 0.3                  | .77                |
| 3           | 69        | 85    | -0.65   | 0.32                 | 1.11               |
| 4           | 58        | 85    | 0.28    | 0.27                 | .73                |
| 5           | 64        | 85    | -0.2    | 0.29                 | .49                |
| 6           | 57        | 85    | 0.35    | 0.27                 | 1.07               |
| 7           | 75        | 85    | -1.35   | 0.37                 | .76                |
| 8           | 71        | 85    | -0.86   | 0.33                 | 1.07               |
| 9           | 67        | 85    | -0.46   | 0.3                  | .83                |
| 10          | 70        | 85    | -0.76   | 0.32                 | .51                |
| 11          | 60        | 85    | 0.13    | 0.28                 | .64                |
| 12          | 53        | 85    | 0.64    | 0.26                 | 1.42               |
| 13          | 66        | 85    | -0.37   | 0.3                  | 1.39               |
| 14          | 65        | 85    | -0.28   | 0.3                  | 1.21               |
| 15          | 17        | 85    | 2.97    | 0.29                 | 2.28               |
| 16          | 46        | 85    | 1.1     | 0.26                 | 1.38               |
| 17          | 61        | 85    | 0.05    | 0.28                 | .63                |
| 18          | 64        | 85    | -0.2    | 0.29                 | .64                |
| 19          | 59        | 85    | 0.2     | 0.28                 | .83                |
| 20          | 49        | 85    | 0.91    | 0.26                 | 1.21               |

Table 35  
*Distractor Analysis, Gr3MC16*

| Entry # | Data Code | Score Value | Count | %  | Average Measure | S.E. Mean |
|---------|-----------|-------------|-------|----|-----------------|-----------|
| 1       | A         | 0           | 4     | 5  | -0.09           | 0.76      |
|         | C         | 0           | 7     | 8  | 0.27            | 0.57      |
|         | B         | 1           | 74    | 87 | 1.66            | 0.19      |
|         | Missing   | **          |       |    |                 |           |
| 2       | A         | 0           | 7     | 8  | -0.33           | .36       |
|         | B         | 0           | 13    | 15 | 0.18            | .31       |
|         | C         | 1           | 65    | 76 | 1.91            | .19       |
|         | Missing   | **          |       |    |                 |           |
| 3       | C         | 0           | 6     | 7  | 0.05            | .66       |
|         | B         | 0           | 10    | 12 | 0.20            | .44       |
|         | A         | 1           | 69    | 81 | 1.77            | .19       |
|         | Missing   | **          |       |    |                 |           |
| 4       | C         | 0           | 3     | 4  | 0.04            | .49       |
|         | A         | 0           | 24    | 28 | 0.14            | .23       |
|         | B         | 1           | 58    | 68 | 2.09            | .20       |
|         | Missing   | **          |       |    |                 |           |
| 5       | B         | 0           | 17    | 20 | -0.38           | .19       |
|         | C         | 0           | 4     | 5  | 0.13            | .64       |
|         | A         | 1           | 64    | 75 | 2.04            | .18       |
|         | Missing   | **          |       |    |                 |           |
| 6       | B         | 0           | 12    | 14 | 0.17            | .37       |
|         | A         | 0           | 15    | 18 | 0.59            | .25       |
|         | C         | 1           | 57    | 67 | 1.96            | .22       |
|         | Missing   | **          | 1     | 1  | 1.58            |           |
| 7       | B         | 0           | 7     | 8  | -0.34           | .27       |
|         | A         | 0           | 3     | 4  | -0.09           | 1.06      |
|         | C         | 1           | 75    | 88 | 1.69            | .18       |
|         | Missing   | **          |       |    |                 |           |
| 8       | A         | 0           | 8     | 9  | -0.36           | .45       |
|         | C         | 0           | 6     | 7  | 0.27            | .65       |
|         | B         | 1           | 71    | 84 | 1.77            | .18       |
|         | Missing   | **          |       |    |                 |           |
| 9       | C         | 0           | 6     | 7  | -0.24           | .51       |
|         | B         | 0           | 12    | 14 | 0.27            | .25       |
|         | A         | 1           | 67    | 79 | 1.83            | .20       |
|         | Missing   | **          |       |    |                 |           |
| 10      | B         | 0           | 6     | 7  | -0.59           | .47       |
|         | A         | 0           | 9     | 11 | -0.28           | .24       |
|         | C         | 1           | 70    | 82 | 1.86            | .18       |
|         | Missing   | **          |       |    |                 |           |

Table 35  
*Distractor Analysis, Gr3MC16, Continued*

| Entry # | Data Code | Score Value | Count | %  | Average Measure | S.E. Mean |
|---------|-----------|-------------|-------|----|-----------------|-----------|
| 11      | B         | 0           | 12    | 14 | -0.27           | .24       |
|         | C         | 0           | 13    | 15 | 0.17            | .33       |
|         | A         | 1           | 60    | 71 | 2.09            | .19       |
|         | Missing   | **          |       |    |                 |           |
| 12      | B         | 0           | 21    | 25 | 0.63            | .40       |
|         | C         | 0           | 9     | 11 | 0.81            | .47       |
|         | A         | 1           | 53    | 62 | 1.90            | .21       |
|         | Missing   | **          | 2     | 2  | 1.57            | 1.16      |
| 13      | C         | 0           | 3     | 4  | -0.65           | .68       |
|         | A         | 0           | 16    | 19 | 0.40            | .43       |
|         | B         | 1           | 66    | 78 | 1.82            | .18       |
|         | Missing   | **          |       |    |                 |           |
| 14      | A         | 0           | 5     | 6  | -0.07           | .56       |
|         | B         | 0           | 14    | 16 | 0.40            | .44       |
|         | C         | 1           | 65    | 76 | 1.83            | .19       |
|         | Missing   | **          | 1     | 1  | -0.05           |           |
| 15      | B         | 0           | 58    | 68 | 1.22            | .18       |
|         | C         | 0           | 10    | 12 | 2.27            | .73       |
|         | A         | 1           | 17    | 20 | 1.82            | .46       |
|         | Missing   | **          |       |    |                 |           |
| 16      | A         | 0           | 10    | 12 | 0.24            | .28       |
|         | C         | 0           | 28    | 33 | 1.05            | .22       |
|         | B         | 1           | 46    | 54 | 2.05            | .26       |
|         | Missing   | **          | 1     | 1  | -1.61           |           |
| 17      | A         | 0           | 6     | 7  | -0.43           | .38       |
|         | B         | 0           | 17    | 20 | -0.10           | .20       |
|         | C         | 1           | 61    | 72 | 2.08            | .19       |
|         | Missing   | **          | 1     | 1  | 2.03            |           |
| 18      | B         | 0           | 9     | 11 | -0.59           | .34       |
|         | A         | 0           | 12    | 14 | 0.17            | .29       |
|         | C         | 1           | 64    | 75 | 2.00            | .18       |
|         | Missing   | **          |       |    |                 |           |
| 19      | C         | 0           | 9     | 11 | -0.49           | .30       |
|         | B         | 0           | 17    | 20 | 0.54            | .19       |
|         | A         | 1           | 59    | 69 | 2.03            | .21       |
|         | Missing   | **          |       |    |                 |           |
| 20      | C         | 0           | 11    | 13 | 0.32            | .35       |
|         | A         | 0           | 23    | 27 | 0.70            | .26       |
|         | B         | 1           | 49    | 58 | 2.04            | .24       |
|         | Missing   | **          | 2     | 2  | 2.38            | .35       |

Table 36

*Item Statistics, Entry Order, Gr3MC17*

| Item Number | Raw Score | Count | Measure | Model Standard Error | Mean Square Outfit |
|-------------|-----------|-------|---------|----------------------|--------------------|
| 1           | 59        | 83    | -0.53   | 0.26                 | .80                |
| 2           | 68        | 83    | -1.24   | 0.3                  | .59                |
| 3           | 61        | 83    | -0.67   | 0.27                 | .92                |
| 4           | 45        | 83    | 0.36    | 0.24                 | .99                |
| 5           | 64        | 83    | -0.9    | 0.28                 | .61                |
| 6           | 71        | 83    | -1.54   | 0.33                 | .54                |
| 7           | 53        | 83    | -0.13   | 0.25                 | .79                |
| 8           | 56        | 83    | -0.33   | 0.26                 | .84                |
| 9           | 44        | 83    | 0.42    | 0.24                 | .98                |
| 10          | 44        | 83    | 0.42    | 0.24                 | 1.05               |
| 11          | 49        | 83    | 0.12    | 0.25                 | .65                |
| 12          | 23        | 83    | 1.74    | 0.27                 | 1.37               |
| 13          | 35        | 83    | 0.96    | 0.25                 | 1.65               |
| 14          | 64        | 83    | -0.9    | 0.28                 | .78                |
| 15          | 50        | 83    | 0.05    | 0.25                 | 1.08               |
| 16          | 36        | 83    | 0.9     | 0.25                 | .73                |
| 17          | 34        | 83    | 1.02    | 0.25                 | 1.52               |
| 18          | 51        | 83    | -0.01   | 0.25                 | 1.37               |
| 19          | 54        | 83    | -0.2    | 0.25                 | .87                |
| 20          | 43        | 83    | 0.48    | 0.24                 | 1.02               |

Table 37  
*Distractor Analysis, Gr3MC17*

| Entry # | Data Code | Score Value | Count | %  | Average Measure | S.E. Mean |
|---------|-----------|-------------|-------|----|-----------------|-----------|
| 1       | C         | 0           | 3     | 4  | -0.71           | .14       |
|         | B         | 0           | 20    | 24 | -0.18           | .18       |
|         | A         | 1           | 59    | 71 | 1.01            | .16       |
|         | Missing   | **          | 1     | 1  | 0.71            |           |
| 2       | A         | 0           | 10    | 12 | -0.66           | .23       |
|         | B         | 0           | 5     | 6  | -0.33           | .16       |
|         | C         | 1           | 68    | 82 | 0.92            | .15       |
|         | Missing   | **          |       |    |                 |           |
| 3       | A         | 0           | 6     | 7  | -0.23           | .22       |
|         | B         | 0           | 16    | 19 | 0.01            | .20       |
|         | C         | 1           | 61    | 73 | 0.91            | .17       |
|         | Missing   | **          |       |    |                 |           |
| 4       | A         | 0           | 17    | 20 | -0.06           | .19       |
|         | C         | 0           | 20    | 24 | 0.21            | .18       |
|         | B         | 1           | 45    | 54 | 1.13            | .21       |
|         | Missing   | **          | 1     | 1  | 0.46            |           |
| 5       | C         | 0           | 8     | 10 | -0.89           | .23       |
|         | A         | 0           | 10    | 12 | -0.21           | .13       |
|         | B         | 1           | 64    | 77 | 0.99            | .15       |
|         | Missing   | **          | 1     | 1  | 0.46            |           |
| 6       | C         | 0           | 7     | 8  | -0.65           | .15       |
|         | B         | 0           | 4     | 5  | -0.57           | .35       |
|         | A         | 1           | 71    | 86 | 0.87            | .15       |
|         | Missing   | **          | 1     | 1  | -0.47           |           |
| 7       | B         | 0           | 12    | 14 | -0.38           | .16       |
|         | A         | 0           | 15    | 18 | -0.15           | .20       |
|         | C         | 1           | 53    | 64 | 1.12            | .18       |
|         | Missing   | **          | 3     | 4  | 0.57            | .37       |
| 8       | A         | 0           | 8     | 10 | -0.37           | .21       |
|         | C         | 0           | 19    | 23 | 0.00            | .17       |
|         | B         | 1           | 56    | 67 | 1.03            | .18       |
|         | Missing   | **          |       |    |                 |           |
| 9       | C         | 0           | 22    | 27 | -0.09           | .16       |
|         | A         | 0           | 16    | 19 | 0.27            | .18       |
|         | B         | 1           | 44    | 53 | 1.16            | .21       |
|         | Missing   | **          | 1     | 1  | 1.25            |           |
| 10      | C         | 0           | 18    | 22 | 0.07            | .23       |
|         | B         | 0           | 21    | 25 | 0.21            | .24       |
|         | A         | 1           | 44    | 53 | 1.11            | .20       |
|         | Missing   | **          |       |    |                 |           |

Table 37  
*Distractor Analysis, Gr3MC17, Continued*

| Entry # | Data Code | Score Value | Count | %  | Average Measure | S.E. Mean |
|---------|-----------|-------------|-------|----|-----------------|-----------|
| 11      | A         | 0           | 21    | 25 | -0.26           | .14       |
|         | B         | 0           | 11    | 13 | -0.24           | .22       |
|         | C         | 1           | 49    | 59 | 1.28            | .17       |
|         | Missing   | **          | 2     | 2  | -0.12           | .59       |
| 12      | B         | 0           | 18    | 22 | 0.37            | .23       |
|         | C         | 0           | 40    | 48 | 0.55            | .19       |
|         | A         | 1           | 23    | 28 | 1.10            | .32       |
|         | Missing   | **          | 2     | 2  | 0.27            | .98       |
| 13      | A         | 0           | 40    | 48 | 0.53            | .15       |
|         | C         | 0           | 6     | 7  | 1.10            | .85       |
|         | B         | 1           | 35    | 42 | 0.71*           | .24       |
|         | Missing   | **          | 2     | 2  | 0.98            | .27       |
| 14      | B         | 0           | 15    | 18 | -0.29           | .19       |
|         | C         | 0           | 4     | 5  | -0.16           | .50       |
|         | A         | 1           | 64    | 77 | 0.93            | .16       |
|         | Missing   | **          |       |    |                 |           |
| 15      | A         | 0           | 15    | 18 | -0.11           | .22       |
|         | B         | 0           | 16    | 19 | 0.29            | .20       |
|         | C         | 1           | 50    | 60 | 1.01            | .19       |
|         | Missing   | **          | 2     | 2  | 0.64            | 1.35      |
| 16      | B         | 0           | 13    | 16 | -0.09           | .21       |
|         | A         | 0           | 33    | 40 | 0.07            | .14       |
|         | C         | 1           | 36    | 43 | 1.50            | .22       |
|         | Missing   | **          | 1     | 1  | -0.71           |           |
| 17      | C         | 0           | 2     | 2  | -0.36           | .35       |
|         | A         | 0           | 46    | 55 | 0.55            | .14       |
|         | B         | 1           | 34    | 41 | 0.89            | .28       |
|         | Missing   | **          | 1     | 1  | -0.47           |           |
| 18      | A         | 0           | 19    | 23 | -0.03           | .24       |
|         | C         | 0           | 13    | 16 | 0.53            | .46       |
|         | B         | 1           | 51    | 61 | 0.94            | .16       |
|         | Missing   | **          |       |    |                 |           |
| 19      | A         | 0           | 13    | 16 | -0.38           | .21       |
|         | B         | 0           | 16    | 19 | 0.10            | .19       |
|         | C         | 1           | 54    | 65 | 1.07            | .18       |
|         | Missing   | **          |       |    |                 |           |
| 20      | A         | 0           | 18    | 22 | 0.03            | .20       |
|         | B         | 0           | 22    | 27 | 0.30            | .22       |
|         | C         | 1           | 43    | 52 | 1.10            | .21       |
|         | Missing   | **          |       |    |                 |           |

Table 38

*Item Statistics, Entry Order, Gr3MC18*

| Item Number | Raw Score | Count | Measure | Model Standard Error | Mean Square Outfit |
|-------------|-----------|-------|---------|----------------------|--------------------|
| 1           | 88        | 108   | -0.66   | 0.27                 | 1.00               |
| 2           | 99        | 108   | -1.73   | 0.37                 | .83                |
| 3           | 92        | 108   | -0.98   | 0.29                 | .73                |
| 4           | 81        | 108   | -0.21   | 0.24                 | 1.10               |
| 5           | 50        | 108   | 1.27    | 0.21                 | .90                |
| 6           | 46        | 108   | 1.45    | 0.21                 | 1.06               |
| 7           | 90        | 108   | -0.81   | 0.28                 | .90                |
| 8           | 66        | 108   | 0.57    | 0.22                 | 1.13               |
| 9           | 30        | 108   | 2.19    | 0.23                 | 1.56               |
| 10          | 53        | 108   | 1.14    | 0.21                 | 1.03               |
| 11          | 69        | 108   | 0.43    | 0.22                 | .91                |
| 12          | 91        | 108   | -0.89   | 0.29                 | .74                |
| 13          | 84        | 108   | -0.39   | 0.25                 | .84                |
| 14          | 89        | 108   | -0.74   | 0.28                 | .63                |
| 15          | 56        | 108   | 1.01    | 0.21                 | .96                |
| 16          | 42        | 108   | 1.63    | 0.21                 | 1.18               |
| 17          | 63        | 108   | 0.7     | 0.21                 | 1.18               |
| 18          | 99        | 108   | -1.73   | 0.37                 | .43                |
| 19          | 91        | 108   | -0.89   | 0.29                 | 1.32               |
| 20          | 96        | 108   | -1.36   | 0.33                 | .46                |

Table 39  
*Distractor Analysis, Gr3MC18*

| Entry # | Data Code | Score Value | Count | %  | Average Measure | S.E. Mean |
|---------|-----------|-------------|-------|----|-----------------|-----------|
| 1       | A         | 0           | 17    | 16 | 0.05            | .33       |
|         | B         | 0           | 3     | 3  | 0.94            | .52       |
|         | C         | 1           | 88    | 81 | 1.27            | .08       |
|         | Missing   | **          |       |    |                 |           |
| 2       | C         | 0           | 4     | 4  | -0.73           | .88       |
|         | A         | 0           | 3     | 3  | 0.81            | .30       |
|         | B         | 1           | 99    | 92 | 1.17            | .09       |
|         | Missing   | **          | 2     | 2  | 0.11            | .40       |
| 3       | A         | 0           | 8     | 7  | -0.72           | .40       |
|         | C         | 0           | 7     | 6  | 0.65            | .32       |
|         | B         | 1           | 92    | 85 | 1.27            | .09       |
|         | Missing   | **          | 1     | 1  | 0.51            |           |
| 4       | B         | 0           | 19    | 18 | 0.48            | .22       |
|         | A         | 0           | 7     | 6  | 0.66            | .36       |
|         | C         | 1           | 81    | 75 | 1.26            | .10       |
|         | Missing   | **          | 1     | 1  | -0.28           |           |
| 5       | C         | 0           | 17    | 16 | 0.03            | .31       |
|         | B         | 0           | 40    | 37 | 0.96            | .11       |
|         | A         | 1           | 50    | 46 | 1.53            | .11       |
|         | Missing   | **          | 1     | 1  | 0.24            |           |
| 6       | C         | 0           | 5     | 5  | 0.12            | .45       |
|         | A         | 0           | 57    | 53 | 0.84            | .13       |
|         | B         | 1           | 46    | 43 | 1.47            | .12       |
|         | Missing   | **          |       |    |                 |           |
| 7       | B         | 0           | 5     | 5  | 0.07            | .48       |
|         | C         | 0           | 11    | 10 | 0.34            | .25       |
|         | A         | 1           | 90    | 83 | 1.23            | .10       |
|         | Missing   | **          | 2     | 2  | 0.40            | .68       |
| 8       | C         | 0           | 9     | 8  | 0.32            | .29       |
|         | A         | 0           | 30    | 28 | 0.97            | .14       |
|         | B         | 1           | 66    | 61 | 1.31            | .11       |
|         | Missing   | **          | 3     | 3  | -0.88           | 1.02      |
| 9       | C         | 0           | 28    | 26 | 0.98            | .18       |
|         | B         | 0           | 47    | 44 | 1.13            | .12       |
|         | A         | 1           | 30    | 28 | 1.23            | .18       |
|         | Missing   | **          | 3     | 3  | -0.52           | 1.17      |
| 10      | A         | 0           | 19    | 18 | 0.54            | .24       |
|         | B         | 0           | 33    | 31 | 1.01            | .17       |
|         | C         | 1           | 53    | 49 | 1.41            | .10       |
|         | Missing   | **          | 3     | 3  | -0.88           | 1.02      |



Table 39  
*Distractor Analysis, Gr3MC18, Continued*

| Entry # | Data Code | Score Value | Count | %  | Average Measure | S.E. Mean |
|---------|-----------|-------------|-------|----|-----------------|-----------|
| 11      | C         | 0           | 11    | 10 | 0.52            | .24       |
|         | A         | 0           | 26    | 24 | 0.56            | .19       |
|         | B         | 1           | 69    | 64 | 1.42            | .10       |
|         | Missing   | **          | 2     | 2  | -1.17           | 1.68      |
| 12      | A         | 0           | 8     | 7  | -0.04           | .34       |
|         | C         | 0           | 7     | 6  | 0.38            | .35       |
|         | B         | 1           | 91    | 84 | 1.28            | .09       |
|         | Missing   | **          | 2     | 2  | -1.57           | 1.28      |
| 13      | C         | 0           | 8     | 7  | -0.15           | .25       |
|         | B         | 0           | 14    | 13 | 0.63            | .25       |
|         | A         | 1           | 84    | 78 | 1.32            | .09       |
|         | Missing   | **          | 2     | 2  | -1.17           | 1.68      |
| 14      | A         | 0           | 7     | 6  | -0.32           | .31       |
|         | B         | 0           | 11    | 10 | 0.19            | .24       |
|         | C         | 1           | 89    | 82 | 1.33            | .08       |
|         | Missing   | **          | 1     | 1  | -2.85           |           |
| 15      | A         | 0           | 9     | 8  | 0.44            | .40       |
|         | B         | 0           | 39    | 36 | 0.88            | .14       |
|         | C         | 1           | 56    | 52 | 1.44            | .10       |
|         | Missing   | **          | 4     | 4  | -0.86           | .72       |
| 16      | C         | 0           | 38    | 35 | 0.95            | .16       |
|         | B         | 0           | 26    | 24 | 1.07            | .21       |
|         | A         | 1           | 42    | 39 | 1.29            | .12       |
|         | Missing   | **          | 2     | 2  | -1.17           | 1.68      |
| 17      | A         | 0           | 17    | 16 | 0.68            | .20       |
|         | B         | 0           | 26    | 24 | 0.98            | .17       |
|         | C         | 1           | 63    | 58 | 1.28            | .12       |
|         | Missing   | **          | 2     | 2  | -1.03           | 1.82      |
| 18      | C         | 0           | 5     | 5  | -0.56           | .24       |
|         | A         | 0           | 3     | 3  | -0.38           | .75       |
|         | B         | 1           | 99    | 92 | 1.24            | .08       |
|         | Missing   | **          | 1     | 1  | -2.85           |           |
| 19      | C         | 0           | 3     | 3  | 0.35            | .48       |
|         | B         | 0           | 12    | 11 | 0.60            | .38       |
|         | A         | 1           | 91    | 84 | 1.20            | .09       |
|         | Missing   | **          | 2     | 2  | -0.72           | 2.13      |
| 20      | A         | 0           | 4     | 4  | -0.51           | .45       |
|         | B         | 0           | 6     | 6  | -0.29           | .27       |
|         | C         | 1           | 96    | 89 | 1.27            | .08       |
|         | Missing   | **          | 2     | 2  | -1.17           | 1.68      |

Table 40

*Item Statistics, Entry Order, Gr3MC19*

| Item Number | Raw Score | Count | Measure | Model Standard Error | Mean Square Outfit |
|-------------|-----------|-------|---------|----------------------|--------------------|
| 1           | 102       | 109   | -2.43   | 0.42                 | .85                |
| 2           | 84        | 109   | -0.69   | 0.25                 | .58                |
| 3           | 27        | 109   | 2.06    | 0.24                 | 1.09               |
| 4           | 90        | 109   | -1.1    | 0.28                 | .93                |
| 5           | 79        | 109   | -0.4    | 0.24                 | 1.14               |
| 6           | 65        | 109   | 0.3     | 0.21                 | .89                |
| 7           | 101       | 109   | -2.26   | 0.4                  | .35                |
| 8           | 69        | 109   | 0.11    | 0.22                 | .87                |
| 9           | 50        | 109   | 0.96    | 0.21                 | .91                |
| 10          | 48        | 109   | 1.05    | 0.21                 | .99                |
| 11          | 70        | 109   | 0.06    | 0.22                 | 1.07               |
| 12          | 50        | 109   | 0.96    | 0.21                 | 1.30               |
| 13          | 85        | 109   | -0.75   | 0.25                 | .99                |
| 14          | 24        | 109   | 2.23    | 0.25                 | 1.03               |
| 15          | 36        | 109   | 1.6     | 0.22                 | 2.10               |
| 16          | 43        | 109   | 1.27    | 0.21                 | 2.01               |
| 17          | 91        | 109   | -1.18   | 0.28                 | .63                |
| 18          | 77        | 109   | -0.29   | 0.23                 | .68                |
| 19          | 82        | 109   | -0.57   | 0.24                 | .95                |
| 20          | 88        | 109   | -0.95   | 0.27                 | .78                |

Table 41  
*Distractor Analysis, Gr3MC19*

| Entry # | Data Code | Score Value | Count | %  | Average Measure | S.E. Mean |
|---------|-----------|-------------|-------|----|-----------------|-----------|
| 1       | A         | 0           | 4     | 4  | -2.44           | .17       |
|         | C         | 0           | 3     | 3  | 0.45            | .09       |
|         | B         | 1           | 102   | 94 | 0.87            | .09       |
|         | Missing   | **          |       |    |                 |           |
| 2       | B         | 0           | 9     | 8  | -0.37           | .55       |
|         | C         | 0           | 15    | 14 | 0.14            | .21       |
|         | A         | 1           | 84    | 77 | 0.98            | .10       |
|         | Missing   | **          | 1     | 1  | -0.82           |           |
| 3       | B         | 0           | 11    | 10 | 0.30            | .29       |
|         | A         | 0           | 70    | 64 | 0.63            | .13       |
|         | C         | 1           | 27    | 25 | 1.19            | .17       |
|         | Missing   | **          | 1     | 1  | 0.54            |           |
| 4       | C         | 0           | 12    | 11 | -0.50           | .45       |
|         | A         | 0           | 7     | 6  | 0.20            | .30       |
|         | B         | 1           | 90    | 83 | 0.94            | .09       |
|         | Missing   | **          |       |    |                 |           |
| 5       | A         | 0           | 15    | 14 | 0.23            | .30       |
|         | C         | 0           | 13    | 12 | 0.29            | .33       |
|         | B         | 1           | 79    | 72 | 0.93            | .11       |
|         | Missing   | **          | 2     | 2  | -0.14           | .68       |
| 6       | A         | 0           | 22    | 20 | 0.06            | .24       |
|         | C         | 0           | 20    | 18 | 0.26            | .25       |
|         | B         | 1           | 65    | 60 | 1.13            | .10       |
|         | Missing   | **          | 2     | 2  | -0.14           | .68       |
| 7       | B         | 0           | 3     | 3  | -2.27           | .00       |
|         | C         | 0           | 5     | 5  | -1.04           | .57       |
|         | A         | 1           | 101   | 93 | 0.91            | .08       |
|         | Missing   | **          |       |    |                 |           |
| 8       | B         | 0           | 16    | 15 | -0.07           | .27       |
|         | A         | 0           | 24    | 22 | 0.15            | .23       |
|         | C         | 1           | 69    | 63 | 1.13            | .10       |
|         | Missing   | **          |       |    |                 |           |
| 9       | A         | 0           | 30    | 28 | 0.20            | .21       |
|         | C         | 0           | 25    | 23 | 0.53            | .19       |
|         | B         | 1           | 50    | 46 | 1.21            | .12       |
|         | Missing   | **          | 4     | 4  | 0.00            | .30       |
| 10      | B         | 0           | 5     | 5  | -2.01           | .45       |
|         | A         | 0           | 55    | 50 | 0.60            | .11       |
|         | C         | 1           | 48    | 44 | 1.20            | .12       |
|         | Missing   | **          | 1     | 1  | -0.82           |           |

Table 41  
*Distractor Analysis, Gr3MC19, Continued*

| Entry # | Data Code | Score Value | Count | %  | Average Measure | S.E. Mean |
|---------|-----------|-------------|-------|----|-----------------|-----------|
| 11      | A         | 0           | 22    | 20 | -0.04           | .21       |
|         | B         | 0           | 14    | 13 | 0.54            | .18       |
|         | C         | 1           | 70    | 64 | 1.07            | .12       |
|         | Missing   | **          | 3     | 3  | -0.47           | .51       |
| 12      | B         | 0           | 8     | 7  | -0.23           | .61       |
|         | A         | 0           | 48    | 44 | 0.49            | .09       |
|         | C         | 1           | 50    | 46 | 1.16            | .15       |
|         | Missing   | **          | 3     | 3  | -0.01           | 0.58      |
| 13      | C         | 0           | 4     | 4  | -0.21           | .31       |
|         | B         | 0           | 18    | 17 | 0.16            | .24       |
|         | A         | 1           | 85    | 78 | 0.93            | .11       |
|         | Missing   | **          | 2     | 2  | -0.29           | .83       |
| 14      | C         | 0           | 18    | 17 | 0.19            | .40       |
|         | A         | 0           | 62    | 57 | 0.77            | .10       |
|         | B         | 1           | 24    | 22 | 1.26            | .16       |
|         | Missing   | **          | 5     | 5  | -0.29           | .37       |
| 15      | C         | 0           | 48    | 44 | 0.68            | .14       |
|         | B         | 0           | 22    | 20 | 0.79            | .17       |
|         | A         | 1           | 36    | 33 | 0.87            | .21       |
|         | Missing   | **          | 3     | 3  | -0.47           | .51       |
| 16      | A         | 0           | 52    | 48 | 0.76            | .15       |
|         | B         | 0           | 11    | 10 | 0.80            | .17       |
|         | C         | 1           | 43    | 39 | 0.67            | .17       |
|         | Missing   | **          | 3     | 3  | 0.87            | 1.02      |
| 17      | B         | 0           | 7     | 6  | -1.63           | .41       |
|         | C         | 0           | 8     | 7  | 0.25            | .28       |
|         | A         | 1           | 91    | 83 | 1.00            | .08       |
|         | Missing   | **          | 3     | 3  | -0.65           | .33       |
| 18      | A         | 0           | 17    | 16 | -0.56           | .30       |
|         | B         | 0           | 11    | 10 | 0.28            | .17       |
|         | C         | 1           | 77    | 71 | 1.14            | .09       |
|         | Missing   | **          | 4     | 4  | -0.28           | .41       |
| 19      | B         | 0           | 14    | 13 | -0.27           | .38       |
|         | C         | 0           | 12    | 11 | 0.27            | .32       |
|         | A         | 1           | 82    | 75 | 1.00            | .09       |
|         | Missing   | **          | 1     | 1  | -1.12           |           |
| 20      | A         | 0           | 10    | 9  | -0.60           | .53       |
|         | C         | 0           | 8     | 7  | 0.00            | .22       |
|         | B         | 1           | 88    | 81 | 0.99            | .09       |
|         | Missing   | **          | 3     | 3  | -0.47           | .40       |

Table 42

*Item Statistics, Entry Order, Gr3MC20*

| Item Number | Raw Score | Count | Measure | Model Standard Error | Mean Square Outfit |
|-------------|-----------|-------|---------|----------------------|--------------------|
| 1           | 101       | 105   | -2.45   | 0.55                 | .70                |
| 2           | 101       | 105   | -2.45   | 0.55                 | .63                |
| 3           | 92        | 105   | -0.97   | 0.32                 | 1.96               |
| 4           | 69        | 105   | 0.57    | 0.23                 | .87                |
| 5           | 89        | 105   | -0.69   | 0.29                 | .51                |
| 6           | 74        | 105   | 0.31    | 0.23                 | 1.08               |
| 7           | 89        | 105   | -0.69   | 0.29                 | .61                |
| 8           | 64        | 105   | 0.82    | 0.22                 | .93                |
| 9           | 53        | 105   | 1.33    | 0.21                 | 1.24               |
| 10          | 81        | 105   | -0.1    | 0.25                 | .70                |
| 11          | 80        | 105   | -0.04   | 0.25                 | .63                |
| 12          | 82        | 105   | -0.17   | 0.26                 | .80                |
| 13          | 54        | 105   | 1.28    | 0.21                 | 1.21               |
| 14          | 82        | 105   | -0.17   | 0.26                 | .96                |
| 15          | 58        | 105   | 1.1     | 0.22                 | 1.02               |
| 16          | 55        | 105   | 1.24    | 0.21                 | 1.26               |
| 17          | 85        | 105   | -0.38   | 0.27                 | .73                |
| 18          | 58        | 105   | 1.1     | 0.22                 | 1.07               |
| 19          | 68        | 105   | 0.62    | 0.22                 | 1.12               |
| 20          | 83        | 105   | -0.24   | 0.26                 | .61                |

Table 43  
*Distractor Analysis, Gr3MC20*

| Entry # | Data Code | Score Value | Count | %  | Average Measure | S.E. Mean |
|---------|-----------|-------------|-------|----|-----------------|-----------|
| 1       | B         | 0           | 0     | 0  | 0               |           |
|         | C         | 0           | 3     | 3  | 0.49            | .46       |
|         | A         | 1           | 101   | 96 | 1.56            | .13       |
|         | Missing   | **          | 1     | 1  | -5.14           |           |
| 2       | A         | 0           | 1     | 1  | 0.06            |           |
|         | B         | 0           | 2     | 2  | 0.33            | 1.04      |
|         | C         | 1           | 101   | 96 | 1.57            | .13       |
|         | Missing   | **          | 1     | 1  | -5.14           |           |
| 3       | C         | 0           | 11    | 10 | 1.46            | .24       |
|         | A         | 0           | 1     | 1  | 2.11            |           |
|         | B         | 1           | 92    | 88 | 1.47*           | .16       |
|         | Missing   | **          | 1     | 1  | 0.06            |           |
| 4       | A         | 0           | 7     | 7  | -0.14           | .87       |
|         | C         | 0           | 29    | 28 | 0.82            | .13       |
|         | B         | 1           | 69    | 66 | 1.90            | .16       |
|         | Missing   | **          |       |    |                 |           |
| 5       | C         | 0           | 5     | 5  | 0.01            | .18       |
|         | B         | 0           | 9     | 9  | 0.30            | .19       |
|         | A         | 1           | 89    | 85 | 1.75            | .13       |
|         | Missing   | **          | 2     | 2  | -2.54           | 2.60      |
| 6       | B         | 0           | 24    | 23 | 0.72            | .30       |
|         | C         | 0           | 5     | 5  | 1.13            | .50       |
|         | A         | 1           | 74    | 70 | 1.75            | .16       |
|         | Missing   | **          | 2     | 2  | 0.71            | .65       |
| 7       | A         | 0           | 4     | 4  | -1.31           | 1.30      |
|         | B         | 0           | 11    | 10 | 0.46            | .21       |
|         | C         | 1           | 89    | 85 | 1.74            | .13       |
|         | Missing   | **          | 1     | 1  | -1.00           |           |
| 8       | C         | 0           | 8     | 8  | -0.25           | .71       |
|         | B         | 0           | 31    | 30 | 1.07            | .14       |
|         | A         | 1           | 64    | 61 | 1.93            | .17       |
|         | Missing   | **          | 2     | 2  | -0.47           | .53       |
| 9       | B         | 0           | 13    | 12 | 1.13            | .40       |
|         | A         | 0           | 36    | 34 | 1.37            | .15       |
|         | C         | 1           | 53    | 50 | 1.78            | .19       |
|         | Missing   | **          | 3     | 3  | -1.59           | 1.90      |
| 10      | B         | 0           | 12    | 11 | 0.18            | .51       |
|         | A         | 0           | 8     | 8  | 0.40            | .32       |
|         | C         | 1           | 81    | 77 | 1.83            | .14       |
|         | Missing   | **          | 4     | 4  | 0.10            | .40       |

