**Morphological Awareness Test for Reading and Spelling (MATRS):
Technical Report**

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Morphemes are the smallest units of meaning in a language. Morphemes often are classified as free morphemes or base words (i.e., simple, stand-alone words, such as *cat*, *pack*, or, *sweet*), or bound morphemes or affixes (i.e., prefixes and suffixes added onto base words, such as *cats*, *repack*, and *sweetly*). Children begin using free morphemes with their first spoken words and then begin using bound morphemes shortly thereafter, by one-and-a-half or two-years of age (Apel & Masterson, 2012). The use of these morphemes are spontaneous; children are not actively thinking about the morphemes used in spoken conversations.

Morphological awareness is the ability to consciously think about and/or manipulate morphemes within a word. Children begin to demonstrate the rudiments of morphological awareness, albeit somewhat implicit awareness, as early as kindergarten (e.g., Bourassa & Treiman, 2009; Treiman & Cassar, 1996). Fully defined, morphological awareness is the awareness of spoken and printed forms¹ of morphemes, the meaningful changes affixes bring to base words (e.g., how *-s* can causes a singular noun to become a plural noun or how *un-* means the opposite), the way printed affixes connect to base words (e.g., how some suffixes require a consonant to be doubled or dropped when attached to a written base word), and the relation between base words and their inflected or derived forms (e.g., knowing that a variety of words are related because they share the same base word, such as *friend*, *friendly*, *friendship*, and *friending*). This comprehensive definition best captures the multiple aspects of morphological awareness (Apel, 2014).

Morphological Awareness and Its Relation to Reading and Spelling

Students' performance on morphological awareness tasks significantly predicts their literacy abilities. Even when other known predictors of literacy abilities are considered, such as phonemic awareness and/or vocabulary, morphological awareness remains a unique predictor of literacy skills (e.g., Apel, Wilson-Fowler, Brimo, & Perrin, 2012; Deacon & Kirby, 2004; Deacon, Kirby, & Casselman-Bell, 2009; Tighe & Schatschneider, 2016). Because of the strong relation of morphological awareness to word-level reading, reading comprehension, and spelling, researchers and educators recognize the importance of targeting students' morphological awareness skills to help improve their literacy skills. This focus on morphological awareness to improve literacy abilities makes sense intuitively given written English is a morphophonemic system; that is, English spelling relies on morphemes as much as it does phonemes to produce written words and convey their meaning (e.g., Moats, 1995; Treiman, 1998). To provide specific or prescriptive morphological awareness instruction, a comprehensive morphological assessment tool is needed.

Measures of Morphological Awareness

In the past, a psychometrically-reliable and valid measure that represents conceptually a comprehensive definition of morphological awareness did not existed. Instead, researchers and practitioners used one or more tasks that had been suggested to assess morphological awareness. However, when tasks used to assess morphological awareness do not align with a comprehensive definition of morphological awareness and, thus, do not completely assess all aspects of this

¹ Our definition of morphological awareness includes the conscious awareness of printed morphological forms. By doing so, it may seem a confound exists between morphological awareness and orthographic knowledge. However, as we define morphological awareness, the awareness of affixes, and the means by which they connect to base words, is an aspect of written language specific to morphological forms versus more general orthographic knowledge.

linguistic awareness skill, researchers cannot be assured that their findings represent those that may be found with a more comprehensive measure of the skill. Likewise, educators who wish to improve the literacy skills of their students risk the chance of under-identifying those who have deficits in areas of morphological awareness that may appreciably impact reading and writing skills. Further, optimal instructional practices for all types of learners may not be possible without a comprehensive morphological awareness assessment tool. With a well-designed, prescriptive assessment, educators are better informed of particular weaknesses in students' morphological awareness skills that then can help them select specific, targeted interventions for those students.

Given past limitations associated with assessing morphological awareness abilities, the goal of this project was to develop a comprehensive assessment of morphological awareness that represented an all-inclusive definition of this linguistic awareness skill. Specifically, through an iterative process across a three year time span, our two primary goals were to:

- 1) develop a reliable assessment tool that effectively represented the dimensionality of morphological awareness and contained test items that were most informative (i.e., most discriminative) for purposes of identifying students who struggle with their morphological awareness abilities, and
- 2) establish the convergent and predictive validity of the new assessment tool with measures of literacy and literacy-related skills.

As a result of those aims, we created a comprehensive, reliable and valid morphological awareness assessment tool for students in grades 1-6: the *MATRS* (Morphological Awareness Test for Reading and Spelling). We targeted these grades for our project because research has demonstrated significant and sustained growth in morphological awareness across these school years (e.g., Berninger, Abbott, Nagy, & Carlisle 2010) and that morphological awareness interventions in these elementary school years lead to gains in morphological awareness and literacy skills in relatively short amounts of time (e.g., Apel, Brimo, Diehm, & Apel, 2013; Bower, Kirby, & Deacon, 2010; Goodwyn & Ahn, 2013). The following sections detail the results of this project.

Technical Documentation

Participants

A total of 5,403 students across first through sixth grade served as participants. The students were recruited from both public and private schools in the southeastern region of the United States. Parents of all students provided their consent for their children to participate, using a consent form approved by the university institutional review board. Specific demographic information for all the students is contained in Table 1.

Item-Calibration Full Sample

Across the two years of the item calibration study, we worked in the Southeastern United States. A total of 4,060 students participated in the two-year item-validation study in grade 1 ($N = 807$), grade 2 ($N = 726$), grade 3 ($N = 756$), grade 4 ($N = 644$), grade 5 ($N = 626$), and grade 6 ($N = 501$). Full sample demographics were 53.97% female; race/ethnicity was 43.81% White, 37.70% Black, 9% Multi-racial, 5.24% Latinx, 1.50% Asian, <1% Native American, and 1.75% No response. Over 90% of the sample reported mother and father education having completed high school or a GED. Ninety-four percent of the sample spoke English as the primary language, 3% spoke Spanish as the primary language, and 3% of the sample spoke another primary

language in the home. The majority of students participating in the item calibration study did not receive services (70%) with approximately 7% of the sample receiving speech-services only, 9% receiving reading/writing services only, 9% receiving multiple services, and 5% noting other services that were provided.

Year 1 Item-Calibration Sample. A total of 1,122 students participated in Year 1 of the item-validation study in grade 1 ($N = 179$), grade 2 ($N = 224$), grade 3 ($N = 167$), grade 4 ($N = 210$), grade 5 ($N = 180$), and grade 6 ($N = 162$). The sample in Table 1 showed 54.37% female; race/ethnicity was 41.09% White, 38.32% Black, 9.72% Multi-racial, 6.42% Latinx, 1.6% Asian, <1% Native American, and 2.5% No response. Over 90% of the sample reported mother and father education having completed high school or a GED. Approximately 94% percent of the sample spoke English as the primary language, 4.81% spoke Spanish as the primary language, and 1% of the sample spoke another primary language in the home. The majority of students participating in the item calibration study did not receive services (66%) with approximately 7% of the sample receiving speech-services only, 8.65% receiving reading/writing services only, 11.5% receiving multiple services, and 5% noting other services that were provided.

Year 2 Item-Calibration Sample. A total of 2,939 students participated in Year 2 of the item-validation study in grade 1 ($N = 628$), grade 2 ($N = 502$), grade 3 ($N = 589$), grade 4 ($N = 434$), grade 5 ($N = 446$), and grade 6 ($N = 339$). The sample in Table 1 showed 53.8% female; race/ethnicity was 44.85% White, 37.46% Black, 6.5% Multi-racial, 4.8% Latinx, 1.5% Asian, <1% Native American, and 4.3% No response. Over 90% of the sample reported mother and father education having completed high school or a GED. Approximately 94% percent of the sample spoke English as the primary language, 2.96% spoke Spanish as the primary language, and 3.5% of the sample spoke another primary language in the home. The majority of students participating in the item calibration study did not receive services (73%) with approximately 7% of the sample receiving speech-services only, 8.54% receiving reading/writing services only, 8.4% receiving multiple services, and 2% noting other services that were provided.

MATRS Task Validation Sample

In Year 3 of the study, a total of 1,343 students participated in a validation study in grade 1 ($N = 293$), grade 2 ($N = 262$), grade 3 ($N = 233$), grade 4 ($N = 197$), grade 5 ($N = 173$), and grade 6 ($N = 185$). The sample in Table 1 showed 53.09% female; race/ethnicity was 50.04% White, 30.16% Black, 7.97% Multi-racial, 6.48% Latinx, 1.71% Asian, <1% Native American, and 2.64% No response. Over 90% of the sample reported mother and father education having completed high school or a GED. Approximately 94% percent of the sample spoke English as the primary language, 4.17% spoke Spanish as the primary language, and 1.64% of the sample spoke another primary language in the home. The majority of students participating in the item calibration study did not receive services (70%) with approximately 10% of the sample receiving speech-services only, 8.19% receiving reading/writing services only, 10% receiving multiple services, and 1.87% noting other services that were provided.

Measures

The students were administered the *Morphological Awareness Test for Reading and Spelling (MATRS)* as well as tests measuring their word-level reading, reading comprehension skills, spelling, phonological awareness, and receptive vocabulary skills. These standardized, norm-referenced measures were administered following the instructions in the test manuals. The order of administration of the tests varied within and across grades and sessions.

Morphological Awareness Tasks

The students were administered the *MATRS* to assess all aspects of morphological awareness (e.g., Apel, 2014). Specifically, we assessed their awareness of a) morphemes in both spoken and written forms, b) affix meanings and how they can change the grammatical class of base words, c) how written prefixes attach to base words, and d) the relation between base words and their inflected and/or derived forms. *MATRS* involves eight subtests. Because two of the subtests required reading skills beyond an early developmental level, first and second grade students were administered only six subtests. For all subtests, at least 1 sample item was given before the subtest itself was administered. All subtest real-word items were grade-level appropriate (e.g., items on tasks administered to third grade students represented words considered to be third-grade level words; SPELL-Links Word List Maker, 2010; Zeno, Ivens, Millard, & Duvvuri, 1995). No items represented low frequency words (Zeno et al., 1995). Pseudoword items were created from grade-level real words. Subtest items represented both inflected and derived forms of base words. The number of subtest items were the same for each grade.

The *Segmenting* subtest, similar to that used in Casalis, Cole, & Sopo (2004), was administered to examine the students' ability to identify morphemes in spoken multi-morphemic words. The administrator verbally produced a word (e.g., *unevenly*) and the students were required to tap out how many "meaningful parts" (i.e., morphemes) they heard in the target word.

The *Affix Identification* subtest, used previously by Apel, Brimo, Diehm, & Apel (2013), assessed the students' ability to identify real affixes in written pseudowords. The administrators presented the children with a number of printed pseudowords (e.g., *lithful*) and asked them to circle "add-ons" (i.e., true affixes) contained in those pseudowords.

The *Affix Meaning* subtest, which was similar to Mitchell and Brady's (2014) task, students was presented in both spoken and written form. The students read and heard a verbally-presented sentence containing a novel/pseudoword and then were asked to choose, from a group of four possibilities, the correct inflected or derived form of the pseudoword to match a provided definition. For example, the students heard the following sentence along with the four options that potentially fit the presented definition, "If edam means "sea," then which word means to go in the direction of the sea: edams, edamer, edamward, edamable.").

The *Suffix Choice* subtest was a variation of a task used by Nagy, Berninger, & Abbott (2006) and presented to students in written form. On the task, the students read sentences with a missing word and were asked to choose one of four possible inflected or derived forms to complete the sentence (e.g., Matthew was not known for being overly [friendly, friendship, friendliness, friends]). Because of the reading requirements for this task, only third through sixth grade students received the task.

Based on Apel et al. (2013), the students were asked to spell multi-morphemic words. On this *Spelling Multi-Morphemic* subtest, the students heard a word, heard it used in a sentence,

and then heard the word again. They then were asked to spell the word on a provided sheet of paper.

On the *Derivational Spelling* subtest, taken from the work of Sangster and Deacon (2011), the students were provided a derived form of a base word both verbally and visually spelling (e.g., luck) in a sentence context and three phonologically-plausible written word endings (e.g., *-y*, *-ie*, *-ey*). The administrators then asked the students to circle the correct spelling of the word ending.

The final two subtests, *Spoken Relatives* and *Written Relatives*, were highly similar (e.g., both included inflectional and derivational items and both contained items that differed on how orthographically and phonologically transparent the base words were in their inflected and derived forms). The two tasks differed in the mode of administration and response (spoken vs. written) as well as the number of items contained on the task. That is, the Written Relatives task always contained more items than the Spoken Relatives task (e.g., 25 vs. 15). Used in other investigations (e.g., Apel et al. 2013; Casalis & Cole, 2009), the students either heard or read a word, and then were asked to complete a spoken or written sentence with a related word. On both subtests, the provided word was either a base word that needed to be changed into an inflected or derived form or an inflected or derived form that needed to be modified to its base form.

Literacy Tasks

Reading. A number of measures were administered to assess the students' word-level reading and reading comprehension skills. For word-level reading, the students were administered subtests from either the *Test of Word Reading Efficiency, Second Edition (TOWRE-2; Torgesen, Wagner, & Rashotte, 2012)* or the *Woodcock Reading Mastery Tests-Third Edition (WRMT-3; Woodcock, 2011)*. On the TOWRE-2, the *Sight Word Efficiency* subtest measured students real-word reading (i.e., stored knowledge of written words) skills. The *Phonemic Decoding Efficiency* subtest assessed the students' ability to decode pseudowords. The students were given 45 seconds to read as many real and pseudowords, respectively. The TOWRE-2 authors' manual reports an alternate form reliability of .93.

Word-level reading also was measured using the Word Identification and Word Attack subtests of the WRMT-3. The *Word Identification* subtest measured the students' abilities to read single real words in isolation. Split-half reliability for this subtest is .91. The *Word Attack* subtest measures the students' skills to decode single pseudowords until a ceiling is reached. Split-half reliability for this subtest is .89.

We administered the Passage Comprehension subtest of the WRMT-3 to measure the students' reading comprehension skills. For this subtest, students read short passages and then stated the word(s) missing from those passage. Split-half reliability coefficients are between .84 and .96 for first through sixth grade students.

Spelling. The *Test of Written Spelling-Fourth Edition (TWS-5; Larsen, Hammill, & Moats, 2013)* was used to assess students' spelling abilities. On this test, the examiner said a word, used it in a sentence, and then said the word again. The students then were required to spell the word. This task was conducted at the group level to decrease testing time; thus, all students were required to spell all 50 words on the test. However, each student's responses were scored according the measure's basal and ceiling guidelines. According to the authors' manual, test-retest reliability is .92 for grades one through five and .90 for grades six through eight.

Phonological Awareness. The Elision and Blending Words subtests from the *Comprehensive Test of Phonological Processing-Second Edition (CTOPP-2; Wagner et al., 2013)* were administered to measure the students' phonological awareness skills. The Elision

task measured the students' abilities to delete a whole word from a compound word, onsets from rime units, codas from words, and phonemes within rime units. The Blending Words task required that the students listen to sounds of words presented in segments and then blend the sounds together to create real words. According to the authors' manual, test-retest reliability for the Elision task ranges from .77 to .93 for the ages involved. For the Blending Words subtest, test-retest reliability ranged from .74 to .79 for the ages of our participants.

Receptive vocabulary. We administered the *PPVT-4* (Dunn & Dunn, 2007) to measure the students' receptive vocabulary skills. On this test, students point to one of four pictures that matches a verbally-presented word. The authors' manual states that split half reliability is .94.

Procedures

The students were administered all tasks within their school building. Typically, The Segmenting and Spoken Relatives tasks of the *MATRS* were administered one-to-one; the remaining *MATRS* tasks were administered in small groups of same-grade students. All norm-referenced tasks were administered one-to-one except for the *TWS-5*, which was administered in small groups of same-grade students. All tasks were administered by individuals who were trained by the main investigators on all procedures used in the study. The students' parents were remunerated for the child's participation in the study. All tasks were scored by two different raters to ensure accuracy of scoring. Inter-scorer agreement was calculated for each task for 15% of the participants and average agreement ranged from .92-.99% across all *MATRS* tasks and grades. A common-item nonequivalent research design was used to calibrate item and person properties on a common-scale across grade-levels for each proposed task.

Data Analysis

Item Calibration

Item analyses included data screening, multiple group item response modeling, reliability analysis, and differential item functioning.

Data Screening. Item-level p-values were calculated for each item by year and grade. Dichotomous items demonstrating floor effects (e.g., item means $\geq$ 95% incorrect) or ceiling effects (e.g., item means $\geq$ 95% correct) were flagged for potential removal prior to the item response theory modeling.

Multiple-Group Item Response Modeling (MG-IRM). A series of multiple-group unidimensional item response theory (IRT) models were fit to the item-level data corresponding to each of the individual tasks. Following the data screening processes, these analyses allowed for an evaluation of item properties, specifically the item difficulty. The multiple group approach to the item response modeling facilitated a vertical equating of the item parameters across groups (i.e., grade levels) as well as the vertical scaling of ability scores across groups. One aspect of IRT modeling is that the probability of item accuracy may be modeled according to constraints associated with particular item properties including the item difficulty, item discrimination, and pseudo-guessing parameter. For example, a one-parameter logistic response model (1PL) estimates each item's difficulty value but constrains the item discrimination value to equality across all items and fixes the pseudo-guessing parameter to 0. The two-parameter logistic response model (2PL) estimates individual item difficulty and discrimination coefficients and fixes the pseudo-guessing parameter to 0; and the three-parameter logistic response model (3PL)

estimates individual item difficulty, discrimination, and pseudo-guessing coefficients. A variation of the IPL models is the Rasch model whereby all item discrimination values are fixed to 1.0. A benefit of the Rasch model is that raw total scores from items can be more easily converted to a Rasch scale score compared to using other forms of IRT. This feature is particularly advantageous for paper-pencil delivered or hand-scored assessments.

Rasch models were fit using flexMIRT software (Cai, 2013) and were evaluated using local fit (i.e., performance of the individual items) and goodness-of-fit based on the M_2 statistic (Maydeu-Olivares, 2013), the root mean square error of approximation based on M_2 (RMSEA₂), and the Tucker-Lewis Index (TLI). M_2 is often sensitive to sample size in terms of rejecting the fitted model, thus, the RMSEA₂ is useful for determining adequate fit ($<.089$), close fit ($<.05$), or excellent fit [$.05/(k - 1)$, where k = number of categories]. Marginal reliability was reported by grade for each of the administered tasks using Thissen and Orlando (2001) whereby the variance of theta minus the averaged error variances is divided by the variance of theta.

Differential Item Functioning (DIF). DIF was estimated using the difR package (Magis, Beland, & Raiche, 2020) using the Mantel-Haenszel method (1959) for detecting uniform DIF. For each of the six MATRS tasks, DIF was tested for four primary contrasts: 1) Male vs. female, 2) White vs. Sample, 3) Black vs. Sample, and 4) Latinx vs. Sample. The Mantel-Haenszel chi-square statistic was reported for test by item and the chi-square was used to derive an effect size estimate (i.e., ETS delta scale; Holland & Thayer, 1988). Effect size values ≤ 1.0 are considered small, $1.0 - 1.5$ is moderate, and ≥ 1.5 is considered large.

Score Validity

In Years 1 and 3 of the study, scores from the MATRS analyses were correlated with concurrently administered standardized assessments of reading and language. Year 1 validity analyses included grade based MATRS task correlations with the PPVT, TOWRE SWE, TOWRE PDE, and the TWS; multiple regression analyses tested the additive and interactive strength of MATRS scores explaining individual differences in the PPVT, TOWRE SWE, TOWRE PDE, and the TWS. Year 3 validity analyses included grade based, MATRS task concurrent correlations with the PPVT, TWS, Elision, Blending, and WRMT-3 LWID, WA, and PC subtests. Predictive relations were estimated between MATRS task scores and TWS along with the WRMT-3 LWID, WA, and PC tasks. For each set of concurrent and predictive correlations in Year 3, results are reported separately for Forms A and B of MATRS tasks that were administered in that portion of the study. Multiple regression analyses tested the additive strength of MATRS scores for each of Forms A and B explaining individual differences in the WRMT-3 LWID, WA, and PC tasks as well as the TWS.

Results

Data Screening

Task 1

The mean p-value (i.e., percent correct) for Task 1 items was 0.46 (SD = 0.28) with a minimum of 0.00 and a maximum of 0.97. Two items presented with floor effects (i.e., T1_12_6 and T1_13_23) and three items demonstrated ceiling effects (i.e., T1_14_4, T1_1_6, T1_6_3). Vertical linking items for Task 1 showed that 13 of the 20 items demonstrated reasonable increases in p-values by grade level. See Tables 2 and 10 for results.

Task 2

Task 2 contained a mix of 2-category and 3-category items. The mean p-value (i.e., percent correct) for Task 2 dichotomous items was 0.34 (SD = 0.22) with a minimum of 0.02 and a maximum of 0.95. Seven items presented with floor effects (i.e., T2_85_1, T2_76_2, T2_55_2, T2_72_1, T2_72_2, T2_75_12, T2_82_4) and one item demonstrated ceiling effects (i.e., T2_64_456). The mean response for Task 2 polytomous items was 1.23 (SD = 0.14) with a minimum of 1.01 and a maximum of 1.62. Vertical linking items for Task 2 showed that 21 of the 25 items demonstrated reasonable increases in p-values by grade level. See Table 3 and 11 for results.

Task 3

The mean p-value (i.e., percent correct) for Task 3 items was 0.47 (SD = 0.18) with a minimum of 0.03 and a maximum of 0.88. One item presented with floor effects (i.e., T3_40_1) and no items demonstrated ceiling effects. Vertical linking items for Task 3 showed that 40 of the 51 items demonstrated reasonable increases in p-values by grade level. See Table 4 and 12 for results.

Task 4

The mean p-value (i.e., percent correct) for Task 4 items was 0.65 (SD = 0.17) with a minimum of 0.11 and a maximum of 0.94. No items presented with floor or ceiling effects. Vertical linking items for Task 4 showed that 17 of the 23 items demonstrated reasonable increases in p-values by grade level. See Table 5 and 13 for results.

Task 5

The mean p-value (i.e., percent correct) for Task 5 items was 0.22 (SD = 0.18) with a minimum of 0.00 and a maximum of 0.76. A total of 49 items presented with floor effects and no items demonstrated ceiling effects. Vertical linking items for Task 5 showed that 27 of the 34 items demonstrated reasonable increases in p-values by grade level. See Table 6 and 14 for results.

Task 6

The mean p-value (i.e., percent correct) for Task 6 items was 0.60 (SD = 0.21) with a minimum of 0.13 and a maximum of 0.99. No items presented with floor effects and two items demonstrated ceiling effects (i.e., T6_31_6, T6_10_4). Vertical linking items for Task 6 showed that 30 of the 37 items demonstrated reasonable increases in p-values by grade level. See Table 7 and 15 for results.

Task 7

The mean p-value (i.e., percent correct) for Task 7 items was 0.51 (SD = 0.31) with a minimum of 0.00 and a maximum of 0.97. Seventeen items presented with floor effects and six items demonstrated ceiling effects (i.e., T7_17_23, T7_21_4, T7_17_4, T7_16_45, T7_22_2, T7_27_4). Vertical linking items for Task 7 showed that 19 of the 26 items demonstrated reasonable increases in p-values by grade level. See Table 8 and 16 for results.

Task 8

The mean p-value (i.e., percent correct) for Task 8 items was 0.34 (SD = 0.24) with a minimum of 0.00 and a maximum of 0.85. Twenty-five items presented with floor effects and no items demonstrated ceiling effects. Vertical linking items for Task 8 showed that 19 of the 23

items demonstrated reasonable increases in p-values by grade level. See Table 9 and 17 for results.

Multiple-Group Item Response Modeling (MG-IRM)

Test characteristic curves and test information functions are presented in Figures 1 and 2. Item characteristic curves are available upon request.

Task 1

Model fit for the Task 1 unidimensional MG-IRM resulted in a rejection of the null hypothesis of a correctly specified model ($M_2 = 2003.46$, $p < .001$) with poor fit also suggested by the TLI = .82. The RMSEA was estimated as 0.02. The mean b value was 0.25 (SD = 1.50) with a minimum of -3.16 and a maximum of 3.08. Marginal reliability ranged from .67 in grade 6 to .78 in grade 1. The vertical scale for Task 1 ability scores did not demonstrate consistent increases across the grade levels – decreasing from Grades 2 to 3 and remaining relatively constant from Grades 5 to 6. See Table 18, 19, 27, and 28 for results.

Task 2

Based on the threshold sensitivity of the polytomous items, scores were recoded to be dichotomous. Model fit for the Task 2 unidimensional MG-IRM resulted in a rejection of the null hypothesis of a correctly specified model ($M_2 = 16559.29$, $p < .001$) with poor fit also suggested by the TLI = .85. The RMSEA was estimated as 0.03. The mean b value was 0.03 (SD = 1.20) with a minimum of -1.50 and a maximum of 4.48. Marginal reliability ranged from .80 in grade 1 to .92 in grades 5-6. The vertical scale for Task 2 ability scores demonstrated consistent increases from -1.96 in Grade 1 to 1.39 in Grade 6. See Table 18, 20, 27, and 28 for results.

Task 3

Model fit for the Task 3 unidimensional MG-IRM resulted in a fail-to-reject the null hypothesis of a correctly specified model ($M_2 = 6365.34$, $p > .500$) with acceptable fit also suggested by the TLI = 1.00 and the RMSEA = <.001. The mean b value was 0.03 (SD = 0.74) with a minimum of -1.82 and a maximum of 2.29. Marginal reliability ranged from .82 in grade 1 to .94 in grade 4. The vertical scale for Task 3 ability scores demonstrated consistent increases from -1.05 in Grade 1 to 0.76 in Grade 6 with similar ability in Grades 4 and 5. See Table 18, 21, 27, and 28 for results.

Task 4

Model fit for the Task 4 unidimensional MG-IRM resulted in a fail-to-reject the null hypothesis of a correctly specified model ($M_2 = 1473.90$, $p > .500$) with acceptable fit also suggested by the TLI = 1.00 and the RMSEA = <.001. The mean b value was -0.94 (SD = 1.09) with a minimum of -3.16 and a maximum of 3.05. Marginal reliability ranged from .89 in grade 6 to .91 in grades 3-4. The vertical scale for Task 4 ability scores demonstrated relatively consistent increases from -0.76 in Grade 3 to 0.76 in Grade 6 with similar ability in Grades 4 and 5. See Table 18, 22, 27, and 28 for results.

Task 5

Model fit for the Task 5 unidimensional MG-IRM resulted in a fail-to-reject the null hypothesis of a correctly specified model ($M_2 = 1761.84$, $p > .500$) with acceptable fit also suggested by the TLI = 1.00 and the RMSEA = <.001. The mean b value was 0.97 (SD = 1.43)

with a minimum of -3.22 and a maximum of 4.48. Marginal reliability ranged from .89 in grade 1 to .95 in grade 4. The vertical scale for Task 5 ability scores demonstrated relatively consistent increases from -2.80 in Grade 3 to 0.00 in Grade 6. See Table 18, 23, 27, and 28 for results.

Task 6

Model fit for the Task 6 unidimensional MG-IRM resulted in a rejection of the null hypothesis of a correctly specified model ($M_2 = 5508.05$, $p < .001$) with acceptable fit suggested by the TLI = .97 and the RMSEA = .01. The mean b value was -0.21 (SD = 0.99) with a minimum of -3.71 and a maximum of 2.84. Marginal reliability ranged from .84 in grade 1 to .90 in grades 3-4. The vertical scale for Task 6 ability scores demonstrated relatively consistent increases from -0.71 in Grade 1 to 1.26 in Grade 6 with similar ability in Grades 4 and 5. See Table 18, 24, 27, and 28 for results.

Task 7

Model fit for the Task 7 unidimensional MG-IRM resulted in a fail-to-reject the null hypothesis of a correctly specified model ($M_2 = 1720.92$, $p > .500$) with acceptable fit also suggested by the TLI = 1.00 and the RMSEA = <.001. The mean b value was 0.00 (SD = 2.05) with a minimum of -4.09 and a maximum of 5.13. Marginal reliability ranged from .82 in grades 2 and 4 to .88 in grade 6. The vertical scale for Task 7 ability scores did not demonstrate consistent increases across the grade levels – decreasing from Grades 4 to 5. See Table 18, 25, 27, and 28 for results.

Task 8

Model fit for the Task 8 unidimensional MG-IRM resulted in a fail-to-reject the null hypothesis of a correctly specified model ($M_2 = 1983.86$, $p > .500$) with acceptable fit also suggested by the TLI = 1.00 and the RMSEA = <.001. The mean b value was 0.69 (SD = 1.76) with a minimum of -3.16 and a maximum of 6.03. Marginal reliability ranged from .93 in grades 5-6 to .95 in grade 3. The vertical scale for Task 8 ability scores demonstrated relatively consistent increases from -1.23 in Grade 3 to 0.52 in Grade 6. See Table 18, 26, 27, and 28 for results.

Differential Item Functioning (DIF)

Results for the DIF analyses are reported in Tables 29-60. Across all tasks, five items demonstrated significant DIF (i.e., T3_1_1, T3_2_1, T4_20_3, T4_9_5, T6_14_456). Remaining items all presented with non-significant chi-square statistics and ETS delta values near 0.00 indicating no practically important DIF.

Score Validity

Year 1

Grade 1. Correlations among MATRS ability scores ranged from .07 between Task 1 and Task 3 to .62 between Task 5 and Task 6. Correlations between MATRS ability scores with outcomes ranged from .00 between Task 1 and the PPVT to .48 between Task 5 and TOWRE PDE. Multiple regression R^2 values for the additive MATRS model ranged from .08 for the PPVT to .27 for the TWS. Multiple regression R^2 values for the MATRS 2-way interactions model ranged from .17 for the PPVT to .40 for the TWS. See Table 61 and 67 for results.

Grade 2. Correlations among MATRS ability scores ranged from .21 between Task 1 and Task 5 to .72 between Task 5 and Task 6. Correlations between MATRS ability scores with outcomes ranged from .03 between Task 1 and the TWS to .53 between Task 5 and TWS. Multiple regression R^2 values for the additive MATRS model ranged from .10 for the PDE to .30 for the TWS. Multiple regression R^2 values for the MATRS 2-way interactions model ranged from .17 for the PDE to .42 for the TWS. See Table 62 and 67 for results.

Grade 3. Correlations among MATRS ability scores ranged from .08 between Task 1 and Task 4 to .74 between Task 5 and Task 8. Correlations between MATRS ability scores with outcomes ranged from .00 between Task 1 and the TWS to .48 between Task 5 and TOWRE PDE. Multiple regression R^2 values for the additive MATRS model ranged from .11 for the SWE to .27 for the TWS. Multiple regression R^2 values for the MATRS 2-way interactions model ranged from .81 for the SWE, PDE, and TWS to .82 for the PPVT. See Table 63 and 67 for results.

Grade 4. Correlations among MATRS ability scores ranged from .06 between Task 1 and Task 6 to .77 between Task 4 and Task 8. Correlations between MATRS ability scores with outcomes ranged from .00 between Task 1 and the SWE to .49 between Task 5 and TWS. Multiple regression R^2 values for the additive MATRS model ranged from .15 for the SWE to .26 for the TWS. Multiple regression R^2 values for the MATRS 2-way interactions model ranged from .60 for the SWE to .67 for the TWS. See Table 64 and 67 for results.

Grade 5. Correlations among MATRS ability scores ranged from .11 between Task 1 and Task 7 to .77 between Task 5 and Task 8. Correlations between MATRS ability scores with outcomes ranged from .00 between Task 1 and the TWS to .51 between Task 5 and TWS. Multiple regression R^2 values for the additive MATRS model ranged from .08 for the SWE to .27 for the TWS. Multiple regression R^2 values for the MATRS 2-way interactions model ranged from .71 for the SWE to .76 for the TWS. See Table 65 and 67 for results.

Grade 6. Correlations among MATRS ability scores ranged from -.02 between Task 1 and Task 6 to .75 between Task 5 and Task 8. Correlations between MATRS ability scores with outcomes ranged from .00 between Task 1 and the PPVT to .48 between Task 6 and TWS. Multiple regression R^2 values for the additive MATRS model ranged from .12 for the PDE to .35 for the TWS. Multiple regression R^2 values for the MATRS 2-way interactions model ranged from .79 for the SWE to .86 for the PPVT. See Table 66 and 67 for results.

Year 3

Grade 1. Form A correlations among MATRS ability scores ranged from .04 between Task 1 and Task 6 to .36 between Task 3 and Task 7. Concurrent correlations between MATRS ability scores with outcomes ranged from .00 between Task 6 and LWID to .44 between Task 7 and PPVT. Predictive correlations between MATRS ability scores with outcomes ranged from .01 between Task 2 and WA to .56 between Task 5 and TWS. Multiple regression R^2 values for the additive MATRS model ranged from .30 for LWID to .33 for the TWS. See Table 68 and 80 for results.

Form B correlations among MATRS ability scores ranged from .08 between Task 1 with Tasks 2 and Task 5 to .63 between Task 5 and Task 6. Concurrent correlations between MATRS ability scores with outcomes ranged from .05 between Task 1 and PC to .81 between Task 5 and

TWS. Predictive correlations between MATRS ability scores with outcomes ranged from $-.02$ between Task 2 and TWS to $.78$ between Task 5 and TWS. Multiple regression R^2 values for the additive MATRS model ranged from $.44$ for PC to $.66$ for the TWS. See Table 74 and 80 for results.

Grade 2. Form A correlations among MATRS ability scores ranged from $.03$ between Task 1 and Task 2 to $.65$ between Task 5 and Task 6. Concurrent correlations between MATRS ability scores with outcomes ranged from $.05$ between Task 1 and Elision to $.75$ between Task 5 and WA. Predictive correlations between MATRS ability scores with outcomes ranged from $.24$ between Task 2 and LWID and WA to $.78$ between Task 5 and TWS. Multiple regression R^2 values for the additive MATRS model ranged from $.47$ for PC to $.65$ for the TWS. See Table 69 and 80 for results.

Form B correlations among MATRS ability scores ranged from $.11$ between Task 1 with Tasks 6 and Task 7 to $.58$ between Task 5 and Task 6. Concurrent correlations between MATRS ability scores with outcomes ranged from $.09$ between Task 1 and PPVT to $.68$ between Task 5 with PPVT and TWS. Predictive correlations between MATRS ability scores with outcomes ranged from $.00$ between Task 7 and PC to $.79$ between Task 5 and TWS. Multiple regression R^2 values for the additive MATRS model ranged from $.37$ for PC to $.65$ for the TWS. See Table 75 and 80 for results.

Grade 3. Form A correlations among MATRS ability scores ranged from $.00$ between Task 1 with Tasks 5 and 8 to $.65$ between Task 5 and Task 8. Concurrent correlations between MATRS ability scores with outcomes ranged from $.03$ between Task 6 and Blending to $.76$ between Task 5 and WA. Predictive correlations between MATRS ability scores with outcomes ranged from $.01$ between Task 1 and WA to $.76$ between Task 5 and TWS. Multiple regression R^2 values for the additive MATRS model ranged from $.61$ for WA to $.71$ for the LWID. See Table 70 and 80 for results.

Form B correlations among MATRS ability scores ranged from $.01$ between Task 1 and Task 2 to $.73$ between Task 5 and Task 7. Concurrent correlations between MATRS ability scores with outcomes ranged from $.12$ between Task 1 and Blending to $.75$ between Task 5 and LWID. Predictive correlations between MATRS ability scores with outcomes ranged from $-.01$ between Task 1 and WA to $.78$ between Task 5 and TWS. Multiple regression R^2 values for the additive MATRS model ranged from $.35$ for PC to $.69$ for the TWS. See Table 76 and 80 for results.

Grade 4. Form A correlations among MATRS ability scores ranged from $.02$ between Task 1 with Task 7 to $.73$ between Task 5 and Task 8. Concurrent correlations between MATRS ability scores with outcomes ranged from $.01$ between Task 1 and TWS to $.75$ between Task 5 and WA. Predictive correlations between MATRS ability scores with outcomes ranged from $.09$ between Task 1 and TWS to $.77$ between Task 5 and LWID. Multiple regression R^2 values for the additive MATRS model ranged from $.46$ for PC to $.73$ for the LWID. See Table 71 and 80 for results.

Form B correlations among MATRS ability scores ranged from $.01$ between Task 1 and Task 2 to $.73$ between Task 5 and Task 7. Concurrent correlations between MATRS ability scores with outcomes ranged from $-.01$ between Task 1 and PPVT to $.77$ between Task 8 and

TWS. Predictive correlations between MATRS ability scores with outcomes ranged from .16 between Task 1 and LWID to .78 between Task 5 and TWS. Multiple regression R^2 values for the additive MATRS model ranged from .42 for PC to .67 for the LWID. See Table 77 and 80 for results.

Grade 5. Form A correlations among MATRS ability scores ranged from .00 between Task 1 with Task 7 to .70 between Task 4 and Task 8. Concurrent correlations between MATRS ability scores with outcomes ranged from .14 between Task 1 and PC to .75 between Task 8 with and LWID and PC. Predictive correlations between MATRS ability scores with outcomes ranged from .04 between Task 1 and PC to .92 between Task 8 and TWS. Multiple regression R^2 values for the additive MATRS model ranged from .76 for LWID to .92 for the TWS. See Table 72 and 80 for results.

Form B correlations among MATRS ability scores ranged from .09 between Task 1 and Task 3 to .65 between Task 4 and Task 8. Concurrent correlations between MATRS ability scores with outcomes ranged from .13 between Task 1 and Elision to .74 between Task 5 and LWID as well as between Task 8 and TWS. Predictive correlations between MATRS ability scores with outcomes ranged from .21 between Task 2 and WA as well as Task 7 and TWS to .75 between Task 4 and TWS. Multiple regression R^2 values for the additive MATRS model ranged from .45 for PC to .70 for the TWS. See Table 78 and 80 for results.

Grade 6. Form A correlations among MATRS ability scores ranged from .05 between Task 1 with Task 4 to .70 between Task 4 and Task 8. Concurrent correlations between MATRS ability scores with outcomes ranged from -.01 between Task 1 and Elision to .84 between Task 8 and TWS. Predictive correlations between MATRS ability scores with outcomes ranged from -.03 between Task 1 and PC to .82 between Task 5 and TWS. Multiple regression R^2 values for the additive MATRS model ranged from .59 for WA to .86 for the TWS. See Table 73 and 80 for results.

Form B correlations among MATRS ability scores ranged from -.02 between Task 1 with Task 3 and Task 7 to .70 between Task 5 and Task 8. Concurrent correlations between MATRS ability scores with outcomes ranged from .00 between Task 1 with TWS, Elision, and Blending to .72 between Task 8 and TWS. Predictive correlations between MATRS ability scores with outcomes ranged from .22 between Task 4 and PC as well as Task 7 and TWS to .88 between Task 5 and LWID. Multiple regression R^2 values for the additive MATRS model ranged from .59 for PC to .91 for the LWID. See Table 79 and 80 for results.

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Table 1

Demographic characteristics by year

Demographic	Category	Year 1		Year 2		Year 3	
		N	%	N	%	N	%
Sex	Male	512	45.63	1357	46.2	630	46.91
	Female	610	54.37	1580	53.8	713	53.09
Race/Ethnicity	White	461	41.09	1318	44.85	672	50.04
	Black	430	38.32	1101	37.46	405	30.16
	Latinx	72	6.42	141	4.8	87	6.48
	Asian	18	1.6	44	1.5	23	1.71
	Native American	4	<1%	17	<1%	3	<1%
	Multi-racial	109	9.72	192	6.5	107	7.97
	No Response	28	2.5	126	4.3	46	2.64
Mother's Education	Less than High School	23	2.05	35	1.19	14	1.04
	Some High School	63	5.62	158	5.38	57	4.24
	GED	37	3.3	92	3.13	40	2.98
	High School Grad	289	25.76	644	21.94	259	19.29
	Some College	258	22.99	570	19.42	289	21.52
	Associate or Technical Degree	138	12.3	327	11.14	144	10.72
	Bachelor's Degree	151	13.46	537	18.3	233	17.35
	Graduate Degree	102	9.09	382	13.02	228	16.98
	No Response	61	5.43	94	6.48	79	5.88
Father's Education	Less than High School	25	2.23	46	1.57	21	1.56
	Some High School	83	7.4	207	7.06	65	4.84
	GED	50	4.46	123	4.19	60	4.47
	High School Grad	373	33.24	791	26.96	369	27.48
	Some College	193	17.2	411	14.01	243	18.09
	Associate or Technical Degree	91	8.11	233	7.94	97	7.22
	Bachelor's Degree	102	9.09	426	14.52	185	13.78
	Graduate Degree	47	4.19	255	8.69	138	10.28
	No Response	158	14.08	447	15.06	165	12.29
Language	English	1053	93.85	2789	93.54	1265	94.19
	Spanish	54	4.81	87	2.96	56	4.17
	Other	15	1.34	63	3.5	22	1.64
Special Services	No Services	744	66.31	2137	72.71	942	70.14
	Speech Only	82	7.31	215	7.32	131	9.75
	Language Only	7	1	16	1	5	<1%

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Reading/Writing Only	97	8.65	251	8.54	110	8.19
Multiple Services	129	11.5	247	8.4	135	10.05
Other	63	5.23	73	2.03	20	1.87

Table 2

Task 1 p-values and sample size

Item	Year	Grade	Mean	N	Item Type
T1_1_1	1	1	0.79	179	Dichotomous
T1_1_34	1	3	0.54	167	Dichotomous
T1_1_34	1	4	0.43	210	Dichotomous
T1_1_4	1	4	0.11	210	Dichotomous
T1_1_4	2	4	0.07	433	Dichotomous
T1_1_5	1	5	0.08	180	Dichotomous
T1_1_6	1	6	0.97	161	Dichotomous
T1_10_1	1	1	0.78	179	Dichotomous
T1_10_3	1	3	0.86	167	Dichotomous
T1_10_456	1	4	0.21	210	Dichotomous
T1_10_456	1	5	0.23	180	Dichotomous
T1_10_456	1	6	0.27	161	Dichotomous
T1_10_456	2	4	0.28	433	Dichotomous
T1_11_1	1	1	0.38	179	Dichotomous
T1_11_2	1	2	0.87	224	Dichotomous
T1_11_3	1	3	0.10	167	Dichotomous
T1_11_5	1	5	0.82	180	Dichotomous
T1_11_6	1	6	0.82	161	Dichotomous
T1_12_1	1	1	0.39	179	Dichotomous
T1_12_3	1	3	0.23	167	Dichotomous
T1_12_3	2	3	0.29	589	Dichotomous
T1_12_5	1	5	0.29	180	Dichotomous
T1_12_6	1	6	0.20	161	Dichotomous
T1_12_6	2	6	0.00	336	Dichotomous
T1_13_12	1	1	0.18	179	Dichotomous
T1_13_12	1	2	0.21	224	Dichotomous
T1_13_23	1	2	0.04	224	Dichotomous
T1_13_23	1	3	0.08	167	Dichotomous
T1_13_23	2	2	0.13	499	Dichotomous
T1_13_3	1	3	0.20	167	Dichotomous
T1_13_4	1	4	0.18	210	Dichotomous
T1_13_4	2	4	0.19	433	Dichotomous
T1_13_5	1	5	0.33	180	Dichotomous
T1_13_5	2	5	0.48	446	Dichotomous
T1_13_6	1	6	0.89	161	Dichotomous
T1_14_12	1	1	0.84	179	Dichotomous
T1_14_12	1	2	0.87	224	Dichotomous

T1_14_12	2	1	0.84	628	Dichotomous
T1_14_2	1	2	0.22	224	Dichotomous
T1_14_3	1	3	0.24	167	Dichotomous
T1_14_4	1	4	0.95	210	Dichotomous
T1_14_5	1	5	0.21	180	Dichotomous
T1_14_6	1	6	0.12	161	Dichotomous
T1_15_1	1	1	0.34	179	Dichotomous
T1_15_2	1	2	0.88	224	Dichotomous
T1_15_3	1	3	0.20	167	Dichotomous
T1_15_3	2	3	0.32	589	Dichotomous
T1_15_4	1	4	0.20	210	Dichotomous
T1_15_5	1	5	0.55	180	Dichotomous
T1_16_1	2	1	0.84	628	Dichotomous
T1_16_3	2	3	0.97	589	Dichotomous
T1_16_4	2	4	0.53	433	Dichotomous
T1_17_3	2	3	0.23	589	Dichotomous
T1_17_4	2	4	0.89	433	Dichotomous
T1_17_5	2	5	0.58	446	Dichotomous
T1_17_6	2	6	0.60	336	Dichotomous
T1_18_1	2	1	0.44	628	Dichotomous
T1_18_34	2	3	0.55	589	Dichotomous
T1_18_34	2	4	0.64	433	Dichotomous
T1_18_4	2	4	0.89	433	Dichotomous
T1_18_5	2	5	0.35	446	Dichotomous
T1_18_6	2	6	0.67	336	Dichotomous
T1_19_1	2	1	0.61	628	Dichotomous
T1_19_2	2	2	0.17	500	Dichotomous
T1_19_3	2	3	0.22	589	Dichotomous
T1_19_4	2	4	0.15	433	Dichotomous
T1_19_5	2	5	0.44	446	Dichotomous
T1_19_6	2	6	0.59	336	Dichotomous
T1_2_12	1	1	0.84	179	Dichotomous
T1_2_12	1	2	0.92	224	Dichotomous
T1_2_12	2	1	0.74	628	Dichotomous
T1_2_2	1	2	0.41	224	Dichotomous
T1_2_2	2	2	0.55	500	Dichotomous
T1_2_34	1	3	0.17	167	Dichotomous
T1_2_34	1	4	0.22	210	Dichotomous
T1_2_456	1	4	0.88	210	Dichotomous
T1_2_456	1	5	0.91	180	Dichotomous
T1_2_456	1	6	0.84	161	Dichotomous

T1_2_5	1	5	0.35	180	Dichotomous
T1_20_1	2	1	0.52	628	Dichotomous
T1_20_2	2	2	0.81	500	Dichotomous
T1_20_4	2	4	0.86	433	Dichotomous
T1_20_6	2	6	0.19	336	Dichotomous
T1_21_12	2	1	0.73	628	Dichotomous
T1_21_12	2	2	0.82	500	Dichotomous
T1_21_2	2	2	0.70	500	Dichotomous
T1_21_3	2	3	0.26	589	Dichotomous
T1_21_6	2	6	0.44	336	Dichotomous
T1_22_1	2	1	0.72	628	Dichotomous
T1_22_2	2	2	0.72	500	Dichotomous
T1_22_45	2	4	0.28	433	Dichotomous
T1_22_45	2	5	0.38	446	Dichotomous
T1_22_5	2	5	0.75	446	Dichotomous
T1_23_1	2	1	0.36	628	Dichotomous
T1_23_2	2	2	0.90	500	Dichotomous
T1_23_5	2	5	0.42	446	Dichotomous
T1_23_6	2	6	0.32	336	Dichotomous
T1_24_4	2	4	0.25	433	Dichotomous
T1_24_56	2	5	0.85	446	Dichotomous
T1_24_56	2	6	0.85	336	Dichotomous
T1_24_6	2	6	0.42	336	Dichotomous
T1_25_1	2	1	0.26	628	Dichotomous
T1_25_2	2	2	0.19	500	Dichotomous
T1_25_3	2	3	0.37	589	Dichotomous
T1_25_5	2	5	0.35	446	Dichotomous
T1_25_6	2	6	0.54	336	Dichotomous
T1_26_2	2	2	0.81	500	Dichotomous
T1_26_3	2	3	0.24	589	Dichotomous
T1_27_1	2	1	0.63	628	Dichotomous
T1_27_23	2	2	0.15	502	Dichotomous
T1_27_23	2	3	0.70	589	Dichotomous
T1_27_3	2	3	0.43	589	Dichotomous
T1_27_4	2	4	0.19	433	Dichotomous
T1_27_5	2	5	0.34	446	Dichotomous
T1_28_1	2	1	0.69	628	Dichotomous
T1_28_2	2	2	0.82	500	Dichotomous
T1_28_3	2	3	0.09	589	Dichotomous
T1_28_4	2	4	0.23	433	Dichotomous
T1_28_5	2	5	0.33	446	Dichotomous

T1_28_6	2	6	0.35	336	Dichotomous
T1_3_1	1	1	0.12	179	Dichotomous
T1_3_2	1	2	0.36	224	Dichotomous
T1_3_6	1	6	0.45	161	Dichotomous
T1_4_1	1	1	0.91	179	Dichotomous
T1_4_2	1	2	0.13	224	Dichotomous
T1_4_34	1	3	0.28	167	Dichotomous
T1_4_34	1	4	0.34	210	Dichotomous
T1_4_34	2	3	0.30	589	Dichotomous
T1_4_4	1	4	0.57	210	Dichotomous
T1_4_56	1	5	0.13	180	Dichotomous
T1_4_56	1	6	0.09	161	Dichotomous
T1_5_1	1	1	0.92	179	Dichotomous
T1_5_2	1	2	0.45	224	Dichotomous
T1_5_3	1	3	0.39	167	Dichotomous
T1_5_456	1	4	0.42	210	Dichotomous
T1_5_456	1	5	0.39	180	Dichotomous
T1_5_456	1	6	0.44	161	Dichotomous
T1_5_5	1	5	0.06	180	Dichotomous
T1_5_5	2	5	0.14	446	Dichotomous
T1_6_1	1	1	0.16	179	Dichotomous
T1_6_23	1	2	0.15	224	Dichotomous
T1_6_23	1	3	0.15	167	Dichotomous
T1_6_3	1	3	0.87	167	Dichotomous
T1_6_4	1	4	0.16	210	Dichotomous
T1_6_56	1	5	0.43	180	Dichotomous
T1_6_56	1	6	0.30	161	Dichotomous
T1_6_6	1	6	0.48	161	Dichotomous
T1_6_6	2	6	0.31	336	Dichotomous
T1_7_1	1	1	0.43	179	Dichotomous
T1_7_2	1	2	0.39	224	Dichotomous
T1_7_4	1	4	0.80	210	Dichotomous
T1_7_5	1	5	0.08	180	Dichotomous
T1_7_5	2	5	0.28	446	Dichotomous
T1_8_1	1	1	0.88	179	Dichotomous
T1_8_2	1	2	0.78	224	Dichotomous
T1_8_3	1	3	0.54	167	Dichotomous
T1_8_4	1	4	0.16	210	Dichotomous
T1_8_56	1	5	0.87	180	Dichotomous
T1_8_56	1	6	0.88	161	Dichotomous
T1_8_56	2	6	0.81	336	Dichotomous