Table 43  
*Distractor Analysis, Gr3MC20, Continued*

| Entry # | Data Code | Score Value | Count | %  | Average Measure | S.E. Mean |
|---------|-----------|-------------|-------|----|-----------------|-----------|
| 11      | B         | 0           | 14    | 13 | 0.46            | .18       |
|         | C         | 0           | 8     | 8  | 0.52            | .17       |
|         | A         | 1           | 80    | 76 | 1.86            | .14       |
|         | Missing   | **          | 3     | 3  | -2.03           | 1.59      |
| 12      | C         | 0           | 7     | 7  | 0.37            | .10       |
|         | A         | 0           | 13    | 12 | 0.90            | .17       |
|         | B         | 1           | 82    | 78 | 1.76            | .14       |
|         | Missing   | **          | 3     | 3  | -1.59           | 1.90      |
| 13      | C         | 0           | 11    | 10 | 0.76            | .22       |
|         | B         | 0           | 36    | 34 | 1.39            | .11       |
|         | A         | 1           | 54    | 51 | 1.85            | .21       |
|         | Missing   | **          | 4     | 4  | -1.18           | 1.40      |
| 14      | B         | 0           | 6     | 6  | 0.62            | .23       |
|         | A         | 0           | 14    | 13 | 0.87            | .35       |
|         | C         | 1           | 82    | 78 | 1.76            | .13       |
|         | Missing   | **          | 3     | 3  | -2.03           | 1.59      |
| 15      | B         | 0           | 10    | 10 | 0.56            | .33       |
|         | A         | 0           | 35    | 33 | 1.23            | .17       |
|         | C         | 1           | 58    | 55 | 1.92            | .17       |
|         | Missing   | **          | 2     | 2  | -3.07           | 2.07      |
| 16      | A         | 0           | 8     | 8  | 1.09            | .63       |
|         | C         | 0           | 37    | 35 | 1.44            | .19       |
|         | B         | 1           | 55    | 52 | 1.75            | .17       |
|         | Missing   | **          | 5     | 5  | -0.88           | 1.13      |
| 17      | C         | 0           | 5     | 5  | 0.25            | .26       |
|         | B         | 0           | 11    | 10 | 0.50            | .23       |
|         | A         | 1           | 85    | 81 | 1.77            | .13       |
|         | Missing   | **          | 4     | 4  | -0.93           | 1.54      |
| 18      | B         | 0           | 37    | 35 | 1.07            | .12       |
|         | A         | 0           | 5     | 5  | 1.60            | .61       |
|         | C         | 1           | 58    | 55 | 1.90            | .19       |
|         | Missing   | **          | 5     | 5  | -0.88           | 1.13      |
| 19      | C         | 0           | 6     | 6  | 1.10            | .58       |
|         | A         | 0           | 27    | 26 | 1.11            | .23       |
|         | B         | 1           | 68    | 65 | 1.81            | .15       |
|         | Missing   | **          | 4     | 4  | -1.44           | 1.26      |
| 20      | A         | 0           | 10    | 10 | 0.31            | .14       |
|         | B         | 0           | 9     | 9  | 0.45            | .29       |
|         | C         | 1           | 83    | 79 | 1.84            | .13       |
|         | Missing   | **          | 3     | 3  | -1.94           | 1.64      |

Table 44

*Item statistics Entry Order, Gr4MC1*

| Item Number | Raw Score | Count | Measure | Model Standard Error | Mean Square Outfit |
|-------------|-----------|-------|---------|----------------------|--------------------|
| 1           | 137       | 200   | -0.47   | 0.16                 | .88                |
| 2           | 128       | 200   | -0.25   | 0.16                 | 1.06               |
| 3           | 94        | 200   | 0.54    | 0.15                 | 1.08               |
| 4           | 154       | 200   | -0.96   | 0.18                 | .91                |
| 5           | 175       | 200   | -1.78   | 0.22                 | .84                |
| 6           | 180       | 200   | -2.05   | 0.25                 | .66                |
| 7           | 145       | 200   | -0.69   | 0.17                 | .83                |
| 8           | 174       | 200   | -1.73   | 0.22                 | 1.14               |
| 9           | 119       | 200   | -0.03   | 0.15                 | 1.12               |
| 10          | 85        | 200   | 0.75    | 0.15                 | 1.00               |
| 11          | 78        | 200   | 0.91    | 0.15                 | .97                |
| 12          | 103       | 200   | 0.34    | 0.15                 | .91                |
| 13          | 157       | 200   | -1.06   | 0.18                 | .82                |
| 14          | 41        | 200   | 1.91    | 0.18                 | 1.31               |
| 15          | 50        | 200   | 1.63    | 0.17                 | 1.22               |
| 16          | 44        | 200   | 1.81    | 0.18                 | 1.20               |
| 17          | 160       | 200   | -1.16   | 0.19                 | .84                |
| 18          | 95        | 200   | 0.52    | 0.15                 | 1.06               |
| 19          | 93        | 200   | 0.56    | 0.15                 | .98                |
| 20          | 66        | 200   | 1.2     | 0.16                 | 1.18               |



Table 45  
*Distractor Analysis, Gr4MCI*

| Entry # | Data Code | Score Value | Count | %  | Average Measure | S.E. Mean |
|---------|-----------|-------------|-------|----|-----------------|-----------|
| 1       | A         | 0           | 60    | 30 | -0.11           | .11       |
|         | B         | 0           | 3     | 2  | -0.08           | .23       |
|         | C         | 1           | 137   | 69 | 0.62            | .06       |
|         | Missing   | **          |       |    |                 |           |
| 2       | B         | 0           | 7     | 4  | -0.43           | .39       |
|         | A         | 0           | 63    | 32 | 0.11            | .09       |
|         | C         | 1           | 128   | 64 | 0.58            | .07       |
|         | Missing   | **          | 2     | 1  | 0.43            | .68       |
| 3       | C         | 0           | 5     | 3  | -0.89           | .26       |
|         | A         | 0           | 99    | 50 | 0.28            | .08       |
|         | B         | 1           | 94    | 47 | 0.60            | .08       |
|         | Missing   | **          | 2     | 1  | -0.40           | .41       |
| 4       | B         | 0           | 18    | 9  | -0.26           | .19       |
|         | C         | 0           | 28    | 14 | -0.17           | .18       |
|         | A         | 1           | 154   | 77 | 0.57            | .06       |
|         | Missing   | **          |       |    |                 |           |
| 5       | A         | 0           | 6     | 3  | -0.69           | .40       |
|         | C         | 0           | 18    | 9  | -0.16           | .17       |
|         | B         | 1           | 175   | 88 | 0.49            | .06       |
|         | Missing   | **          | 1     | 1  | -0.80           |           |
| 6       | B         | 0           | 9     | 5  | -0.42           | .22       |
|         | A         | 0           | 9     | 5  | -0.35           | .14       |
|         | C         | 1           | 180   | 90 | 0.50            | .06       |
|         | Missing   | **          | 2     | 1  | -2.16           | .74       |
| 7       | C         | 0           | 15    | 8  | -0.18           | .22       |
|         | A         | 0           | 38    | 19 | -0.16           | .11       |
|         | B         | 1           | 145   | 73 | 0.62            | .06       |
|         | Missing   | **          | 2     | 1  | -1.45           | 1.46      |
| 8       | C         | 0           | 11    | 6  | -0.31           | .36       |
|         | B         | 0           | 14    | 7  | -0.25           | .24       |
|         | A         | 1           | 174   | 87 | 0.51            | .05       |
|         | Missing   | **          | 1     | 1  | -2.90           |           |
| 9       | A         | 0           | 12    | 6  | -0.17           | .32       |
|         | C         | 0           | 64    | 32 | 0.30            | .09       |
|         | B         | 1           | 119   | 60 | 0.54            | .07       |
|         | Missing   | **          | 5     | 3  | -0.47           | .61       |
| 10      | C         | 0           | 45    | 23 | 0.16            | .12       |
|         | A         | 0           | 65    | 33 | 0.23            | .09       |
|         | B         | 1           | 85    | 43 | 0.71            | .08       |
|         | Missing   | **          | 5     | 3  | -0.68           | .58       |

Table 45  
*Distractor Analysis, Gr4MCI, Continued*

| Entry # | Data Code | Score Value | Count | %  | Average Measure | S.E. Mean |
|---------|-----------|-------------|-------|----|-----------------|-----------|
| 11      | A         | 0           | 18    | 9  | -0.45           | .18       |
|         | B         | 0           | 101   | 51 | 0.31            | .06       |
|         | C         | 1           | 78    | 39 | 0.76            | .08       |
|         | Missing   | **          | 3     | 2  | -1.32           | .81       |
| 12      | B         | 0           | 43    | 22 | 0.07            | .11       |
|         | C         | 0           | 49    | 25 | 0.08            | .10       |
|         | A         | 1           | 103   | 52 | 0.73            | .07       |
|         | Missing   | **          | 5     | 3  | -0.85           | .59       |
| 13      | B         | 0           | 14    | 7  | -0.21           | .17       |
|         | A         | 0           | 26    | 13 | -0.13           | .15       |
|         | C         | 1           | 157   | 79 | 0.57            | .06       |
|         | Missing   | **          | 3     | 2  | -1.71           | .62       |
| 14      | A         | 0           | 26    | 13 | 0.12            | .16       |
|         | B         | 0           | 127   | 64 | 0.46            | .07       |
|         | C         | 1           | 41    | 21 | 0.53            | .12       |
|         | Missing   | **          | 6     | 3  | -0.85           | .46       |
| 15      | A         | 0           | 91    | 46 | 0.25            | .08       |
|         | C         | 0           | 54    | 27 | 0.57            | .09       |
|         | B         | 1           | 50    | 25 | 0.61            | .11       |
|         | Missing   | **          | 5     | 3  | -1.02           | .54       |
| 16      | C         | 0           | 30    | 15 | -0.18           | .14       |
|         | B         | 0           | 122   | 61 | 0.51            | .06       |
|         | A         | 1           | 44    | 22 | 0.61            | .12       |
|         | Missing   | **          | 4     | 2  | -1.28           | .61       |
| 17      | B         | 0           | 17    | 9  | -0.18           | .15       |
|         | C         | 0           | 18    | 9  | -0.17           | .19       |
|         | A         | 1           | 160   | 80 | 0.56            | .06       |
|         | Missing   | **          | 5     | 3  | -0.91           | .56       |
| 18      | C         | 0           | 26    | 13 | 0.00            | .13       |
|         | A         | 0           | 76    | 38 | 0.28            | .09       |
|         | B         | 1           | 95    | 48 | 0.65            | .08       |
|         | Missing   | **          | 3     | 2  | -1.52           | .77       |
| 19      | A         | 0           | 12    | 6  | -0.59           | .25       |
|         | B         | 0           | 88    | 44 | 0.32            | .08       |
|         | C         | 1           | 93    | 47 | 0.68            | .07       |
|         | Missing   | **          | 7     | 4  | -0.84           | .40       |
| 20      | C         | 0           | 74    | 37 | 0.32            | .08       |
|         | B         | 0           | 52    | 26 | 0.32            | .10       |
|         | A         | 1           | 66    | 33 | 0.64            | .11       |
|         | Missing   | **          | 8     | 4  | -0.57           | .41       |

Table 46

*Item Statistics, Entry Order, Gr4MC2*

| Item Number | Raw Score | Count | Measure | Model Standard Error | Mean Square Outfit |
|-------------|-----------|-------|---------|----------------------|--------------------|
| 1           | 77        | 94    | -1.1    | 0.28                 | 1.05               |
| 2           | 74        | 94    | -0.88   | 0.27                 | .78                |
| 3           | 51        | 94    | 0.43    | 0.22                 | .97                |
| 4           | 60        | 94    | -0.03   | 0.23                 | .93                |
| 5           | 76        | 94    | -1.03   | 0.28                 | .92                |
| 6           | 53        | 94    | 0.33    | 0.22                 | .94                |
| 7           | 46        | 94    | 0.67    | 0.22                 | 1.01               |
| 8           | 82        | 94    | -1.56   | 0.32                 | .89                |
| 9           | 40        | 94    | 0.97    | 0.22                 | 1.04               |
| 10          | 60        | 94    | -0.03   | 0.23                 | 1.10               |
| 11          | 58        | 94    | 0.07    | 0.23                 | 1.22               |
| 12          | 51        | 94    | 0.43    | 0.22                 | .98                |
| 13          | 60        | 94    | -0.03   | 0.23                 | .94                |
| 14          | 62        | 94    | -0.14   | 0.23                 | .82                |
| 15          | 69        | 94    | -0.55   | 0.25                 | .92                |
| 16          | 82        | 94    | -1.56   | 0.32                 | .66                |
| 17          | 70        | 94    | -0.61   | 0.25                 | 1.65               |
| 18          | 10        | 94    | 3.02    | 0.35                 | 1.35               |
| 19          | 47        | 94    | 0.62    | 0.22                 | 1.02               |
| 20          | 40        | 94    | 0.97    | 0.22                 | 1.17               |

Table 47  
*Distractor Analysis, Gr4MC2*

| Entry # | Data Code | Score Value | Count | %  | Average Measure | S.E. Mean |
|---------|-----------|-------------|-------|----|-----------------|-----------|
| 1       | B         | 0           | 12    | 13 | -0.41           | .29       |
|         | C         | 0           | 5     | 5  | 0.73            | .38       |
|         | A         | 1           | 77    | 82 | 0.82            | .10       |
|         | Missing   | **          |       |    |                 |           |
| 2       | C         | 0           | 14    | 15 | -0.23           | .15       |
|         | A         | 0           | 6     | 6  | 0.09            | .43       |
|         | B         | 1           | 74    | 79 | 0.87            | .11       |
|         | Missing   | **          |       |    |                 |           |
| 3       | A         | 0           | 6     | 6  | 0.16            | .33       |
|         | C         | 0           | 34    | 36 | 0.26            | .16       |
|         | B         | 1           | 51    | 54 | 1.01            | .14       |
|         | Missing   | **          | 3     | 3  | 0.29            | .22       |
| 4       | B         | 0           | 13    | 14 | 0.11            | .24       |
|         | C         | 0           | 19    | 20 | 0.22            | .17       |
|         | A         | 1           | 60    | 64 | 0.93            | .13       |
|         | Missing   | **          | 2     | 2  | 0.08            | .12       |
| 5       | B         | 0           | 13    | 14 | -0.04           | .17       |
|         | A         | 0           | 5     | 5  | 0.35            | .38       |
|         | C         | 1           | 76    | 81 | 0.80            | .12       |
|         | Missing   | **          |       |    |                 |           |
| 6       | B         | 0           | 12    | 13 | 0.17            | .14       |
|         | A         | 0           | 28    | 30 | 0.25            | .17       |
|         | C         | 1           | 53    | 56 | 1.00            | .14       |
|         | Missing   | **          | 1     | 1  | -0.04           |           |
| 7       | C         | 0           | 18    | 19 | 0.20            | .20       |
|         | B         | 0           | 28    | 30 | 0.40            | .14       |
|         | A         | 1           | 46    | 49 | 1.00            | .16       |
|         | Missing   | **          | 2     | 2  | 0.57            | .13       |
| 8       | A         | 0           | 7     | 7  | -0.33           | .42       |
|         | C         | 0           | 4     | 4  | 0.27            | .16       |
|         | B         | 1           | 82    | 87 | 0.77            | .11       |
|         | Missing   | **          | 1     | 1  | 0.20            |           |
| 9       | A         | 0           | 8     | 9  | 0.05            | .21       |
|         | B         | 0           | 44    | 47 | 0.37            | .11       |
|         | C         | 1           | 40    | 43 | 1.11            | .18       |
|         | Missing   | **          | 2     | 2  | 0.32            | .12       |
| 10      | A         | 0           | 9     | 10 | -0.58           | .27       |
|         | B         | 0           | 22    | 23 | 0.75            | .11       |
|         | C         | 1           | 60    | 64 | 0.83            | .13       |
|         | Missing   | **          | 3     | 3  | 0.20            | .00       |

Table 47  
*Distractor Analysis, Gr4MC2, Continued*

| Entry # | Data Code | Score Value | Count | %  | Average Measure | S.E. Mean |
|---------|-----------|-------------|-------|----|-----------------|-----------|
| 11      | B         | 0           | 11    | 12 | -0.45           | .23       |
|         | C         | 0           | 23    | 24 | 0.72            | .19       |
|         | A         | 1           | 58    | 62 | 0.85            | .12       |
|         | Missing   | **          | 2     | 2  | 0.45            | .00       |
| 12      | C         | 0           | 14    | 15 | 0.14            | .24       |
|         | A         | 0           | 25    | 27 | 0.33            | .14       |
|         | B         | 1           | 51    | 54 | 0.99            | .15       |
|         | Missing   | **          | 4     | 4  | 0.27            | .16       |
| 13      | B         | 0           | 1     | 1  | -0.77           |           |
|         | A         | 0           | 32    | 34 | 0.22            | .13       |
|         | C         | 1           | 60    | 64 | 0.92            | .13       |
|         | Missing   | **          | 1     | 1  | 0.70            |           |
| 14      | B         | 0           | 15    | 16 | -0.02           | .19       |
|         | C         | 0           | 15    | 16 | 0.11            | .20       |
|         | A         | 1           | 62    | 66 | 0.97            | .12       |
|         | Missing   | **          | 2     | 2  | 0.08            | .12       |
| 15      | A         | 0           | 20    | 21 | 0.03            | .20       |
|         | B         | 0           | 4     | 4  | 0.17            | .42       |
|         | C         | 1           | 69    | 73 | 0.87            | .12       |
|         | Missing   | **          | 1     | 1  | 0.70            |           |
| 16      | C         | 0           | 4     | 4  | -0.92           | .22       |
|         | A         | 0           | 7     | 7  | 0.00            | .17       |
|         | B         | 1           | 82    | 87 | 0.80            | .11       |
|         | Missing   | **          | 1     | 1  | 0.20            |           |
| 17      | C         | 0           | 6     | 6  | 0.06            | .31       |
|         | A         | 0           | 17    | 18 | 0.46            | .35       |
|         | B         | 1           | 70    | 74 | 0.76            | .10       |
|         | Missing   | **          | 1     | 1  | 0.70            |           |
| 18      | B         | 0           | 12    | 13 | 0.07            | .22       |
|         | C         | 0           | 71    | 76 | 0.69            | .10       |
|         | A         | 1           | 10    | 11 | 1.16            | .51       |
|         | Missing   | **          | 1     | 1  | 0.70            |           |
| 19      | B         | 0           | 30    | 32 | 0.10            | .16       |
|         | A         | 0           | 16    | 17 | 0.69            | .22       |
|         | C         | 1           | 47    | 50 | 1.02            | .14       |
|         | Missing   | **          | 1     | 1  | -0.04           |           |
| 20      | B         | 0           | 17    | 18 | 0.26            | .18       |
|         | C         | 0           | 36    | 38 | 0.55            | .14       |
|         | A         | 1           | 40    | 43 | 0.95            | .18       |
|         | Missing   | **          | 1     | 1  | -0.04           |           |

Table 48

*Item Statistics, Entry Order, Gr4MC3*

| Item Number | Raw Score | Count | Measure | Model Standard Error | Mean Square Outfit |
|-------------|-----------|-------|---------|----------------------|--------------------|
| 1           | 85        | 90    | -2.18   | 0.47                 | .56                |
| 2           | 64        | 90    | 0.01    | 0.25                 | .97                |
| 3           | 80        | 90    | -1.35   | 0.35                 | .71                |
| 4           | 44        | 90    | 1.13    | 0.23                 | 1.11               |
| 5           | 47        | 90    | 0.97    | 0.23                 | 1.17               |
| 6           | 83        | 90    | -1.79   | 0.41                 | .72                |
| 7           | 80        | 90    | -1.35   | 0.35                 | .62                |
| 8           | 60        | 90    | 0.25    | 0.24                 | .95                |
| 9           | 55        | 90    | 0.54    | 0.24                 | .86                |
| 10          | 83        | 90    | -1.79   | 0.41                 | .51                |
| 11          | 69        | 90    | -0.33   | 0.27                 | .74                |
| 12          | 12        | 90    | 3.2     | 0.32                 | 1.20               |
| 13          | 46        | 90    | 1.03    | 0.23                 | .97                |
| 14          | 54        | 90    | 0.6     | 0.24                 | 1.03               |
| 15          | 74        | 90    | -0.73   | 0.3                  | .78                |
| 16          | 43        | 90    | 1.19    | 0.23                 | 1.15               |
| 17          | 70        | 90    | -0.41   | 0.27                 | .72                |
| 18          | 23        | 90    | 2.33    | 0.26                 | 1.24               |
| 19          | 59        | 90    | 0.31    | 0.24                 | 1.29               |
| 20          | 82        | 90    | -1.63   | 0.39                 | .61                |

Table 49  
*Distractor Analysis, Gr4MC3*

| Entry # | Data Code | Score Value | Count | %  | Average Measure | S.E. Mean |
|---------|-----------|-------------|-------|----|-----------------|-----------|
| 1       | A         | 0           | 2     | 2  | -0.75           | .44       |
|         | B         | 0           | 3     | 3  | -0.12           | .68       |
|         | C         | 1           | 85    | 94 | 1.16            | .10       |
|         | Missing   | **          |       |    |                 |           |
| 2       | C         | 0           | 1     | 1  | 0.25            |           |
|         | A         | 0           | 22    | 24 | 0.53            | .19       |
|         | B         | 1           | 64    | 71 | 1.30            | .12       |
|         | Missing   | **          | 3     | 3  | 0.53            | .17       |
| 3       | C         | 0           | 3     | 3  | -0.51           | .35       |
|         | B         | 0           | 7     | 8  | 0.18            | .37       |
|         | A         | 1           | 80    | 89 | 1.21            | .10       |
|         | Missing   | **          |       |    |                 |           |
| 4       | A         | 0           | 36    | 40 | 0.83            | .15       |
|         | B         | 0           | 7     | 8  | 0.97            | .48       |
|         | C         | 1           | 44    | 49 | 1.38            | .13       |
|         | Missing   | **          | 3     | 3  | -0.23           | .51       |
| 5       | A         | 0           | 25    | 28 | 0.78            | .21       |
|         | C         | 0           | 15    | 17 | 0.88            | .27       |
|         | B         | 1           | 47    | 52 | 1.32            | .13       |
|         | Missing   | **          | 3     | 3  | 0.54            | .29       |
| 6       | B         | 0           | 5     | 6  | -0.15           | .26       |
|         | C         | 0           | 2     | 2  | 0.30            | 1.18      |
|         | A         | 1           | 83    | 92 | 1.16            | .10       |
|         | Missing   | **          |       |    |                 |           |
| 7       | C         | 0           | 6     | 7  | -0.18           | .35       |
|         | B         | 0           | 3     | 3  | -0.03           | .28       |
|         | A         | 1           | 80    | 89 | 1.21            | .10       |
|         | Missing   | **          | 1     | 1  | 0.83            |           |
| 8       | B         | 0           | 22    | 24 | 0.45            | .20       |
|         | A         | 0           | 8     | 9  | 0.62            | .22       |
|         | C         | 1           | 60    | 67 | 1.36            | .12       |
|         | Missing   | **          |       |    |                 |           |
| 9       | A         | 0           | 32    | 36 | 0.47            | .16       |
|         | C         | 0           | 3     | 3  | 0.77            | .55       |
|         | B         | 1           | 55    | 61 | 1.44            | .11       |
|         | Missing   | **          |       |    |                 |           |
| 10      | B         | 0           | 4     | 4  | -0.46           | .30       |
|         | C         | 0           | 2     | 2  | -0.46           | .43       |
|         | A         | 1           | 83    | 92 | 1.19            | .10       |
|         | Missing   | **          | 1     | 1  | 0.83            |           |

Table 49  
*Distractor Analysis, Gr4MC3, Continued*

| Entry # | Data Code | Score Value | Count | %  | Average Measure | S.E. Mean |
|---------|-----------|-------------|-------|----|-----------------|-----------|
| 11      | A         | 0           | 9     | 10 | -0.22           | .28       |
|         | B         | 0           | 11    | 12 | 0.41            | .28       |
|         | C         | 1           | 69    | 77 | 1.36            | .10       |
|         | Missing   | **          | 1     | 1  | 0.53            |           |
| 12      | C         | 0           | 24    | 27 | 0.74            | .24       |
|         | A         | 0           | 50    | 56 | 1.14            | .12       |
|         | B         | 1           | 12    | 13 | 1.67            | .31       |
|         | Missing   | **          | 4     | 4  | 0.47            | .21       |
| 13      | B         | 0           | 26    | 29 | 0.59            | .19       |
|         | C         | 0           | 15    | 17 | 0.80            | .27       |
|         | A         | 1           | 46    | 51 | 1.48            | .12       |
|         | Missing   | **          | 3     | 3  | 0.35            | .25       |
| 14      | C         | 0           | 14    | 16 | 0.52            | .27       |
|         | A         | 0           | 21    | 23 | 0.71            | .15       |
|         | B         | 1           | 54    | 60 | 1.38            | .13       |
|         | Missing   | **          | 1     | 1  | -0.03           |           |
| 15      | B         | 0           | 6     | 7  | -0.13           | .20       |
|         | A         | 0           | 7     | 8  | 0.64            | .34       |
|         | C         | 1           | 74    | 82 | 1.26            | .11       |
|         | Missing   | **          | 3     | 3  | -0.13           | .58       |
| 16      | A         | 0           | 9     | 10 | 0.10            | .31       |
|         | B         | 0           | 38    | 42 | 0.96            | .13       |
|         | C         | 1           | 43    | 48 | 1.38            | .15       |
|         | Missing   | **          |       |    |                 |           |
| 17      | C         | 0           | 9     | 10 | -0.09           | .26       |
|         | B         | 0           | 9     | 10 | 0.33            | .36       |
|         | A         | 1           | 70    | 78 | 1.34            | .10       |
|         | Missing   | **          | 2     | 2  | 0.40            | .43       |
| 18      | C         | 0           | 8     | 9  | 0.12            | .33       |
|         | A         | 0           | 56    | 62 | 1.17            | .14       |
|         | B         | 1           | 23    | 26 | 1.25            | .15       |
|         | Missing   | **          | 3     | 3  | 0.44            | .25       |
| 19      | A         | 0           | 3     | 3  | -0.13           | .58       |
|         | C         | 0           | 26    | 29 | 0.92            | .19       |
|         | B         | 1           | 59    | 66 | 1.22            | .13       |
|         | Missing   | **          | 2     | 2  | 0.54            | .29       |
| 20      | B         | 0           | 3     | 3  | -0.61           | .34       |
|         | A         | 0           | 4     | 4  | 0.11            | .54       |
|         | C         | 1           | 82    | 91 | 1.19            | .10       |
|         | Missing   | **          | 1     | 1  | -0.03           |           |



Table 50

*Item Statistics, Entry Order, Gr4MC4*

| Item Number | Raw Score | Count | Measure | Model Standard Error | Mean Square Outfit |
|-------------|-----------|-------|---------|----------------------|--------------------|
| 1           | 88        | 95    | -1.78   | 0.42                 | .37                |
| 2           | 86        | 95    | -1.47   | 0.37                 | .50                |
| 3           | 90        | 95    | -2.18   | 0.48                 | .41                |
| 4           | 62        | 95    | 0.52    | 0.24                 | 1.12               |
| 5           | 71        | 95    | -0.05   | 0.26                 | 1.03               |
| 6           | 25        | 95    | 2.53    | 0.25                 | 2.32               |
| 7           | 72        | 95    | -0.13   | 0.27                 | .97                |
| 8           | 75        | 95    | -0.35   | 0.28                 | .94                |
| 9           | 74        | 95    | -0.27   | 0.28                 | .61                |
| 10          | 48        | 95    | 1.29    | 0.23                 | 1.20               |
| 11          | 64        | 95    | 0.4     | 0.25                 | 1.06               |
| 12          | 58        | 95    | 0.75    | 0.24                 | 1.04               |
| 13          | 74        | 95    | -0.27   | 0.28                 | .84                |
| 14          | 77        | 95    | -0.51   | 0.29                 | .80                |
| 15          | 66        | 95    | 0.28    | 0.25                 | .92                |
| 16          | 42        | 95    | 1.6     | 0.23                 | 1.19               |
| 17          | 80        | 95    | -0.78   | 0.31                 | .75                |
| 18          | 67        | 95    | 0.21    | 0.25                 | .91                |
| 19          | 76        | 95    | -0.43   | 0.28                 | .99                |
| 20          | 60        | 95    | 0.64    | 0.24                 | .99                |

Table 51  
*Distractor Analysis, Gr4MC4*

| Entry # | Data Code | Score Value | Count | %  | Average Measure | S.E. Mean |
|---------|-----------|-------------|-------|----|-----------------|-----------|
| 1       | A         | 0           | 2     | 2  | -0.77           | .27       |
|         | C         | 0           | 5     | 5  | -0.37           | .26       |
|         | B         | 1           | 88    | 93 | 1.50            | .13       |
|         | Missing   | **          |       |    |                 |           |
| 2       | C         | 0           | 4     | 4  | -0.39           | .32       |
|         | B         | 0           | 4     | 4  | -0.27           | .51       |
|         | A         | 1           | 86    | 91 | 1.53            | .13       |
|         | Missing   | **          | 1     | 1  | 0.24            |           |
| 3       | A         | 0           | 2     | 2  | -0.51           | .26       |
|         | C         | 0           | 3     | 3  | -0.27           | .39       |
|         | B         | 1           | 90    | 95 | 1.45            | .13       |
|         | Missing   | **          |       |    |                 |           |
| 4       | A         | 0           | 8     | 8  | 0.41            | .38       |
|         | B         | 0           | 22    | 23 | 0.85            | .22       |
|         | C         | 1           | 62    | 65 | 1.68            | .16       |
|         | Missing   | **          | 3     | 3  | 0.91            | .49       |
| 5       | B         | 0           | 13    | 14 | 0.37            | .33       |
|         | C         | 0           | 9     | 9  | 0.62            | .38       |
|         | A         | 1           | 71    | 75 | 1.65            | .14       |
|         | Missing   | **          | 2     | 2  | 0.51            | .52       |
| 6       | B         | 0           | 49    | 52 | 1.27            | .17       |
|         | A         | 0           | 19    | 20 | 1.46            | .27       |
|         | C         | 1           | 25    | 26 | 1.49            | .29       |
|         | Missing   | **          | 2     | 2  | 0.84            | .85       |
| 7       | A         | 0           | 10    | 11 | -0.10           | .29       |
|         | C         | 0           | 11    | 12 | 0.79            | .34       |
|         | B         | 1           | 72    | 76 | 1.66            | .14       |
|         | Missing   | **          | 2     | 2  | 0.84            | .85       |
| 8       | B         | 0           | 8     | 8  | -0.05           | .25       |
|         | C         | 0           | 11    | 12 | 0.46            | .42       |
|         | A         | 1           | 75    | 79 | 1.64            | .13       |
|         | Missing   | **          | 1     | 1  | 1.03            |           |
| 9       | A         | 0           | 12    | 13 | -0.12           | .21       |
|         | C         | 0           | 8     | 8  | 0.08            | .31       |
|         | B         | 1           | 74    | 78 | 1.73            | .13       |
|         | Missing   | **          | 1     | 1  | 1.69            |           |
| 10      | A         | 0           | 8     | 8  | 0.42            | .35       |
|         | B         | 0           | 37    | 39 | 1.06            | .19       |
|         | C         | 1           | 48    | 51 | 1.75            | .18       |
|         | Missing   | **          | 2     | 2  | 1.36            | .33       |

Table 51  
*Distractor Analysis, Gr4MC4, Continued*

| Entry # | Data Code | Score Value | Count | %  | Average Measure | S.E. Mean |
|---------|-----------|-------------|-------|----|-----------------|-----------|
| 11      | B         | 0           | 10    | 11 | 0.52            | .39       |
|         | A         | 0           | 18    | 19 | 0.61            | .29       |
|         | C         | 1           | 64    | 67 | 1.72            | .14       |
|         | Missing   | **          | 3     | 3  | 0.79            | .41       |
| 12      | A         | 0           | 13    | 14 | 0.56            | .31       |
|         | C         | 0           | 21    | 22 | 0.73            | .21       |
|         | B         | 1           | 58    | 61 | 1.77            | .16       |
|         | Missing   | **          | 3     | 3  | 1.27            | .65       |
| 13      | B         | 0           | 4     | 4  | -0.13           | .16       |
|         | C         | 0           | 17    | 18 | 0.31            | .29       |
|         | A         | 1           | 74    | 78 | 1.68            | .13       |
|         | Missing   | **          |       |    |                 |           |
| 14      | B         | 0           | 2     | 2  | -1.19           | .15       |
|         | A         | 0           | 16    | 17 | 0.34            | .27       |
|         | C         | 1           | 77    | 81 | 1.64            | .13       |
|         | Missing   | **          |       |    |                 |           |
| 15      | B         | 0           | 15    | 16 | 0.16            | .27       |
|         | C         | 0           | 11    | 12 | 0.68            | .37       |
|         | A         | 1           | 66    | 69 | 1.74            | .14       |
|         | Missing   | **          | 3     | 3  | 1.35            | .19       |
| 16      | A         | 0           | 19    | 20 | 0.55            | .35       |
|         | B         | 0           | 32    | 34 | 1.27            | .18       |
|         | C         | 1           | 42    | 44 | 1.83            | .17       |
|         | Missing   | **          | 2     | 2  | 0.51            | .52       |
| 17      | C         | 0           | 11    | 12 | -0.29           | .32       |
|         | A         | 0           | 3     | 3  | -0.19           | .45       |
|         | B         | 1           | 80    | 84 | 1.63            | .12       |
|         | Missing   | **          | 1     | 1  | 2.14            |           |
| 18      | B         | 0           | 14    | 15 | 0.10            | .33       |
|         | C         | 0           | 12    | 13 | 0.80            | .29       |
|         | A         | 1           | 67    | 71 | 1.74            | .13       |
|         | Missing   | **          | 2     | 2  | 0.84            | .85       |
| 19      | B         | 0           | 9     | 9  | 0.32            | .37       |
|         | A         | 0           | 9     | 9  | 0.34            | .40       |
|         | C         | 1           | 76    | 80 | 1.60            | .13       |
|         | Missing   | **          | 1     | 1  | 1.03            |           |
| 20      | C         | 0           | 12    | 13 | 0.44            | .31       |
|         | A         | 0           | 22    | 23 | 0.74            | .23       |
|         | B         | 1           | 60    | 63 | 1.79            | .15       |
|         | Missing   | **          | 1     | 1  | -0.01           |           |

Table 52

*Item Statistics, Entry Order, Gr4MC5*

| Item Number | Raw Score | Count | Measure | Model Standard Error | Mean Square Outfit |
|-------------|-----------|-------|---------|----------------------|--------------------|
| 1           | 144       | 170   | -1.09   | 0.23                 | .76                |
| 2           | 132       | 170   | -0.54   | 0.2                  | .70                |
| 3           | 149       | 170   | -1.38   | 0.25                 | .60                |
| 4           | 112       | 170   | 0.18    | 0.18                 | 1.03               |
| 5           | 148       | 170   | -1.32   | 0.25                 | .69                |
| 6           | 134       | 170   | -0.62   | 0.21                 | .87                |
| 7           | 110       | 170   | 0.25    | 0.18                 | .76                |
| 8           | 123       | 170   | -0.19   | 0.19                 | 1.23               |
| 9           | 118       | 170   | -0.02   | 0.18                 | .89                |
| 10          | 142       | 170   | -0.99   | 0.23                 | 1.05               |
| 11          | 73        | 170   | 1.35    | 0.17                 | 1.22               |
| 12          | 88        | 170   | 0.91    | 0.17                 | 1.52               |
| 13          | 134       | 170   | -0.62   | 0.21                 | .80                |
| 14          | 132       | 170   | -0.54   | 0.2                  | .70                |
| 15          | 52        | 170   | 1.99    | 0.18                 | 1.56               |
| 16          | 146       | 170   | -1.2    | 0.24                 | .55                |
| 17          | 134       | 170   | -0.62   | 0.21                 | 1.04               |
| 18          | 43        | 170   | 2.3     | 0.19                 | 1.59               |
| 19          | 71        | 170   | 1.41    | 0.17                 | 1.46               |
| 20          | 94        | 170   | 0.73    | 0.17                 | .96                |

Table 53  
*Distractor Analysis, Gr4MC5*

| Entry # | Data Code | Score Value | Count | %  | Average Measure | S.E. Mean |
|---------|-----------|-------------|-------|----|-----------------|-----------|
| 1       | C         | 0           | 4     | 2  | -0.30           | .28       |
|         | B         | 0           | 22    | 13 | -0.13           | .25       |
|         | A         | 1           | 144   | 85 | 1.26            | .10       |
|         | Missing   | **          |       |    |                 |           |
| 2       | B         | 0           | 22    | 13 | -0.19           | .17       |
|         | C         | 0           | 16    | 9  | -0.05           | .30       |
|         | A         | 1           | 132   | 78 | 1.38            | .10       |
|         | Missing   | **          |       |    |                 |           |
| 3       | A         | 0           | 13    | 8  | -0.45           | .29       |
|         | B         | 0           | 8     | 5  | -0.37           | .37       |
|         | C         | 1           | 149   | 88 | 1.25            | .09       |
|         | Missing   | **          |       |    |                 |           |
| 4       | B         | 0           | 13    | 8  | -0.07           | .28       |
|         | A         | 0           | 43    | 25 | 0.55            | .15       |
|         | C         | 1           | 112   | 66 | 1.36            | .12       |
|         | Missing   | **          | 2     | 1  | 0.74            | .28       |
| 5       | C         | 0           | 10    | 6  | -0.39           | .32       |
|         | A         | 0           | 11    | 6  | -0.08           | .26       |
|         | B         | 1           | 148   | 87 | 1.23            | .10       |
|         | Missing   | **          | 1     | 1  | -0.05           |           |
| 6       | A         | 0           | 9     | 5  | -0.95           | .22       |
|         | B         | 0           | 24    | 14 | 0.33            | .22       |
|         | C         | 1           | 134   | 79 | 1.31            | .10       |
|         | Missing   | **          | 3     | 2  | 0.67            | .36       |
| 7       | A         | 0           | 15    | 9  | -0.01           | .26       |
|         | C         | 0           | 42    | 25 | 0.17            | .15       |
|         | B         | 1           | 110   | 65 | 1.53            | .11       |
|         | Missing   | **          | 3     | 2  | 0.58            | .44       |
| 8       | B         | 0           | 15    | 9  | 0.01            | .26       |
|         | C         | 0           | 30    | 18 | 0.80            | .20       |
|         | A         | 1           | 123   | 72 | 1.25            | .11       |
|         | Missing   | **          | 2     | 1  | -0.72           | .66       |
| 9       | C         | 0           | 11    | 6  | -0.02           | .20       |
|         | B         | 0           | 37    | 22 | 0.44            | .15       |
|         | A         | 1           | 118   | 69 | 1.41            | .11       |
|         | Missing   | **          | 4     | 2  | -1.46           | .51       |
| 10      | A         | 0           | 11    | 6  | -0.08           | .43       |
|         | C         | 0           | 14    | 8  | 0.25            | .31       |
|         | B         | 1           | 142   | 84 | 1.22            | .10       |
|         | Missing   | **          | 3     | 2  | 0.39            | .39       |

Table 53  
*Distractor Analysis, Gr4MC5, Continued*

| Entry # | Data Code | Score Value | Count | %  | Average Measure | S.E. Mean |
|---------|-----------|-------------|-------|----|-----------------|-----------|
| 11      | B         | 0           | 30    | 18 | 0.43            | .20       |
|         | A         | 0           | 66    | 39 | 0.90            | .15       |
|         | C         | 1           | 73    | 43 | 1.44            | 0.14      |
|         | Missing   | **          | 1     | 1  | -0.30           |           |
| 12      | C         | 0           | 28    | 16 | 0.51            | .22       |
|         | A         | 0           | 50    | 29 | 1.08            | .19       |
|         | B         | 1           | 88    | 52 | 1.24            | .12       |
|         | Missing   | **          | 4     | 2  | -0.10           | .44       |
| 13      | B         | 0           | 16    | 9  | -0.12           | .31       |
|         | A         | 0           | 17    | 10 | 0.20            | .19       |
|         | C         | 1           | 134   | 79 | 1.31            | .10       |
|         | Missing   | **          | 3     | 2  | -0.13           | .53       |
| 14      | C         | 0           | 17    | 10 | -0.24           | .29       |
|         | A         | 0           | 19    | 11 | 0.01            | .15       |
|         | B         | 1           | 132   | 78 | 1.37            | .10       |
|         | Missing   | **          | 2     | 1  | -0.03           | 1.06      |
| 15      | A         | 0           | 25    | 15 | 0.04            | .20       |
|         | C         | 0           | 88    | 52 | 0.99            | .09       |
|         | B         | 1           | 52    | 31 | 1.71            | .21       |
|         | Missing   | **          | 5     | 3  | 0.01            | .36       |
| 16      | A         | 0           | 7     | 4  | -0.79           | .14       |
|         | B         | 0           | 15    | 9  | -0.40           | .28       |
|         | C         | 1           | 146   | 86 | 1.29            | .09       |
|         | Missing   | **          | 2     | 1  | -0.03           | 1.06      |
| 17      | C         | 0           | 10    | 6  | -0.41           | .46       |
|         | B         | 0           | 24    | 14 | 0.48            | .20       |
|         | A         | 1           | 134   | 79 | 1.28            | .10       |
|         | Missing   | **          | 2     | 1  | -0.69           | .39       |
| 18      | B         | 0           | 88    | 52 | 0.83            | .11       |
|         | A         | 0           | 36    | 21 | 0.86            | .15       |
|         | C         | 1           | 43    | 25 | 1.73            | .25       |
|         | Missing   | **          | 3     | 2  | -0.48           | .31       |
| 19      | C         | 0           | 29    | 17 | 0.59            | .21       |
|         | A         | 0           | 67    | 39 | 0.78            | .13       |
|         | B         | 1           | 71    | 42 | 1.50            | .16       |
|         | Missing   | **          | 3     | 2  | 0.32            | .70       |
| 20      | C         | 0           | 26    | 15 | -0.04           | .21       |
|         | B         | 0           | 47    | 28 | 0.75            | .14       |
|         | A         | 1           | 94    | 55 | 1.53            | .12       |
|         | Missing   | **          | 3     | 2  | -0.31           | .45       |

Table 54

*Item Statistics, Entry Order, Gr4MC6*

| Item Number | Raw Score | Count | Measure | Model Standard Error | Mean Square Outfit |
|-------------|-----------|-------|---------|----------------------|--------------------|
| 1           | 25        | 85    | 1.88    | 0.25                 | .95                |
| 2           | 36        | 85    | 1.23    | 0.24                 | 1.09               |
| 3           | 57        | 85    | 0.04    | 0.25                 | 1.11               |
| 4           | 51        | 85    | 0.4     | 0.24                 | .88                |
| 5           | 67        | 85    | -0.67   | 0.29                 | .89                |
| 6           | 55        | 85    | 0.16    | 0.25                 | .94                |
| 7           | 76        | 85    | -1.6    | 0.37                 | .70                |
| 8           | 79        | 85    | -2.09   | 0.44                 | .42                |
| 9           | 72        | 85    | -1.13   | 0.32                 | .86                |
| 10          | 71        | 85    | -1.02   | 0.31                 | .65                |
| 11          | 60        | 85    | -0.16   | 0.26                 | .76                |
| 12          | 30        | 85    | 1.58    | 0.24                 | .91                |
| 13          | 56        | 85    | 0.1     | 0.25                 | 1.07               |
| 14          | 71        | 85    | -1.02   | 0.31                 | .54                |
| 15          | 69        | 85    | -0.84   | 0.3                  | 1.02               |
| 16          | 47        | 85    | 0.62    | 0.24                 | 1.24               |
| 17          | 65        | 85    | -0.51   | 0.28                 | .83                |
| 18          | 51        | 85    | 0.4     | 0.24                 | 1.41               |
| 19          | 37        | 85    | 1.18    | 0.24                 | 1.08               |
| 20          | 32        | 85    | 1.46    | 0.24                 | 1.22               |

Table 55  
*Distractor Analysis, Gr4MC6*

| Entry # | Data Code | Score Value | Count | %  | Average Measure | S.E. Mean |
|---------|-----------|-------------|-------|----|-----------------|-----------|
| 1       | A         | 0           | 12    | 14 | -0.27           | .22       |
|         | C         | 0           | 48    | 56 | 0.89            | .12       |
|         | B         | 1           | 25    | 29 | 1.42            | .20       |
|         | Missing   | **          |       |    |                 |           |
| 2       | B         | 0           | 10    | 12 | 0.49            | .41       |
|         | C         | 0           | 39    | 46 | 0.68            | .14       |
|         | A         | 1           | 36    | 42 | 1.22            | .17       |
|         | Missing   | **          |       |    |                 |           |
| 3       | A         | 0           | 17    | 20 | 0.33            | .24       |
|         | C         | 0           | 11    | 13 | 0.80            | .26       |
|         | B         | 1           | 57    | 67 | 1.07            | .13       |
|         | Missing   | **          |       |    |                 |           |
| 4       | A         | 0           | 23    | 27 | 0.11            | .21       |
|         | B         | 0           | 10    | 12 | 0.61            | .17       |
|         | C         | 1           | 51    | 60 | 1.26            | .12       |
|         | Missing   | **          | 1     | 1  | 2.16            |           |
| 5       | B         | 0           | 13    | 15 | 0.06            | .21       |
|         | C         | 0           | 4     | 5  | 0.48            | .66       |
|         | A         | 1           | 67    | 79 | 1.07            | .12       |
|         | Missing   | **          | 1     | 1  | 0.51            |           |
| 6       | C         | 0           | 21    | 25 | 0.25            | .20       |
|         | A         | 0           | 9     | 11 | 0.44            | .44       |
|         | B         | 1           | 55    | 65 | 1.20            | .12       |
|         | Missing   | **          |       |    |                 |           |
| 7       | B         | 0           | 4     | 5  | -0.54           | .42       |
|         | A         | 0           | 5     | 6  | 0.26            | .23       |
|         | C         | 1           | 76    | 89 | 1.00            | .11       |
|         | Missing   | **          |       |    |                 |           |
| 8       | B         | 0           | 3     | 4  | -0.89           | .33       |
|         | C         | 0           | 3     | 4  | -0.46           | .48       |
|         | A         | 1           | 79    | 93 | 1.00            | .10       |
|         | Missing   | **          |       |    |                 |           |
| 9       | A         | 0           | 4     | 5  | -0.21           | .44       |
|         | B         | 0           | 9     | 11 | 0.20            | .30       |
|         | C         | 1           | 72    | 85 | 1.03            | .11       |
|         | Missing   | **          |       |    |                 |           |
| 10      | C         | 0           | 5     | 6  | -0.22           | .46       |
|         | A         | 0           | 9     | 11 | -0.20           | .29       |
|         | B         | 1           | 71    | 84 | 1.10            | .11       |
|         | Missing   | **          |       |    |                 |           |



Table 55  
*Distractor Analysis, Gr4MC6, Continued*

| Entry # | Data Code | Score Value | Count | %  | Average Measure | S.E. Mean |
|---------|-----------|-------------|-------|----|-----------------|-----------|
| 11      | B         | 0           | 8     | 9  | -0.27           | .18       |
|         | C         | 0           | 16    | 19 | 0.27            | .21       |
|         | A         | 1           | 60    | 71 | 1.21            | .12       |
|         | Missing   | **          | 1     | 1  | 0.25            |           |
| 12      | B         | 0           | 19    | 22 | 0.40            | .23       |
|         | A         | 0           | 36    | 42 | 0.68            | .14       |
|         | C         | 1           | 30    | 35 | 1.43            | .18       |
|         | Missing   | **          |       |    |                 |           |
| 13      | B         | 0           | 5     | 6  | 0.09            | .53       |
|         | A         | 0           | 24    | 28 | 0.59            | .18       |
|         | C         | 1           | 56    | 66 | 1.08            | .13       |
|         | Missing   | **          |       |    |                 |           |
| 14      | C         | 0           | 8     | 9  | -0.71           | .21       |
|         | A         | 0           | 6     | 7  | 0.21            | .12       |
|         | B         | 1           | 71    | 84 | 1.12            | .11       |
|         | Missing   | **          |       |    |                 |           |
| 15      | C         | 0           | 4     | 5  | -0.28           | .42       |
|         | B         | 0           | 12    | 14 | 0.36            | .29       |
|         | A         | 1           | 69    | 81 | 1.04            | .11       |
|         | Missing   | **          |       |    |                 |           |
| 16      | B         | 0           | 12    | 14 | 0.58            | .28       |
|         | A         | 0           | 26    | 31 | 0.72            | .16       |
|         | C         | 1           | 47    | 55 | 1.05            | .16       |
|         | Missing   | **          |       |    |                 |           |
| 17      | C         | 0           | 14    | 16 | 0.09            | .25       |
|         | B         | 0           | 6     | 7  | 0.17            | .40       |
|         | A         | 1           | 65    | 76 | 1.12            | .11       |
|         | Missing   | **          |       |    |                 |           |
| 18      | C         | 0           | 2     | 2  | -1.54           | .18       |
|         | A         | 0           | 32    | 38 | 0.89            | .20       |
|         | B         | 1           | 51    | 60 | 0.97            | .11       |
|         | Missing   | **          |       |    |                 |           |
| 19      | A         | 0           | 23    | 27 | 0.37            | .18       |
|         | B         | 0           | 25    | 29 | 0.79            | .18       |
|         | C         | 1           | 37    | 44 | 1.26            | .17       |
|         | Missing   | **          |       |    |                 |           |
| 20      | C         | 0           | 13    | 15 | 0.22            | .24       |
|         | A         | 0           | 40    | 47 | 0.83            | .14       |
|         | B         | 1           | 32    | 38 | 1.22            | .20       |
|         | Missing   | **          |       |    |                 |           |

Table 56

*Item Statistics, Entry Order, Gr4MC7*

| Item Number | Raw Score | Count | Measure | Model Standard Error | Mean Square Outfit |
|-------------|-----------|-------|---------|----------------------|--------------------|
| 1           | 69        | 84    | -1.21   | 0.31                 | .96                |
| 2           | 45        | 84    | 0.44    | 0.24                 | 1.02               |
| 3           | 57        | 84    | -0.28   | 0.26                 | 0.96               |
| 4           | 72        | 84    | -1.52   | 0.34                 | 1.07               |
| 5           | 55        | 84    | -0.16   | 0.25                 | 1.03               |
| 6           | 63        | 84    | -0.70   | 0.28                 | .88                |
| 7           | 60        | 84    | -0.49   | 0.26                 | .89                |
| 8           | 63        | 84    | -0.70   | 0.28                 | .75                |
| 9           | 26        | 84    | 1.53    | 0.25                 | 1.69               |
| 10          | 43        | 84    | 0.55    | 0.24                 | 1.17               |
| 11          | 53        | 84    | -0.03   | 0.25                 | 1.06               |
| 12          | 58        | 84    | -0.35   | 0.26                 | 1.04               |
| 13          | 44        | 84    | 0.49    | 0.24                 | 1.00               |
| 14          | 68        | 84    | -1.12   | 0.30                 | .61                |
| 15          | 26        | 84    | 1.53    | 0.25                 | 1.22               |
| 16          | 33        | 84    | 1.11    | 0.24                 | 1.66               |
| 17          | 41        | 84    | 0.66    | 0.24                 | .69                |
| 18          | 59        | 84    | -0.42   | 0.26                 | 1.21               |
| 19          | 56        | 84    | -0.22   | 0.25                 | .77                |
| 20          | 37        | 84    | 0.88    | 0.24                 | .86                |

Table 57  
*Distractor Analysis, Gr4MC7*

| Entry # | Data Code | Score Value | Count | %  | Average Measure | S.E. Mean |
|---------|-----------|-------------|-------|----|-----------------|-----------|
| 1       | B         | 0           | 6     | 7  | -0.90           | .50       |
|         | C         | 0           | 9     | 11 | 0.21            | .33       |
|         | A         | 1           | 69    | 82 | 0.74            | .10       |
|         | Missing   | **          |       |    |                 |           |
| 2       | B         | 0           | 8     | 10 | -0.40           | .30       |
|         | A         | 0           | 31    | 37 | 0.30            | .17       |
|         | C         | 1           | 45    | 54 | 0.92            | .12       |
|         | Missing   | **          |       |    |                 |           |
| 3       | A         | 0           | 17    | 20 | -0.23           | .31       |
|         | B         | 0           | 10    | 12 | 0.32            | .24       |
|         | C         | 1           | 57    | 68 | 0.85            | .10       |
|         | Missing   | **          |       |    |                 |           |
| 4       | B         | 0           | 5     | 6  | -1.13           | .21       |
|         | C         | 0           | 7     | 8  | -0.13           | .64       |
|         | A         | 1           | 72    | 86 | 0.75            | .09       |
|         | Missing   | **          |       |    |                 |           |
| 5       | C         | 0           | 12    | 14 | -0.63           | .28       |
|         | A         | 0           | 17    | 20 | 0.49            | .28       |
|         | B         | 1           | 55    | 65 | 0.85            | .09       |
|         | Missing   | **          |       |    |                 |           |
| 6       | A         | 0           | 6     | 7  | -1.09           | .29       |
|         | C         | 0           | 15    | 18 | 0.21            | .18       |
|         | B         | 1           | 63    | 75 | 0.81            | .11       |
|         | Missing   | **          |       |    |                 |           |
| 7       | B         | 0           | 9     | 11 | -0.24           | .24       |
|         | C         | 0           | 15    | 18 | 0.01            | .27       |
|         | A         | 1           | 60    | 71 | 0.83            | .11       |
|         | Missing   | **          |       |    |                 |           |
| 8       | B         | 0           | 7     | 8  | -0.72           | .42       |
|         | A         | 0           | 14    | 17 | -0.17           | .24       |
|         | C         | 1           | 63    | 75 | 0.87            | .09       |
|         | Missing   | **          |       |    |                 |           |
| 9       | C         | 0           | 9     | 11 | -0.02           | .44       |
|         | A         | 0           | 48    | 57 | 0.63            | .12       |
|         | B         | 1           | 26    | 31 | 0.64            | .20       |
|         | Missing   | **          | 1     | 1  | 0.71            |           |
| 10      | A         | 0           | 9     | 11 | -0.90           | .41       |
|         | C         | 0           | 32    | 38 | 0.70            | .14       |
|         | B         | 1           | 43    | 51 | 0.78            | .11       |
|         | Missing   | **          |       |    |                 |           |

Table 57  
*Distractor Analysis, Gr4MC7, Continued*

| Entry # | Data Code | Score Value | Count | %  | Average Measure | S.E. Mean |
|---------|-----------|-------------|-------|----|-----------------|-----------|
| 11      | A         | 0           | 8     | 10 | -0.34           | .37       |
|         | B         | 0           | 23    | 27 | 0.29            | .22       |
|         | C         | 1           | 53    | 63 | 0.82            | .11       |
|         | Missing   | **          |       |    |                 |           |
| 12      | B         | 0           | 3     | 4  | -1.39           | .20       |
|         | A         | 0           | 23    | 27 | 0.22            | .23       |
|         | C         | 1           | 58    | 69 | 0.81            | .10       |
|         | Missing   | **          |       |    |                 |           |
| 13      | A         | 0           | 5     | 6  | -0.11           | .39       |
|         | C         | 0           | 35    | 42 | 0.20            | .17       |
|         | B         | 1           | 44    | 52 | 0.94            | .11       |
|         | Missing   | **          |       |    |                 |           |
| 14      | C         | 0           | 6     | 7  | -1.22           | .38       |
|         | B         | 0           | 10    | 12 | -0.27           | .26       |
|         | A         | 1           | 68    | 81 | 0.85            | .09       |
|         | Missing   | **          |       |    |                 |           |
| 15      | A         | 0           | 10    | 12 | -0.52           | .37       |
|         | C         | 0           | 47    | 56 | 0.58            | .11       |
|         | B         | 1           | 26    | 31 | 0.97            | .18       |
|         | Missing   | **          | 1     | 1  | -0.01           |           |
| 16      | C         | 0           | 3     | 4  | -0.54           | .53       |
|         | A         | 0           | 48    | 57 | 0.63            | .13       |
|         | B         | 1           | 33    | 39 | 0.58            | .18       |
|         | Missing   | **          |       |    |                 |           |
| 17      | A         | 0           | 30    | 36 | -0.02           | .15       |
|         | B         | 0           | 13    | 15 | -0.03           | .31       |
|         | C         | 1           | 41    | 49 | 1.18            | .08       |
|         | Missing   | **          |       |    |                 |           |
| 18      | A         | 0           | 11    | 13 | -0.22           | .30       |
|         | B         | 0           | 14    | 17 | 0.52            | .22       |
|         | C         | 1           | 59    | 70 | 0.72            | .12       |
|         | Missing   | **          |       |    |                 |           |
| 19      | C         | 0           | 6     | 7  | -0.56           | .31       |
|         | B         | 0           | 22    | 26 | -0.13           | .21       |
|         | A         | 1           | 56    | 67 | 0.96            | .08       |
|         | Missing   | **          |       |    |                 |           |
| 20      | C         | 0           | 26    | 31 | 0.16            | .17       |
|         | A         | 0           | 19    | 23 | 0.18            | .28       |
|         | B         | 1           | 37    | 44 | 1.06            | .10       |
|         | Missing   | **          | 2     | 2  | 0.35            | .36       |

Table 58

*Item Statistics, Entry Order, Gr4MC8*

| Item Number | Raw Score | Count | Measure | Model Standard Error | Mean Square Outfit |
|-------------|-----------|-------|---------|----------------------|--------------------|
| 1           | 79        | 84    | -2.24   | 0.48                 | .50                |
| 2           | 68        | 84    | -0.75   | 0.3                  | .73                |
| 3           | 55        | 84    | 0.22    | 0.25                 | .75                |
| 4           | 36        | 84    | 1.34    | 0.24                 | 1.08               |
| 5           | 71        | 84    | -1.04   | 0.33                 | 1.02               |
| 6           | 47        | 84    | 0.71    | 0.24                 | 1.26               |
| 7           | 55        | 84    | 0.22    | 0.25                 | 1.11               |
| 8           | 65        | 84    | -0.49   | 0.29                 | 1.71               |
| 9           | 71        | 84    | -1.04   | 0.33                 | .62                |
| 10          | 37        | 84    | 1.29    | 0.24                 | 1.11               |
| 11          | 53        | 84    | 0.35    | 0.25                 | 1.03               |
| 12          | 61        | 84    | -0.18   | 0.27                 | .97                |
| 13          | 51        | 84    | 0.47    | 0.25                 | 1.04               |
| 14          | 52        | 84    | 0.41    | 0.25                 | 1.05               |
| 15          | 72        | 84    | -1.15   | 0.34                 | .44                |
| 16          | 63        | 84    | -0.33   | 0.28                 | 1.10               |
| 17          | 51        | 84    | 0.47    | 0.25                 | .94                |
| 18          | 48        | 84    | 0.65    | 0.24                 | 1.16               |
| 19          | 56        | 84    | 0.16    | 0.26                 | .96                |
| 20          | 43        | 84    | 0.94    | 0.24                 | 1.29               |

Table 59  
*Distractor Analysis, Gr4MC8*

| Entry # | Data Code | Score Value | Count | %  | Average Measure | S.E. Mean |
|---------|-----------|-------------|-------|----|-----------------|-----------|
| 1       | C         | 0           | 2     | 2  | -1.12           | .15       |
|         | A         | 0           | 3     | 4  | -0.28           | .70       |
|         | B         | 1           | 79    | 94 | 1.19            | .14       |
|         | Missing   | **          |       |    |                 |           |
| 2       | B         | 0           | 2     | 2  | 0.02            | .72       |
|         | A         | 0           | 14    | 17 | 0.04            | .22       |
|         | C         | 1           | 68    | 81 | 1.33            | .15       |
|         | Missing   | **          |       |    |                 |           |
| 3       | C         | 0           | 11    | 13 | -0.04           | .26       |
|         | A         | 0           | 18    | 21 | 0.33            | .21       |
|         | B         | 1           | 55    | 65 | 1.56            | .16       |
|         | Missing   | **          |       |    |                 |           |
| 4       | A         | 0           | 9     | 11 | 0.09            | .34       |
|         | B         | 0           | 39    | 46 | 0.75            | .15       |
|         | C         | 1           | 36    | 43 | 1.70            | .23       |
|         | Missing   | **          |       |    |                 |           |
| 5       | C         | 0           | 4     | 5  | 0.08            | .27       |
|         | A         | 0           | 9     | 11 | 0.15            | .42       |
|         | B         | 1           | 71    | 85 | 1.26            | .15       |
|         | Missing   | **          |       |    |                 |           |
| 6       | B         | 0           | 12    | 14 | 0.61            | .28       |
|         | C         | 0           | 25    | 30 | 0.77            | .22       |
|         | A         | 1           | 47    | 56 | 1.38            | .20       |
|         | Missing   | **          |       |    |                 |           |
| 7       | B         | 0           | 10    | 12 | 0.56            | .41       |
|         | C         | 0           | 19    | 23 | 0.62            | .18       |
|         | A         | 1           | 55    | 65 | 1.34            | .18       |
|         | Missing   | **          |       |    |                 |           |
| 8       | B         | 0           | 8     | 10 | -0.09           | .32       |
|         | A         | 0           | 11    | 13 | 0.08            | .26       |
|         | C         | 1           | 65    | 77 | 1.40            | .15       |
|         | Missing   | **          |       |    |                 |           |
| 9       | B         | 0           | 10    | 12 | -0.34           | .25       |
|         | C         | 0           | 3     | 4  | -0.02           | .85       |
|         | A         | 1           | 71    | 85 | 1.33            | .14       |
|         | Missing   | **          |       |    |                 |           |
| 10      | C         | 0           | 7     | 8  | 0.01            | .31       |
|         | A         | 0           | 40    | 48 | 0.84            | .18       |
|         | B         | 1           | 37    | 44 | 1.56            | .22       |
|         | Missing   | **          |       |    |                 |           |

Table 59  
*Distractor Analysis, Gr4MC8, Continued*

| Entry # | Data Code | Score Value | Count | %  | Average Measure | S.E. Mean |
|---------|-----------|-------------|-------|----|-----------------|-----------|
| 11      | B         | 0           | 10    | 12 | -0.12           | .37       |
|         | A         | 0           | 21    | 25 | 0.75            | .18       |
|         | C         | 1           | 53    | 63 | 1.45            | .18       |
|         | Missing   | **          |       |    |                 |           |
| 12      | C         | 0           | 10    | 12 | 0.09            | .28       |
|         | B         | 0           | 13    | 15 | 0.60            | .23       |
|         | A         | 1           | 61    | 73 | 1.35            | .17       |
|         | Missing   | **          |       |    |                 |           |
| 13      | C         | 0           | 19    | 23 | 0.50            | .29       |
|         | A         | 0           | 14    | 17 | 0.53            | .26       |
|         | B         | 1           | 51    | 61 | 1.46            | .17       |
|         | Missing   | **          |       |    |                 |           |
| 14      | C         | 0           | 9     | 11 | 0.13            | .36       |
|         | B         | 0           | 22    | 26 | 0.70            | .28       |
|         | A         | 1           | 52    | 62 | 1.47            | .16       |
|         | Missing   | **          | 1     | 1  | -1.61           |           |
| 15      | A         | 0           | 8     | 10 | -0.72           | .27       |
|         | B         | 0           | 4     | 5  | -0.35           | .41       |
|         | C         | 1           | 72    | 86 | 1.37            | .13       |
|         | Missing   | **          |       |    |                 |           |
| 16      | A         | 0           | 11    | 13 | 0.07            | .30       |
|         | B         | 0           | 10    | 12 | 0.41            | .55       |
|         | C         | 1           | 63    | 75 | 1.37            | .14       |
|         | Missing   | **          |       |    |                 |           |
| 17      | C         | 0           | 22    | 26 | 0.38            | .21       |
|         | B         | 0           | 11    | 13 | 0.47            | .30       |
|         | A         | 1           | 51    | 61 | 1.52            | .18       |
|         | Missing   | **          |       |    |                 |           |
| 18      | C         | 0           | 3     | 4  | -0.10           | .84       |
|         | A         | 0           | 32    | 38 | 0.72            | .16       |
|         | B         | 1           | 48    | 57 | 1.42            | .20       |
|         | Missing   | **          | 1     | 1  | 0.50            |           |
| 19      | B         | 0           | 21    | 25 | 0.32            | .21       |
|         | A         | 0           | 6     | 7  | 0.48            | .44       |
|         | C         | 1           | 56    | 67 | 1.45            | .17       |
|         | Missing   | **          | 1     | 1  | 0.50            |           |
| 20      | C         | 0           | 11    | 13 | 0.39            | .34       |
|         | A         | 0           | 28    | 33 | 0.92            | .22       |
|         | B         | 1           | 43    | 51 | 1.36            | .21       |
|         | Missing   | **          | 2     | 2  | 1.26            | .76       |

Table 60

*Item Statistics, Entry Order, Gr4MC9*

| Item Number | Raw Score | Count | Measure | Model Standard Error | Mean Square Outfit |
|-------------|-----------|-------|---------|----------------------|--------------------|
| 1           | 75        | 110   | -0.44   | 0.22                 | .96                |
| 2           | 82        | 110   | -0.8    | 0.23                 | 1.03               |
| 3           | 74        | 110   | -0.4    | 0.22                 | .89                |
| 4           | 66        | 110   | -0.03   | 0.21                 | 1.07               |
| 5           | 58        | 110   | 0.31    | 0.21                 | 1.04               |
| 6           | 84        | 110   | -0.91   | 0.24                 | .84                |
| 7           | 88        | 110   | -1.15   | 0.25                 | .60                |
| 8           | 83        | 110   | -0.85   | 0.24                 | .71                |
| 9           | 29        | 110   | 1.61    | 0.23                 | 1.29               |
| 10          | 47        | 110   | 0.77    | 0.21                 | 1.12               |
| 11          | 59        | 110   | 0.27    | 0.21                 | .96                |
| 12          | 47        | 110   | 0.77    | 0.21                 | 1.16               |
| 13          | 66        | 110   | -0.03   | 0.21                 | .90                |
| 14          | 82        | 110   | -0.8    | 0.23                 | .78                |
| 15          | 37        | 110   | 1.22    | 0.22                 | 1.27               |
| 16          | 91        | 110   | -1.35   | 0.26                 | .79                |
| 17          | 64        | 110   | 0.05    | 0.21                 | .96                |
| 18          | 55        | 110   | 0.43    | 0.21                 | 1.11               |
| 19          | 44        | 110   | 0.9     | 0.21                 | 1.02               |
| 20          | 55        | 110   | 0.43    | 0.21                 | 1.33               |



Table 61  
*Distractor Analysis, Gr4MC9*

| Entry # | Data Code | Score Value | Count | %  | Average Measure | S.E. Mean |
|---------|-----------|-------------|-------|----|-----------------|-----------|
| 1       | B         | 0           | 11    | 10 | -0.32           | .19       |
|         | C         | 0           | 23    | 21 | 0.13            | .18       |
|         | A         | 1           | 75    | 68 | 0.65            | .09       |
|         | Missing   | **          | 1     | 1  | -0.47           |           |
| 2       | B         | 0           | 11    | 10 | -0.51           | .16       |
|         | A         | 0           | 16    | 15 | 0.15            | .27       |
|         | C         | 1           | 82    | 75 | 0.63            | .08       |
|         | Missing   | **          | 1     | 1  | -0.47           |           |
| 3       | C         | 0           | 26    | 24 | -0.25           | .16       |
|         | B         | 0           | 9     | 8  | 0.35            | .23       |
|         | A         | 1           | 74    | 67 | 0.70            | .09       |
|         | Missing   | **          | 1     | 1  | -0.47           |           |
| 4       | A         | 0           | 17    | 15 | -0.17           | .19       |
|         | C         | 0           | 26    | 24 | 0.35            | .15       |
|         | B         | 1           | 66    | 60 | 0.65            | .10       |
|         | Missing   | **          | 1     | 1  | -0.47           |           |
| 5       | B         | 0           | 17    | 15 | -0.20           | .13       |
|         | A         | 0           | 35    | 32 | 0.29            | .14       |
|         | C         | 1           | 58    | 53 | 0.72            | .11       |
|         | Missing   | **          |       |    |                 |           |
| 6       | C         | 0           | 11    | 10 | -0.30           | .19       |
|         | A         | 0           | 15    | 14 | -0.15           | .22       |
|         | B         | 1           | 84    | 76 | 0.64            | .09       |
|         | Missing   | **          |       |    |                 |           |
| 7       | B         | 0           | 13    | 12 | -0.67           | .12       |
|         | C         | 0           | 9     | 8  | -0.33           | .21       |
|         | A         | 1           | 88    | 80 | 0.68            | .08       |
|         | Missing   | **          |       |    |                 |           |
| 8       | C         | 0           | 9     | 8  | -0.52           | .22       |
|         | A         | 0           | 18    | 16 | -0.26           | .15       |
|         | B         | 1           | 83    | 75 | 0.69            | .08       |
|         | Missing   | **          |       |    |                 |           |
| 9       | B         | 0           | 43    | 39 | 0.30            | .12       |
|         | A         | 0           | 38    | 35 | 0.32            | .11       |
|         | C         | 1           | 29    | 26 | 0.80            | .20       |
|         | Missing   | **          |       |    |                 |           |
| 10      | A         | 0           | 30    | 27 | 0.24            | .16       |
|         | C         | 0           | 33    | 30 | 0.24            | .13       |
|         | B         | 1           | 47    | 43 | 0.70            | .13       |
|         | Missing   | **          |       |    |                 |           |

Table 61  
*Distractor Analysis, Gr4MC9, Continued*

| Entry # | Data Code | Score Value | Count | %  | Average Measure | S.E. Mean |
|---------|-----------|-------------|-------|----|-----------------|-----------|
| 11      | A         | 0           | 21    | 19 | -0.19           | .19       |
|         | B         | 0           | 29    | 26 | 0.20            | .15       |
|         | C         | 1           | 59    | 54 | 0.80            | .09       |
|         | Missing   | **          | 1     | 1  | -0.71           |           |
| 12      | C         | 0           | 18    | 16 | -0.15           | .20       |
|         | A         | 0           | 45    | 41 | 0.43            | .11       |
|         | B         | 1           | 47    | 43 | 0.67            | .13       |
|         | Missing   | **          |       |    |                 |           |
| 13      | B         | 0           | 23    | 21 | -0.08           | .14       |
|         | C         | 0           | 21    | 19 | 0.07            | .14       |
|         | A         | 1           | 66    | 60 | 0.74            | .10       |
|         | Missing   | **          |       |    |                 |           |
| 14      | C         | 0           | 13    | 12 | -0.28           | .20       |
|         | A         | 0           | 15    | 14 | -0.27           | .19       |
|         | B         | 1           | 82    | 75 | 0.68            | .09       |
|         | Missing   | **          |       |    |                 |           |
| 15      | B         | 0           | 19    | 17 | -0.18           | .20       |
|         | A         | 0           | 53    | 48 | 0.51            | .10       |
|         | C         | 1           | 37    | 34 | 0.65            | .15       |
|         | Missing   | **          | 1     | 1  | 0.71            |           |
| 16      | C         | 0           | 6     | 5  | -0.81           | .11       |
|         | B         | 0           | 13    | 12 | -0.09           | .20       |
|         | A         | 1           | 91    | 83 | 0.60            | .08       |
|         | Missing   | **          |       |    |                 |           |
| 17      | C         | 0           | 18    | 16 | -0.26           | .15       |
|         | A         | 0           | 28    | 25 | 0.25            | .14       |
|         | B         | 1           | 64    | 58 | 0.72            | .11       |
|         | Missing   | **          |       |    |                 |           |
| 18      | B         | 0           | 19    | 17 | 0.02            | .20       |
|         | A         | 0           | 36    | 33 | 0.31            | .12       |
|         | C         | 1           | 55    | 50 | 0.67            | .12       |
|         | Missing   | **          |       |    |                 |           |
| 19      | B         | 0           | 22    | 20 | 0.10            | .16       |
|         | A         | 0           | 44    | 40 | 0.23            | .13       |
|         | C         | 1           | 44    | 40 | 0.82            | .12       |
|         | Missing   | **          |       |    |                 |           |
| 20      | B         | 0           | 29    | 26 | 0.20            | .17       |
|         | C         | 0           | 25    | 23 | 0.59            | .17       |
|         | A         | 1           | 55    | 50 | 0.49            | .11       |
|         | Missing   | **          | 1     | 1  | 0.46            |           |

Table 62

*Item Statistics, Entry Order, Gr4MC10*

| Item Number | Raw Score | Count | Measure | Model Standard Error | Mean Square Outfit |
|-------------|-----------|-------|---------|----------------------|--------------------|
| 1           | 67        | 78    | -1.45   | 0.34                 | .93                |
| 2           | 66        | 78    | -1.34   | 0.33                 | .61                |
| 3           | 66        | 78    | -1.34   | 0.33                 | .75                |
| 4           | 49        | 78    | 0.02    | 0.25                 | 1.03               |
| 5           | 44        | 78    | 0.33    | 0.25                 | .38                |
| 6           | 26        | 78    | 1.44    | 0.26                 | 1.09               |
| 7           | 56        | 78    | -0.46   | 0.27                 | .78                |
| 8           | 54        | 78    | -0.31   | 0.26                 | .76                |
| 9           | 30        | 78    | 1.18    | 0.25                 | .94                |
| 10          | 34        | 78    | 0.94    | 0.25                 | 1.22               |
| 11          | 55        | 78    | -0.38   | 0.27                 | 1.14               |
| 12          | 21        | 78    | 1.79    | 0.27                 | 1.54               |
| 13          | 48        | 78    | 0.09    | 0.25                 | .84                |
| 14          | 55        | 78    | -0.38   | 0.27                 | .80                |
| 15          | 54        | 78    | -0.31   | 0.26                 | .97                |
| 16          | 60        | 78    | -0.77   | 0.29                 | .93                |
| 17          | 38        | 78    | 0.7     | 0.25                 | 1.09               |
| 18          | 48        | 78    | 0.09    | 0.25                 | .97                |
| 19          | 50        | 78    | -0.04   | 0.26                 | .95                |
| 20          | 46        | 78    | 0.21    | 0.25                 | .94                |