T1_8_6	1	6	0.88	161	Dichotomous
T1_9_1	1	1	0.36	179	Dichotomous
T1_9_1	2	1	0.36	628	Dichotomous
T1_9_23	1	2	0.29	224	Dichotomous
T1_9_23	1	3	0.37	167	Dichotomous
T1_9_23	2	2	0.40	500	Dichotomous
T1_9_4	1	4	0.27	210	Dichotomous
T1_9_6	1	6	0.89	161	Dichotomous

Table 3

Task 2 p-values and sample size

Item	Grade	Mean	N	Item Type
T2_51_12	1	0.131	628	Dichotomous
T2_51_12	2	0.322	500	Dichotomous
T2_51_2	2	0.506	500	Dichotomous
T2_51_3	3	0.341	589	Dichotomous
T2_51_4	4	0.277	433	Dichotomous
T2_51_5	5	0.713	446	Dichotomous
T2_51_6	6	0.902	336	Dichotomous
T2_52_1	1	0.143	628	Dichotomous
T2_52_2	2	0.174	500	Dichotomous
T2_52_3	3	0.314	589	Dichotomous
T2_52_4	4	1.122	433	Polytomous
T2_52_5	5	0.500	446	Dichotomous
T2_52_6	6	0.530	336	Dichotomous
T2_53_12	1	0.094	628	Dichotomous
T2_53_12	2	0.224	500	Dichotomous
T2_53_3	3	0.345	589	Dichotomous
T2_53_4	4	0.536	433	Dichotomous
T2_53_5	5	1.318	446	Polytomous
T2_53_6	6	0.699	336	Dichotomous
T2_54_1	1	0.377	628	Dichotomous
T2_54_2	2	0.244	500	Dichotomous
T2_54_3	3	0.375	589	Dichotomous
T2_54_5	5	0.816	446	Dichotomous
T2_54_6	6	0.551	336	Dichotomous
T2_55_1	1	0.067	628	Dichotomous
T2_55_2	2	0.026	500	Dichotomous
T2_55_34	3	1.022	589	Polytomous
T2_55_34	4	1.360	433	Polytomous
T2_55_5	5	0.442	446	Dichotomous
T2_56_12	1	0.084	628	Dichotomous
T2_56_12	2	0.148	500	Dichotomous
T2_56_34	3	0.671	589	Dichotomous
T2_56_34	4	0.739	433	Dichotomous
T2_56_6	6	1.015	336	Polytomous
T2_57_1	1	0.311	628	Dichotomous
T2_57_3	3	0.521	589	Dichotomous
T2_57_5	5	0.742	446	Dichotomous

T2_57_6	6	1.345	336	Polytomous
T2_58_12	1	0.078	628	Dichotomous
T2_58_12	2	0.258	500	Dichotomous
T2_58_2	2	0.192	500	Dichotomous
T2_58_4	4	0.568	433	Dichotomous
T2_58_5	5	1.309	446	Polytomous
T2_58_6	6	0.714	336	Dichotomous
T2_59_1	1	0.229	628	Dichotomous
T2_59_34	3	0.569	589	Dichotomous
T2_59_34	4	0.896	433	Dichotomous
T2_59_5	5	0.814	446	Dichotomous
T2_59_6	6	0.473	336	Dichotomous
T2_60_1	1	0.175	628	Dichotomous
T2_60_23	2	0.498	502	Dichotomous
T2_60_23	3	0.603	589	Dichotomous
T2_60_4	4	0.388	433	Dichotomous
T2_60_6	6	0.762	336	Dichotomous
T2_61_1	1	0.215	628	Dichotomous
T2_61_2	2	0.456	500	Dichotomous
T2_61_3	3	0.372	589	Dichotomous
T2_61_45	4	0.335	433	Dichotomous
T2_61_45	5	0.489	446	Dichotomous
T2_61_56	5	1.184	446	Polytomous
T2_61_56	6	1.330	336	Polytomous
T2_61_6	6	1.280	336	Polytomous
T2_62_1	1	0.170	628	Dichotomous
T2_62_2	2	0.274	500	Dichotomous
T2_62_3	3	0.397	589	Dichotomous
T2_62_4	4	0.457	433	Dichotomous
T2_62_5	5	0.531	446	Dichotomous
T2_62_6	6	1.348	336	Polytomous
T2_63_1	1	0.065	628	Dichotomous
T2_63_2	2	0.480	500	Dichotomous
T2_63_3	3	0.154	589	Dichotomous
T2_63_4	4	0.501	433	Dichotomous
T2_63_5	5	0.504	446	Dichotomous
T2_63_6	6	0.565	336	Dichotomous
T2_64_1	1	0.151	628	Dichotomous
T2_64_2	2	0.260	500	Dichotomous
T2_64_3	3	0.382	589	Dichotomous
T2_64_456	4	0.947	433	Dichotomous

T2_64_456	5	1.085	446	Polytomous
T2_64_456	6	1.208	336	Polytomous
T2_64_5	5	0.565	446	Dichotomous
T2_65_1	1	0.269	628	Dichotomous
T2_65_2	2	0.524	500	Dichotomous
T2_65_4	4	0.617	433	Dichotomous
T2_65_5	5	0.164	446	Dichotomous
T2_65_6	6	0.702	336	Dichotomous
T2_66_1	1	0.153	628	Dichotomous
T2_66_22	2	0.344	500	Dichotomous
T2_66_3	3	0.508	589	Dichotomous
T2_66_4	4	0.390	433	Dichotomous
T2_66_5	5	0.388	446	Dichotomous
T2_66_6	6	0.565	336	Dichotomous
T2_67_1	1	0.182	628	Dichotomous
T2_67_2	2	0.388	500	Dichotomous
T2_67_3	3	0.435	589	Dichotomous
T2_67_4	4	0.501	433	Dichotomous
T2_67_5	5	0.484	446	Dichotomous
T2_67_6	6	0.783	336	Dichotomous
T2_68_1	1	0.166	628	Dichotomous
T2_68_2	2	0.224	500	Dichotomous
T2_68_3	3	0.363	589	Dichotomous
T2_68_4	4	0.448	433	Dichotomous
T2_69_1	1	0.209	628	Dichotomous
T2_69_2	2	0.178	500	Dichotomous
T2_69_34	3	0.587	589	Dichotomous
T2_69_34	4	0.868	433	Dichotomous
T2_69_4	4	0.386	433	Dichotomous
T2_69_5	5	0.749	446	Dichotomous
T2_69_6	6	1.625	336	Polytomous
T2_70_1	1	0.137	628	Dichotomous
T2_70_23	2	0.375	502	Dichotomous
T2_70_23	3	0.416	589	Dichotomous
T2_70_3	3	0.450	589	Dichotomous
T2_70_4	4	1.021	433	Polytomous
T2_70_56	5	1.206	446	Polytomous
T2_70_56	6	1.182	336	Polytomous
T2_70_6	6	1.244	336	Polytomous
T2_71_1	1	0.213	628	Dichotomous
T2_71_3	3	0.241	589	Dichotomous

T2_71_456	4	0.185	433	Dichotomous
T2_71_456	5	0.426	446	Dichotomous
T2_71_456	6	0.423	336	Dichotomous
T2_71_56	5	0.646	446	Dichotomous
T2_71_56	6	0.664	336	Dichotomous
T2_72_1	1	0.027	628	Dichotomous
T2_72_2	2	0.028	500	Dichotomous
T2_72_4	4	0.263	433	Dichotomous
T2_72_5	5	1.170	446	Polytomous
T2_73_1	1	0.083	628	Dichotomous
T2_73_2	2	0.212	500	Dichotomous
T2_73_3	3	0.175	589	Dichotomous
T2_73_4	4	0.293	433	Dichotomous
T2_73_6	6	0.509	336	Dichotomous
T2_74_1	1	0.124	628	Dichotomous
T2_74_2	2	0.282	500	Dichotomous
T2_74_3	3	0.329	589	Dichotomous
T2_74_4	4	0.189	433	Dichotomous
T2_74_56	5	0.215	446	Dichotomous
T2_74_56	6	0.262	336	Dichotomous
T2_75_12	1	0.033	628	Dichotomous
T2_75_12	2	0.076	500	Dichotomous
T2_75_23	2	0.088	502	Dichotomous
T2_75_23	3	0.129	589	Dichotomous
T2_75_3	3	0.090	589	Dichotomous
T2_75_4	4	0.072	433	Dichotomous
T2_76_1	1	0.097	628	Dichotomous
T2_76_2	2	0.024	500	Dichotomous
T2_76_3	3	0.265	589	Dichotomous
T2_76_4	4	0.159	433	Dichotomous
T2_76_5	5	1.182	446	Polytomous
T2_77_1	1	0.100	628	Dichotomous
T2_77_2	2	0.290	500	Dichotomous
T2_77_34	3	0.430	589	Dichotomous
T2_77_34	4	0.630	433	Dichotomous
T2_77_456	4	0.182	433	Dichotomous
T2_77_456	5	0.233	446	Dichotomous
T2_77_456	6	0.265	336	Dichotomous
T2_77_5	5	1.209	446	Polytomous
T2_77_6	6	1.313	336	Polytomous
T2_78_1	1	0.108	628	Dichotomous

T2_78_23	2	0.129	502	Dichotomous
T2_78_23	3	0.238	589	Dichotomous
T2_78_3	3	0.212	589	Dichotomous
T2_78_4	4	0.383	433	Dichotomous
T2_78_5	5	0.803	446	Dichotomous
T2_78_6	6	0.839	336	Dichotomous
T2_79_1	1	0.057	628	Dichotomous
T2_79_2	2	0.390	500	Dichotomous
T2_79_3	3	0.267	589	Dichotomous
T2_79_4	4	0.330	433	Dichotomous
T2_79_56	5	0.444	446	Dichotomous
T2_79_56	6	0.521	336	Dichotomous
T2_79_6	6	0.339	336	Dichotomous
T2_80_1	1	0.212	628	Dichotomous
T2_80_2	2	0.138	500	Dichotomous
T2_80_4	4	0.423	433	Dichotomous
T2_80_5	5	0.442	446	Dichotomous
T2_81_1	1	0.099	628	Dichotomous
T2_81_2	2	0.232	500	Dichotomous
T2_81_3	3	0.090	589	Dichotomous
T2_81_456	4	0.092	433	Dichotomous
T2_81_456	5	0.083	446	Dichotomous
T2_81_456	6	0.086	336	Dichotomous
T2_81_5	5	0.545	446	Dichotomous
T2_81_6	6	1.262	336	Polytomous
T2_82_1	1	0.083	628	Dichotomous
T2_82_2	2	0.146	500	Dichotomous
T2_82_3	3	0.188	589	Dichotomous
T2_82_4	4	0.046	433	Dichotomous
T2_82_5	5	0.063	446	Dichotomous
T2_82_6	6	0.137	336	Dichotomous
T2_83_1	1	0.104	628	Dichotomous
T2_83_2	2	0.328	500	Dichotomous
T2_83_3	3	0.083	589	Dichotomous
T2_83_4	4	0.125	433	Dichotomous
T2_83_5	5	0.359	446	Dichotomous
T2_83_6	6	0.560	336	Dichotomous
T2_84_1	1	0.132	628	Dichotomous
T2_84_23	2	0.185	502	Dichotomous
T2_84_23	3	0.205	589	Dichotomous
T2_84_3	3	0.258	589	Dichotomous

T2_84_4	4	0.180	433	Dichotomous
T2_84_5	5	0.074	446	Dichotomous
T2_84_6	6	0.836	336	Dichotomous
T2_85_1	1	0.022	628	Dichotomous
T2_85_2	2	0.410	500	Dichotomous
T2_85_3	3	0.107	589	Dichotomous
T2_85_4	4	0.166	433	Dichotomous
T2_85_5	5	0.296	446	Dichotomous
T2_85_6	6	1.068	336	Polytomous

Table 4

Task 3 p-values and sample size

Item	Year	Grade	Mean	N	Item Type
T3_1_2	1	2	0.63	224	Dichotomous
T3_1_3	1	3	0.43	167	Dichotomous
T3_1_5	1	5	0.70	180	Dichotomous
T3_1_6	1	6	0.73	161	Dichotomous
T3_10_12	1	1	0.24	179	Dichotomous
T3_10_12	1	2	0.36	224	Dichotomous
T3_10_2	1	2	0.60	224	Dichotomous
T3_10_3	1	3	0.38	167	Dichotomous
T3_10_4	1	4	0.52	210	Dichotomous
T3_10_5	1	5	0.51	180	Dichotomous
T3_10_6	1	6	0.48	161	Dichotomous
T3_11_12	1	1	0.27	179	Dichotomous
T3_11_12	1	2	0.53	224	Dichotomous
T3_11_2	1	2	0.58	224	Dichotomous
T3_11_34	1	3	0.25	167	Dichotomous
T3_11_34	1	4	0.24	210	Dichotomous
T3_11_4	1	4	0.70	210	Dichotomous
T3_11_5	1	5	0.79	180	Dichotomous
T3_11_5	2	5	0.82	446	Dichotomous
T3_12_12	1	1	0.44	179	Dichotomous
T3_12_12	1	2	0.26	224	Dichotomous
T3_12_2	1	2	0.34	224	Dichotomous
T3_12_3	1	3	0.61	167	Dichotomous
T3_12_3	2	3	0.75	589	Dichotomous
T3_12_4	1	4	0.62	210	Dichotomous
T3_12_5	1	5	0.67	180	Dichotomous
T3_13_1	1	1	0.26	179	Dichotomous
T3_13_23	1	2	0.58	224	Dichotomous
T3_13_23	1	3	0.69	167	Dichotomous
T3_13_3	1	3	0.25	167	Dichotomous
T3_13_4	1	4	0.30	210	Dichotomous
T3_13_6	1	6	0.79	161	Dichotomous
T3_13_6	2	6	0.84	336	Dichotomous
T3_14_1	1	1	0.37	179	Dichotomous
T3_14_3	1	3	0.41	167	Dichotomous
T3_14_456	1	4	0.60	210	Dichotomous
T3_14_456	1	5	0.61	180	Dichotomous

T3_14_456	1	6	0.73	161	Dichotomous
T3_14_5	1	5	0.56	180	Dichotomous
T3_15_1	1	1	0.24	179	Dichotomous
T3_15_34	1	3	0.54	167	Dichotomous
T3_15_34	1	4	0.54	210	Dichotomous
T3_15_456	1	4	0.41	210	Dichotomous
T3_15_456	1	5	0.46	180	Dichotomous
T3_15_456	1	6	0.43	161	Dichotomous
T3_15_5	1	5	0.52	180	Dichotomous
T3_15_6	1	6	0.56	161	Dichotomous
T3_16_1	1	1	0.36	179	Dichotomous
T3_16_2	1	2	0.58	224	Dichotomous
T3_16_3	1	3	0.42	167	Dichotomous
T3_16_56	1	5	0.65	180	Dichotomous
T3_16_56	1	6	0.69	161	Dichotomous
T3_17_1	1	1	0.24	179	Dichotomous
T3_17_34	1	3	0.60	167	Dichotomous
T3_17_34	1	4	0.75	210	Dichotomous
T3_17_5	1	5	0.51	180	Dichotomous
T3_17_6	1	6	0.73	161	Dichotomous
T3_18_12	1	1	0.17	179	Dichotomous
T3_18_12	1	2	0.43	224	Dichotomous
T3_18_2	1	2	0.40	224	Dichotomous
T3_18_2	2	2	0.46	500	Dichotomous
T3_18_3	1	3	0.68	167	Dichotomous
T3_18_4	1	4	0.53	210	Dichotomous
T3_18_6	1	6	0.28	161	Dichotomous
T3_19_12	1	1	0.28	179	Dichotomous
T3_19_12	1	2	0.25	224	Dichotomous
T3_19_2	1	2	0.18	224	Dichotomous
T3_19_3	1	3	0.61	167	Dichotomous
T3_19_3	2	3	0.67	589	Dichotomous
T3_19_4	1	4	0.49	210	Dichotomous
T3_19_4	2	4	0.63	433	Dichotomous
T3_19_56	1	5	0.34	180	Dichotomous
T3_19_56	1	6	0.44	161	Dichotomous
T3_19_6	1	6	0.75	161	Dichotomous
T3_19_6	2	6	0.82	336	Dichotomous
T3_2_23	1	2	0.30	224	Dichotomous
T3_2_23	1	3	0.23	167	Dichotomous
T3_2_3	1	3	0.59	167	Dichotomous

T3_2_4	1	4	0.51	210	Dichotomous
T3_2_56	1	5	0.43	180	Dichotomous
T3_2_56	1	6	0.49	161	Dichotomous
T3_2_6	1	6	0.61	161	Dichotomous
T3_20_12	1	1	0.24	179	Dichotomous
T3_20_12	1	2	0.21	224	Dichotomous
T3_20_2	1	2	0.59	224	Dichotomous
T3_20_456	1	4	0.67	210	Dichotomous
T3_20_456	1	5	0.58	180	Dichotomous
T3_20_456	1	6	0.68	161	Dichotomous
T3_20_6	1	6	0.61	161	Dichotomous
T3_21_1	1	1	0.16	179	Dichotomous
T3_21_3	1	3	0.78	167	Dichotomous
T3_21_3	2	3	0.78	589	Dichotomous
T3_21_4	1	4	0.46	210	Dichotomous
T3_21_56	1	5	0.61	180	Dichotomous
T3_21_56	1	6	0.72	161	Dichotomous
T3_21_6	1	6	0.31	161	Dichotomous
T3_22_1	1	1	0.51	179	Dichotomous
T3_22_2	1	2	0.33	224	Dichotomous
T3_22_2	2	2	0.28	500	Dichotomous
T3_22_3	1	3	0.23	167	Dichotomous
T3_22_4	1	4	0.32	210	Dichotomous
T3_22_5	1	5	0.58	180	Dichotomous
T3_22_6	1	6	0.63	161	Dichotomous
T3_23_12	1	1	0.34	179	Dichotomous
T3_23_12	1	2	0.62	224	Dichotomous
T3_23_2	1	2	0.37	224	Dichotomous
T3_23_34	1	3	0.51	167	Dichotomous
T3_23_34	1	4	0.66	210	Dichotomous
T3_23_4	1	4	0.63	210	Dichotomous
T3_23_4	2	4	0.73	433	Dichotomous
T3_23_5	1	5	0.54	180	Dichotomous
T3_23_5	2	5	0.65	446	Dichotomous
T3_23_6	1	6	0.76	161	Dichotomous
T3_23_6	2	6	0.82	336	Dichotomous
T3_24_1	1	1	0.34	179	Dichotomous
T3_24_2	1	2	0.17	224	Dichotomous
T3_24_3	1	3	0.47	167	Dichotomous
T3_24_4	1	4	0.68	210	Dichotomous
T3_24_5	1	5	0.63	180	Dichotomous

T3_24_6	1	6	0.40	161	Dichotomous
T3_25_1	1	1	0.26	179	Dichotomous
T3_25_3	1	3	0.53	167	Dichotomous
T3_25_4	1	4	0.25	210	Dichotomous
T3_25_56	1	5	0.42	180	Dichotomous
T3_25_56	1	6	0.43	161	Dichotomous
T3_26_1	1	1	0.32	179	Dichotomous
T3_26_2	1	2	0.50	224	Dichotomous
T3_26_3	1	3	0.23	167	Dichotomous
T3_26_5	1	5	0.50	180	Dichotomous
T3_27_1	1	1	0.13	179	Dichotomous
T3_27_23	1	2	0.35	224	Dichotomous
T3_27_23	1	3	0.53	167	Dichotomous
T3_27_4	1	4	0.52	210	Dichotomous
T3_28_1	1	1	0.35	179	Dichotomous
T3_28_34	1	3	0.46	167	Dichotomous
T3_28_34	1	4	0.61	210	Dichotomous
T3_28_4	1	4	0.71	210	Dichotomous
T3_28_5	1	5	0.34	180	Dichotomous
T3_29_12	1	1	0.15	179	Dichotomous
T3_29_12	1	2	0.19	224	Dichotomous
T3_29_23	1	2	0.42	224	Dichotomous
T3_29_23	1	3	0.57	167	Dichotomous
T3_29_3	1	3	0.49	167	Dichotomous
T3_29_4	1	4	0.52	210	Dichotomous
T3_29_5	1	5	0.33	180	Dichotomous
T3_3_1	1	1	0.42	179	Dichotomous
T3_3_456	1	4	0.50	210	Dichotomous
T3_3_456	1	5	0.50	180	Dichotomous
T3_3_456	1	6	0.69	161	Dichotomous
T3_30_1	1	1	0.40	179	Dichotomous
T3_30_23	1	2	0.48	224	Dichotomous
T3_30_23	1	3	0.59	167	Dichotomous
T3_30_3	1	3	0.46	167	Dichotomous
T3_30_6	1	6	0.53	161	Dichotomous
T3_31_1	1	1	0.46	179	Dichotomous
T3_31_2	1	2	0.24	224	Dichotomous
T3_31_3	1	3	0.28	167	Dichotomous
T3_31_4	1	4	0.64	210	Dichotomous
T3_31_4	2	4	0.74	433	Dichotomous
T3_31_56	1	5	0.61	180	Dichotomous

T3_31_56	1	6	0.69	161	Dichotomous
T3_32_1	1	1	0.25	179	Dichotomous
T3_32_2	1	2	0.44	224	Dichotomous
T3_32_2	2	2	0.52	500	Dichotomous
T3_32_3	1	3	0.42	167	Dichotomous
T3_32_4	1	4	0.45	210	Dichotomous
T3_32_56	1	5	0.61	180	Dichotomous
T3_32_56	1	6	0.70	161	Dichotomous
T3_32_6	1	6	0.61	161	Dichotomous
T3_33_1	1	1	0.31	179	Dichotomous
T3_33_2	1	2	0.49	224	Dichotomous
T3_33_34	1	3	0.63	167	Dichotomous
T3_33_34	1	4	0.69	210	Dichotomous
T3_33_456	1	4	0.30	210	Dichotomous
T3_33_456	1	5	0.42	180	Dichotomous
T3_33_456	1	6	0.42	161	Dichotomous
T3_33_5	1	5	0.38	180	Dichotomous
T3_33_6	1	6	0.60	161	Dichotomous
T3_34_1	1	1	0.29	179	Dichotomous
T3_34_1	2	1	0.35	628	Dichotomous
T3_34_2	1	2	0.34	224	Dichotomous
T3_34_4	1	4	0.60	210	Dichotomous
T3_34_5	1	5	0.53	180	Dichotomous
T3_34_5	2	5	0.75	446	Dichotomous
T3_35_1	1	1	0.26	179	Dichotomous
T3_35_2	1	2	0.31	224	Dichotomous
T3_35_4	1	4	0.58	210	Dichotomous
T3_35_5	1	5	0.31	180	Dichotomous
T3_35_6	1	6	0.59	161	Dichotomous
T3_36_1	1	1	0.30	179	Dichotomous
T3_36_1	2	1	0.32	628	Dichotomous
T3_36_2	1	2	0.28	224	Dichotomous
T3_36_3	1	3	0.51	167	Dichotomous
T3_36_3	2	3	0.43	589	Dichotomous
T3_36_4	1	4	0.72	210	Dichotomous
T3_36_4	2	4	0.75	433	Dichotomous
T3_36_5	1	5	0.42	180	Dichotomous
T3_36_6	1	6	0.51	161	Dichotomous
T3_37_1	1	1	0.21	179	Dichotomous
T3_37_23	1	2	0.38	224	Dichotomous
T3_37_23	1	3	0.34	167	Dichotomous

T3_37_3	1	3	0.60	167	Dichotomous
T3_37_5	1	5	0.49	180	Dichotomous
T3_37_6	1	6	0.34	161	Dichotomous
T3_38_1	1	1	0.27	179	Dichotomous
T3_38_1	2	1	0.29	628	Dichotomous
T3_38_2	1	2	0.55	224	Dichotomous
T3_38_2	2	2	0.63	500	Dichotomous
T3_38_5	1	5	0.54	180	Dichotomous
T3_39_1	1	1	0.17	179	Dichotomous
T3_39_2	1	2	0.46	224	Dichotomous
T3_39_3	1	3	0.46	167	Dichotomous
T3_39_4	1	4	0.53	210	Dichotomous
T3_39_56	1	5	0.51	180	Dichotomous
T3_39_56	1	6	0.68	161	Dichotomous
T3_39_6	1	6	0.71	161	Dichotomous
T3_39_6	2	6	0.80	336	Dichotomous
T3_4_1	1	1	0.38	179	Dichotomous
T3_4_1	2	1	0.26	628	Dichotomous
T3_4_23	1	2	0.26	224	Dichotomous
T3_4_23	1	3	0.20	167	Dichotomous
T3_4_3	1	3	0.65	167	Dichotomous
T3_4_5	1	5	0.78	180	Dichotomous
T3_4_5	2	5	0.85	446	Dichotomous
T3_4_6	1	6	0.50	161	Dichotomous
T3_40_1	1	1	0.03	179	Dichotomous
T3_40_2	1	2	0.32	224	Dichotomous
T3_40_456	1	4	0.57	210	Dichotomous
T3_40_456	1	5	0.54	180	Dichotomous
T3_40_456	1	6	0.65	161	Dichotomous
T3_40_6	1	6	0.57	161	Dichotomous
T3_41_1	2	1	0.18	628	Dichotomous
T3_41_2	2	2	0.27	500	Dichotomous
T3_41_3	2	3	0.50	589	Dichotomous
T3_41_4	2	4	0.51	433	Dichotomous
T3_42_1	2	1	0.20	628	Dichotomous
T3_42_23	2	2	0.30	502	Dichotomous
T3_42_23	2	3	0.47	589	Dichotomous
T3_42_34	2	3	0.29	589	Dichotomous
T3_42_34	2	4	0.43	433	Dichotomous
T3_42_5	2	5	0.51	446	Dichotomous
T3_42_6	2	6	0.81	336	Dichotomous

T3_43_1	2	1	0.26	628	Dichotomous
T3_43_23	2	2	0.28	500	Dichotomous
T3_43_3	2	3	0.66	589	Dichotomous
T3_43_4	2	4	0.60	433	Dichotomous
T3_43_6	2	6	0.41	336	Dichotomous
T3_44_1	2	1	0.38	628	Dichotomous
T3_44_3	2	3	0.31	589	Dichotomous
T3_44_4	2	4	0.19	433	Dichotomous
T3_44_5	2	5	0.73	446	Dichotomous
T3_44_6	2	6	0.55	336	Dichotomous
T3_45_1	2	1	0.27	628	Dichotomous
T3_45_1.1	2	2	0.59	500	Dichotomous
T3_45_5	2	5	0.53	446	Dichotomous
T3_45_6	2	6	0.68	336	Dichotomous
T3_46_1	2	1	0.28	628	Dichotomous
T3_46_23	2	2	0.57	502	Dichotomous
T3_46_23	2	3	0.71	589	Dichotomous
T3_46_3	2	3	0.68	589	Dichotomous
T3_46_4	2	4	0.75	433	Dichotomous
T3_47_1	2	1	0.19	628	Dichotomous
T3_47_3	2	3	0.40	589	Dichotomous
T3_47_4	2	4	0.37	433	Dichotomous
T3_47_5	2	5	0.64	446	Dichotomous
T3_47_6	2	6	0.75	336	Dichotomous
T3_48_1	2	1	0.46	628	Dichotomous
T3_48_2	2	2	0.34	500	Dichotomous
T3_48_3	2	3	0.32	589	Dichotomous
T3_48_4	2	4	0.55	433	Dichotomous
T3_48_5	2	5	0.56	446	Dichotomous
T3_48_6	2	6	0.74	336	Dichotomous
T3_49_1	2	1	0.26	628	Dichotomous
T3_49_2	2	2	0.41	500	Dichotomous
T3_49_3	2	3	0.59	589	Dichotomous
T3_49_4	2	4	0.74	433	Dichotomous
T3_49_5	2	5	0.80	446	Dichotomous
T3_5_1	1	1	0.22	179	Dichotomous
T3_5_34	1	3	0.37	167	Dichotomous
T3_5_34	1	4	0.40	210	Dichotomous
T3_5_4	1	4	0.42	210	Dichotomous
T3_5_5	1	5	0.50	180	Dichotomous
T3_50_1	2	1	0.25	628	Dichotomous

T3_50_2	2	2	0.25	500	Dichotomous
T3_50_34	2	3	0.54	589	Dichotomous
T3_50_6	2	6	0.75	336	Dichotomous
T3_51_1	2	1	0.18	628	Dichotomous
T3_51_1.1	2	2	0.39	500	Dichotomous
T3_51_34	2	3	0.52	589	Dichotomous
T3_51_34	2	4	0.59	433	Dichotomous
T3_51_56	2	5	0.39	446	Dichotomous
T3_51_56	2	6	0.47	336	Dichotomous
T3_51_6	2	6	0.43	336	Dichotomous
T3_52_3	2	3	0.57	589	Dichotomous
T3_52_4	2	4	0.58	433	Dichotomous
T3_52_5	2	5	0.64	446	Dichotomous
T3_52_6	2	6	0.70	336	Dichotomous
T3_53_2	2	2	0.47	500	Dichotomous
T3_53_3	2	3	0.64	589	Dichotomous
T3_53_4	2	4	0.80	433	Dichotomous
T3_53_6	2	6	0.67	336	Dichotomous
T3_54_1	2	1	0.33	628	Dichotomous
T3_54_2	2	2	0.34	500	Dichotomous
T3_54_3	2	3	0.33	589	Dichotomous
T3_55_1	2	1	0.23	628	Dichotomous
T3_55_4	2	4	0.60	433	Dichotomous
T3_55_5	2	5	0.70	446	Dichotomous
T3_55_6	2	6	0.36	336	Dichotomous
T3_56_1	2	1	0.17	628	Dichotomous
T3_56_2	2	2	0.48	500	Dichotomous
T3_56_4	2	4	0.70	433	Dichotomous
T3_56_5	2	5	0.53	446	Dichotomous
T3_56_6	2	6	0.78	336	Dichotomous
T3_57_1	2	1	0.29	628	Dichotomous
T3_57_2	2	2	0.43	500	Dichotomous
T3_57_3	2	3	0.58	589	Dichotomous
T3_57_4	2	4	0.67	433	Dichotomous
T3_57_5	2	5	0.51	446	Dichotomous
T3_57_6	2	6	0.84	336	Dichotomous
T3_58_1	2	1	0.35	628	Dichotomous
T3_58_2	2	2	0.41	500	Dichotomous
T3_58_3	2	3	0.60	589	Dichotomous
T3_58_4	2	4	0.55	433	Dichotomous
T3_58_5	2	5	0.60	446	Dichotomous

T3_59_4	2	4	0.54	433	Dichotomous
T3_59_5	2	5	0.39	446	Dichotomous
T3_59_6	2	6	0.55	336	Dichotomous
T3_6_1	1	1	0.30	179	Dichotomous
T3_6_2	1	2	0.38	224	Dichotomous
T3_6_34	1	3	0.25	167	Dichotomous
T3_6_34	1	4	0.27	210	Dichotomous
T3_6_4	1	4	0.17	210	Dichotomous
T3_6_5	1	5	0.26	180	Dichotomous
T3_6_6	1	6	0.27	161	Dichotomous
T3_60_2	2	2	0.51	500	Dichotomous
T3_60_3	2	3	0.36	589	Dichotomous
T3_60_45	2	4	0.83	433	Dichotomous
T3_60_45	2	5	0.88	446	Dichotomous
T3_60_56	2	5	0.74	446	Dichotomous
T3_60_56	2	6	0.83	336	Dichotomous
T3_60_6	2	6	0.38	336	Dichotomous
T3_61_1	2	1	0.30	628	Dichotomous
T3_61_2	2	2	0.53	500	Dichotomous
T3_61_3	2	3	0.55	589	Dichotomous
T3_61_4	2	4	0.38	433	Dichotomous
T3_61_5	2	5	0.36	446	Dichotomous
T3_61_6	2	6	0.34	336	Dichotomous
T3_62_1	2	1	0.18	628	Dichotomous
T3_62_1	2	2	0.36	500	Dichotomous
T3_62_5	2	5	0.28	446	Dichotomous
T3_63_1	2	1	0.39	628	Dichotomous
T3_63_2	2	2	0.51	500	Dichotomous
T3_63_45	2	4	0.26	433	Dichotomous
T3_63_45	2	5	0.18	446	Dichotomous
T3_63_5	2	5	0.55	446	Dichotomous
T3_63_6	2	6	0.24	336	Dichotomous
T3_64_12	2	1	0.36	628	Dichotomous
T3_64_12	2	2	0.47	500	Dichotomous
T3_64_12.1	2	2	0.42	500	Dichotomous
T3_64_3	2	3	0.42	589	Dichotomous
T3_64_4	2	4	0.33	433	Dichotomous
T3_64_5	2	5	0.72	446	Dichotomous
T3_64_6	2	6	0.70	336	Dichotomous
T3_7_1	1	1	0.19	179	Dichotomous
T3_7_2	1	2	0.36	224	Dichotomous

T3_7_4	1	4	0.36	210	Dichotomous
T3_7_6	1	6	0.39	161	Dichotomous
T3_8_1	1	1	0.28	179	Dichotomous
T3_8_23	1	2	0.20	224	Dichotomous
T3_8_23	1	3	0.21	167	Dichotomous
T3_8_3	1	3	0.31	167	Dichotomous
T3_8_456	1	4	0.21	210	Dichotomous
T3_8_456	1	5	0.31	180	Dichotomous
T3_8_456	1	6	0.30	161	Dichotomous
T3_8_5	1	5	0.58	180	Dichotomous
T3_9_1	1	1	0.39	179	Dichotomous
T3_9_2	1	2	0.47	224	Dichotomous
T3_9_3	1	3	0.49	167	Dichotomous
T3_9_456	1	4	0.24	210	Dichotomous
T3_9_456	1	5	0.29	180	Dichotomous
T3_9_456	1	6	0.38	161	Dichotomous
T3_9_5	1	5	0.45	180	Dichotomous

Table 5

Task 4 p-values and sample size

Item	Year	Grade	Mean	N	Item Type
T4_1_3	1	3	0.43	167	Dichotomous
T4_1_3	2	3	0.43	589	Dichotomous
T4_1_456	1	4	0.35	210	Dichotomous
T4_1_456	1	5	0.46	180	Dichotomous
T4_1_456	1	6	0.39	161	Dichotomous
T4_1_5	1	5	0.85	180	Dichotomous
T4_10_3	1	3	0.63	167	Dichotomous
T4_10_4	1	4	0.71	210	Dichotomous
T4_11_3	1	3	0.78	167	Dichotomous
T4_11_3	2	3	0.77	589	Dichotomous
T4_11_56	1	5	0.45	180	Dichotomous
T4_11_56	1	6	0.67	161	Dichotomous
T4_11_6	1	6	0.58	161	Dichotomous
T4_12_34	1	3	0.60	167	Dichotomous
T4_12_34	1	4	0.74	210	Dichotomous
T4_12_4	1	4	0.73	210	Dichotomous
T4_12_4	2	4	0.75	433	Dichotomous
T4_12_5	1	5	0.51	180	Dichotomous
T4_12_6	1	6	0.50	161	Dichotomous
T4_13_3	1	3	0.84	167	Dichotomous
T4_13_4	1	4	0.44	210	Dichotomous
T4_13_6	1	6	0.75	161	Dichotomous
T4_14_3	1	3	0.77	167	Dichotomous
T4_14_456	1	4	0.60	210	Dichotomous
T4_14_456	1	5	0.44	180	Dichotomous
T4_14_456	1	6	0.52	161	Dichotomous
T4_14_56	1	5	0.38	180	Dichotomous
T4_14_56	1	6	0.53	161	Dichotomous
T4_14_6	1	6	0.15	161	Dichotomous
T4_15_3	1	3	0.40	167	Dichotomous
T4_15_456	1	4	0.58	210	Dichotomous
T4_15_456	1	5	0.57	180	Dichotomous
T4_15_456	1	6	0.67	161	Dichotomous
T4_16_3	1	3	0.54	167	Dichotomous
T4_16_4	1	4	0.73	210	Dichotomous
T4_16_5	1	5	0.53	180	Dichotomous
T4_16_6	1	6	0.76	161	Dichotomous

T4_17_3	1	3	0.70	167	Dichotomous
T4_17_4	1	4	0.78	210	Dichotomous
T4_17_5	1	5	0.71	180	Dichotomous
T4_17_6	1	6	0.70	161	Dichotomous
T4_18_3	1	3	0.58	167	Dichotomous
T4_18_5	1	5	0.49	180	Dichotomous
T4_18_6	1	6	0.72	161	Dichotomous
T4_19_3	1	3	0.37	167	Dichotomous
T4_19_5	1	5	0.55	180	Dichotomous
T4_19_5	2	5	0.62	446	Dichotomous
T4_2_3	1	3	0.57	167	Dichotomous
T4_2_4	1	4	0.85	210	Dichotomous
T4_2_5	1	5	0.71	180	Dichotomous
T4_20_4	1	4	0.81	210	Dichotomous
T4_20_4	2	4	0.80	433	Dichotomous
T4_20_5	1	5	0.66	180	Dichotomous
T4_20_6	1	6	0.55	161	Dichotomous
T4_21_3	1	3	0.42	167	Dichotomous
T4_21_4	1	4	0.50	210	Dichotomous
T4_21_5	1	5	0.12	180	Dichotomous
T4_22_3	1	3	0.75	167	Dichotomous
T4_22_456	1	4	0.77	210	Dichotomous
T4_22_456	1	5	0.85	180	Dichotomous
T4_22_456	1	6	0.81	161	Dichotomous
T4_22_56	1	5	0.63	180	Dichotomous
T4_22_56	1	6	0.57	161	Dichotomous
T4_22_6	1	6	0.50	161	Dichotomous
T4_23_34	1	3	0.62	167	Dichotomous
T4_23_34	1	4	0.72	210	Dichotomous
T4_23_56	1	5	0.74	180	Dichotomous
T4_23_56	1	6	0.74	161	Dichotomous
T4_23_56	2	5	0.83	446	Dichotomous
T4_24_3	1	3	0.66	167	Dichotomous
T4_24_4	1	4	0.84	210	Dichotomous
T4_24_6	1	6	0.61	161	Dichotomous
T4_25_34	1	3	0.40	167	Dichotomous
T4_25_34	1	4	0.63	210	Dichotomous
T4_25_4	1	4	0.52	210	Dichotomous
T4_25_5	1	5	0.78	180	Dichotomous
T4_26_3	2	3	0.69	589	Dichotomous
T4_26_5	2	5	0.91	446	Dichotomous

T4_27_23	2	3	0.32	589	Dichotomous
T4_27_23	2	4	0.43	433	Dichotomous
T4_27_4	2	4	0.60	433	Dichotomous
T4_27_6	2	6	0.49	336	Dichotomous
T4_28_23	2	3	0.69	589	Dichotomous
T4_28_23	2	4	0.75	433	Dichotomous
T4_28_4	2	4	0.68	433	Dichotomous
T4_29_3	2	3	0.76	589	Dichotomous
T4_29_34	2	4	0.76	433	Dichotomous
T4_29_5	2	5	0.69	446	Dichotomous
T4_29_6	2	6	0.87	336	Dichotomous
T4_3_3	1	3	0.82	167	Dichotomous
T4_3_3	2	3	0.80	589	Dichotomous
T4_3_4	1	4	0.62	210	Dichotomous
T4_3_5	1	5	0.66	180	Dichotomous
T4_30_3	2	3	0.67	589	Dichotomous
T4_30_4	2	4	0.74	433	Dichotomous
T4_30_5	2	5	0.58	446	Dichotomous
T4_30_6	2	6	0.29	336	Dichotomous
T4_31_4	2	4	0.77	433	Dichotomous
T4_31_56	2	5	0.82	446	Dichotomous
T4_31_56	2	6	0.88	336	Dichotomous
T4_31_6	2	6	0.53	336	Dichotomous
T4_32_3	2	3	0.84	589	Dichotomous
T4_32_3.1	2	3	0.72	589	Dichotomous
T4_32_4	2	4	0.44	433	Dichotomous
T4_32_6	2	6	0.48	336	Dichotomous
T4_33_4	2	4	0.83	433	Dichotomous
T4_33_6	2	6	0.94	336	Dichotomous
T4_34_3	2	3	0.71	589	Dichotomous
T4_34_4	2	4	0.78	433	Dichotomous
T4_34_6	2	6	0.87	336	Dichotomous
T4_35_3	2	3	0.72	589	Dichotomous
T4_35_6	2	6	0.75	336	Dichotomous
T4_36_34	2	4	0.72	433	Dichotomous
T4_36_6	2	6	0.65	336	Dichotomous
T4_37_3	2	3	0.39	589	Dichotomous
T4_37_4	2	4	0.60	433	Dichotomous
T4_38_3	2	3	0.75	589	Dichotomous
T4_38_45	2	4	0.59	433	Dichotomous
T4_38_45	2	5	0.70	446	Dichotomous

T4_38_6	2	6	0.77	336	Dichotomous
T4_39_3	2	3	0.29	589	Dichotomous
T4_39_6	2	6	0.58	336	Dichotomous
T4_4_3	1	3	0.80	167	Dichotomous
T4_4_5	1	5	0.58	180	Dichotomous
T4_4_5	2	5	0.71	446	Dichotomous
T4_4_6	1	6	0.11	161	Dichotomous
T4_4_6	2	6	0.14	336	Dichotomous
T4_40_3	2	3	0.59	589	Dichotomous
T4_41_3	2	3	0.69	589	Dichotomous
T4_41_45	2	4	0.82	433	Dichotomous
T4_41_45	2	5	0.87	446	Dichotomous
T4_42_3	2	3	0.50	589	Dichotomous
T4_43_34	2	4	0.46	433	Dichotomous
T4_43_5	2	5	0.74	446	Dichotomous
T4_43_6	2	6	0.84	336	Dichotomous
T4_45_56	2	5	0.77	446	Dichotomous
T4_45_56	2	6	0.82	336	Dichotomous
T4_46_56	2	5	0.83	446	Dichotomous
T4_46_56	2	6	0.88	336	Dichotomous
T4_47_5	2	5	0.76	446	Dichotomous
T4_48_5	2	5	0.46	446	Dichotomous
T4_49_5	2	5	0.61	446	Dichotomous
T4_5_3	1	3	0.67	167	Dichotomous
T4_5_4	1	4	0.71	210	Dichotomous
T4_5_56	1	5	0.82	180	Dichotomous
T4_5_56	1	6	0.80	161	Dichotomous
T4_5_6	1	6	0.87	161	Dichotomous
T4_5_6	2	6	0.92	336	Dichotomous
T4_50_5	2	5	0.73	446	Dichotomous
T4_51_5	2	5	0.71	446	Dichotomous
T4_52_5	2	5	0.88	446	Dichotomous
T4_6_3	1	3	0.66	167	Dichotomous
T4_6_456	1	4	0.53	210	Dichotomous
T4_6_456	1	5	0.56	180	Dichotomous
T4_6_456	1	6	0.66	161	Dichotomous
T4_7_34	1	3	0.60	167	Dichotomous
T4_7_34	1	4	0.79	210	Dichotomous
T4_7_34	2	4	0.74	433	Dichotomous
T4_7_4	1	4	0.74	210	Dichotomous
T4_7_5	1	5	0.57	180	Dichotomous

T4_7_6	1	6	0.77	161	Dichotomous
T4_7_6	2	6	0.75	336	Dichotomous
T4_8_34	1	3	0.75	167	Dichotomous
T4_8_34	1	4	0.92	210	Dichotomous
T4_8_4	1	4	0.55	210	Dichotomous
T4_8_5	1	5	0.15	180	Dichotomous
T4_8_6	1	6	0.63	161	Dichotomous
T4_9_3	1	3	0.85	167	Dichotomous
T4_9_4	1	4	0.83	210	Dichotomous
T4_9_6	1	6	0.60	161	Dichotomous

Table 6

Task 5 p-values and sample size

Item	Year	Grade	Mean	N	Item Type
T5_1_1	1	1	0.27	179	Dichotomous
T5_1_4	1	4	0.18	210	Dichotomous
T5_1_4	2	5	0.16	446	Dichotomous
T5_1_5	1	5	0.17	180	Dichotomous
T5_1_6	1	6	0.16	161	Dichotomous
T5_1_6	2	6	0.23	336	Dichotomous
T5_10_12	1	1	0.01	179	Dichotomous
T5_10_12	1	2	0.04	224	Dichotomous
T5_10_12	2	2	0.07	500	Dichotomous
T5_10_23	1	2	0.07	224	Dichotomous
T5_10_23	1	3	0.19	167	Dichotomous
T5_10_34	1	3	0.22	167	Dichotomous
T5_10_34	1	4	0.32	210	Dichotomous
T5_10_5	1	5	0.27	180	Dichotomous
T5_10_6	1	6	0.04	161	Dichotomous
T5_11_1	1	1	0.21	179	Dichotomous
T5_11_1	2	1	0.16	628	Dichotomous
T5_11_23	1	2	0.39	224	Dichotomous
T5_11_23	1	3	0.63	167	Dichotomous
T5_11_3	1	3	0.01	167	Dichotomous
T5_12_1	1	1	0.04	179	Dichotomous
T5_12_1	2	1	0.04	628	Dichotomous
T5_12_2	1	2	0.38	224	Dichotomous
T5_12_34	1	3	0.01	167	Dichotomous
T5_12_34	1	4	0.03	210	Dichotomous
T5_12_4	1	4	0.29	210	Dichotomous
T5_12_56	1	5	0.13	180	Dichotomous
T5_12_56	1	6	0.20	161	Dichotomous
T5_13_1	1	1	0.00	179	Dichotomous
T5_13_2	1	2	0.12	224	Dichotomous
T5_13_4	1	4	0.25	210	Dichotomous
T5_13_5	1	5	0.43	180	Dichotomous
T5_13_6	1	6	0.48	161	Dichotomous
T5_14_1	1	1	0.01	179	Dichotomous
T5_14_2	1	2	0.05	224	Dichotomous
T5_14_34	1	3	0.03	167	Dichotomous
T5_14_34	1	4	0.08	210	Dichotomous

T5_14_4	1	4	0.54	210	Dichotomous
T5_15_1	1	1	0.01	179	Dichotomous
T5_15_2	1	2	0.08	224	Dichotomous
T5_15_2	2	2	0.09	500	Dichotomous
T5_15_456	1	4	0.14	210	Dichotomous
T5_15_456	1	5	0.38	180	Dichotomous
T5_15_456	1	6	0.47	161	Dichotomous
T5_15_5	1	5	0.13	180	Dichotomous
T5_15_6	1	6	0.16	161	Dichotomous
T5_16_1	1	1	0.02	179	Dichotomous
T5_16_3	1	3	0.10	167	Dichotomous
T5_16_4	1	4	0.36	210	Dichotomous
T5_16_5	1	5	0.09	180	Dichotomous
T5_17_1	1	1	0.06	179	Dichotomous
T5_17_2	1	2	0.00	224	Dichotomous
T5_17_34	1	3	0.18	167	Dichotomous
T5_17_34	1	4	0.35	210	Dichotomous
T5_17_4	1	4	0.09	210	Dichotomous
T5_17_5	1	5	0.13	180	Dichotomous
T5_18_12	1	1	0.07	179	Dichotomous
T5_18_12	1	2	0.35	224	Dichotomous
T5_18_2	1	2	0.47	224	Dichotomous
T5_18_3	1	3	0.05	167	Dichotomous
T5_18_5	1	5	0.08	180	Dichotomous
T5_19_1	1	1	0.04	179	Dichotomous
T5_19_2	1	2	0.41	224	Dichotomous
T5_19_3	1	3	0.03	167	Dichotomous
T5_19_4	1	4	0.00	210	Dichotomous
T5_19_5	1	5	0.26	180	Dichotomous
T5_2_1	1	1	0.08	179	Dichotomous
T5_2_2	1	2	0.50	224	Dichotomous
T5_2_2.1	2	2	0.50	500	Dichotomous
T5_2_4	1	4	0.48	210	Dichotomous
T5_2_6	1	6	0.11	161	Dichotomous
T5_2_6	2	6	0.22	336	Dichotomous
T5_20_1	1	1	0.01	179	Dichotomous
T5_20_2	1	2	0.30	224	Dichotomous
T5_20_3	1	3	0.00	167	Dichotomous
T5_20_4	1	4	0.32	210	Dichotomous
T5_20_4	2	4	0.23	433	Dichotomous
T5_20_56	1	5	0.01	180	Dichotomous

T5_20_56	1	6	0.07	161	Dichotomous
T5_20_6	1	6	0.34	161	Dichotomous
T5_21_1	1	1	0.15	179	Dichotomous
T5_21_2	1	2	0.29	224	Dichotomous
T5_21_3	1	3	0.47	167	Dichotomous
T5_21_3	2	3	0.42	589	Dichotomous
T5_21_456	1	4	0.08	210	Dichotomous
T5_21_456	1	5	0.12	180	Dichotomous
T5_21_456	1	6	0.18	161	Dichotomous
T5_21_5	1	5	0.26	180	Dichotomous
T5_22_1	1	1	0.16	179	Dichotomous
T5_22_2	1	2	0.09	224	Dichotomous
T5_22_3	1	3	0.28	167	Dichotomous
T5_22_4	1	4	0.47	210	Dichotomous
T5_22_5	1	5	0.04	180	Dichotomous
T5_22_6	1	6	0.45	161	Dichotomous
T5_23_1	1	1	0.00	179	Dichotomous
T5_23_23	1	2	0.01	224	Dichotomous
T5_23_23	1	3	0.07	167	Dichotomous
T5_23_3	1	3	0.10	167	Dichotomous
T5_23_4	1	4	0.01	210	Dichotomous
T5_23_5	1	5	0.33	180	Dichotomous
T5_23_6	1	6	0.55	161	Dichotomous
T5_24_12	1	1	0.03	179	Dichotomous
T5_24_12	1	2	0.27	224	Dichotomous
T5_24_2	1	2	0.33	224	Dichotomous
T5_24_3	1	3	0.32	167	Dichotomous
T5_24_4	1	4	0.37	210	Dichotomous
T5_24_6	1	6	0.37	161	Dichotomous
T5_25_1	1	1	0.04	179	Dichotomous
T5_25_2	1	2	0.19	224	Dichotomous
T5_25_3	1	3	0.08	167	Dichotomous
T5_25_456	1	4	0.14	210	Dichotomous
T5_25_456	1	5	0.13	180	Dichotomous
T5_25_456	1	6	0.23	161	Dichotomous
T5_25_5	1	5	0.14	180	Dichotomous
T5_25_6	1	6	0.11	161	Dichotomous
T5_26_1	2	1	0.07	628	Dichotomous
T5_26_23	2	2	0.57	502	Dichotomous
T5_26_23	2	3	0.64	589	Dichotomous
T5_26_45	2	4	0.55	433	Dichotomous