Table 63  
*Distractor Analysis, Gr4MC10*

| Entry # | Data Code | Score Value | Count | %  | Average Measure | S.E. Mean |
|---------|-----------|-------------|-------|----|-----------------|-----------|
| 1       | A         | 0           | 5     | 6  | -0.11           | .25       |
|         | B         | 0           | 5     | 6  | 0.39            | .35       |
|         | C         | 1           | 67    | 86 | 0.77            | .12       |
|         | Missing   | **          | 1     | 1  | -1.61           |           |
| 2       | C         | 0           | 7     | 9  | -0.59           | .23       |
|         | B         | 0           | 5     | 6  | -0.33           | .45       |
|         | A         | 1           | 66    | 85 | 0.87            | .11       |
|         | Missing   | **          |       |    |                 |           |
| 3       | C         | 0           | 6     | 8  | -0.44           | .43       |
|         | A         | 0           | 6     | 8  | -0.16           | .31       |
|         | B         | 1           | 66    | 85 | 0.84            | .12       |
|         | Missing   | **          |       |    |                 |           |
| 4       | B         | 0           | 4     | 5  | -0.61           | .50       |
|         | A         | 0           | 24    | 31 | 0.46            | .14       |
|         | C         | 1           | 49    | 63 | 0.91            | .15       |
|         | Missing   | **          | 1     | 1  | -1.61           |           |
| 5       | C         | 0           | 17    | 22 | 0.47            | .18       |
|         | A         | 0           | 17    | 22 | 0.67            | .16       |
|         | B         | 1           | 44    | 56 | 0.73            | .18       |
|         | Missing   | **          |       |    |                 |           |
| 6       | C         | 0           | 18    | 23 | 0.07            | .15       |
|         | A         | 0           | 33    | 42 | 0.63            | .16       |
|         | B         | 1           | 26    | 33 | 1.15            | .23       |
|         | Missing   | **          | 1     | 1  | -0.24           |           |
| 7       | B         | 0           | 5     | 6  | -0.47           | .43       |
|         | C         | 0           | 15    | 19 | 0.17            | .17       |
|         | A         | 1           | 56    | 72 | 0.97            | .12       |
|         | Missing   | **          | 2     | 3  | -1.30           | .31       |
| 8       | B         | 0           | 11    | 14 | -0.15           | .28       |
|         | A         | 0           | 13    | 17 | -0.05           | .22       |
|         | C         | 1           | 54    | 69 | 1.00            | .12       |
|         | Missing   | **          |       |    |                 |           |
| 9       | C         | 0           | 17    | 22 | -0.08           | .23       |
|         | B         | 0           | 31    | 40 | 0.59            | .13       |
|         | A         | 1           | 30    | 38 | 1.16            | .20       |
|         | Missing   | **          |       |    |                 |           |
| 10      | C         | 0           | 15    | 19 | 0.07            | .28       |
|         | A         | 0           | 29    | 37 | 0.59            | .13       |
|         | B         | 1           | 34    | 44 | 0.99            | .19       |
|         | Missing   | **          |       |    |                 |           |

Table 63  
*Distractor Analysis, Gr4MC10, Continued*

| Entry # | Data Code | Score Value | Count | %  | Average Measure | S.E. Mean |
|---------|-----------|-------------|-------|----|-----------------|-----------|
| 11      | B         | 0           | 9     | 12 | 0.10            | .34       |
|         | A         | 0           | 14    | 18 | 0.18            | .30       |
|         | C         | 1           | 55    | 71 | 0.88            | .13       |
|         | Missing   | **          |       |    |                 |           |
| 12      | C         | 0           | 37    | 47 | 0.58            | .12       |
|         | B         | 0           | 20    | 26 | 0.76            | .34       |
|         | A         | 1           | 21    | 27 | 0.72            | .21       |
|         | Missing   | **          |       |    |                 |           |
| 13      | C         | 0           | 9     | 12 | -0.27           | .30       |
|         | A         | 0           | 21    | 27 | 0.22            | .17       |
|         | B         | 1           | 48    | 62 | 1.03            | .14       |
|         | Missing   | **          |       |    |                 |           |
| 14      | C         | 0           | 7     | 9  | -0.45           | .28       |
|         | B         | 0           | 16    | 21 | 0.09            | .21       |
|         | A         | 1           | 55    | 71 | 0.97            | .13       |
|         | Missing   | **          |       |    |                 |           |
| 15      | A         | 0           | 8     | 10 | -0.10           | .30       |
|         | B         | 0           | 16    | 21 | 0.25            | .23       |
|         | C         | 1           | 54    | 69 | 0.90            | .14       |
|         | Missing   | **          |       |    |                 |           |
| 16      | B         | 0           | 10    | 13 | -0.17           | .35       |
|         | C         | 0           | 8     | 10 | 0.20            | .22       |
|         | A         | 1           | 60    | 77 | 0.86            | .13       |
|         | Missing   | **          |       |    |                 |           |
| 17      | A         | 0           | 20    | 26 | 0.27            | .21       |
|         | C         | 0           | 20    | 26 | 0.50            | .20       |
|         | B         | 1           | 38    | 49 | 0.96            | .17       |
|         | Missing   | **          |       |    |                 |           |
| 18      | C         | 0           | 12    | 15 | -0.16           | .21       |
|         | B         | 0           | 18    | 23 | 0.40            | .20       |
|         | A         | 1           | 48    | 62 | 0.97            | .15       |
|         | Missing   | **          |       |    |                 |           |
| 19      | B         | 0           | 14    | 18 | -0.03           | .25       |
|         | A         | 0           | 14    | 18 | 0.30            | .19       |
|         | C         | 1           | 50    | 64 | 0.96            | .14       |
|         | Missing   | **          |       |    |                 |           |
| 20      | A         | 0           | 8     | 10 | 0.14            | .23       |
|         | C         | 0           | 22    | 28 | 0.16            | .21       |
|         | B         | 1           | 46    | 59 | 1.00            | .15       |
|         | Missing   | **          | 2     | 3  | 0.47            | .24       |

Table 64

*Item Statistics, Entry Order, Gr4MC11*

| Item Number | Raw Score | Count | Measure | Model Standard Error | Mean Square Outfit |
|-------------|-----------|-------|---------|----------------------|--------------------|
| 1           | 76        | 103   | -0.21   | 0.25                 | 1.11               |
| 2           | 85        | 103   | -0.86   | 0.29                 | .79                |
| 3           | 87        | 103   | -1.03   | 0.3                  | .39                |
| 4           | 85        | 103   | -0.86   | 0.29                 | .65                |
| 5           | 73        | 103   | -0.02   | 0.25                 | 1.08               |
| 6           | 66        | 103   | 0.38    | 0.24                 | 1.19               |
| 7           | 75        | 103   | -0.14   | 0.25                 | .52                |
| 8           | 80        | 103   | -0.48   | 0.27                 | .90                |
| 9           | 50        | 103   | 1.21    | 0.22                 | 1.38               |
| 10          | 75        | 103   | -0.14   | 0.25                 | .71                |
| 11          | 91        | 103   | -1.43   | 0.33                 | .65                |
| 12          | 53        | 103   | 1.06    | 0.22                 | 1.23               |
| 13          | 74        | 103   | -0.08   | 0.25                 | .60                |
| 14          | 86        | 103   | -0.94   | 0.29                 | .92                |
| 15          | 72        | 103   | 0.04    | 0.24                 | .83                |
| 16          | 53        | 103   | 1.06    | 0.22                 | 1.18               |
| 17          | 59        | 103   | 0.76    | 0.23                 | 1.55               |
| 18          | 62        | 103   | 0.6     | 0.23                 | .92                |
| 19          | 58        | 103   | 0.81    | 0.23                 | 1.12               |
| 20          | 68        | 103   | 0.27    | 0.24                 | 1.11               |

Table 65  
*Distractor Analysis, Gr4MC11*

| Entry # | Data Code | Score Value | Count | %  | Average Measure | S.E. Mean |
|---------|-----------|-------------|-------|----|-----------------|-----------|
| 1       | B         | 0           | 4     | 4  | -0.73           | .35       |
|         | C         | 0           | 23    | 22 | 0.57            | .21       |
|         | A         | 1           | 76    | 74 | 1.60            | .17       |
|         | Missing   | **          |       |    |                 |           |
| 2       | A         | 0           | 11    | 11 | -0.26           | .30       |
|         | C         | 0           | 7     | 7  | -0.20           | .54       |
|         | B         | 1           | 85    | 83 | 1.60            | .15       |
|         | Missing   | **          |       |    |                 |           |
| 3       | B         | 0           | 11    | 11 | -0.66           | .15       |
|         | A         | 0           | 5     | 5  | -0.59           | .34       |
|         | C         | 1           | 87    | 84 | 1.63            | .15       |
|         | Missing   | **          |       |    |                 |           |
| 4       | C         | 0           | 9     | 9  | -0.55           | .25       |
|         | B         | 0           | 9     | 9  | 0.09            | .33       |
|         | A         | 1           | 85    | 83 | 1.60            | .15       |
|         | Missing   | **          |       |    |                 |           |
| 5       | A         | 0           | 9     | 9  | 0.31            | .46       |
|         | C         | 0           | 21    | 20 | 0.46            | .21       |
|         | B         | 1           | 73    | 71 | 1.63            | .18       |
|         | Missing   | **          |       |    |                 |           |
| 6       | A         | 0           | 13    | 13 | 0.06            | .23       |
|         | C         | 0           | 24    | 23 | 0.81            | .29       |
|         | B         | 1           | 66    | 64 | 1.69            | .18       |
|         | Missing   | **          |       |    |                 |           |
| 7       | A         | 0           | 10    | 10 | -0.47           | .22       |
|         | B         | 0           | 18    | 17 | -0.12           | .18       |
|         | C         | 1           | 75    | 73 | 1.85            | .15       |
|         | Missing   | **          |       |    |                 |           |
| 8       | C         | 0           | 14    | 14 | 0.04            | .26       |
|         | A         | 0           | 9     | 9  | 0.14            | .46       |
|         | B         | 1           | 80    | 78 | 1.62            | .16       |
|         | Missing   | **          |       |    |                 |           |
| 9       | C         | 0           | 27    | 26 | 0.68            | .24       |
|         | A         | 0           | 26    | 25 | 0.81            | .20       |
|         | B         | 1           | 50    | 49 | 1.84            | .23       |
|         | Missing   | **          |       |    |                 |           |
| 10      | A         | 0           | 16    | 16 | -0.07           | .27       |
|         | C         | 0           | 12    | 12 | 0.02            | .22       |
|         | B         | 1           | 75    | 73 | 1.77            | .16       |
|         | Missing   | **          |       |    |                 |           |

Table 65  
*Distractor Analysis, Gr4MC11, Continued*

| Entry # | Data Code | Score Value | Count | %  | Average Measure | S.E. Mean |
|---------|-----------|-------------|-------|----|-----------------|-----------|
| 11      | B         | 0           | 4     | 4  | -0.99           | .28       |
|         | A         | 0           | 8     | 8  | -0.03           | .36       |
|         | C         | 1           | 91    | 88 | 1.49            | .15       |
|         | Missing   | **          |       |    |                 |           |
| 12      | B         | 0           | 25    | 24 | 0.38            | .21       |
|         | C         | 0           | 25    | 24 | 1.05            | .26       |
|         | A         | 1           | 53    | 51 | 1.81            | .22       |
|         | Missing   | **          |       |    |                 |           |
| 13      | A         | 0           | 16    | 16 | -0.32           | .15       |
|         | B         | 0           | 13    | 13 | -0.04           | .33       |
|         | C         | 1           | 74    | 72 | 1.85            | .15       |
|         | Missing   | **          |       |    |                 |           |
| 14      | C         | 0           | 6     | 6  | -0.65           | .29       |
|         | B         | 0           | 11    | 11 | 0.33            | .34       |
|         | A         | 1           | 86    | 83 | 1.53            | .16       |
|         | Missing   | **          |       |    |                 |           |
| 15      | A         | 0           | 11    | 11 | -0.25           | .23       |
|         | C         | 0           | 19    | 18 | 0.47            | .23       |
|         | B         | 1           | 72    | 70 | 1.74            | .17       |
|         | Missing   | **          | 1     | 1  | 0.00            |           |
| 16      | B         | 0           | 12    | 12 | -0.69           | .21       |
|         | C         | 0           | 37    | 36 | 1.13            | .15       |
|         | A         | 1           | 53    | 51 | 1.82            | .22       |
|         | Missing   | **          | 1     | 1  | 1.56            |           |
| 17      | C         | 0           | 19    | 18 | 0.59            | .31       |
|         | A         | 0           | 25    | 24 | 1.30            | .36       |
|         | B         | 1           | 59    | 57 | 1.49            | .18       |
|         | Missing   | **          |       |    |                 |           |
| 18      | B         | 0           | 21    | 20 | 0.32            | .23       |
|         | A         | 0           | 19    | 18 | 0.50            | .29       |
|         | C         | 1           | 62    | 60 | 1.88            | .18       |
|         | Missing   | **          | 1     | 1  | -1.24           |           |
| 19      | B         | 0           | 19    | 18 | 0.02            | .20       |
|         | C         | 0           | 25    | 24 | 1.11            | .27       |
|         | A         | 1           | 58    | 56 | 1.80            | .19       |
|         | Missing   | **          | 1     | 1  | -1.24           |           |
| 20      | B         | 0           | 13    | 13 | 0.18            | .37       |
|         | A         | 0           | 19    | 18 | 0.79            | .28       |
|         | C         | 1           | 68    | 66 | 1.72            | .17       |
|         | Missing   | **          | 3     | 3  | -0.82           | .41       |



Table 66

*Item Statistics, Entry Order, Gr4MC12*

| Item Number | Raw Score | Count | Measure | Model Standard Error | Mean Square Outfit |
|-------------|-----------|-------|---------|----------------------|--------------------|
| 1           | 68        | 79    | -1.72   | 0.34                 | .56                |
| 2           | 50        | 79    | -0.3    | 0.25                 | .81                |
| 3           | 66        | 79    | -1.51   | 0.32                 | .68                |
| 4           | 37        | 79    | 0.48    | 0.24                 | 1.11               |
| 5           | 56        | 79    | -0.7    | 0.26                 | .98                |
| 6           | 52        | 79    | -0.43   | 0.25                 | 1.25               |
| 7           | 55        | 79    | -0.63   | 0.26                 | .67                |
| 8           | 44        | 79    | 0.06    | 0.24                 | .99                |
| 9           | 47        | 79    | -0.12   | 0.25                 | 1.08               |
| 10          | 53        | 79    | -0.49   | 0.26                 | 1.02               |
| 11          | 35        | 79    | 0.6     | 0.25                 | .80                |
| 12          | 29        | 79    | 0.97    | 0.25                 | 1.29               |
| 13          | 48        | 79    | -0.18   | 0.25                 | .85                |
| 14          | 52        | 79    | -0.43   | 0.25                 | .86                |
| 15          | 50        | 79    | -0.3    | 0.25                 | .69                |
| 16          | 26        | 79    | 1.17    | 0.26                 | 1.08               |
| 17          | 21        | 79    | 1.53    | 0.28                 | 1.52               |
| 18          | 29        | 79    | 0.97    | 0.25                 | 1.12               |
| 19          | 33        | 79    | 0.72    | 0.25                 | 1.05               |
| 20          | 40        | 79    | 0.3     | 0.24                 | 1.16               |

Table 67  
*Distractor Analysis, Gr4MC12*

| Entry # | Data Code | Score Value | Count | %  | Average Measure | S.E. Mean |
|---------|-----------|-------------|-------|----|-----------------|-----------|
| 1       | B         | 0           | 9     | 11 | -0.64           | .11       |
|         | C         | 0           | 2     | 3  | -0.59           | .12       |
|         | A         | 1           | 68    | 86 | 0.56            | .12       |
|         | Missing   | **          |       |    |                 |           |
| 2       | B         | 0           | 9     | 11 | -0.41           | .23       |
|         | A         | 0           | 19    | 24 | -0.13           | .15       |
|         | C         | 1           | 50    | 63 | 0.75            | .15       |
|         | Missing   | **          | 1     | 1  | -0.46           |           |
| 3       | C         | 0           | 8     | 10 | -0.73           | .16       |
|         | A         | 0           | 5     | 6  | -0.09           | .22       |
|         | B         | 1           | 66    | 84 | 0.56            | .13       |
|         | Missing   | **          |       |    |                 |           |
| 4       | B         | 0           | 13    | 16 | -0.21           | .22       |
|         | A         | 0           | 29    | 37 | 0.27            | .14       |
|         | C         | 1           | 37    | 47 | 0.69            | .20       |
|         | Missing   | **          |       |    |                 |           |
| 5       | B         | 0           | 5     | 6  | -0.57           | .15       |
|         | C         | 0           | 18    | 23 | 0.12            | .13       |
|         | A         | 1           | 56    | 71 | 0.56            | .15       |
|         | Missing   | **          |       |    |                 |           |
| 6       | C         | 0           | 11    | 14 | -0.33           | .23       |
|         | B         | 0           | 15    | 19 | 0.33            | .25       |
|         | A         | 1           | 52    | 66 | 0.55            | .15       |
|         | Missing   | **          | 1     | 1  | 0.98            |           |
| 7       | C         | 0           | 7     | 9  | -0.61           | .12       |
|         | A         | 0           | 17    | 22 | -0.34           | .14       |
|         | B         | 1           | 55    | 70 | 0.75            | .13       |
|         | Missing   | **          |       |    |                 |           |
| 8       | B         | 0           | 24    | 30 | -0.09           | .13       |
|         | A         | 0           | 11    | 14 | 0.13            | .27       |
|         | C         | 1           | 44    | 56 | 0.72            | .17       |
|         | Missing   | **          |       |    |                 |           |
| 9       | C         | 0           | 12    | 15 | -0.45           | .18       |
|         | A         | 0           | 20    | 25 | 0.26            | .18       |
|         | B         | 1           | 47    | 59 | 0.66            | .16       |
|         | Missing   | **          |       |    |                 |           |
| 10      | C         | 0           | 7     | 9  | -0.40           | .07       |
|         | B         | 0           | 19    | 24 | 0.09            | .18       |
|         | A         | 1           | 53    | 67 | 0.61            | .15       |
|         | Missing   | **          |       |    |                 |           |

Table 67  
*Distractor Analysis, Gr4MC12, Continued*

| Entry # | Data Code | Score Value | Count | %  | Average Measure | S.E. Mean |
|---------|-----------|-------------|-------|----|-----------------|-----------|
| 11      | A         | 0           | 15    | 19 | -0.15           | .18       |
|         | B         | 0           | 29    | 37 | -0.07           | .12       |
|         | C         | 1           | 35    | 44 | 1.00            | .18       |
|         | Missing   | **          |       |    |                 |           |
| 12      | C         | 0           | 14    | 18 | -0.12           | .20       |
|         | B         | 0           | 36    | 46 | 0.39            | .17       |
|         | A         | 1           | 29    | 37 | 0.64            | .20       |
|         | Missing   | **          |       |    |                 |           |
| 13      | A         | 0           | 5     | 6  | -0.24           | .28       |
|         | C         | 0           | 25    | 32 | -0.15           | .12       |
|         | B         | 1           | 48    | 61 | 0.74            | .16       |
|         | Missing   | **          | 1     | 1  | 0.24            |           |
| 14      | C         | 0           | 18    | 23 | -0.28           | .11       |
|         | B         | 0           | 9     | 11 | 0.01            | .24       |
|         | A         | 1           | 52    | 66 | 0.69            | .15       |
|         | Missing   | **          |       |    |                 |           |
| 15      | B         | 0           | 15    | 19 | -0.46           | .14       |
|         | A         | 0           | 13    | 16 | -0.24           | .16       |
|         | C         | 1           | 50    | 63 | 0.83            | .14       |
|         | Missing   | **          | 1     | 1  | -0.46           |           |
| 16      | C         | 0           | 26    | 33 | -0.01           | .13       |
|         | A         | 0           | 27    | 34 | 0.24            | .13       |
|         | B         | 1           | 26    | 33 | 0.95            | .27       |
|         | Missing   | **          |       |    |                 |           |
| 17      | B         | 0           | 16    | 20 | -0.08           | .18       |
|         | A         | 0           | 42    | 53 | 0.50            | .13       |
|         | C         | 1           | 21    | 27 | 0.54            | .31       |
|         | Missing   | **          |       |    |                 |           |
| 18      | C         | 0           | 24    | 30 | 0.06            | .17       |
|         | B         | 0           | 26    | 33 | 0.28            | .18       |
|         | A         | 1           | 29    | 37 | 0.77            | .21       |
|         | Missing   | **          |       |    |                 |           |
| 19      | A         | 0           | 19    | 24 | 0.09            | .17       |
|         | C         | 0           | 27    | 34 | 0.11            | .16       |
|         | B         | 1           | 33    | 42 | 0.79            | .21       |
|         | Missing   | **          |       |    |                 |           |
| 20      | A         | 0           | 15    | 19 | -0.03           | .17       |
|         | C         | 0           | 24    | 30 | 0.27            | .14       |
|         | B         | 1           | 40    | 51 | 0.62            | .20       |
|         | Missing   | **          |       |    |                 |           |

Table 68

*Item Statistics, Entry Order, Gr4MC13*

| Item Number | Raw Score | Count | Measure | Model Standard Error | Mean Square Outfit |
|-------------|-----------|-------|---------|----------------------|--------------------|
| 1           | 76        | 86    | -1.14   | 0.36                 | 1.04               |
| 2           | 80        | 86    | -1.78   | 0.45                 | 1.26               |
| 3           | 59        | 86    | 0.32    | 0.25                 | 1.15               |
| 4           | 78        | 86    | -1.42   | 0.4                  | 1.26               |
| 5           | 81        | 86    | -2      | 0.49                 | .47                |
| 6           | 63        | 86    | 0.05    | 0.26                 | 1.14               |
| 7           | 51        | 86    | 0.79    | 0.24                 | .90                |
| 8           | 79        | 86    | -1.59   | 0.42                 | .53                |
| 9           | 71        | 86    | -0.59   | 0.31                 | .73                |
| 10          | 63        | 86    | 0.05    | 0.26                 | 1.12               |
| 11          | 81        | 86    | -2      | 0.49                 | .60                |
| 12          | 21        | 86    | 2.51    | 0.27                 | 1.69               |
| 13          | 55        | 86    | 0.56    | 0.24                 | 1.06               |
| 14          | 69        | 86    | -0.41   | 0.29                 | .88                |
| 15          | 36        | 86    | 1.61    | 0.23                 | 1.32               |
| 16          | 51        | 86    | 0.79    | 0.24                 | .84                |
| 17          | 70        | 86    | -0.5    | 0.3                  | .95                |
| 18          | 22        | 86    | 2.45    | 0.26                 | 1.05               |
| 19          | 73        | 86    | -0.79   | 0.32                 | .70                |
| 20          | 14        | 86    | 3.07    | 0.3                  | 1.05               |

Table 69  
*Distractor Analysis, Gr4MC13*

| Entry # | Data Code | Score Value | Count | %  | Average Measure | S.E. Mean |
|---------|-----------|-------------|-------|----|-----------------|-----------|
| 1       | C         | 0           |       |    |                 |           |
|         | B         | 0           | 10    | 12 | 0.46            | .39       |
|         | A         | 1           | 76    | 88 | 1.31            | .10       |
|         | Missing   | **          |       |    |                 |           |
| 2       | A         | 0           | 2     | 2  | -0.21           | 1.73      |
|         | B         | 0           | 4     | 5  | 0.94            | .34       |
|         | C         | 1           | 80    | 93 | 1.26            | .10       |
|         | Missing   | **          |       |    |                 |           |
| 3       | C         | 0           | 27    | 31 | 0.84            | .15       |
|         | B         | 0           |       |    |                 |           |
|         | A         | 1           | 59    | 69 | 1.38            | .13       |
|         | Missing   | **          |       |    |                 |           |
| 4       | C         | 0           | 4     | 5  | -0.13           | .86       |
|         | B         | 0           | 4     | 5  | 1.21            | .37       |
|         | A         | 1           | 78    | 91 | 1.28            | .10       |
|         | Missing   | **          |       |    |                 |           |
| 5       | B         | 0           | 2     | 2  | -1.76           | .18       |
|         | A         | 0           | 3     | 3  | 0.40            | .10       |
|         | C         | 1           | 81    | 94 | 1.31            | .09       |
|         | Missing   | **          |       |    |                 |           |
| 6       | A         | 0           | 13    | 15 | 0.72            | .34       |
|         | C         | 0           | 10    | 12 | 0.79            | .33       |
|         | B         | 1           | 63    | 73 | 1.38            | .11       |
|         | Missing   | **          |       |    |                 |           |
| 7       | A         | 0           | 6     | 7  | 0.33            | .43       |
|         | B         | 0           | 29    | 34 | 0.80            | .17       |
|         | C         | 1           | 51    | 59 | 1.55            | .11       |
|         | Missing   | **          |       |    |                 |           |
| 8       | A         | 0           | 3     | 3  | -0.17           | .60       |
|         | C         | 0           | 3     | 3  | 0.22            | .45       |
|         | B         | 1           | 79    | 92 | 1.34            | .09       |
|         | Missing   | **          | 1     | 1  | -1.94           |           |
| 9       | B         | 0           | 12    | 14 | 0.00            | .29       |
|         | C         | 0           | 2     | 2  | 1.55            | .40       |
|         | A         | 1           | 71    | 83 | 1.45            | .09       |
|         | Missing   | **          | 1     | 1  | -1.58           |           |
| 10      | A         | 0           |       |    |                 |           |
|         | B         | 0           | 21    | 24 | 0.88            | .18       |
|         | C         | 1           | 63    | 73 | 1.38            | .12       |
|         | Missing   | **          | 2     | 2  | -0.54           | 1.04      |

Table 69  
*Distractor Analysis, Gr4MC13, Continued*

| Entry # | Data Code | Score Value | Count | %  | Average Measure | S.E. Mean |
|---------|-----------|-------------|-------|----|-----------------|-----------|
| 11      | A         | 0           | 1     | 1  | -1.94           |           |
|         | C         | 0           | 3     | 3  | 0.16            | .80       |
|         | B         | 1           | 81    | 94 | 1.32            | .09       |
|         | Missing   | **          | 1     | 1  | -1.58           |           |
| 12      | B         | 0           | 1     | 1  | -1.94           |           |
|         | C         | 0           | 63    | 73 | 1.25            | .10       |
|         | A         | 1           | 21    | 24 | 1.37            | .23       |
|         | Missing   | **          | 1     | 1  | -1.58           |           |
| 13      | B         | 0           | 2     | 2  | -0.22           | 1.03      |
|         | A         | 0           | 27    | 31 | 0.87            | .14       |
|         | C         | 1           | 55    | 64 | 1.47            | .12       |
|         | Missing   | **          | 2     | 2  | 0.19            | 1.76      |
| 14      | B         | 0           | 3     | 3  | -0.70           | .71       |
|         | C         | 0           | 13    | 15 | 0.73            | .25       |
|         | A         | 1           | 69    | 80 | 1.43            | .09       |
|         | Missing   | **          | 1     | 1  | -1.58           |           |
| 15      | A         | 0           | 23    | 27 | 0.92            | .19       |
|         | B         | 0           | 25    | 29 | 1.10            | .13       |
|         | C         | 1           | 36    | 42 | 1.56            | .17       |
|         | Missing   | **          | 2     | 2  | -0.38           | 1.20      |
| 16      | A         | 0           | 11    | 13 | 0.54            | .31       |
|         | C         | 0           | 23    | 27 | 0.78            | .18       |
|         | B         | 1           | 51    | 59 | 1.60            | .10       |
|         | Missing   | **          | 1     | 1  | -1.58           |           |
| 17      | B         | 0           | 12    | 14 | 0.48            | .32       |
|         | C         | 0           | 3     | 3  | 0.96            | .39       |
|         | A         | 1           | 70    | 81 | 1.39            | .10       |
|         | Missing   | **          | 1     | 1  | -1.58           |           |
| 18      | A         | 0           | 11    | 13 | 0.72            | .40       |
|         | B         | 0           | 52    | 60 | 1.20            | .11       |
|         | C         | 1           | 22    | 26 | 1.61            | .17       |
|         | Missing   | **          | 1     | 1  | -1.58           |           |
| 19      | C         | 0           | 8     | 9  | 0.06            | .36       |
|         | A         | 0           | 4     | 5  | 0.56            | .62       |
|         | B         | 1           | 73    | 85 | 1.41            | .09       |
|         | Missing   | **          | 1     | 1  | -1.58           |           |
| 20      | B         | 0           | 4     | 5  | -0.55           | .62       |
|         | C         | 0           | 67    | 78 | 1.26            | .10       |
|         | A         | 1           | 14    | 16 | 1.66            | .22       |
|         | Missing   | **          | 1     | 1  | -1.58           |           |

Table 70

*Item Statistics, Entry Order, Gr4MC14*

| Item Number | Raw Score | Count | Measure | Model Standard Error | Mean Square Outfit |
|-------------|-----------|-------|---------|----------------------|--------------------|
| 1           | 78        | 84    | -1.75   | 0.46                 | .50                |
| 2           | 75        | 84    | -1.21   | 0.39                 | .96                |
| 3           | 74        | 84    | -1.07   | 0.37                 | .72                |
| 4           | 53        | 84    | 0.73    | 0.25                 | .88                |
| 5           | 69        | 84    | -0.48   | 0.32                 | 1.33               |
| 6           | 53        | 84    | 0.73    | 0.25                 | 1.13               |
| 7           | 50        | 84    | 0.91    | 0.24                 | .98                |
| 8           | 69        | 84    | -0.48   | 0.32                 | .74                |
| 9           | 44        | 84    | 1.26    | 0.24                 | 1.26               |
| 10          | 61        | 84    | 0.2     | 0.27                 | 1.10               |
| 11          | 47        | 84    | 1.09    | 0.24                 | 1.01               |
| 12          | 33        | 84    | 1.87    | 0.24                 | 1.29               |
| 13          | 52        | 84    | 0.79    | 0.25                 | 1.15               |
| 14          | 73        | 84    | -0.93   | 0.36                 | .68                |
| 15          | 55        | 84    | 0.61    | 0.25                 | 1.11               |
| 16          | 72        | 84    | -0.81   | 0.35                 | .64                |
| 17          | 48        | 84    | 1.03    | 0.24                 | .77                |
| 18          | 67        | 84    | -0.29   | 0.3                  | .85                |
| 19          | 79        | 84    | -1.98   | 0.5                  | .69                |
| 20          | 66        | 84    | -0.2    | 0.3                  | 1.01               |

Table 71  
*Distractor Analysis, Gr4MC14*

| Entry # | Data Code | Score Value | Count | %  | Average Measure | S.E. Mean |
|---------|-----------|-------------|-------|----|-----------------|-----------|
| 1       | A         | 0           | 3     | 4  | -0.61           | .44       |
|         | C         | 0           | 3     | 4  | -0.02           | .67       |
|         | B         | 1           | 78    | 93 | 1.56            | .14       |
|         | Missing   | **          |       |    |                 |           |
| 2       | B         | 0           | 2     | 2  | -0.13           | .91       |
|         | A         | 0           | 7     | 8  | 0.48            | .46       |
|         | C         | 1           | 75    | 89 | 1.56            | .14       |
|         | Missing   | **          |       |    |                 |           |
| 3       | A         | 0           | 5     | 6  | 0.00            | .61       |
|         | B         | 0           | 4     | 5  | 0.41            | .51       |
|         | C         | 1           | 74    | 88 | 1.63            | .13       |
|         | Missing   | **          | 1     | 1  | -2.14           |           |
| 4       | B         | 0           | 6     | 7  | -0.22           | .66       |
|         | C         | 0           | 25    | 30 | 0.90            | .17       |
|         | A         | 1           | 53    | 63 | 1.86            | .16       |
|         | Missing   | **          |       |    |                 |           |
| 5       | C         | 0           | 2     | 2  | -0.32           | 1.38      |
|         | A         | 0           | 13    | 15 | 0.67            | .50       |
|         | B         | 1           | 69    | 82 | 1.62            | .13       |
|         | Missing   | **          |       |    |                 |           |
| 6       | C         | 0           | 25    | 30 | 0.94            | .24       |
|         | B         | 0           | 6     | 7  | 1.17            | .62       |
|         | A         | 1           | 53    | 63 | 1.69            | .17       |
|         | Missing   | **          |       |    |                 |           |
| 7       | A         | 0           | 6     | 7  | 0.31            | .43       |
|         | B         | 0           | 28    | 33 | 0.97            | .26       |
|         | C         | 1           | 50    | 60 | 1.82            | .15       |
|         | Missing   | **          |       |    |                 |           |
| 8       | B         | 0           | 3     | 4  | -1.63           | .32       |
|         | C         | 0           | 12    | 14 | 0.52            | .30       |
|         | A         | 1           | 69    | 82 | 1.72            | .13       |
|         | Missing   | **          |       |    |                 |           |
| 9       | A         | 0           | 18    | 21 | 1.10            | .28       |
|         | C         | 0           | 22    | 26 | 1.12            | .29       |
|         | B         | 1           | 44    | 52 | 1.72            | .18       |
|         | Missing   | **          |       |    |                 |           |
| 10      | B         | 0           | 9     | 11 | 0.62            | .48       |
|         | A         | 0           | 14    | 17 | 0.76            | .29       |
|         | C         | 1           | 61    | 73 | 1.70            | .15       |
|         | Missing   | **          |       |    |                 |           |



Table 71  
*Distractor Analysis, Gr4MC14, Continued*

| Entry # | Data Code | Score Value | Count | %  | Average Measure | S.E. Mean |
|---------|-----------|-------------|-------|----|-----------------|-----------|
| 11      | C         | 0           | 20    | 24 | 0.88            | .24       |
|         | B         | 0           | 17    | 20 | 0.97            | .35       |
|         | A         | 1           | 47    | 56 | 1.83            | .17       |
|         | Missing   | **          |       |    |                 |           |
| 12      | A         | 0           | 19    | 23 | 0.86            | .33       |
|         | B         | 0           | 32    | 38 | 1.23            | .18       |
|         | C         | 1           | 33    | 39 | 1.94            | .22       |
|         | Missing   | **          |       |    |                 |           |
| 13      | C         | 0           | 6     | 7  | -0.09           | .65       |
|         | A         | 0           | 26    | 31 | 1.22            | .21       |
|         | B         | 1           | 52    | 62 | 1.71            | .17       |
|         | Missing   | **          |       |    |                 |           |
| 14      | B         | 0           | 8     | 10 | -0.21           | .54       |
|         | C         | 0           | 3     | 4  | -0.17           | .46       |
|         | A         | 1           | 73    | 87 | 1.67            | .13       |
|         | Missing   | **          |       |    |                 |           |
| 15      | A         | 0           | 7     | 8  | 0.05            | .49       |
|         | C         | 0           | 22    | 26 | 1.12            | .19       |
|         | B         | 1           | 55    | 65 | 1.73            | .17       |
|         | Missing   | **          |       |    |                 |           |
| 16      | C         | 0           | 7     | 8  | -0.15           | .43       |
|         | A         | 0           | 5     | 6  | 0.16            | .55       |
|         | B         | 1           | 72    | 86 | 1.67            | .13       |
|         | Missing   | **          |       |    |                 |           |
| 17      | B         | 0           | 10    | 12 | 0.20            | .41       |
|         | A         | 0           | 26    | 31 | 0.85            | .19       |
|         | C         | 1           | 48    | 57 | 2.00            | .16       |
|         | Missing   | **          |       |    |                 |           |
| 18      | C         | 0           | 8     | 10 | -0.07           | .44       |
|         | A         | 0           | 9     | 11 | 0.59            | .48       |
|         | B         | 1           | 67    | 80 | 1.72            | .13       |
|         | Missing   | **          |       |    |                 |           |
| 19      | B         | 0           | 2     | 2  | -0.32           | 1.38      |
|         | A         | 0           | 2     | 2  | 0.16            | 1.20      |
|         | C         | 1           | 79    | 94 | 1.55            | .13       |
|         | Missing   | **          | 1     | 1  | -2.14           |           |
| 20      | C         | 0           | 8     | 10 | -0.23           | .53       |
|         | B         | 0           | 10    | 12 | 1.23            | .21       |
|         | A         | 1           | 66    | 79 | 1.66            | .14       |
|         | Missing   | **          |       |    |                 |           |