T5_26_45	2	5	0.59	446	Dichotomous
T5_26_56	2	5	0.56	446	Dichotomous
T5_26_56	2	6	0.63	336	Dichotomous
T5_26_6	2	6	0.09	336	Dichotomous
T5_27_1	2	1	0.10	628	Dichotomous
T5_27_3	2	3	0.43	589	Dichotomous
T5_27_4	2	4	0.12	433	Dichotomous
T5_27_5	2	5	0.50	446	Dichotomous
T5_27_6	2	6	0.33	336	Dichotomous
T5_28_1	2	1	0.10	628	Dichotomous
T5_28_2	2	2	0.24	500	Dichotomous
T5_28_3	2	3	0.13	589	Dichotomous
T5_28_4	2	4	0.46	433	Dichotomous
T5_28_5	2	5	0.31	446	Dichotomous
T5_29_1	2	1	0.02	628	Dichotomous
T5_29_3	2	3	0.15	589	Dichotomous
T5_3_1	1	1	0.20	179	Dichotomous
T5_3_2	1	2	0.00	224	Dichotomous
T5_3_34	1	3	0.07	167	Dichotomous
T5_3_34	1	4	0.16	210	Dichotomous
T5_3_56	1	5	0.38	180	Dichotomous
T5_3_56	1	6	0.45	161	Dichotomous
T5_30_12	2	1	0.08	628	Dichotomous
T5_30_12	2	2	0.28	500	Dichotomous
T5_30_3	2	3	0.42	589	Dichotomous
T5_30_4	2	4	0.08	433	Dichotomous
T5_30_56	2	5	0.43	446	Dichotomous
T5_30_56	2	6	0.52	336	Dichotomous
T5_31_34	2	3	0.19	589	Dichotomous
T5_31_34	2	4	0.31	433	Dichotomous
T5_31_4	2	4	0.21	433	Dichotomous
T5_31_5	2	5	0.36	446	Dichotomous
T5_31_6	2	6	0.27	336	Dichotomous
T5_32_12	2	1	0.06	628	Dichotomous
T5_32_12	2	2	0.38	500	Dichotomous
T5_32_2	2	2	0.04	500	Dichotomous
T5_32_3	2	3	0.44	589	Dichotomous
T5_32_4	2	4	0.10	433	Dichotomous
T5_32_5	2	5	0.33	446	Dichotomous
T5_32_6	2	6	0.08	336	Dichotomous
T5_33_1	2	1	0.37	628	Dichotomous

T5_33_2	2	2	0.40	500	Dichotomous
T5_33_4	2	4	0.52	433	Dichotomous
T5_33_6	2	6	0.21	336	Dichotomous
T5_34_1	2	1	0.03	628	Dichotomous
T5_34_2	2	2	0.13	500	Dichotomous
T5_34_34	2	3	0.53	589	Dichotomous
T5_34_34	2	4	0.69	433	Dichotomous
T5_34_4	2	4	0.39	433	Dichotomous
T5_34_5	2	5	0.37	446	Dichotomous
T5_34_6	2	6	0.76	336	Dichotomous
T5_35_2	2	2	0.33	500	Dichotomous
T5_35_5	2	5	0.07	446	Dichotomous
T5_36_1	2	1	0.06	628	Dichotomous
T5_36_3	2	3	0.11	589	Dichotomous
T5_36_45	2	4	0.39	433	Dichotomous
T5_36_45	2	5	0.54	446	Dichotomous
T5_36_6	2	6	0.17	336	Dichotomous
T5_37_1	2	1	0.56	628	Dichotomous
T5_37_3	2	3	0.30	589	Dichotomous
T5_37_4	2	4	0.39	433	Dichotomous
T5_37_56	2	5	0.42	446	Dichotomous
T5_37_56	2	6	0.43	336	Dichotomous
T5_38_1	2	1	0.19	628	Dichotomous
T5_38_2	2	2	0.06	500	Dichotomous
T5_38_4	2	4	0.30	433	Dichotomous
T5_38_6	2	6	0.30	336	Dichotomous
T5_39_1	2	1	0.16	628	Dichotomous
T5_39_23	2	2	0.12	502	Dichotomous
T5_39_23	2	3	0.28	589	Dichotomous
T5_39_3	2	3	0.27	589	Dichotomous
T5_39_4	2	4	0.11	433	Dichotomous
T5_39_5	2	5	0.26	446	Dichotomous
T5_4_1	1	1	0.01	179	Dichotomous
T5_4_2	1	2	0.03	224	Dichotomous
T5_4_3	1	3	0.11	167	Dichotomous
T5_4_4	1	4	0.25	210	Dichotomous
T5_4_5	1	5	0.11	180	Dichotomous
T5_40_1	2	1	0.06	628	Dichotomous
T5_40_2	2	2	0.38	500	Dichotomous
T5_40_3	2	3	0.52	589	Dichotomous
T5_40_5	2	5	0.21	446	Dichotomous

T5_40_6	2	6	0.28	336	Dichotomous
T5_41_1	2	1	0.04	628	Dichotomous
T5_41_2	2	2	0.61	500	Dichotomous
T5_41_3	2	3	0.39	589	Dichotomous
T5_41_5	2	5	0.35	446	Dichotomous
T5_41_6	2	6	0.04	336	Dichotomous
T5_42_1	2	1	0.29	628	Dichotomous
T5_42_2	2	2	0.19	500	Dichotomous
T5_42_3	2	3	0.15	589	Dichotomous
T5_42_6	2	6	0.41	336	Dichotomous
T5_43_2	2	2	0.17	500	Dichotomous
T5_43_4	2	4	0.44	433	Dichotomous
T5_43_5	2	5	0.32	446	Dichotomous
T5_43_6	2	6	0.19	336	Dichotomous
T5_5_12	1	1	0.00	179	Dichotomous
T5_5_12	1	2	0.01	224	Dichotomous
T5_5_3	1	3	0.05	167	Dichotomous
T5_5_6	1	6	0.14	161	Dichotomous
T5_5_6	2	6	0.14	336	Dichotomous
T5_6_1	1	1	0.02	179	Dichotomous
T5_6_2	1	2	0.09	224	Dichotomous
T5_6_3	1	3	0.01	167	Dichotomous
T5_6_456	1	4	0.21	210	Dichotomous
T5_6_456	1	5	0.22	180	Dichotomous
T5_6_456	1	6	0.31	161	Dichotomous
T5_6_456	2	5	0.26	446	Dichotomous
T5_6_56	1	5	0.09	180	Dichotomous
T5_6_56	1	6	0.14	161	Dichotomous
T5_6_6	1	6	0.67	161	Dichotomous
T5_7_1	1	1	0.00	179	Dichotomous
T5_7_2	1	2	0.42	224	Dichotomous
T5_7_2	2	2	0.40	500	Dichotomous
T5_7_3	1	3	0.28	167	Dichotomous
T5_7_4	1	4	0.59	210	Dichotomous
T5_7_4	2	4	0.51	433	Dichotomous
T5_7_56	1	5	0.05	180	Dichotomous
T5_7_56	1	6	0.03	161	Dichotomous
T5_7_6	1	6	0.25	161	Dichotomous
T5_8_1	1	1	0.00	179	Dichotomous
T5_8_23	1	2	0.00	224	Dichotomous
T5_8_23	1	3	0.03	167	Dichotomous

T5_8_3	1	3	0.24	167	Dichotomous
T5_8_3	2	3	0.24	589	Dichotomous
T5_8_456	1	4	0.01	210	Dichotomous
T5_8_456	1	5	0.01	180	Dichotomous
T5_8_456	1	6	0.01	161	Dichotomous
T5_8_5	1	5	0.16	180	Dichotomous
T5_8_5	2	5	0.23	446	Dichotomous
T5_8_6	1	6	0.01	161	Dichotomous
T5_9_1	1	1	0.11	179	Dichotomous
T5_9_1	2	1	0.08	628	Dichotomous
T5_9_3	1	3	0.17	167	Dichotomous
T5_9_3	2	3	0.27	589	Dichotomous
T5_9_4	1	4	0.20	210	Dichotomous
T5_9_4	2	4	0.18	433	Dichotomous
T5_9_5	1	5	0.12	180	Dichotomous
T5_9_6	1	6	0.27	161	Dichotomous

Table 7

Task 6 p-values and sample size

Item	Year	Grade	Mean	N	Item Type
T6_1_1	1	1	0.58	179	Dichotomous
T6_1_1	2	1	0.51	628	Dichotomous
T6_1_2	1	2	0.45	224	Dichotomous
T6_1_2	2	2	0.51	500	Dichotomous
T6_1_34	1	3	0.54	167	Dichotomous
T6_1_34	1	4	0.65	210	Dichotomous
T6_1_34	2	3	0.61	589	Dichotomous
T6_1_456	1	4	0.68	210	Dichotomous
T6_1_456	1	5	0.77	180	Dichotomous
T6_1_456	1	6	0.78	161	Dichotomous
T6_1_56	1	5	0.72	180	Dichotomous
T6_1_56	1	6	0.80	161	Dichotomous
T6_1_6	1	6	0.83	161	Dichotomous
T6_1_6	2	6	0.81	336	Dichotomous
T6_10_12	1	1	0.46	179	Dichotomous
T6_10_12	1	2	0.41	224	Dichotomous
T6_10_2	1	2	0.53	224	Dichotomous
T6_10_34	1	3	0.62	167	Dichotomous
T6_10_34	1	4	0.76	210	Dichotomous
T6_10_4	1	4	0.98	210	Dichotomous
T6_10_5	1	5	0.64	180	Dichotomous
T6_10_6	1	6	0.90	161	Dichotomous
T6_11_1	1	1	0.23	179	Dichotomous
T6_11_23	1	2	0.55	224	Dichotomous
T6_11_23	1	3	0.56	167	Dichotomous
T6_11_3	1	3	0.73	167	Dichotomous
T6_11_4	1	4	0.84	210	Dichotomous
T6_11_5	1	5	0.71	180	Dichotomous
T6_11_6	1	6	0.80	161	Dichotomous
T6_12_1	1	1	0.58	179	Dichotomous
T6_12_2	1	2	0.64	224	Dichotomous
T6_12_3	1	3	0.14	167	Dichotomous
T6_12_3.1	2	3	0.20	589	Dichotomous
T6_12_4	1	4	0.79	210	Dichotomous
T6_12_5	1	5	0.81	180	Dichotomous
T6_12_6	1	6	0.89	161	Dichotomous
T6_13_1	1	1	0.45	179	Dichotomous

T6_13_23	1	2	0.63	224	Dichotomous
T6_13_23	1	3	0.60	167	Dichotomous
T6_13_3	1	3	0.87	167	Dichotomous
T6_13_5	1	5	0.91	180	Dichotomous
T6_14_1	1	1	0.32	179	Dichotomous
T6_14_2	1	2	0.38	224	Dichotomous
T6_15_12	1	1	0.56	179	Dichotomous
T6_15_12	1	2	0.44	224	Dichotomous
T6_15_2	1	2	0.78	224	Dichotomous
T6_15_2	2	2	0.84	500	Dichotomous
T6_15_3	1	3	0.41	167	Dichotomous
T6_15_5	1	5	0.69	180	Dichotomous
T6_16_12	1	1	0.42	179	Dichotomous
T6_16_12	1	2	0.57	224	Dichotomous
T6_16_2	1	2	0.55	224	Dichotomous
T6_16_3	1	3	0.57	167	Dichotomous
T6_16_3	2	3	0.54	589	Dichotomous
T6_16_4	1	4	0.93	210	Dichotomous
T6_16_4	2	4	0.90	433	Dichotomous
T6_16_5	1	5	0.86	180	Dichotomous
T6_16_5	2	5	0.89	446	Dichotomous
T6_16_6	1	6	0.81	161	Dichotomous
T6_17_1	1	1	0.48	179	Dichotomous
T6_17_23	1	2	0.42	224	Dichotomous
T6_17_23	1	3	0.81	167	Dichotomous
T6_17_3	1	3	0.37	167	Dichotomous
T6_17_4	1	4	0.82	210	Dichotomous
T6_17_5	1	5	0.90	180	Dichotomous
T6_18_1	1	1	0.22	179	Dichotomous
T6_18_2	1	2	0.63	224	Dichotomous
T6_18_3	1	3	0.72	167	Dichotomous
T6_18_4	1	4	0.86	210	Dichotomous
T6_18_4	2	4	0.82	433	Dichotomous
T6_18_56	1	5	0.37	180	Dichotomous
T6_18_56	1	6	0.43	161	Dichotomous
T6_19_12	1	1	0.43	179	Dichotomous
T6_19_12	1	2	0.74	224	Dichotomous
T6_19_2	1	2	0.54	224	Dichotomous
T6_19_3	1	3	0.93	167	Dichotomous
T6_19_4	1	4	0.66	210	Dichotomous
T6_19_5	1	5	0.63	180	Dichotomous

T6_2_1	1	1	0.45	179	Dichotomous
T6_2_1	2	1	0.37	628	Dichotomous
T6_2_3	1	3	0.78	167	Dichotomous
T6_2_3	2	3	0.76	589	Dichotomous
T6_2_4	1	4	0.76	210	Dichotomous
T6_2_4	2	4	0.70	433	Dichotomous
T6_2_56	1	5	0.70	180	Dichotomous
T6_2_56	1	6	0.81	161	Dichotomous
T6_2_56	2	5	0.73	446	Dichotomous
T6_20_1	1	1	0.21	179	Dichotomous
T6_20_23	1	2	0.31	224	Dichotomous
T6_20_23	1	3	0.44	167	Dichotomous
T6_20_4	1	4	0.79	210	Dichotomous
T6_20_4	2	4	0.84	433	Dichotomous
T6_20_5	1	5	0.43	180	Dichotomous
T6_20_5	2	5	0.48	446	Dichotomous
T6_20_6	1	6	0.81	161	Dichotomous
T6_21_12	1	1	0.30	179	Dichotomous
T6_21_12	1	2	0.42	224	Dichotomous
T6_21_34	1	3	0.24	167	Dichotomous
T6_21_34	1	4	0.42	210	Dichotomous
T6_21_4	1	4	0.63	210	Dichotomous
T6_22_1	1	1	0.23	179	Dichotomous
T6_22_2	1	2	0.41	224	Dichotomous
T6_22_3	1	3	0.57	167	Dichotomous
T6_22_456	1	4	0.79	210	Dichotomous
T6_22_456	1	5	0.89	180	Dichotomous
T6_22_456	1	6	0.91	161	Dichotomous
T6_22_5	1	5	0.76	180	Dichotomous
T6_22_6	1	6	0.45	161	Dichotomous
T6_23_1	1	1	0.49	179	Dichotomous
T6_23_2	1	2	0.29	224	Dichotomous
T6_23_3	1	3	0.80	167	Dichotomous
T6_23_4	1	4	0.61	210	Dichotomous
T6_23_6	1	6	0.80	161	Dichotomous
T6_24_1	1	1	0.61	179	Dichotomous
T6_24_34	1	3	0.62	167	Dichotomous
T6_24_34	1	4	0.80	210	Dichotomous
T6_24_4	1	4	0.60	210	Dichotomous
T6_24_5	1	5	0.63	180	Dichotomous
T6_24_6	1	6	0.31	161	Dichotomous

T6_25_1	1	1	0.35	179	Dichotomous
T6_25_4	1	4	0.88	210	Dichotomous
T6_25_6	1	6	0.86	161	Dichotomous
T6_26_12	2	1	0.23	628	Dichotomous
T6_26_12	2	2	0.48	500	Dichotomous
T6_26_2	2	2	0.85	500	Dichotomous
T6_26_3	2	3	0.68	589	Dichotomous
T6_26_4	2	4	0.37	433	Dichotomous
T6_26_5	2	5	0.78	446	Dichotomous
T6_27_1	2	1	0.18	628	Dichotomous
T6_27_3	2	3	0.70	589	Dichotomous
T6_27_45	2	4	0.47	433	Dichotomous
T6_27_45	2	5	0.62	446	Dichotomous
T6_27_5	2	5	0.68	446	Dichotomous
T6_27_6	2	6	0.91	336	Dichotomous
T6_28_1	2	1	0.30	628	Dichotomous
T6_28_2	2	2	0.55	500	Dichotomous
T6_28_3	2	3	0.51	589	Dichotomous
T6_28_45	2	4	0.46	433	Dichotomous
T6_28_45	2	5	0.53	446	Dichotomous
T6_28_56	2	5	0.90	446	Dichotomous
T6_28_56	2	6	0.93	336	Dichotomous
T6_28_6	2	6	0.79	336	Dichotomous
T6_29_1	2	1	0.41	628	Dichotomous
T6_29_2	2	2	0.26	500	Dichotomous
T6_29_3	2	3	0.44	589	Dichotomous
T6_29_4	2	4	0.48	433	Dichotomous
T6_29_5	2	5	0.30	446	Dichotomous
T6_3_1	1	1	0.19	179	Dichotomous
T6_3_1	2	1	0.14	628	Dichotomous
T6_3_2	1	2	0.21	224	Dichotomous
T6_3_2	2	2	0.21	500	Dichotomous
T6_3_3	1	3	0.49	167	Dichotomous
T6_3_4	1	4	0.77	210	Dichotomous
T6_3_5	1	5	0.80	180	Dichotomous
T6_30_1	2	1	0.44	628	Dichotomous
T6_30_3	2	3	0.45	589	Dichotomous
T6_30_5	2	5	0.77	446	Dichotomous
T6_30_6	2	6	0.88	336	Dichotomous
T6_31_1	2	1	0.38	628	Dichotomous
T6_31_2	2	2	0.42	500	Dichotomous

T6_31_4	2	4	0.56	433	Dichotomous
T6_31_5	2	5	0.84	446	Dichotomous
T6_31_6	2	6	0.99	336	Dichotomous
T6_32_1	2	1	0.13	628	Dichotomous
T6_32_2	2	2	0.14	500	Dichotomous
T6_32_3	2	3	0.70	589	Dichotomous
T6_32_56	2	5	0.61	446	Dichotomous
T6_32_56	2	6	0.69	336	Dichotomous
T6_33_3	2	3	0.75	589	Dichotomous
T6_33_4	2	4	0.54	433	Dichotomous
T6_33_5	2	5	0.84	446	Dichotomous
T6_34_1	2	1	0.50	628	Dichotomous
T6_34_3	2	3	0.74	589	Dichotomous
T6_34_4	2	4	0.59	433	Dichotomous
T6_34_5	2	5	0.65	446	Dichotomous
T6_34_6	2	6	0.74	336	Dichotomous
T6_35_1	2	1	0.58	628	Dichotomous
T6_35_2	2	2	0.50	500	Dichotomous
T6_35_4	2	4	0.54	433	Dichotomous
T6_35_5	2	5	0.57	446	Dichotomous
T6_35_6	2	6	0.79	336	Dichotomous
T6_36_1	2	1	0.38	628	Dichotomous
T6_36_23	2	2	0.34	502	Dichotomous
T6_36_23	2	3	0.55	589	Dichotomous
T6_36_3	2	3	0.67	589	Dichotomous
T6_36_4	2	4	0.58	433	Dichotomous
T6_36_5	2	5	0.87	446	Dichotomous
T6_36_6	2	6	0.62	336	Dichotomous
T6_37_1	2	1	0.31	628	Dichotomous
T6_37_3	2	3	0.48	589	Dichotomous
T6_37_5	2	5	0.43	446	Dichotomous
T6_38_2	2	2	0.36	500	Dichotomous
T6_38_3	2	3	0.23	589	Dichotomous
T6_38_4	2	4	0.39	433	Dichotomous
T6_38_5	2	5	0.67	446	Dichotomous
T6_38_6	2	6	0.85	336	Dichotomous
T6_39_1	2	1	0.47	628	Dichotomous
T6_39_2	2	2	0.78	500	Dichotomous
T6_39_3	2	3	0.39	589	Dichotomous
T6_4_1	1	1	0.28	179	Dichotomous
T6_4_2	1	2	0.82	224	Dichotomous

T6_4_2	2	2	0.81	500	Dichotomous
T6_4_3	1	3	0.84	167	Dichotomous
T6_4_456	1	4	0.44	210	Dichotomous
T6_4_456	1	5	0.47	180	Dichotomous
T6_4_456	1	6	0.78	161	Dichotomous
T6_40_1	2	1	0.23	628	Dichotomous
T6_40_2	2	2	0.28	500	Dichotomous
T6_40_34	2	3	0.69	589	Dichotomous
T6_40_34	2	4	0.82	433	Dichotomous
T6_40_4	2	4	0.82	433	Dichotomous
T6_40_6	2	6	0.91	336	Dichotomous
T6_41_12	2	1	0.28	628	Dichotomous
T6_41_12	2	2	0.56	500	Dichotomous
T6_41_2	2	2	0.75	500	Dichotomous
T6_41_6	2	6	0.47	336	Dichotomous
T6_42_1	2	1	0.20	628	Dichotomous
T6_42_23	2	2	0.46	502	Dichotomous
T6_42_23	2	3	0.54	589	Dichotomous
T6_42_4	2	4	0.93	433	Dichotomous
T6_42_6	2	6	0.67	336	Dichotomous
T6_43_1	2	1	0.47	628	Dichotomous
T6_43_2	2	2	0.68	500	Dichotomous
T6_43_34	2	3	0.51	589	Dichotomous
T6_43_34	2	4	0.66	433	Dichotomous
T6_43_4	2	4	0.76	433	Dichotomous
T6_43_5	2	5	0.93	446	Dichotomous
T6_43_6	2	6	0.71	336	Dichotomous
T6_44_2	2	2	0.48	500	Dichotomous
T6_44_3	2	3	0.72	589	Dichotomous
T6_44_4	2	4	0.30	433	Dichotomous
T6_44_6	2	6	0.20	336	Dichotomous
T6_45_1	2	1	0.25	628	Dichotomous
T6_45_2	2	2	0.66	500	Dichotomous
T6_45_3	2	3	0.31	589	Dichotomous
T6_45_4	2	4	0.78	433	Dichotomous
T6_45_56	2	5	0.62	446	Dichotomous
T6_45_56	2	6	0.76	336	Dichotomous
T6_45_6	2	6	0.85	336	Dichotomous
T6_46_1	2	1	0.31	628	Dichotomous
T6_46_2	2	2	0.66	500	Dichotomous
T6_46_4	2	4	0.82	433	Dichotomous

T6_46_5	2	5	0.69	446	Dichotomous
T6_46_6	2	6	0.89	336	Dichotomous
T6_47_1	2	1	0.49	628	Dichotomous
T6_47_2	2	2	0.55	499	Dichotomous
T6_47_3	2	3	0.57	589	Dichotomous
T6_47_5	2	5	0.64	446	Dichotomous
T6_47_6	2	6	0.57	336	Dichotomous
T6_48_1	2	1	0.24	628	Dichotomous
T6_48_4	2	4	0.61	433	Dichotomous
T6_48_6	2	6	0.91	336	Dichotomous
T6_49_2	2	2	0.59	500	Dichotomous
T6_49_4	2	4	0.83	433	Dichotomous
T6_49_5	2	5	0.65	446	Dichotomous
T6_5_1	1	1	0.48	179	Dichotomous
T6_5_2	1	2	0.41	224	Dichotomous
T6_5_34	1	3	0.37	167	Dichotomous
T6_5_34	1	4	0.47	210	Dichotomous
T6_5_4	1	4	0.82	210	Dichotomous
T6_5_56	1	5	0.78	180	Dichotomous
T6_5_56	1	6	0.65	161	Dichotomous
T6_5_6	1	6	0.86	161	Dichotomous
T6_5_6	2	6	0.79	336	Dichotomous
T6_6_1	1	1	0.45	179	Dichotomous
T6_6_23	1	2	0.46	224	Dichotomous
T6_6_23	1	3	0.41	167	Dichotomous
T6_6_56	1	5	0.56	180	Dichotomous
T6_6_56	1	6	0.84	161	Dichotomous
T6_6_6	1	6	0.81	161	Dichotomous
T6_6_6	2	6	0.78	336	Dichotomous
T6_7_1	1	1	0.26	179	Dichotomous
T6_7_1	2	1	0.18	628	Dichotomous
T6_7_2	1	2	0.56	224	Dichotomous
T6_7_5	1	5	0.81	180	Dichotomous
T6_7_6	1	6	0.39	161	Dichotomous
T6_7_6	2	6	0.45	336	Dichotomous
T6_8_1	1	1	0.26	179	Dichotomous
T6_8_2	1	2	0.77	224	Dichotomous
T6_8_3	1	3	0.80	167	Dichotomous
T6_8_456	1	4	0.92	210	Dichotomous
T6_8_456	1	5	0.94	180	Dichotomous
T6_8_456	1	6	0.90	161	Dichotomous

T6_8_5	1	5	0.37	180	Dichotomous
T6_8_6	1	6	0.80	161	Dichotomous
T6_9_1	1	1	0.37	179	Dichotomous
T6_9_3	1	3	0.73	167	Dichotomous
T6_9_3	2	3	0.65	589	Dichotomous
T6_9_5	1	5	0.77	180	Dichotomous
T6_9_5	2	5	0.78	446	Dichotomous
T6_9_6	1	6	0.45	161	Dichotomous

Table 8

Task 7 p-values and sample size

Item	Year	Grade	Mean	N	Item Type
T7_1_1	1	1	0.31	179	Dichotomous
T7_1_2	1	2	0.00	224	Dichotomous
T7_1_3	1	3	0.01	167	Dichotomous
T7_1_56	1	5	0.14	180	Dichotomous
T7_1_56	1	6	0.29	161	Dichotomous
T7_10_1	1	1	0.12	179	Dichotomous
T7_10_3	1	3	0.92	167	Dichotomous
T7_10_4	1	4	0.52	210	Dichotomous
T7_10_5	1	5	0.68	180	Dichotomous
T7_10_6	1	6	0.60	161	Dichotomous
T7_10_6	2	6	0.64	336	Dichotomous
T7_11_12	1	1	0.00	179	Dichotomous
T7_11_12	1	2	0.00	224	Dichotomous
T7_11_2	1	2	0.84	224	Dichotomous
T7_11_3	1	3	0.83	167	Dichotomous
T7_11_3	2	3	0.81	589	Dichotomous
T7_11_4	1	4	0.20	210	Dichotomous
T7_11_4	2	4	0.19	433	Dichotomous
T7_11_5	1	5	0.50	180	Dichotomous
T7_11_5	2	5	0.56	446	Dichotomous
T7_12_1	1	1	0.66	179	Dichotomous
T7_12_23	1	2	0.25	224	Dichotomous
T7_12_23	1	3	0.27	167	Dichotomous
T7_12_5	1	5	0.08	180	Dichotomous
T7_12_5	2	5	0.13	446	Dichotomous
T7_13_1	1	1	0.94	179	Dichotomous
T7_13_1	2	1	0.87	628	Dichotomous
T7_13_2	1	2	0.79	224	Dichotomous
T7_13_4	1	4	0.94	210	Dichotomous
T7_13_5	1	5	0.77	180	Dichotomous
T7_14_1	1	1	0.74	179	Dichotomous
T7_14_1	2	1	0.70	628	Dichotomous
T7_14_3	1	3	0.53	167	Dichotomous
T7_14_3	2	3	0.70	589	Dichotomous
T7_14_4	1	4	0.83	210	Dichotomous
T7_14_6	1	6	0.76	161	Dichotomous
T7_14_6	2	6	0.87	336	Dichotomous

T7_15_1	1	1	0.76	179	Dichotomous
T7_15_23	1	2	0.29	224	Dichotomous
T7_15_23	1	3	0.46	167	Dichotomous
T7_15_34	1	3	0.15	167	Dichotomous
T7_15_34	1	4	0.26	210	Dichotomous
T7_15_456	1	4	0.30	210	Dichotomous
T7_15_456	1	5	0.32	180	Dichotomous
T7_15_456	1	6	0.28	161	Dichotomous
T7_15_56	1	5	0.88	180	Dichotomous
T7_15_56	1	6	0.91	161	Dichotomous
T7_15_6	1	6	0.70	161	Dichotomous
T7_15_6	2	6	0.49	336	Dichotomous
T7_16_1	2	1	0.35	628	Dichotomous
T7_16_2	2	2	0.01	500	Dichotomous
T7_16_3	2	3	0.92	589	Dichotomous
T7_16_45	2	4	0.94	433	Dichotomous
T7_16_45	2	5	0.95	446	Dichotomous
T7_16_56	2	5	0.88	446	Dichotomous
T7_16_56	2	6	0.86	336	Dichotomous
T7_16_6	2	6	0.85	336	Dichotomous
T7_17_1	2	1	0.04	628	Dichotomous
T7_17_23	2	2	0.89	502	Dichotomous
T7_17_23	2	3	0.97	589	Dichotomous
T7_17_3	2	3	0.92	589	Dichotomous
T7_17_4	2	4	0.96	433	Dichotomous
T7_17_56	2	5	0.03	446	Dichotomous
T7_17_56	2	6	0.04	336	Dichotomous
T7_17_6	2	6	0.75	336	Dichotomous
T7_18_1	2	1	0.16	628	Dichotomous
T7_18_4	2	4	0.51	433	Dichotomous
T7_18_5	2	5	0.51	446	Dichotomous
T7_19_1	2	1	0.56	628	Dichotomous
T7_19_2	2	2	0.85	500	Dichotomous
T7_19_3	2	3	0.01	589	Dichotomous
T7_19_4	2	4	0.57	433	Dichotomous
T7_19_5	2	5	0.60	446	Dichotomous
T7_2_1	1	1	0.58	179	Dichotomous
T7_2_2	1	2	0.37	224	Dichotomous
T7_2_2	2	2	0.36	500	Dichotomous
T7_2_34	1	3	0.07	167	Dichotomous
T7_2_34	1	4	0.11	210	Dichotomous

T7_2_4	1	4	0.50	210	Dichotomous
T7_2_5	1	5	0.19	180	Dichotomous
T7_2_6	1	6	0.57	161	Dichotomous
T7_20_1	2	1	0.54	628	Dichotomous
T7_20_2	2	2	0.90	500	Dichotomous
T7_20_3	2	3	0.88	589	Dichotomous
T7_20_4	2	4	0.08	433	Dichotomous
T7_20_5	2	5	0.80	446	Dichotomous
T7_21_1	2	1	0.44	628	Dichotomous
T7_21_2	2	2	0.46	500	Dichotomous
T7_21_4	2	4	0.97	433	Dichotomous
T7_21_6	2	6	0.79	336	Dichotomous
T7_22_12	2	1	0.66	628	Dichotomous
T7_22_12	2	2	0.81	500	Dichotomous
T7_22_2	2	2	0.95	500	Dichotomous
T7_22_3	2	3	0.66	589	Dichotomous
T7_22_6	2	6	0.58	336	Dichotomous
T7_23_5	2	5	0.57	446	Dichotomous
T7_24_2	2	2	0.14	500	Dichotomous
T7_24_3	2	3	0.29	589	Dichotomous
T7_24_4	2	4	0.18	433	Dichotomous
T7_24_5	2	5	0.39	446	Dichotomous
T7_24_6	2	6	0.51	336	Dichotomous
T7_25_1	2	1	0.69	628	Dichotomous
T7_25_5	2	5	0.81	446	Dichotomous
T7_25_6	2	6	0.47	336	Dichotomous
T7_26_1	2	1	0.50	628	Dichotomous
T7_26_23	2	2	0.90	502	Dichotomous
T7_26_23	2	3	0.91	589	Dichotomous
T7_26_4	2	4	0.74	433	Dichotomous
T7_26_5	2	5	0.23	446	Dichotomous
T7_27_1	2	1	0.78	628	Dichotomous
T7_27_2	2	2	0.66	500	Dichotomous
T7_27_3	2	3	0.72	589	Dichotomous
T7_27_4	2	4	0.95	433	Dichotomous
T7_27_6	2	6	0.70	336	Dichotomous
T7_28_1	2	1	0.82	628	Dichotomous
T7_28_2	2	2	0.39	500	Dichotomous
T7_28_3	2	3	0.83	589	Dichotomous
T7_28_6	2	6	0.39	336	Dichotomous
T7_29_12	2	1	0.19	628	Dichotomous

T7_29_12	2	2	0.37	500	Dichotomous
T7_29_12.1	2	2	0.41	500	Dichotomous
T7_29_34	2	3	0.84	589	Dichotomous
T7_29_34	2	4	0.89	433	Dichotomous
T7_29_4	2	4	0.00	433	Dichotomous
T7_29_56	2	5	0.40	446	Dichotomous
T7_29_56	2	6	0.38	336	Dichotomous
T7_29_6	2	6	0.90	336	Dichotomous
T7_3_1	1	1	0.12	179	Dichotomous
T7_3_1	2	1	0.06	628	Dichotomous
T7_3_3	1	3	0.03	167	Dichotomous
T7_3_456	1	4	0.72	210	Dichotomous
T7_3_456	1	5	0.72	180	Dichotomous
T7_3_456	1	6	0.70	161	Dichotomous
T7_3_5	1	5	0.03	180	Dichotomous
T7_3_6	1	6	0.14	161	Dichotomous
T7_30_1	2	1	0.55	628	Dichotomous
T7_30_3	2	3	0.31	589	Dichotomous
T7_30_45	2	4	0.92	433	Dichotomous
T7_30_45	2	5	0.88	446	Dichotomous
T7_30_5	2	5	0.46	446	Dichotomous
T7_30_6	2	6	0.72	336	Dichotomous
T7_31_1	2	1	0.85	628	Dichotomous
T7_31_34	2	3	0.60	589	Dichotomous
T7_31_34	2	4	0.68	433	Dichotomous
T7_31_5	2	5	0.60	446	Dichotomous
T7_31_6	2	6	0.64	336	Dichotomous
T7_32_2	2	2	0.80	500	Dichotomous
T7_32_3	2	3	0.07	589	Dichotomous
T7_32_4	2	4	0.06	433	Dichotomous
T7_32_5	2	5	0.52	446	Dichotomous
T7_32_6	2	6	0.82	336	Dichotomous
T7_33_1	2	1	0.83	628	Dichotomous
T7_33_2	2	2	0.75	500	Dichotomous
T7_33_3	2	3	0.88	589	Dichotomous
T7_33_4	2	4	0.05	433	Dichotomous
T7_4_1	1	1	0.01	179	Dichotomous
T7_4_23	1	2	0.13	224	Dichotomous
T7_4_23	1	3	0.20	167	Dichotomous
T7_4_23	2	2	0.15	500	Dichotomous
T7_4_3	1	3	0.78	167	Dichotomous

T7_4_4	1	4	0.09	210	Dichotomous
T7_4_5	1	5	0.35	180	Dichotomous
T7_4_5	2	5	0.53	446	Dichotomous
T7_4_6	1	6	0.61	161	Dichotomous
T7_5_1	1	1	0.79	179	Dichotomous
T7_5_2	1	2	0.46	224	Dichotomous
T7_5_2	2	2	0.39	500	Dichotomous
T7_5_3	1	3	0.31	167	Dichotomous
T7_5_4	1	4	0.82	210	Dichotomous
T7_5_56	1	5	0.01	180	Dichotomous
T7_5_56	1	6	0.01	161	Dichotomous
T7_6_12	1	1	0.03	179	Dichotomous
T7_6_12	1	2	0.09	224	Dichotomous
T7_6_2	1	2	0.92	224	Dichotomous
T7_6_3	1	3	0.17	167	Dichotomous
T7_6_3	2	3	0.16	589	Dichotomous
T7_6_4	1	4	0.46	210	Dichotomous
T7_7_1	1	1	0.41	179	Dichotomous
T7_7_2	1	2	0.35	224	Dichotomous
T7_7_4	1	4	0.81	210	Dichotomous
T7_7_4	2	4	0.69	433	Dichotomous
T7_7_5	1	5	0.02	180	Dichotomous
T7_7_6	1	6	0.09	161	Dichotomous
T7_8_12	1	1	0.15	179	Dichotomous
T7_8_12	1	2	0.29	224	Dichotomous
T7_8_2	1	2	0.88	224	Dichotomous
T7_8_3	1	3	0.43	167	Dichotomous
T7_8_6	1	6	0.28	161	Dichotomous
T7_9_1	1	1	0.13	179	Dichotomous
T7_9_2	1	2	0.91	224	Dichotomous
T7_9_34	1	3	0.13	167	Dichotomous
T7_9_34	1	4	0.27	210	Dichotomous
T7_9_34	2	4	0.37	433	Dichotomous
T7_9_456	1	4	0.70	210	Dichotomous
T7_9_456	1	5	0.78	180	Dichotomous
T7_9_456	1	6	0.82	161	Dichotomous
T7_9_5	1	5	0.69	180	Dichotomous
T7_9_6	1	6	0.35	161	Dichotomous

Table 9

Task 8 p-values and sample size

Item	Year	Grade	Mean	N	Item Type
T8_1_3	1	3	0.00	167	Dichotomous
T8_1_4	1	4	0.33	210	Dichotomous
T8_1_4	2	4	0.37	433	Dichotomous
T8_1_5	1	5	0.21	180	Dichotomous
T8_1_5	2	5	0.13	446	Dichotomous
T8_1_6	1	6	0.01	161	Dichotomous
T8_1_6	2	6	0.01	336	Dichotomous
T8_10_3	1	3	0.00	167	Dichotomous
T8_10_3	2	3	0.00	589	Dichotomous
T8_10_4	1	4	0.14	210	Dichotomous
T8_10_5	1	5	0.31	180	Dichotomous
T8_10_6	1	6	0.73	161	Dichotomous
T8_11_3	1	3	0.09	167	Dichotomous
T8_11_3	2	3	0.15	589	Dichotomous
T8_11_5	1	5	0.14	180	Dichotomous
T8_11_5	2	5	0.16	446	Dichotomous
T8_12_3	1	3	0.03	167	Dichotomous
T8_12_4	1	4	0.04	210	Dichotomous
T8_12_56	1	5	0.00	180	Dichotomous
T8_12_56	1	6	0.00	161	Dichotomous
T8_13_3	1	3	0.10	167	Dichotomous
T8_13_456	1	4	0.70	210	Dichotomous
T8_13_456	1	5	0.69	180	Dichotomous
T8_13_456	1	6	0.83	161	Dichotomous
T8_13_456	2	5	0.69	446	Dichotomous
T8_13_5	1	5	0.12	180	Dichotomous
T8_14_3	1	3	0.47	167	Dichotomous
T8_14_5	1	5	0.61	180	Dichotomous
T8_15_3	1	3	0.23	167	Dichotomous
T8_15_4	1	4	0.71	210	Dichotomous
T8_15_4	2	4	0.35	433	Dichotomous
T8_15_5	1	5	0.12	180	Dichotomous
T8_15_6	1	6	0.67	161	Dichotomous
T8_16_34	1	3	0.07	167	Dichotomous
T8_16_34	1	4	0.28	210	Dichotomous
T8_16_4	1	4	0.23	210	Dichotomous
T8_17_3	1	3	0.38	167	Dichotomous

T8_17_4	1	4	0.83	210	Dichotomous
T8_17_6	1	6	0.50	161	Dichotomous
T8_18_34	1	3	0.21	167	Dichotomous
T8_18_34	1	4	0.44	210	Dichotomous
T8_18_5	1	5	0.14	180	Dichotomous
T8_19_3	1	3	0.25	167	Dichotomous
T8_19_5	1	5	0.36	180	Dichotomous
T8_19_6	1	6	0.39	161	Dichotomous
T8_2_3	1	3	0.01	167	Dichotomous
T8_2_4	1	4	0.35	210	Dichotomous
T8_2_4	2	4	0.36	433	Dichotomous
T8_2_5	1	5	0.08	180	Dichotomous
T8_2_5	2	5	0.08	446	Dichotomous
T8_2_6	1	6	0.10	161	Dichotomous
T8_2_6	2	6	0.07	336	Dichotomous
T8_20_34	1	3	0.28	167	Dichotomous
T8_20_34	1	4	0.56	210	Dichotomous
T8_20_456	1	4	0.53	210	Dichotomous
T8_20_456	1	5	0.47	179	Dichotomous
T8_20_456	1	6	0.56	161	Dichotomous
T8_20_5	1	5	0.38	180	Dichotomous
T8_20_6	1	6	0.85	161	Dichotomous
T8_21_34	1	3	0.44	167	Dichotomous
T8_21_34	1	4	0.73	210	Dichotomous
T8_21_4	1	4	0.60	210	Dichotomous
T8_21_6	1	6	0.32	161	Dichotomous
T8_22_3	1	3	0.13	167	Dichotomous
T8_22_5	1	5	0.29	180	Dichotomous
T8_22_6	1	6	0.06	161	Dichotomous
T8_23_3	1	3	0.28	167	Dichotomous
T8_23_4	1	4	0.28	210	Dichotomous
T8_23_5	1	5	0.53	180	Dichotomous
T8_23_6	1	6	0.73	161	Dichotomous
T8_24_3	1	3	0.19	167	Dichotomous
T8_24_456	1	4	0.41	210	Dichotomous
T8_24_456	1	5	0.54	180	Dichotomous
T8_24_456	1	6	0.63	161	Dichotomous
T8_24_6	1	6	0.50	161	Dichotomous
T8_25_3	1	3	0.38	167	Dichotomous
T8_25_456	1	4	0.02	210	Dichotomous
T8_25_456	1	5	0.03	180	Dichotomous

T8_25_456	1	6	0.11	161	Dichotomous
T8_25_5	1	5	0.66	180	Dichotomous
T8_25_6	1	6	0.85	161	Dichotomous
T8_26_3	2	3	0.79	589	Dichotomous
T8_26_4	2	4	0.80	433	Dichotomous
T8_26_5	2	5	0.04	446	Dichotomous
T8_27_3	2	3	0.14	589	Dichotomous
T8_27_4	2	4	0.85	433	Dichotomous
T8_27_56	2	5	0.21	446	Dichotomous
T8_27_56	2	6	0.30	336	Dichotomous
T8_28_3	2	3	0.47	589	Dichotomous
T8_28_6	2	6	0.27	336	Dichotomous
T8_29_3	2	3	0.75	589	Dichotomous
T8_29_4	2	4	0.22	433	Dichotomous
T8_29_5	2	5	0.48	446	Dichotomous
T8_29_6	2	6	0.04	336	Dichotomous
T8_3_3	1	3	0.00	167	Dichotomous
T8_3_4	1	4	0.23	210	Dichotomous
T8_3_4	2	4	0.27	433	Dichotomous
T8_3_56	1	5	0.04	180	Dichotomous
T8_3_56	1	6	0.01	161	Dichotomous
T8_3_56	2	6	0.03	336	Dichotomous
T8_30_3	2	3	0.32	589	Dichotomous
T8_30_6	2	6	0.64	336	Dichotomous
T8_31_45	2	4	0.30	433	Dichotomous
T8_31_45	2	5	0.40	446	Dichotomous
T8_31_5	2	5	0.52	446	Dichotomous
T8_31_6	2	6	0.17	336	Dichotomous
T8_32_3	2	3	0.54	589	Dichotomous
T8_32_4	2	4	0.33	433	Dichotomous
T8_32_6	2	6	0.70	336	Dichotomous
T8_33_3	2	3	0.16	589	Dichotomous
T8_33_4	2	4	0.11	433	Dichotomous
T8_33_5	2	5	0.42	446	Dichotomous
T8_34_3	2	3	0.48	589	Dichotomous
T8_34_4	2	4	0.43	433	Dichotomous
T8_34_6	2	6	0.02	336	Dichotomous
T8_35_4	2	4	0.25	433	Dichotomous
T8_35_5	2	5	0.66	446	Dichotomous
T8_35_6	2	6	0.25	336	Dichotomous
T8_36_3	2	3	0.64	589	Dichotomous

T8_36_34	2	4	0.22	433	Dichotomous
T8_36_5	2	5	0.35	446	Dichotomous
T8_36_6	2	6	0.59	336	Dichotomous
T8_37_34	2	3	0.43	589	Dichotomous
T8_37_34	2	4	0.50	433	Dichotomous
T8_37_6	2	6	0.38	336	Dichotomous
T8_38_4	2	4	0.61	433	Dichotomous
T8_38_5	2	5	0.21	446	Dichotomous
T8_38_6	2	6	0.32	336	Dichotomous
T8_39_56	2	5	0.48	446	Dichotomous
T8_39_56	2	6	0.69	336	Dichotomous
T8_39_6	2	6	0.83	336	Dichotomous
T8_4_3	1	3	0.13	167	Dichotomous
T8_4_4	1	4	0.00	210	Dichotomous
T8_4_56	1	5	0.08	180	Dichotomous
T8_4_56	1	6	0.16	161	Dichotomous
T8_40_3	2	3	0.48	589	Dichotomous
T8_40_5	2	5	0.44	446	Dichotomous
T8_40_6	2	6	0.33	336	Dichotomous
T8_41_3	2	3	0.00	589	Dichotomous
T8_41_4	2	4	0.36	433	Dichotomous
T8_41_5	2	5	0.66	446	Dichotomous
T8_42_3	2	3	0.49	589	Dichotomous
T8_42_5	2	5	0.64	446	Dichotomous
T8_42_6	2	6	0.42	336	Dichotomous
T8_43_3	2	3	0.49	589	Dichotomous
T8_43_45	2	4	0.38	433	Dichotomous
T8_43_45	2	5	0.54	446	Dichotomous
T8_43_56	2	5	0.24	446	Dichotomous
T8_43_56	2	6	0.34	336	Dichotomous
T8_43_6	2	6	0.13	336	Dichotomous
T8_44_3	2	3	0.35	589	Dichotomous
T8_44_4	2	4	0.00	433	Dichotomous
T8_44_5	2	5	0.04	446	Dichotomous
T8_44_6	2	6	0.71	336	Dichotomous
T8_45_3	2	3	0.48	589	Dichotomous
T8_45_4	2	4	0.48	433	Dichotomous
T8_45_5	2	5	0.47	446	Dichotomous
T8_46_34	2	3	0.54	589	Dichotomous
T8_46_34	2	4	0.75	433	Dichotomous
T8_46_4	2	4	0.60	433	Dichotomous

T8_46_5	2	5	0.55	446	Dichotomous
T8_46_6	2	6	0.48	336	Dichotomous
T8_47_3	2	3	0.50	589	Dichotomous
T8_47_4	2	4	0.43	433	Dichotomous
T8_48_3	2	3	0.16	589	Dichotomous
T8_48_4	2	4	0.11	433	Dichotomous
T8_48_5	2	5	0.44	446	Dichotomous
T8_49_3	2	3	0.54	589	Dichotomous
T8_49_4	2	4	0.13	433	Dichotomous
T8_49_5	2	5	0.22	446	Dichotomous
T8_49_6	2	6	0.21	336	Dichotomous
T8_5_3	1	3	0.20	167	Dichotomous
T8_5_4	1	4	0.07	210	Dichotomous
T8_5_56	1	5	0.23	180	Dichotomous
T8_5_56	1	6	0.37	161	Dichotomous
T8_5_6	1	6	0.62	161	Dichotomous
T8_6_3	1	3	0.47	167	Dichotomous
T8_6_4	1	4	0.61	210	Dichotomous
T8_6_5	1	5	0.83	180	Dichotomous
T8_7_34	1	3	0.00	167	Dichotomous
T8_7_34	1	4	0.00	210	Dichotomous
T8_7_4	1	4	0.13	210	Dichotomous
T8_7_5	1	5	0.19	180	Dichotomous
T8_7_6	1	6	0.07	161	Dichotomous
T8_7_6	2	6	0.10	336	Dichotomous
T8_8_3	1	3	0.05	167	Dichotomous
T8_8_3	2	3	0.06	589	Dichotomous
T8_8_4	1	4	0.70	210	Dichotomous
T8_8_56	1	5	0.59	180	Dichotomous
T8_8_56	1	6	0.66	161	Dichotomous
T8_9_3	1	3	0.45	167	Dichotomous
T8_9_3	2	3	0.54	589	Dichotomous
T8_9_456	1	4	0.06	210	Dichotomous
T8_9_456	1	5	0.10	180	Dichotomous
T8_9_456	1	6	0.16	161	Dichotomous
T8_9_6	1	6	0.08	161	Dichotomous

Table 10

Task 1 vertical linking item p-values by grade level

Item	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6
T1_2_12	76.2	91.5				
T1_13_12	17.9	20.5				
T1_14_12	83.9	87.1				
T1_21_12	72.9	81.6				
T1_6_23		15.2	13.2			
T1_9_23		36.5	35.3			
T1_13_23		10.4	7.8			
T1_27_23		15.1	70.5			
T1_1_34			54.5	42.9		
T1_2_34			15.6	21.9		
T1_4_34			29.1	33.8		
T1_18_34			55.3	63.5		
T1_22_45				28.2	38.3	
T1_4_56					13.3	9.3
T1_6_56					42.8	29.8
T1_8_56					84.4	83.3
T1_24_56					85.2	85.4
T1_2_456				86.7	90.6	84.5
T1_5_456				41.9	39.4	44.1
T1_10_456				26	22.8	26.7

Note. Items highlighted in green were used for grade-based vertical links.

Table 11

Task 2 vertical linking item p-values by grade level

Item	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6
T2_51_12	13	32				
T2_53_12	9	22				
T2_56_12	8	15				
T2_58_12	8	26				
T2_75_12	3	8				
T2_60_23		50	60			
T2_70_23		38	42			
T2_75_23		9	13			
T2_78_23		13	24			
T2_84_23		19	21			
T2_55_34			76	88		
T2_56_34			67	74		
T2_59_34			48	75		
T2_69_34			56	77		
T2_77_34			43	63		
T2_61_45				34	49	
T2_61_56					83	87
T2_70_56					84	85
T2_71_56					65	66
T2_74_56					22	26
T2_79_56					44	52
T2_64_456				70	78	81
T2_71_456				19	43	42
T2_77_456				18	23	27
T2_81_456				9	8	9

Note. Items highlighted in green were used for grade-based vertical links.