Table 72

*Item Statistics, Entry Order, Gr4MC15*

| Item Number | Raw Score | Count | Measure | Model Standard Error | Mean Square Outfit |
|-------------|-----------|-------|---------|----------------------|--------------------|
| 1           | 117       | 144   | -0.9    | 0.23                 | .89                |
| 2           | 125       | 144   | -1.38   | 0.26                 | .89                |
| 3           | 128       | 144   | -1.61   | 0.28                 | .62                |
| 4           | 119       | 144   | -1.01   | 0.24                 | .68                |
| 5           | 86        | 144   | 0.4     | 0.19                 | .96                |
| 6           | 110       | 144   | -0.55   | 0.21                 | .64                |
| 7           | 67        | 144   | 1.05    | 0.18                 | 1.25               |
| 8           | 88        | 144   | 0.33    | 0.19                 | .85                |
| 9           | 87        | 144   | 0.36    | 0.19                 | .90                |
| 10          | 50        | 144   | 1.64    | 0.19                 | 1.40               |
| 11          | 60        | 144   | 1.29    | 0.19                 | 1.44               |
| 12          | 93        | 144   | 0.15    | 0.19                 | 1.12               |
| 13          | 113       | 144   | -0.69   | 0.22                 | .87                |
| 14          | 102       | 144   | -0.2    | 0.2                  | .86                |
| 15          | 115       | 144   | -0.79   | 0.23                 | .83                |
| 16          | 117       | 144   | -0.9    | 0.23                 | .94                |
| 17          | 87        | 144   | 0.36    | 0.19                 | .98                |
| 18          | 65        | 144   | 1.12    | 0.18                 | 1.33               |
| 19          | 86        | 144   | 0.4     | 0.19                 | .81                |
| 20          | 71        | 144   | 0.92    | 0.18                 | 1.11               |

Table 73  
*Distractor Analysis, Gr4MC15*

| Entry # | Data Code | Score Value | Count | %  | Average Measure | S.E. Mean |
|---------|-----------|-------------|-------|----|-----------------|-----------|
| 1       | B         | 0           | 10    | 7  | -0.78           | .26       |
|         | C         | 0           | 17    | 12 | 0.31            | .25       |
|         | A         | 1           | 117   | 81 | 1.17            | .10       |
|         | Missing   | **          |       |    |                 |           |
| 2       | A         | 0           | 9     | 6  | -0.24           | .41       |
|         | C         | 0           | 10    | 7  | -0.12           | .31       |
|         | B         | 1           | 125   | 87 | 1.10            | .10       |
|         | Missing   | **          |       |    |                 |           |
| 3       | B         | 0           | 4     | 3  | -1.01           | .37       |
|         | A         | 0           | 10    | 7  | -0.42           | .38       |
|         | C         | 1           | 128   | 89 | 1.12            | .10       |
|         | Missing   | **          | 2     | 1  | -0.61           | .13       |
| 4       | A         | 0           | 9     | 6  | -0.45           | .28       |
|         | C         | 0           | 16    | 11 | -0.25           | .23       |
|         | B         | 1           | 119   | 83 | 1.19            | .10       |
|         | Missing   | **          |       |    |                 |           |
| 5       | A         | 0           | 13    | 9  | 0.16            | .31       |
|         | B         | 0           | 42    | 29 | 0.35            | .18       |
|         | C         | 1           | 86    | 60 | 1.36            | .12       |
|         | Missing   | **          | 3     | 2  | 0.01            | .50       |
| 6       | B         | 0           | 10    | 7  | -0.60           | .27       |
|         | C         | 0           | 24    | 17 | -0.08           | .17       |
|         | A         | 1           | 110   | 76 | 1.29            | .10       |
|         | Missing   | **          |       |    |                 |           |
| 7       | C         | 0           | 23    | 16 | 0.29            | .21       |
|         | A         | 0           | 51    | 35 | 0.85            | .14       |
|         | B         | 1           | 67    | 47 | 1.26            | .16       |
|         | Missing   | **          | 3     | 2  | -0.24           | .14       |
| 8       | A         | 0           | 30    | 21 | 0.07            | .14       |
|         | B         | 0           | 24    | 17 | 0.33            | .17       |
|         | C         | 1           | 88    | 61 | 1.40            | .13       |
|         | Missing   | **          | 2     | 1  | 0.13            | .61       |
| 9       | A         | 0           | 9     | 6  | -0.12           | .33       |
|         | C         | 0           | 44    | 31 | 0.30            | .14       |
|         | B         | 1           | 87    | 60 | 1.40            | .12       |
|         | Missing   | **          | 4     | 3  | 0.01            | .35       |
| 10      | B         | 0           | 40    | 28 | 0.65            | .15       |
|         | C         | 0           | 53    | 37 | 0.82            | .18       |
|         | A         | 1           | 50    | 35 | 1.27            | .18       |
|         | Missing   | **          | 1     | 1  | 1.01            |           |

Table 73  
*Distractor Analysis, Gr4MC15, Continued*

| Entry # | Data Code | Score Value | Count | %  | Average Measure | S.E. Mean |
|---------|-----------|-------------|-------|----|-----------------|-----------|
| 11      | B         | 0           | 41    | 28 | 0.68            | .15       |
|         | C         | 0           | 42    | 29 | 0.78            | .19       |
|         | A         | 1           | 60    | 42 | 1.23            | .17       |
|         | Missing   | **          | 1     | 1  | -0.48           | .00       |
| 12      | C         | 0           | 14    | 10 | 0.21            | .29       |
|         | A         | 0           | 35    | 24 | 0.55            | .18       |
|         | B         | 1           | 93    | 65 | 1.21            | .12       |
|         | Missing   | **          | 2     | 1  | -0.48           | .00       |
| 13      | C         | 0           | 9     | 6  | -0.01           | .30       |
|         | A         | 0           | 19    | 13 | 0.10            | .20       |
|         | B         | 1           | 113   | 78 | 1.16            | .11       |
|         | Missing   | **          | 3     | 2  | 0.42            | .46       |
| 14      | A         | 0           | 19    | 13 | 0.03            | .21       |
|         | B         | 0           | 20    | 14 | 0.17            | .23       |
|         | C         | 1           | 102   | 71 | 1.28            | .11       |
|         | Missing   | **          | 3     | 2  | -0.08           | .41       |
| 15      | C         | 0           | 14    | 10 | -0.14           | .24       |
|         | B         | 0           | 14    | 10 | 0.00            | .28       |
|         | A         | 1           | 115   | 80 | 1.19            | .11       |
|         | Missing   | **          | 1     | 1  | -0.48           |           |
| 16      | B         | 0           | 12    | 8  | -0.03           | .35       |
|         | A         | 0           | 13    | 9  | 0.04            | .28       |
|         | C         | 1           | 117   | 81 | 1.15            | .11       |
|         | Missing   | **          | 2     | 1  | -0.48           | .00       |
| 17      | C         | 0           | 15    | 10 | 0.18            | .24       |
|         | B         | 0           | 39    | 27 | 0.38            | .15       |
|         | A         | 1           | 87    | 60 | 1.34            | .13       |
|         | Missing   | **          | 3     | 2  | 0.00            | .28       |
| 18      | C         | 0           | 21    | 15 | 0.14            | .22       |
|         | B         | 0           | 54    | 38 | 0.99            | .14       |
|         | A         | 1           | 65    | 45 | 1.19            | .16       |
|         | Missing   | **          | 4     | 3  | 0.14            | .40       |
| 19      | A         | 0           | 27    | 19 | 0.12            | .18       |
|         | C         | 0           | 28    | 19 | 0.22            | .18       |
|         | B         | 1           | 86    | 60 | 1.44            | .12       |
|         | Missing   | **          | 3     | 2  | 0.27            | .53       |
| 20      | B         | 0           | 34    | 24 | 0.44            | .17       |
|         | A         | 0           | 35    | 24 | 0.66            | .19       |
|         | C         | 1           | 71    | 49 | 1.33            | .15       |
|         | Missing   | **          | 4     | 3  | 0.33            | .38       |

Table 74

*Item Statistics, Entry Order, Gr4MC16*

| Item Number | Raw Score | Count | Measure | Model Standard Error | Mean Square Outfit |
|-------------|-----------|-------|---------|----------------------|--------------------|
| 1           | 76        | 84    | -1.57   | 0.39                 | 1.15               |
| 2           | 74        | 84    | -1.29   | 0.36                 | 1.16               |
| 3           | 81        | 84    | -2.76   | 0.6                  | .35                |
| 4           | 63        | 84    | -0.23   | 0.28                 | 1.07               |
| 5           | 66        | 84    | -0.47   | 0.29                 | .72                |
| 6           | 49        | 84    | 0.71    | 0.25                 | .70                |
| 7           | 36        | 84    | 1.49    | 0.25                 | 1.33               |
| 8           | 70        | 84    | -0.84   | 0.32                 | .85                |
| 9           | 66        | 84    | -0.47   | 0.29                 | 1.02               |
| 10          | 30        | 84    | 1.86    | 0.25                 | 1.30               |
| 11          | 39        | 84    | 1.31    | 0.24                 | 1.37               |
| 12          | 59        | 84    | 0.06    | 0.27                 | .97                |
| 13          | 59        | 84    | 0.06    | 0.27                 | 1.19               |
| 14          | 74        | 84    | -1.29   | 0.36                 | .36                |
| 15          | 23        | 84    | 2.32    | 0.27                 | 1.70               |
| 16          | 66        | 84    | -0.47   | 0.29                 | .67                |
| 17          | 58        | 84    | 0.13    | 0.26                 | .85                |
| 18          | 68        | 84    | -0.65   | 0.3                  | .64                |
| 19          | 43        | 84    | 1.08    | 0.24                 | .75                |
| 20          | 44        | 84    | 1.02    | 0.25                 | 1.15               |

Table 75  
*Distractor Analysis, Gr4MC16*

| Entry # | Data Code | Score Value | Count | %  | Average Measure | S.E. Mean |
|---------|-----------|-------------|-------|----|-----------------|-----------|
| 1       | A         | 0           | 6     | 7  | 0.00            | .29       |
|         | C         | 0           | 2     | 2  | 1.39            | .86       |
|         | B         | 1           | 76    | 90 | 1.25            | .13       |
|         | Missing   | **          |       |    |                 |           |
| 2       | B         | 0           | 5     | 6  | 0.08            | .58       |
|         | C         | 0           | 5     | 6  | 0.41            | .57       |
|         | A         | 1           | 74    | 88 | 1.29            | .13       |
|         | Missing   | **          |       |    |                 |           |
| 3       | A         | 0           | 3     | 4  | -0.53           | .16       |
|         | C         | 0           |       |    |                 |           |
|         | B         | 1           | 81    | 96 | 1.23            | .13       |
|         | Missing   | **          |       |    |                 |           |
| 4       | C         | 0           | 4     | 5  | 0.38            | .50       |
|         | A         | 0           | 17    | 20 | 0.43            | .25       |
|         | B         | 1           | 63    | 75 | 1.42            | .14       |
|         | Missing   | **          |       |    |                 |           |
| 5       | C         | 0           | 9     | 11 | -0.06           | .21       |
|         | A         | 0           | 9     | 11 | 0.26            | .31       |
|         | B         | 1           | 66    | 79 | 1.46            | .14       |
|         | Missing   | **          |       |    |                 |           |
| 6       | B         | 0           | 18    | 21 | 0.30            | .21       |
|         | A         | 0           | 17    | 20 | 0.32            | .19       |
|         | C         | 1           | 49    | 58 | 1.78            | .14       |
|         | Missing   | **          |       |    |                 |           |
| 7       | B         | 0           | 12    | 14 | 0.62            | .23       |
|         | C         | 0           | 36    | 43 | 0.90            | .16       |
|         | A         | 1           | 36    | 43 | 1.62            | .22       |
|         | Missing   | **          |       |    |                 |           |
| 8       | A         | 0           | 9     | 11 | -0.06           | .13       |
|         | B         | 0           | 5     | 6  | 0.20            | .76       |
|         | C         | 1           | 70    | 83 | 1.39            | .13       |
|         | Missing   | **          |       |    |                 |           |
| 9       | A         | 0           | 8     | 10 | 0.09            | .40       |
|         | C         | 0           | 10    | 12 | 0.45            | .37       |
|         | B         | 1           | 66    | 79 | 1.41            | .13       |
|         | Missing   | **          |       |    |                 |           |
| 10      | B         | 0           | 31    | 37 | 0.78            | .17       |
|         | C         | 0           | 23    | 27 | 1.28            | .32       |
|         | A         | 1           | 30    | 36 | 1.48            | .18       |
|         | Missing   | **          |       |    |                 |           |

Table 75  
*Distractor Analysis, Gr4MC16, Continued*

| Entry # | Data Code | Score Value | Count | %  | Average Measure | S.E. Mean |
|---------|-----------|-------------|-------|----|-----------------|-----------|
| 11      | B         | 0           | 2     | 2  | 0.41            | .41       |
|         | C         | 0           | 43    | 51 | 0.97            | .16       |
|         | A         | 1           | 39    | 46 | 1.43            | .21       |
|         | Missing   | **          |       |    |                 |           |
| 12      | A         | 0           | 20    | 24 | 0.32            | .19       |
|         | C         | 0           | 5     | 6  | 1.01            | .41       |
|         | B         | 1           | 59    | 70 | 1.47            | .15       |
|         | Missing   | **          |       |    |                 |           |
| 13      | B         | 0           | 5     | 6  | 0.25            | .49       |
|         | A         | 0           | 19    | 23 | 0.68            | .22       |
|         | C         | 1           | 59    | 70 | 1.38            | .15       |
|         | Missing   | **          | 1     | 1  | 2.25            |           |
| 14      | A         | 0           | 7     | 8  | -0.55           | .19       |
|         | C         | 0           | 2     | 2  | -0.40           | .13       |
|         | B         | 1           | 74    | 88 | 1.40            | .12       |
|         | Missing   | **          | 1     | 1  | -1.10           |           |
| 15      | B         | 0           | 22    | 26 | 0.83            | .25       |
|         | A         | 0           | 39    | 46 | 1.11            | .16       |
|         | C         | 1           | 23    | 27 | 1.58            | .29       |
|         | Missing   | **          |       |    |                 |           |
| 16      | A         | 0           | 5     | 6  | -0.65           | .14       |
|         | B         | 0           | 12    | 14 | 0.15            | .27       |
|         | C         | 1           | 66    | 79 | 1.50            | .13       |
|         | Missing   | **          | 1     | 1  | 0.81            |           |
| 17      | C         | 0           | 3     | 4  | -0.27           | .57       |
|         | B         | 0           | 22    | 26 | 0.20            | .18       |
|         | A         | 1           | 58    | 69 | 1.58            | .13       |
|         | Missing   | **          | 1     | 1  | 2.95            |           |
| 18      | A         | 0           | 3     | 4  | -0.81           | .16       |
|         | C         | 0           | 13    | 15 | 0.21            | .16       |
|         | B         | 1           | 68    | 81 | 1.44            | .13       |
|         | Missing   | **          |       |    |                 |           |
| 19      | A         | 0           | 10    | 12 | -0.03           | .25       |
|         | B         | 0           | 31    | 37 | 0.61            | .16       |
|         | C         | 1           | 43    | 51 | 1.85            | .15       |
|         | Missing   | **          |       |    |                 |           |
| 20      | A         | 0           | 18    | 21 | 0.45            | .16       |
|         | B         | 0           | 22    | 26 | 0.99            | .27       |
|         | C         | 1           | 44    | 52 | 1.55            | .18       |
|         | Missing   | **          |       |    |                 |           |

Table 76

*Item Statistics, Entry Order, Gr4MC17*

| Item Number | Raw Score | Count | Measure | Model Standard Error | Mean Square Outfit |
|-------------|-----------|-------|---------|----------------------|--------------------|
| 1           | 70        | 82    | -0.52   | 0.35                 | .80                |
| 2           | 73        | 82    | -0.94   | 0.4                  | .49                |
| 3           | 77        | 82    | -1.73   | 0.5                  | .62                |
| 4           | 73        | 82    | -0.94   | 0.4                  | .78                |
| 5           | 65        | 82    | 0.03    | 0.31                 | .81                |
| 6           | 70        | 82    | -0.52   | 0.35                 | .81                |
| 7           | 75        | 82    | -1.29   | 0.44                 | .39                |
| 8           | 76        | 82    | -1.49   | 0.47                 | .53                |
| 9           | 34        | 82    | 2.27    | 0.26                 | 1.16               |
| 10          | 44        | 82    | 1.63    | 0.26                 | .52                |
| 11          | 58        | 82    | 0.64    | 0.28                 | .73                |
| 12          | 65        | 82    | 0.03    | 0.31                 | .95                |
| 13          | 74        | 82    | -1.1    | 0.41                 | .62                |
| 14          | 75        | 82    | -1.29   | 0.44                 | .31                |
| 15          | 50        | 82    | 1.23    | 0.26                 | .95                |
| 16          | 76        | 82    | -1.49   | 0.47                 | .35                |
| 17          | 11        | 82    | 3.93    | 0.34                 | 2.88               |
| 18          | 64        | 82    | 0.13    | 0.31                 | 1.05               |
| 19          | 60        | 82    | 0.48    | 0.29                 | 1.16               |
| 20          | 54        | 82    | 0.95    | 0.27                 | 1.14               |



Table 77  
*Distractor Analysis, Gr4MC17*

| Entry # | Data Code | Score Value | Count | %  | Average Measure | S.E. Mean |
|---------|-----------|-------------|-------|----|-----------------|-----------|
| 1       | A         | 0           | 2     | 2  | 0.51            | .91       |
|         | C         | 0           | 10    | 12 | 0.60            | .23       |
|         | B         | 1           | 70    | 85 | 2.13            | .19       |
|         | Missing   | **          |       |    |                 |           |
| 2       | B         | 0           | 1     | 1  | -0.12           |           |
|         | C         | 0           | 8     | 10 | -0.06           | .41       |
|         | A         | 1           | 73    | 89 | 2.15            | .17       |
|         | Missing   | **          |       |    |                 |           |
| 3       | A         | 0           | 5     | 6  | -0.38           | .67       |
|         | C         | 0           |       |    |                 |           |
|         | B         | 1           | 77    | 94 | 2.05            | .17       |
|         | Missing   | **          |       |    |                 |           |
| 4       | C         | 0           | 2     | 2  | -0.79           | 1.52      |
|         | A         | 0           | 7     | 9  | 0.38            | .48       |
|         | B         | 1           | 73    | 89 | 2.12            | .17       |
|         | Missing   | **          |       |    |                 |           |
| 5       | B         | 0           | 8     | 10 | 0.44            | .45       |
|         | A         | 0           | 9     | 11 | 0.66            | .41       |
|         | C         | 1           | 65    | 79 | 2.25            | .18       |
|         | Missing   | **          |       |    |                 |           |
| 6       | B         | 0           | 3     | 4  | 0.27            | .42       |
|         | C         | 0           | 8     | 10 | 0.68            | .38       |
|         | A         | 1           | 70    | 85 | 2.14            | .18       |
|         | Missing   | **          | 1     | 1  | -0.12           |           |
| 7       | B         | 0           | 5     | 6  | -0.61           | .48       |
|         | A         | 0           | 2     | 2  | 0.44            | .29       |
|         | C         | 1           | 75    | 91 | 2.11            | .17       |
|         | Missing   | **          |       |    |                 |           |
| 8       | C         | 0           | 2     | 2  | -0.53           | .41       |
|         | B         | 0           | 4     | 5  | -0.45           | .88       |
|         | A         | 1           | 76    | 93 | 2.09            | .16       |
|         | Missing   | **          |       |    |                 |           |
| 9       | B         | 0           | 11    | 13 | 0.46            | .51       |
|         | A         | 0           | 37    | 45 | 1.59            | .18       |
|         | C         | 1           | 34    | 41 | 2.71            | .27       |
|         | Missing   | **          |       |    |                 |           |
| 10      | C         | 0           | 2     | 2  | -1.08           | 1.23      |
|         | A         | 0           | 35    | 43 | 1.53            | .19       |
|         | B         | 1           | 44    | 54 | 2.33            | .26       |
|         | Missing   | **          | 1     | 1  | 1.83            |           |

Table 77  
*Distractor Analysis, Gr4MC17, Continued*

| Entry # | Data Code | Score Value | Count | %  | Average Measure | S.E. Mean |
|---------|-----------|-------------|-------|----|-----------------|-----------|
| 11      | A         | 0           | 6     | 7  | -0.05           | .70       |
|         | C         | 0           | 18    | 22 | 0.73            | .24       |
|         | B         | 1           | 58    | 71 | 2.47            | .18       |
|         | Missing   | **          |       |    |                 |           |
| 12      | B         | 0           | 7     | 9  | 0.07            | .74       |
|         | C         | 0           | 10    | 12 | 0.47            | .35       |
|         | A         | 1           | 65    | 79 | 2.32            | .16       |
|         | Missing   | **          |       |    |                 |           |
| 13      | B         | 0           | 4     | 5  | -0.18           | .35       |
|         | A         | 0           | 4     | 5  | 0.38            | .59       |
|         | C         | 1           | 74    | 90 | 2.10            | .17       |
|         | Missing   | **          |       |    |                 |           |
| 14      | B         | 0           | 4     | 5  | -0.94           | .56       |
|         | A         | 0           | 3     | 4  | -0.03           | .09       |
|         | C         | 1           | 75    | 91 | 2.13            | .16       |
|         | Missing   | **          |       |    |                 |           |
| 15      | B         | 0           | 13    | 16 | 0.45            | .40       |
|         | C         | 0           | 19    | 23 | 1.34            | .24       |
|         | A         | 1           | 50    | 61 | 2.50            | .21       |
|         | Missing   | **          |       |    |                 |           |
| 16      | A         | 0           | 3     | 4  | -0.93           | .89       |
|         | B         | 0           | 3     | 4  | -0.21           | .40       |
|         | C         | 1           | 76    | 93 | 2.10            | .16       |
|         | Missing   | **          |       |    |                 |           |
| 17      | A         | 0           | 32    | 39 | 1.53            | .27       |
|         | C         | 0           | 39    | 48 | 2.12            | .23       |
|         | B         | 1           | 11    | 13 | 2.23            | .62       |
|         | Missing   | **          |       |    |                 |           |
| 18      | B         | 0           | 4     | 5  | -0.52           | .64       |
|         | C         | 0           | 14    | 17 | 0.94            | .38       |
|         | A         | 1           | 64    | 78 | 2.27            | .18       |
|         | Missing   | **          |       |    |                 |           |
| 19      | A         | 0           | 14    | 17 | 0.59            | .26       |
|         | B         | 0           | 7     | 9  | 1.21            | .83       |
|         | C         | 1           | 60    | 73 | 2.29            | .19       |
|         | Missing   | **          | 1     | 1  | 1.83            |           |
| 20      | C         | 0           | 25    | 30 | 0.87            | .26       |
|         | B         | 0           | 3     | 4  | 1.49            | 2.04      |
|         | A         | 1           | 54    | 66 | 2.40            | .18       |
|         | Missing   | **          |       |    |                 |           |

Table 78

*Item Statistics, Entry Order, Gr4MC18*

| Item Number | Raw Score | Count | Measure | Model Standard Error | Mean Square Outfit |
|-------------|-----------|-------|---------|----------------------|--------------------|
| 1           | 99        | 113   | -0.88   | 0.31                 | 1.36               |
| 2           | 101       | 113   | -1.08   | 0.33                 | .71                |
| 3           | 72        | 113   | 0.78    | 0.22                 | .95                |
| 4           | 79        | 113   | 0.44    | 0.23                 | .82                |
| 5           | 80        | 113   | 0.39    | 0.23                 | .84                |
| 6           | 73        | 113   | 0.74    | 0.22                 | 1.08               |
| 7           | 87        | 113   | 0       | 0.25                 | 1.24               |
| 8           | 99        | 113   | -0.88   | 0.31                 | .77                |
| 9           | 78        | 113   | 0.5     | 0.22                 | 1.11               |
| 10          | 86        | 113   | 0.06    | 0.24                 | .73                |
| 11          | 70        | 113   | 0.88    | 0.21                 | 1.01               |
| 12          | 67        | 113   | 1.01    | 0.21                 | 1.11               |
| 13          | 98        | 113   | -0.79   | 0.3                  | .71                |
| 14          | 83        | 113   | 0.23    | 0.23                 | 1.01               |
| 15          | 98        | 113   | -0.79   | 0.3                  | 1.01               |
| 16          | 91        | 113   | -0.25   | 0.26                 | .87                |
| 17          | 101       | 113   | -1.08   | 0.33                 | .98                |
| 18          | 85        | 113   | 0.12    | 0.24                 | .90                |
| 19          | 100       | 113   | -0.98   | 0.32                 | .51                |
| 20          | 54        | 113   | 1.57    | 0.21                 | 1.32               |

Table 79  
*Distractor Analysis, Gr4MC18*

| Entry # | Data Code | Score Value | Count | %  | Average Measure | S.E. Mean |
|---------|-----------|-------------|-------|----|-----------------|-----------|
| 1       | C         | 0           | 3     | 3  | -0.23           | .13       |
|         | B         | 0           | 11    | 10 | 1.24            | .43       |
|         | A         | 1           | 99    | 88 | 1.76            | .14       |
|         | Missing   | **          |       |    |                 |           |
| 2       | C         | 0           | 8     | 7  | 0.23            | .35       |
|         | A         | 0           | 4     | 4  | 0.32            | .56       |
|         | B         | 1           | 101   | 89 | 1.82            | .13       |
|         | Missing   | **          |       |    |                 |           |
| 3       | B         | 0           | 17    | 15 | 0.73            | .30       |
|         | C         | 0           | 23    | 20 | 1.00            | .18       |
|         | A         | 1           | 72    | 64 | 2.08            | .17       |
|         | Missing   | **          | 1     | 1  | 1.57            |           |
| 4       | B         | 0           | 10    | 9  | -0.09           | .35       |
|         | A         | 0           | 24    | 21 | 0.96            | .17       |
|         | C         | 1           | 79    | 70 | 2.09            | .15       |
|         | Missing   | **          |       |    |                 |           |
| 5       | C         | 0           | 5     | 4  | 0.43            | .64       |
|         | B         | 0           | 28    | 25 | 0.70            | .14       |
|         | A         | 1           | 80    | 71 | 2.06            | .15       |
|         | Missing   | **          |       |    |                 |           |
| 6       | B         | 0           | 23    | 20 | 0.85            | .29       |
|         | A         | 0           | 17    | 15 | 1.20            | .37       |
|         | C         | 1           | 73    | 65 | 2.01            | .15       |
|         | Missing   | **          |       |    |                 |           |
| 7       | C         | 0           | 8     | 7  | 0.22            | .49       |
|         | B         | 0           | 18    | 16 | 1.32            | .30       |
|         | A         | 1           | 87    | 77 | 1.86            | .14       |
|         | Missing   | **          |       |    |                 |           |
| 8       | A         | 0           | 4     | 4  | 0.27            | .88       |
|         | B         | 0           | 9     | 8  | 0.29            | .33       |
|         | C         | 1           | 99    | 88 | 1.86            | .13       |
|         | Missing   | **          | 1     | 1  | -0.71           |           |
| 9       | C         | 0           | 5     | 4  | 0.59            | .31       |
|         | A         | 0           | 29    | 26 | 0.99            | .22       |
|         | B         | 1           | 78    | 69 | 1.95            | .16       |
|         | Missing   | **          | 1     | 1  | 2.65            |           |
| 10      | B         | 0           | 8     | 7  | -0.15           | .37       |
|         | C         | 0           | 19    | 17 | 0.81            | .13       |
|         | A         | 1           | 86    | 76 | 2.01            | .15       |
|         | Missing   | **          |       |    |                 |           |

Table 79  
*Distractor Analysis, Gr4MC18, Continued*

| Entry # | Data Code | Score Value | Count | %  | Average Measure | S.E. Mean |
|---------|-----------|-------------|-------|----|-----------------|-----------|
| 11      | A         | 0           | 21    | 19 | 0.67            | .30       |
|         | B         | 0           | 22    | 19 | 1.24            | .21       |
|         | C         | 1           | 70    | 62 | 2.08            | .16       |
|         | Missing   | **          |       |    |                 |           |
| 12      | C         | 0           | 26    | 23 | 0.91            | .23       |
|         | A         | 0           | 19    | 17 | 1.52            | .35       |
|         | B         | 1           | 67    | 59 | 2.02            | .16       |
|         | Missing   | **          | 1     | 1  | -0.71           |           |
| 13      | A         | 0           | 6     | 5  | 0.01            | .34       |
|         | C         | 0           | 7     | 6  | 0.22            | .48       |
|         | B         | 1           | 98    | 87 | 1.88            | .13       |
|         | Missing   | **          | 2     | 2  | 0.43            | 1.14      |
| 14      | B         | 0           | 9     | 8  | 0.35            | .38       |
|         | A         | 0           | 21    | 19 | 1.09            | .16       |
|         | C         | 1           | 83    | 73 | 1.94            | .16       |
|         | Missing   | **          |       |    |                 |           |
| 15      | C         | 0           | 4     | 4  | -0.01           | .75       |
|         | B         | 0           | 11    | 10 | 0.89            | .29       |
|         | A         | 1           | 98    | 87 | 1.81            | .14       |
|         | Missing   | **          |       |    |                 |           |
| 16      | B         | 0           | 15    | 13 | 0.47            | .28       |
|         | A         | 0           | 6     | 5  | 0.56            | .37       |
|         | C         | 1           | 91    | 81 | 1.92            | .14       |
|         | Missing   | **          | 1     | 1  | 1.57            |           |
| 17      | A         | 0           | 5     | 4  | 0.27            | .61       |
|         | C         | 0           | 7     | 6  | 0.51            | .50       |
|         | B         | 1           | 101   | 89 | 1.80            | .13       |
|         | Missing   | **          |       |    |                 |           |
| 18      | A         | 0           | 14    | 12 | 0.32            | .29       |
|         | C         | 0           | 14    | 12 | 1.04            | .19       |
|         | B         | 1           | 85    | 75 | 1.98            | .15       |
|         | Missing   | **          |       |    |                 |           |
| 19      | B         | 0           | 5     | 4  | -0.17           | .41       |
|         | C         | 0           | 8     | 7  | -0.13           | .37       |
|         | A         | 1           | 100   | 88 | 1.89            | .13       |
|         | Missing   | **          |       |    |                 |           |
| 20      | A         | 0           | 10    | 9  | 0.47            | .39       |
|         | C         | 0           | 49    | 43 | 1.54            | .17       |
|         | B         | 1           | 54    | 48 | 1.98            | .20       |
|         | Missing   | **          |       |    |                 |           |

Table 80

*Item Statistics, Entry Order, Gr4MC19*

| Item Number | Raw Score | Count | Measure | Model Standard Error | Mean Square Outfit |
|-------------|-----------|-------|---------|----------------------|--------------------|
| 1           | 74        | 81    | -1.34   | 0.42                 | .79                |
| 2           | 66        | 81    | -0.3    | 0.31                 | .73                |
| 3           | 64        | 81    | -0.12   | 0.3                  | 1.22               |
| 4           | 49        | 81    | 0.97    | 0.25                 | 1.16               |
| 5           | 75        | 81    | -1.53   | 0.45                 | .54                |
| 6           | 69        | 81    | -0.62   | 0.34                 | .97                |
| 7           | 71        | 81    | -0.87   | 0.37                 | .76                |
| 8           | 70        | 81    | -0.74   | 0.35                 | .69                |
| 9           | 61        | 81    | 0.14    | 0.28                 | .84                |
| 10          | 73        | 81    | -1.17   | 0.4                  | .33                |
| 11          | 57        | 81    | 0.44    | 0.27                 | 1.18               |
| 12          | 29        | 81    | 2.13    | 0.25                 | 1.42               |
| 13          | 61        | 81    | 0.14    | 0.28                 | .93                |
| 14          | 57        | 81    | 0.44    | 0.27                 | 1.05               |
| 15          | 52        | 81    | 0.78    | 0.25                 | 1.13               |
| 16          | 61        | 81    | 0.14    | 0.28                 | 1.07               |
| 17          | 63        | 81    | -0.03   | 0.29                 | .95                |
| 18          | 47        | 81    | 1.09    | 0.25                 | 1.07               |
| 19          | 64        | 81    | -0.12   | 0.3                  | .98                |
| 20          | 55        | 81    | 0.58    | 0.26                 | .79                |

Table 81  
*Distractor Analysis, Gr4MC19*

| Entry # | Data Code | Score Value | Count | %  | Average Measure | S.E. Mean |
|---------|-----------|-------------|-------|----|-----------------|-----------|
| 1       | B         | 0           | 1     | 1  | -0.73           |           |
|         | C         | 0           | 6     | 7  | 0.53            | .47       |
|         | A         | 1           | 74    | 91 | 1.73            | .15       |
|         | Missing   | **          |       |    |                 |           |
| 2       | A         | 0           | 4     | 5  | -0.20           | .75       |
|         | B         | 0           | 11    | 14 | 0.48            | .32       |
|         | C         | 1           | 66    | 81 | 1.90            | .14       |
|         | Missing   | **          |       |    |                 |           |
| 3       | C         | 0           | 3     | 4  | -0.67           | .37       |
|         | A         | 0           | 14    | 17 | 1.18            | .40       |
|         | B         | 1           | 64    | 79 | 1.81            | .15       |
|         | Missing   | **          |       |    |                 |           |
| 4       | B         | 0           | 3     | 4  | -0.91           | .18       |
|         | C         | 0           | 28    | 35 | 1.42            | .22       |
|         | A         | 1           | 49    | 60 | 1.90            | .18       |
|         | Missing   | **          | 1     | 1  | 0.22            |           |
| 5       | C         | 0           | 3     | 4  | -0.70           | .53       |
|         | A         | 0           | 2     | 2  | 0.91            | .69       |
|         | B         | 1           | 75    | 93 | 1.76            | .14       |
|         | Missing   | **          | 1     | 1  | -1.28           |           |
| 6       | B         | 0           | 6     | 7  | -0.42           | .40       |
|         | C         | 0           | 6     | 7  | 0.96            | .63       |
|         | A         | 1           | 69    | 85 | 1.84            | .14       |
|         | Missing   | **          |       |    |                 |           |
| 7       | A         | 0           | 6     | 7  | 0.13            | .43       |
|         | B         | 0           | 4     | 5  | 0.40            | .66       |
|         | C         | 1           | 71    | 88 | 1.80            | .15       |
|         | Missing   | **          |       |    |                 |           |
| 8       | A         | 0           | 6     | 7  | -0.26           | .28       |
|         | B         | 0           | 5     | 6  | 0.94            | .42       |
|         | C         | 1           | 70    | 86 | 1.81            | .15       |
|         | Missing   | **          |       |    |                 |           |
| 9       | B         | 0           | 11    | 14 | 0.38            | .36       |
|         | C         | 0           | 9     | 11 | 0.88            | .29       |
|         | A         | 1           | 61    | 75 | 1.94            | .16       |
|         | Missing   | **          |       |    |                 |           |
| 10      | C         | 0           | 5     | 6  | -0.62           | .45       |
|         | A         | 0           | 3     | 4  | -0.41           | .32       |
|         | B         | 1           | 73    | 90 | 1.84            | .13       |
|         | Missing   | **          |       |    |                 |           |