Table 12

Task 3 vertical linking item p-values by grade level

Item	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6
T3_10_12	24	35.7				
T3_11_12	27.4	52.7				
T3_12_12	43.6	26.3				
T3_18_12	17.3	42.9				
T3_19_12	27.9	24.6				
T3_20_12	24	21.4				
T3_23_12	34.1	61.6				
T3_29_12	15.1	18.8				
T3_64_12	36.5	47				
T3_42_23		29.9	46.5			
T3_43_23		28				
T3_46_23		57	70.6			
T3_2_23		30.4	23.4			
T3_4_23		25.9	19.8			
T3_8_23		19.6	21			
T3_13_23		58	68.9			
T3_27_23		35.3	52.7			
T3_29_23		41.5	56.9			
T3_30_23		47.8	58.7			
T3_37_23		37.9	34.1			
T3_5_34			37.1	40.5		
T3_42_34			28.5	43		
T3_6_34			24.6	27.1		
T3_11_34			24.6	23.8		
T3_15_34			53.9	54.3		
T3_17_34			59.9	75.2		
T3_23_34			50.9	65.7		
T3_28_34			45.5	61		
T3_33_34			62.9	68.6		
T3_50_34			54			
T3_51_34			52.3	59.4		
T3_60_45				83.1	88.3	
T3_63_45				26.1	18.4	
T3_2_56					42.8	49.1
T3_16_56					65	68.9
T3_19_56					34.4	44.1

T3_21_56		60.6	72
T3_25_56		42.2	43.5
T3_31_56		61.1	68.9
T3_32_56		61.1	69.6
T3_39_56		51.1	67.7
T3_51_56		39	47.3
T3_60_56		73.5	83.3
T3_3_456	50.5	50	68.9
T3_8_456	21	30.6	29.8
T3_9_456	24.3	29.4	37.9
T3_14_456	60	61	72.7
T3_15_456	41.4	46.1	42.9
T3_20_456	67.1	57.8	68.3
T3_33_456	30	41.7	42.2
T3_40_456	56.7	54.4	65.2

Note. Items highlighted in green were used for grade-based vertical links.

Table 13

Task 4 vertical linking item p-values by grade level

Item	Grade 3	Grade 4	Grade 5	Grade 6
T4_7_34	60.5	75.6		
T4_8_34	75.4	91.9		
T4_12_34	60.5	73.8		
T4_23_34	62.3	71.9		
T4_25_34	39.5	63.3		
T4_29_34		76.2		
T4_36_34		72.3		
T4_43_34		45.7		
T4_38_45		58.7	70.2	
T4_41_45		81.5	86.8	
T4_5_56			81.7	80.1
T4_11_56			45	67.7
T4_14_56			37.8	53.4
T4_22_56			62.8	56.5
T4_23_56			80.7	73.9
T4_31_56			81.8	87.8
T4_45_56			76.7	82.4
T4_46_56			83.2	87.5
T4_1_456		34.8	46.1	38.5
T4_6_456		53.3	55.6	66.5
T4_14_456		60	43.9	51.6
T4_15_456		58.1	57.2	67.1
T4_22_456		76.7	85	80.7

Note. Items highlighted in green were used for grade-based vertical links.

Table 14

Task 5 vertical linking item p-values by grade level

Item	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6
T5_5_12	0	1.3				
T5_10_12	1.1	6.4				
T5_18_12	6.7	34.8				
T5_24_12	2.8	27.2				
T5_30_12	7.6	27.6				
T5_32_12	5.9	37.6				
T5_26_23		57	63.7			
T5_39_23		11.8	27.7			
T5_8_23		0	3			
T5_10_23		7.1	18.6			
T5_11_23		39.3	63.5			
T5_23_23		1.3	6.6			
T5_3_34			7.2	16.2		
T5_10_34			22.2	31.9		
T5_12_34			1.2	2.9		
T5_14_34			3	7.6		
T5_17_34			18	34.8		
T5_31_34			19	30.9		
T5_34_34			53.5	68.6		
T5_26_45				55.5	58.7	
T5_36_45				39.5	54.3	
T5_26_56					55.8	63.1
T5_30_56					42.8	52.1
T5_37_56					41.9	42.6
T5_3_56					38.3	45.3
T5_6_56					9.4	13.7
T5_7_56					5	3.1
T5_12_56					13.3	20.5
T5_20_56					1	7.5
T5_6_456				21.4	24.8	31.1
T5_8_456				1.4	1.1	1.2
T5_15_456				13.8	38.3	47.2
T5_21_456				7.6	12.2	18
T5_25_456				14.3	13.3	23

Note. Items highlighted in green were used for grade-based vertical links.

Table 15

Task 6 vertical linking item p-values by grade level

Item	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6
T6_10_12	45.8	40.6				
T6_15_12	55.9	44.2				
T6_16_12	42.5	56.7				
T6_19_12	43	74.1				
T6_21_12	29.6	42				
T6_26_12	22.9	48.2				
T6_41_12	28.3	55.6				
T6_6_23		46.4	40.7			
T6_11_23		54.9	56.3			
T6_13_23		62.5	59.9			
T6_17_23		41.5	81.4			
T6_20_23		30.8	44.3			
T6_36_23		33.9	55			
T6_42_23		45.8	54.5			
T6_1_34			59.9	65.2		
T6_5_34			37.1	46.7		
T6_10_34			62.3	76.2		
T6_21_34			24	42.4		
T6_24_34			61.7	80.5		
T6_12_3.1			20			
T6_40_34			69.3	81.8		
T6_43_34			51.4	66.3		
T6_27_45				46.7	62.1	
T6_28_45				46	52.9	
T6_1_56					71.7	79.5
T6_2_56					72.2	80.7
T6_5_56					77.8	65.2
T6_6_56					56.1	84.5
T6_18_56					37.2	42.9
T6_28_56					89.7	92.6
T6_32_56					61.4	69
T6_45_56					61.7	75.9
T6_1_456				68.1	77.2	77.6
T6_4_456				43.8	46.7	77.6
T6_8_456				92.4	93.9	90.1
T6_14_456				74.3	87.2	82.6
T6_22_456				79	88.9	90.7

Note. Items highlighted in green were used for grade-based vertical links.

Table 16

Task 7 vertical linking item p-values by grade level

Item	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6
T7_6_12	3.4	9.4				
T7_8_12	14.5	29				
T7_11_12	0	0.4				
T7_22_12	66.4	81.4				
T7_29_12	18.9	37				
T7_4_23		14.5	20.4			
T7_12_23		24.6	26.9			
T7_15_23		28.6	45.5			
T7_17_23		89	96.8			
T7_26_23		89.6	91.3			
T7_2_34			7.1	11.4		
T7_9_34			12.6	33.4		
T7_15_34			15	26.2		
T7_29_34			83.7	89.1		
T7_31_34				59.9	68.1	
T7_16_45				94.2	95.1	
T7_30_45				91.7	87.9	
T7_1_56					14.4	29.2
T7_5_56					0.6	1.2
T7_15_56					87.8	91.3
T7_16_56					87.7	86.3
T7_17_56					2.9	3.6
T7_29_56					40.1	38.4
T7_3_456				72.4	71.7	70.2
T7_9_456				70	77.8	82
T7_15_456				30.5	32.2	28

Note. Items highlighted in green were used for grade-based vertical links.

Table 17

Task 8 vertical linking item p-values by grade level

Item	Grade 3	Grade 4	Grade 5	Grade 6
T8_7_34	0	0.5		
T8_16_34	6.6	27.6		
T8_18_34	21	43.8		
T8_20_34	27.5	56.2		
T8_21_34	44.3	72.9		
T8_3_56			3.9	2.2
T8_37_34	43	49.7		
T8_46_34	54.3	75.3		
T8_36_34		21.9		
T8_31_45		30.5	39.7	
T8_43_45		37.9	54	
T8_4_56			8.3	16.1
T8_5_56			23.3	36.6
T8_8_56			58.9	66.5
T8_12_56			0	0
T8_27_56			20.9	30.1
T8_39_56			48	68.8
T8_43_56			23.5	33.6
T8_9_456		5.7	10	15.5
T8_13_456		70.5	68.7	83.2
T8_20_456		53.3	46.9	55.9
T8_24_456		41.4	53.9	63.4
T8_25_456		2.4	3.3	10.6

Note. Items highlighted in green were used for grade-based vertical links.

Table 18

Task-based Rasch model fit

Tasks	M2	df	p-value	f0hat	RMSEA	TLI
Task 1	2003.46	867	<.001	0.49	0.02	0.82
Task 2	16559.29	4604	<.001	4.08	0.03	0.85
Task 3	6365.34	8085	1.00	1.57	<.001	1.00
Task 4	1473.90	2426	1.00	0.58	<.001	1.00
Task 5	1761.84	3210	1.00	0.43	<.001	1.00
Task 6	5508.05	4802	<.001	1.36	0.01	0.97
Task 7	1720.92	2010	1.00	0.42	<.001	1.00
Task 8	1983.96	3059	1.00	0.79	<.001	1.00

Note. M2 = M2 statistic, df= degrees of freedom, RMSEA = root mean square error of approximation, TLI = Tucker-Lewis Index

Table 19

Task 1 Rasch model item parameters

Item	a	b
T1_1_1	1	-2.038
T1_1_5	1	2.725
T1_10_456	1	1.537
T1_11_1	1	0.093
T1_11_6	1	-1.616
T1_12_1	1	0.040
T1_12_3	1	0.674
T1_12_5	1	0.973
T1_12_6	1	3.081
T1_13_12	1	1.423
T1_13_3	1	1.245
T1_13_4	1	1.519
T1_13_5	1	0.330
T1_14_12	1	-2.477
T1_14_2	1	1.406
T1_14_3	1	0.941
T1_14_5	1	1.528
T1_14_6	1	2.563
T1_15_1	1	0.283
T1_15_2	1	-2.495
T1_15_3	1	0.592
T1_15_4	1	1.473
T1_16_1	1	-2.515
T1_17_3	1	0.960
T1_17_5	1	-0.303
T1_17_6	1	-0.553
T1_18_1	1	-0.261
T1_18_34	1	-0.918
T1_18_5	1	0.861
T1_19_3	1	1.047
T1_19_5	1	0.380
T1_2_12	1	-2.072
T1_2_2	1	-0.079
T1_2_34	1	1.447
T1_2_5	1	0.623
T1_20_1	1	-0.654
T1_20_2	1	-1.799

T1_20_6	1	1.660
T1_21_12	1	-1.803
T1_21_2	1	-1.074
T1_21_3	1	0.803
T1_21_6	1	0.238
T1_22_1	1	-1.678
T1_22_2	1	-1.212
T1_22_45	1	0.731
T1_23_1	1	0.142
T1_23_2	1	-2.755
T1_23_6	1	0.858
T1_24_4	1	0.979
T1_25_1	1	0.691
T1_25_3	1	0.149
T1_25_5	1	0.861
T1_25_6	1	-0.211
T1_26_2	1	-1.850
T1_26_3	1	0.915
T1_27_1	1	-1.190
T1_27_3	1	-0.148
T1_27_4	1	1.481
T1_27_5	1	0.938
T1_28_1	1	-1.516
T1_28_2	1	-1.886
T1_28_4	1	1.167
T1_28_5	1	0.962
T1_28_6	1	0.693
T1_3_1	1	1.824
T1_3_2	1	0.608
T1_3_6	1	0.445
T1_4_1	1	-3.031
T1_4_2	1	2.126
T1_4_34	1	0.591
T1_4_4	1	-0.639
T1_4_56	1	2.984
T1_5_1	1	-3.158
T1_5_2	1	0.151
T1_5_456	1	0.548
T1_5_5	1	2.516
T1_6_1	1	1.451
T1_6_23	1	2.346

T1_6_4	1	1.832
T1_7_1	1	-0.159
T1_7_5	1	1.566
T1_8_1	1	-2.779
T1_8_2	1	-1.622
T1_8_3	1	-0.608
T1_8_4	1	1.877
T1_9_1	1	0.121
T1_9_23	1	0.833
T1_9_4	1	1.106

Note. a=item discrimination, b = item difficulty

Table 20

Task 2 Rasch model item parameters

Item	a	b
T2_51_12	1	0.26141
T2_51_2	1	-0.8091
T2_51_3	1	0.61501
T2_51_4	1	1.86916
T2_51_5	1	-0.113
T2_51_6	1	-1.5054
T2_52_1	1	0.19671
T2_52_2	1	1.21216
T2_52_3	1	0.77653
T2_52_5	1	1.17356
T2_52_6	1	1.31385
T2_53_12	1	0.80187
T2_53_3	1	0.59607
T2_53_4	1	0.43278
T2_53_6	1	0.31218
T2_54_1	1	-1.3237
T2_54_2	1	0.68961
T2_54_3	1	0.43129
T2_54_6	1	1.18807
T2_55_1	1	1.14671
T2_55_2	1	3.51855
T2_55_5	1	1.49468
T2_56_12	1	1.20506
T2_56_34	1	-0.9704
T2_57_1	1	-0.9548
T2_57_5	1	-0.3245
T2_58_12	1	0.74235
T2_58_2	1	1.06346
T2_58_4	1	0.2737
T2_58_6	1	0.22084
T2_59_1	1	-0.4625
T2_59_5	1	-0.9291
T2_59_6	1	1.60127
T2_60_1	1	-0.0657
T2_60_23	1	-0.7536
T2_60_4	1	1.22344
T2_60_6	1	-0.1221

T2_61_1	1	-0.3539
T2_61_2	1	-0.5403
T2_61_3	1	0.44963
T2_61_45	1	1.37523
T2_62_1	1	-0.0287
T2_62_2	1	0.49593
T2_62_3	1	0.31173
T2_62_4	1	0.85571
T2_62_5	1	1.00092
T2_63_1	1	1.17358
T2_63_2	1	-0.6742
T2_63_3	1	1.88129
T2_63_4	1	0.62643
T2_63_5	1	1.1487
T2_63_6	1	1.1073
T2_64_1	1	0.1278
T2_64_2	1	0.58949
T2_64_3	1	0.39479
T2_64_5	1	0.81432
T2_65_1	1	-0.7058
T2_65_2	1	-0.9023
T2_65_5	1	3.24614
T2_65_6	1	0.29279
T2_66_1	1	0.11372
T2_66_22	1	0.07026
T2_66_3	1	-0.2582
T2_66_4	1	1.21095
T2_66_5	1	1.78242
T2_66_6	1	1.09078
T2_67_1	1	-0.1159
T2_67_2	1	-0.1734
T2_67_3	1	0.11629
T2_67_4	1	0.61436
T2_67_5	1	1.24793
T2_68_1	1	0.01056
T2_68_2	1	0.82597
T2_68_3	1	0.49908
T2_68_4	1	0.90415
T2_69_1	1	-0.3203
T2_69_2	1	1.17797
T2_69_4	1	1.23594

T2_69_5	1	-0.3796
T2_70_1	1	0.26566
T2_70_23	1	0.0771
T2_70_3	1	0.03738
T2_71_1	1	-0.3539
T2_71_3	1	1.2193
T2_71_456	1	1.98121
T2_72_1	1	2.14178
T2_72_2	1	3.4322
T2_72_4	1	1.94609
T2_73_1	1	0.89267
T2_73_2	1	0.91737
T2_73_3	1	1.70782
T2_73_4	1	1.7599
T2_73_6	1	1.40854
T2_74_1	1	0.39018
T2_74_2	1	0.44429
T2_74_3	1	0.68606
T2_74_4	1	2.45259
T2_74_56	1	2.82531
T2_75_23	1	2.13903
T2_75_3	1	2.59537
T2_75_4	1	3.7023
T2_76_1	1	0.69787
T2_76_2	1	3.60888
T2_76_3	1	1.06729
T2_76_4	1	2.6905
T2_77_1	1	0.66195
T2_77_2	1	0.39437
T2_77_34	1	0.06246
T2_77_456	1	2.67508
T2_78_1	1	0.55995
T2_78_23	1	1.39152
T2_78_3	1	1.42903
T2_78_4	1	1.24847
T2_78_5	1	-0.8183
T2_79_1	1	1.32483
T2_79_2	1	-0.1912
T2_79_3	1	1.05564
T2_79_4	1	1.52975
T2_79_56	1	1.4272

T2_79_6	1	2.33034
T2_80_1	1	-0.3427
T2_80_2	1	1.5374
T2_80_4	1	1.0381
T2_80_5	1	1.49468
T2_81_1	1	0.6816
T2_81_2	1	0.76937
T2_81_3	1	2.59537
T2_81_456	1	4.11886
T2_81_5	1	0.92507
T2_82_1	1	0.89267
T2_82_2	1	1.46462
T2_82_3	1	1.60373
T2_82_4	1	4.2642
T2_82_5	1	4.48596
T2_82_6	1	3.77744
T2_83_1	1	0.62339
T2_83_2	1	0.16305
T2_83_3	1	2.6945
T2_83_4	1	3.03105
T2_83_6	1	1.14025
T2_84_1	1	0.32775
T2_84_23	1	1.32685
T2_84_3	1	1.11149
T2_84_4	1	2.52784
T2_84_5	1	4.25762
T2_85_1	1	2.35009
T2_85_2	1	-0.3006
T2_85_3	1	2.36935
T2_85_4	1	2.64276
T2_85_5	1	2.32505

Note. a=item discrimination, b = item difficulty

Table 21

Task 3 Rasch model item parameters

Item	a	b
T3_1_2	1	-1.0435
T3_1_3	1	0.31377
T3_1_5	1	-0.9483
T3_1_6	1	-0.672
T3_10_12	1	0.23693
T3_10_2	1	-0.9348
T3_10_3	1	0.5502
T3_10_4	1	0.02133
T3_10_5	1	0.05449
T3_10_6	1	0.83032
T3_11_12	1	-0.325
T3_11_2	1	-0.8228
T3_11_34	1	1.27905
T3_11_4	1	-0.9938
T3_11_5	1	-1.4987
T3_12_12	1	0.77096
T3_12_2	1	0.3417
T3_12_3	1	-1.0903
T3_12_4	1	-0.4989
T3_12_5	1	-0.7496
T3_13_23	1	-0.8852
T3_13_6	1	-1.1724
T3_14_1	1	-0.467
T3_14_3	1	0.40142
T3_14_456	1	-0.4668
T3_14_5	1	-0.1637
T3_15_1	1	0.2266
T3_15_34	1	-0.1118
T3_15_456	1	0.45244
T3_15_5	1	0.02607
T3_15_6	1	0.39387
T3_16_1	1	-0.4398
T3_16_2	1	-0.7992
T3_16_3	1	0.34287
T3_16_56	1	-0.5454
T3_17_1	1	0.2266
T3_17_34	1	-1.2826

T3_17_5	1	0.09571
T3_17_6	1	-0.672
T3_18_12	1	0.18231
T3_18_2	1	-0.1477
T3_18_3	1	-0.9575
T3_18_4	1	-0.0253
T3_19_3	1	-0.7745
T3_19_4	1	-0.0877
T3_19_56	1	0.98191
T3_19_6	1	-0.9486
T3_2_3	1	-0.4646
T3_2_4	1	0.06794
T3_2_56	1	0.4889
T3_2_56	1	0.76332
T3_2_6	1	0.07004
T3_20_12	1	1.09473
T3_20_2	1	-0.8655
T3_20_456	1	-0.3024
T3_20_6	1	0.07004
T3_21_1	1	0.81117
T3_21_3	1	-1.5166
T3_21_4	1	0.30123
T3_21_56	1	-0.4936
T3_21_6	1	1.76067
T3_22_1	1	-1.1158
T3_22_2	1	0.57168
T3_22_3	1	1.35516
T3_22_4	1	1.0536
T3_22_5	1	-0.3032
T3_22_6	1	-0.0021
T3_23_12	1	-0.7021
T3_23_2	1	0.20864
T3_23_34	1	-0.4185
T3_23_4	1	-0.7338
T3_23_5	1	-0.2587
T3_23_6	1	-0.9799
T3_24_1	1	-0.3062
T3_24_3	1	0.09075
T3_24_4	1	-0.8278
T3_24_5	1	-0.5451
T3_24_6	1	1.23729

T3_25_1	1	0.11704
T3_25_3	1	-0.2113
T3_25_56	1	1.06767
T3_26_1	1	-0.2267
T3_26_2	1	-0.4205
T3_26_3	1	1.39415
T3_26_5	1	0.12414
T3_27_1	1	1.01619
T3_27_23	1	0.07127
T3_27_4	1	0.02133
T3_28_1	1	-0.385
T3_28_34	1	-0.1612
T3_28_4	1	-1.0508
T3_28_5	1	0.96557
T3_29_12	1	1.11674
T3_29_23	1	-0.182
T3_29_3	1	0
T3_29_4	1	-0.0159
T3_29_5	1	0.99717
T3_3_1	1	-0.7127
T3_3_456	1	-0.0866
T3_30_1	1	-0.6083
T3_30_23	1	-0.3872
T3_30_3	1	0.14101
T3_30_6	1	0.5301
T3_31_1	1	-0.8889
T3_31_3	1	1.0981
T3_31_4	1	-0.7806
T3_31_56	1	-0.4254
T3_32_1	1	0.14698
T3_32_2	1	-0.418
T3_32_3	1	0.34287
T3_32_4	1	0.3876
T3_32_56	1	-0.4424
T3_32_6	1	0.10575
T3_33_1	1	-0.1541
T3_33_2	1	-0.3784
T3_33_34	1	-0.7822
T3_33_456	1	0.88605
T3_33_5	1	0.75003
T3_33_6	1	0.14124

T3_34_1	1	-0.2526
T3_34_2	1	0.3417
T3_34_4	1	-0.399
T3_34_5	1	-0.6672
T3_35_1	1	0.11704
T3_35_4	1	-0.3003
T3_35_5	1	1.162
T3_35_6	1	0.22075
T3_36_1	1	-0.1446
T3_36_2	1	0.66756
T3_36_3	1	0.28228
T3_36_4	1	-1.0253
T3_36_5	1	0.51802
T3_36_6	1	0.66266
T3_37_1	1	0.43762
T3_37_23	1	0.73466
T3_37_3	1	-0.5505
T3_37_5	1	0.17797
T3_37_6	1	1.6228
T3_38_1	1	-0.0238
T3_38_2	1	-0.9417
T3_38_5	1	-0.1114
T3_39_1	1	0.72071
T3_39_2	1	-0.2541
T3_39_3	1	0.14101
T3_39_4	1	-0.0253
T3_39_56	1	-0.0901
T3_39_6	1	-0.7833
T3_4_1	1	-0.0035
T3_4_23	1	0.79815
T3_4_3	1	-0.786
T3_4_5	1	-1.6686
T3_4_6	1	0.69625
T3_40_456	1	-0.1957
T3_40_6	1	0.35953
T3_41_2	1	0.75152
T3_41_3	1	0.09876
T3_41_4	1	0.39009
T3_42_23	1	0.39037
T3_42_34	1	1.04393
T3_42_5	1	0.38654

T3_42_6	1	-0.9785
T3_43_23	1	0.65907
T3_43_3	1	-0.7582
T3_43_4	1	-0.0576
T3_43_6	1	1.27633
T3_44_1	1	-0.469
T3_44_3	1	1.08561
T3_44_5	1	-0.8278
T3_44_6	1	0.57437
T3_45_1	1	0.12003
T3_45_5	1	0.28615
T3_45_6	1	-0.1085
T3_46_1	1	0.0546
T3_46_23	1	-0.8873
T3_46_3	1	-0.8635
T3_46_4	1	-0.9349
T3_47_1	1	0.61594
T3_47_3	1	0.61111
T3_47_4	1	1.12844
T3_47_5	1	-0.3128
T3_47_6	1	-0.5557
T3_48_1	1	-0.8289
T3_48_2	1	0.3254
T3_48_3	1	1.02937
T3_48_4	1	0.19663
T3_48_5	1	0.12808
T3_48_6	1	-0.4783
T3_49_1	1	0.14735
T3_49_2	1	0.00696
T3_49_3	1	-0.3625
T3_49_4	1	-0.8742
T3_49_5	1	-1.3232
T3_5_34	1	0.59011
T3_5_4	1	0.50613
T3_5_5	1	0.12414
T3_50_1	1	0.20951
T3_50_2	1	0.88017
T3_50_34	1	-0.1316
T3_50_6	1	-0.5557
T3_51_1	1	0.65056
T3_51_34	1	-0.037

T3_51_56	1	1.0055
T3_51_6	1	1.19893
T3_52_3	1	-0.2926
T3_52_4	1	0.02408
T3_52_5	1	-0.3128
T3_52_6	1	-0.2128
T3_53_2	1	-0.2695
T3_53_3	1	-0.6567
T3_53_4	1	-1.2925
T3_53_6	1	-0.0405
T3_54_1	1	-0.2267
T3_54_2	1	0.3254
T3_54_3	1	0.9734
T3_55_1	1	0.31442
T3_55_4	1	-0.0576
T3_55_5	1	-0.6615
T3_55_6	1	1.56466
T3_56_1	1	0.76104
T3_56_2	1	-0.3422
T3_56_4	1	-0.6191
T3_56_5	1	0.28615
T3_56_6	1	-0.7805
T3_57_1	1	-0.0056
T3_57_2	1	-0.1065
T3_57_3	1	-0.3188
T3_57_4	1	-0.4552
T3_57_5	1	0.38654
T3_57_6	1	-1.2551
T3_58_1	1	-0.3301
T3_58_2	1	0.01678
T3_58_3	1	-0.4232
T3_58_4	1	0.21943
T3_58_5	1	-0.0627
T3_59_4	1	0.2422
T3_59_5	1	1.02855
T3_59_6	1	0.5437
T3_6_2	1	0.16397
T3_6_34	1	1.33174
T3_6_5	1	1.44545
T3_60_2	1	-0.4845
T3_60_3	1	0.80164

T3_60_45	1	-1.8169
T3_60_56	1	-0.9788
T3_60_6	1	1.46801
T3_61_1	1	-0.0739
T3_61_2	1	-0.589
T3_61_3	1	-0.1574
T3_61_4	1	1.11571
T3_61_5	1	1.18538
T3_61_6	1	1.6466
T3_62_1	1	0.68267
T3_62_5	1	1.69519
T3_63_2	1	-0.5035
T3_63_5	1	0.15171
T3_63_6	1	2.29092
T3_64_12	1	-0.3509
T3_64_3	1	0.48234
T3_64_4	1	1.33505
T3_64_5	1	-0.7715
T3_64_6	1	-0.2128
T3_7_2	1	0.23148
T3_7_4	1	0.86789
T3_7_6	1	1.34038
T3_8_1	1	-0.0348
T3_8_456	1	1.81893
T3_8_5	1	-0.2768
T3_9_1	1	-0.5554
T3_9_2	1	-0.2941
T3_9_3	1	0
T3_9_456	1	1.39649
T3_9_5	1	0.37324

Note. a=item discrimination, b = item difficulty

Table 22

Task 4 Rasch model item parameters

Item	a	b
T4_1_3	1	-0.2883
T4_1_456	1	0.58736
T4_1_5	1	-2.1536
T4_10_3	1	-1.5619
T4_10_4	1	-1.2242
T4_11_3	1	-2.4473
T4_11_56	1	0.12851
T4_11_6	1	0.41862
T4_12_34	1	-1.3755
T4_12_4	1	-1.5098
T4_12_5	1	0.0076
T4_12_6	1	0.80894
T4_13_3	1	-3.0524
T4_13_4	1	0.33718
T4_13_6	1	-0.6401
T4_14_3	1	-2.4539
T4_14_456	1	0.55863
T4_14_56	1	0.69144
T4_14_6	1	3.04586
T4_15_3	1	-0.176
T4_15_456	1	-0.2303
T4_16_3	1	-1.02
T4_16_4	1	-1.3126
T4_16_5	1	-0.1103
T4_16_6	1	-0.734
T4_17_3	1	-1.9811
T4_17_4	1	-1.6965
T4_17_5	1	-1.1064
T4_17_6	1	-0.2683
T4_18_3	1	-1.22
T4_18_5	1	0.09585
T4_18_6	1	-0.4218
T4_19_3	1	0.00352
T4_19_5	1	-0.3463
T4_2_3	1	-1.1844
T4_2_4	1	-2.2749
T4_2_5	1	-1.0717

T4_20_4	1	-1.9933
T4_20_5	1	-0.81
T4_20_6	1	0.55326
T4_21_3	1	-0.2757
T4_21_4	1	0.04778
T4_22_3	1	-2.3559
T4_22_456	1	-1.8421
T4_22_56	1	-0.617
T4_22_6	1	0.80894
T4_23_34	1	-1.3671
T4_23_56	1	-0.5492
T4_24_3	1	-1.7333
T4_24_4	1	-2.2212
T4_24_6	1	0.24041
T4_25_34	1	-0.4651
T4_25_4	1	-0.1081
T4_25_5	1	-1.5989
T4_26_3	1	-1.7968
T4_26_5	1	-2.8012
T4_27_4	1	-0.618
T4_27_6	1	0.82401
T4_28_4	1	-1.119
T4_29_3	1	-2.3154
T4_29_34	1	-1.694
T4_29_5	1	-0.8138
T4_29_6	1	-1.6169
T4_3_3	1	-2.6619
T4_3_4	1	-0.6641
T4_3_5	1	-0.81
T4_30_3	1	-1.6856
T4_30_4	1	-1.5286
T4_30_5	1	-0.1756
T4_30_6	1	1.91016
T4_31_4	1	-1.7533
T4_31_56	1	-1.7311
T4_31_6	1	0.64176
T4_32_3	1	-3.0368
T4_32_4	1	0.30704
T4_32_6	1	0.90077
T4_33_4	1	-2.2595
T4_34_3	1	-1.9451

T4_34_4	1	-1.8696
T4_34_6	1	-1.5826
T4_35_3	1	-2.0282
T4_35_6	1	-0.6097
T4_36_34	1	-1.4226
T4_36_6	1	0.02213
T4_37_3	1	-0.0332
T4_37_4	1	-0.5901
T4_38_3	1	-2.2502
T4_38_45	1	-0.711
T4_38_6	1	-0.7848
T4_39_3	1	0.5501
T4_39_6	1	0.37238
T4_4_3	1	-2.7274
T4_4_5	1	-0.7657
T4_40_3	1	-1.1881
T4_41_3	1	-1.7856
T4_41_45	1	-2.1855
T4_42_3	1	-0.6423
T4_43_34	1	0.22692
T4_43_5	1	-1.1163
T4_43_6	1	-1.2969
T4_45_56	1	-1.2823
T4_46_56	1	-1.7953
T4_47_5	1	-1.2623
T4_48_5	1	0.45047
T4_49_5	1	-0.318
T4_5_3	1	-1.7779
T4_5_4	1	-1.1928
T4_5_56	1	-1.8651
T4_5_6	1	-2.0305
T4_50_5	1	-1.0858
T4_51_5	1	-0.9442
T4_52_5	1	-2.378
T4_6_3	1	-1.7333
T4_6_456	1	-0.1292
T4_7_34	1	-1.5547
T4_7_34	1	-1.5547
T4_7_4	1	-1.4114
T4_7_5	1	-0.2935
T4_7_6	1	-0.6984

T4_8_34	1	-2.6896
T4_8_4	1	-0.2651
T4_8_6	1	0.13521
T4_9_3	1	-3.1598
T4_9_4	1	-2.1414
T4_9_6	1	0.27507

Note. a=item discrimination, b = item difficulty

Table 23

Task 5 Rasch model item parameters

Item	a	b
T5_1_1	1	-1.2578
T5_1_4	1	1.68805
T5_1_5	1	1.793
T5_1_6	1	2.01513
T5_10_12	1	2.99988
T5_10_23	1	1.92229
T5_10_34	1	0.70336
T5_10_5	1	0.98158
T5_10_6	1	4.05378
T5_11_1	1	-0.4613
T5_11_23	1	-1.0609
T5_12_1	1	1.73034
T5_12_2	1	-0.3603
T5_12_4	1	0.67497
T5_12_56	1	2.10083
T5_13_2	1	1.95805
T5_13_4	1	1.01835
T5_13_5	1	-0.0317
T5_13_6	1	0.11551
T5_14_1	1	3.2515
T5_14_2	1	3.10209
T5_14_4	1	-1.1296
T5_15_2	1	2.54775
T5_15_456	1	0.78137
T5_15_5	1	2.2838
T5_15_6	1	2.35398
T5_16_1	1	2.89226
T5_16_3	1	2.31043
T5_16_4	1	0.13086
T5_16_5	1	2.75841
T5_17_34	1	0.68814
T5_17_4	1	2.77091
T5_17_5	1	2.21989
T5_18_12	1	0.17159
T5_18_2	1	-1.0222
T5_18_3	1	3.16489
T5_18_5	1	2.84577

T5_19_2	1	-0.5939
T5_19_5	1	1.10562
T5_2_1	1	0.8945
T5_2_2	1	-1.2173
T5_2_4	1	-0.7065
T5_2_6	1	2.25438
T5_20_2	1	0.20945
T5_20_4	1	0.94419
T5_20_6	1	0.98079
T5_21_1	1	-0.0773
T5_21_2	1	0.25064
T5_21_3	1	-0.5295
T5_21_456	1	2.49516
T5_21_5	1	1.10562
T5_22_1	1	-0.2777
T5_22_3	1	0.5558
T5_22_4	1	-0.6843
T5_22_6	1	0.30806
T5_23_23	1	3.56187
T5_23_3	1	2.22093
T5_23_5	1	0.54875
T5_23_6	1	-0.3052
T5_24_12	1	0.79286
T5_24_2	1	-0.0056
T5_24_3	1	0.21678
T5_24_4	1	0.04361
T5_24_6	1	0.81496
T5_25_3	1	2.51415
T5_25_456	1	1.90342
T5_25_5	1	2.14157
T5_25_6	1	2.90791
T5_26_1	1	1.04584
T5_26_23	1	-1.7826
T5_26_45	1	-1.0944
T5_26_56	1	-0.7738
T5_26_6	1	3.27201
T5_27_1	1	0.38137
T5_27_3	1	-0.5304
T5_27_4	1	2.40179
T5_27_5	1	-0.3809
T5_27_6	1	1.10901

T5_28_1	1	0.40539
T5_28_2	1	0.8431
T5_28_3	1	1.94891
T5_28_4	1	-0.5042
T5_28_5	1	0.90731
T5_29_1	1	2.37879
T5_29_3	1	1.77019
T5_3_1	1	-0.6256
T5_3_56	1	0.2823
T5_30_12	1	0.62719
T5_30_3	1	-0.4304
T5_30_4	1	3.06635
T5_30_56	1	-0.0026
T5_31_34	1	0.98787
T5_31_4	1	1.41396
T5_31_5	1	0.53611
T5_31_6	1	1.51952
T5_32_12	1	0.25696
T5_32_2	1	3.75743
T5_32_3	1	-0.5763
T5_32_4	1	2.7121
T5_32_5	1	0.73544
T5_32_6	1	3.42081
T5_33_1	1	-2.037
T5_33_2	1	-0.4737
T5_33_4	1	-0.969
T5_33_6	1	1.99359
T5_34_1	1	2.04684
T5_34_2	1	1.99821
T5_34_34	1	-1.6126
T5_34_4	1	-0.0489
T5_34_5	1	0.44174
T5_34_6	1	-1.6984
T5_35_2	1	0.1061
T5_35_5	1	3.43429
T5_36_1	1	1.09331
T5_36_3	1	2.30585
T5_36_45	1	-0.3815
T5_36_6	1	2.31315
T5_37_1	1	-3.2195
T5_37_3	1	0.41973

T5_37_4	1	0.01931
T5_38_1	1	-0.593
T5_38_2	1	3.14984
T5_38_4	1	0.67189
T5_38_6	1	1.28929
T5_39_1	1	-0.364
T5_39_23	1	1.19727
T5_39_3	1	0.65232
T5_39_4	1	2.52952
T5_39_5	1	1.25564
T5_4_3	1	2.13557
T5_4_4	1	0.97817
T5_4_5	1	2.44628
T5_40_1	1	1.19521
T5_40_2	1	-0.2743
T5_40_3	1	-1.1518
T5_40_5	1	1.68861
T5_40_6	1	1.47672
T5_41_1	1	1.84451
T5_41_2	1	-1.9508
T5_41_3	1	-0.2088
T5_41_5	1	0.59962
T5_41_6	1	4.25696
T5_42_1	1	-1.5064
T5_42_2	1	1.29141
T5_42_3	1	1.71335
T5_42_6	1	0.61519
T5_43_2	1	1.53127
T5_43_4	1	-0.3801
T5_43_5	1	0.85747
T5_43_6	1	2.1243
T5_5_6	1	2.67443
T5_6_2	1	2.3439
T5_6_456	1	1.29628
T5_6_56	1	2.67977
T5_6_6	1	-1.1245
T5_7_2	1	-0.5339
T5_7_3	1	0.51197
T5_7_4	1	-1.0451
T5_7_56	1	4.47808
T5_7_6	1	1.62736

T5_8_3	1	0.8841
T5_8_5	1	1.6457
T5_9_1	1	0.73405
T5_9_3	1	0.78661
T5_9_4	1	1.62064
T5_9_5	1	2.34974
T5_9_6	1	1.49068

Note. a=item discrimination, b = item difficulty

Table 24

Task 6 Rasch model item parameters

Item	a	b
T6_1_1	1	-0.826
T6_1_2	1	0.10417
T6_1_34	1	-0.0461
T6_1_456	1	-0.378
T6_1_56	1	-0.3131
T6_1_6	1	-0.5597
T6_10_2	1	-0.1404
T6_10_34	1	-0.3744
T6_10_4	1	-3.7048
T6_10_5	1	0.08835
T6_10_6	1	-1.4306
T6_11_1	1	0.72991
T6_11_3	1	-0.6861
T6_11_4	1	-1.2553
T6_11_5	1	-0.2591
T6_11_6	1	-0.32
T6_12_1	1	-0.9947
T6_12_2	1	-0.6569
T6_12_4	1	-0.7959
T6_12_5	1	-0.9295
T6_12_6	1	-1.3609
T6_13_1	1	-0.3803
T6_13_3	1	-1.7014
T6_13_5	1	-1.8379
T6_14_2	1	0.56041
T6_15_2	1	-1.7811
T6_15_3	1	0.98014
T6_15_5	1	-0.1676
T6_16_12	1	-0.3049
T6_16_2	1	-0.2245
T6_16_3	1	0.21501
T6_16_4	1	-2.1211
T6_16_5	1	-1.489
T6_16_6	1	-0.4229
T6_17_1	1	-0.5341
T6_17_23	1	-0.215
T6_17_4	1	-1.0908

T6_17_5	1	-1.7682
T6_18_1	1	0.83715
T6_18_2	1	-0.5901
T6_18_3	1	-0.6258
T6_18_4	1	-1.2241
T6_18_56	1	1.56703
T6_19_12	1	-0.7769
T6_19_2	1	-0.2034
T6_19_3	1	-2.5385
T6_19_4	1	-0.0236
T6_19_5	1	0.14412
T6_2_3	1	-1.049
T6_2_4	1	-0.4117
T6_2_56	1	-0.3417
T6_20_1	1	0.91177
T6_20_23	1	0.87406
T6_20_4	1	-1.1585
T6_20_5	1	0.96984
T6_20_6	1	-0.4764
T6_21_12	1	0.3752
T6_21_34	1	1.49531
T6_21_4	1	0.1607
T6_22_1	1	0.76508
T6_22_2	1	0.40773
T6_22_3	1	0.17839
T6_22_456	1	-1.2372
T6_22_5	1	-0.5529
T6_22_6	1	1.71247
T6_23_1	1	-0.5851
T6_23_2	1	1.01075
T6_23_3	1	-1.1119
T6_23_4	1	0.26316
T6_23_6	1	-0.3708
T6_24_1	1	-1.1257
T6_24_34	1	-0.5005
T6_24_4	1	0.27904
T6_24_5	1	0.11632
T6_24_6	1	2.42356
T6_25_1	1	0.11607
T6_25_4	1	-1.5825
T6_25_6	1	-0.9127

T6_26_12	1	0.45373
T6_26_2	1	-2.0445
T6_26_3	1	-0.5301
T6_26_4	1	1.32826
T6_26_5	1	-0.7039
T6_27_1	1	1.02354
T6_27_3	1	-0.6486
T6_27_45	1	0.52765
T6_27_5	1	-0.0777
T6_27_6	1	-1.5097
T6_28_1	1	0.26847
T6_28_2	1	-0.1116
T6_28_3	1	0.37638
T6_28_45	1	0.77817
T6_28_56	1	-1.7137
T6_28_6	1	-0.3627
T6_29_1	1	-0.2848
T6_29_3	1	0.73635
T6_29_4	1	0.81869
T6_29_5	1	1.82179
T6_3_1	1	1.25036
T6_3_2	1	1.69622
T6_3_3	1	0.55144
T6_3_4	1	-0.6944
T6_3_5	1	-0.8486
T6_30_1	1	-0.4726
T6_30_3	1	0.68319
T6_30_5	1	-0.6035
T6_30_6	1	-1.0573
T6_31_1	1	-0.1706
T6_31_2	1	0.55433
T6_31_4	1	0.38047
T6_31_5	1	-1.1093
T6_31_6	1	-3.5715
T6_32_1	1	1.43431
T6_32_3	1	-0.6877
T6_32_56	1	0.24907
T6_33_3	1	-0.9863
T6_33_4	1	0.49563
T6_33_5	1	-1.1093
T6_34_1	1	-0.7239

T6_34_3	1	-0.9115
T6_34_4	1	0.26335
T6_34_5	1	0.02533
T6_34_6	1	-0.0266
T6_35_1	1	-1.118
T6_35_2	1	0.11673
T6_35_4	1	0.48416
T6_35_5	1	0.47428
T6_35_6	1	-0.404
T6_36_1	1	-0.1551
T6_36_23	1	0.54537
T6_36_3	1	-0.4547
T6_36_4	1	0.29878
T6_36_5	1	-1.4057
T6_36_6	1	0.62182
T6_37_1	1	0.18314
T6_37_3	1	0.53523
T6_37_5	1	1.11281
T6_38_2	1	0.8782
T6_38_4	1	1.26039
T6_38_5	1	-0.0456
T6_38_6	1	-0.7641
T6_39_1	1	-0.569
T6_39_2	1	-1.493
T6_39_3	1	1.00155
T6_4_2	1	-1.7151
T6_4_3	1	-1.4329
T6_4_456	1	0.72642
T6_40_1	1	0.68037
T6_40_34	1	-0.8256
T6_40_4	1	-1.1651
T6_40_6	1	-1.5097
T6_41_12	1	0.12259
T6_41_2	1	-1.2833
T6_41_6	1	1.37532
T6_42_1	1	0.82813
T6_42_23	1	0.26822
T6_42_4	1	-2.4886
T6_42_6	1	0.36032
T6_43_1	1	-0.5986
T6_43_2	1	-0.8105

T6_43_34	1	0.13624
T6_43_4	1	-0.7767
T6_43_5	1	-2.162
T6_43_6	1	0.14784
T6_44_2	1	0.22023
T6_44_3	1	-0.7673
T6_44_4	1	1.73352
T6_44_6	1	2.83826
T6_45_1	1	0.55031
T6_45_2	1	-0.7298
T6_45_3	1	1.45073
T6_45_4	1	-0.8521
T6_45_56	1	0.09281
T6_45_6	1	-0.8424
T6_46_1	1	0.23406
T6_46_2	1	-0.707
T6_46_4	1	-1.2011
T6_46_5	1	-0.1632
T6_46_6	1	-1.1826
T6_47_1	1	-0.6944
T6_47_2	1	-0.1056
T6_47_3	1	0.03145
T6_47_6	1	0.8283
T6_48_1	1	0.60864
T6_48_4	1	0.13185
T6_48_6	1	-1.4304
T6_49_2	1	-0.3127
T6_49_4	1	-1.2751
T6_49_5	1	0.06927
T6_5_1	1	-0.5341
T6_5_2	1	0.40773
T6_5_34	1	1.04932
T6_5_4	1	-1.0517
T6_5_6	1	-0.5276
T6_6_1	1	-0.3803
T6_6_56	1	0.03556
T6_6_6	1	-0.3327
T6_7_1	1	0.89611
T6_7_5	1	-0.9295
T6_7_6	1	1.62963
T6_8_1	1	0.56668

T6_8_2	1	-1.4271
T6_8_3	1	-1.1547
T6_8_456	1	-2.2734
T6_8_6	1	-0.32
T6_9_1	1	-0.01
T6_9_3	1	-0.4294
T6_9_5	1	-0.6942
T6_9_6	1	1.71247

Note. a=item discrimination, b = item difficulty

Table 25

Task 7 Rasch model item parameters

Item	a	b
T7_1_1	1	0.87475
T7_1_56	1	1.84209
T7_10_3	1	-2.7437
T7_10_4	1	0.00561
T7_10_5	1	-1.1081
T7_10_6	1	-0.2969
T7_11_2	1	-1.7978
T7_11_3	1	-1.5275
T7_11_4	1	1.88106
T7_11_5	1	-0.2544
T7_12_1	1	-0.9509
T7_12_23	1	1.54757
T7_12_5	1	2.49427
T7_13_1	1	-2.8602
T7_13_2	1	-1.4418
T7_13_4	1	-3.2539
T7_13_5	1	-1.69
T7_14_1	1	-1.3804
T7_14_3	1	-0.4921
T7_14_4	1	-1.8537
T7_14_6	1	-1.7668
T7_15_1	1	-1.5187
T7_15_23	1	0.95548
T7_15_23	1	0.95548
T7_15_34	1	1.80041
T7_15_34	1	1.80041
T7_15_456	1	0.97534
T7_15_56	1	-2.809
T7_15_6	1	0.08484
T7_16_1	1	0.58341
T7_16_2	1	5.1372
T7_16_45	1	-3.4193
T7_17_1	1	3.66475
T7_17_23	1	-2.8475
T7_17_3	1	-2.5641
T7_17_4	1	-3.5697
T7_17_56	1	4.22391

T7_17_6	1	-1.0953
T7_18_1	1	1.81321
T7_18_4	1	0.09202
T7_18_5	1	0.02691
T7_19_1	1	-0.553
T7_19_2	1	-1.8506
T7_19_4	1	-0.2506
T7_19_5	1	-0.4759
T7_2_1	1	-0.5425
T7_2_2	1	1.00586
T7_2_34	1	2.91215
T7_2_4	1	0.07792
T7_2_5	1	1.56373
T7_2_6	1	0.0772
T7_20_1	1	-0.5014
T7_20_2	1	-2.3411
T7_20_3	1	-2.0534
T7_20_4	1	3.02256
T7_20_5	1	-1.751
T7_21_1	1	0.07078
T7_21_2	1	0.53169
T7_21_4	1	-4.0916
T7_21_6	1	-1.4019
T7_22_12	1	-1.3009
T7_22_2	1	-3.2898
T7_22_3	1	-0.3898
T7_22_6	1	-0.0222
T7_23_5	1	-0.2833
T7_24_2	1	2.49469
T7_24_3	1	1.59997
T7_24_4	1	1.99654
T7_24_5	1	0.66986
T7_24_6	1	0.32782
T7_25_1	1	-1.3456
T7_25_5	1	-1.8413
T7_25_6	1	0.56811
T7_26_1	1	-0.2791
T7_26_23	1	-2.4432
T7_26_4	1	-1.1946
T7_26_5	1	1.60826
T7_27_1	1	-1.9454

T7_27_2	1	-0.5276
T7_27_3	1	-0.7684
T7_27_4	1	-3.4532
T7_27_6	1	-0.7359
T7_28_1	1	-2.2611
T7_28_2	1	0.89116
T7_28_3	1	-1.6242
T7_28_6	1	0.97178
T7_29_12	1	1.30084
T7_29_34	1	-1.9953
T7_29_6	1	-2.472
T7_3_1	1	2.90477
T7_3_3	1	4.28917
T7_3_5	1	3.79137
T7_3_6	1	2.82243
T7_30_1	1	-0.5014
T7_30_3	1	1.45501
T7_30_5	1	0.257
T7_30_6	1	-0.8754
T7_31_1	1	-2.5496
T7_31_34	1	-0.8222
T7_31_5	1	-0.453
T7_31_6	1	-0.3647
T7_32_2	1	-1.3865
T7_32_3	1	3.58366
T7_32_4	1	3.33922
T7_32_5	1	-0.044
T7_32_6	1	-1.6849
T7_33_1	1	-2.3158
T7_33_2	1	-1.0256
T7_33_3	1	-2.1321
T7_4_1	1	5.00093
T7_4_23	1	2.33941
T7_4_3	1	-1.469
T7_4_4	1	2.91766
T7_4_5	1	0.10684
T7_4_6	1	-0.1971
T7_5_1	1	-1.7687
T7_5_2	1	0.73032
T7_5_3	1	1.21994
T7_5_4	1	-1.82

T7_6_12	1	3.23101
T7_6_2	1	-2.7067
T7_6_3	1	2.42831
T7_6_4	1	0.31916
T7_7_1	1	0.31601
T7_7_2	1	1.02804
T7_7_4	1	-1.1192
T7_7_5	1	4.12467
T7_7_6	1	3.39666
T7_8_12	1	1.63188
T7_8_2	1	-2.1778
T7_8_3	1	0.4903
T7_8_6	1	1.77678
T7_9_1	1	2.22174
T7_9_2	1	-2.4708
T7_9_34	1	1.25276
T7_9_34	1	1.25276
T7_9_456	1	-1.7333
T7_9_5	1	-1.1943
T7_9_6	1	1.32752

Note. a=item discrimination, b = item difficulty

Table 26

Task 8 Rasch model item parameters

Item	a	b
T8_1_4	1	0.4904902
T8_1_5	1	2.2597594
T8_1_6	1	6.029227
T8_10_4	1	2.2928346
T8_10_5	1	1.1309922
T8_10_6	1	-1.0310562
T8_11_3	1	1.5954088
T8_11_5	1	2.2597594
T8_13_3	1	1.704317
T8_13_456	1	-1.7091784
T8_13_5	1	2.7080697
T8_14_3	1	-1.3445502
T8_14_5	1	-0.6853117
T8_15_3	1	0.3676555
T8_15_4	1	-0.203495
T8_15_5	1	2.7762404
T8_15_6	1	-0.5704266
T8_16_34	1	1.4877083
T8_16_4	1	1.5067139
T8_17_3	1	-0.737473
T8_17_6	1	0.5765528
T8_18_34	1	0.3093492
T8_18_5	1	2.5129547
T8_19_3	1	0.1538021
T8_19_5	1	0.7988559
T8_19_6	1	1.3315698
T8_2_4	1	0.5197879
T8_2_5	1	3.2834606
T8_2_6	1	3.8858431
T8_20_34	1	-0.340116
T8_20_456	1	-0.1427499
T8_20_5	1	0.6849993
T8_21_34	1	-1.4662177
T8_21_4	1	-0.7918268
T8_22_3	1	1.4070831
T8_22_5	1	1.281905
T8_22_6	1	4.3471762

T8_23_3	1	-0.0765295
T8_23_4	1	1.1712234
T8_23_5	1	-0.2561326
T8_23_6	1	-1.0310562
T8_24_3	1	0.7573266
T8_24_456	1	-0.0189005
T8_24_6	1	0.6158123
T8_25_3	1	-0.737473
T8_25_456	1	4.0485955
T8_25_5	1	-1.0476005
T8_26_3	1	-3.1559243
T8_26_4	1	-2.586426
T8_26_5	1	3.9311429
T8_27_3	1	1.6261383
T8_27_4	1	-3.1164032
T8_27_56	1	1.7968769
T8_28_3	1	-0.7708413
T8_28_6	1	1.9514409
T8_29_3	1	-2.7663578
T8_29_4	1	1.3349741
T8_29_5	1	0.074408
T8_29_6	1	4.6315134
T8_3_4	1	1.1434102
T8_30_3	1	0.1823708
T8_30_6	1	-0.2711124
T8_31_45	1	0.6277822
T8_31_5	1	-0.1852504
T8_31_6	1	2.7265738
T8_32_3	1	-1.2281413
T8_32_4	1	0.5229873
T8_32_6	1	-0.6391653
T8_33_3	1	1.4726143
T8_33_4	1	2.4343965
T8_33_5	1	0.3980395
T8_34_3	1	-0.8459867
T8_34_4	1	-0.026547
T8_34_6	1	5.1385733
T8_35_4	1	1.0772144
T8_35_5	1	-1.0140907
T8_35_6	1	2.120651
T8_36_3	1	-1.9389986

T8_36_5	1	0.8435032
T8_36_6	1	0.069691
T8_37_34	1	-0.4921632
T8_37_6	1	1.2754213
T8_38_4	1	-1.1559426
T8_38_5	1	1.746311
T8_38_6	1	1.6539919
T8_39_56	1	-0.173702
T8_39_6	1	-1.6379441
T8_4_3	1	1.4070831
T8_4_56	1	3.1091566
T8_40_3	1	-0.8459867
T8_40_5	1	0.3201082
T8_40_6	1	1.5616442
T8_41_4	1	0.3527305
T8_41_5	1	-1.0140907
T8_42_3	1	-0.8890642
T8_42_5	1	-0.8992375
T8_42_6	1	1.0500342
T8_43_3	1	-0.9214495
T8_43_45	1	-0.0224037
T8_43_56	1	1.5512495
T8_43_6	1	3.1640352
T8_44_3	1	-0.0292716
T8_44_5	1	4.0944967
T8_44_6	1	-0.7012798
T8_45_3	1	-0.8137475
T8_45_4	1	-0.3476586
T8_45_5	1	0.1260995
T8_46_34	1	-1.6082697
T8_46_4	1	-1.0966882
T8_46_5	1	-0.3431061
T8_46_6	1	0.7090312
T8_47_3	1	-0.9430801
T8_47_4	1	-0.0276708
T8_48_3	1	1.455891
T8_48_4	1	2.4647076
T8_48_5	1	0.3201082
T8_49_3	1	-1.2504366
T8_49_4	1	2.1599743
T8_49_5	1	1.6436804

T8_49_6	1	2.4144632
T8_5_3	1	0.6625793
T8_5_4	1	3.2074819
T8_5_56	1	1.5531612
T8_5_6	1	-0.2155743
T8_6_3	1	-1.3445502
T8_6_4	1	-0.8622252
T8_6_5	1	-2.3942523
T8_7_4	1	2.4445985
T8_7_5	1	2.0358949
T8_7_6	1	3.6645676
T8_8_3	1	2.6859605
T8_8_4	1	-1.5057799
T8_8_56	1	-0.556179
T8_9_3	1	-1.2437147
T8_9_456	1	3.157444
T8_9_6	1	4.0179161

Note. a=item discrimination, b = item difficulty

Table 27

Task-based marginal reliability by grade

Grade	Task 1	Task 2	Task 3	Task 4	Task 5	Task 6	Task 7	Task 8
1	0.78	0.80	0.82	-	0.89	0.84	0.86	-
2	0.76	0.88	0.89	-	0.94	0.89	0.82	-
3	0.72	0.89	0.92	0.91	0.93	0.90	0.84	0.95
4	0.77	0.90	0.93	0.91	0.95	0.90	0.82	0.94
5	0.76	0.92	0.93	0.90	0.93	0.85	0.85	0.93
6	0.67	0.92	0.94	0.89	0.92	0.87	0.88	0.93

Table 28

Task-based vertical scale by task and grade

Grade	Task 1	Task 2	Task 3	Task 4	Task 5	Task 6	Task 7	Task 8
1	-0.57	-1.96	-1.05		-2.80	-0.71	-0.47	
2	-0.08	-0.80	-0.43		-1.17	0.00	0.00	
3	-0.48	0.00	0.00	-0.76	-0.98	0.44	0.35	-1.23
4	-0.40	0.59	0.33	-0.06	-0.87	0.72	0.43	-0.47
5	0.00	1.07	0.35	0.00	-0.46	0.77	-0.02	0.00
6	0.03	1.39	0.76	0.76	0.00	1.26	0.38	0.52

Note. 0.00 = location point for each task; values are scaled theta scores. Bold values reflect final selected grades for tasks.

Table 29

Task 1 DIF: Male vs. female

Item	ChiSq	pvalue	EffectSize
T1_1_1	0.000	0.991	-0.005
T1_2_12	0.000	0.996	0.004
T1_3_1	0.003	0.954	0.003
T1_4_1	0.000	0.997	-0.006
T1_5_1	0.000	0.989	-0.005
T1_6_1	0.027	0.870	0.018
T1_7_1	0.003	0.959	0.002
T1_8_1	0.001	0.979	-0.015
T1_9_1	0.034	0.854	0.035
T1_10_1	0.004	0.953	0.002
T1_11_1	0.050	0.822	0.027
T1_12_1	0.019	0.890	0.014
T1_13_12	0.000	0.991	-0.010
T1_14_12	0.024	0.878	-0.023
T1_15_1	0.012	0.913	0.010
T1_2_2	0.032	0.858	0.013
T1_3_2	0.020	0.888	0.022
T1_4_2	0.000	0.996	0.000
T1_5_2	0.006	0.937	0.013
T1_6_23	0.202	0.654	0.047
T1_7_2	0.024	0.878	0.024
T1_8_2	0.002	0.967	-0.010
T1_9_23	0.290	0.590	0.042
T1_11_2	0.000	0.992	-0.006
T1_13_23	0.258	0.612	0.043
T1_14_2	0.002	0.970	0.007
T1_15_2	0.003	0.958	0.009
T1_1_34	0.000	0.993	-0.002
T1_2_34	0.013	0.908	0.019
T1_4_34	0.038	0.846	-0.014
T1_5_3	0.009	0.925	-0.005
T1_6_3	0.000	0.989	-0.021
T1_8_3	0.002	0.967	-0.030
T1_10_3	0.001	0.970	-0.014
T1_11_3	0.090	0.764	0.025
T1_12_3	0.011	0.917	-0.018
T1_13_3	0.073	0.788	0.021

T1_14_3	0.040	0.841	0.011
T1_15_3	0.008	0.930	-0.019
T1_1_4	0.698	0.403	-0.080
T1_2_456	0.000	0.988	0.012
T1_4_4	0.058	0.810	-0.017
T1_5_456	0.278	0.598	-0.066
T1_6_4	0.067	0.796	-0.020
T1_7_4	0.000	0.986	0.016
T1_8_4	0.137	0.711	-0.037
T1_9_4	0.069	0.793	-0.021
T1_10_456	0.037	0.847	0.014
T1_13_4	0.148	0.700	-0.013
T1_14_4	0.000	0.987	0.022
T1_15_4	0.033	0.856	-0.009
T1_1_5	0.012	0.912	0.014
T1_2_5	0.049	0.825	0.030
T1_4_56	0.014	0.906	0.014
T1_5_5	0.071	0.789	0.030
T1_6_56	0.004	0.949	0.005
T1_7_5	0.088	0.767	0.035
T1_8_56	0.032	0.858	0.001
T1_11_5	0.001	0.970	0.002
T1_12_5	0.000	0.998	-0.003
T1_13_5	0.015	0.901	-0.035
T1_14_5	0.007	0.936	0.009
T1_15_5	0.001	0.979	0.001
T1_1_6	0.002	0.964	0.008
T1_3_6	0.012	0.915	0.018
T1_6_6	0.028	0.867	0.008
T1_8_6	0.002	0.964	0.008
T1_9_6	0.000	0.997	0.002
T1_11_6	0.002	0.961	-0.011
T1_12_6	0.139	0.709	0.039
T1_13_6	0.002	0.964	-0.010
T1_14_6	0.000	0.998	0.002
T1_16_1	0.074	0.785	-0.029
T1_18_1	0.085	0.771	-0.032
T1_19_1	0.001	0.974	0.019
T1_20_1	0.136	0.712	-0.044
T1_21_12	0.026	0.871	0.025
T1_22_1	0.022	0.881	-0.012

T1_23_1	0.021	0.884	-0.011
T1_25_1	0.071	0.791	-0.031
T1_27_1	0.001	0.980	0.009
T1_28_1	0.001	0.983	0.023
T1_19_2	0.043	0.835	0.019
T1_20_2	0.002	0.966	-0.023
T1_21_2	0.000	0.984	-0.019
T1_22_2	0.010	0.920	-0.032
T1_23_2	0.000	0.988	-0.016
T1_25_2	0.059	0.808	0.024
T1_26_2	0.043	0.837	-0.047
T1_27_23	0.057	0.812	0.047
T1_28_2	0.002	0.967	-0.006
T1_16_3	0.005	0.946	0.034
T1_17_3	0.079	0.779	-0.025
T1_18_34	0.087	0.768	0.001
T1_19_3	0.006	0.941	0.005
T1_21_3	0.029	0.864	-0.009
T1_25_3	0.001	0.971	0.012
T1_26_3	0.093	0.760	-0.028
T1_27_3	0.013	0.911	0.000
T1_28_3	0.148	0.701	-0.041
T1_16_4	0.005	0.943	0.041
T1_17_4	0.001	0.979	0.035
T1_18_4	0.001	0.978	0.021
T1_19_4	0.140	0.708	-0.033
T1_20_4	0.004	0.951	0.040
T1_22_45	0.115	0.734	-0.032
T1_24_4	0.031	0.861	-0.002
T1_27_4	0.054	0.817	-0.011
T1_28_4	0.094	0.760	-0.022
T1_17_5	0.153	0.695	0.052
T1_18_5	0.005	0.944	-0.022
T1_19_5	0.003	0.958	0.001
T1_22_5	0.033	0.856	0.021
T1_23_5	0.086	0.770	0.037
T1_24_56	0.227	0.634	0.041
T1_25_5	0.008	0.929	-0.024
T1_27_5	0.014	0.904	0.011
T1_28_5	0.002	0.968	-0.017
T1_17_6	0.014	0.905	0.000

T1_18_6	0.000	0.995	-0.020
T1_19_6	0.033	0.856	0.011
T1_20_6	0.023	0.880	0.007
T1_21_6	0.013	0.910	0.000
T1_23_6	0.003	0.956	-0.009
T1_24_6	0.012	0.915	0.000
T1_25_6	0.079	0.779	-0.062
T1_28_6	0.001	0.978	-0.012

Table 30

Task 1 DIF: White vs. Sample

Item	ChiSq	pvalue	EffectSize
T1_1_1	0.003	0.960	0.014
T1_2_12	0.049	0.825	-0.080
T1_3_1	0.002	0.963	-0.006
T1_4_1	0.001	0.980	0.011
T1_5_1	0.000	0.999	0.006
T1_6_1	0.000	0.983	-0.002
T1_7_1	0.004	0.950	-0.008
T1_8_1	0.003	0.959	0.014
T1_9_1	0.483	0.487	0.072
T1_10_1	0.006	0.937	-0.010
T1_11_1	0.001	0.978	0.010
T1_12_1	0.010	0.919	0.021
T1_13_12	0.228	0.633	0.019
T1_14_12	0.228	0.633	-0.033
T1_15_1	0.037	0.848	-0.027
T1_2_2	0.489	0.484	0.044
T1_3_2	0.234	0.629	0.015
T1_4_2	0.473	0.492	0.046
T1_5_2	0.341	0.560	0.029
T1_6_23	0.446	0.504	0.056
T1_7_2	0.059	0.808	-0.021
T1_8_2	0.057	0.812	-0.023
T1_9_23	0.001	0.981	-0.036
T1_11_2	0.016	0.899	-0.040
T1_13_23	0.386	0.534	0.054
T1_14_2	0.197	0.657	0.009
T1_15_2	0.005	0.944	-0.049
T1_1_34	0.001	0.973	-0.005
T1_2_34	0.021	0.884	0.027
T1_4_34	0.011	0.918	0.022
T1_5_3	0.012	0.913	-0.004
T1_6_3	0.000	0.985	0.009
T1_8_3	0.001	0.972	0.007
T1_10_3	0.007	0.933	-0.001
T1_11_3	0.017	0.897	-0.008
T1_12_3	0.119	0.730	0.000
T1_13_3	0.031	0.861	-0.014

T1_14_3	0.000	0.989	0.014
T1_15_3	0.108	0.743	0.001
T1_1_4	0.089	0.766	-0.010
T1_2_456	0.005	0.942	-0.054
T1_4_4	0.025	0.873	0.014
T1_5_456	0.048	0.826	-0.073
T1_6_4	0.075	0.784	0.032
T1_7_4	0.025	0.875	-0.038
T1_8_4	0.017	0.896	0.010
T1_9_4	0.023	0.879	0.014
T1_10_456	0.016	0.901	-0.010
T1_13_4	0.108	0.742	-0.013
T1_14_4	0.001	0.970	-0.004
T1_15_4	0.045	0.833	0.022
T1_1_5	0.000	0.986	-0.001
T1_2_5	0.004	0.951	-0.008
T1_4_56	0.151	0.698	0.035
T1_5_5	0.364	0.546	0.075
T1_6_56	0.024	0.876	0.001
T1_7_5	0.274	0.601	0.062
T1_8_56	0.015	0.904	0.046
T1_11_5	0.000	0.993	0.007
T1_12_5	0.004	0.952	-0.008
T1_13_5	0.000	0.997	-0.019
T1_14_5	0.040	0.842	-0.029
T1_15_5	0.000	0.994	0.002
T1_1_6	0.000	0.994	-0.030
T1_3_6	0.050	0.824	0.007
T1_6_6	0.240	0.624	-0.056
T1_8_6	0.004	0.952	-0.040
T1_9_6	0.004	0.952	-0.017
T1_11_6	0.001	0.973	-0.021
T1_12_6	0.065	0.799	-0.023
T1_13_6	0.000	0.995	-0.030
T1_14_6	0.177	0.674	0.037
T1_16_1	0.108	0.742	0.013
T1_18_1	0.311	0.577	0.048
T1_19_1	0.010	0.920	-0.018
T1_20_1	0.556	0.456	0.075
T1_21_12	0.125	0.724	0.023
T1_22_1	0.004	0.950	-0.024

T1_23_1	0.287	0.593	0.047
T1_25_1	0.117	0.733	0.020
T1_27_1	0.189	0.664	0.031
T1_28_1	0.600	0.439	0.083
T1_19_2	0.008	0.929	-0.011
T1_20_2	0.024	0.876	-0.020
T1_21_2	0.068	0.794	0.046
T1_22_2	0.107	0.743	-0.047
T1_23_2	0.016	0.900	-0.014
T1_25_2	0.083	0.774	-0.039
T1_26_2	0.073	0.787	-0.038
T1_27_23	0.396	0.529	-0.051
T1_28_2	0.162	0.688	-0.056
T1_16_3	0.000	0.998	0.042
T1_17_3	0.276	0.599	-0.044
T1_18_34	0.246	0.620	0.023
T1_19_3	0.074	0.786	-0.006
T1_21_3	0.065	0.799	-0.004
T1_25_3	0.011	0.917	0.020
T1_26_3	0.084	0.773	-0.008
T1_27_3	0.061	0.804	0.075
T1_28_3	0.377	0.539	-0.059
T1_16_4	0.024	0.878	0.026
T1_17_4	0.018	0.894	0.033
T1_18_4	0.005	0.946	0.042
T1_19_4	0.316	0.574	-0.037
T1_20_4	0.036	0.850	0.024
T1_22_45	0.025	0.876	0.057
T1_24_4	0.333	0.564	-0.038
T1_27_4	0.280	0.597	-0.032
T1_28_4	0.789	0.374	-0.085
T1_17_5	0.285	0.594	0.058
T1_18_5	0.000	0.993	-0.027
T1_19_5	0.251	0.617	0.054
T1_22_5	0.000	0.989	-0.024
T1_23_5	0.012	0.912	-0.043
T1_24_56	0.004	0.950	0.039
T1_25_5	0.015	0.902	-0.002
T1_27_5	0.077	0.782	0.021
T1_28_5	0.008	0.927	-0.006
T1_17_6	0.008	0.930	0.031

T1_18_6	0.145	0.704	-0.009
T1_19_6	0.041	0.840	0.016
T1_20_6	0.439	0.508	-0.054
T1_21_6	0.012	0.912	0.065
T1_23_6	0.204	0.652	-0.023
T1_24_6	0.314	0.575	-0.039
T1_25_6	0.046	0.830	0.013
T1_28_6	0.061	0.805	0.007

Table 31

Task 1 DIF: Black vs. Sample

Item	ChiSq	pvalue	EffectSize
T1_1_1	0.000	0.986	0.010
T1_2_12	0.169	0.681	0.080
T1_3_1	0.000	0.996	0.002
T1_4_1	0.004	0.950	-0.007
T1_5_1	0.001	0.980	-0.001
T1_6_1	0.001	0.975	-0.002
T1_7_1	0.000	0.987	0.010
T1_8_1	0.000	0.987	0.000
T1_9_1	0.991	0.320	-0.085
T1_10_1	0.000	0.998	0.002
T1_11_1	0.000	0.995	0.004
T1_12_1	0.025	0.874	-0.021
T1_13_12	0.187	0.665	-0.016
T1_14_12	0.609	0.435	0.014
T1_15_1	0.007	0.934	-0.010
T1_2_2	0.730	0.393	-0.084
T1_3_2	0.104	0.748	-0.004
T1_4_2	0.348	0.555	-0.045
T1_5_2	0.309	0.578	-0.039
T1_6_23	0.148	0.700	-0.028
T1_7_2	0.048	0.827	0.013
T1_8_2	0.009	0.924	0.033
T1_9_23	0.027	0.871	0.001
T1_11_2	0.001	0.972	0.042
T1_13_23	0.231	0.631	-0.049
T1_14_2	0.205	0.651	-0.024
T1_15_2	0.001	0.979	0.044
T1_1_34	0.299	0.584	0.054
T1_2_34	0.056	0.812	0.007
T1_4_34	0.046	0.830	-0.005
T1_5_3	0.006	0.938	-0.001
T1_6_3	0.001	0.977	-0.022
T1_8_3	0.000	0.998	-0.012
T1_10_3	0.005	0.943	-0.002
T1_11_3	0.029	0.864	0.014
T1_12_3	0.066	0.797	0.016
T1_13_3	0.010	0.921	0.003

T1_14_3	0.002	0.962	-0.005
T1_15_3	0.000	0.998	-0.021
T1_1_4	0.687	0.407	0.060
T1_2_456	0.007	0.931	-0.001
T1_4_4	0.000	0.989	-0.016
T1_5_456	0.147	0.702	0.046
T1_6_4	0.013	0.908	0.004
T1_7_4	0.060	0.807	0.023
T1_8_4	0.048	0.826	0.020
T1_9_4	0.010	0.921	0.001
T1_10_456	1.059	0.303	0.095
T1_13_4	0.631	0.427	0.053
T1_14_4	0.002	0.969	-0.026
T1_15_4	0.005	0.946	-0.004
T1_1_5	0.198	0.657	0.037
T1_2_5	0.183	0.669	0.034
T1_4_56	0.003	0.954	-0.010
T1_5_5	0.128	0.721	-0.048
T1_6_56	0.015	0.904	-0.020
T1_7_5	0.073	0.787	-0.035
T1_8_56	0.014	0.907	-0.092
T1_11_5	0.019	0.892	-0.012
T1_12_5	0.127	0.721	0.023
T1_13_5	0.000	0.988	0.016
T1_14_5	0.190	0.663	0.035
T1_15_5	0.002	0.970	-0.026
T1_1_6	0.000	0.998	0.034
T1_3_6	0.080	0.777	-0.010
T1_6_6	0.062	0.803	0.011
T1_8_6	0.000	0.998	0.039
T1_9_6	0.006	0.941	0.023
T1_11_6	0.001	0.982	0.030
T1_12_6	0.250	0.617	0.052
T1_13_6	0.000	0.992	0.035
T1_14_6	0.209	0.648	-0.037
T1_16_1	0.300	0.584	-0.017
T1_18_1	0.460	0.498	-0.042
T1_19_1	0.136	0.712	0.008
T1_20_1	0.874	0.350	-0.079
T1_21_12	0.316	0.574	-0.026
T1_22_1	0.079	0.779	0.019

T1_23_1	0.716	0.398	-0.070
T1_25_1	0.524	0.469	-0.053
T1_27_1	0.821	0.365	-0.078
T1_28_1	0.843	0.359	-0.080
T1_19_2	0.000	0.987	-0.006
T1_20_2	0.018	0.893	0.015
T1_21_2	0.039	0.844	-0.040
T1_22_2	0.114	0.736	0.047
T1_23_2	0.030	0.863	0.021
T1_25_2	0.062	0.804	0.033
T1_26_2	0.075	0.784	0.039
T1_27_23	0.006	0.940	0.000
T1_28_2	0.123	0.726	0.049
T1_16_3	0.000	0.997	-0.011
T1_17_3	0.007	0.933	0.008
T1_18_34	0.128	0.720	-0.010
T1_19_3	0.017	0.896	0.015
T1_21_3	0.017	0.898	-0.030
T1_25_3	0.015	0.903	-0.031
T1_26_3	0.012	0.915	0.009
T1_27_3	0.219	0.640	-0.080
T1_28_3	0.069	0.793	0.035
T1_16_4	0.165	0.685	0.010
T1_17_4	0.030	0.863	-0.029
T1_18_4	0.010	0.920	-0.040
T1_19_4	0.449	0.503	0.052
T1_20_4	0.094	0.760	-0.008
T1_22_45	0.001	0.974	-0.003
T1_24_4	0.406	0.524	0.046
T1_27_4	0.286	0.593	0.031
T1_28_4	0.855	0.355	0.091
T1_17_5	0.170	0.680	-0.019
T1_18_5	0.026	0.873	0.018
T1_19_5	0.404	0.525	-0.054
T1_22_5	0.000	0.989	0.043
T1_23_5	0.017	0.896	0.024
T1_24_56	0.002	0.963	-0.031
T1_25_5	0.365	0.546	-0.051
T1_27_5	0.158	0.691	-0.018
T1_28_5	0.014	0.905	0.024
T1_17_6	0.021	0.884	-0.041

T1_18_6	0.104	0.747	-0.015
T1_19_6	0.060	0.807	-0.027
T1_20_6	0.667	0.414	0.062
T1_21_6	0.011	0.918	-0.047
T1_23_6	0.557	0.456	0.051
T1_24_6	0.274	0.601	0.018
T1_25_6	0.188	0.665	0.002
T1_28_6	0.125	0.724	-0.008

Table 32

Task 1 DIF: Latinx vs. Sample

Item	ChiSq	pvalue	EffectSize
T1_1_1	0.001	0.973	-0.020
T1_2_12	0.166	0.683	0.010
T1_3_1	0.046	0.831	0.042
T1_4_1	0.001	0.978	-0.022
T1_5_1	0.000	0.983	-0.025
T1_6_1	0.036	0.849	0.031
T1_7_1	0.006	0.939	-0.005
T1_8_1	0.001	0.977	-0.041
T1_9_1	0.094	0.759	0.007
T1_10_1	0.001	0.977	-0.039
T1_11_1	0.031	0.860	0.028
T1_12_1	0.011	0.916	0.004
T1_13_12	0.055	0.814	0.036
T1_14_12	0.065	0.799	-0.042
T1_15_1	0.019	0.890	0.015
T1_2_2	0.379	0.538	0.159
T1_3_2	0.000	0.991	-0.015
T1_4_2	0.003	0.958	0.021
T1_5_2	0.005	0.943	0.028
T1_6_23	0.001	0.982	-0.007
T1_7_2	0.000	0.988	-0.001
T1_8_2	0.000	0.985	-0.027
T1_9_23	0.063	0.802	0.035
T1_11_2	0.000	0.988	-0.026
T1_13_23	0.091	0.763	0.055
T1_14_2	0.017	0.897	0.047
T1_15_2	0.001	0.983	-0.028
T1_1_34	0.794	0.373	-0.208
T1_2_34	0.197	0.657	-0.058
T1_4_34	0.059	0.809	-0.056
T1_5_3	0.027	0.870	0.061
T1_6_3	0.000	0.985	0.002
T1_8_3	0.000	0.992	-0.012
T1_10_3	0.002	0.964	0.023
T1_11_3	0.000	0.990	-0.019
T1_12_3	0.000	0.996	-0.082
T1_13_3	0.000	0.998	-0.014

T1_14_3	0.001	0.981	-0.023
T1_15_3	0.131	0.718	0.058
T1_1_4	0.000	0.989	0.025
T1_2_456	0.046	0.831	0.155
T1_4_4	0.080	0.778	0.001
T1_5_456	0.035	0.852	0.149
T1_6_4	0.347	0.556	-0.106
T1_7_4	0.011	0.919	0.064
T1_8_4	0.259	0.611	-0.078
T1_9_4	0.140	0.708	-0.032
T1_10_456	0.408	0.523	-0.117
T1_13_4	0.000	0.990	-0.014
T1_14_4	0.000	0.992	0.102
T1_15_4	0.235	0.628	-0.070
T1_1_5	0.105	0.746	-0.060
T1_2_5	0.026	0.871	-0.005
T1_4_56	0.281	0.596	-0.088
T1_5_5	0.104	0.747	-0.091
T1_6_56	0.020	0.888	0.046
T1_7_5	0.051	0.822	-0.054
T1_8_56	0.028	0.866	0.236
T1_11_5	0.003	0.954	0.032
T1_12_5	0.013	0.910	0.013
T1_13_5	0.012	0.914	0.087
T1_14_5	0.038	0.846	-0.016
T1_15_5	0.027	0.869	-0.005
T1_1_6	0.000	0.999	0.031
T1_3_6	0.036	0.849	-0.033
T1_6_6	0.002	0.965	0.172
T1_8_6	0.001	0.980	0.022
T1_9_6	0.001	0.973	0.019
T1_11_6	0.004	0.951	0.009
T1_12_6	1.319	0.251	-0.215
T1_13_6	0.012	0.915	-0.005
T1_14_6	0.020	0.887	-0.019
T1_16_1	0.013	0.908	-0.021
T1_18_1	0.002	0.961	-0.030
T1_19_1	0.000	0.988	-0.077
T1_20_1	0.054	0.816	0.024
T1_21_12	0.207	0.649	0.033
T1_22_1	0.002	0.964	-0.044

T1_23_1	0.076	0.784	0.037
T1_25_1	0.098	0.755	0.055
T1_27_1	0.192	0.662	0.086
T1_28_1	0.003	0.959	-0.041
T1_19_2	0.041	0.839	0.035
T1_20_2	0.001	0.983	-0.052
T1_21_2	0.015	0.904	0.005
T1_22_2	0.002	0.961	-0.017
T1_23_2	0.001	0.981	-0.045
T1_25_2	0.103	0.748	0.073
T1_26_2	0.000	0.998	-0.060
T1_27_23	0.732	0.392	0.164
T1_28_2	0.000	0.998	-0.036
T1_16_3	0.002	0.961	-0.101
T1_17_3	0.060	0.807	0.028
T1_18_34	0.002	0.968	-0.167
T1_19_3	0.124	0.725	0.066
T1_21_3	0.008	0.929	-0.022
T1_25_3	0.008	0.930	-0.019
T1_26_3	0.006	0.938	-0.102
T1_27_3	0.036	0.849	0.009
T1_28_3	0.131	0.717	0.069
T1_16_4	0.005	0.942	-0.069
T1_17_4	0.001	0.970	-0.134
T1_18_4	0.011	0.918	-0.151
T1_19_4	0.180	0.672	0.052
T1_20_4	0.001	0.973	-0.105
T1_22_45	0.003	0.960	-0.170
T1_24_4	0.153	0.696	0.039
T1_27_4	0.131	0.717	0.031
T1_28_4	0.187	0.665	0.052
T1_17_5	0.009	0.927	-0.074
T1_18_5	0.000	0.989	-0.039
T1_19_5	0.005	0.945	0.005
T1_22_5	0.043	0.835	0.048
T1_23_5	0.176	0.675	0.119
T1_24_56	0.025	0.875	0.210
T1_25_5	0.157	0.692	0.112
T1_27_5	0.001	0.971	-0.031
T1_28_5	0.000	0.987	-0.024
T1_17_6	0.073	0.787	0.058

T1_18_6	0.000	0.997	0.146
T1_19_6	0.041	0.840	0.077
T1_20_6	0.506	0.477	-0.101
T1_21_6	0.408	0.523	-0.072
T1_23_6	0.816	0.367	-0.166
T1_24_6	0.011	0.918	0.108
T1_25_6	0.388	0.533	-0.063
T1_28_6	0.344	0.558	-0.053

Table 33

Task 2 DIF: Male vs. female

ItemID	ChiSq	pvalue	EffectSize
T2_51_12	0.644	0.422	0.074
T2_53_12	0.347	0.556	0.032
T2_56_12	0.468	0.494	0.057
T2_58_12	0.085	0.771	-0.004
T2_75_12	0.441	0.506	0.053
T2_60_23	0.002	0.961	-0.027
T2_70_23	0.054	0.816	-0.050
T2_75_23	0.183	0.669	0.047
T2_78_23	0.031	0.860	0.008
T2_84_23	0.062	0.803	-0.048
T2_55_34	0.154	0.695	0.003
T2_56_34	0.127	0.722	0.003
T2_59_34	0.159	0.690	-0.013
T2_69_34	0.098	0.755	-0.006
T2_77_34	0.263	0.608	-0.029
T2_61_45	0.836	0.361	-0.086
T2_61_56	0.079	0.778	0.028
T2_70_56	0.089	0.765	0.005
T2_71_56	0.009	0.924	0.003
T2_74_56	0.003	0.956	0.002
T2_79_56	0.044	0.833	-0.027
T2_64_456	0.240	0.624	-0.001
T2_71_456	0.507	0.476	-0.055
T2_77_456	0.768	0.381	-0.080
T2_81_456	0.636	0.425	-0.066
T2_52_1	0.291	0.590	0.055
T2_54_1	0.001	0.981	-0.031
T2_55_1	0.145	0.704	0.037
T2_57_1	0.008	0.928	-0.007
T2_59_1	0.003	0.954	-0.011
T2_60_1	0.008	0.928	-0.009
T2_61_1	0.063	0.803	0.021
T2_62_1	0.024	0.876	-0.042
T2_63_1	0.027	0.869	0.006
T2_64_1	0.000	0.996	-0.014
T2_65_1	0.000	0.985	-0.017
T2_66_1	0.000	0.995	-0.014

T2_67_1	0.128	0.721	0.033
T2_68_1	0.058	0.810	0.016
T2_69_1	0.085	0.770	0.024
T2_70_1	0.032	0.859	0.009
T2_71_1	0.006	0.938	-0.009
T2_72_1	0.041	0.839	0.013
T2_73_1	0.112	0.738	0.031
T2_74_1	0.031	0.860	0.006
T2_76_1	0.027	0.869	0.004
T2_77_1	0.000	0.988	-0.015
T2_78_1	0.035	0.852	0.009
T2_79_1	0.075	0.784	0.022
T2_80_1	0.063	0.802	0.017
T2_81_1	0.033	0.857	0.005
T2_82_1	0.003	0.956	-0.008
T2_83_1	0.000	0.987	-0.016
T2_84_1	0.016	0.899	0.001
T2_85_1	0.025	0.875	0.005
T2_51_2	0.318	0.573	0.053
T2_52_2	0.186	0.666	0.035
T2_54_2	0.247	0.619	0.044
T2_55_2	0.122	0.727	0.025
T2_58_2	0.403	0.526	0.065
T2_61_2	0.241	0.624	0.044
T2_62_2	0.374	0.541	0.061
T2_64_2	0.210	0.647	0.040
T2_65_2	0.185	0.668	0.035
T2_66_2	0.353	0.553	0.059
T2_67_2	0.062	0.803	0.010
T2_68_2	0.137	0.712	0.027
T2_69_2	0.230	0.632	0.045
T2_73_2	0.212	0.645	0.041
T2_74_2	0.061	0.805	0.011
T2_76_2	0.162	0.687	0.032
T2_77_2	0.076	0.782	0.015
T2_79_2	0.303	0.582	0.054
T2_80_2	0.170	0.680	0.033
T2_81_2	0.532	0.466	0.079
T2_83_2	0.209	0.647	0.040
T2_85_2	0.390	0.532	0.062
T2_63_2	0.002	0.961	-0.019

T2_72_2	0.140	0.709	0.028
T2_82_2	0.093	0.760	0.017
T2_51_3	0.000	0.987	0.002
T2_52_3	0.228	0.633	-0.059
T2_53_3	0.067	0.795	-0.031
T2_54_3	0.046	0.830	-0.024
T2_61_3	0.350	0.554	-0.077
T2_63_3	0.029	0.865	-0.014
T2_64_3	0.136	0.712	-0.046
T2_66_3	0.185	0.668	-0.051
T2_67_3	0.098	0.754	-0.038
T2_68_3	0.059	0.809	-0.025
T2_70_3	0.104	0.747	-0.040
T2_71_3	0.021	0.885	-0.017
T2_74_3	0.015	0.904	-0.009
T2_76_3	0.002	0.961	0.020
T2_78_3	0.000	0.999	0.013
T2_79_3	0.036	0.850	-0.017
T2_81_3	0.072	0.788	-0.031
T2_82_3	0.020	0.889	-0.012
T2_84_3	0.124	0.725	-0.043
T2_57_3	0.087	0.769	-0.041
T2_62_3	0.000	0.989	0.009
T2_73_3	0.039	0.844	-0.019
T2_75_3	0.017	0.896	-0.010
T2_83_3	0.121	0.728	-0.042
T2_85_3	0.045	0.832	-0.023
T2_51_4	0.019	0.892	0.011
T2_53_4	0.081	0.776	-0.008
T2_60_4	0.112	0.738	-0.016
T2_62_4	0.034	0.854	0.006
T2_63_4	0.227	0.634	-0.035
T2_66_4	0.010	0.921	0.016
T2_67_4	0.142	0.706	-0.020
T2_68_4	0.283	0.595	-0.044
T2_69_4	0.089	0.766	-0.010
T2_72_4	0.044	0.834	0.003
T2_73_4	0.108	0.743	-0.015
T2_75_4	0.155	0.694	-0.027
T2_78_4	0.049	0.826	0.000
T2_79_4	0.130	0.719	-0.022

T2_80_4	0.144	0.705	-0.022
T2_82_4	0.110	0.740	-0.016
T2_83_4	0.180	0.671	-0.031
T2_84_4	0.205	0.651	-0.034
T2_52_4	0.000	0.988	0.022
T2_58_4	0.074	0.786	-0.006
T2_65_4	0.479	0.489	-0.052
T2_70_4	0.070	0.792	-0.024
T2_74_4	0.216	0.642	-0.035
T2_76_4	0.281	0.596	-0.046
T2_85_4	0.119	0.730	-0.020
T2_52_5	0.025	0.875	-0.011
T2_55_5	0.082	0.774	-0.030
T2_57_5	0.008	0.931	-0.001
T2_59_5	0.001	0.976	0.007
T2_62_5	0.050	0.824	-0.016
T2_63_5	0.037	0.848	-0.017
T2_64_5	0.116	0.734	-0.040
T2_65_5	0.000	0.988	0.012
T2_66_5	0.002	0.968	0.001
T2_67_5	0.079	0.779	-0.029
T2_69_5	0.031	0.860	-0.016
T2_80_5	0.051	0.821	-0.029
T2_81_5	0.189	0.663	-0.054
T2_84_5	0.144	0.704	-0.042
T2_85_5	0.044	0.835	-0.021
T2_51_5	0.009	0.924	0.028
T2_53_5	0.020	0.887	-0.003
T2_54_5	0.043	0.835	-0.015
T2_58_5	0.009	0.926	-0.024
T2_72_5	0.001	0.979	-0.002
T2_76_5	0.046	0.830	-0.028
T2_77_5	0.000	0.995	-0.013
T2_78_5	0.136	0.712	-0.045
T2_82_5	0.067	0.796	-0.027
T2_83_5	0.038	0.845	-0.024
T2_52_6	0.000	0.992	0.008
T2_53_6	0.022	0.882	0.028
T2_54_6	0.015	0.901	0.025
T2_59_6	0.082	0.775	0.044
T2_60_6	0.000	0.990	-0.002

T2_63_6	0.035	0.851	0.032
T2_65_6	0.012	0.914	-0.011
T2_66_6	0.034	0.854	0.030
T2_73_6	0.000	1.000	0.003
T2_79_6	0.035	0.851	0.029
T2_82_6	0.007	0.932	-0.010
T2_83_6	0.007	0.934	0.022
T2_51_6	0.001	0.978	-0.003
T2_56_6	0.000	0.995	0.002
T2_57_6	0.017	0.895	0.013
T2_58_6	0.023	0.879	-0.018
T2_61_6	0.000	0.993	0.013
T2_62_6	0.003	0.956	-0.003
T2_67_6	0.012	0.911	0.007
T2_69_6	0.000	0.995	0.010
T2_70_6	0.006	0.938	0.020
T2_77_6	0.055	0.815	0.027
T2_78_6	0.008	0.929	0.002
T2_81_6	0.007	0.934	-0.003
T2_84_6	0.069	0.793	-0.017
T2_85_6	0.003	0.954	0.019

Table 34

Task 2 DIF: White vs. Sample

ItemID	ChiSq	pvalue	EffectSize
T2_51_12	0.056	0.813	0.042
T2_53_12	0.048	0.828	0.034
T2_56_12	0.016	0.900	0.027
T2_58_12	0.027	0.870	-0.021
T2_75_12	0.005	0.943	0.019
T2_60_23	0.201	0.654	0.094
T2_70_23	0.000	0.993	0.018
T2_75_23	0.023	0.881	-0.002
T2_78_23	0.007	0.933	0.006
T2_84_23	0.624	0.430	-0.087
T2_55_34	0.265	0.607	-0.013
T2_56_34	0.029	0.866	0.021
T2_59_34	0.514	0.473	-0.057
T2_69_34	0.056	0.814	0.021
T2_77_34	0.157	0.692	-0.006
T2_61_45	0.115	0.734	0.015
T2_61_56	0.362	0.547	0.002
T2_70_56	0.032	0.859	-0.045
T2_71_56	0.041	0.839	-0.027
T2_74_56	0.933	0.334	0.080
T2_79_56	0.149	0.699	-0.006
T2_64_456	0.112	0.738	0.009
T2_71_456	0.069	0.792	0.019
T2_77_456	0.730	0.393	0.079
T2_81_456	0.194	0.660	0.037
T2_52_1	0.029	0.866	0.024
T2_54_1	0.068	0.794	0.036
T2_55_1	0.003	0.955	0.009
T2_57_1	0.160	0.689	0.060
T2_59_1	0.043	0.836	0.031
T2_60_1	0.144	0.705	0.059
T2_61_1	0.060	0.807	0.035
T2_62_1	0.008	0.929	0.014
T2_63_1	0.014	0.907	0.020
T2_64_1	0.003	0.960	0.009
T2_65_1	0.025	0.876	0.029
T2_66_1	0.006	0.940	-0.014

T2_67_1	0.003	0.958	0.008
T2_68_1	0.029	0.866	0.025
T2_69_1	0.006	0.941	0.012
T2_70_1	0.004	0.948	-0.010
T2_71_1	0.064	0.800	-0.035
T2_72_1	0.000	0.994	0.003
T2_73_1	0.010	0.922	0.013
T2_74_1	0.011	0.915	0.021
T2_76_1	0.081	0.776	0.045
T2_77_1	0.016	0.900	0.022
T2_78_1	0.012	0.913	0.012
T2_79_1	0.001	0.979	0.005
T2_80_1	0.122	0.727	0.045
T2_81_1	0.001	0.973	0.009
T2_82_1	0.143	0.706	0.057
T2_83_1	0.071	0.790	0.044
T2_84_1	0.016	0.901	0.023
T2_85_1	0.007	0.932	0.013
T2_51_2	0.001	0.978	0.009
T2_52_2	0.072	0.789	-0.038
T2_54_2	0.000	0.985	0.009
T2_55_2	0.000	0.996	0.000
T2_58_2	0.142	0.707	0.059
T2_61_2	0.003	0.955	0.013
T2_62_2	0.072	0.788	-0.039
T2_64_2	0.082	0.775	0.045
T2_65_2	0.106	0.745	0.053
T2_66_22	0.107	0.743	0.053
T2_67_2	0.058	0.809	0.041
T2_68_2	0.023	0.880	-0.022
T2_69_2	0.111	0.739	-0.049
T2_73_2	0.120	0.729	0.055
T2_74_2	0.079	0.778	0.046
T2_76_2	0.000	0.993	0.006
T2_77_2	0.002	0.967	-0.005
T2_79_2	0.014	0.907	0.023
T2_80_2	0.010	0.920	-0.016
T2_81_2	0.002	0.967	0.012
T2_83_2	0.083	0.773	0.046
T2_85_2	0.002	0.967	0.011
T2_63_2	0.089	0.766	-0.041

T2_72_2	0.000	0.988	0.001
T2_82_2	0.010	0.922	0.018
T2_51_3	0.040	0.841	-0.013
T2_52_3	0.000	0.991	0.018
T2_53_3	0.021	0.884	0.041
T2_54_3	0.000	0.988	0.014
T2_61_3	0.070	0.792	-0.019
T2_63_3	0.169	0.681	-0.046
T2_64_3	0.047	0.828	0.050
T2_66_3	0.000	0.985	0.026
T2_67_3	0.007	0.932	0.034
T2_68_3	0.018	0.893	-0.002
T2_70_3	0.058	0.809	0.058
T2_71_3	0.000	0.984	0.014
T2_74_3	0.003	0.959	0.029
T2_76_3	0.050	0.824	-0.016
T2_78_3	0.000	0.985	0.012
T2_79_3	0.148	0.701	-0.039
T2_81_3	0.142	0.707	-0.041
T2_82_3	0.005	0.943	0.005
T2_84_3	0.082	0.774	-0.023
T2_57_3	0.077	0.782	-0.013
T2_62_3	0.013	0.909	0.002
T2_73_3	0.094	0.760	-0.029
T2_75_3	0.035	0.852	-0.014
T2_83_3	0.050	0.823	-0.018
T2_85_3	0.039	0.843	-0.013
T2_51_4	0.160	0.689	-0.037
T2_53_4	0.002	0.969	0.014
T2_60_4	0.000	0.995	0.017
T2_62_4	0.001	0.977	0.014
T2_63_4	0.001	0.972	0.030
T2_66_4	0.116	0.734	-0.030
T2_67_4	0.093	0.761	-0.025
T2_68_4	0.050	0.824	-0.011
T2_69_4	0.032	0.859	-0.006
T2_72_4	0.171	0.679	-0.040
T2_73_4	0.034	0.855	-0.006
T2_75_4	0.042	0.838	-0.011
T2_78_4	0.248	0.619	-0.051
T2_79_4	0.000	0.988	0.022

T2_80_4	0.008	0.930	0.007
T2_82_4	0.068	0.794	-0.019
T2_83_4	0.031	0.861	-0.006
T2_84_4	0.000	0.997	0.019
T2_52_4	0.010	0.919	0.002
T2_58_4	0.028	0.866	-0.004
T2_65_4	0.392	0.531	-0.070
T2_70_4	0.077	0.781	-0.005
T2_74_4	0.029	0.865	-0.006
T2_76_4	0.041	0.840	-0.009
T2_85_4	0.036	0.850	-0.008
T2_52_5	0.595	0.441	0.052
T2_55_5	0.367	0.545	0.032
T2_57_5	0.135	0.714	-0.008
T2_59_5	0.117	0.732	-0.013
T2_62_5	0.233	0.630	0.017
T2_63_5	0.219	0.640	0.010
T2_64_5	0.359	0.549	0.026
T2_65_5	0.809	0.368	0.073
T2_66_5	0.231	0.631	0.016
T2_67_5	0.507	0.477	0.045
T2_69_5	0.119	0.730	-0.011
T2_80_5	0.360	0.548	0.026
T2_81_5	0.110	0.740	-0.007
T2_84_5	0.477	0.490	0.048
T2_85_5	0.645	0.422	0.061
T2_51_5	0.005	0.942	-0.051
T2_53_5	0.514	0.474	-0.011
T2_54_5	0.007	0.934	-0.038
T2_58_5	0.664	0.415	0.015
T2_72_5	0.317	0.574	-0.003
T2_76_5	0.196	0.658	0.013
T2_77_5	0.000	0.988	-0.037
T2_78_5	0.105	0.746	-0.019
T2_82_5	0.675	0.411	0.067
T2_83_5	0.755	0.385	0.068
T2_52_6	0.041	0.839	-0.030
T2_53_6	0.000	0.997	-0.006
T2_54_6	0.043	0.836	0.026
T2_59_6	0.001	0.977	0.007
T2_60_6	0.003	0.959	0.005

T2_63_6	0.019	0.892	0.019
T2_65_6	0.015	0.904	-0.021
T2_66_6	0.005	0.946	-0.015
T2_73_6	0.009	0.925	0.015
T2_79_6	0.020	0.887	-0.021
T2_82_6	0.000	0.998	-0.001
T2_83_6	0.000	0.991	-0.006
T2_51_6	0.000	0.989	0.000
T2_56_6	0.024	0.876	-0.007
T2_57_6	0.009	0.923	0.008
T2_58_6	0.000	0.994	0.000
T2_61_6	0.002	0.963	-0.010
T2_62_6	0.001	0.977	-0.004
T2_67_6	0.016	0.901	-0.012
T2_69_6	0.004	0.950	-0.002
T2_70_6	0.056	0.814	0.024
T2_77_6	0.034	0.854	0.010
T2_78_6	0.036	0.850	-0.023
T2_81_6	0.000	0.998	-0.001
T2_84_6	0.071	0.790	0.041
T2_85_6	0.000	0.993	0.007

Table 35

Task 2 DIF: Black vs. Sample

ItemID	ChiSq	pvalue	EffectSize
T2_51_12	0.000	0.999	-0.027
T2_53_12	0.000	0.999	-0.016
T2_56_12	0.001	0.980	-0.016
T2_58_12	0.091	0.762	0.020
T2_75_12	0.005	0.942	-0.006
T2_60_23	0.146	0.703	-0.101
T2_70_23	0.271	0.603	0.037
T2_75_23	0.031	0.861	-0.009
T2_78_23	0.136	0.713	0.015
T2_84_23	1.037	0.309	0.108
T2_55_34	0.747	0.387	0.022
T2_56_34	0.029	0.864	-0.019
T2_59_34	0.239	0.625	0.027
T2_69_34	0.027	0.870	-0.030
T2_77_34	0.008	0.929	-0.033
T2_61_45	0.196	0.658	-0.009
T2_61_56	0.640	0.424	0.023
T2_70_56	0.002	0.966	0.070
T2_71_56	0.007	0.933	0.044
T2_74_56	0.722	0.396	-0.068
T2_79_56	0.208	0.648	-0.001
T2_64_456	0.000	0.995	0.050
T2_71_456	0.021	0.885	-0.002
T2_77_456	0.180	0.671	-0.036
T2_81_456	0.186	0.666	-0.037
T2_52_1	0.006	0.938	-0.004
T2_54_1	0.161	0.688	-0.047
T2_55_1	0.018	0.893	-0.011
T2_57_1	0.497	0.481	-0.094
T2_59_1	0.035	0.851	-0.024
T2_60_1	0.304	0.582	-0.075
T2_61_1	0.042	0.838	-0.021
T2_62_1	0.200	0.655	-0.056
T2_63_1	0.121	0.728	-0.045
T2_64_1	0.090	0.764	-0.036
T2_65_1	0.197	0.657	-0.061
T2_66_1	0.024	0.876	-0.012

T2_67_1	0.117	0.733	-0.038
T2_68_1	0.188	0.665	-0.055
T2_69_1	0.007	0.936	-0.001
T2_70_1	0.004	0.948	-0.002
T2_71_1	0.000	0.997	0.011
T2_72_1	0.091	0.762	-0.037
T2_73_1	0.007	0.931	-0.003
T2_74_1	0.066	0.797	-0.033
T2_76_1	0.108	0.743	-0.041
T2_77_1	0.127	0.721	-0.047
T2_78_1	0.027	0.870	-0.011
T2_79_1	0.022	0.882	-0.013
T2_80_1	0.124	0.725	-0.041
T2_81_1	0.062	0.804	-0.031
T2_82_1	0.221	0.638	-0.064
T2_83_1	0.183	0.669	-0.058
T2_84_1	0.145	0.703	-0.050
T2_85_1	0.036	0.849	-0.019
T2_51_2	0.000	0.998	-0.028
T2_52_2	0.238	0.626	0.046
T2_54_2	0.057	0.811	0.009
T2_55_2	0.077	0.782	0.018
T2_58_2	0.004	0.953	-0.017
T2_61_2	0.000	0.999	-0.032
T2_62_2	0.190	0.663	0.038
T2_64_2	0.005	0.945	-0.015
T2_65_2	0.006	0.941	-0.044
T2_66_22	0.060	0.806	-0.068
T2_67_2	0.000	1.000	-0.027
T2_68_2	0.138	0.710	0.029
T2_69_2	0.278	0.598	0.053
T2_73_2	0.000	0.990	-0.033
T2_74_2	0.002	0.964	-0.020
T2_76_2	0.088	0.767	0.020
T2_77_2	0.107	0.744	0.022
T2_79_2	0.073	0.787	0.013
T2_80_2	0.110	0.740	0.025
T2_81_2	0.065	0.799	0.009
T2_83_2	0.008	0.928	-0.014
T2_85_2	0.098	0.754	0.019
T2_63_2	0.130	0.719	0.024