Table 81  
*Distractor Analysis, Gr4MC19, Continued*

| Entry # | Data Code | Score Value | Count | %  | Average Measure | S.E. Mean |
|---------|-----------|-------------|-------|----|-----------------|-----------|
| 11      | A         | 0           | 2     | 2  | -0.01           | 1.27      |
|         | C         | 0           | 22    | 27 | 1.22            | .16       |
|         | B         | 1           | 57    | 70 | 1.81            | .19       |
|         | Missing   | **          |       |    |                 |           |
| 12      | C         | 0           | 38    | 47 | 1.37            | .18       |
|         | B         | 0           | 14    | 17 | 1.63            | .45       |
|         | A         | 1           | 29    | 36 | 1.90            | .26       |
|         | Missing   | **          |       |    |                 |           |
| 13      | B         | 0           | 14    | 17 | 0.56            | .31       |
|         | A         | 0           | 6     | 7  | 1.03            | .48       |
|         | C         | 1           | 61    | 75 | 1.90            | .16       |
|         | Missing   | **          |       |    |                 |           |
| 14      | C         | 0           | 19    | 23 | 0.87            | .23       |
|         | A         | 0           | 4     | 5  | 1.26            | .32       |
|         | B         | 1           | 57    | 70 | 1.89            | .18       |
|         | Missing   | **          | 1     | 1  | 0.71            |           |
| 15      | A         | 0           | 5     | 6  | 0.20            | .60       |
|         | B         | 0           | 23    | 28 | 1.27            | .24       |
|         | C         | 1           | 52    | 64 | 1.91            | .18       |
|         | Missing   | **          | 1     | 1  | 0.71            |           |
| 16      | B         | 0           | 4     | 5  | 0.76            | .55       |
|         | A         | 0           | 13    | 16 | 0.83            | .38       |
|         | C         | 1           | 61    | 75 | 1.85            | .16       |
|         | Missing   | **          | 3     | 4  | 1.10            | .26       |
| 17      | B         | 0           | 10    | 12 | 0.34            | .27       |
|         | C         | 0           | 7     | 9  | 1.40            | .17       |
|         | A         | 1           | 63    | 78 | 1.85            | .17       |
|         | Missing   | **          | 1     | 1  | 0.71            |           |
| 18      | B         | 0           | 7     | 9  | 0.81            | .54       |
|         | A         | 0           | 25    | 31 | 1.14            | .20       |
|         | C         | 1           | 47    | 58 | 1.99            | .20       |
|         | Missing   | **          | 2     | 2  | 1.16            | .45       |
| 19      | B         | 0           | 5     | 6  | -0.19           | .54       |
|         | C         | 0           | 11    | 14 | 1.12            | .30       |
|         | A         | 1           | 64    | 79 | 1.85            | .16       |
|         | Missing   | **          | 1     | 1  | 0.71            |           |
| 20      | C         | 0           | 12    | 15 | 0.35            | .33       |
|         | A         | 0           | 13    | 16 | 0.94            | .28       |
|         | B         | 1           | 55    | 68 | 2.06            | .16       |
|         | Missing   | **          | 1     | 1  | 0.71            |           |



Table 82

*Item Statistics, Entry Order, Gr4MC20*

| Item Number | Raw Score | Count | Measure | Model Standard Error | Mean Square Outfit |
|-------------|-----------|-------|---------|----------------------|--------------------|
| 1           | 73        | 80    | -1.22   | 0.43                 | .78                |
| 2           | 70        | 80    | -0.74   | 0.37                 | .48                |
| 3           | 51        | 80    | 1.03    | 0.26                 | 1.09               |
| 4           | 74        | 80    | -1.42   | 0.46                 | .76                |
| 5           | 32        | 80    | 2.24    | 0.25                 | 1.07               |
| 6           | 68        | 80    | -0.47   | 0.35                 | .64                |
| 7           | 75        | 80    | -1.65   | 0.49                 | .48                |
| 8           | 69        | 80    | -0.6    | 0.36                 | .80                |
| 9           | 67        | 80    | -0.35   | 0.34                 | 1.04               |
| 10          | 73        | 80    | -1.22   | 0.43                 | 1.27               |
| 11          | 63        | 80    | 0.07    | 0.31                 | 1.63               |
| 12          | 40        | 80    | 1.75    | 0.25                 | 1.66               |
| 13          | 66        | 80    | -0.24   | 0.33                 | .95                |
| 14          | 73        | 80    | -1.22   | 0.43                 | 1.28               |
| 15          | 58        | 80    | 0.51    | 0.29                 | .79                |
| 16          | 71        | 80    | -0.88   | 0.39                 | .91                |
| 17          | 25        | 80    | 2.69    | 0.26                 | 1.71               |
| 18          | 57        | 80    | 0.59    | 0.28                 | 1.35               |
| 19          | 44        | 80    | 1.5     | 0.25                 | .94                |
| 20          | 67        | 80    | -0.35   | 0.34                 | .51                |

Table 83  
*Distractor Analysis, Gr4MC20*

| Entry # | Data Code | Score Value | Count | %  | Average Measure | S.E. Mean |
|---------|-----------|-------------|-------|----|-----------------|-----------|
| 1       | C         | 0           | 5     | 6  | -0.20           | .66       |
|         | B         | 0           | 2     | 3  | 0.66            | .75       |
|         | A         | 1           | 73    | 91 | 2.11            | .18       |
|         | Missing   | **          |       |    |                 |           |
| 2       | C         | 0           | 6     | 8  | -0.12           | .46       |
|         | A         | 0           | 3     | 4  | 0.21            | .43       |
|         | B         | 1           | 70    | 88 | 2.23            | .17       |
|         | Missing   | **          | 1     | 1  | -1.15           |           |
| 3       | A         | 0           | 20    | 25 | 1.06            | .37       |
|         | B         | 0           | 9     | 11 | 1.21            | .25       |
|         | C         | 1           | 51    | 64 | 2.40            | .21       |
|         | Missing   | **          |       |    |                 |           |
| 4       | C         | 0           | 2     | 3  | -0.21           | .13       |
|         | B         | 0           | 4     | 5  | .25             | .70       |
|         | A         | 1           | 74    | 93 | 2.08            | .18       |
|         | Missing   | **          |       |    |                 |           |
| 5       | C         | 0           | 6     | 8  | 0.85            | .43       |
|         | B         | 0           | 42    | 53 | 1.36            | .17       |
|         | A         | 1           | 32    | 40 | 2.89            | .31       |
|         | Missing   | **          |       |    |                 |           |
| 6       | A         | 0           | 4     | 5  | -0.48           | .47       |
|         | C         | 0           | 8     | 10 | 0.55            | .39       |
|         | B         | 1           | 68    | 85 | 2.24            | .18       |
|         | Missing   | **          |       |    |                 |           |
| 7       | A         | 0           | 3     | 4  | -0.61           | .26       |
|         | B         | 0           | 2     | 3  | 0.53            | .88       |
|         | C         | 1           | 75    | 94 | 2.07            | .18       |
|         | Missing   | **          |       |    |                 |           |
| 8       | B         | 0           | 5     | 6  | -0.32           | .50       |
|         | C         | 0           | 6     | 8  | 0.77            | .55       |
|         | A         | 1           | 69    | 86 | 2.20            | .18       |
|         | Missing   | **          |       |    |                 |           |
| 9       | B         | 0           | 8     | 10 | 0.49            | .49       |
|         | A         | 0           | 5     | 6  | 1.18            | .43       |
|         | C         | 1           | 67    | 84 | 2.16            | .19       |
|         | Missing   | **          |       |    |                 |           |
| 10      | C         | 0           | 6     | 8  | 0.63            | .66       |
|         | A         | 0           | 1     | 1  | 1.41            |           |
|         | B         | 1           | 73    | 91 | 2.05            | .19       |
|         | Missing   | **          |       |    |                 |           |

Table 83  
*Distractor Analysis, Gr4MC20, Continued*

| Entry # | Data Code | Score Value | Count | %  | Average Measure | S.E. Mean |
|---------|-----------|-------------|-------|----|-----------------|-----------|
| 11      | A         | 0           | 12    | 15 | 0.24            | .34       |
|         | C         | 0           | 5     | 6  | 0.52            | .43       |
|         | B         | 1           | 63    | 79 | 2.37            | .18       |
|         | Missing   | **          |       |    |                 |           |
| 12      | B         | 0           | 6     | 8  | 1.39            | .64       |
|         | A         | 0           | 33    | 41 | 1.55            | .24       |
|         | C         | 1           | 40    | 50 | 2.32            | .27       |
|         | Missing   | **          | 1     | 1  | 2.29            |           |
| 13      | A         | 0           | 1     | 1  | -1.45           |           |
|         | B         | 0           | 13    | 16 | 0.90            | .28       |
|         | C         | 1           | 66    | 83 | 2.19            | .19       |
|         | Missing   | **          |       |    |                 |           |
| 14      | C         | 0           | 5     | 6  | -0.51           | .22       |
|         | A         | 0           | 2     | 3  | -0.34           | .00       |
|         | B         | 1           | 73    | 91 | 2.16            | .17       |
|         | Missing   | **          |       |    |                 |           |
| 15      | C         | 0           | 8     | 10 | 0.20            | .38       |
|         | B         | 0           | 14    | 18 | 0.96            | .22       |
|         | A         | 1           | 58    | 73 | 2.40            | .20       |
|         | Missing   | **          |       |    |                 |           |
| 16      | A         | 0           | 7     | 9  | 0.49            | .51       |
|         | C         | 0           | 2     | 3  | 0.53            | .88       |
|         | B         | 1           | 71    | 89 | 2.11            | .19       |
|         | Missing   | **          |       |    |                 |           |
| 17      | B         | 0           | 5     | 6  | 1.53            | 1.08      |
|         | C         | 0           | 50    | 63 | 1.73            | .20       |
|         | A         | 1           | 25    | 31 | 2.43            | .35       |
|         | Missing   | **          |       |    |                 |           |
| 18      | A         | 0           | 11    | 14 | 1.00            | .42       |
|         | B         | 0           | 12    | 15 | 1.41            | .44       |
|         | C         | 1           | 57    | 71 | 2.22            | .21       |
|         | Missing   | **          |       |    |                 |           |
| 19      | B         | 0           | 17    | 21 | 0.73            | .40       |
|         | C         | 0           | 18    | 23 | 1.41            | .21       |
|         | A         | 1           | 44    | 55 | 2.60            | .23       |
|         | Missing   | **          | 1     | 1  | 2.29            |           |
| 20      | A         | 0           | 8     | 10 | -0.16           | .31       |
|         | C         | 0           | 5     | 6  | 0.33            | .53       |
|         | B         | 1           | 67    | 84 | 2.30            | .18       |
|         | Missing   | **          |       |    |                 |           |

## Discussion

Once revisions were made to the measures in keeping with the modifications indicated by IRT analyses, a final version of each of the MC Comprehension measures was created, saved as a PDF file, and loaded to the [www.EasyCBM.com](http://www.EasyCBM.com) 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<sup>nd</sup>-grade passages will range from 500 – 700 words.**  
**Average length of 3<sup>rd</sup>-5<sup>th</sup>-grade passages will range 1300 – 1500.**  
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).

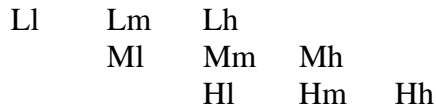
Appendix B

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 Ron 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.”



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          | Ll         |
| 15          | Mm         |
| 16          | Hm         |
| 17          | Lh         |
| 18          | Hh         |
| 19          | Ml         |
| 20          | Hm         |



## Appendix C

*Item Ordering Tables for Third Grade Passage 1 and 2*

| Item      | Cognitive Category       | Assessment Objective   | Degree of Difficulty | Order for Test |
|-----------|--------------------------|------------------------|----------------------|----------------|
| GR3MC1-H1 | Critical/Evaluative      | Character (attitude)   | Hl                   | 2              |
| GR3MC1-H2 | Critical/Evaluative      | Detail (causation)     | Hm                   | 7              |
| GR3MC1-H3 | Critical/Evaluative      | Character (attitude)   | Hm                   | 16             |
| GR3MC1-H4 | Critical/Evaluative      | Character (trait)      | Hm                   | 13             |
| GR3MC1-H5 | Critical/Evaluative      | Character (attitude)   | Hh                   | 18             |
| GR3MC1-H6 | Critical/Evaluative      | Story ending           | Hm                   | 10             |
| GR3MC1-L1 | Factual/Literal          | Detail                 | Lm                   | 8              |
| GR3MC1-L2 | Factual/Literal          | Detail (trait)         | Lm                   | 14             |
| GR3MC1-L3 | Factual/Literal          | Detail (sequence)      | Lm                   | 15             |
| GR3MC1-L4 | Factual/Literal          | Detail                 | Lm                   | 5              |
| GR3MC1-L5 | Factual/Literal          | Detail (causal)        | Ll                   | 1              |
| GR3MC1-L6 | Factual/Literal          | Detail (attitude)      | Lh                   | 11             |
| GR3MC1-L7 | Factual/Literal          | Detail (causal)        | Lh                   | 17             |
| GR3MC1-M1 | Interpretive/Inferential | Main idea              | Mh                   | 20             |
| GR3MC1-M2 | Interpretive/Inferential | Causal                 | Mm                   | 4              |
| GR3MC1-M3 | Interpretive/Inferential | Sequence               | Mm                   | 6              |
| GR3MC1-M4 | Interpretive/Inferential | Sequence (causal)      | Mm                   | 9              |
| GR3MC1-M5 | Interpretive/Inferential | Causal                 | MI                   | 19             |
| GR3MC1-M6 | Interpretive/Inferential | Causal                 | MI                   | 3              |
| GR3MC1-M7 | Interpretive/Inferential | Character (trait)      | Mh                   | 12             |
| GR3MC2-H1 | Critical/Evaluative      | Character (attitude)   | Hl                   | 7              |
| GR3MC2-H2 | Critical/Evaluative      | Character (trait)      | Hm                   | 9              |
| GR3MC2-H3 | Critical/Evaluative      | Conflict (attitude)    | Hm                   | 10             |
| GR3MC2-H4 | Critical/Evaluative      | Character (attitude)   | Hm                   | 15             |
| GR3MC2-H5 | Critical/Evaluative      | Character (causal)     | Hm                   | 16             |
| GR3MC2-H6 | Critical/Evaluative      | Prediction (character) | Hm                   | 13             |
| GR3MC2-L1 | Factual/Literal          | Detail (causal)        | Ll                   | 1              |
| GR3MC2-L2 | Factual/Literal          | Detail                 | Lm                   | 18             |
| GR3MC2-L3 | Factual/Literal          | Detail (sequence)      | Lh                   | 11             |
| GR3MC2-L4 | Factual/Literal          | Detail (character)     | Lm                   | 8              |
| GR3MC2-L5 | Factual/Literal          | Detail (causal)        | Lm                   | 5              |
| GR3MC2-L6 | Factual/Literal          | Causal                 | Lm                   | 20             |
| GR3MC2-L7 | Factual/Literal          | Detail (causal)        | Ll                   | 2              |
| GR3MC2-M1 | Interpretive/Inferential | Main idea              | Mh                   | 12             |
| GR3MC2-M2 | Interpretive/Inferential | Causal                 | Mm                   | 4              |
| GR3MC2-M3 | Interpretive/Inferential | Problem (character)    | Mh                   | 17             |
| GR3MC2-M4 | Interpretive/Inferential | Sequence               | MI                   | 3              |
| GR3MC2-M5 | Interpretive/Inferential | Prediction (character) | Mm                   | 6              |
| GR3MC2-M6 | Interpretive/Inferential | Causal (sequence)      | MI                   | 14             |
| GR3MC2-M7 | Interpretive/Inferential | Prediction             | MI                   | 19             |

*Item Ordering Tables for Third Grade Passage 3 and 4*

| Item      | Cognitive Category       | Assessment Objective                            | Degree of Difficulty | Order for Test |
|-----------|--------------------------|---|----------------------|----------------|
| GR3MC3-H1 | Critical/Evaluative      | Character (trait)                               | Hm                   | 10             |
| GR3MC3-H2 | Critical/Evaluative      | Causal relationships<br>Traits or attitude of a | Hh                   | 12             |
| GR3MC3-H3 | Critical/Evaluative      | character                                       | Hm                   | 13             |
| GR3MC3-H4 | Critical/Evaluative      | Character (trait)                               | Hh                   | 18             |
| GR3MC3-H5 | Critical/Evaluative      | Character (trait)                               | Hm                   | 7              |
| GR3MC3-H6 | Critical/Evaluative      | Problem / conflict                              | Hm                   | 16             |
| GR3MC3-L1 | Factual/Literal          | Detail  | Ll                   | 1              |
| GR3MC3-L2 | Factual/Literal          | Sequence  | Ll                   | 2              |
| GR3MC3-L3 | Factual/Literal          | Detail  | Lh                   | 11             |
| GR3MC3-L4 | Factual/Literal          | Causal (relationship)                           | Ll                   | 14             |
| GR3MC3-L5 | Factual/Literal          | Sequence  | Lm                   | 5              |
| GR3MC3-L6 | Factual/Literal          | Detail (conflict)                               | Lm                   | 8              |
| GR3MC3-L7 | Factual/Literal          | Detail (causal)                                 | Lh                   | 17             |
| GR3MC3-M1 | Interpretive/Inferential | Story ending                                    | Mm                   | 6              |
| GR3MC3-M2 | Interpretive/Inferential | Prediction                                      | Mm                   | 9              |
| GR3MC3-M3 | Interpretive/Inferential | Sequence of events                              | Mm                   | 15             |
| GR3MC3-M4 | Interpretive/Inferential | Prediction                                      | Mm                   | 19             |
| GR3MC3-M5 | Interpretive/Inferential | Causal (relationship)                           | Mm                   | 20             |
| GR3MC3-M6 | Interpretive/Inferential | Causal (relationship)                           | Ml                   | 3              |
| GR3MC3-M7 | Interpretive/Inferential | Main idea                                       | Mm                   | 4              |
| GR3MC4-H1 | Critical/Evaluative      | Causal  | Hl                   | 7              |
| GR3MC4-H2 | Critical/Evaluative      | Detail (attitude)                               | Hm                   | 13             |
| GR3MC4-H3 | Critical/Evaluative      | Character                                       | Hm                   | 16             |
| GR3MC4-H4 | Critical/Evaluative      | Character (attitude)                            | Hm                   | 20             |
| GR3MC4-H5 | Critical/Evaluative      | Causal  | Hh                   | 18             |
| GR3MC4-H6 | Critical/Evaluative      | Character (attitude)                            | Hm                   | 10             |
| GR3MC4-L1 | Factual/Literal          | Detail  | Ll                   | 1              |
| GR3MC4-L2 | Factual/Literal          | Detail (sequence)                               | Lm                   | 5              |
| GR3MC4-L3 | Factual/Literal          | Sequence  | Ll                   | 2              |
| GR3MC4-L4 | Factual/Literal          | Detail (character)                              | Lh                   | 11             |
| GR3MC4-L5 | Factual/Literal          | Detail  | Lm                   | 8              |
| GR3MC4-L6 | Factual/Literal          | Detail (problem)                                | Lm                   | 14             |
| GR3MC4-L7 | Factual/Literal          | Problem resolution                              | Lm                   | 17             |
| GR3MC4-M1 | Interpretive/Inferential | Main idea                                       | Mm                   | 3              |
| GR3MC4-M2 | Interpretive/Inferential | Causal  | Mm                   | 4              |
| GR3MC4-M3 | Interpretive/Inferential | Causal  | Mm                   | 6              |
| GR3MC4-M4 | Interpretive/Inferential | Character (attitude)                            | Mh                   | 12             |
| GR3MC4-M5 | Interpretive/Inferential | Sequence  | Mm                   | 9              |
| GR3MC4-M6 | Interpretive/Inferential | Causal  | Mm                   | 15             |
| GR3MC4-M7 | Interpretive/Inferential | Story ending                                    | Mm                   | 19             |

*Item Ordering Tables for Third Grade Passage 5 and 6*

| Item      | Cognitive Category       | Assessment Objective        | Degree of Difficulty | Order for Test |
|-----------|--------------------------|-----------------------------|----------------------|----------------|
| GR3MC5-H1 | Critical/Evaluative      | Character (traits)          | Hm                   | 9              |
| GR3MC5-H2 | Critical/Evaluative      | Character (traits)          | Hl                   | 7              |
| GR3MC5-H3 | Critical/Evaluative      | Problem                     | Hm                   | 10             |
| GR3MC5-H4 | Critical/Evaluative      | Character (trait)           | Hh                   | 20             |
| GR3MC5-H5 | Critical/Evaluative      | Character (attitude)        | Hm                   | 13             |
| GR3MC5-H6 | Critical/Evaluative      | Prediction (character)      | Hh                   | 18             |
| GR3MC5-L1 | Factual/Literal          | Detail                      | Ll                   | 1              |
| GR3MC5-L2 | Factual/Literal          | Detail                      | Lm                   | 8              |
| GR3MC5-L3 | Factual/Literal          | Detail                      | Ll                   | 2              |
| GR3MC5-L4 | Factual/Literal          | Character (detail)          | Lm                   | 5              |
| GR3MC5-L5 | Factual/Literal          | Detail (problem resolution) | Lh                   | 11             |
| GR3MC5-L6 | Factual/Literal          | Detail                      | Lh                   | 17             |
| GR3MC5-L7 | Factual/Literal          | Detail                      | Ll                   | 14             |
| GR3MC5-M1 | Interpretive/Inferential | Sequence (detail)           | Ml                   | 3              |
| GR3MC5-M2 | Interpretive/Inferential | Prediction (causal)         | Mm                   | 15             |
| GR3MC5-M3 | Interpretive/Inferential | Main idea                   | Mh                   | 4              |
| GR3MC5-M4 | Interpretive/Inferential | Causal                      | Mm                   | 6              |
| GR3MC5-M5 | Interpretive/Inferential | Story ending                | Mh                   | 16             |
| GR3MC5-M6 | Interpretive/Inferential | Prediction                  | Ml                   | 19             |
| GR3MC5-M7 | Interpretive/Inferential | Causal (detail)             | Mh                   | 12             |
| GR3MC6-H1 | Critical/Evaluative      | Character                   | Hm                   | 10             |
| GR3MC6-H2 | Critical/Evaluative      | Problem/ conflict           | Hm                   | 16             |
| GR3MC6-H3 | Critical/Evaluative      | Character (trait)           | Hh                   | 13             |
| GR3MC6-H4 | Critical/Evaluative      | Character (causal)          | Hm                   | 15             |
| GR3MC6-H5 | Critical/Evaluative      | Problem                     | Hl                   | 14             |
| GR3MC6-H6 | Critical/Evaluative      | Character (attitude)        | Hh                   | 18             |
| GR3MC6-L1 | Factual/Literal          | Detail                      | Lm                   | 9              |
| GR3MC6-L2 | Factual/Literal          | Detail                      | Ll                   | 1              |
| GR3MC6-L3 | Factual/Literal          | Detail                      | Ll                   | 2              |
| GR3MC6-L4 | Factual/Literal          | Sequence                    | Lm                   | 8              |
| GR3MC6-L5 | Factual/Literal          | Detail (causal)             | Lm                   | 6              |
| GR3MC6-L6 | Factual/Literal          | Detail                      | Lm                   | 5              |
| GR3MC6-L7 | Factual/Literal          | Detail (causal)             | Lh                   | 11             |
| GR3MC6-M1 | Interpretive/Inferential | Main idea                   | Mh                   | 12             |
| GR3MC6-M2 | Interpretive/Inferential | Story ending                | Ml                   | 3              |
| GR3MC6-M3 | Interpretive/Inferential | Prediction                  | Ml                   | 19             |
| GR3MC6-M4 | Interpretive/Inferential | Prediction                  | Ml                   | 7              |
| GR3MC6-M5 | Interpretive/Inferential | Prediction                  | Mm                   | 4              |
| GR3MC6-M6 | Interpretive/Inferential | Sequence of events          | Mh                   | 20             |
| GR3MC6-M7 | Interpretive/Inferential | Prediction (causal)         | Mh                   | 17             |

*Item Ordering Tables for Third Grade Passage 7 and 8*

| Item      | Cognitive Category       | Assessment Objective      | Degree of Difficulty | Order for Test |
|-----------|--------------------------|---------------------------|----------------------|----------------|
| GR3MC7-H1 | Critical/Evaluative      | Character                 | Hm                   | 10             |
| GR3MC7-H2 | Critical/Evaluative      | Causal relationships      | Hh                   | 18             |
| GR3MC7-H3 | Critical/Evaluative      | Problem / conflict        | Hm                   | 20             |
| GR3MC7-H4 | Critical/Evaluative      | Problem (resolution)      | Hl                   | 7              |
| GR3MC7-H5 | Critical/Evaluative      | Character (trait)         | Hm                   | 16             |
| GR3MC7-H6 | Critical/Evaluative      | Character (attitude)      | Hm                   | 13             |
| GR3MC7-L1 | Factual/Literal          | Detail (prediction)       | Ll                   | 1              |
| GR3MC7-L2 | Factual/Literal          | Detail                    | Lm                   | 14             |
| GR3MC7-L3 | Factual/Literal          | Detail (sequence)         | Lm                   | 5              |
| GR3MC7-L4 | Factual/Literal          | Detail (causal)           | Lm                   | 11             |
| GR3MC7-L5 | Factual/Literal          | Detail                    | Ll                   | 2              |
| GR3MC7-L6 | Factual/Literal          | Detail                    | Lm                   | 8              |
| GR3MC7-L7 | Factual/Literal          | Detail                    | Lm                   | 17             |
| GR3MC7-M1 | Interpretive/Inferential | Main idea                 | Ml                   | 3              |
| GR3MC7-M2 | Interpretive/Inferential | Prediction                | Ml                   | 19             |
| GR3MC7-M3 | Interpretive/Inferential | Prediction                | Mm                   | 4              |
| GR3MC7-M4 | Interpretive/Inferential | Story ending              | Mm                   | 6              |
| GR3MC7-M5 | Interpretive/Inferential | Character (attitude)      | Mm                   | 9              |
| GR3MC7-M6 | Interpretive/Inferential | Causal relationships      | Mh                   | 12             |
| GR3MC7-M7 | Interpretive/Inferential | Story ending (conclusion) | Mm                   | 15             |
| GR3MC8-H1 | Critical/Evaluative      | Character (attitude)      | Hm                   | 10             |
| GR3MC8-H2 | Critical/Evaluative      | Character (attitude)      | Hl                   | 7              |
| GR3MC8-H3 | Critical/Evaluative      | Character (trait)         | Hh                   | 18             |
| GR3MC8-H4 | Critical/Evaluative      | Character (attitude)      | Hm                   | 13             |
| GR3MC8-H5 | Critical/Evaluative      | Character (causal)        | Hh                   | 20             |
| GR3MC8-H6 | Critical/Evaluative      | Causal                    | Hl                   | 19             |
| GR3MC8-L1 | Factual/Literal          | Detail (character)        | Lm                   | 8              |
| GR3MC8-L2 | Factual/Literal          | Detail (causal)           | Lm                   | 14             |
| GR3MC8-L3 | Factual/Literal          | Detail (causal)           | Ll                   | 1              |
| GR3MC8-L4 | Factual/Literal          | Detail (sequence)         | Lh                   | 11             |
| GR3MC8-L5 | Factual/Literal          | Detail (character)        | Lh                   | 17             |
| GR3MC8-L6 | Factual/Literal          | Detail (causal)           | Lm                   | 5              |
| GR3MC8-L7 | Factual/Literal          | Detail (causal)           | Ll                   | 2              |
| GR3MC8-M1 | Interpretive/Inferential | Main idea                 | Mm                   | 6              |
| GR3MC8-M2 | Interpretive/Inferential | Prediction                | Mm                   | 9              |
| GR3MC8-M3 | Interpretive/Inferential | Causal (character)        | Mm                   | 15             |
| GR3MC8-M4 | Interpretive/Inferential | Problem                   | Mh                   | 12             |
| GR3MC8-M5 | Interpretive/Inferential | Sequence (detail)         | Mm                   | 16             |
| GR3MC8-M6 | Interpretive/Inferential | Sequence (causal)         | Mm                   | 4              |
| GR3MC8-M7 | Interpretive/Inferential | Prediction                | Ml                   | 3              |

*Item Ordering Tables for Third Grade Passage 9 and 10*

| Item       | Cognitive Category       | Assessment Objective   | Degree of Difficulty | Order for Test |
|------------|--------------------------|------------------------|----------------------|----------------|
| GR3MC9-H1  | Critical/Evaluative      | Character (trait)      | Hh                   | 17             |
| GR3MC9-H2  | Critical/Evaluative      | Character (causal)     | Hm                   | 20             |
| GR3MC9-H3  | Critical/Evaluative      | Character (attitude)   | Hm                   | 13             |
| GR3MC9-H4  | Critical/Evaluative      | Causal                 | Hh                   | 18             |
| GR3MC9-H5  | Critical/Evaluative      | Character (trait)      | Hl                   | 7              |
| GR3MC9-H6  | Critical/Evaluative      | Prediction             | Hh                   | 16             |
| GR3MC9-L1  | Factual/Literal          | Detail (causal)        | Lm                   | 8              |
| GR3MC9-L2  | Factual/Literal          | Detail (causal)        | Lm                   | 14             |
| GR3MC9-L3  | Factual/Literal          | Detail (causal)        | Ll                   | 1              |
| GR3MC9-L4  | Factual/Literal          | Detail (causal)        | Lh                   | 11             |
| GR3MC9-L5  | Factual/Literal          | Detail (sequence)      | Ll                   | 2              |
| GR3MC9-L6  | Factual/Literal          | Detail (attitude)      | Lm                   | 5              |
| GR3MC9-L7  | Factual/Literal          | Sequence               | Lm                   | 10             |
| GR3MC9-M1  | Interpretive/Inferential | Problem                | Ml                   | 3              |
| GR3MC9-M2  | Interpretive/Inferential | Character              | Mm                   | 4              |
| GR3MC9-M3  | Interpretive/Inferential | Sequence               | Mm                   | 6              |
| GR3MC9-M4  | Interpretive/Inferential | Detail                 | Mm                   | 15             |
| GR3MC9-M5  | Interpretive/Inferential | Causal                 | Mm                   | 19             |
| GR3MC9-M6  | Interpretive/Inferential | Character              | Mh                   | 12             |
| GR3MC9-M7  | Interpretive/Inferential | Sequence               | Mm                   | 9              |
| GR3MC10-H1 | Critical/Evaluative      | Character (attitude)   | Hl                   | 7              |
| GR3MC10-H2 | Critical/Evaluative      | Concept (story type)   | Hm                   | 10             |
| GR3MC10-H3 | Critical/Evaluative      | Causal (conflict)      | Hh                   | 17             |
| GR3MC10-H4 | Critical/Evaluative      | Prediction (causal)    | Hh                   | 18             |
| GR3MC10-H5 | Critical/Evaluative      | Character (prediction) | Hm                   | 13             |
| GR3MC10-H6 | Critical/Evaluative      | Prediction             | Hm                   | 20             |
| GR3MC10-L1 | Factual/Literal          | Detail (causal)        | Lm                   | 2              |
| GR3MC10-L2 | Factual/Literal          | Detail                 | Ll                   | 1              |
| GR3MC10-L3 | Factual/Literal          | Detail (causal)        | Lm                   | 8              |
| GR3MC10-L4 | Factual/Literal          | Detail                 | Lm                   | 14             |
| GR3MC10-L5 | Factual/Literal          | Detail                 | Lm                   | 5              |
| GR3MC10-L6 | Factual/Literal          | Detail (causation)     | Lh                   | 11             |
| GR3MC10-L7 | Factual/Literal          | Detail                 | Lm                   | 16             |
| GR3MC10-M1 | Interpretive/Inferential | Prediction             | Ml                   | 3              |
| GR3MC10-M2 | Interpretive/Inferential | Sequence               | Mm                   | 4              |
| GR3MC10-M3 | Interpretive/Inferential | Problem                | Mm                   | 9              |
| GR3MC10-M4 | Interpretive/Inferential | Main idea              | Mh                   | 15             |
| GR3MC10-M5 | Interpretive/Inferential | Causal                 | Mm                   | 6              |
| GR3MC10-M6 | Interpretive/Inferential | Causal                 | Ml                   | 19             |
| GR3MC10-M7 | Interpretive/Inferential | Sequence               | Mh                   | 12             |

*Item Ordering Tables for Third Grade Passage 11 and 12*

| Item       | Cognitive Category       | Assessment Objective        | Degree of Difficulty | Order for Test |
|------------|--------------------------|-----------------------------|----------------------|----------------|
| GR3MC11-H1 | Critical/Evaluative      | Prediction (problem)        | Hl                   | 7              |
| GR3MC11-H2 | Critical/Evaluative      | Problem (main)              | Hm                   | 10             |
| GR3MC11-H3 | Critical/Evaluative      | Character (attitude)        | Hm                   | 13             |
| GR3MC11-H4 | Critical/Evaluative      | Character (trait)           | Hm                   | 16             |
| GR3MC11-H5 | Critical/Evaluative      | Character (trait)           | Hm                   | 20             |
| GR3MC11-H6 | Critical/Evaluative      | Character (attitude)        | Hh                   | 18             |
| GR3MC11-L1 | Factual/Literal          | Detail                      | Ll                   | 1              |
| GR3MC11-L2 | Factual/Literal          | Detail (character)          | Lm                   | 5              |
| GR3MC11-L3 | Factual/Literal          | Detail (character)          | Lh                   | 11             |
| GR3MC11-L4 | Factual/Literal          | Detail (problem)            | Lh                   | 14             |
| GR3MC11-L5 | Factual/Literal          | Detail (problem)            | Lm                   | 8              |
| GR3MC11-L6 | Factual/Literal          | Prediction (detail)         | Ll                   | 2              |
| GR3MC11-L7 | Factual/Literal          | Detail (prediction)         | Lh                   | 17             |
| GR3MC11-M1 | Interpretive/Inferential | Prediction (character)      | Mm                   | 6              |
| GR3MC11-M2 | Interpretive/Inferential | Main idea                   | Mm                   | 4              |
| GR3MC11-M3 | Interpretive/Inferential | Sequence (detail)           | Ml                   | 3              |
| GR3MC11-M4 | Interpretive/Inferential | Sequence (problem)          | Mm                   | 15             |
| GR3MC11-M5 | Interpretive/Inferential | Prediction (inference)      | Ml                   | 19             |
| GR3MC11-M6 | Interpretive/Inferential | Prediction (detail)         | Mh                   | 12             |
| GR3MC11-M7 | Interpretive/Inferential | Prediction (story ending)   | Mm                   | 9              |
| GR3MC12-H1 | Critical/Evaluative      | Character (trait/ attitude) | Hm                   | 7              |
| GR3MC12-H2 | Critical/Evaluative      | Character (trait)           | Hm                   | 13             |
| GR3MC12-H3 | Critical/Evaluative      | Problem (conflict)          | Hm                   | 20             |
| GR3MC12-H4 | Critical/Evaluative      | Character (trait)           | Hh                   | 18             |
| GR3MC12-H5 | Critical/Evaluative      | Causal relationships        | Hm                   | 10             |
| GR3MC12-H6 | Critical/Evaluative      | Conflict resolution         | Hm                   | 16             |
| GR3MC12-L1 | Factual/Literal          | Detail (trait)              | Lm                   | 8              |
| GR3MC12-L2 | Factual/Literal          | Detail (sequence)           | Lm                   | 14             |
| GR3MC12-L3 | Factual/Literal          | Detail (sequence)           | Ll                   | 1              |
| GR3MC12-L4 | Factual/Literal          | Detail (causal)             | Lm                   | 2              |
| GR3MC12-L5 | Factual/Literal          | Detail (causal)             | Lm                   | 5              |
| GR3MC12-L6 | Factual/Literal          | Detail (causal)             | Lm                   | 17             |
| GR3MC12-L7 | Factual/Literal          | Detail (prediction)         | Lh                   | 11             |
| GR3MC12-M1 | Interpretive/Inferential | Main idea                   | Mm                   | 15             |
| GR3MC12-M2 | Interpretive/Inferential | Prediction                  | Mh                   | 12             |
| GR3MC12-M3 | Interpretive/Inferential | Story ending                | Ml                   | 3              |
| GR3MC12-M4 | Interpretive/Inferential | Sequence of events          | Mm                   | 4              |
| GR3MC12-M5 | Interpretive/Inferential | Prediction                  | Mm                   | 9              |
| GR3MC12-M6 | Interpretive/Inferential | Conflict resolution         | Ml                   | 19             |
| GR3MC12-M7 | Interpretive/Inferential | Prediction                  | Mm                   | 6              |
| GR3MC12-M7 | Interpretive/Inferential | Sequence                    | Mh                   | 12             |