T2_72_2	0.106	0.745	0.025
T2_82_2	0.037	0.848	0.004
T2_51_3	0.000	0.998	-0.009
T2_52_3	0.003	0.955	0.002
T2_53_3	0.141	0.708	-0.066
T2_54_3	0.001	0.983	-0.004
T2_61_3	0.005	0.946	0.001
T2_63_3	0.055	0.815	0.030
T2_64_3	0.168	0.682	-0.070
T2_66_3	0.026	0.872	-0.036
T2_67_3	0.142	0.706	-0.067
T2_68_3	0.016	0.901	-0.030
T2_70_3	0.163	0.686	-0.072
T2_71_3	0.005	0.942	-0.022
T2_74_3	0.082	0.775	-0.055
T2_76_3	0.019	0.890	-0.031
T2_78_3	0.000	0.990	-0.007
T2_79_3	0.004	0.949	0.005
T2_81_3	0.008	0.928	0.010
T2_82_3	0.011	0.916	-0.025
T2_84_3	0.006	0.937	0.004
T2_57_3	0.020	0.889	-0.006
T2_62_3	0.003	0.954	-0.021
T2_73_3	0.029	0.866	0.021
T2_75_3	0.001	0.979	0.001
T2_83_3	0.004	0.949	0.006
T2_85_3	0.000	1.000	-0.004
T2_51_4	0.407	0.524	0.063
T2_53_4	0.047	0.829	0.000
T2_60_4	0.007	0.931	-0.016
T2_62_4	0.004	0.950	-0.018
T2_63_4	0.045	0.832	0.000
T2_66_4	0.151	0.698	0.027
T2_67_4	0.109	0.741	0.019
T2_68_4	0.067	0.796	0.007
T2_69_4	0.078	0.780	0.010
T2_72_4	0.108	0.743	0.019
T2_73_4	0.104	0.747	0.017
T2_75_4	0.156	0.693	0.029
T2_78_4	0.394	0.530	0.061
T2_79_4	0.017	0.898	-0.011

T2_80_4	0.003	0.960	-0.025
T2_82_4	0.131	0.718	0.024
T2_83_4	0.209	0.648	0.038
T2_84_4	0.053	0.818	0.004
T2_52_4	0.226	0.634	0.032
T2_58_4	0.038	0.845	-0.002
T2_65_4	0.364	0.546	0.064
T2_70_4	0.155	0.694	0.027
T2_74_4	0.150	0.699	0.027
T2_76_4	0.201	0.654	0.036
T2_85_4	0.135	0.713	0.024
T2_52_5	0.802	0.371	-0.049
T2_55_5	0.646	0.422	-0.040
T2_57_5	0.201	0.654	0.022
T2_59_5	0.073	0.788	0.048
T2_62_5	0.285	0.593	0.001
T2_63_5	0.194	0.660	0.015
T2_64_5	0.500	0.480	-0.017
T2_65_5	1.302	0.254	-0.089
T2_66_5	0.207	0.649	0.006
T2_67_5	0.784	0.376	-0.051
T2_69_5	0.141	0.707	0.032
T2_80_5	0.561	0.454	-0.028
T2_81_5	0.180	0.672	0.017
T2_84_5	0.947	0.331	-0.070
T2_85_5	1.210	0.271	-0.083
T2_51_5	0.032	0.859	0.062
T2_53_5	0.560	0.454	0.026
T2_54_5	0.000	0.999	0.086
T2_58_5	0.983	0.321	0.007
T2_72_5	0.274	0.601	0.032
T2_76_5	0.368	0.544	0.012
T2_77_5	0.050	0.822	0.047
T2_78_5	0.191	0.663	0.027
T2_82_5	1.208	0.272	-0.089
T2_83_5	0.671	0.413	-0.043
T2_52_6	0.115	0.735	0.033
T2_53_6	0.053	0.818	0.022
T2_54_6	0.026	0.871	0.006
T2_59_6	0.025	0.873	0.008
T2_60_6	0.008	0.929	-0.001

T2_63_6	0.057	0.811	0.018
T2_65_6	0.067	0.796	0.027
T2_66_6	0.007	0.934	0.000
T2_73_6	0.041	0.841	0.011
T2_79_6	0.018	0.895	0.007
T2_82_6	0.034	0.854	0.014
T2_83_6	0.007	0.935	-0.001
T2_51_6	0.014	0.906	0.003
T2_56_6	0.090	0.764	0.008
T2_57_6	0.022	0.883	-0.002
T2_58_6	0.026	0.872	0.006
T2_61_6	0.094	0.760	0.026
T2_62_6	0.021	0.884	0.001
T2_67_6	0.062	0.804	0.007
T2_69_6	0.008	0.930	-0.001
T2_70_6	0.029	0.864	-0.001
T2_77_6	0.003	0.957	-0.014
T2_78_6	0.137	0.711	0.023
T2_81_6	0.004	0.948	0.000
T2_84_6	0.027	0.868	-0.044
T2_85_6	0.006	0.940	-0.005

Table 36

Task 2 DIF: Latinx vs. Sample

ItemID	ChiSq	pvalue	EffectSize
T2_51_12	0.117	0.733	0.090
T2_53_12	0.017	0.895	0.020
T2_56_12	0.086	0.769	0.065
T2_58_12	0.328	0.567	0.157
T2_75_12	0.134	0.715	0.088
T2_60_23	0.394	0.530	0.187
T2_70_23	0.086	0.769	-0.107
T2_75_23	0.141	0.707	0.123
T2_78_23	0.028	0.867	0.060
T2_84_23	0.048	0.827	0.071
T2_55_34	0.190	0.663	-0.032
T2_56_34	0.107	0.744	-0.224
T2_59_34	0.055	0.815	-0.014
T2_69_34	0.000	0.986	-0.119
T2_77_34	0.008	0.929	-0.071
T2_61_45	0.161	0.689	0.015
T2_61_56	0.001	0.979	-0.020
T2_70_56	0.162	0.688	0.009
T2_71_56	0.115	0.735	0.011
T2_74_56	0.336	0.562	-0.110
T2_79_56	0.086	0.770	0.007
T2_64_456	0.003	0.956	-0.125
T2_71_456	0.455	0.500	-0.163
T2_77_456	0.131	0.717	-0.089
T2_81_456	0.037	0.848	-0.040
T2_52_1	0.029	0.864	0.022
T2_54_1	0.020	0.889	0.004
T2_55_1	0.098	0.754	0.062
T2_57_1	0.142	0.706	0.068
T2_59_1	0.013	0.910	0.003
T2_60_1	0.085	0.770	0.054
T2_61_1	0.003	0.955	-0.011
T2_62_1	0.216	0.642	0.096
T2_63_1	0.111	0.739	0.065
T2_64_1	0.081	0.776	0.050
T2_65_1	0.050	0.824	0.028
T2_66_1	0.111	0.739	0.060

T2_67_1	0.088	0.767	0.046
T2_68_1	0.057	0.812	0.033
T2_69_1	0.000	0.995	-0.055
T2_70_1	0.029	0.864	0.016
T2_71_1	0.281	0.596	0.125
T2_72_1	0.111	0.740	0.070
T2_73_1	0.081	0.776	0.045
T2_74_1	0.112	0.738	0.065
T2_76_1	0.175	0.676	0.093
T2_77_1	0.163	0.687	0.089
T2_78_1	0.198	0.657	0.101
T2_79_1	0.112	0.738	0.066
T2_80_1	0.004	0.952	-0.012
T2_81_1	0.151	0.698	0.084
T2_82_1	0.075	0.785	0.052
T2_83_1	0.106	0.745	0.067
T2_84_1	0.065	0.799	0.036
T2_85_1	0.071	0.790	0.046
T2_51_2	0.062	0.803	0.096
T2_52_2	0.039	0.843	0.079
T2_54_2	0.007	0.932	0.040
T2_55_2	0.004	0.947	0.031
T2_58_2	0.017	0.895	-0.051
T2_61_2	0.077	0.782	0.107
T2_62_2	0.105	0.746	0.118
T2_64_2	0.016	0.900	0.058
T2_65_2	0.094	0.760	0.113
T2_66_22	0.053	0.818	0.091
T2_67_2	0.023	0.879	0.066
T2_68_2	0.001	0.979	0.022
T2_69_2	0.037	0.848	0.076
T2_73_2	0.001	0.979	-0.016
T2_74_2	0.001	0.978	0.026
T2_76_2	0.006	0.941	0.037
T2_77_2	0.001	0.976	0.028
T2_79_2	0.000	0.995	0.020
T2_80_2	0.010	0.921	0.044
T2_81_2	0.002	0.965	0.033
T2_83_2	0.038	0.845	-0.067
T2_85_2	0.000	0.991	-0.010
T2_63_2	0.000	0.992	0.017

T2_72_2	0.000	0.998	-0.012
T2_82_2	0.001	0.981	0.000
T2_51_3	0.054	0.816	0.068
T2_52_3	0.000	0.985	-0.025
T2_53_3	0.013	0.908	0.030
T2_54_3	0.002	0.964	-0.042
T2_61_3	0.036	0.849	0.058
T2_63_3	0.013	0.909	0.030
T2_64_3	0.014	0.906	0.034
T2_66_3	0.000	0.995	-0.001
T2_67_3	0.001	0.970	0.007
T2_68_3	0.020	0.887	0.036
T2_70_3	0.000	0.989	-0.005
T2_71_3	0.009	0.926	0.023
T2_74_3	0.000	0.996	-0.002
T2_76_3	0.036	0.850	0.056
T2_78_3	0.003	0.954	0.015
T2_79_3	0.093	0.760	0.092
T2_81_3	0.020	0.888	0.042
T2_82_3	0.066	0.798	0.071
T2_84_3	0.044	0.833	0.058
T2_57_3	0.017	0.896	0.046
T2_62_3	0.021	0.884	0.040
T2_73_3	0.000	0.985	-0.024
T2_75_3	0.001	0.981	-0.010
T2_83_3	0.000	0.995	-0.007
T2_85_3	0.028	0.867	0.048
T2_51_4	0.076	0.784	0.020
T2_53_4	0.000	0.995	-0.065
T2_60_4	0.064	0.801	0.014
T2_62_4	0.026	0.871	-0.017
T2_63_4	0.001	0.972	-0.075
T2_66_4	0.016	0.899	-0.022
T2_67_4	0.041	0.840	-0.001
T2_68_4	0.070	0.792	0.016
T2_69_4	0.074	0.786	0.022
T2_72_4	0.074	0.785	0.027
T2_73_4	0.071	0.790	0.019
T2_75_4	0.100	0.752	0.042
T2_78_4	0.050	0.823	0.008
T2_79_4	0.043	0.837	0.005

T2_80_4	0.000	0.986	-0.070
T2_82_4	0.130	0.718	0.056
T2_83_4	0.096	0.756	0.039
T2_84_4	0.043	0.836	0.007
T2_52_4	0.004	0.953	-0.072
T2_58_4	0.008	0.930	-0.041
T2_65_4	0.026	0.872	-0.020
T2_70_4	0.008	0.931	-0.078
T2_74_4	0.096	0.757	0.039
T2_76_4	0.073	0.788	0.028
T2_85_4	0.072	0.789	0.027
T2_52_5	0.006	0.936	-0.001
T2_55_5	0.001	0.973	-0.027
T2_57_5	0.000	0.989	-0.054
T2_59_5	0.003	0.958	-0.062
T2_62_5	0.000	0.984	-0.036
T2_63_5	0.021	0.884	-0.087
T2_64_5	0.004	0.948	0.004
T2_65_5	0.049	0.825	0.055
T2_66_5	0.019	0.891	-0.078
T2_67_5	0.004	0.952	-0.003
T2_69_5	0.000	0.990	-0.026
T2_80_5	0.006	0.941	0.005
T2_81_5	0.010	0.919	0.007
T2_84_5	0.062	0.804	0.058
T2_85_5	0.073	0.787	0.057
T2_51_5	0.001	0.979	-0.053
T2_53_5	0.006	0.939	-0.013
T2_54_5	0.000	0.993	-0.055
T2_58_5	0.000	0.996	-0.048
T2_72_5	0.050	0.823	0.002
T2_76_5	0.106	0.745	-0.011
T2_77_5	0.078	0.780	0.005
T2_78_5	0.000	0.995	-0.020
T2_82_5	0.102	0.750	0.079
T2_83_5	0.001	0.978	-0.039
T2_52_6	0.359	0.549	-0.073
T2_53_6	0.402	0.526	-0.075
T2_54_6	0.781	0.377	-0.139
T2_59_6	0.813	0.367	-0.164
T2_60_6	0.105	0.746	0.025

T2_63_6	0.601	0.438	-0.120
T2_65_6	0.166	0.684	-0.005
T2_66_6	0.199	0.655	-0.016
T2_73_6	0.343	0.558	-0.066
T2_79_6	0.324	0.569	-0.059
T2_82_6	0.703	0.402	-0.157
T2_83_6	0.328	0.567	-0.057
T2_51_6	0.082	0.775	0.048
T2_56_6	0.070	0.791	0.031
T2_57_6	0.603	0.437	-0.025
T2_58_6	0.085	0.771	0.049
T2_61_6	0.840	0.359	-0.106
T2_62_6	0.192	0.661	0.069
T2_67_6	0.101	0.751	0.028
T2_69_6	0.189	0.664	0.042
T2_70_6	0.424	0.515	-0.072
T2_77_6	0.735	0.391	-0.038
T2_78_6	0.001	0.975	0.105
T2_81_6	0.010	0.922	0.074
T2_84_6	0.293	0.588	0.008
T2_85_6	0.227	0.634	0.010

Table 37

Task 3 DIF: Male vs. female

ItemID	ChiSq	pvalue	EffectSize
T3_10_12	0.000	0.999	-0.005
T3_11_12	0.026	0.872	-0.033
T3_12_12	0.018	0.892	0.016
T3_18_12	0.019	0.892	-0.030
T3_19_12	0.022	0.883	0.019
T3_20_12	0.081	0.776	0.037
T3_23_12	0.003	0.955	-0.018
T3_29_12	0.002	0.967	-0.015
T3_64_12	0.002	0.963	-0.017
T3_42_23	0.001	0.975	0.017
T3_43_23	0.027	0.870	0.004
T3_46_23	0.002	0.969	0.003
T3_2_23	0.033	0.857	0.012
T3_4_23	0.190	0.663	0.050
T3_8_23	0.014	0.905	0.003
T3_13_23	0.018	0.894	0.003
T3_27_23	0.006	0.939	-0.032
T3_29_23	0.045	0.832	0.015
T3_30_23	0.000	0.992	-0.018
T3_37_23	0.010	0.921	-0.035
T3_5_34	0.017	0.897	-0.015
T3_42_34	0.257	0.612	-0.006
T3_6_34	0.029	0.865	-0.023
T3_11_34	0.042	0.838	-0.028
T3_15_34	0.024	0.877	-0.018
T3_17_34	0.013	0.909	0.027
T3_23_34	0.001	0.979	0.013
T3_28_34	0.000	0.993	0.001
T3_33_34	0.005	0.945	0.019
T3_50_34	0.000	0.991	0.034
T3_51_34	0.145	0.703	0.015
T3_60_45	0.307	0.580	-0.058
T3_63_45	0.046	0.830	0.058
T3_2_56	0.000	0.988	-0.003
T3_16_56	0.010	0.919	-0.027
T3_19_56	0.007	0.936	0.005
T3_21_56	0.000	0.995	-0.011

T3_25_56	0.000	0.998	-0.001
T3_31_56	0.019	0.891	0.015
T3_32_56	0.014	0.908	0.010
T3_39_56	0.003	0.953	0.001
T3_51_56	0.001	0.977	-0.032
T3_60_56	0.006	0.939	-0.053
T3_3_456	0.000	0.992	0.022
T3_8_456	0.122	0.727	-0.037
T3_9_456	0.122	0.727	-0.034
T3_14_456	0.005	0.945	0.029
T3_15_456	0.126	0.723	-0.034
T3_20_456	0.211	0.646	-0.051
T3_33_456	0.017	0.898	-0.001
T3_40_456	0.131	0.717	-0.043
T3_1_1	Inf	0.000	NaN
T3_2_1	Inf	0.000	NaN
T3_3_1	0.013	0.908	0.014
T3_4_1	0.271	0.603	0.072
T3_5_1	0.059	0.809	0.033
T3_6_1	0.011	0.915	0.012
T3_7_1	0.000	0.997	-0.007
T3_8_1	0.020	0.887	0.018
T3_9_1	0.038	0.846	0.026
T3_13_1	0.003	0.960	-0.015
T3_14_1	0.000	0.990	-0.010
T3_15_1	0.000	0.996	-0.003
T3_16_1	0.001	0.971	0.002
T3_17_1	0.000	0.998	-0.007
T3_21_1	0.000	0.997	-0.007
T3_22_1	0.017	0.896	0.016
T3_24_1	0.001	0.979	-0.012
T3_25_1	0.008	0.928	0.010
T3_26_1	0.000	0.991	-0.005
T3_27_1	0.001	0.974	-0.012
T3_28_1	0.038	0.846	0.026
T3_30_1	0.002	0.967	0.003
T3_31_1	0.038	0.845	0.026
T3_32_1	0.017	0.898	0.016
T3_33_1	0.000	0.989	-0.001
T3_34_1	0.000	0.994	-0.012
T3_35_1	0.004	0.952	-0.017

T3_36_1	0.033	0.855	-0.034
T3_37_1	0.001	0.971	-0.013
T3_38_1	0.039	0.844	0.023
T3_39_1	0.001	0.972	0.002
T3_40_1	0.001	0.973	0.002
T3_41_1	0.031	0.860	0.024
T3_42_1	0.044	0.834	0.028
T3_43_1	0.001	0.979	-0.007
T3_44_1	0.014	0.905	-0.021
T3_45_1	0.043	0.835	0.033
T3_46_1	0.159	0.690	0.057
T3_47_1	0.001	0.975	0.007
T3_48_1	0.016	0.898	0.021
T3_49_1	0.125	0.723	-0.050
T3_50_1	0.065	0.798	-0.035
T3_51_1	0.000	0.998	-0.003
T3_54_1	0.192	0.661	0.061
T3_55_1	0.001	0.978	0.007
T3_56_1	0.000	0.987	-0.003
T3_57_1	0.002	0.968	0.015
T3_58_1	0.034	0.855	-0.022
T3_61_1	0.000	0.983	0.007
T3_62_1	0.000	0.996	-0.023
T3_63_1	0.010	0.919	0.015
T3_1_2	0.004	0.950	-0.013
T3_6_2	0.000	0.984	0.005
T3_7_2	0.021	0.885	-0.025
T3_9_2	0.006	0.937	-0.015
T3_10_2	0.016	0.899	-0.023
T3_11_2	0.042	0.838	0.032
T3_12_2	0.002	0.961	-0.011
T3_16_2	0.005	0.944	-0.014
T3_18_2	0.012	0.914	-0.005
T3_19_2	0.009	0.926	0.015
T3_20_2	0.000	0.996	0.002
T3_22_2	0.036	0.849	0.009
T3_23_2	0.021	0.886	-0.024
T3_24_2	0.000	0.991	0.003
T3_26_2	0.000	0.984	-0.007
T3_31_2	0.020	0.887	0.023
T3_32_2	0.031	0.860	0.006

T3_33_2	0.001	0.980	-0.008
T3_34_2	0.010	0.921	-0.018
T3_35_2	0.011	0.916	-0.019
T3_36_2	0.005	0.945	-0.014
T3_38_2	0.030	0.863	-0.053
T3_39_2	0.016	0.899	-0.022
T3_40_2	0.003	0.958	-0.011
T3_41_2	0.196	0.658	0.048
T3_48_2	0.135	0.713	0.038
T3_49_2	0.052	0.820	0.014
T3_50_2	0.168	0.682	0.043
T3_53_2	0.015	0.901	-0.002
T3_54_2	0.152	0.696	0.040
T3_56_2	0.013	0.910	-0.001
T3_57_2	0.054	0.816	0.016
T3_58_2	0.175	0.676	0.043
T3_60_2	0.063	0.801	0.018
T3_61_2	0.101	0.751	0.027
T3_63_2	0.002	0.962	-0.012
T3_1_3	0.011	0.916	0.002
T3_2_3	0.052	0.819	0.019
T3_4_3	0.014	0.907	0.003
T3_8_3	0.003	0.955	-0.006
T3_9_3	0.014	0.906	0.003
T3_10_3	0.058	0.810	0.022
T3_12_3	0.003	0.957	0.022
T3_13_3	0.019	0.890	0.006
T3_14_3	0.002	0.966	-0.007
T3_16_3	0.065	0.799	0.024
T3_18_3	0.021	0.885	0.007
T3_19_3	0.074	0.785	-0.032
T3_21_3	0.071	0.791	-0.032
T3_22_3	0.006	0.939	-0.003
T3_24_3	0.002	0.962	-0.007
T3_25_3	0.046	0.830	0.018
T3_26_3	0.007	0.932	-0.001
T3_29_3	0.051	0.822	0.019
T3_30_3	0.004	0.951	-0.005
T3_31_3	0.029	0.864	0.011
T3_32_3	0.085	0.770	0.029
T3_36_3	0.000	0.994	0.015

T3_37_3	0.000	0.992	-0.021
T3_39_3	0.022	0.883	0.008
T3_41_3	0.019	0.891	0.007
T3_43_3	0.044	0.835	-0.002
T3_44_3	0.036	0.849	-0.002
T3_46_3	0.153	0.696	-0.030
T3_47_3	0.037	0.848	-0.001
T3_48_3	0.018	0.892	0.007
T3_49_3	0.109	0.742	-0.022
T3_52_3	0.004	0.949	0.020
T3_53_3	0.011	0.918	0.049
T3_54_3	0.014	0.907	0.049
T3_57_3	0.045	0.833	0.065
T3_58_3	0.164	0.686	-0.032
T3_60_3	0.182	0.670	-0.035
T3_61_3	0.003	0.956	0.021
T3_64_3	0.010	0.921	0.048
T3_2_4	0.000	0.988	0.022
T3_5_4	0.086	0.770	-0.024
T3_6_4	0.049	0.825	-0.012
T3_7_4	0.041	0.840	-0.009
T3_10_4	0.017	0.898	0.003
T3_11_4	0.001	0.973	0.017
T3_12_4	0.013	0.911	0.005
T3_13_4	0.124	0.725	-0.029
T3_18_4	0.036	0.850	-0.009
T3_19_4	0.159	0.690	0.003
T3_21_4	0.004	0.952	0.012
T3_22_4	0.149	0.700	-0.033
T3_23_4	0.050	0.823	0.028
T3_24_4	0.006	0.938	0.010
T3_25_4	0.019	0.891	0.000
T3_27_4	0.001	0.978	0.016
T3_28_4	0.010	0.920	0.006
T3_29_4	0.002	0.963	0.015
T3_31_4	0.008	0.930	0.047
T3_32_4	0.094	0.759	-0.024
T3_34_4	0.000	0.987	0.018
T3_35_4	0.001	0.975	0.015
T3_36_4	0.053	0.818	0.029
T3_39_4	0.000	0.984	0.028

T3_41_4	0.028	0.867	0.011
T3_43_4	0.000	0.987	0.042
T3_44_4	0.042	0.838	0.002
T3_46_4	0.026	0.873	0.012
T3_47_4	0.019	0.892	0.058
T3_48_4	0.028	0.868	0.010
T3_49_4	0.008	0.929	0.022
T3_52_4	0.002	0.965	0.028
T3_53_4	0.023	0.878	0.013
T3_55_4	0.037	0.848	0.007
T3_56_4	0.007	0.933	0.023
T3_57_4	0.017	0.895	0.016
T3_58_4	0.054	0.817	0.001
T3_59_4	0.009	0.926	0.021
T3_61_4	0.005	0.943	0.024
T3_64_4	0.002	0.963	0.028
T3_1_5	0.001	0.971	0.001
T3_4_5	0.133	0.716	-0.077
T3_5_5	0.003	0.957	0.003
T3_6_5	0.003	0.960	0.004
T3_8_5	0.000	0.989	-0.012
T3_9_5	0.000	0.987	-0.011
T3_10_5	0.002	0.967	-0.016
T3_11_5	0.058	0.810	-0.060
T3_12_5	0.003	0.958	-0.018
T3_14_5	0.005	0.944	-0.020
T3_15_5	0.000	0.998	-0.004
T3_17_5	0.008	0.930	0.008
T3_22_5	0.001	0.976	0.001
T3_23_5	0.000	0.988	-0.020
T3_24_5	0.005	0.945	-0.020
T3_26_5	0.016	0.899	-0.030
T3_28_5	0.026	0.872	0.018
T3_29_5	0.006	0.937	0.008
T3_33_5	0.024	0.878	0.018
T3_34_5	0.016	0.899	-0.042
T3_35_5	0.000	0.987	-0.012
T3_36_5	0.001	0.978	-0.001
T3_37_5	0.000	0.994	-0.004
T3_38_5	0.013	0.911	-0.026
T3_42_5	0.045	0.832	0.023

T3_44_5	0.051	0.822	-0.047
T3_45_5	0.044	0.834	0.021
T3_47_5	0.042	0.839	-0.044
T3_48_5	0.069	0.792	-0.052
T3_49_5	0.004	0.951	-0.022
T3_52_5	0.037	0.849	-0.041
T3_55_5	0.494	0.482	-0.117
T3_56_5	0.005	0.946	-0.024

Table 38

Task 3 DIF: White vs. Sample

ItemID	ChiSq	pvalue	EffectSize
T3_10_12	0.079	0.778	-0.007
T3_11_12	0.150	0.698	0.008
T3_12_12	0.476	0.490	0.055
T3_18_12	0.026	0.873	-0.024
T3_19_12	0.434	0.510	0.051
T3_20_12	0.018	0.894	-0.028
T3_23_12	0.083	0.774	-0.007
T3_29_12	0.345	0.557	0.041
T3_64_12	0.969	0.325	-0.032
T3_42_23	1.372	0.241	-0.079
T3_43_23	0.253	0.615	-0.026
T3_46_23	0.084	0.773	0.154
T3_2_23	0.327	0.568	0.018
T3_4_23	0.399	0.528	0.029
T3_8_23	0.199	0.656	0.002
T3_13_23	0.121	0.728	-0.017
T3_27_23	0.549	0.459	0.044
T3_29_23	0.446	0.504	0.033
T3_30_23	0.144	0.705	-0.012
T3_37_23	0.632	0.427	0.053
T3_5_34	0.023	0.880	-0.006
T3_42_34	0.967	0.325	-0.077
T3_6_34	0.071	0.790	0.013
T3_11_34	0.070	0.791	0.011
T3_15_34	0.044	0.834	0.002
T3_17_34	0.051	0.822	0.006
T3_23_34	0.009	0.926	-0.014
T3_28_34	0.073	0.787	0.009
T3_33_34	0.009	0.923	-0.014
T3_50_34	0.000	0.987	0.031
T3_51_34	0.002	0.968	0.072
T3_60_45	0.011	0.918	-0.031
T3_63_45	0.004	0.953	0.005
T3_2_56	0.282	0.596	0.018
T3_16_56	0.101	0.751	-0.017
T3_19_56	0.173	0.677	0.002
T3_21_56	0.315	0.574	0.019

T3_25_56	0.733	0.392	0.061
T3_31_56	0.130	0.719	-0.009
T3_32_56	0.256	0.613	0.013
T3_39_56	0.182	0.669	-0.003
T3_51_56	0.011	0.915	0.001
T3_60_56	0.057	0.812	0.015
T3_3_456	0.355	0.551	-0.004
T3_8_456	1.129	0.288	0.060
T3_9_456	0.515	0.473	0.019
T3_14_456	0.443	0.506	-0.001
T3_15_456	1.070	0.301	0.052
T3_20_456	0.174	0.676	-0.038
T3_33_456	0.954	0.329	0.050
T3_40_456	0.383	0.536	-0.008
T3_1_1	Inf	0.000	NaN
T3_2_1	Inf	0.000	NaN
T3_3_1	0.053	0.818	-0.016
T3_4_1	0.482	0.488	-0.024
T3_5_1	0.048	0.826	-0.016
T3_6_1	0.011	0.915	0.002
T3_7_1	0.067	0.795	-0.021
T3_8_1	0.017	0.896	-0.002
T3_9_1	0.010	0.922	0.003
T3_13_1	0.063	0.802	-0.020
T3_14_1	0.006	0.938	0.006
T3_15_1	0.002	0.962	0.011
T3_16_1	0.042	0.837	-0.013
T3_17_1	0.116	0.733	-0.034
T3_21_1	0.107	0.744	-0.031
T3_22_1	0.009	0.924	0.003
T3_24_1	0.091	0.762	-0.028
T3_25_1	0.005	0.942	0.007
T3_26_1	0.107	0.743	-0.032
T3_27_1	0.019	0.892	-0.003
T3_28_1	0.012	0.915	0.001
T3_30_1	0.064	0.800	-0.020
T3_31_1	0.010	0.919	0.002
T3_32_1	0.007	0.933	0.005
T3_33_1	0.147	0.701	-0.041
T3_34_1	0.800	0.371	-0.045
T3_35_1	0.067	0.796	-0.022

T3_36_1	0.883	0.347	-0.062
T3_37_1	0.032	0.857	-0.010
T3_38_1	0.096	0.756	0.030
T3_39_1	0.076	0.783	-0.023
T3_40_1	0.030	0.863	-0.009
T3_41_1	0.275	0.600	-0.027
T3_42_1	0.577	0.447	-0.063
T3_43_1	0.252	0.616	-0.020
T3_44_1	0.208	0.649	-0.010
T3_45_1	0.978	0.323	-0.087
T3_46_1	0.013	0.909	0.037
T3_47_1	0.247	0.619	-0.021
T3_48_1	0.256	0.613	-0.016
T3_49_1	0.368	0.544	-0.037
T3_50_1	0.158	0.691	-0.004
T3_51_1	0.342	0.559	-0.035
T3_54_1	0.015	0.903	0.032
T3_55_1	0.099	0.753	0.007
T3_56_1	0.363	0.547	-0.039
T3_57_1	0.171	0.679	-0.004
T3_58_1	0.006	0.937	0.041
T3_61_1	0.000	0.987	0.056
T3_62_1	1.497	0.221	-0.056
T3_63_1	0.082	0.774	0.011
T3_1_2	0.307	0.580	0.014
T3_6_2	0.426	0.514	0.030
T3_7_2	0.419	0.517	0.030
T3_9_2	0.402	0.526	0.026
T3_10_2	0.040	0.841	-0.039
T3_11_2	0.536	0.464	0.041
T3_12_2	0.338	0.561	0.020
T3_16_2	0.193	0.660	-0.003
T3_18_2	0.116	0.734	0.036
T3_19_2	0.746	0.388	0.063
T3_20_2	0.177	0.674	-0.006
T3_22_2	0.082	0.775	0.025
T3_23_2	0.592	0.442	0.048
T3_24_2	0.794	0.373	0.067
T3_26_2	0.458	0.499	0.033
T3_31_2	0.780	0.377	0.065
T3_32_2	0.327	0.568	0.066

T3_33_2	0.108	0.742	-0.019
T3_34_2	0.342	0.559	0.020
T3_35_2	0.449	0.503	0.033
T3_36_2	0.475	0.491	0.036
T3_38_2	0.071	0.790	0.020
T3_39_2	0.284	0.594	0.012
T3_40_2	0.537	0.464	0.042
T3_41_2	0.079	0.779	0.007
T3_48_2	0.096	0.757	0.005
T3_49_2	0.119	0.730	0.001
T3_50_2	0.445	0.505	-0.049
T3_53_2	0.240	0.624	-0.023
T3_54_2	0.482	0.487	-0.052
T3_56_2	0.068	0.795	0.014
T3_57_2	0.057	0.811	0.015
T3_58_2	0.020	0.888	0.030
T3_60_2	0.000	0.989	0.054
T3_61_2	0.001	0.978	0.048
T3_63_2	0.042	0.837	0.086
T3_1_3	0.014	0.906	-0.019
T3_2_3	0.000	0.992	0.005
T3_4_3	0.006	0.941	-0.012
T3_8_3	0.002	0.970	-0.007
T3_9_3	0.010	0.921	-0.016
T3_10_3	0.000	0.998	0.005
T3_12_3	0.158	0.691	0.102
T3_13_3	0.005	0.943	0.016
T3_14_3	0.007	0.932	0.017
T3_16_3	0.000	0.994	-0.001
T3_18_3	0.008	0.931	-0.014
T3_19_3	0.082	0.775	0.085
T3_21_3	0.042	0.837	0.074
T3_22_3	0.035	0.851	0.032
T3_24_3	0.015	0.903	0.022
T3_25_3	0.007	0.934	0.017
T3_26_3	0.017	0.897	-0.020
T3_29_3	0.024	0.877	-0.024
T3_30_3	0.027	0.871	-0.025
T3_31_3	0.004	0.952	0.013
T3_32_3	0.016	0.899	-0.020
T3_36_3	0.040	0.841	0.005

T3_37_3	0.000	0.983	-0.004
T3_39_3	0.000	0.994	0.001
T3_41_3	0.122	0.726	0.091
T3_43_3	0.006	0.939	0.050
T3_44_3	0.001	0.972	0.024
T3_46_3	0.001	0.971	0.044
T3_47_3	0.000	0.990	0.030
T3_48_3	0.038	0.845	0.064
T3_49_3	0.007	0.934	0.051
T3_52_3	0.238	0.626	0.113
T3_53_3	0.052	0.820	0.073
T3_54_3	0.096	0.756	-0.017
T3_57_3	0.026	0.871	0.062
T3_58_3	0.143	0.705	0.096
T3_60_3	0.010	0.921	0.049
T3_61_3	0.027	0.870	0.064
T3_64_3	0.151	0.698	0.094
T3_2_4	0.022	0.883	-0.006
T3_5_4	0.019	0.889	-0.008
T3_6_4	0.121	0.728	0.025
T3_7_4	0.069	0.793	0.012
T3_10_4	0.000	0.985	-0.037
T3_11_4	0.019	0.891	-0.010
T3_12_4	0.041	0.840	0.002
T3_13_4	0.218	0.641	0.042
T3_18_4	0.076	0.784	0.012
T3_19_4	0.000	0.996	0.003
T3_21_4	0.024	0.878	-0.005
T3_22_4	0.011	0.916	-0.011
T3_23_4	0.069	0.793	-0.041
T3_24_4	0.007	0.932	-0.016
T3_25_4	0.052	0.820	0.007
T3_27_4	0.005	0.944	-0.019
T3_28_4	0.050	0.822	0.005
T3_29_4	0.029	0.865	-0.005
T3_31_4	0.015	0.903	-0.021
T3_32_4	0.064	0.800	0.010
T3_34_4	0.057	0.811	0.006
T3_35_4	0.006	0.941	-0.017
T3_36_4	0.000	0.992	0.001
T3_39_4	0.011	0.917	-0.014

T3_41_4	0.000	0.986	0.030
T3_43_4	0.011	0.916	0.016
T3_44_4	0.327	0.567	-0.057
T3_46_4	0.000	0.998	0.032
T3_47_4	0.006	0.941	0.019
T3_48_4	0.162	0.688	-0.028
T3_49_4	0.013	0.911	0.016
T3_52_4	0.037	0.847	0.004
T3_53_4	0.000	0.998	0.033
T3_55_4	0.136	0.712	-0.023
T3_56_4	0.000	0.994	0.031
T3_57_4	0.012	0.913	0.015
T3_58_4	0.097	0.755	-0.014
T3_59_4	0.153	0.696	-0.026
T3_61_4	0.050	0.822	0.069
T3_64_4	0.001	0.979	0.026
T3_1_5	0.034	0.854	0.018
T3_4_5	0.000	0.990	-0.058
T3_5_5	0.093	0.761	0.035
T3_6_5	0.002	0.967	-0.003
T3_8_5	0.007	0.933	0.003
T3_9_5	0.021	0.884	0.012
T3_10_5	0.030	0.863	0.016
T3_11_5	0.125	0.724	-0.005
T3_12_5	0.023	0.878	0.014
T3_14_5	0.052	0.820	0.025
T3_15_5	0.027	0.871	0.015
T3_17_5	0.020	0.888	0.013
T3_22_5	0.006	0.941	-0.026
T3_23_5	0.162	0.688	0.006
T3_24_5	0.000	0.984	-0.008
T3_26_5	0.052	0.820	0.024
T3_28_5	0.050	0.823	0.022
T3_29_5	0.018	0.894	0.010
T3_33_5	0.078	0.780	0.030
T3_34_5	0.106	0.744	-0.007
T3_35_5	0.005	0.941	0.002
T3_36_5	0.024	0.876	0.012
T3_37_5	0.093	0.761	0.035
T3_38_5	0.024	0.877	0.012
T3_42_5	0.156	0.693	0.019

T3_44_5	0.051	0.822	-0.007
T3_45_5	0.190	0.663	0.025
T3_47_5	0.012	0.914	-0.025
T3_48_5	0.292	0.589	0.041
T3_49_5	0.024	0.876	-0.019
T3_52_5	0.088	0.767	0.005
T3_55_5	0.000	0.993	-0.041
T3_56_5	0.151	0.698	0.018

Table 39

Task 3 DIF: Black vs. Sample

ItemID	ChiSq	pvalue	EffectSize
T3_10_12	0.057	0.811	0.003
T3_11_12	0.208	0.648	-0.029
T3_12_12	0.232	0.630	-0.035
T3_18_12	0.061	0.805	0.001
T3_19_12	0.382	0.536	-0.056
T3_20_12	0.002	0.967	0.051
T3_23_12	0.105	0.746	-0.009
T3_29_12	0.143	0.705	-0.019
T3_64_12	0.936	0.333	0.029
T3_42_23	1.052	0.305	0.075
T3_43_23	0.470	0.493	0.039
T3_46_23	0.085	0.771	-0.139
T3_2_23	0.347	0.556	-0.027
T3_4_23	0.370	0.543	-0.032
T3_8_23	0.576	0.448	-0.054
T3_13_23	0.206	0.650	-0.003
T3_27_23	0.327	0.567	-0.023
T3_29_23	0.290	0.590	-0.019
T3_30_23	0.056	0.814	0.029
T3_37_23	0.541	0.462	-0.050
T3_5_34	0.008	0.928	0.003
T3_42_34	0.296	0.586	0.041
T3_6_34	0.000	0.996	0.018
T3_11_34	0.065	0.799	-0.023
T3_15_34	0.036	0.850	-0.012
T3_17_34	0.013	0.909	-0.002
T3_23_34	0.018	0.895	-0.005
T3_28_34	0.065	0.800	-0.018
T3_33_34	0.017	0.896	-0.005
T3_50_34	0.198	0.656	-0.077
T3_51_34	0.002	0.964	-0.062
T3_60_45	0.006	0.937	0.025
T3_63_45	0.160	0.689	-0.034
T3_2_56	0.206	0.650	-0.013
T3_16_56	0.199	0.655	-0.008
T3_19_56	0.128	0.720	0.003
T3_21_56	0.152	0.697	0.001

T3_25_56	0.575	0.449	-0.054
T3_31_56	0.142	0.707	0.001
T3_32_56	0.130	0.719	0.004
T3_39_56	0.212	0.645	-0.010
T3_51_56	0.163	0.686	-0.039
T3_60_56	0.060	0.807	-0.013
T3_3_456	0.060	0.807	0.032
T3_8_456	0.830	0.362	-0.066
T3_9_456	0.510	0.475	-0.043
T3_14_456	0.249	0.618	-0.005
T3_15_456	0.712	0.399	-0.055
T3_20_456	0.119	0.730	0.018
T3_33_456	0.308	0.579	-0.022
T3_40_456	0.355	0.551	-0.014
T3_1_1	Inf	0.000	NaN
T3_2_1	Inf	0.000	NaN
T3_3_1	0.072	0.789	0.027
T3_4_1	0.536	0.464	0.045
T3_5_1	0.019	0.891	0.007
T3_6_1	0.004	0.948	-0.005
T3_7_1	0.045	0.832	0.018
T3_8_1	0.016	0.901	0.005
T3_9_1	0.011	0.918	0.002
T3_13_1	0.057	0.811	0.023
T3_14_1	0.010	0.921	0.001
T3_15_1	0.017	0.896	0.006
T3_16_1	0.008	0.929	0.000
T3_17_1	0.126	0.723	0.040
T3_21_1	0.186	0.666	0.052
T3_22_1	0.025	0.876	0.010
T3_24_1	0.104	0.747	0.036
T3_25_1	0.000	0.998	-0.014
T3_26_1	0.156	0.693	0.047
T3_27_1	0.029	0.866	0.011
T3_28_1	0.000	0.990	-0.017
T3_30_1	0.138	0.710	0.043
T3_31_1	0.017	0.896	0.006
T3_32_1	0.012	0.912	0.003
T3_33_1	0.167	0.683	0.049
T3_34_1	1.298	0.255	0.098
T3_35_1	0.064	0.800	0.025

T3_36_1	0.444	0.505	0.043
T3_37_1	0.023	0.881	0.009
T3_38_1	0.109	0.742	-0.014
T3_39_1	0.057	0.811	0.022
T3_40_1	0.016	0.899	0.005
T3_41_1	0.254	0.614	0.033
T3_42_1	0.477	0.490	0.063
T3_43_1	0.046	0.831	-0.012
T3_44_1	0.016	0.900	-0.023
T3_45_1	0.773	0.379	0.083
T3_46_1	0.053	0.817	-0.011
T3_47_1	0.182	0.670	0.019
T3_48_1	0.206	0.650	0.019
T3_49_1	0.151	0.698	0.017
T3_50_1	0.098	0.755	0.003
T3_51_1	0.370	0.543	0.049
T3_54_1	0.039	0.845	-0.014
T3_55_1	0.200	0.655	0.021
T3_56_1	0.122	0.727	0.012
T3_57_1	0.042	0.838	-0.014
T3_58_1	0.000	0.991	-0.050
T3_61_1	0.009	0.925	-0.060
T3_62_1	1.420	0.234	0.053
T3_63_1	0.046	0.830	-0.013
T3_1_2	0.161	0.689	-0.005
T3_6_2	0.141	0.707	-0.002
T3_7_2	0.224	0.636	-0.017
T3_9_2	0.354	0.552	-0.035
T3_10_2	0.041	0.840	0.026
T3_11_2	0.319	0.572	-0.031
T3_12_2	0.227	0.634	-0.017
T3_16_2	0.241	0.624	-0.019
T3_18_2	0.007	0.936	-0.026
T3_19_2	0.507	0.477	-0.055
T3_20_2	0.178	0.673	-0.008
T3_22_2	0.000	0.999	-0.006
T3_23_2	0.377	0.540	-0.039
T3_24_2	0.491	0.483	-0.053
T3_26_2	0.189	0.664	-0.011
T3_31_2	0.519	0.471	-0.056
T3_32_2	0.001	0.977	-0.014

T3_33_2	0.111	0.739	0.005
T3_34_2	0.150	0.699	-0.004
T3_35_2	0.429	0.513	-0.045
T3_36_2	0.238	0.625	-0.020
T3_38_2	0.047	0.828	-0.043
T3_39_2	0.188	0.664	-0.011
T3_40_2	0.417	0.519	-0.043
T3_41_2	0.370	0.543	0.028
T3_48_2	0.312	0.577	0.019
T3_49_2	0.490	0.484	0.039
T3_50_2	1.034	0.309	0.088
T3_53_2	0.356	0.551	0.025
T3_54_2	0.604	0.437	0.050
T3_56_2	0.060	0.807	-0.031
T3_57_2	0.313	0.576	0.018
T3_58_2	0.147	0.701	-0.010
T3_60_2	0.207	0.649	0.002
T3_61_2	0.015	0.902	-0.050
T3_63_2	0.005	0.946	-0.058
T3_1_3	0.001	0.975	0.000
T3_2_3	0.001	0.976	0.000
T3_4_3	0.012	0.913	0.028
T3_8_3	0.000	0.994	0.009
T3_9_3	0.002	0.961	0.017
T3_10_3	0.008	0.927	-0.010
T3_12_3	0.319	0.572	-0.086
T3_13_3	0.001	0.981	0.001
T3_14_3	0.002	0.963	0.017
T3_16_3	0.001	0.981	0.001
T3_18_3	0.003	0.955	0.019
T3_19_3	0.314	0.575	-0.086
T3_21_3	0.147	0.702	-0.059
T3_22_3	0.030	0.862	-0.022
T3_24_3	0.024	0.877	-0.019
T3_25_3	0.014	0.907	-0.013
T3_26_3	0.000	0.993	0.012
T3_29_3	0.014	0.906	0.029
T3_30_3	0.033	0.856	0.038
T3_31_3	0.046	0.831	-0.028
T3_32_3	0.000	0.997	0.005
T3_36_3	0.000	0.985	-0.004

T3_37_3	0.002	0.964	0.018
T3_39_3	0.005	0.942	-0.006
T3_41_3	0.194	0.660	-0.077
T3_43_3	0.139	0.709	-0.065
T3_44_3	0.065	0.799	-0.044
T3_46_3	0.078	0.781	-0.051
T3_47_3	0.228	0.633	-0.080
T3_48_3	0.061	0.805	-0.043
T3_49_3	0.185	0.667	-0.075
T3_52_3	0.495	0.482	-0.118
T3_53_3	0.144	0.704	-0.066
T3_54_3	0.125	0.723	-0.060
T3_57_3	0.228	0.633	-0.080
T3_58_3	0.779	0.378	-0.145
T3_60_3	0.188	0.664	-0.070
T3_61_3	0.541	0.462	-0.122
T3_64_3	0.354	0.552	-0.097
T3_2_4	0.011	0.919	-0.007
T3_5_4	0.001	0.973	0.002
T3_6_4	0.007	0.936	-0.007
T3_7_4	0.014	0.905	-0.012
T3_10_4	0.026	0.872	0.037
T3_11_4	0.006	0.941	-0.003
T3_12_4	0.004	0.948	-0.004
T3_13_4	0.038	0.845	-0.024
T3_18_4	0.008	0.928	-0.008
T3_19_4	0.042	0.837	0.007
T3_21_4	0.019	0.891	-0.014
T3_22_4	0.002	0.969	0.016
T3_23_4	0.193	0.661	0.046
T3_24_4	0.000	0.993	0.010
T3_25_4	0.034	0.854	-0.022
T3_27_4	0.006	0.940	-0.005
T3_28_4	0.004	0.953	-0.002
T3_29_4	0.000	0.987	0.011
T3_31_4	0.005	0.945	-0.011
T3_32_4	0.011	0.918	-0.009
T3_34_4	0.000	0.997	0.013
T3_35_4	0.009	0.923	0.027
T3_36_4	0.137	0.711	0.032
T3_39_4	0.018	0.895	-0.012

T3_41_4	0.001	0.983	-0.030
T3_43_4	0.000	0.997	-0.039
T3_44_4	0.121	0.729	0.023
T3_46_4	0.000	0.995	-0.032
T3_47_4	0.013	0.908	-0.055
T3_48_4	0.081	0.776	0.011
T3_49_4	0.132	0.717	0.022
T3_52_4	0.000	0.998	-0.032
T3_53_4	0.001	0.973	-0.028
T3_55_4	0.363	0.547	0.059
T3_56_4	0.002	0.969	-0.027
T3_57_4	0.035	0.853	-0.004
T3_58_4	0.117	0.732	0.019
T3_59_4	0.160	0.689	0.028
T3_61_4	0.048	0.828	-0.070
T3_64_4	0.000	0.991	-0.038
T3_1_5	0.000	0.992	-0.009
T3_4_5	0.111	0.739	0.013
T3_5_5	0.024	0.878	-0.034
T3_6_5	0.001	0.971	-0.016
T3_8_5	0.003	0.954	-0.020
T3_9_5	0.000	0.992	-0.009
T3_10_5	0.000	0.994	-0.005
T3_11_5	0.349	0.555	-0.029
T3_12_5	0.041	0.841	-0.042
T3_14_5	0.024	0.876	-0.035
T3_15_5	0.010	0.922	-0.026
T3_17_5	0.020	0.888	-0.032
T3_22_5	0.000	0.990	-0.003
T3_23_5	0.244	0.621	-0.019
T3_24_5	0.019	0.890	-0.032
T3_26_5	0.000	0.989	-0.014
T3_28_5	0.004	0.951	0.004
T3_29_5	0.030	0.864	0.020
T3_33_5	0.000	0.996	-0.004
T3_34_5	0.041	0.841	0.028
T3_35_5	0.010	0.920	-0.025
T3_36_5	0.000	0.997	-0.006
T3_37_5	0.015	0.902	-0.030
T3_38_5	0.001	0.977	-0.015
T3_42_5	0.299	0.585	-0.016

T3_44_5	0.068	0.794	0.029
T3_45_5	0.217	0.641	-0.004
T3_47_5	0.049	0.824	0.034
T3_48_5	0.627	0.429	-0.054
T3_49_5	0.065	0.799	0.031
T3_52_5	0.105	0.747	0.017
T3_55_5	0.000	0.991	0.068
T3_56_5	0.179	0.672	0.001