*Item Ordering Tables for Third Grade Passage 13 and 14*

| Item       | Cognitive Category       | Assessment Objective      | Degree of Difficulty | Order for Test |
|------------|--------------------------|---------------------------|----------------------|----------------|
| GR3MC13-H1 | Critical/Evaluative      | Causal (detail)           | Hl                   | 7              |
| GR3MC13-H2 | Critical/Evaluative      | Prediction (character)    | Hh                   | 18             |
| GR3MC13-H3 | Critical/Evaluative      | Character (traits)        | Hm                   | 10             |
| GR3MC13-H4 | Critical/Evaluative      | Character (detail)        | Hl                   | 2              |
| GR3MC13-H5 | Critical/Evaluative      | Character (attitude)      | Hl                   | 19             |
| GR3MC13-H6 | Critical/Evaluative      | Character (attitude)      | Hh                   | 20             |
| GR3MC13-L1 | Factual/Literal          | Detail (prediction)       | Ll                   | 1              |
| GR3MC13-L2 | Factual/Literal          | Detail (problem)          | Lh                   | 11             |
| GR3MC13-L3 | Factual/Literal          | Detail                    | Lm                   | 5              |
| GR3MC13-L4 | Factual/Literal          | Detail (prediction)       | Lm                   | 13             |
| GR3MC13-L5 | Factual/Literal          | Detail (sequence)         | Ll                   | 14             |
| GR3MC13-L6 | Factual/Literal          | Detail (causal)           | Lh                   | 17             |
| GR3MC13-L7 | Factual/Literal          | Detail (causal)           | Lm                   | 8              |
| GR3MC13-M1 | Interpretive/Inferential | Prediction                | Mm                   | 4              |
| GR3MC13-M2 | Interpretive/Inferential | Character (detail)        | Mm                   | 6              |
| GR3MC13-M3 | Interpretive/Inferential | Sequence (detail)         | Mm                   | 9              |
| GR3MC13-M4 | Interpretive/Inferential | Prediction                | Ml                   | 3              |
| GR3MC13-M5 | Interpretive/Inferential | Prediction (attitude)     | Mm                   | 16             |
| GR3MC13-M6 | Interpretive/Inferential | Causal                    | Mm                   | 15             |
| GR3MC13-M7 | Interpretive/Inferential | Prediction (sequence)     | Mh                   | 12             |
| GR3MC14-H1 | Critical/Evaluative      | Character (causal)        | Hl                   | 14             |
| GR3MC14-H2 | Critical/Evaluative      | Character (trait)         | Hm                   | 7              |
| GR3MC14-H3 | Critical/Evaluative      | Character (attitude)      | Hm                   | 13             |
| GR3MC14-H4 | Critical/Evaluative      | Character (attitude)      | Hh                   | 18             |
| GR3MC14-H5 | Critical/Evaluative      | Problem                   | Hm                   | 16             |
| GR3MC14-H6 | Critical/Evaluative      | Character (traits)        | Hh                   | 20             |
| GR3MC14-L1 | Factual/Literal          | Detail (causal)           | Ll                   | 1              |
| GR3MC14-L2 | Factual/Literal          | Detail (character traits) | Lm                   | 5              |
| GR3MC14-L3 | Factual/Literal          | Detail (character)        | Lm                   | 10             |
| GR3MC14-L4 | Factual/Literal          | Detail (character)        | Lh                   | 11             |
| GR3MC14-L5 | Factual/Literal          | Detail                    | Lh                   | 17             |
| GR3MC14-L6 | Factual/Literal          | Detail                    | Lm                   | 2              |
| GR3MC14-L7 | Factual/Literal          | Detail                    | Lm                   | 8              |
| GR3MC14-M1 | Interpretive/Inferential | Main idea                 | Mm                   | 6              |
| GR3MC14-M2 | Interpretive/Inferential | Sequence (detail)         | Mm                   | 9              |
| GR3MC14-M3 | Interpretive/Inferential | Prediction (character)    | Mm                   | 15             |
| GR3MC14-M4 | Interpretive/Inferential | Prediction (character)    | Mm                   | 19             |
| GR3MC14-M5 | Interpretive/Inferential | Problem                   | Ml                   | 3              |
| GR3MC14-M6 | Interpretive/Inferential | Sequence (causal)         | Mh                   | 12             |
| GR3MC14-M7 | Interpretive/Inferential | Story ending              | Mm                   | 4              |
| GR3MC14-H1 | Critical/Evaluative      | Character (causal)        | Hl                   | 14             |

*Item Ordering Tables for Third Grade Passage 15 and 16*

| Item       | Cognitive Category       | Assessment Objective        | Degree of Difficulty | Order for Test |
|------------|--------------------------|-----------------------------|----------------------|----------------|
| GR3MC15-H1 | Critical/Evaluative      | Character (traits)          | Hh                   | 18             |
| GR3MC15-H2 | Critical/Evaluative      | Character (traits)          | Hm                   | 16             |
| GR3MC15-H3 | Critical/Evaluative      | Causal                      | Hl                   | 7              |
| GR3MC15-H4 | Critical/Evaluative      | Character (attitude)        | Hm                   | 10             |
| GR3MC15-H5 | Critical/Evaluative      | Character                   | Hm                   | 13             |
| GR3MC15-H6 | Critical/Evaluative      | Detail                      | Hl                   | 19             |
| GR3MC15-L1 | Factual/Literal          | Detail                      | Lm                   | 8              |
| GR3MC15-L2 | Factual/Literal          | Detail (character)          | Ll                   | 1              |
| GR3MC15-L3 | Factual/Literal          | Detail (causal)             | Ll                   | 14             |
| GR3MC15-L4 | Factual/Literal          | Detail                      | Lm                   | 2              |
| GR3MC15-L5 | Factual/Literal          | Detail (sequence)           | Lm                   | 5              |
| GR3MC15-L6 | Factual/Literal          | Detail                      | Lh                   | 17             |
| GR3MC15-L7 | Factual/Literal          | Detail (character)          | Lh                   | 11             |
| GR3MC15-M1 | Interpretive/Inferential | Main idea                   | Mm                   | 6              |
| GR3MC15-M2 | Interpretive/Inferential | Causal                      | Mh                   | 20             |
| GR3MC15-M3 | Interpretive/Inferential | Story ending (detail)       | Ml                   | 3              |
| GR3MC15-M4 | Interpretive/Inferential | Causal                      | Mm                   | 4              |
| GR3MC15-M5 | Interpretive/Inferential | Prediction (character)      | Mm                   | 15             |
| GR3MC15-M6 | Interpretive/Inferential | Causal (conflict)           | Mh                   | 12             |
| GR3MC15-M7 | Interpretive/Inferential | Problem                     | Mm                   | 9              |
| GR3MC16-H1 | Critical/Evaluative      | Main idea                   | Hm                   | 16             |
| GR3MC16-H2 | Critical/Evaluative      | Character                   | Hm                   | 20             |
| GR3MC16-H3 | Critical/Evaluative      | Character                   | Hl                   | 7              |
| GR3MC16-H4 | Critical/Evaluative      | Character                   | Hm                   | 13             |
| GR3MC16-H5 | Critical/Evaluative      | Causal (character attitude) | Hl                   | 14             |
| GR3MC16-H6 | Critical/Evaluative      | Prediction (character)      | Hm                   | 18             |
| GR3MC16-L1 | Factual/Literal          | Detail                      | Ll                   | 1              |
| GR3MC16-L2 | Factual/Literal          | Causal (detail)             | Lm                   | 8              |
| GR3MC16-L3 | Factual/Literal          | Detail                      | Lm                   | 18             |
| GR3MC16-L4 | Factual/Literal          | Problem/ conflict           | Ll                   | 2              |
| GR3MC16-L5 | Factual/Literal          | Detail (character)          | Lm                   | 17             |
| GR3MC16-L6 | Factual/Literal          | Detail (causal)             | Lh                   | 11             |
| GR3MC16-L7 | Factual/Literal          | Detail                      | Lm                   | 5              |
| GR3MC16-M1 | Interpretive/Inferential | Problem (resolution)        | Mm                   | 6              |
| GR3MC16-M2 | Interpretive/Inferential | Sequence                    | Ml                   | 3              |
| GR3MC16-M3 | Interpretive/Inferential | Problem (resolution)        | Mm                   | 4              |
| GR3MC16-M4 | Interpretive/Inferential | Causal                      | Mm                   | 9              |
| GR3MC16-M5 | Interpretive/Inferential | Sequence of events          | Mm                   | 12             |
| GR3MC16-M6 | Interpretive/Inferential | Story ending/ conclusion    | Mm                   | 15             |
| GR3MC16-M7 | Interpretive/Inferential | Sequence of events          | Ml                   | 19             |
| GR3MC16-H1 | Critical/Evaluative      | Main idea                   | Hm                   | 16             |



*Item Ordering Tables for Third Grade Passage 17 and 18*

| Item       | Cognitive Category       | Assessment Objective | Degree of Difficulty | Order for Test |
|------------|--------------------------|----------------------|----------------------|----------------|
| GR3MC17-H1 | Interpretive/Inferential | Character (sequence) | Hm                   | 20             |
| GR3MC17-H2 | Interpretive/Inferential | Character (traits)   | Hm                   | 10             |
| GR3MC17-H3 | Interpretive/Inferential | Character (traits)   | Hh                   | 18             |
| GR3MC17-H4 | Interpretive/Inferential | Main idea            | Hm                   | 13             |
| GR3MC17-H5 | Interpretive/Inferential | Character (causal)   | Hm                   | 15             |
| GR3MC17-H6 | Interpretive/Inferential | Story ending         | Hm                   | 16             |
| GR3MC17-L1 | Factual/Literal          | Detail (character)   | Lm                   | 5              |
| GR3MC17-L2 | Factual/Literal          | Detail               | Ll                   | 1              |
| GR3MC17-L3 | Factual/Literal          | Detail (sequence)    | Ll                   | 2              |
| GR3MC17-L4 | Factual/Literal          | Detail (causal)      | Lm                   | 17             |
| GR3MC17-L5 | Factual/Literal          | Detail               | Lh                   | 11             |
| GR3MC17-L6 | Factual/Literal          | Detail (sequence)    | Ll                   | 14             |
| GR3MC17-L7 | Factual/Literal          | Detail               | Lm                   | 8              |
| GR3MC17-M1 | Interpretive/Inferential | Problem (personal)   | Ml                   | 19             |
| GR3MC17-M2 | Interpretive/Inferential | Theme (character)    | Mm                   | 6              |
| GR3MC17-M3 | Interpretive/Inferential | Sequence             | Ml                   | 3              |
| GR3MC17-M4 | Interpretive/Inferential | Character (attitude) | Mm                   | 4              |
| GR3MC17-M5 | Interpretive/Inferential | Sequence (conflict)  | Mh                   | 12             |
| GR3MC17-M6 | Interpretive/Inferential | Problem              | Ml                   | 7              |
| GR3MC17-M7 | Interpretive/Inferential | Sequence             | Mm                   | 9              |
| GR3MC18-H1 | Interpretive/Inferential | Character (traits)   | Hm                   | 10             |
| GR3MC18-H2 | Interpretive/Inferential | Character (attitude) | Hh                   | 18             |
| GR3MC18-H3 | Interpretive/Inferential | Character (attitude) | Hl                   | 19             |
| GR3MC18-H4 | Interpretive/Inferential | Character (attitude) | Hm                   | 7              |
| GR3MC18-H5 | Interpretive/Inferential | Conflict resolution  | Hm                   | 13             |
| GR3MC18-H6 | Interpretive/Inferential | Character (attitude) | Hm                   | 16             |
| GR3MC18-L1 | Factual/Literal          | Detail (attitude)    | Lm                   | 2              |
| GR3MC18-L2 | Factual/Literal          | Detail (sequence)    | Lm                   | 5              |
| GR3MC18-L3 | Factual/Literal          | Detail (causal)      | Lm                   | 8              |
| GR3MC18-L4 | Factual/Literal          | Detail (causal)      | Lh                   | 11             |
| GR3MC18-L5 | Factual/Literal          | Detail (causal)      | Lm                   | 14             |
| GR3MC18-L6 | Factual/Literal          | Detail (causal)      | Ll                   | 1              |
| GR3MC18-L7 | Factual/Literal          | Causal               | Lm                   | 20             |
| GR3MC18-M1 | Interpretive/Inferential | Problem              | Mm                   | 4              |
| GR3MC18-M2 | Interpretive/Inferential | Main idea            | Mh                   | 12             |
| GR3MC18-M3 | Interpretive/Inferential | Story ending         | Mm                   | 6              |
| GR3MC18-M4 | Interpretive/Inferential | Prediction (detail)  | Ml                   | 3              |
| GR3MC18-M5 | Interpretive/Inferential | Sequence (detail)    | Mh                   | 17             |
| GR3MC18-M6 | Interpretive/Inferential | Causal (character)   | Mm                   | 9              |
| GR3MC18-M7 | Interpretive/Inferential | Prediction           | Mm                   | 15             |
| GR3MC18-H1 | Interpretive/Inferential | Character (traits)   | Hm                   | 10             |

*Item Ordering Tables for Third Grade Passage 19 and 20*

| Item       | Cognitive Category       | Assessment Objective  | Degree of Difficulty | Order for Test |
|------------|--------------------------|---|----------------------|----------------|
| GR3MC19-H1 | Critical/Evaluative      | Character (prediction)                                      | Hm                   | 10             |
| GR3MC19-H2 | Critical/Evaluative      | Causal  | Hm                   | 16             |
| GR3MC19-H3 | Critical/Evaluative      | Causal  | Hl                   | 7              |
| GR3MC19-H4 | Critical/Evaluative      | Character (attitude/<br>predictions)                        | Hl                   | 14             |
| GR3MC19-H5 | Critical/Evaluative      | Character (attitude)<br>Prediction (conflict<br>resolution) | Hh                   | 18             |
| GR3MC19-H6 | Critical/Evaluative      | Detail (story ending)                                       | Hm                   | 13             |
| GR3MC19-L1 | Factual/Literal          | Detail (causal)   | Lh                   | 11             |
| GR3MC19-L2 | Factual/Literal          | Character   | Ll                   | 1              |
| GR3MC19-L3 | Factual/Literal          | Sequence (events)   | Ll                   | 2              |
| GR3MC19-L4 | Factual/Literal          | Detail  | Lm                   | 5              |
| GR3MC19-L5 | Factual/Literal          | Detail (sequence)   | Lm                   | 8              |
| GR3MC19-L6 | Factual/Literal          | Detail (character)  | Lm                   | 17             |
| GR3MC19-L7 | Factual/Literal          | Main idea   | Lm                   | 20             |
| GR3MC19-M1 | Interpretive/Inferential | Causal  | Mm                   | 6              |
| GR3MC19-M2 | Interpretive/Inferential | Sequence  | Mm                   | 9              |
| GR3MC19-M3 | Interpretive/Inferential | Causal  | Mm                   | 19             |
| GR3MC19-M4 | Interpretive/Inferential | Prediction  | Mm                   | 15             |
| GR3MC19-M5 | Interpretive/Inferential | Character (attitude)  | Mh                   | 12             |
| GR3MC19-M6 | Interpretive/Inferential | Character (attitude)  | Mm                   | 4              |
| GR3MC19-M7 | Interpretive/Inferential | Character (attitude)  | MI                   | 3              |
| GR3MC20-H1 | Critical/Evaluative      | Character (traits)  | Hm                   | 10             |
| GR3MC20-H2 | Critical/Evaluative      | Prediction  | Hm                   | 13             |
| GR3MC20-H3 | Critical/Evaluative      | Character (attitude)  | Hm                   | 16             |
| GR3MC20-H4 | Critical/Evaluative      | Conflict resolution   | Hh                   | 18             |
| GR3MC20-H5 | Critical/Evaluative      | Character (attitude)  | Hl                   | 7              |
| GR3MC20-H6 | Critical/Evaluative      | Character (attitude)  | Hh                   | 20             |
| GR3MC20-L1 | Factual/Literal          | Detail (character)  | Ll                   | 1              |
| GR3MC20-L2 | Factual/Literal          | Detail (character)  | Ll                   | 2              |
| GR3MC20-L3 | Factual/Literal          | Causal (character)  | Lh                   | 11             |
| GR3MC20-L4 | Factual/Literal          | Detail (character)  | Lm                   | 5              |
| GR3MC20-L5 | Factual/Literal          | Causal (detail)   | Lm                   | 8              |
| GR3MC20-L6 | Factual/Literal          | Causal (detail)   | Lm                   | 14             |
| GR3MC20-L7 | Factual/Literal          | Story ending  | Lh                   | 17             |
| GR3MC20-M1 | Interpretive/Inferential | Main idea   | Mm                   | 3              |
| GR3MC20-M2 | Interpretive/Inferential | Sequence  | Mm                   | 4              |
| GR3MC20-M3 | Interpretive/Inferential | Problem   | Mh                   | 15             |
| GR3MC20-M4 | Interpretive/Inferential | Causal (character)  | Mm                   | 6              |
| GR3MC20-M5 | Interpretive/Inferential | Prediction  | Mh                   | 12             |
| GR3MC20-M6 | Interpretive/Inferential | Prediction (detail)   | MI                   | 19             |
| GR3MC20-M7 | Interpretive/Inferential | Prediction (character)                                      | Mh                   | 9              |
| GR3MC20-H1 | Critical/Evaluative      | Character (traits)  | Hm                   | 10             |

## Appendix D

*Item Ordering Tables for Fourth Grade Passage 1 and 2*

| Item      | Cognitive Category       | Assessment Objective   | Degree of Difficulty | Order for Test |
|-----------|--------------------------|------------------------|----------------------|----------------|
| GR4MC1-H1 | Critical/Evaluative      | Character (Detail)     | Hl                   | 7              |
| GR4MC1-H2 | Critical/Evaluative      | Problem (Causal)       | Hm                   | 10             |
| GR4MC1-H3 | Critical/Evaluative      | Causal                 | Hm                   | 13             |
| GR4MC1-H4 | Critical/Evaluative      | Causal                 | Hm                   | 16             |
| GR4MC1-H5 | Critical/Evaluative      | Causal                 | Hm                   | 20             |
| GR4MC1-H6 | Critical/Evaluative      | Causal                 | Hh                   | 18             |
| GR4MC1-L1 | Factual/Literal          | Detail (Character)     | Ll                   | 1              |
| GR4MC1-L2 | Factual/Literal          | Detail (Character)     | Lm                   | 2              |
| GR4MC1-L3 | Factual/Literal          | Detail                 | Lh                   | 11             |
| GR4MC1-L4 | Factual/Literal          | Detail                 | Lm                   | 5              |
| GR4MC1-L5 | Factual/Literal          | Detail (Sequence)      | Lm                   | 8              |
| GR4MC1-L6 | Factual/Literal          | Causal                 | Lh                   | 17             |
| GR4MC1-L7 | Factual/Literal          | Causal                 | Lm                   | 14             |
| GR4MC1-M1 | Interpretive/Inferential | Causal                 | Ml                   | 3              |
| GR4MC1-M2 | Interpretive/Inferential | Problem                | Mm                   | 4              |
| GR4MC1-M3 | Interpretive/Inferential | Causal (Sequence)      | Mh                   | 12             |
| GR4MC1-M4 | Interpretive/Inferential | Causal                 | Mm                   | 6              |
| GR4MC1-M5 | Interpretive/Inferential | Main Idea              | Mm                   | 9              |
| GR4MC1-M6 | Interpretive/Inferential | Prediction (Detail)    | Mm                   | 15             |
| GR4MC1-M7 | Interpretive/Inferential | Prediction (Detail)    | Mh                   | 19             |
| GR4MC2-H1 | Critical/Evaluative      | Causal (Character)     | Hm                   | 7              |
| GR4MC2-H2 | Critical/Evaluative      | Character (Attitude)   | Hm                   | 13             |
| GR4MC2-H3 | Critical/Evaluative      | Causal (Trait)         | Hm                   | 16             |
| GR4MC2-H4 | Critical/Evaluative      | Character (Attitude)   | Hm                   | 20             |
| GR4MC2-H5 | Critical/Evaluative      | Prediction (Causal)    | Hh                   | 10             |
| GR4MC2-H6 | Critical/Evaluative      | Prediction (Character) | Hh                   | 18             |
| GR4MC2-L1 | Factual/Literal          | Detail (Character)     | Lm                   | 5              |
| GR4MC2-L2 | Factual/Literal          | Detail (Character)     | Ll                   | 1              |
| GR4MC2-L3 | Factual/Literal          | Detail (Character)     | Lm                   | 8              |
| GR4MC2-L4 | Factual/Literal          | Sequence (Detail)      | Lm                   | 14             |
| GR4MC2-L5 | Factual/Literal          | Detail (Character)     | Lm                   | 11             |
| GR4MC2-L6 | Factual/Literal          | Detail (Sequence)      | Ll                   | 2              |
| GR4MC2-L7 | Factual/Literal          | Detail (Sequence)      | Lh                   | 19             |
| GR4MC2-M1 | Interpretive/Inferential | Main Idea              | Mm                   | 4              |
| GR4MC2-M2 | Interpretive/Inferential | Problem                | Mh                   | 6              |
| GR4MC2-M3 | Interpretive/Inferential | Sequence (Detail)      | Mm                   | 9              |
| GR4MC2-M4 | Interpretive/Inferential | Problem (Resolution)   | Ml                   | 17             |
| GR4MC2-M5 | Interpretive/Inferential | Story Ending           | Mm                   | 3              |
| GR4MC2-M6 | Interpretive/Inferential | Prediction             | Mm                   | 12             |
| GR4MC2-M7 | Interpretive/Inferential | Prediction             | Mm                   | 15             |

*Item Ordering Tables for Fourth Grade Passage 3 and 4*

| Item      | Cognitive Category       | Assessment Objective   | Degree of Difficulty | Order for Test |
|-----------|--------------------------|------------------------|----------------------|----------------|
| GR4MC3-H1 | Critical/Evaluative      | Character (Trait)      | Hl                   | 7              |
| GR4MC3-H2 | Critical/Evaluative      | Character (Trait)      | Hm                   | 10             |
| GR4MC3-H3 | Critical/Evaluative      | Character (Causal)     | Hm                   | 13             |
| GR4MC3-H4 | Critical/Evaluative      | Problem (Attitude)     | Hm                   | 16             |
| GR4MC3-H5 | Critical/Evaluative      | Character (Trait)      | Hh                   | 18             |
| GR4MC3-H6 | Critical/Evaluative      | Causal (Prediction)    | Hm                   | 20             |
| GR4MC3-L1 | Factual/Literal          | Detail (Causal)        | Lm                   | 1              |
| GR4MC3-L2 | Factual/Literal          | Detail (Causal)        | Lh                   | 11             |
| GR4MC3-L3 | Factual/Literal          | Detail (Causal)        | Lm                   | 2              |
| GR4MC3-L4 | Factual/Literal          | Detail                 | Lm                   | 8              |
| GR4MC3-L5 | Factual/Literal          | Detail (Prediction)    | Lh                   | 17             |
| GR4MC3-L6 | Factual/Literal          | Detail (Character)     | Lm                   | 5              |
| GR4MC3-L7 | Factual/Literal          | Detail                 | Lm                   | 14             |
| GR4MC3-M1 | Interpretive/Inferential | Main Idea              | Mm                   | 19             |
| GR4MC3-M2 | Interpretive/Inferential | Problem                | Mm                   | 6              |
| GR4MC3-M3 | Interpretive/Inferential | Sequence               | MI                   | 3              |
| GR4MC3-M4 | Interpretive/Inferential | Sequence               | Mm                   | 9              |
| GR4MC3-M5 | Interpretive/Inferential | Causal (Attitude)      | Mm                   | 15             |
| GR4MC3-M6 | Interpretive/Inferential | Detail                 | Mh                   | 12             |
| GR4MC3-M7 | Interpretive/Inferential | Character (Attitude)   | Mh                   | 4              |
| GR4MC4-H1 | Critical/Evaluative      | Character (Trait)      | Hl                   | 7              |
| GR4MC4-H2 | Critical/Evaluative      | Character (Trait)      | Hl                   | 16             |
| GR4MC4-H3 | Critical/Interpretive    | Prediction (Character) | Hm                   | 10             |
| GR4MC4-H4 | Critical/Interpretive    | Character (Trait)      | Hm                   | 13             |
| GR4MC4-H5 | Critical/Interpretive    | Problem (Character)    | Hh                   | 18             |
| GR4MC4-H6 | Critical/Interpretive    | Problem (Resolution)   | Hh                   | 20             |
| GR4MC4-L1 | Factual/Literal          | Causal (Detail)        | Lm                   | 8              |
| GR4MC4-L2 | Factual/Literal          | Detail (Causal)        | LI                   | 1              |
| GR4MC4-L3 | Factual/Literal          | Detail (Causal)        | Lm                   | 5              |
| GR4MC4-L4 | Factual/Literal          | Character (Detail)     | Lm                   | 14             |
| GR4MC4-L5 | Factual/Literal          | Character (Detail)     | Lh                   | 11             |
| GR4MC4-L6 | Factual/Literal          | Detail (Causal)        | Lm                   | 17             |
| GR4MC4-L7 | Factual/Literal          | Detail (Causal)        | LI                   | 2              |
| GR4MC4-M1 | Interpretive/Inferential | Main Idea              | Mm                   | 4              |
| GR4MC4-M2 | Interpretive/Inferential | Problem                | MI                   | 3              |
| GR4MC4-M3 | Interpretive/Inferential | Prediction             | Mh                   | 12             |
| GR4MC4-M4 | Interpretive/Inferential | Prediction (Detail)    | Mh                   | 15             |
| GR4MC4-M5 | Interpretive/Inferential | Story Ending           | Mm                   | 6              |
| GR4MC4-M6 | Interpretive/Inferential | Causal                 | MI                   | 19             |
| GR4MC4-M7 | Interpretive/Inferential | Sequence (Detail)      | Mm                   | 9              |

*Item Ordering Tables for Fourth Grade Passage 5 and 6*

| Item      | Cognitive Category       | Assessment Objective   | Degree of Difficulty | Order for Test |
|-----------|--------------------------|------------------------|----------------------|----------------|
| GR4MC5-H1 | Critical/Evaluative      | Character (Trait)      | Hl                   | 7              |
| GR4MC5-H2 | Critical/Evaluative      | Character (Trait)      | Hm                   | 10             |
| GR4MC5-H3 | Critical/Evaluative      | Prediction (Trait)     | Hm                   | 13             |
| GR4MC5-H4 | Critical/Evaluative      | Character (Trait)      | Hm                   | 16             |
| GR4MC5-H5 | Critical/Evaluative      | Causal (Attitude)      | Hm                   | 20             |
| GR4MC5-H6 | Critical/Evaluative      | Causal (Attitude)      | Hh                   | 18             |
| GR4MC5-L1 | Factual/Literal          | Detail (Character)     | Lm                   | 14             |
| GR4MC5-L2 | Factual/Literal          | Detail (Causal)        | Lh                   | 11             |
| GR4MC5-L3 | Factual/Literal          | Detail (Causal)        | Ll                   | 1              |
| GR4MC5-L4 | Factual/Literal          | Detail                 | Lm                   | 2              |
| GR4MC5-L5 | Factual/Literal          | Detail (Trait)         | Lm                   | 5              |
| GR4MC5-L6 | Factual/Literal          | Detail (Causal)        | Lm                   | 8              |
| GR4MC5-L7 | Literal/Factual          | Detail (Attitude)      | Lm                   | 17             |
| GR4MC5-M1 | Interpretive/Inferential | Prediction             | Ml                   | 3              |
| GR4MC5-M2 | Interpretive/Inferential | Sequence               | Mm                   | 4              |
| GR4MC5-M3 | Interpretive/Inferential | Detail (Causal)        | Mm                   | 6              |
| GR4MC5-M4 | Interpretive/Inferential | Character (Traits)     | Mm                   | 9              |
| GR4MC5-M5 | Interpretive/Inferential | Main Idea              | Mh                   | 12             |
| GR4MC5-M6 | Interpretive/Inferential | Prediction             | Mm                   | 15             |
| GR4MC5-M7 | Interpretive/Inferential | Prediction             | Mm                   | 19             |
| GR4MC6-H1 | Critical/Evaluative      | Character (Trait)      | Hh                   | 18             |
| GR4MC6-H2 | Critical/Evaluative      | Prediction (Causal)    | Hm                   | 7              |
| GR4MC6-H3 | Critical/Evaluative      | Character (Attitude)   | Hm                   | 10             |
| GR4MC6-H4 | Critical/Evaluative      | Character (Attitude)   | Hm                   | 13             |
| GR4MC6-H5 | Critical/Evaluative      | Character (Attitude)   | Hh                   | 16             |
| GR4MC6-H6 | Critical/Evaluative      | Prediction (Character) | Hh                   | 20             |
| GR4MC6-L1 | Factual/Literal          | Detail (Causal)        | Lh                   | 11             |
| GR4MC6-L2 | Factual/Literal          | Detail                 | Lm                   | 5              |
| GR4MC6-L3 | Factual/Literal          | Detail                 | Lm                   | 8              |
| GR4MC6-L4 | Factual/Literal          | Detail (Causal)        | Lm                   | 14             |
| GR4MC6-L5 | Factual/Literal          | Detail (Causal)        | Lm                   | 17             |
| GR4MC6-L6 | Factual/Literal          | Detail                 | Ll                   | 1              |
| GR4MC6-L7 | Factual/Literal          | Detail                 | Ll                   | 2              |
| GR4MC6-M1 | Interpretive/Inferential | Prediction             | Mh                   | 12             |
| GR4MC6-M2 | Interpretive/Inferential | Main Idea              | Mm                   | 4              |
| GR4MC6-M3 | Interpretive/Inferential | Prediction (Character) | Mm                   | 6              |
| GR4MC6-M4 | Interpretive/Inferential | Sequence (Detail)      | Mm                   | 9              |
| GR4MC6-M5 | Interpretive/Inferential | Prediction (Causal)    | Ml                   | 3              |
| GR4MC6-M6 | Interpretive/Inferential | Causal (Detail)        | Ml                   | 19             |
| GR4MC6-M7 | Interpretive/Inferential | Causal (Detail)        | Mm                   | 15             |

*Item Ordering Tables for Fourth Grade Passage 7 and 8*

| Item      | Cognitive Category       | Assessment Objective    | Degree of Difficulty | Order for Test |
|-----------|--------------------------|-------------------------|----------------------|----------------|
| GR4MC7-H1 | Critical/Evaluative      | Character (Attitude)    | Hm                   | 10             |
| GR4MC7-H2 | Critical/Evaluative      | Character (Attitude)    | Hm                   | 16             |
| GR4MC7-H3 | Critical/Evaluative      | Character (Causal)      | Hl                   | 7              |
| GR4MC7-H4 | Critical/Evaluative      | Causal                  | Hh                   | 18             |
| GR4MC7-H5 | Critical/Evaluative      | Character (Attitude)    | Hm                   | 13             |
| GR4MC7-H6 | Critical/Evaluative      | Prediction (Attitude)   | Hh                   | 20             |
| GR4MC7-L1 | Literal/Factual          | Detail (Attitude)       | Ll                   | 1              |
| GR4MC7-L2 | Literal/Factual          | Detail (Character)      | Ll                   | 2              |
| GR4MC7-L3 | Factual/Literal          | Detail (Sequence)       | Lm                   | 5              |
| GR4MC7-L4 | Factual/Literal          | Detail                  | Lm                   | 8              |
| GR4MC7-L5 | Factual/Literal          | Detail (Causal)         | Lm                   | 17             |
| GR4MC7-L6 | Factual/Literal          | Detail (Causal)         | Lm                   | 14             |
| GR4MC7-L7 | Factual/Literal          | Character (Attitude)    | Lh                   | 11             |
| GR4MC7-M1 | Interpretive/Inferential | Main Idea               | Mh                   | 12             |
| GR4MC7-M2 | Interpretive/Inferential | Character (Causal)      | Mm                   | 4              |
| GR4MC7-M3 | Interpretive/Inferential | Problem (Causal)        | Ml                   | 19             |
| GR4MC7-M4 | Interpretive/Inferential | Causal (Attitude)       | Mm                   | 6              |
| GR4MC7-M5 | Interpretive/Inferential | Sequence (Detail)       | Mm                   | 9              |
| GR4MC7-M6 | Interpretive/Inferential | Story Ending            | Mm                   | 15             |
| GR4MC7-M7 | Interpretive/Inferential | Prediction (Resolution) | Ml                   | 3              |
|           |                          |                         |                      |                |
| GR4MC8-H1 | Critical/Evaluative      | Character (Attitude)    | Hl                   | 7              |
| GR4MC8-H2 | Critical/Evaluative      | Causal                  | Hl                   | 20             |
| GR4MC8-H3 | Critical/Evaluative      | Character (Attitude)    | Hh                   | 18             |
| GR4MC8-H4 | Critical/Evaluative      | Causal (Character)      | Hm                   | 10             |
| GR4MC8-H5 | Critical/Evaluative      | Detail (Attitude)       | Hm                   | 13             |
| GR4MC8-H6 | Critical/Evaluative      | Causal                  | Hm                   | 16             |
| GR4MC8-L1 | Factual/Literal          | Causal (Detail)         | Lm                   | 8              |
| GR4MC8-L2 | Factual/Literal          | Causal (Detail)         | Lm                   | 14             |
| GR4MC8-L3 | Factual/Literal          | Sequence (Detail)       | Lm                   | 19             |
| GR4MC8-L4 | Factual/Literal          | Detail (Causal)         | Ll                   | 1              |
| GR4MC8-L5 | Factual/Literal          | Detail (Character)      | Lh                   | 11             |
| GR4MC8-L6 | Factual/Literal          | Detail                  | Lm                   | 5              |
| GR4MC8-L7 | Factual/Literal          | Detail (Causal)         | Ll                   | 2              |
| GR4MC8-M1 | Interpretive/Inferential | Problem                 | Mm                   | 4              |
| GR4MC8-M2 | Interpretive/Inferential | Causal                  | Mh                   | 6              |
| GR4MC8-M3 | Interpretive/Inferential | Causal                  | Mm                   | 9              |
| GR4MC8-M4 | Interpretive/Inferential | Prediction (Causal)     | Mm                   | 15             |
| GR4MC8-M5 | Interpretive/Inferential | Causal (Prediction)     | Ml                   | 17             |
| GR4MC8-M6 | Interpretive/Inferential | Main Idea               | Mh                   | 12             |
| GR4MC8-M7 | Interpretive/Inferential | Prediction (Character)  | Mh                   | 3              |

*Item Ordering Tables for Fourth Grade Passage 9 and 10*

| Item       | Cognitive Category       | Assessment Objective   | Degree of Difficulty | Order for Test |
|------------|--------------------------|------------------------|----------------------|----------------|
| GR4MC9-H1  | Critical/Evaluative      | Character (Detail)     | Hl                   | 7              |
| GR4MC9-H2  | Critical/Evaluative      | Prediction             | Hm                   | 13             |
| GR4MC9-H3  | Critical/Evaluative      | Character (Traits)     | Hm                   | 16             |
| GR4MC9-H4  | Critical/Evaluative      | Character (Attitude)   | Hm                   | 20             |
| GR4MC9-H5  | Critical/Evaluative      | Character (Attitude)   | Hh                   | 18             |
| GR4MC9-H6  | Critical/Evaluative      |                        | (Hm)                 | 10             |
| GR4MC9-L1  | Factual/Literal          | Detail                 | Ll                   | 1              |
| GR4MC9-L2  | Factual/Literal          | Detail (Causal)        | Lm                   | 8              |
| GR4MC9-L3  | Literal/Factual          | Detail                 | Ll                   | 2              |
| GR4MC9-L4  | Factual/Literal          | Causal (Detail)        | Lh                   | 11             |
| GR4MC9-L5  | Factual/Literal          | Story Ending (Detail)  | Lh                   | 5              |
| GR4MC9-L6  | Factual/Literal          | Detail (Causal)        | Lm                   | 14             |
| GR4MC9-L7  | Factual/Literal          | Detail                 | Lh                   | 17             |
| GR4MC9-M1  | Interpretive/Inferential | Detail (Prediction)    | Ml                   | 3              |
| GR4MC9-M2  | Interpretive/Inferential | Prediction (Character) | Mm                   | 4              |
| GR4MC9-M3  | Interpretive/Inferential | Main Idea              | Mm                   | 6              |
| GR4MC9-M4  | Interpretive/Inferential | Sequence               | Mh                   | 19             |
| GR4MC9-M5  | Interpretive/Inferential | Causal (Prediction)    | Mm                   | 9              |
| GR4MC9-M6  | Interpretive/Inferential | Sequence (Detail)      | Mm                   | 15             |
| GR4MC9-M7  | Interpretive/Inferential | Character (Attitude)   | Mh                   | 12             |
| GR4MC10-H1 | Critical/Evaluative      | Character (Detail)     | Hh                   | 18             |
| GR4MC10-H2 | Critical/Evaluative      | Character (Attitude)   | Hm                   | 10             |
| GR4MC10-H3 | Critical/Evaluative      | Character (Trait)      | Hh                   | 20             |
| GR4MC10-H4 | Critical/Evaluative      | Character (Attitude)   | Hm                   | 16             |
| GR4MC10-H5 | Critical/Evaluative      | Prediction (Character) | Hl                   | 7              |
| GR4MC10-H6 | Critical/Evaluative      | Causal (Attitude)      | Hm                   | 13             |
| GR4MC10-L1 | Factual/Literal          | Detail (Causal)        | Lh                   | 11             |
| GR4MC10-L2 | Factual/Literal          | Detail                 | Lm                   | 5              |
| GR4MC10-L3 | Factual/Literal          | Detail                 | Ll                   | 1              |
| GR4MC10-L4 | Factual/Literal          | Detail (Causal)        | Lm                   | 8              |
| GR4MC10-L5 | Factual/Literal          | Detail (Character)     | Ll                   | 2              |
| GR4MC10-L6 | Factual/Literal          | Sequence (Detail)      | Lh                   | 17             |
| GR4MC10-L7 | Factual/Literal          | Story Ending (Detail)  | Lm                   | 14             |
| GR4MC10-M1 | Interpretive/Inferential | Main Idea              | Mh                   | 4              |
| GR4MC10-M2 | Interpretive/Inferential | Causal (Problem)       | Mm                   | 19             |
| GR4MC10-M3 | Interpretive/Inferential | Causal                 | Mh                   | 12             |
| GR4MC10-M4 | Interpretive/Inferential | Prediction (Attitude)  | Mm                   | 6              |
| GR4MC10-M5 | Interpretive/Inferential | Problem (Detail)       | Ml                   | 3              |
| GR4MC10-M6 | Interpretive/Inferential | Character (Causal)     | Mm                   | 9              |
| GR4MC10-M7 | Interpretive/Inferential | Sequence (Detail)      | Mh                   | 15             |

*Item Ordering Tables for Fourth Grade Passage 11 and 12*

| Item       | Cognitive Category       | Assessment Objective   | Degree of Difficulty | Order for Test |
|------------|--------------------------|------------------------|----------------------|----------------|
| GR4MC11-H1 | Critical/Evaluative      | Character (detail)     | Hl                   | 7              |
| GR4MC11-H2 | Critical/Evaluative      | Causal (character)     | Hm                   | 10             |
| GR4MC11-H3 | Critical/Evaluative      | Causal (character)     | Hh                   | 17             |
| GR4MC11-H4 | Critical/Evaluative      | Conflict resolution    | Hm                   | 13             |
| GR4MC11-H5 | Critical/Evaluative      | Character (attitude)   | Hh                   | 18             |
| GR4MC11-H6 | Critical/Evaluative      | Character (attitude)   | Hm                   | 16             |
| GR4MC11-L1 | Factual/Literal          | Detail (character)     | Ll                   | 1              |
| GR4MC11-L2 | Factual/Literal          | Detail (character)     | Lm                   | 8              |
| GR4MC11-L3 | Factual/Literal          | Detail (causal)        | Ll                   | 2              |
| GR4MC11-L4 | Factual/Literal          | Detail (causal)        | Lm                   | 20             |
| GR4MC11-L5 | Factual/Literal          | Detail                 | Ll                   | 14             |
| GR4MC11-L6 | Factual/Literal          | Detail (causal)        | Lm                   | 5              |
| GR4MC11-L7 | Factual/Literal          | Detail (causal)        | Lh                   | 11             |
| GR4MC11-M1 | Interpretive/Inferential | Causal (detail)        | Ml                   | 3              |
| GR4MC11-M2 | Interpretive/Inferential | Sequence (detail)      | Mh                   | 12             |
| GR4MC11-M3 | Interpretive/Inferential | Prediction (detail)    | Mm                   | 4              |
| GR4MC11-M4 | Interpretive/Inferential | Main idea              | Ml                   | 6              |
| GR4MC11-M5 | Interpretive/Inferential | Detail (causal)        | Mm                   | 9              |
| GR4MC11-M6 | Interpretive/Inferential | Prediction (character) | Mh                   | 19             |
| GR4MC11-M7 | Interpretive/Inferential | Story ending           | Mm                   | 15             |
| GR4MC12-H1 | Critical/Evaluative      | Main idea              | Hh                   | 18             |
| GR4MC12-H2 | Critical/Evaluative      | Character (traits)     | Hm                   | 10             |
| GR4MC12-H3 | Critical/Evaluative      | Character (traits)     | Hl                   | 7              |
| GR4MC12-H4 | Critical/Evaluative      | Prediction (attitude)  | Hm                   | 13             |
| GR4MC12-H5 | Critical/Evaluative      | Character (attitude)   | Hl                   | 14             |
| GR4MC12-H6 | Critical/Evaluative      | Character (resolution) | Hh                   | 20             |
| GR4MC12-L1 | Factual/Literal          | Detail (attitude)      | Ll                   | 1              |
| GR4MC12-L2 | Factual/Literal          | Character (detail)     | Lm                   | 5              |
| GR4MC12-L3 | Factual/Literal          | Detail                 | Lh                   | 11             |
| GR4MC12-L4 | Factual/Literal          | Detail (attitude)      | Lm                   | 8              |
| GR4MC12-L5 | Factual/Literal          | Detail                 | Lm                   | 15             |
| GR4MC12-L6 | Factual/Literal          | Story ending (detail)  | Lm                   | 15             |
| GR4MC12-L7 | Factual/Literal          | Sequence (detail)      | Ll                   | 2              |
| GR4MC12-M1 | Interpretive/Inferential | Character (attitude)   | Ml                   | 3              |
| GR4MC12-M2 | Interpretive/Inferential | Main idea              | Mm                   | 9              |
| GR4MC12-M3 | Interpretive/Inferential | Prediction (character) | Mh                   | 12             |
| GR4MC12-M4 | Interpretive/Inferential | Prediction (causal)    | Mm                   | 6              |
| GR4MC12-M5 | Interpretive/Inferential | Prediction (attitude)  | Ml                   | 19             |
| GR4MC12-M6 | Interpretive/Inferential | Prediction             | Mh                   | 17             |
| GR4MC12-M7 | Interpretive/Inferential | Sequence (detail)      | Mm                   | 4              |
| GR4MC12-H1 | Critical/Evaluative      | Main idea              | Hh                   | 18             |



*Item Ordering Tables for Fourth Grade Passage 13 and 14*

| Item       | Cognitive Category       | Assessment Objective     | Degree of Difficulty | Order for Test |
|------------|--------------------------|--------------------------|----------------------|----------------|
| GR4MC13-H1 | Critical/Evaluative      | Character (traits)       | Hm                   | 10             |
| GR4MC13-H2 | Critical/Evaluative      | Character (attitude)     | Hl                   | 7              |
| GR4MC13-H3 | Critical/Evaluative      | Character (sequence)     | Hh                   | 18             |
| GR4MC13-H4 | Critical/Evaluative      | Character (attitude)     | Hh                   | 20             |
| GR4MC13-H5 | Critical/Evaluative      | Character (attitude)     | Hm                   | 13             |
| GR4MC13-H6 | Critical/Evaluative      | Prediction (attitude)    | Hm                   | 16             |
| GR4MC13-L1 | Factual/Literal          | Detail                   | Ll                   | 1              |
| GR4MC13-L2 | Factual/Literal          | Detail (causal)          | Lh                   | 11             |
| GR4MC13-L3 | Factual/Literal          | Detail (attitude)        | Lm                   | 5              |
| GR4MC13-L4 | Factual/Literal          | Detail                   | Lm                   | 8              |
| GR4MC13-L5 | Factual/Literal          | Detail (prediction)      | Lh                   | 17             |
| GR4MC13-L6 | Factual/Literal          | Detail (causal)          | Ll                   | 2              |
| GR4MC13-L7 | Factual/Literal          | Detail (causal)          | Ll                   | 14             |
| GR4MC13-M1 | Interpretive/Inferential | Causal                   | Mm                   | 4              |
| GR4MC13-M2 | Interpretive/Inferential | Causal                   | Mh                   | 12             |
| GR4MC13-M3 | Interpretive/Inferential | Main idea                | Mm                   | 6              |
| GR4MC13-M4 | Interpretive/Inferential | Sequence (detail)        | Mm                   | 9              |
| GR4MC13-M5 | Interpretive/Inferential | Sequence (detail)        | Ml                   | 3              |
| GR4MC13-M6 | Interpretive/Inferential | Causal                   | Mm                   | 15             |
| GR4MC13-M7 | Interpretive/Inferential | Story ending (character) | Mm                   | 19             |
| GR4MC14-H1 | Critical/Evaluative      | Character (traits)       | Hl                   | 16             |
| GR4MC14-H2 | Critical/Evaluative      | Causal (character)       | Hm                   | 10             |
| GR4MC14-H3 | Critical/Evaluative      | Causal (character)       | Hm                   | 13             |
| GR4MC14-H4 | Critical/Evaluative      | Character (attitude)     | Hh                   | 20             |
| GR4MC14-H5 | Critical/Evaluative      | Character (detail)       | Hl                   | 7              |
| GR4MC14-H6 | Critical/Evaluative      | Character (attitude)     | Hh                   | 18             |
| GR4MC14-L1 | Factual/Literal          | Detail (causal)          | Lm                   | 19             |
| GR4MC14-L2 | Factual/Literal          | Detail (character)       | Ll                   | 1              |
| GR4MC14-L3 | Factual/Literal          | Detail                   | Lm                   | 2              |
| GR4MC14-L4 | Factual/Literal          | Story ending (detail)    | Lh                   | 11             |
| GR4MC14-L5 | Factual/Literal          | Causal (detail)          | Lm                   | 5              |
| GR4MC14-L6 | Factual/Literal          | Detail (causal)          | Lh                   | 17             |
| GR4MC14-L7 | Factual/Literal          | Detail (prediction)      | Lm                   | 8              |
| GR4MC14-M1 | Interpretive/Inferential | Prediction               | Ml                   | 14             |
| GR4MC14-M2 | Interpretive/Inferential | Sequence (detail)        | Mm                   | 6              |
| GR4MC14-M3 | Interpretive/Inferential | Sequence                 | Mm                   | 4              |
| GR4MC14-M4 | Interpretive/Inferential | Prediction               | Ml                   | 3              |
| GR4MC14-M5 | Interpretive/Inferential | Problem                  | Mm                   | 9              |
| GR4MC14-M6 | Interpretive/Inferential | Prediction               | Mh                   | 12             |
| GR4MC14-M7 | Interpretive/Inferential | Causal (detail)          | Mh                   | 15             |
| GR4MC14-H1 | Critical/Evaluative      | Character (traits)       | Hl                   | 16             |

*Item Ordering Tables for Fourth Grade Passage 15 and 16*

| Item       | Cognitive Category       | Assessment Objective  | Degree of Difficulty | Order for Test |
|------------|--------------------------|-----------------------|----------------------|----------------|
| GR4MC15-H1 | Critical/Evaluative      | Character (traits)    | Hl                   | 7              |
| GR4MC15-H2 | Critical/Evaluative      | Character (traits)    | Hm                   | 13             |
| GR4MC15-H3 | Critical/Evaluative      | Conflict resolution   | Hm                   | 10             |
| GR4MC15-H4 | Critical/Evaluative      | Character (attitude)  | Hl                   | 16             |
| GR4MC15-H5 | Critical/Evaluative      | Character (attitude)  | Hh                   | 18             |
| GR4MC15-H6 | Critical/Evaluative      | Character (attitude)  | Hh                   | 20             |
| GR4MC15-L1 | Factual/Literal          | Detail (character)    | Ll                   | 1              |
| GR4MC15-L2 | Factual/Literal          | Character (sequence)  | Lm                   | 5              |
| GR4MC15-L3 | Factual/Literal          | Detail (causal)       | Lh                   | 17             |
| GR4MC15-L4 | Factual/Literal          | Detail (causal)       | Ll                   | 2              |
| GR4MC15-L5 | Factual/Literal          | Detail (attitude)     | Lh                   | 11             |
| GR4MC15-L6 | Factual/Literal          | Character (attitude)  | Lm                   | 8              |
| GR4MC15-L7 | Factual/Literal          | Detail (character)    | Lm                   | 14             |
| GR4MC15-M1 | Interpretive/Inferential | Main idea             | Mm                   | 15             |
| GR4MC15-M2 | Interpretive/Inferential | Problem (character)   | Mh                   | 12             |
| GR4MC15-M3 | Interpretive/Inferential | Sequence (detail)     | Mm                   | 6              |
| GR4MC15-M4 | Interpretive/Inferential | Prediction (causal)   | Mm                   | 9              |
| GR4MC15-M5 | Interpretive/Inferential | Prediction (causal)   | Mh                   | 19             |
| GR4MC15-M6 | Interpretive/Inferential | Sequence (detail)     | Mm                   | 4              |
| GR4MC15-M7 | Interpretive/Inferential | Prediction (attitude) | Mm                   | 3              |
| GR4MC16-H1 | Critical/Evaluative      | Character (trait)     | Hm                   | 13             |
| GR4MC16-H2 | Critical/Evaluative      | Character (traits)    | Hm                   | 16             |
| GR4MC16-H3 | Critical/Evaluative      | Problem               | Hh                   | 18             |
| GR4MC16-H4 | Critical/Evaluative      | Conflict (problem)    | Hm                   | 10             |
| GR4MC16-H5 | Critical/Evaluative      | Conflict (prediction) | Hh                   | 20             |
| GR4MC16-H6 | Critical/Evaluative      | Character (attitude)  | Hl                   | 7              |
| GR4MC16-L1 | Factual/Literal          | Detail (character)    | Ll                   | 2              |
| GR4MC16-L2 | Factual/Literal          | Detail (character)    | Ll                   | 1              |
| GR4MC16-L3 | Factual/Literal          | Detail                | Lm                   | 5              |
| GR4MC16-L4 | Factual/Literal          | Detail (causal)       | Lm                   | 14             |
| GR4MC16-L5 | Factual/Literal          | Story ending (detail) | Lh                   | 11             |
| GR4MC16-L6 | Factual/Literal          | Detail (character)    | Lm                   | 8              |
| GR4MC16-L7 | Factual/Literal          | Detail (prediction)   | Lh                   | 17             |
| GR4MC16-M1 | Interpretive/Inferential | Sequence (problem)    | Ml                   | 3              |
| GR4MC16-M2 | Interpretive/Inferential | Sequence (problem)    | Mh                   | 12             |
| GR4MC16-M3 | Interpretive/Inferential | Prediction            | Mm                   | 4              |
| GR4MC16-M4 | Interpretive/Inferential | Detail (conflict)     | Mm                   | 6              |
| GR4MC16-M5 | Interpretive/Inferential | Prediction            | Mh                   | 19             |
| GR4MC16-M6 | Interpretive/Inferential | Sequence (detail)     | Mh                   | 15             |
| GR4MC16-M7 | Interpretive/Inferential | Causal (prediction)   | Mm                   | 9              |
| GR4MC16-H1 | Critical/Evaluative      | Character (trait)     | Hm                   | 13             |

*Item Ordering Tables for Fourth Grade Passage 17 and 18*

| Item       | Cognitive Category       | Assessment Objective   | Degree of Difficulty | Order for Test |
|------------|--------------------------|------------------------|----------------------|----------------|
| GR4MC17-H1 | Critical/Evaluative      | Character (trait)      | Hl                   | 7              |
| GR4MC17-H2 | Critical/Evaluative      | Causal (character)     | Hl                   | 16             |
| GR4MC17-H3 | Critical/Evaluative      | Causal                 | Hm                   | 13             |
| GR4MC17-H4 | Critical/Evaluative      | Character (trait)      | Hh                   | 17             |
| GR4MC17-H5 | Critical/Evaluative      | Character (attitude)   | Hm                   | 10             |
| GR4MC17-H6 | Critical/Evaluative      | Character (attitude)   | Hh                   | 18             |
| GR4MC17-L1 | Factual/Literal          | Detail                 | Ll                   | 1              |
| GR4MC17-L2 | Factual/Literal          | Detail (causal)        | Lm                   | 8              |
| GR4MC17-L3 | Factual/Literal          | Detail                 | Ll                   | 2              |
| GR4MC17-L4 | Factual/Literal          | Causal (detail)        | Lh                   | 11             |
| GR4MC17-L5 | Factual/Literal          | Detail (sequence)      | Lm                   | 5              |
| GR4MC17-L6 | Factual/Literal          | Detail (causal)        | Ll                   | 14             |
| GR4MC17-L7 | Factual/Literal          | Detail (story ending)  | Ll                   | 19             |
| GR4MC17-M1 | Interpretive/Inferential | Sequence (detail)      | Ml                   | 3              |
| GR4MC17-M2 | Interpretive/Inferential | Main idea              | Mh                   | 12             |
| GR4MC17-M3 | Interpretive/Inferential | Problem (character)    | Mm                   | 4              |
| GR4MC17-M4 | Interpretive/Inferential | Prediction (character) | Mm                   | 6              |
| GR4MC17-M5 | Interpretive/Inferential | Sequence (detail)      | Mm                   | 9              |
| GR4MC17-M6 | Interpretive/Inferential | Causal (detail)        | Mh                   | 15             |
| GR4MC17-M7 | Interpretive/Inferential | Character (attitude)   | Mh                   | 20             |
| GR4MC18-H1 | Critical/Evaluative      | Character (traits)     | Hm                   | 16             |
| GR4MC18-H2 | Critical/Evaluative      | Character (attitude)   | Hm                   | 13             |
| GR4MC18-H3 | Critical/Evaluative      | Character (detail)     | Hl                   | 7              |
| GR4MC18-H4 | Critical/Evaluative      | Prediction (attitude)  | Hm                   | 10             |
| GR4MC18-H5 | Critical/Evaluative      | Character (trait)      | Hh                   | 18             |
| GR4MC18-H6 | Critical/Evaluative      | Character (attitude)   | Hh                   | 20             |
| GR4MC18-L1 | Factual/Literal          | Detail (character)     | Lm                   | 8              |
| GR4MC18-L2 | Factual/Literal          | Detail                 | Ll                   | 1              |
| GR4MC18-L3 | Factual/Literal          | Detail (prediction)    | Lm                   | 5              |
| GR4MC18-L4 | Factual/Literal          | Detail (character)     | Ll                   | 2              |
| GR4MC18-L5 | Factual/Literal          | Detail (character)     | Lm                   | 14             |
| GR4MC18-L6 | Factual/Literal          | Detail (prediction)    | Lh                   | 17             |
| GR4MC18-L7 | Factual/Literal          | Detail (sequence)      | Lm                   | 11             |
| GR4MC18-M1 | Interpretive/Inferential | Prediction             | Mm                   | 3              |
| GR4MC18-M2 | Interpretive/Inferential | Prediction             | Mh                   | 15             |
| GR4MC18-M3 | Interpretive/Inferential | Sequence (detail)      | Mh                   | 9              |
| GR4MC18-M4 | Interpretive/Inferential | Prediction (sequence)  | Mm                   | 4              |
| GR4MC18-M5 | Interpretive/Inferential | Causal (character)     | Mh                   | 12             |
| GR4MC18-M6 | Interpretive/Inferential | Sequence               | Mm                   | 6              |
| GR4MC18-M7 | Interpretive/Inferential | Story ending           | Ml                   | 19             |
| GR4MC18-H1 | Critical/Evaluative      | Character (traits)     | Hm                   | 16             |

*Item Ordering Tables for Fourth Grade Passage 19 and 20*

| Item       | Cognitive Category       | Assessment Objective         | Degree of Difficulty | Order for Test |
|------------|--------------------------|------------------------------|----------------------|----------------|
| GR4MC19-H1 | Critical/Evaluative      | Character (trait)            | Hm                   | 20             |
| GR4MC19-H2 | Critical/Evaluative      | Causal (attitude)            | Hm                   | 10             |
| GR4MC19-H3 | Critical/Evaluative      | Problem (character)          | Hl                   | 7              |
| GR4MC19-H4 | Critical/Evaluative      | Character (attitude)         | Hh                   | 18             |
| GR4MC19-H5 | Critical/Evaluative      | Character (attitude)         | Hm                   | 16             |
| GR4MC19-H6 | Critical/Evaluative      | Character (attitude)         | Hm                   | 13             |
| GR4MC19-L1 | Factual/Literal          | Detail (sequence)            | Lm                   | 5              |
| GR4MC19-L2 | Factual/Literal          | Detail (prediction)          | Ll                   | 1              |
| GR4MC19-L3 | Factual/Literal          | Detail (causal)              | Lh                   | 11             |
| GR4MC19-L4 | Factual/Literal          | Detail (causal)              | Ll                   | 2              |
| GR4MC19-L5 | Factual/Literal          | Detail (causal)              | Lm                   | 8              |
| GR4MC19-L6 | Factual/Literal          | Detail (causal)              | Lh                   | 14             |
| GR4MC19-L7 | Factual/Literal          | Detail (prediction)          | Lh                   | 17             |
| GR4MC19-M1 | Interpretive/Inferential | Main idea                    | Mh                   | 15             |
| GR4MC19-M2 | Interpretive/Inferential | Prediction (detail)          | Ml                   | 19             |
| GR4MC19-M3 | Interpretive/Inferential | Causal (conflict resolution) | Ml                   | 3              |
| GR4MC19-M4 | Interpretive/Inferential | Sequence (detail)            | Mm                   | 4              |
| GR4MC19-M5 | Interpretive/Inferential | Prediction                   | Mm                   | 6              |
| GR4MC19-M6 | Interpretive/Inferential | Prediction (causal)          | Mh                   | 12             |
| GR4MC19-M7 | Interpretive/Inferential | Story ending                 | Mh                   | 9              |
| GR4MC20-H1 | Critical/Evaluative      | Character (details)          | Hl                   | 7              |
| GR4MC20-H2 | Critical/Evaluative      | Character (attitude)         | Hm                   | 13             |
| GR4MC20-H3 | Critical/Evaluative      | Character (attitude)         | Hh                   | 18             |
| GR4MC20-H4 | Critical/Evaluative      | Character (attitude)         | Hh                   | 20             |
| GR4MC20-H5 | Critical/Evaluative      | Prediction (character)       | Hm                   | 16             |
| GR4MC20-H6 | Critical/Evaluative      | Prediction                   | Hm                   | 10             |
| GR4MC20-L1 | Factual/Literal          | Detail                       | Ll                   | 1              |
| GR4MC20-L2 | Factual/Literal          | Detail (sequence)            | Ll                   | 2              |
| GR4MC20-L3 | Factual/Literal          | Detail (causal)              | Lm                   | 5              |
| GR4MC20-L4 | Factual/Literal          | Detail (causal)              | Lh                   | 11             |
| GR4MC20-L5 | Factual/Literal          | Detail                       | Lm                   | 8              |
| GR4MC20-L6 | Factual/Literal          | Detail                       | Lm                   | 14             |
| GR4MC20-L7 | Factual/Literal          | Detail (sequence)            | Lh                   | 17             |
| GR4MC20-M1 | Interpretive/Inferential | Main idea                    | Mh                   | 12             |
| GR4MC20-M2 | Interpretive/Inferential | Sequence (detail)            | Mm                   | 6              |
| GR4MC20-M3 | Interpretive/Inferential | Prediction (detail)          | Mm                   | 9              |
| GR4MC20-M4 | Interpretive/Inferential | Prediction (detail)          | Mm                   | 15             |
| GR4MC20-M5 | Interpretive/Inferential | Causal                       | Ml                   | 3              |
| GR4MC20-M6 | Interpretive/Inferential | Story ending                 | Mh                   | 19             |
| GR4MC20-M7 | Interpretive/Inferential | Prediction                   | Mm                   | 4              |
| GR4MC20-H1 | Critical/Evaluative      | Character (details)          | Hl                   | 7              |

## Appendix E

**Teacher Directions for Administering the MC Comprehension Measures**

*Thank you so very much for agreeing to participate in this study, part of the School District's efforts to address the literacy needs of all our students. The purpose of this study is to pilot test a series of reading tests that are being developed in conjunction with the University of Oregon and the School District as part of a National Center for Progress Monitoring in Reading. The district is getting involved because we believe including data from our school district in these early piloting stages will result in a product that will better suit the needs of our students. We will be combining student performance data across all 40+ classes participating in the pilot testing in the two districts and using this information to help improve the tests this summer so they are ready to be used in schools next fall. We will NOT be comparing the results of the testing by teacher.*

***Please help us ensure that all students have as close to the same experience taking the tests as possible by following these standardized test administration procedures as precisely as you can.***

*Your participation plays a vital role in the development of these tests that will be used across the United States. Thank you!*

Your packet contains 4 things:

- This handout
- A class roster listing the students in your class for whom we have provided scan sheets
- Individual student scan sheets (these are pre-marked with each student's information. Please use the blank scan sheets provided—not photocopies!—if you have any students in your class without a scan sheet).
- Enough copies of the 5 reading stories (each labeled with a unique Form Number) for every student in your class to have his/her own copy. If you do not have enough copies for each student in your class, you may photocopy additional forms as needed.

**Directions for Administering the MC Reading Comprehension Tests**

1. Please administer the five stories on five *different* days scattered across a 3-week testing window (select the days to be least intrusive to your teaching).
2. You will need approximately 45 – 60 minutes to administer each test.
3. Students will need #2 pencils with erasers while taking the test.
4. Please distribute the scan sheets to the class, making sure that each student receives the scan sheet with his/her information printed on it.
5. Remind students that they are not to write on the scan sheets except to mark their answer selections in the bubbles provided. (We've had some trouble in the past with students doodling on their scan sheets or 'connecting the dots'—both of which mean their data become unusable. Please try to monitor closely for this!)
6. Distribute the Reading Passage form you have selected for that day's test. Please note: it is important that students use the CORRECT area of their scan sheet to bubble in their answers. The scan sheets indicate which bubbles go with which form. Please check to be sure that students know what form they are taking each day.

7. Once every student has a copy of the Reading Passage and their scan sheet, you are ready to begin the test. Please read the following directions exactly as they are written:

YOU ARE GOING TO BE TAKING A READING TEST. FIRST, YOU WILL READ A STORY. THEN, YOU WILL ANSWER SOME QUESTIONS ABOUT THE STORY. WHEN YOU ARE ANSWERING THE QUESTIONS, YOU **ARE ALLOWED** TO LOOK BACK AT THE STORY IF YOU WANT TO. SOME OF THE QUESTIONS MAY BE REALLY HARD, BUT I WANT YOU TO TRY YOUR BEST TO CHOOSE THE ANSWER YOU THINK IS THE BEST ONE.

BECAUSE THIS IS A TEST, I CAN NOT HELP YOU WHILE YOU ARE TAKING THE TEST. IF YOU ARE NOT SURE WHAT A WORD MEANS, JUST KEEP ON READING. YOU MAY BE ABLE TO FIGURE IT OUT FROM THE OTHER THINGS THAT ARE HAPPENING IN THE STORY.

THERE ARE 20 QUESTIONS ABOUT THE STORY. YOU WILL BE USING YOUR SCAN SHEET (hold one up) TO MARK YOUR ANSWERS TO THE QUESTIONS. ONCE YOU HAVE DECIDED WHAT THE BEST ANSWER IS, FILL IN THE BUBBLE ON THE SCAN SHEET FOR THAT QUESTION (demonstrate this on your board so students know for sure what you mean).

ARE THERE ANY QUESTIONS? (answer any that come up)

OK. YOU MAY BEGIN.

Please monitor students while they are taking the test. In particular, watch for:

- Students bubbling their answers in the wrong place
- Students looking on other students' papers
- Students drawing on their scan sheets

Collect all the scan sheets as students finish. Keep them in a secure location in preparation for the next session. When you have completed all 5 testing sessions, please place the scan sheets in numerical order by Sequence Number (top of the scan sheet), place the scan sheets back in the manila envelope, and return them to the Ed. Center for analysis.

Please recycle all five of the stories that you used with the students. They do *not* need to be returned to the Ed. Center.

Thank you!

## Appendix F

### Example of a Formatted Third-Grade Comprehension Test

Directions: Please read the story and then answer the questions that come after it.

**Boring Weekends**

Jimmy lived in an apartment in San Francisco, California. There were not many kids around. Jimmy often dreaded the weekends. He couldn't find anything to do. His parents were busy. They spent most their time cleaning, paying bills, and taking care of Jimmy's baby sister. She was only six months old. Last weekend, Jimmy was sick. He had a cold and did not get to do anything. He had to stay in bed and rest the entire time. It was so boring!

Jimmy was feeling better this weekend, but it was raining. He wanted to do something anyway. He was planning on going to the zoo with his friend Paul. There was a new panda that they wanted to see. It was from China and only two years old. It was supposed to be really cute. Unfortunately, Jimmy could not go now since it was raining. He would have to walk several miles, and the zoo was outside. He would get soaked! Because he was sick last weekend, Jimmy's mom said that going out in the rain was not an option. Jimmy was so bored. He couldn't even go to the park or play with his new bike. He was really starting to feel down.

Jimmy asked his mom if she had any ideas of what Jimmy could do for fun. She did! She suggested a game. They had many games to choose from: chess, dominoes, checkers, and some board games. This sounded like a good idea, but he did not know who he would play with. He asked his mom if she would play with him. She said that she would, but not right then. She had to cook dinner first. They could play after dinner. That was still three hours away. Jimmy went and found his favorite board game. He set it up on the table and put out two chairs. The set up only took five minutes. He was excited to play, but still wanted to find something to do in the mean time.

Jimmy found his dad and asked if he had time to play. He did not. When Jimmy found his father, he was sitting in front of a huge stack of bills. It was the end of the month, and he had to pay them all before the mail came the next day. After that, he had to shop for dinner. Jimmy told his dad that he was bored. He asked if he had any ideas of what he could do for fun. Jimmy's dad suggested talking on the phone with a friend. Jimmy knew that his best friend Ted was busy. He had ice hockey practice all day!

His other friend was visiting his grandparents. Other than that, Jimmy did not know any one else's phone number. Feeling discouraged, Jimmy sat by the window and sighed heavily. He thought it was unfair that he couldn't have any fun!

He missed living in San Diego, California. There were lots of children in the neighborhood there that he could have over. They would have so much fun. All weekend they would play catch and go swimming. Plus, it hardly ever rained. He did not even own a jacket when they lived in Southern California!

Jimmy's dad saw his son sitting by the window. He quickly thought back to when he was a kid. He also grew up in an apartment, but in downtown New York. He remembered being so bored there when it rained and snowed. He remembered very well what it was like to want something fun to do but not to have any ideas. Jimmy's dad thought for a minute about what he used to do when he was bored. He used to like to color pictures for his family or play the drums in his room. Jimmy was different though. He would rather do something with a friend or a member of his family. This is why he liked games so much. He did not like to play alone when he had the choice.

Not knowing what to say, Jimmy's dad went over to him. He sat next to Jimmy and put his hand on Jimmy's shoulder. He let him know that he remembered how hard it was to be bored and to have nothing to do. He told him about living in New York and thinking it just was not fair that he had to spend the whole weekend inside. He told him that he knew his son worked hard during the week at school and liked to have fun when he could.

Jimmy was glad to hear that his dad understood. It made him feel like he was not alone. Jimmy then asked him if he had any ideas of something he could do. Jimmy told him about his plan to go to the zoo and how it did not work out. He also told him about the game after dinner with his mom. That would be great!

Just then, Jimmy's dad got an idea of something they could do together for fun this afternoon. He said that it would even help his mom out. Jimmy was curious. His dad suggested making a dessert together. He said that he already had to go to the store, and Jimmy could go with him. There they could pick up some ingredients for whatever Jimmy wanted to make. It could even be a surprise too for his mom and family.

Jimmy thought this sounded like a great idea! He was excited. He went straight to the kitchen and looked through the cookbooks. He was careful not to let his mom see what he was doing. He couldn't decide on a recipe. He thought the brownies, oatmeal cookies, and pecan pie all looked wonderful. If he made cookies or brownies, however, he could take some leftovers to school on Monday. That way, he could share with his friends. Then Jimmy saw the perfect recipe! It was for chocolate brownies with chopped walnuts and peanut butter chips. It sounded great! He started to make a shopping list for his trip to the store. He began to wonder how it would be a surprise for his mom if he was baking while she was cooking dinner. He went and asked his dad what they could do.

Jimmy's father sighed and admitted it was a problem. He suggested that they order pizza for dinner instead of mom having to cook. That way, it could



remain a surprise, and she wouldn't have to do dishes. She would have even more time and energy for their game afterward. Jimmy thought it was a perfect plan! He had already forgotten that he was bored. He was so happy to be doing something to help his mom, to be spending time with his dad, and to get pizza and brownies for dinner! It was starting to shape up to be a great weekend.

PLEASE USE YOUR SCAN SHEET TO MARK YOUR ANSWERS.  
DO NOT MARK ON THIS PAPER!

1. **What did Jimmy plan to do on the weekend?**
  - A. Watch a movie.
  - B. Go to the zoo.
  - C. Play games.
  
2. **What did Jimmy's dad suggest to get the mother out of the kitchen?**
  - A. Eat leftovers from the day before.
  - B. Take the mother out to eat.
  - C. Order something to eat in.
  
3. **What was the first idea Jimmy's dad suggested to him?**
  - A. Call a friend.
  - B. Be patient and wait.
  - C. Play a one-person game.
  
4. **What idea did Jimmy's dad come up with to help him?**
  - A. A way for Jimmy to have fun by himself.
  - B. An idea for something they could do together.
  - C. An idea for something Jimmy could do next weekend.
  
5. **What did Jimmy have trouble deciding?**
  - A. What recipe to use.
  - B. What game to play.
  - C. What to eat for dinner.
  
6. **How did Jimmy's dad show that he understood how Jimmy felt?**
  - A. He said that Jimmy was a smart kid and would think of something to do that was fun.

- B. He said that the rain might stop soon, and then Jimmy could go out with his friends.
- C. He said that Jimmy works hard at school all week and should have fun on the weekend.

**7. How did Jimmy like to play?**

- A. He liked to do things all by himself.
- B. It didn't matter if he played alone or with others.
- C. He liked to do things with other people.

**8. What kept Jimmy from his plans for the weekend?**

- A. He was sick.
- B. It was raining.
- C. He would have to walk.

**9. Why was the mother's offer to play a game with Jimmy still a problem?**

- A. He had to wait for her to cook dinner first.
- B. It only took five minutes to set up the game.
- C. She might change her mind by the time dinner was done.

**10. What will Jimmy probably do on the next rainy day weekend?**

- A. Complain that he is bored and ask his parents to play a game.
- B. Get just as bored as always and wait for his friends to call.
- C. Remember there are many different ways to cure boredom.

- 11. What was a reason for Jimmy thinking it would be a good idea to make brownies?**
- A. He could take the leftovers to school to share.
  - B. It was the only recipe that he could find.
  - C. His family always loved to eat brownies.
- 12. What last-minute problem came up?**
- A. Jimmy couldn't keep his dessert a surprise if his mom was cooking in the kitchen.
  - B. Jimmy's mom wouldn't be able to get dinner done on time if Jimmy was in the kitchen.
  - C. Jimmy's dad forgot to buy some of the cooking ingredients that Jimmy needed.
- 13. What was Jimmy's father like?**
- A. He cared about Jimmy but didn't have the time to help.
  - B. He cared about how his son felt and wanted to help.
  - C. He only thought about all the bills he had to pay.
- 14. How did Jimmy feel when he and his dad talked about being bored?**
- A. He felt he still might be able to go to the zoo later that day.
  - B. He felt his dad knew that it was not good to be bored.
  - C. He felt his dad understood what he was feeling.
- 15. How did the story end?**
- A. Jimmy was hopeful that the day wasn't going to be boring.
  - B. Jimmy started to bake brownies, and his dad ordered pizza.
  - C. Jimmy asked his dad to help find a way to surprise his mother.
- 16. What was the story mostly about?**
- A. How a boy dealt with a boring rainy day all on his own.
  - B. How a bored boy found something to do on a rainy day.
  - C. How parents should help plan for things to do on rainy days.

- 17. What did the dad think about when he saw Jimmy sitting by the window looking bored?**
- A. Jimmy had friends that he could do something with.
  - B. He wished Jimmy could think of something to do.
  - C. He also had felt bored when he was young.
- 18. What did Jimmy miss about Southern California?**
- A. He knew all of his friends' telephone numbers in San Diego.
  - B. He left a good friend there when he moved to San Francisco.
  - C. He could play outside on weekends because it hardly ever rained.
- 19. What did Jimmy do right after he decided what he was going to bake?**
- A. He started making a shopping list.
  - B. He wondered if he could surprise his mom.
  - C. He started to chop walnuts for the brownies.
- 20. What was Jimmy's mother like?**
- A. She felt that a busy mother didn't have time to play games.
  - B. She cared about how Jimmy felt and tried to help him.
  - C. She was willing to help Jimmy but not on a weekend.