Table 40

Task 3 DIF: Latinx vs. Sample

ItemID	ChiSq	pvalue	EffectSize
T3_10_12	0.044	0.834	0.025
T3_11_12	0.126	0.723	0.073
T3_12_12	0.090	0.764	0.053
T3_18_12	0.260	0.610	0.123
T3_19_12	0.080	0.777	0.050
T3_20_12	0.036	0.850	0.015
T3_23_12	0.268	0.605	0.125
T3_29_12	0.086	0.769	0.050
T3_64_12	0.218	0.641	0.020
T3_42_23	0.000	0.993	-0.104
T3_43_23	0.032	0.859	0.026
T3_46_23	0.000	0.991	-0.129
T3_2_23	0.000	0.992	-0.026
T3_4_23	0.001	0.976	0.005
T3_8_23	0.126	0.723	0.112
T3_13_23	0.014	0.906	0.033
T3_27_23	0.011	0.917	-0.064
T3_29_23	0.002	0.967	0.009
T3_30_23	0.001	0.982	-0.038
T3_37_23	0.000	0.989	-0.035
T3_5_34	0.180	0.671	-0.036
T3_42_34	0.931	0.335	0.137
T3_6_34	0.435	0.510	-0.119
T3_11_34	0.252	0.616	-0.069
T3_15_34	0.230	0.631	-0.057
T3_17_34	0.388	0.534	-0.107
T3_23_34	0.167	0.683	-0.032
T3_28_34	0.465	0.495	-0.129
T3_33_34	0.078	0.779	0.012
T3_50_34	0.198	0.657	0.086
T3_51_34	0.272	0.602	-0.016
T3_60_45	0.003	0.957	-0.202
T3_63_45	0.905	0.341	0.172
T3_2_56	0.125	0.723	-0.019
T3_16_56	0.008	0.928	0.071
T3_19_56	0.318	0.573	-0.085
T3_21_56	0.339	0.561	-0.091

T3_25_56	0.040	0.841	0.032
T3_31_56	0.080	0.778	0.003
T3_32_56	0.139	0.710	-0.028
T3_39_56	0.093	0.760	-0.002
T3_51_56	0.012	0.913	0.080
T3_60_56	0.086	0.769	0.039
T3_3_456	0.821	0.365	-0.084
T3_8_456	1.237	0.266	-0.159
T3_9_456	0.798	0.372	-0.082
T3_14_456	0.921	0.337	-0.103
T3_15_456	1.161	0.281	-0.134
T3_20_456	0.441	0.507	0.000
T3_33_456	0.724	0.395	-0.064
T3_40_456	0.185	0.667	0.071
T3_1_1	Inf	0.000	NaN
T3_2_1	Inf	0.000	NaN
T3_3_1	0.029	0.864	0.022
T3_4_1	0.291	0.590	0.057
T3_5_1	0.027	0.871	0.020
T3_6_1	0.034	0.853	0.028
T3_7_1	0.009	0.926	-0.002
T3_8_1	0.034	0.854	0.027
T3_9_1	0.036	0.850	0.028
T3_13_1	0.075	0.785	0.057
T3_14_1	0.038	0.846	0.031
T3_15_1	0.045	0.833	0.036
T3_16_1	0.004	0.951	-0.013
T3_17_1	0.008	0.931	-0.004
T3_21_1	0.037	0.848	0.030
T3_22_1	0.032	0.859	0.025
T3_24_1	0.000	0.995	-0.034
T3_25_1	0.070	0.792	0.053
T3_26_1	0.000	0.984	-0.026
T3_27_1	0.084	0.772	0.063
T3_28_1	0.046	0.830	0.038
T3_30_1	0.001	0.972	-0.045
T3_31_1	0.005	0.946	-0.011
T3_32_1	0.042	0.839	0.035
T3_33_1	0.010	0.920	0.001
T3_34_1	0.049	0.825	-0.041
T3_35_1	0.080	0.777	0.060

T3_36_1	0.621	0.431	0.130
T3_37_1	0.055	0.815	0.044
T3_38_1	0.252	0.616	0.050
T3_39_1	0.071	0.789	0.055
T3_40_1	0.047	0.829	0.039
T3_41_1	0.000	0.999	-0.054
T3_42_1	0.035	0.852	-0.001
T3_43_1	0.127	0.721	0.049
T3_44_1	0.118	0.731	0.042
T3_45_1	0.106	0.744	0.037
T3_46_1	0.083	0.774	0.019
T3_47_1	0.041	0.839	0.007
T3_48_1	0.002	0.969	-0.102
T3_49_1	0.277	0.599	0.096
T3_50_1	0.033	0.856	-0.005
T3_51_1	0.014	0.908	-0.023
T3_54_1	0.007	0.936	-0.026
T3_55_1	0.110	0.740	0.040
T3_56_1	0.118	0.732	0.044
T3_57_1	0.024	0.878	-0.012
T3_58_1	0.067	0.796	0.015
T3_61_1	0.204	0.652	0.074
T3_62_1	0.311	0.577	0.065
T3_63_1	0.026	0.873	-0.123
T3_1_2	0.003	0.955	-0.042
T3_6_2	0.002	0.967	-0.039
T3_7_2	0.062	0.804	0.082
T3_9_2	0.023	0.879	0.051
T3_10_2	0.013	0.911	0.037
T3_11_2	0.027	0.869	-0.079
T3_12_2	0.001	0.976	-0.035
T3_16_2	0.017	0.896	0.043
T3_18_2	0.022	0.881	0.006
T3_19_2	0.001	0.976	-0.015
T3_20_2	0.014	0.905	0.039
T3_22_2	0.062	0.803	0.038
T3_23_2	0.001	0.978	-0.016
T3_24_2	0.001	0.979	-0.009
T3_26_2	0.000	0.994	-0.002
T3_31_2	0.003	0.958	0.016
T3_32_2	0.038	0.846	-0.136

T3_33_2	0.006	0.936	0.027
T3_34_2	0.001	0.981	-0.008
T3_35_2	0.020	0.888	0.046
T3_36_2	0.002	0.963	-0.039
T3_38_2	0.053	0.817	0.025
T3_39_2	0.011	0.918	0.034
T3_40_2	0.004	0.949	0.021
T3_41_2	0.024	0.876	0.017
T3_48_2	0.144	0.705	0.088
T3_49_2	0.000	0.999	-0.060
T3_50_2	0.257	0.612	0.135
T3_53_2	0.009	0.925	-0.004
T3_54_2	0.005	0.942	-0.012
T3_56_2	0.030	0.862	0.023
T3_57_2	0.074	0.786	0.053
T3_58_2	0.030	0.863	0.025
T3_60_2	0.001	0.977	-0.049
T3_61_2	0.020	0.889	0.007
T3_63_2	0.000	0.989	-0.034
T3_1_3	0.003	0.959	-0.034
T3_2_3	0.000	0.993	-0.015
T3_4_3	0.030	0.862	-0.075
T3_8_3	0.009	0.924	0.039
T3_9_3	0.001	0.976	-0.007
T3_10_3	0.001	0.975	-0.004
T3_12_3	0.009	0.927	-0.129
T3_13_3	0.000	0.995	-0.019
T3_14_3	0.027	0.870	-0.072
T3_16_3	0.001	0.974	-0.029
T3_18_3	0.014	0.908	-0.056
T3_19_3	0.019	0.891	-0.145
T3_21_3	0.000	0.990	-0.096
T3_22_3	0.000	1.000	-0.017
T3_24_3	0.000	0.999	-0.016
T3_25_3	0.001	0.972	-0.005
T3_26_3	0.005	0.943	-0.041
T3_29_3	0.000	1.000	0.007
T3_30_3	0.000	0.983	0.014
T3_31_3	0.012	0.912	0.044
T3_32_3	0.001	0.976	-0.007
T3_36_3	0.012	0.912	-0.028

T3_37_3	0.000	1.000	-0.017
T3_39_3	0.004	0.950	-0.038
T3_41_3	0.012	0.913	-0.025
T3_43_3	0.025	0.875	-0.010
T3_44_3	0.087	0.769	0.038
T3_46_3	0.003	0.957	-0.047
T3_47_3	0.101	0.751	0.044
T3_48_3	0.037	0.847	0.005
T3_49_3	0.038	0.846	0.003
T3_52_3	0.000	0.994	-0.064
T3_53_3	0.002	0.967	-0.049
T3_54_3	0.110	0.740	0.049
T3_57_3	0.138	0.711	0.061
T3_58_3	0.102	0.750	0.043
T3_60_3	0.044	0.834	0.011
T3_61_3	0.124	0.725	0.055
T3_64_3	0.138	0.710	0.064
T3_2_4	0.378	0.539	-0.102
T3_5_4	0.387	0.534	-0.106
T3_6_4	0.290	0.590	-0.076
T3_7_4	0.191	0.663	-0.044
T3_10_4	0.116	0.734	-0.010
T3_11_4	0.069	0.793	0.021
T3_12_4	0.369	0.544	-0.100
T3_13_4	0.384	0.536	-0.099
T3_18_4	0.144	0.705	-0.019
T3_19_4	0.006	0.940	-0.026
T3_21_4	0.133	0.716	-0.020
T3_22_4	0.392	0.531	-0.101
T3_23_4	0.309	0.578	-0.184
T3_24_4	0.077	0.781	0.013
T3_25_4	0.069	0.793	0.016
T3_27_4	0.029	0.864	0.049
T3_28_4	0.060	0.807	0.026
T3_29_4	0.235	0.628	-0.059
T3_31_4	0.124	0.724	-0.119
T3_32_4	0.494	0.482	-0.127
T3_34_4	0.347	0.556	-0.089
T3_35_4	0.051	0.821	0.032
T3_36_4	0.146	0.702	-0.126
T3_39_4	0.030	0.863	0.048

T3_41_4	0.065	0.799	-0.013
T3_43_4	0.115	0.735	0.013
T3_44_4	0.340	0.560	0.101
T3_46_4	0.005	0.942	-0.075
T3_47_4	0.172	0.679	0.042
T3_48_4	0.182	0.670	0.042
T3_49_4	0.002	0.967	-0.136
T3_52_4	0.133	0.715	0.022
T3_53_4	0.000	0.993	-0.122
T3_55_4	0.013	0.910	-0.061
T3_56_4	0.010	0.920	-0.066
T3_57_4	0.000	0.992	-0.101
T3_58_4	0.000	0.987	-0.101
T3_59_4	0.052	0.820	-0.023
T3_61_4	0.222	0.638	0.061
T3_64_4	0.177	0.674	0.043
T3_1_5	0.167	0.683	-0.078
T3_4_5	0.027	0.870	0.103
T3_5_5	0.076	0.783	-0.034
T3_6_5	0.031	0.859	-0.006
T3_8_5	0.033	0.855	0.000
T3_9_5	0.034	0.854	-0.005
T3_10_5	0.045	0.832	-0.013
T3_11_5	0.009	0.925	0.077
T3_12_5	0.000	0.989	0.077
T3_14_5	0.008	0.927	0.027
T3_15_5	0.005	0.946	0.036
T3_17_5	0.043	0.835	-0.015
T3_22_5	0.011	0.917	0.022
T3_23_5	0.065	0.799	-0.068
T3_24_5	0.000	0.995	0.081
T3_26_5	0.106	0.745	-0.048
T3_28_5	0.064	0.801	-0.029
T3_29_5	0.149	0.700	-0.074
T3_33_5	0.046	0.830	-0.015
T3_34_5	0.205	0.651	-0.131
T3_35_5	0.026	0.873	-0.001
T3_36_5	0.009	0.924	0.025
T3_37_5	0.002	0.965	0.044
T3_38_5	0.006	0.938	0.031
T3_42_5	0.001	0.971	-0.068

T3_44_5	0.016	0.900	-0.098
T3_45_5	0.004	0.951	-0.012
T3_47_5	0.002	0.969	-0.070
T3_48_5	0.001	0.980	-0.046
T3_49_5	0.001	0.979	-0.067
T3_52_5	0.001	0.980	-0.040
T3_55_5	0.004	0.951	-0.011
T3_56_5	0.005	0.943	-0.078

Table 41

Task 4 DIF: Male vs. female

ItemID	ChiSq	pvalue	EffectSize
T4_7_34	0.007	0.934	0.025
T4_8_34	0.030	0.863	-0.019
T4_12_34	0.000	0.989	0.010
T4_23_34	0.004	0.951	0.019
T4_25_34	0.000	0.991	0.012
T4_29_34	0.020	0.886	0.011
T4_36_34	0.025	0.875	0.056
T4_43_34	0.011	0.918	0.013
T4_38_45	0.055	0.814	0.068
T4_41_45	0.130	0.719	0.086
T4_5_56	0.000	0.992	-0.011
T4_11_56	0.020	0.887	-0.029
T4_14_56	0.004	0.952	0.005
T4_22_56	0.073	0.787	-0.043
T4_23_56	0.000	0.993	-0.015
T4_31_56	0.007	0.936	-0.047
T4_45_56	0.008	0.930	-0.045
T4_46_56	0.001	0.973	-0.039
T4_1_456	0.000	0.997	0.021
T4_6_456	0.038	0.845	-0.006
T4_14_456	0.217	0.641	-0.048
T4_15_456	0.000	0.985	0.010
T4_22_456	0.000	0.995	0.021
T4_1_3	0.000	0.989	-0.022
T4_2_3	0.018	0.893	0.004
T4_3_3	0.086	0.770	-0.058
T4_4_3	0.000	0.985	-0.013
T4_5_3	0.000	0.995	-0.019
T4_6_3	0.000	0.988	-0.017
T4_9_3	0.008	0.929	-0.034
T4_10_3	0.000	0.986	-0.013
T4_11_3	0.000	0.995	-0.015
T4_13_3	0.020	0.888	-0.040
T4_14_3	0.000	0.992	-0.017
T4_15_3	0.000	0.990	-0.020
T4_16_3	0.058	0.810	0.019
T4_17_3	0.001	0.975	-0.011

T4_18_3	0.022	0.881	0.006
T4_19_3	0.007	0.936	-0.003
T4_20_3	Inf	0.000	NaN
T4_21_3	0.005	0.944	-0.004
T4_22_3	0.002	0.966	-0.027
T4_24_3	0.019	0.890	0.005
T4_26_3	0.000	0.989	0.006
T4_29_3	0.003	0.959	-0.008
T4_30_3	0.068	0.794	-0.035
T4_32_3	0.023	0.880	-0.019
T4_34_3	0.000	1.000	-0.002
T4_35_3	0.000	0.984	-0.003
T4_37_3	0.013	0.908	0.019
T4_38_3	0.081	0.776	-0.039
T4_39_3	0.028	0.868	-0.020
T4_40_3	0.012	0.915	0.016
T4_41_3	0.028	0.867	-0.023
T4_42_3	0.005	0.944	-0.010
T4_2_4	0.000	0.997	0.023
T4_3_4	0.148	0.700	-0.031
T4_5_4	0.032	0.859	-0.003
T4_7_4	0.046	0.831	-0.008
T4_8_4	0.001	0.979	0.017
T4_9_4	0.013	0.909	0.007
T4_10_4	0.000	0.989	0.025
T4_12_4	0.005	0.944	0.074
T4_13_4	0.058	0.810	-0.012
T4_16_4	0.014	0.906	0.006
T4_17_4	0.029	0.866	-0.002
T4_20_4	0.109	0.741	0.013
T4_21_4	0.005	0.943	0.012
T4_24_4	0.000	0.997	0.023
T4_25_4	0.026	0.872	0.000
T4_27_4	0.000	0.998	0.033
T4_28_4	0.061	0.804	0.068
T4_30_4	0.008	0.930	0.018
T4_31_4	0.000	0.994	0.031
T4_32_4	0.026	0.871	0.005
T4_33_4	0.000	0.993	0.035
T4_34_4	0.078	0.780	0.074
T4_37_4	0.000	0.987	0.036

T4_1_5	0.003	0.959	-0.017
T4_2_5	0.006	0.939	0.007
T4_3_5	0.002	0.969	0.002
T4_4_5	0.000	0.984	-0.018
T4_7_5	0.002	0.966	0.002
T4_8_5	0.006	0.937	0.008
T4_9_5	Inf	0.000	NaN
T4_12_5	0.001	0.974	0.001
T4_16_5	0.001	0.973	0.001
T4_17_5	0.020	0.887	0.017
T4_18_5	0.005	0.945	0.006
T4_19_5	0.004	0.950	-0.020
T4_20_5	0.000	0.985	-0.012
T4_21_5	0.030	0.863	0.022
T4_26_5	0.000	0.989	0.001
T4_29_5	0.023	0.879	0.020
T4_30_5	0.016	0.899	-0.023
T4_43_5	0.001	0.973	-0.011
T4_47_5	0.005	0.945	-0.015
T4_48_5	0.007	0.933	-0.017
T4_49_5	0.018	0.894	-0.022
T4_50_5	0.012	0.913	0.015
T4_51_5	0.009	0.925	-0.020
T4_52_5	0.001	0.977	0.003
T4_25_5	0.013	0.911	-0.026
T4_4_6	0.223	0.637	0.047
T4_5_6	0.000	0.993	-0.029
T4_7_6	0.002	0.968	-0.032
T4_8_6	0.025	0.873	0.025
T4_9_6	0.000	0.998	-0.004
T4_11_6	0.000	0.999	-0.002
T4_12_6	0.011	0.917	0.017
T4_13_6	0.015	0.902	0.021
T4_14_6	0.003	0.958	-0.009
T4_16_6	0.013	0.910	0.020
T4_17_6	0.006	0.941	0.014
T4_18_6	0.015	0.903	0.021
T4_20_6	0.010	0.920	0.017
T4_22_6	0.007	0.932	-0.015
T4_24_6	0.001	0.980	0.006
T4_27_6	0.008	0.930	-0.009

T4_29_6	0.000	0.998	-0.023
T4_30_6	0.001	0.979	-0.016
T4_31_6	0.000	0.993	-0.019
T4_32_6	0.001	0.982	-0.017
T4_33_6	0.018	0.893	-0.047
T4_34_6	0.000	0.993	-0.023
T4_35_6	0.000	0.991	-0.025
T4_36_6	0.005	0.943	-0.012
T4_38_6	0.036	0.849	0.005
T4_39_6	0.001	0.974	-0.017
T4_43_6	0.008	0.928	-0.009

Table 42

Task 4 DIF: White vs. Sample

ItemID	ChiSq	pvalue	EffectSize
T4_7_34	0.133	0.715	-0.046
T4_8_34	0.009	0.927	-0.048
T4_12_34	0.007	0.933	-0.045
T4_23_34	0.033	0.855	0.000
T4_25_34	0.052	0.820	0.008
T4_29_34	0.055	0.814	0.008
T4_36_34	0.068	0.795	0.004
T4_43_34	0.195	0.659	-0.024
T4_38_45	0.002	0.963	-0.022
T4_41_45	0.011	0.917	-0.051
T4_5_56	0.033	0.856	-0.022
T4_11_56	0.025	0.875	-0.020
T4_14_56	0.322	0.570	0.039
T4_22_56	0.115	0.734	0.005
T4_23_56	0.493	0.483	-0.026
T4_31_56	0.078	0.780	-0.004
T4_45_56	0.180	0.671	0.019
T4_46_56	0.274	0.601	0.035
T4_1_456	0.713	0.399	0.050
T4_6_456	0.277	0.599	-0.007
T4_14_456	0.229	0.632	-0.010
T4_15_456	0.352	0.553	0.008
T4_22_456	0.219	0.640	-0.018
T4_1_3	0.031	0.861	0.060
T4_2_3	0.003	0.954	0.018
T4_3_3	0.008	0.931	0.110
T4_4_3	0.001	0.981	0.001
T4_5_3	0.038	0.845	-0.024
T4_6_3	0.017	0.895	-0.016
T4_9_3	0.015	0.904	-0.013
T4_10_3	0.011	0.917	-0.011
T4_11_3	0.050	0.823	0.065
T4_13_3	0.027	0.869	-0.021
T4_14_3	0.012	0.914	-0.011
T4_15_3	0.011	0.915	-0.012
T4_16_3	0.024	0.876	-0.017
T4_17_3	0.000	0.991	0.003

T4_18_3	0.026	0.872	-0.020
T4_19_3	0.000	0.986	0.001
T4_20_3	Inf	0.000	NaN
T4_21_3	0.005	0.945	-0.007
T4_22_3	0.002	0.969	-0.001
T4_24_3	0.000	0.991	0.011
T4_26_3	0.000	0.990	0.087
T4_29_3	0.006	0.937	0.099
T4_30_3	0.217	0.642	0.020
T4_32_3	0.022	0.881	0.111
T4_34_3	0.005	0.941	0.071
T4_35_3	0.017	0.897	0.105
T4_37_3	0.450	0.502	-0.020
T4_38_3	0.003	0.957	0.079
T4_39_3	0.832	0.362	-0.054
T4_40_3	0.004	0.949	0.074
T4_41_3	0.023	0.880	0.111
T4_42_3	0.001	0.970	0.073
T4_2_4	0.000	0.992	-0.036
T4_3_4	0.037	0.847	-0.008
T4_5_4	0.009	0.926	-0.019
T4_7_4	0.071	0.790	0.004
T4_8_4	0.043	0.835	0.000
T4_9_4	0.004	0.951	-0.026
T4_10_4	0.000	1.000	-0.032
T4_12_4	0.166	0.684	-0.057
T4_13_4	0.024	0.878	-0.006
T4_16_4	0.074	0.785	0.008
T4_17_4	0.047	0.828	-0.001
T4_20_4	0.010	0.919	-0.010
T4_21_4	0.186	0.667	0.032
T4_24_4	0.002	0.967	-0.027
T4_25_4	0.174	0.676	0.028
T4_27_4	0.132	0.716	-0.012
T4_28_4	0.135	0.714	-0.012
T4_30_4	0.091	0.763	-0.002
T4_31_4	0.009	0.924	0.028
T4_32_4	0.339	0.560	-0.044
T4_33_4	0.128	0.721	-0.008
T4_34_4	0.141	0.708	-0.012
T4_37_4	0.099	0.754	-0.005

T4_1_5	0.006	0.939	0.010
T4_2_5	0.007	0.931	-0.020
T4_3_5	0.026	0.873	0.022
T4_4_5	0.838	0.360	0.063
T4_7_5	0.002	0.965	0.005
T4_8_5	0.001	0.975	0.003
T4_9_5	Inf	0.000	NaN
T4_12_5	0.008	0.928	0.013
T4_16_5	0.000	0.996	-0.001
T4_17_5	0.026	0.871	0.023
T4_18_5	0.013	0.910	0.015
T4_19_5	0.895	0.344	0.072
T4_20_5	0.036	0.850	0.026
T4_21_5	0.005	0.945	0.008
T4_26_5	0.001	0.978	-0.079
T4_29_5	0.000	0.987	-0.073
T4_30_5	0.003	0.954	-0.076
T4_43_5	0.003	0.954	-0.060
T4_47_5	0.128	0.721	-0.017
T4_48_5	0.056	0.813	-0.027
T4_49_5	0.316	0.574	0.017
T4_50_5	0.203	0.652	-0.001
T4_51_5	0.220	0.639	0.001
T4_52_5	0.021	0.885	-0.049
T4_25_5	0.012	0.911	0.015
T4_4_6	0.063	0.802	0.024
T4_5_6	0.052	0.819	0.019
T4_7_6	0.213	0.644	0.054
T4_8_6	0.067	0.795	-0.002
T4_9_6	0.093	0.760	0.004
T4_11_6	0.065	0.799	-0.003
T4_12_6	0.363	0.547	0.047
T4_13_6	0.011	0.916	-0.026
T4_14_6	0.356	0.551	0.049
T4_16_6	0.054	0.816	-0.007
T4_17_6	0.013	0.908	-0.024
T4_18_6	0.047	0.828	-0.009
T4_20_6	0.140	0.709	0.014
T4_22_6	0.325	0.569	0.043
T4_24_6	0.056	0.814	-0.006
T4_27_6	0.001	0.977	0.036

T4_29_6	0.000	0.989	0.025
T4_30_6	0.008	0.930	0.013
T4_31_6	0.130	0.718	-0.026
T4_32_6	0.007	0.932	0.013
T4_33_6	0.004	0.947	0.042
T4_34_6	0.009	0.926	0.014
T4_35_6	0.025	0.875	0.056
T4_36_6	0.006	0.940	0.042
T4_38_6	0.003	0.960	0.039
T4_39_6	0.027	0.870	0.003
T4_43_6	0.026	0.872	0.055

Table 43

Task 4 DIF: Black vs. Sample

ItemID	ChiSq	pvalue	EffectSize
T4_7_34	0.275	0.600	0.051
T4_8_34	0.009	0.926	0.029
T4_12_34	0.006	0.939	0.025
T4_23_34	0.003	0.957	0.019
T4_25_34	0.000	0.994	0.010
T4_29_34	0.091	0.763	0.006
T4_36_34	0.178	0.673	0.025
T4_43_34	0.224	0.636	0.031
T4_38_45	0.017	0.895	0.026
T4_41_45	0.020	0.887	0.077
T4_5_56	0.042	0.838	-0.006
T4_11_56	0.000	0.994	0.027
T4_14_56	0.030	0.863	-0.006
T4_22_56	0.036	0.849	-0.004
T4_23_56	0.447	0.504	0.020
T4_31_56	0.061	0.805	0.000
T4_45_56	0.043	0.836	0.006
T4_46_56	0.393	0.531	-0.058
T4_1_456	0.018	0.892	0.009
T4_6_456	0.000	0.995	0.032
T4_14_456	0.000	0.985	0.034
T4_15_456	0.098	0.755	-0.010
T4_22_456	0.001	0.978	0.033
T4_1_3	0.018	0.893	-0.064
T4_2_3	0.005	0.943	-0.016
T4_3_3	0.084	0.772	-0.087
T4_4_3	0.000	0.983	0.004
T4_5_3	0.014	0.906	0.019
T4_6_3	0.007	0.932	0.015
T4_9_3	0.012	0.914	0.017
T4_10_3	0.013	0.909	0.019
T4_11_3	0.000	0.996	-0.043
T4_13_3	0.005	0.946	0.012
T4_14_3	0.001	0.973	-0.010
T4_15_3	0.023	0.879	0.024
T4_16_3	0.009	0.926	0.013
T4_17_3	0.000	0.999	0.001

T4_18_3	0.016	0.900	0.021
T4_19_3	0.006	0.940	-0.016
T4_20_3	Inf	0.000	NaN
T4_21_3	0.001	0.975	-0.008
T4_22_3	0.002	0.969	0.007
T4_24_3	0.000	0.995	-0.003
T4_26_3	0.053	0.818	-0.078
T4_29_3	0.081	0.776	-0.084
T4_30_3	0.001	0.983	-0.038
T4_32_3	0.087	0.768	-0.086
T4_34_3	0.000	0.997	-0.044
T4_35_3	0.035	0.852	-0.071
T4_37_3	0.011	0.916	-0.019
T4_38_3	0.028	0.867	-0.070
T4_39_3	0.105	0.746	0.012
T4_40_3	0.018	0.894	-0.063
T4_41_3	0.041	0.839	-0.076
T4_42_3	0.011	0.916	-0.059
T4_2_4	0.000	0.996	0.014
T4_3_4	0.007	0.935	-0.003
T4_5_4	0.010	0.922	0.029
T4_7_4	0.000	0.986	0.008
T4_8_4	0.001	0.978	0.003
T4_9_4	0.000	0.995	0.016
T4_10_4	0.005	0.944	0.022
T4_12_4	0.528	0.468	0.082
T4_13_4	0.005	0.945	-0.007
T4_16_4	0.025	0.875	-0.016
T4_17_4	0.013	0.911	-0.009
T4_20_4	0.076	0.783	0.014
T4_21_4	0.017	0.898	-0.011
T4_24_4	0.015	0.902	0.032
T4_25_4	0.008	0.929	-0.004
T4_27_4	0.141	0.707	0.017
T4_28_4	0.129	0.719	0.014
T4_30_4	0.133	0.715	0.016
T4_31_4	0.038	0.846	-0.010
T4_32_4	0.235	0.628	0.033
T4_33_4	0.158	0.691	0.019
T4_34_4	0.159	0.690	0.020
T4_37_4	0.045	0.832	-0.006

T4_1_5	0.001	0.970	-0.036
T4_2_5	0.014	0.907	-0.007
T4_3_5	0.000	1.000	-0.030
T4_4_5	0.563	0.453	-0.060
T4_7_5	0.010	0.919	-0.046
T4_8_5	0.052	0.819	0.011
T4_9_5	Inf	0.000	NaN
T4_12_5	0.006	0.940	-0.014
T4_16_5	0.002	0.963	-0.018
T4_17_5	0.000	0.989	-0.028
T4_18_5	0.001	0.980	-0.033
T4_19_5	0.579	0.447	-0.067
T4_20_5	0.001	0.977	-0.035
T4_21_5	0.059	0.807	0.014
T4_26_5	0.004	0.952	0.101
T4_29_5	0.064	0.801	0.043
T4_30_5	0.000	0.998	0.084
T4_43_5	0.002	0.963	0.095
T4_47_5	0.061	0.806	0.046
T4_48_5	0.215	0.643	0.006
T4_49_5	0.507	0.477	-0.026
T4_50_5	0.462	0.497	-0.020
T4_51_5	0.341	0.559	-0.006
T4_52_5	0.035	0.851	0.058
T4_25_5	0.012	0.912	-0.048
T4_4_6	0.009	0.925	-0.011
T4_5_6	0.000	0.996	0.002
T4_7_6	0.072	0.789	-0.036
T4_8_6	0.033	0.855	0.022
T4_9_6	0.196	0.658	-0.017
T4_11_6	0.036	0.850	0.022
T4_12_6	0.336	0.562	-0.037
T4_13_6	0.016	0.899	0.031
T4_14_6	0.295	0.587	-0.035
T4_16_6	0.024	0.878	0.028
T4_17_6	0.004	0.949	0.041
T4_18_6	0.002	0.961	0.044
T4_20_6	0.117	0.733	-0.002
T4_22_6	0.225	0.635	-0.022
T4_24_6	0.018	0.893	0.030
T4_27_6	0.048	0.827	-0.012

T4_29_6	0.009	0.925	-0.033
T4_30_6	0.113	0.737	0.007
T4_31_6	0.110	0.740	0.005
T4_32_6	0.071	0.790	-0.004
T4_33_6	0.002	0.969	-0.059
T4_34_6	0.039	0.844	-0.018
T4_35_6	0.003	0.953	-0.038
T4_36_6	0.000	0.991	-0.044
T4_38_6	0.006	0.937	-0.035
T4_39_6	0.123	0.725	0.006
T4_43_6	0.003	0.960	-0.060

Table 44

Task 4 DIF: Latinx vs. Sample

ItemID	ChiSq	pvalue	EffectSize
T4_7_34	0.01	0.94	-0.07
T4_8_34	0.04	0.84	0.04
T4_12_34	0.01	0.90	0.07
T4_23_34	0.42	0.52	-0.09
T4_25_34	0.19	0.67	-0.04
T4_29_34	0.00	1.00	-0.15
T4_36_34	0.01	0.92	-0.12
T4_43_34	0.15	0.70	-0.01
T4_38_45	0.27	0.61	-0.04
T4_41_45	0.02	0.89	-0.28
T4_5_56	0.00	0.98	0.10
T4_11_56	0.04	0.84	0.02
T4_14_56	0.47	0.49	-0.13
T4_22_56	0.06	0.80	0.01
T4_23_56	0.01	0.90	0.01
T4_31_56	0.01	0.91	0.06
T4_45_56	0.09	0.76	-0.01
T4_46_56	0.00	0.95	0.08
T4_1_456	1.25	0.26	-0.17
T4_6_456	0.97	0.32	-0.08
T4_14_456	0.54	0.46	-0.04
T4_15_456	0.27	0.60	0.04
T4_22_456	0.55	0.46	-0.01
T4_1_3	0.30	0.59	0.01
T4_2_3	0.01	0.94	-0.05
T4_3_3	0.05	0.83	-0.12
T4_4_3	0.00	0.97	-0.01
T4_5_3	0.00	0.99	0.00
T4_6_3	0.00	0.99	0.00
T4_9_3	0.00	1.00	-0.02
T4_10_3	0.01	0.92	-0.05
T4_11_3	0.02	0.89	-0.14
T4_13_3	0.01	0.94	0.03
T4_14_3	0.00	0.99	0.01
T4_15_3	0.00	0.99	0.01
T4_16_3	0.00	0.95	-0.04
T4_17_3	0.00	0.98	-0.03

T4_18_3	0.00	0.99	-0.02
T4_19_3	0.00	0.99	0.00
T4_20_3	Inf	0.00	NaN
T4_21_3	0.00	0.97	-0.01
T4_22_3	0.00	0.99	-0.01
T4_24_3	0.00	0.99	-0.02
T4_26_3	0.19	0.67	-0.03
T4_29_3	0.03	0.85	-0.11
T4_30_3	0.11	0.74	-0.06
T4_32_3	0.07	0.79	-0.09
T4_34_3	0.02	0.89	-0.12
T4_35_3	0.16	0.69	-0.05
T4_37_3	0.51	0.47	0.07
T4_38_3	0.17	0.68	-0.05
T4_39_3	0.44	0.51	0.06
T4_40_3	0.13	0.72	-0.05
T4_41_3	0.04	0.84	-0.10
T4_42_3	0.11	0.74	-0.05
T4_2_4	0.00	0.97	0.11
T4_3_4	0.11	0.74	0.01
T4_5_4	0.11	0.74	0.00
T4_7_4	0.26	0.61	-0.05
T4_8_4	0.20	0.66	-0.03
T4_9_4	0.09	0.76	0.01
T4_10_4	0.06	0.81	0.04
T4_12_4	0.06	0.81	-0.12
T4_13_4	0.00	0.96	0.10
T4_16_4	0.09	0.77	0.02
T4_17_4	0.03	0.85	0.06
T4_20_4	0.03	0.87	-0.10
T4_21_4	0.29	0.59	-0.07
T4_24_4	0.06	0.81	0.04
T4_25_4	0.48	0.49	-0.11
T4_27_4	0.15	0.70	-0.02
T4_28_4	0.05	0.83	-0.08
T4_30_4	0.02	0.88	-0.10
T4_31_4	0.01	0.92	-0.12
T4_32_4	0.41	0.52	0.07
T4_33_4	0.00	0.98	-0.14
T4_34_4	0.00	0.96	-0.14
T4_37_4	0.10	0.76	-0.05

T4_1_5	0.02	0.88	0.00
T4_2_5	0.06	0.81	-0.04
T4_3_5	0.04	0.83	-0.02
T4_4_5	0.14	0.71	-0.12
T4_7_5	0.00	0.99	0.07
T4_8_5	0.11	0.74	-0.06
T4_9_5	Inf	0.00	NaN
T4_12_5	0.03	0.87	-0.01
T4_16_5	0.00	0.98	0.04
T4_17_5	0.03	0.86	-0.01
T4_18_5	0.00	1.00	0.07
T4_19_5	0.23	0.63	-0.15
T4_20_5	0.02	0.89	0.00
T4_21_5	0.06	0.80	-0.04
T4_26_5	0.00	1.00	-0.06
T4_29_5	0.02	0.88	0.02
T4_30_5	0.05	0.82	0.04
T4_43_5	0.00	0.98	-0.02
T4_47_5	0.00	0.97	-0.02
T4_48_5	0.11	0.75	0.07
T4_49_5	0.00	1.00	-0.03
T4_50_5	0.03	0.86	0.03
T4_51_5	0.00	0.97	-0.07
T4_52_5	0.01	0.91	0.00
T4_25_5	0.00	0.99	0.07
T4_4_6	0.66	0.42	-0.11
T4_5_6	0.06	0.80	0.11
T4_7_6	0.33	0.57	-0.01
T4_8_6	0.02	0.89	-0.01
T4_9_6	0.01	0.94	0.00
T4_11_6	0.01	0.92	0.00
T4_12_6	0.04	0.84	-0.04
T4_13_6	0.00	0.99	0.03
T4_14_6	0.08	0.78	-0.06
T4_16_6	0.01	0.93	0.00
T4_17_6	0.00	0.99	0.04
T4_18_6	0.07	0.80	-0.06
T4_20_6	0.01	0.92	0.00
T4_22_6	0.04	0.84	-0.03
T4_24_6	0.04	0.85	-0.03
T4_27_6	0.34	0.56	-0.07

T4_29_6	0.00	0.97	0.17
T4_30_6	0.51	0.48	-0.12
T4_31_6	0.02	0.88	0.07
T4_32_6	0.33	0.56	-0.07
T4_33_6	0.00	0.99	0.14
T4_34_6	0.11	0.74	0.03
T4_35_6	0.24	0.63	-0.03
T4_36_6	0.08	0.78	0.04
T4_38_6	0.01	0.92	0.10
T4_39_6	0.16	0.69	-0.01
T4_43_6	0.00	0.95	0.12

Table 45

Task 5 DIF: Male vs. female

ItemID	ChiSq	pvalue	EffectSize
T5_10_12	0.036	0.849	0.006
T5_18_12	0.042	0.837	0.020
T5_24_12	0.018	0.894	0.009
T5_30_12	0.057	0.812	0.042
T5_32_12	0.012	0.912	0.025
T5_26_23	0.038	0.846	0.040
T5_39_23	0.056	0.813	-0.029
T5_10_23	0.030	0.864	0.010
T5_11_23	0.097	0.756	-0.069
T5_23_23	0.030	0.862	0.011
T5_3_34	0.000	0.987	0.001
T5_10_34	0.000	1.000	-0.001
T5_14_34	0.000	0.984	-0.003
T5_17_34	0.010	0.920	-0.018
T5_31_34	0.171	0.679	-0.021
T5_34_34	0.230	0.632	-0.029
T5_26_45	0.271	0.603	-0.059
T5_36_45	0.054	0.816	-0.016
T5_26_56	0.041	0.840	0.000
T5_30_56	0.024	0.878	-0.006
T5_37_56	0.001	0.978	-0.025
T5_3_56	0.003	0.959	0.006
T5_6_56	0.017	0.896	0.018
T5_7_56	0.001	0.974	0.003
T5_12_56	0.055	0.815	0.034
T5_20_56	0.006	0.938	0.009
T5_6_456	0.037	0.848	0.036
T5_8_456	0.012	0.911	-0.008
T5_15_456	0.000	0.996	0.011
T5_21_456	0.004	0.947	0.000
T5_25_456	0.003	0.959	0.001
T5_1_1	0.009	0.923	0.006
T5_2_1	0.048	0.826	0.025
T5_3_1	0.000	0.990	-0.007
T5_4_1	0.023	0.880	0.014
T5_6_1	0.015	0.902	0.010
T5_7_1	0.018	0.894	0.011

T5_8_1	0.018	0.894	0.011
T5_9_1	0.047	0.828	-0.034
T5_11_1	0.000	0.995	0.003
T5_12_1	0.005	0.941	-0.010
T5_13_1	0.018	0.894	0.011
T5_14_1	0.019	0.891	0.012
T5_15_1	0.014	0.905	0.009
T5_16_1	0.024	0.876	0.015
T5_17_1	0.028	0.868	0.016
T5_19_1	0.043	0.835	0.023
T5_20_1	0.014	0.905	0.009
T5_21_1	0.008	0.930	0.004
T5_22_1	0.012	0.915	0.007
T5_23_1	0.018	0.894	0.011
T5_25_1	0.014	0.907	0.009
T5_26_1	0.013	0.911	-0.005
T5_27_1	0.016	0.901	-0.008
T5_28_1	0.050	0.823	-0.023
T5_29_1	0.066	0.797	-0.027
T5_33_1	0.000	0.984	0.018
T5_34_1	0.025	0.873	-0.012
T5_36_1	0.069	0.793	-0.029
T5_37_1	0.010	0.922	-0.002
T5_38_1	0.238	0.626	-0.062
T5_39_1	0.284	0.594	-0.068
T5_40_1	0.111	0.739	-0.039
T5_41_1	0.042	0.837	-0.019
T5_42_1	0.387	0.534	-0.081
T5_2_2	0.049	0.825	-0.038
T5_3_2	0.000	0.984	0.003
T5_4_2	0.001	0.971	0.005
T5_6_2	0.001	0.976	-0.009
T5_7_2	0.003	0.959	-0.003
T5_12_2	0.001	0.979	-0.009
T5_13_2	0.001	0.971	0.005
T5_14_2	0.006	0.940	0.011
T5_15_2	0.053	0.818	0.024
T5_17_2	0.000	0.984	0.003
T5_18_2	0.000	0.994	-0.002
T5_19_2	0.000	0.996	-0.006
T5_20_2	0.001	0.982	0.003

T5_21_2	0.004	0.950	0.009
T5_22_2	0.029	0.866	0.025
T5_24_2	0.003	0.960	-0.013
T5_25_2	0.003	0.955	0.008
T5_28_2	0.020	0.887	0.015
T5_32_2	0.006	0.941	0.003
T5_33_2	0.000	0.997	-0.007
T5_34_2	0.048	0.827	0.026
T5_35_2	0.037	0.847	0.022
T5_38_2	0.092	0.761	0.038
T5_40_2	0.025	0.874	0.017
T5_41_2	0.057	0.812	0.028
T5_42_2	0.096	0.757	0.039
T5_43_2	0.002	0.963	-0.001
T5_4_3	0.062	0.804	0.024
T5_5_3	0.014	0.906	0.005
T5_6_3	0.032	0.858	0.014
T5_7_3	0.045	0.833	0.019
T5_8_3	0.019	0.891	-0.021
T5_9_3	0.031	0.861	-0.027
T5_11_3	0.051	0.821	0.020
T5_16_3	0.026	0.871	0.011
T5_17_34.1	0.010	0.920	-0.018
T5_18_3	0.033	0.857	0.014
T5_19_3	0.038	0.846	0.016
T5_20_3	0.038	0.846	0.016
T5_21_3	0.091	0.763	-0.047
T5_22_3	0.000	0.988	-0.020
T5_23_3	0.022	0.881	0.009
T5_24_3	0.015	0.904	0.005
T5_25_3	0.016	0.898	0.006
T5_27_3	0.012	0.914	-0.001
T5_28_3	0.205	0.651	-0.051
T5_29_3	0.040	0.841	-0.013
T5_30_3	0.195	0.659	-0.051
T5_32_3	0.002	0.968	0.010
T5_36_3	0.001	0.983	0.013
T5_37_3	0.183	0.669	-0.048
T5_39_3	0.088	0.767	-0.028
T5_40_3	0.157	0.692	-0.043
T5_41_3	0.050	0.823	-0.018

T5_42_3	0.027	0.869	-0.010
T5_1_4	0.041	0.840	-0.023
T5_2_4	0.001	0.977	0.024
T5_4_4	0.000	0.996	0.013
T5_7_4	0.000	0.990	0.040
T5_9_4	0.206	0.650	-0.029
T5_12_4	0.000	0.993	0.012
T5_13_4	0.033	0.856	-0.013
T5_14_4	0.001	0.975	0.010
T5_16_4	0.034	0.853	-0.014
T5_17_4	0.022	0.883	-0.008
T5_19_4	0.042	0.837	-0.017
T5_20_4	0.006	0.940	0.027
T5_22_4	0.000	0.998	0.019
T5_23_4	0.035	0.851	-0.014
T5_24_4	0.006	0.941	0.003
T5_27_4	0.102	0.750	-0.026
T5_28_4	0.000	0.991	0.021
T5_30_4	0.048	0.827	-0.013
T5_31_4	0.333	0.564	-0.064
T5_32_4	0.217	0.641	-0.048
T5_33_4	0.000	0.992	0.024
T5_34_4	0.114	0.736	-0.028
T5_37_4	0.056	0.813	-0.013
T5_38_4	0.000	0.994	0.027
T5_39_4	0.041	0.839	-0.010
T5_43_4	0.116	0.734	-0.028
T5_1_5	0.000	1.000	-0.003
T5_4_5	0.000	0.993	-0.009
T5_8_5	0.011	0.917	-0.031
T5_9_5	0.001	0.971	-0.013
T5_10_5	0.001	0.974	0.002
T5_13_5	0.000	0.993	-0.009
T5_15_5	0.000	0.991	-0.009
T5_16_5	0.000	0.993	-0.004
T5_17_5	0.000	0.999	-0.007
T5_18_5	0.000	0.996	-0.003
T5_19_5	0.028	0.867	0.022
T5_20_56.1	0.006	0.938	0.009
T5_21_5	0.024	0.876	0.021
T5_22_5	0.000	0.988	0.000

T5_23_5	0.002	0.965	-0.014
T5_25_5	0.000	0.991	-0.006
T5_27_5	0.462	0.497	0.096
T5_28_5	0.041	0.839	0.026
T5_31_5	0.007	0.933	0.008
T5_32_5	0.008	0.929	-0.022
T5_34_5	0.008	0.928	-0.023
T5_35_5	0.024	0.876	0.017
T5_39_5	0.020	0.889	0.017
T5_40_5	0.003	0.956	0.003
T5_41_5	0.058	0.810	0.031
T5_43_5	0.012	0.912	0.011
T5_1_6	0.010	0.922	-0.038
T5_2_6	0.073	0.787	0.021
T5_5_6	0.325	0.568	0.066
T5_6_6	0.075	0.784	0.045
T5_7_6	0.004	0.948	-0.011
T5_8_6	0.000	0.995	-0.003
T5_9_6	0.004	0.949	-0.011
T5_10_6	0.000	0.994	-0.003
T5_13_6	0.003	0.955	0.012
T5_15_6	0.002	0.962	0.010
T5_20_6	0.021	0.884	0.025
T5_22_6	0.017	0.896	0.022
T5_23_6	0.052	0.819	0.037
T5_24_6	0.000	0.997	0.003
T5_25_6	0.003	0.954	0.011
T5_26_6	0.065	0.798	0.019
T5_27_6	0.001	0.981	-0.017
T5_31_6	0.028	0.866	0.006
T5_32_6	0.040	0.841	0.011
T5_33_6	0.023	0.878	0.003
T5_34_6	0.000	0.997	-0.021
T5_36_6	0.084	0.772	0.023
T5_38_6	0.029	0.865	0.005
T5_40_6	0.012	0.912	-0.003
T5_41_6	0.187	0.665	0.045
T5_42_6	0.000	0.996	-0.019
T5_43_6	0.101	0.751	0.027

Table 46

Task 5 DIF: White vs. Sample

ItemID	ChiSq	pvalue	EffectSize
T5_10_12	0.109	0.742	0.023
T5_18_12	0.000	0.984	-0.030
T5_24_12	0.013	0.910	-0.015
T5_30_12	0.292	0.589	0.093
T5_32_12	0.062	0.804	-0.033
T5_26_23	0.154	0.695	-0.041
T5_39_23	0.025	0.875	0.047
T5_10_23	0.360	0.549	0.050
T5_11_23	0.022	0.881	-0.020
T5_23_23	0.232	0.630	0.033
T5_3_34	0.042	0.838	-0.032
T5_10_34	0.010	0.922	-0.018
T5_14_34	0.000	0.991	-0.004
T5_17_34	0.011	0.919	0.019
T5_31_34	1.218	0.270	-0.116
T5_34_34	1.479	0.224	-0.133
T5_26_45	0.070	0.792	0.044
T5_36_45	0.517	0.472	-0.111
T5_26_56	0.032	0.858	0.042
T5_30_56	1.386	0.239	0.188
T5_37_56	0.650	0.420	0.132
T5_3_56	0.079	0.779	0.015
T5_6_56	0.129	0.720	0.027
T5_7_56	0.182	0.670	0.038
T5_12_56	0.165	0.684	0.034
T5_20_56	0.112	0.739	0.023
T5_6_456	2.315	0.128	0.141
T5_8_456	0.400	0.527	0.050
T5_15_456	0.158	0.691	0.012
T5_21_456	0.221	0.639	0.025
T5_25_456	0.274	0.601	0.032
T5_1_1	0.072	0.789	-0.015
T5_2_1	0.081	0.776	-0.017
T5_3_1	0.093	0.760	-0.021
T5_4_1	0.143	0.705	-0.032
T5_6_1	0.143	0.705	-0.032
T5_7_1	0.130	0.718	-0.029

T5_8_1	0.130	0.718	-0.029
T5_9_1	0.191	0.662	-0.037
T5_11_1	0.788	0.375	-0.108
T5_12_1	0.150	0.698	-0.031
T5_13_1	0.130	0.718	-0.029
T5_14_1	0.129	0.719	-0.029
T5_15_1	0.117	0.732	-0.026
T5_16_1	0.140	0.708	-0.031
T5_17_1	0.093	0.761	-0.020
T5_19_1	0.152	0.696	-0.034
T5_20_1	0.118	0.731	-0.026
T5_21_1	0.088	0.767	-0.019
T5_22_1	0.057	0.812	-0.010
T5_23_1	0.130	0.718	-0.029
T5_25_1	0.127	0.721	-0.028
T5_26_1	0.000	0.986	0.009
T5_27_1	0.003	0.960	0.013
T5_28_1	0.042	0.838	-0.032
T5_29_1	0.003	0.955	-0.008
T5_33_1	0.428	0.513	-0.098
T5_34_1	0.003	0.956	-0.008
T5_36_1	0.008	0.927	-0.013
T5_37_1	0.061	0.805	0.043
T5_38_1	0.265	0.606	-0.079
T5_39_1	0.120	0.729	-0.055
T5_40_1	0.050	0.823	-0.034
T5_41_1	0.036	0.849	-0.029
T5_42_1	0.029	0.865	-0.027
T5_2_2	0.152	0.697	-0.001
T5_3_2	0.659	0.417	0.064
T5_4_2	0.613	0.434	0.060
T5_6_2	0.600	0.439	0.058
T5_7_2	0.169	0.681	0.005
T5_12_2	0.293	0.588	0.022
T5_13_2	0.439	0.508	0.041
T5_14_2	0.614	0.433	0.059
T5_15_2	0.305	0.581	0.028
T5_17_2	0.659	0.417	0.064
T5_18_2	0.239	0.625	0.014
T5_19_2	0.100	0.752	-0.012
T5_20_2	0.286	0.593	0.021

T5_21_2	0.237	0.627	0.014
T5_22_2	0.570	0.450	0.055
T5_24_2	0.313	0.576	0.025
T5_25_2	0.298	0.585	0.023
T5_28_2	0.021	0.885	0.029
T5_32_2	0.003	0.960	-0.006
T5_33_2	0.003	0.956	0.017
T5_34_2	0.001	0.975	-0.003
T5_35_2	0.000	0.987	0.000
T5_38_2	0.008	0.930	-0.012
T5_40_2	0.155	0.694	0.067
T5_41_2	0.040	0.842	0.039
T5_42_2	0.169	0.681	0.069
T5_43_2	0.000	0.998	0.008
T5_4_3	0.012	0.912	0.000
T5_5_3	0.040	0.842	-0.014
T5_6_3	0.066	0.797	-0.023
T5_7_3	0.084	0.772	-0.027
T5_8_3	0.220	0.639	-0.041
T5_9_3	0.021	0.885	0.010
T5_11_3	0.058	0.810	-0.020
T5_16_3	0.040	0.841	-0.014
T5_17_34.1	0.011	0.919	0.019
T5_18_3	0.065	0.798	-0.022
T5_19_3	0.059	0.808	-0.020
T5_20_3	0.057	0.812	-0.020
T5_21_3	0.000	0.998	0.030
T5_22_3	0.044	0.834	-0.015
T5_23_3	0.058	0.810	-0.020
T5_24_3	0.000	0.993	0.015
T5_25_3	0.050	0.823	-0.018
T5_27_3	0.000	0.991	0.018
T5_28_3	0.001	0.974	0.004
T5_29_3	0.022	0.882	0.038
T5_30_3	0.087	0.768	0.060
T5_32_3	0.000	0.987	0.014
T5_36_3	0.001	0.973	0.006
T5_37_3	0.024	0.878	-0.013
T5_39_3	0.194	0.660	-0.055
T5_40_3	0.024	0.878	-0.013
T5_41_3	0.006	0.938	-0.001

T5_42_3	0.001	0.974	0.022
T5_1_4	0.107	0.743	-0.005
T5_2_4	0.006	0.939	-0.005
T5_4_4	0.003	0.954	-0.008
T5_7_4	0.634	0.426	-0.103
T5_9_4	0.092	0.762	-0.029
T5_12_4	0.011	0.916	-0.001
T5_13_4	0.002	0.967	-0.010
T5_14_4	0.019	0.890	0.004
T5_16_4	0.081	0.776	0.026
T5_17_4	0.040	0.842	0.014
T5_19_4	0.057	0.811	0.020
T5_20_4	0.079	0.779	-0.026
T5_22_4	0.001	0.971	-0.011
T5_23_4	0.066	0.798	0.022
T5_24_4	0.008	0.929	-0.003
T5_27_4	0.179	0.672	-0.028
T5_28_4	0.173	0.678	-0.026
T5_30_4	0.358	0.550	-0.053
T5_31_4	0.648	0.421	-0.084
T5_32_4	0.286	0.593	-0.044
T5_33_4	0.171	0.679	-0.026
T5_34_4	0.334	0.563	-0.051
T5_37_4	0.111	0.739	-0.014
T5_38_4	0.081	0.777	-0.006
T5_39_4	0.074	0.786	-0.004
T5_43_4	0.476	0.490	-0.067
T5_1_5	0.014	0.907	0.028
T5_4_5	0.026	0.872	-0.019
T5_8_5	0.063	0.802	0.010
T5_9_5	0.005	0.943	-0.005
T5_10_5	0.007	0.933	-0.007
T5_13_5	0.004	0.949	-0.004
T5_15_5	0.013	0.910	-0.012
T5_16_5	0.009	0.927	-0.009
T5_17_5	0.009	0.926	-0.008
T5_18_5	0.003	0.958	-0.003
T5_19_5	0.000	0.998	0.010
T5_20_56.1	0.112	0.739	0.023
T5_21_5	0.000	0.988	0.013
T5_22_5	0.034	0.853	-0.023

T5_23_5	0.005	0.946	0.021
T5_25_5	0.024	0.877	-0.018
T5_27_5	0.187	0.666	0.028
T5_28_5	0.277	0.599	0.042
T5_31_5	0.348	0.555	0.053
T5_32_5	0.381	0.537	0.057
T5_34_5	0.481	0.488	0.068
T5_35_5	0.180	0.671	0.028
T5_39_5	0.188	0.665	0.030
T5_40_5	0.229	0.633	0.036
T5_41_5	0.120	0.729	0.017
T5_43_5	0.104	0.747	0.013
T5_1_6	0.007	0.934	0.021
T5_2_6	0.040	0.841	0.038
T5_5_6	0.020	0.888	-0.018
T5_6_6	0.044	0.834	-0.004
T5_7_6	0.169	0.681	0.027
T5_8_6	0.222	0.638	0.036
T5_9_6	0.222	0.638	0.036
T5_10_6	0.355	0.551	0.055
T5_13_6	0.119	0.730	0.016
T5_15_6	0.377	0.539	0.057
T5_20_6	0.173	0.678	0.027
T5_22_6	0.056	0.814	0.001
T5_23_6	0.031	0.862	-0.009
T5_24_6	0.017	0.896	-0.016
T5_25_6	0.300	0.584	0.047
T5_26_6	0.210	0.647	-0.030
T5_27_6	0.005	0.947	0.056
T5_31_6	0.156	0.693	-0.018
T5_32_6	0.204	0.651	-0.028
T5_33_6	0.116	0.734	-0.010
T5_34_6	0.033	0.855	0.077
T5_36_6	0.152	0.697	-0.019
T5_38_6	0.001	0.983	0.038
T5_40_6	0.050	0.824	0.008
T5_41_6	0.215	0.643	-0.031
T5_42_6	0.111	0.739	-0.008
T5_43_6	0.037	0.848	0.011

Table 47

Task 5 DIF: Black vs. Sample

ItemID	ChiSq	pvalue	EffectSize
T5_10_12	0.022	0.883	-0.008
T5_18_12	0.004	0.948	0.016
T5_24_12	0.020	0.888	0.004
T5_30_12	0.724	0.395	-0.130
T5_32_12	0.093	0.760	-0.046
T5_26_23	0.006	0.941	0.023
T5_39_23	0.213	0.645	-0.066
T5_10_23	0.273	0.601	-0.054
T5_11_23	0.027	0.869	0.003
T5_23_23	0.129	0.720	-0.029
T5_3_34	0.139	0.709	0.037
T5_10_34	0.133	0.715	0.036
T5_14_34	0.142	0.707	0.036
T5_17_34	0.087	0.768	0.025
T5_31_34	0.249	0.618	0.062
T5_34_34	1.277	0.258	0.165
T5_26_45	0.250	0.617	-0.048
T5_36_45	0.487	0.485	0.142
T5_26_56	0.011	0.915	-0.029
T5_30_56	1.587	0.208	-0.202
T5_37_56	0.340	0.560	-0.098
T5_3_56	0.000	1.000	0.005
T5_6_56	0.001	0.974	0.000
T5_7_56	0.008	0.931	-0.009
T5_12_56	0.004	0.951	-0.005
T5_20_56	0.001	0.973	-0.001
T5_6_456	1.167	0.280	-0.101
T5_8_456	0.000	0.986	-0.005
T5_15_456	0.051	0.821	0.040
T5_21_456	0.093	0.761	0.050
T5_25_456	0.001	0.979	-0.004
T5_1_1	0.148	0.701	0.042
T5_2_1	0.038	0.846	0.012
T5_3_1	0.061	0.804	0.021
T5_4_1	0.077	0.781	0.025
T5_6_1	0.082	0.775	0.027
T5_7_1	0.064	0.800	0.021

T5_8_1	0.064	0.800	0.021
T5_9_1	0.009	0.926	0.015
T5_11_1	0.117	0.733	0.056
T5_12_1	0.000	0.988	0.003
T5_13_1	0.064	0.800	0.021
T5_14_1	0.069	0.792	0.023
T5_15_1	0.058	0.811	0.019
T5_16_1	0.080	0.778	0.026
T5_17_1	0.039	0.845	0.012
T5_19_1	0.070	0.791	0.023
T5_20_1	0.058	0.810	0.019
T5_21_1	0.095	0.758	0.030
T5_22_1	0.072	0.789	0.024
T5_23_1	0.064	0.800	0.021
T5_25_1	0.087	0.768	0.028
T5_26_1	0.163	0.686	-0.049
T5_27_1	0.155	0.694	-0.047
T5_28_1	0.004	0.949	0.006
T5_29_1	0.043	0.837	-0.018
T5_33_1	0.025	0.874	0.044
T5_34_1	0.028	0.868	-0.011
T5_36_1	0.026	0.873	-0.010
T5_37_1	0.133	0.715	-0.041
T5_38_1	0.006	0.939	0.034
T5_39_1	0.001	0.970	0.028
T5_40_1	0.001	0.974	0.011
T5_41_1	0.035	0.852	-0.014
T5_42_1	0.090	0.764	-0.031
T5_2_2	0.103	0.749	-0.004
T5_3_2	0.370	0.543	-0.050
T5_4_2	0.354	0.552	-0.048
T5_6_2	0.333	0.564	-0.045
T5_7_2	0.005	0.944	0.024
T5_12_2	0.176	0.675	-0.019
T5_13_2	0.353	0.552	-0.047
T5_14_2	0.366	0.545	-0.049
T5_15_2	0.219	0.640	-0.037
T5_17_2	0.370	0.543	-0.050
T5_18_2	0.221	0.638	-0.027
T5_19_2	0.041	0.840	0.014
T5_20_2	0.142	0.706	-0.013

T5_21_2	0.193	0.660	-0.023
T5_22_2	0.339	0.560	-0.046
T5_24_2	0.227	0.634	-0.029
T5_25_2	0.192	0.661	-0.023
T5_28_2	0.010	0.920	-0.029
T5_32_2	0.001	0.971	-0.002
T5_33_2	0.001	0.981	-0.018
T5_34_2	0.000	0.989	-0.005
T5_35_2	0.019	0.891	0.013
T5_38_2	0.023	0.878	0.016
T5_40_2	0.028	0.866	-0.040
T5_41_2	0.063	0.802	-0.053
T5_42_2	0.096	0.756	-0.060
T5_43_2	0.000	0.983	-0.005
T5_4_3	0.010	0.921	0.000
T5_5_3	0.030	0.863	0.012
T5_6_3	0.051	0.821	0.020
T5_7_3	0.052	0.820	0.020
T5_8_3	0.013	0.911	-0.016
T5_9_3	0.021	0.886	-0.023
T5_11_3	0.041	0.839	0.016
T5_16_3	0.037	0.847	0.015
T5_17_34.1	0.087	0.768	0.025
T5_18_3	0.054	0.816	0.021
T5_19_3	0.056	0.813	0.021
T5_20_3	0.047	0.829	0.018
T5_21_3	0.226	0.634	-0.072
T5_22_3	0.055	0.815	0.021
T5_23_3	0.041	0.839	0.016
T5_24_3	0.013	0.909	0.002
T5_25_3	0.041	0.840	0.016
T5_27_3	0.323	0.570	-0.069
T5_28_3	0.164	0.685	-0.043
T5_29_3	0.427	0.513	-0.081
T5_30_3	0.489	0.484	-0.089
T5_32_3	0.105	0.746	-0.031
T5_36_3	0.199	0.656	-0.051
T5_37_3	0.121	0.728	-0.035
T5_39_3	0.008	0.931	0.038
T5_40_3	0.098	0.755	-0.029
T5_41_3	0.182	0.670	-0.047

T5_42_3	0.220	0.639	-0.055
T5_1_4	0.197	0.657	-0.013
T5_2_4	0.097	0.756	0.045
T5_4_4	0.012	0.912	0.014
T5_7_4	0.821	0.365	0.101
T5_9_4	0.230	0.632	0.034
T5_12_4	0.005	0.947	0.007
T5_13_4	0.032	0.859	0.024
T5_14_4	0.009	0.926	0.011
T5_16_4	0.010	0.919	0.012
T5_17_4	0.010	0.922	0.012
T5_19_4	0.004	0.947	0.007
T5_20_4	0.270	0.603	0.041
T5_22_4	0.006	0.937	0.009
T5_23_4	0.003	0.955	0.005
T5_24_4	0.034	0.853	0.025
T5_27_4	0.150	0.698	0.026
T5_28_4	0.252	0.616	0.044
T5_30_4	0.151	0.698	0.026
T5_31_4	0.519	0.471	0.077
T5_32_4	0.210	0.647	0.036
T5_33_4	0.163	0.687	0.029
T5_34_4	0.514	0.474	0.077
T5_37_4	0.070	0.791	0.008
T5_38_4	0.070	0.792	0.007
T5_39_4	0.142	0.707	0.024
T5_43_4	0.456	0.499	0.071
T5_1_5	0.086	0.769	0.011
T5_4_5	0.172	0.679	0.029
T5_8_5	0.200	0.655	-0.045
T5_9_5	0.139	0.709	0.023
T5_10_5	0.119	0.730	0.018
T5_13_5	0.066	0.797	0.004
T5_15_5	0.121	0.728	0.019
T5_16_5	0.173	0.678	0.029
T5_17_5	0.169	0.681	0.029
T5_18_5	0.259	0.611	0.044
T5_19_5	0.095	0.758	0.013
T5_20_56.1	0.001	0.973	-0.001
T5_21_5	0.049	0.825	-0.001
T5_22_5	0.182	0.670	0.031

T5_23_5	0.020	0.887	-0.013
T5_25_5	0.111	0.739	0.017
T5_27_5	0.317	0.573	-0.025
T5_28_5	0.456	0.499	-0.042
T5_31_5	0.769	0.381	-0.074
T5_32_5	0.494	0.482	-0.047
T5_34_5	0.888	0.346	-0.084
T5_35_5	0.407	0.524	-0.038
T5_39_5	0.502	0.479	-0.049
T5_40_5	0.694	0.405	-0.067
T5_41_5	0.335	0.563	-0.029
T5_43_5	0.279	0.597	-0.021
T5_1_6	0.167	0.683	0.042
T5_2_6	0.001	0.972	-0.014
T5_5_6	0.218	0.641	0.052
T5_6_6	0.014	0.907	0.025
T5_7_6	0.238	0.625	-0.034
T5_8_6	0.289	0.591	-0.042
T5_9_6	0.222	0.637	-0.031
T5_10_6	0.390	0.532	-0.055
T5_13_6	0.069	0.793	0.002
T5_15_6	0.346	0.556	-0.049
T5_20_6	0.160	0.689	-0.019
T5_22_6	0.044	0.834	0.010
T5_23_6	0.003	0.957	0.034
T5_24_6	0.014	0.907	0.024
T5_25_6	0.368	0.544	-0.052
T5_26_6	0.478	0.489	0.042
T5_27_6	0.089	0.765	-0.019
T5_31_6	0.574	0.449	0.051
T5_32_6	0.548	0.459	0.050
T5_33_6	0.605	0.437	0.055
T5_34_6	0.002	0.961	-0.062
T5_36_6	0.819	0.365	0.075
T5_38_6	0.133	0.715	-0.009
T5_40_6	0.248	0.619	0.011
T5_41_6	0.647	0.421	0.060
T5_42_6	0.505	0.477	0.042
T5_43_6	0.319	0.572	0.022

Table 48

Task 5 DIF: Latinx vs. Sample

ItemID	ChiSq	pvalue	EffectSize
T5_10_12	0.660	0.417	0.172
T5_18_12	0.141	0.707	0.071
T5_24_12	0.154	0.695	0.077
T5_30_12	0.891	0.345	0.163
T5_32_12	2.674	0.102	0.405
T5_26_23	0.516	0.473	0.141
T5_39_23	0.416	0.519	0.126
T5_10_23	0.006	0.938	0.020
T5_11_23	0.051	0.821	0.067
T5_23_23	0.002	0.969	0.007
T5_3_34	0.262	0.609	-0.080
T5_10_34	0.376	0.540	-0.116
T5_14_34	0.344	0.558	-0.107
T5_17_34	0.578	0.447	-0.167
T5_31_34	0.638	0.424	0.121
T5_34_34	0.016	0.900	-0.117
T5_26_45	0.039	0.843	-0.043
T5_36_45	0.021	0.886	-0.056
T5_26_56	0.206	0.650	0.025
T5_30_56	0.327	0.567	-0.025
T5_37_56	0.859	0.354	-0.145
T5_3_56	0.465	0.496	-0.130
T5_6_56	0.494	0.482	-0.140
T5_7_56	0.383	0.536	-0.111
T5_12_56	0.569	0.451	-0.157
T5_20_56	0.475	0.491	-0.135
T5_6_456	1.178	0.278	-0.177
T5_8_456	1.985	0.159	-0.274
T5_15_456	2.153	0.142	-0.292
T5_21_456	2.267	0.132	-0.309
T5_25_456	1.679	0.195	-0.235
T5_1_1	0.015	0.903	-0.004
T5_2_1	0.068	0.794	0.042
T5_3_1	0.059	0.809	0.036
T5_4_1	0.092	0.762	0.057
T5_6_1	0.091	0.763	0.056
T5_7_1	0.094	0.759	0.058

T5_8_1	0.094	0.759	0.058
T5_9_1	0.971	0.325	0.158
T5_11_1	0.889	0.346	0.141
T5_12_1	1.417	0.234	0.229
T5_13_1	0.094	0.759	0.058
T5_14_1	0.091	0.763	0.056
T5_15_1	0.092	0.761	0.057
T5_16_1	0.088	0.766	0.055
T5_17_1	0.074	0.786	0.046
T5_19_1	0.078	0.780	0.049
T5_20_1	0.094	0.760	0.058
T5_21_1	0.049	0.825	0.029
T5_22_1	0.043	0.835	0.024
T5_23_1	0.094	0.759	0.058
T5_25_1	0.083	0.773	0.052
T5_26_1	0.711	0.399	0.173
T5_27_1	0.982	0.322	0.222
T5_28_1	0.705	0.401	0.171
T5_29_1	0.493	0.483	0.123
T5_33_1	0.230	0.632	0.048
T5_34_1	0.564	0.453	0.141
T5_36_1	0.711	0.399	0.171
T5_37_1	0.081	0.776	-0.028
T5_38_1	0.532	0.466	0.132
T5_39_1	0.396	0.529	0.100
T5_40_1	0.594	0.441	0.148
T5_41_1	0.677	0.411	0.166
T5_42_1	0.834	0.361	0.191
T5_2_2	0.000	0.992	0.006
T5_3_2	0.000	0.985	0.010
T5_4_2	0.005	0.946	0.025
T5_6_2	0.001	0.979	0.012
T5_7_2	0.277	0.599	0.134
T5_12_2	0.001	0.981	-0.013
T5_13_2	0.007	0.934	0.030
T5_14_2	0.000	0.985	-0.003
T5_15_2	0.263	0.608	0.129
T5_17_2	0.000	0.985	0.010
T5_18_2	0.001	0.977	-0.007
T5_19_2	0.000	0.992	0.006
T5_20_2	0.000	0.988	-0.016

T5_21_2	0.001	0.975	0.014
T5_22_2	0.001	0.974	0.014
T5_24_2	0.000	0.985	0.010
T5_25_2	0.001	0.971	0.016
T5_28_2	0.211	0.646	0.122
T5_32_2	0.123	0.726	0.082
T5_33_2	0.223	0.637	0.126
T5_34_2	0.241	0.623	0.132
T5_35_2	0.207	0.649	0.121
T5_38_2	0.057	0.811	0.048
T5_40_2	0.135	0.713	0.091
T5_41_2	0.056	0.813	0.044
T5_42_2	0.062	0.804	0.051
T5_43_2	0.196	0.658	0.114
T5_4_3	0.000	0.985	-0.003
T5_5_3	0.000	0.993	0.006
T5_6_3	0.000	0.988	0.008
T5_7_3	0.000	0.989	0.007
T5_8_3	0.120	0.729	0.060
T5_9_3	0.064	0.801	0.028
T5_11_3	0.000	0.985	0.009
T5_16_3	0.000	0.984	-0.004
T5_17_34.1	0.578	0.447	-0.167
T5_18_3	0.000	0.999	0.003
T5_19_3	0.000	0.992	0.006
T5_20_3	0.000	0.985	0.009
T5_21_3	0.026	0.872	-0.001
T5_22_3	0.001	0.979	0.012
T5_23_3	0.002	0.961	0.019
T5_24_3	0.005	0.941	-0.045
T5_25_3	0.004	0.953	0.022
T5_27_3	0.013	0.909	-0.007
T5_28_3	0.125	0.724	0.075
T5_29_3	0.120	0.729	0.069
T5_30_3	0.017	0.898	-0.003
T5_32_3	0.040	0.842	0.020
T5_36_3	0.129	0.720	0.076
T5_37_3	0.190	0.663	0.097
T5_39_3	0.113	0.737	0.065
T5_40_3	0.129	0.720	0.072
T5_41_3	0.119	0.730	0.069

T5_42_3	0.065	0.800	0.039
T5_1_4	0.238	0.626	-0.077
T5_2_4	0.362	0.548	-0.101
T5_4_4	0.344	0.558	-0.097
T5_7_4	0.041	0.841	-0.070
T5_9_4	0.000	0.990	0.005
T5_12_4	0.288	0.592	-0.080
T5_13_4	0.413	0.520	-0.115
T5_14_4	0.245	0.620	-0.065
T5_16_4	0.530	0.467	-0.146
T5_17_4	0.482	0.488	-0.133
T5_19_4	0.427	0.514	-0.120
T5_20_4	0.004	0.949	-0.024
T5_22_4	0.137	0.711	-0.023
T5_23_4	0.432	0.511	-0.122
T5_24_4	0.340	0.560	-0.096
T5_27_4	0.236	0.627	0.075
T5_28_4	0.079	0.779	0.003
T5_30_4	0.372	0.542	0.116
T5_31_4	0.187	0.665	0.056
T5_32_4	0.250	0.617	0.080
T5_33_4	0.175	0.676	0.049
T5_34_4	0.051	0.821	-0.012
T5_37_4	0.153	0.696	0.040
T5_38_4	0.065	0.800	-0.001
T5_39_4	0.174	0.677	0.054
T5_43_4	0.106	0.745	0.018
T5_1_5	0.192	0.661	-0.097
T5_4_5	0.038	0.846	-0.015
T5_8_5	0.000	0.997	0.036
T5_9_5	0.075	0.784	-0.042
T5_10_5	0.045	0.833	-0.020
T5_13_5	0.014	0.908	0.012
T5_15_5	0.118	0.732	-0.065
T5_16_5	0.149	0.699	-0.080
T5_17_5	0.180	0.672	-0.093
T5_18_5	0.154	0.695	-0.082
T5_19_5	0.133	0.716	-0.072
T5_20_56.1	0.475	0.491	-0.135
T5_21_5	0.077	0.782	-0.043
T5_22_5	0.048	0.826	-0.023

T5_23_5	0.065	0.799	-0.035
T5_25_5	0.042	0.838	-0.018
T5_27_5	0.058	0.810	-0.099
T5_28_5	0.000	0.986	-0.003
T5_31_5	0.006	0.940	0.028
T5_32_5	0.001	0.974	-0.008
T5_34_5	0.000	0.988	-0.026
T5_35_5	0.000	0.989	0.010
T5_39_5	0.000	0.996	-0.022
T5_40_5	0.017	0.896	0.046
T5_41_5	0.009	0.924	0.035
T5_43_5	0.001	0.977	-0.030
T5_1_6	2.247	0.134	-0.297
T5_2_6	1.578	0.209	-0.214
T5_5_6	1.940	0.164	-0.261
T5_6_6	0.098	0.754	-0.069
T5_7_6	0.057	0.812	-0.044
T5_8_6	0.069	0.792	-0.052
T5_9_6	0.056	0.813	-0.044
T5_10_6	0.079	0.778	-0.058
T5_13_6	0.182	0.670	-0.107
T5_15_6	0.109	0.741	-0.075
T5_20_6	0.079	0.779	-0.058
T5_22_6	0.016	0.898	-0.006
T5_23_6	0.207	0.649	-0.117
T5_24_6	0.027	0.869	-0.018
T5_25_6	0.056	0.813	-0.043
T5_26_6	0.798	0.372	-0.135
T5_27_6	0.702	0.402	-0.113
T5_31_6	0.986	0.321	-0.166
T5_32_6	1.052	0.305	-0.181
T5_33_6	1.490	0.222	-0.247
T5_34_6	0.179	0.673	0.037
T5_36_6	1.432	0.232	-0.239
T5_38_6	0.630	0.427	-0.099
T5_40_6	0.736	0.391	-0.120
T5_41_6	1.120	0.290	-0.193
T5_42_6	0.725	0.395	-0.116
T5_43_6	0.991	0.319	-0.169

Table 49

Task 6 DIF: Male vs. female

ItemID	ChiSq	pvalue	EffectSize
T6_16_12	0.009	0.926	-0.013
T6_19_12	0.005	0.944	-0.018
T6_21_12	0.003	0.957	-0.017
T6_26_12	0.360	0.548	0.049
T6_41_12	0.001	0.973	-0.049
T6_17_23	0.093	0.760	0.020
T6_20_23	0.007	0.932	-0.010
T6_36_23	0.039	0.844	-0.024
T6_42_23	0.108	0.743	-0.044
T6_1_34	0.055	0.815	0.077
T6_5_34	0.022	0.882	-0.012
T6_10_34	0.000	0.997	0.009
T6_21_34	0.042	0.838	-0.020
T6_24_34	0.000	0.995	0.010
T6_12_3.1	0.111	0.740	-0.030
T6_40_34	0.020	0.888	0.099
T6_43_34	0.065	0.799	0.034
T6_27_45	0.883	0.348	-0.096
T6_28_45	0.035	0.852	0.072
T6_1_56	0.000	0.992	0.000
T6_2_56	0.000	0.994	0.004
T6_6_56	0.000	0.987	0.004
T6_18_56	0.008	0.930	0.019
T6_28_56	0.070	0.791	-0.056
T6_32_56	0.052	0.820	-0.053
T6_45_56	0.602	0.438	-0.132
T6_1_456	0.233	0.630	-0.041
T6_4_456	0.027	0.870	0.004
T6_8_456	0.001	0.973	0.028
T6_14_456	Inf	0.000	NaN
T6_22_456	0.007	0.933	0.020
T6_1_1	0.075	0.784	-0.004
T6_2_1	0.455	0.500	0.058
T6_3_1	0.454	0.500	0.060
T6_4_1	0.001	0.977	-0.010
T6_5_1	0.017	0.895	0.005
T6_6_1	0.024	0.876	0.008

T6_7_1	0.294	0.588	0.037
T6_8_1	0.000	1.000	-0.019
T6_9_1	0.002	0.967	-0.009
T6_11_1	0.015	0.903	0.003
T6_12_1	0.000	0.990	-0.013
T6_13_1	0.027	0.869	0.009
T6_14_1	0.030	0.862	0.011
T6_17_1	0.001	0.982	-0.011
T6_18_1	0.037	0.848	0.014
T6_19_12.1	0.005	0.944	-0.018
T6_20_1	0.039	0.843	0.015
T6_22_1	0.013	0.910	0.002
T6_23_1	0.010	0.921	-0.001
T6_24_1	0.029	0.865	0.010
T6_25_1	0.016	0.900	0.004
T6_27_1	0.088	0.767	0.022
T6_28_1	0.118	0.731	0.027
T6_29_1	0.090	0.764	0.018
T6_30_1	0.148	0.701	0.034
T6_31_1	0.099	0.753	0.025
T6_32_1	0.195	0.659	0.043
T6_34_1	0.011	0.918	-0.009
T6_35_1	0.138	0.711	0.032
T6_36_1	0.006	0.940	-0.011
T6_37_1	0.068	0.795	0.017
T6_39_1	0.048	0.827	0.008
T6_40_1	0.008	0.929	-0.006
T6_41_12.1	0.001	0.973	-0.049
T6_42_1	0.636	0.425	0.090
T6_43_1	0.014	0.907	-0.003
T6_45_1	0.134	0.715	0.034
T6_46_1	0.004	0.951	-0.007
T6_47_1	0.001	0.975	-0.029
T6_48_1	0.025	0.875	0.002
T6_1_2	0.127	0.722	0.029
T6_3_2	0.197	0.657	0.040
T6_4_2	0.026	0.872	-0.004
T6_5_2	0.001	0.972	-0.019
T6_7_2	0.000	0.988	-0.007
T6_8_2	0.000	0.997	-0.009
T6_10_2	0.044	0.834	0.022

T6_12_2	0.004	0.951	0.000
T6_14_2	0.040	0.841	-0.043
T6_15_2	0.027	0.870	-0.058
T6_16_2	0.067	0.795	0.029
T6_18_2	0.007	0.934	0.003
T6_19_2	0.007	0.934	-0.026
T6_22_2	0.050	0.823	0.025
T6_23_2	0.008	0.931	0.004
T6_26_2	0.000	0.999	-0.020
T6_28_2	0.006	0.939	-0.030
T6_29_2	0.071	0.791	0.027
T6_31_2	0.009	0.925	-0.034
T6_32_2	0.015	0.901	0.006
T6_35_2	0.000	0.991	-0.017
T6_38_2	0.001	0.970	-0.009
T6_39_2	0.003	0.956	-0.006
T6_40_2	0.009	0.923	0.000
T6_41_2	0.000	0.998	-0.019
T6_43_2	0.028	0.868	0.010
T6_44_2	0.001	0.971	-0.009
T6_45_2	0.000	0.995	-0.019
T6_46_2	0.212	0.646	0.054
T6_47_2	0.073	0.787	0.027
T6_49_2	0.063	0.802	-0.056
T6_2_3	0.034	0.853	0.038
T6_3_3	0.012	0.914	0.003
T6_4_3	0.000	0.996	-0.013
T6_8_3	0.000	0.999	-0.013
T6_9_3	0.169	0.681	0.070
T6_11_3	0.002	0.961	-0.006
T6_12_3	0.084	0.773	0.030
T6_13_3	0.000	0.999	-0.013
T6_15_3	0.070	0.792	0.027
T6_16_3	0.000	0.988	0.007
T6_17_3	0.010	0.919	0.002
T6_18_3	0.002	0.968	-0.007
T6_19_3	0.000	0.991	-0.015
T6_22_3	0.000	0.992	-0.014
T6_23_3	0.003	0.957	-0.005
T6_26_3	0.000	0.990	0.023
T6_27_3	0.026	0.871	-0.004

T6_28_3	0.101	0.750	-0.027
T6_29_3	0.030	0.863	0.051
T6_30_3	0.003	0.958	0.013
T6_32_3	0.172	0.678	-0.042
T6_33_3	0.001	0.982	0.030
T6_34_3	0.120	0.729	-0.032
T6_36_3	0.019	0.891	0.000
T6_37_3	0.006	0.936	0.010
T6_38_3	0.011	0.918	0.038
T6_39_3	0.025	0.876	-0.003
T6_44_3	0.175	0.676	-0.042
T6_45_3	0.000	0.996	0.027
T6_47_3	0.003	0.956	0.012
T6_2_4	0.003	0.956	0.065
T6_3_4	0.000	0.998	0.025
T6_5_4	0.001	0.974	0.020
T6_10_4	0.000	0.990	0.028
T6_11_4	0.009	0.926	0.012
T6_12_4	0.008	0.930	0.012
T6_16_4	0.021	0.886	0.054
T6_17_4	0.009	0.924	0.011
T6_18_4	0.025	0.875	0.051
T6_19_4	0.015	0.904	0.007
T6_20_4	0.007	0.933	0.062
T6_21_4	0.135	0.714	-0.029
T6_23_4	0.133	0.715	-0.030
T6_24_4	0.080	0.778	-0.018
T6_25_4	0.000	0.984	0.022
T6_26_4	0.479	0.489	-0.063
T6_29_4	0.080	0.777	-0.002
T6_31_4	0.031	0.860	0.015
T6_33_4	0.004	0.948	0.031
T6_34_4	0.023	0.881	0.019
T6_35_4	0.157	0.692	-0.018
T6_36_4	0.091	0.763	-0.004
T6_38_4	0.031	0.860	0.013
T6_40_4	0.000	0.993	0.041
T6_42_4	0.006	0.937	0.059
T6_43_4	0.002	0.966	0.036
T6_44_4	0.413	0.521	-0.057
T6_45_4	0.028	0.868	0.017

T6_46_4	0.000	0.985	0.040
T6_48_4	0.167	0.683	-0.020
T6_49_4	0.005	0.941	0.032
T6_3_5	0.005	0.947	-0.014
T6_7_5	0.007	0.932	-0.016
T6_8_5	0.011	0.917	0.017
T6_9_5	0.068	0.794	-0.041
T6_10_5	0.035	0.852	-0.031
T6_11_5	0.041	0.840	-0.034
T6_12_5	0.005	0.946	0.011
T6_13_5	0.000	0.993	-0.003
T6_15_5	0.017	0.895	-0.024
T6_16_5	0.002	0.968	-0.009
T6_17_5	0.000	1.000	0.001
T6_19_5	0.002	0.968	-0.010
T6_20_5	0.208	0.648	-0.071
T6_22_5	0.031	0.861	-0.030
T6_24_5	0.013	0.910	-0.021
T6_26_5	0.000	0.989	0.002
T6_27_5	0.017	0.895	-0.021
T6_29_5	0.040	0.842	-0.031
T6_30_5	0.004	0.951	-0.011
T6_31_5	0.007	0.933	-0.014
T6_33_5	0.001	0.972	0.010
T6_34_5	0.003	0.956	0.012
T6_35_5	0.012	0.914	-0.017
T6_36_5	0.011	0.917	0.020
T6_37_5	0.001	0.977	-0.006
T6_38_5	0.000	0.994	0.000
T6_43_5	0.015	0.903	-0.019
T6_46_5	0.007	0.934	-0.014
T6_47_5	0.016	0.900	0.023
T6_49_5	0.001	0.979	-0.005
T6_1_6	0.001	0.982	-0.014
T6_5_6	0.038	0.845	-0.040
T6_6_6	0.000	0.990	-0.004
T6_7_6	0.000	0.987	-0.003
T6_8_6	0.007	0.935	0.020
T6_9_6	0.033	0.857	-0.023
T6_10_6	0.000	0.999	0.003
T6_11_6	0.000	0.989	0.007

T6_12_6	0.000	0.985	0.011
T6_16_6	0.004	0.953	0.017
T6_20_6	0.000	0.995	0.009
T6_22_6	0.115	0.735	-0.046
T6_23_6	0.000	0.993	0.005
T6_24_6	0.023	0.879	-0.019
T6_25_6	0.000	0.992	0.010
T6_27_6	0.006	0.940	-0.027
T6_28_6	0.001	0.982	-0.009
T6_30_6	0.043	0.835	-0.045
T6_31_6	0.001	0.981	-0.019
T6_34_6	0.000	0.986	-0.018
T6_35_6	0.006	0.939	0.000
T6_36_6	0.023	0.880	0.010
T6_38_6	0.004	0.950	-0.025
T6_40_6	0.001	0.976	-0.007
T6_41_6	0.000	0.991	-0.013
T6_42_6	0.000	0.987	-0.008
T6_43_6	0.004	0.953	-0.001
T6_44_6	0.010	0.920	0.006
T6_45_6	0.076	0.782	-0.057
T6_46_6	0.014	0.907	-0.033
T6_47_6	0.029	0.865	0.015
T6_48_6	0.000	0.991	-0.018

Table 50

Task 6 DIF: White vs. Sample

ItemID	ChiSq	pvalue	EffectSize
T6_16_12	0.008	0.931	-0.042
T6_19_12	0.002	0.963	-0.018
T6_21_12	0.005	0.946	-0.038
T6_26_12	0.229	0.632	-0.078
T6_41_12	0.007	0.931	0.011
T6_17_23	0.000	0.993	-0.027
T6_20_23	0.001	0.973	-0.034
T6_36_23	0.096	0.756	0.102
T6_42_23	0.026	0.871	0.026
T6_1_34	0.148	0.701	0.097
T6_5_34	0.030	0.863	-0.035
T6_10_34	0.000	0.995	-0.005
T6_21_34	0.001	0.972	0.001
T6_24_34	0.002	0.962	-0.016
T6_12_3.1	0.081	0.776	-0.003
T6_40_34	0.000	0.992	0.097
T6_43_34	0.007	0.934	0.080
T6_27_45	0.123	0.726	-0.051
T6_28_45	0.060	0.807	-0.031
T6_1_56	0.039	0.844	-0.011
T6_2_56	0.008	0.927	-0.100
T6_6_56	0.013	0.911	-0.023
T6_18_56	0.156	0.693	0.020
T6_28_56	0.064	0.800	-0.048
T6_32_56	0.094	0.760	0.040
T6_45_56	0.008	0.928	0.009
T6_1_456	0.092	0.762	-0.024
T6_4_456	0.020	0.889	-0.045
T6_8_456	0.075	0.784	-0.030
T6_14_456	Inf	0.000	NaN
T6_22_456	0.030	0.863	-0.044
T6_1_1	0.093	0.760	0.056
T6_2_1	0.047	0.829	-0.013
T6_3_1	0.257	0.612	0.082
T6_4_1	0.029	0.864	-0.007
T6_5_1	0.000	0.993	0.017
T6_6_1	0.011	0.916	0.002

T6_7_1	0.233	0.629	-0.056
T6_8_1	0.001	0.980	0.014
T6_9_1	0.011	0.916	0.002
T6_11_1	0.062	0.803	-0.020
T6_12_1	0.033	0.856	-0.008
T6_13_1	0.100	0.752	-0.028
T6_14_1	0.012	0.914	0.001
T6_17_1	0.005	0.942	0.008
T6_18_1	0.041	0.839	-0.011
T6_19_12.1	0.002	0.963	-0.018
T6_20_1	0.014	0.907	0.000
T6_22_1	0.019	0.892	-0.002
T6_23_1	0.006	0.937	0.006
T6_24_1	0.016	0.899	0.000
T6_25_1	0.012	0.912	0.001
T6_27_1	0.065	0.798	-0.044
T6_28_1	0.034	0.853	0.025
T6_29_1	0.460	0.498	0.087
T6_30_1	0.180	0.672	-0.070
T6_31_1	0.208	0.648	0.055
T6_32_1	0.021	0.884	0.016
T6_34_1	0.065	0.799	-0.043
T6_35_1	0.000	0.999	-0.005
T6_36_1	0.143	0.705	-0.061
T6_37_1	0.074	0.786	-0.046
T6_39_1	0.020	0.886	-0.029
T6_40_1	0.161	0.689	0.051
T6_41_12.1	0.007	0.931	0.011
T6_42_1	0.386	0.534	0.081
T6_43_1	0.096	0.757	0.037
T6_45_1	0.018	0.894	0.017
T6_46_1	0.283	0.595	0.067
T6_47_1	0.062	0.803	0.028
T6_48_1	0.013	0.909	0.009
T6_1_2	0.089	0.766	0.001
T6_3_2	0.235	0.628	0.030
T6_4_2	0.002	0.969	-0.057
T6_5_2	0.197	0.657	0.021
T6_7_2	0.161	0.688	0.014
T6_8_2	0.048	0.826	-0.013
T6_10_2	0.028	0.868	-0.020

T6_12_2	0.018	0.894	-0.026
T6_14_2	0.293	0.589	0.036
T6_15_2	0.021	0.884	-0.025
T6_16_2	0.047	0.828	-0.012
T6_18_2	0.201	0.654	0.021
T6_19_2	0.180	0.672	0.018
T6_22_2	0.256	0.613	0.031
T6_23_2	0.136	0.713	0.011
T6_26_2	0.019	0.891	0.027
T6_28_2	0.032	0.859	-0.026
T6_29_2	0.026	0.871	-0.022
T6_31_2	0.086	0.769	0.050
T6_32_2	0.002	0.968	-0.005
T6_35_2	0.061	0.804	-0.036
T6_38_2	0.024	0.876	0.029
T6_39_2	0.007	0.932	0.019
T6_40_2	0.000	0.988	0.009
T6_41_2	0.002	0.968	-0.004
T6_43_2	0.043	0.835	-0.030
T6_44_2	0.210	0.647	-0.068
T6_45_2	0.002	0.962	0.014
T6_46_2	0.004	0.951	-0.008
T6_47_2	0.196	0.658	0.073
T6_49_2	0.024	0.876	0.029
T6_2_3	0.217	0.641	-0.003
T6_3_3	0.007	0.933	0.004
T6_4_3	0.010	0.921	0.003
T6_8_3	0.000	0.993	0.023
T6_9_3	0.103	0.748	0.015
T6_11_3	0.002	0.969	0.028
T6_12_3	0.001	0.976	0.012
T6_13_3	0.002	0.964	0.011
T6_15_3	0.044	0.835	-0.014
T6_16_3	0.689	0.407	-0.062
T6_17_3	0.030	0.863	-0.009
T6_18_3	0.037	0.848	-0.011
T6_19_3	0.001	0.977	0.013
T6_22_3	0.011	0.919	0.002
T6_23_3	0.002	0.965	0.011
T6_26_3	0.090	0.765	-0.004
T6_27_3	0.071	0.790	0.002

T6_28_3	0.484	0.487	-0.064
T6_29_3	0.021	0.885	0.020
T6_30_3	0.001	0.973	0.051
T6_32_3	0.071	0.790	0.002
T6_33_3	0.003	0.954	0.034
T6_34_3	0.038	0.846	0.013
T6_36_3	0.047	0.828	0.079
T6_37_3	0.238	0.626	-0.033
T6_38_3	0.407	0.524	-0.056
T6_39_3	0.067	0.796	0.002
T6_44_3	0.002	0.968	0.036
T6_45_3	0.219	0.640	-0.031
T6_47_3	0.055	0.815	0.005
T6_2_4	0.023	0.879	-0.008
T6_3_4	0.001	0.981	-0.032
T6_5_4	0.026	0.873	0.001
T6_10_4	0.001	0.973	-0.018
T6_11_4	0.000	0.988	-0.021
T6_12_4	0.033	0.855	0.004
T6_16_4	0.005	0.942	0.010
T6_17_4	0.011	0.918	-0.008
T6_18_4	0.037	0.848	-0.012
T6_19_4	0.044	0.835	0.008
T6_20_4	0.024	0.878	0.048
T6_21_4	0.000	0.992	-0.021
T6_23_4	0.003	0.960	-0.016
T6_24_4	0.010	0.921	-0.008
T6_25_4	0.007	0.933	-0.011
T6_26_4	0.171	0.679	-0.022
T6_29_4	0.144	0.705	-0.014
T6_31_4	0.535	0.465	-0.067
T6_33_4	0.333	0.564	-0.044
T6_34_4	0.140	0.709	-0.014
T6_35_4	0.278	0.598	-0.037
T6_36_4	0.153	0.696	-0.015
T6_38_4	0.244	0.621	-0.033
T6_40_4	0.243	0.622	-0.029
T6_42_4	0.014	0.907	0.028
T6_43_4	0.047	0.829	0.012
T6_44_4	0.811	0.368	-0.093
T6_45_4	0.018	0.893	0.023

T6_46_4	0.019	0.890	0.024
T6_48_4	0.141	0.708	-0.014
T6_49_4	0.112	0.738	-0.006
T6_3_5	0.000	0.996	-0.003
T6_7_5	0.001	0.977	-0.008
T6_8_5	0.011	0.915	0.017
T6_9_5	0.003	0.954	-0.029
T6_10_5	0.001	0.974	0.006
T6_11_5	0.000	0.988	0.004
T6_12_5	0.000	0.987	-0.001
T6_13_5	0.008	0.930	0.014
T6_15_5	0.000	0.995	-0.003
T6_16_5	0.016	0.898	-0.020
T6_17_5	0.005	0.943	0.012
T6_19_5	0.017	0.896	0.021
T6_20_5	0.000	0.991	-0.040
T6_22_5	0.003	0.956	-0.011
T6_24_5	0.001	0.983	0.004
T6_26_5	0.008	0.930	-0.054
T6_27_5	0.046	0.831	-0.004
T6_29_5	0.077	0.781	0.008
T6_30_5	0.011	0.915	-0.020
T6_31_5	0.006	0.940	-0.051
T6_33_5	0.052	0.820	-0.002
T6_34_5	0.089	0.765	0.010
T6_35_5	0.000	0.989	-0.031
T6_36_5	0.021	0.884	-0.014
T6_37_5	0.000	0.993	-0.035
T6_38_5	0.075	0.784	0.005
T6_43_5	0.000	0.997	-0.036
T6_46_5	0.091	0.763	0.009
T6_47_5	0.068	0.794	0.004
T6_49_5	0.014	0.907	-0.057
T6_1_6	0.018	0.894	-0.033
T6_5_6	0.029	0.864	0.019
T6_6_6	0.035	0.851	0.020
T6_7_6	0.010	0.922	0.005
T6_8_6	0.037	0.849	-0.010
T6_9_6	0.115	0.734	0.014
T6_10_6	0.005	0.943	-0.028
T6_11_6	0.052	0.819	-0.004

T6_12_6	0.007	0.936	-0.026
T6_16_6	0.048	0.826	-0.005
T6_20_6	0.040	0.842	-0.008
T6_22_6	0.119	0.730	0.014
T6_23_6	0.040	0.842	-0.008
T6_24_6	0.176	0.675	0.026
T6_25_6	0.005	0.945	-0.028
T6_27_6	0.005	0.944	0.019
T6_28_6	0.030	0.862	0.059
T6_30_6	0.036	0.849	0.001
T6_31_6	0.000	0.990	0.030
T6_34_6	0.090	0.764	0.077
T6_35_6	0.003	0.959	0.041
T6_36_6	0.051	0.821	-0.005
T6_38_6	0.001	0.981	0.025
T6_40_6	0.000	0.993	0.035
T6_41_6	0.036	0.849	-0.002
T6_42_6	0.009	0.926	0.014
T6_43_6	0.014	0.904	0.051
T6_44_6	0.002	0.969	0.020
T6_45_6	0.071	0.790	-0.012
T6_46_6	0.010	0.921	0.048
T6_47_6	0.024	0.878	0.054
T6_48_6	0.016	0.900	0.011

Table 51

Task 6 DIF: Black vs. Sample

ItemID	ChiSq	pvalue	EffectSize
T6_16_12	0.110	0.740	0.063
T6_19_12	0.023	0.881	0.037
T6_21_12	0.000	0.997	0.012
T6_26_12	0.112	0.738	0.058
T6_41_12	0.088	0.767	-0.044
T6_17_23	0.008	0.928	-0.007
T6_20_23	0.024	0.878	0.034
T6_36_23	0.286	0.593	-0.103
T6_42_23	0.115	0.735	0.036
T6_1_34	0.038	0.845	-0.058
T6_5_34	0.100	0.752	0.034
T6_10_34	0.000	0.991	-0.018
T6_21_34	0.011	0.915	0.003
T6_24_34	0.004	0.951	-0.029
T6_12_3.1	0.007	0.934	-0.022
T6_40_34	0.138	0.710	-0.114
T6_43_34	0.065	0.798	-0.090
T6_27_45	0.010	0.921	0.051
T6_28_45	0.001	0.979	0.022
T6_1_56	0.008	0.927	0.041
T6_2_56	0.051	0.821	0.060
T6_6_56	0.003	0.960	0.013
T6_18_56	0.040	0.842	-0.011
T6_28_56	0.017	0.896	0.047
T6_32_56	0.120	0.729	-0.030
T6_45_56	0.037	0.847	-0.008
T6_1_456	0.007	0.935	0.010
T6_4_456	0.041	0.839	0.057
T6_8_456	0.010	0.922	0.010
T6_14_456	Inf	0.000	NaN
T6_22_456	0.007	0.933	0.010
T6_1_1	0.056	0.813	-0.038
T6_2_1	0.039	0.843	0.028
T6_3_1	0.134	0.715	-0.057
T6_4_1	0.024	0.878	0.008
T6_5_1	0.000	0.987	-0.017
T6_6_1	0.023	0.879	0.009

T6_7_1	0.007	0.933	0.013
T6_8_1	0.002	0.967	-0.008
T6_9_1	0.011	0.915	0.003
T6_11_1	0.060	0.806	0.024
T6_12_1	0.089	0.765	0.030
T6_13_1	0.116	0.733	0.037
T6_14_1	0.008	0.928	0.000
T6_17_1	0.000	0.997	-0.015
T6_18_1	0.062	0.804	0.022
T6_19_12.1	0.023	0.881	0.037
T6_20_1	0.013	0.909	0.004
T6_22_1	0.067	0.796	0.026
T6_23_1	0.012	0.911	0.003
T6_24_1	0.028	0.867	0.011
T6_25_1	0.023	0.879	0.009
T6_27_1	0.013	0.911	0.032
T6_28_1	0.075	0.784	-0.030
T6_29_1	0.740	0.390	-0.109
T6_30_1	0.000	0.990	0.020
T6_31_1	0.366	0.545	-0.068
T6_32_1	0.215	0.643	-0.056
T6_34_1	0.018	0.894	-0.006
T6_35_1	0.131	0.718	-0.035
T6_36_1	0.003	0.958	0.023
T6_37_1	0.000	0.994	0.013
T6_39_1	0.002	0.962	0.008
T6_40_1	0.319	0.572	-0.068
T6_41_12.1	0.088	0.767	-0.044
T6_42_1	0.361	0.548	-0.075
T6_43_1	0.192	0.661	-0.048
T6_45_1	0.178	0.674	-0.053
T6_46_1	0.404	0.525	-0.076
T6_47_1	0.357	0.550	-0.071
T6_48_1	0.045	0.832	-0.014
T6_1_2	0.004	0.951	0.005
T6_3_2	0.014	0.908	-0.003
T6_4_2	0.024	0.878	0.046
T6_5_2	0.007	0.936	0.012
T6_7_2	0.127	0.722	-0.029
T6_8_2	0.000	0.990	0.023
T6_10_2	0.030	0.863	-0.002

T6_12_2	0.010	0.920	0.010
T6_14_2	0.108	0.743	-0.026
T6_15_2	0.002	0.964	0.028
T6_16_2	0.019	0.891	0.004
T6_18_2	0.137	0.711	-0.030
T6_19_2	0.130	0.719	-0.029
T6_22_2	0.164	0.685	-0.037
T6_23_2	0.008	0.929	0.011
T6_26_2	0.002	0.961	-0.001
T6_28_2	0.094	0.759	0.039
T6_29_2	0.109	0.742	0.042
T6_31_2	0.036	0.850	-0.043
T6_32_2	0.031	0.859	0.020
T6_35_2	0.276	0.599	0.072
T6_38_2	0.025	0.875	-0.038
T6_39_2	0.026	0.871	-0.039
T6_40_2	0.026	0.872	0.017
T6_41_2	0.005	0.945	0.001
T6_43_2	0.018	0.894	0.011
T6_44_2	0.114	0.735	0.044
T6_45_2	0.010	0.920	-0.031
T6_46_2	0.003	0.956	0.001
T6_47_2	0.337	0.561	-0.104
T6_49_2	0.019	0.891	0.012
T6_2_3	0.382	0.537	0.068
T6_3_3	0.019	0.890	0.006
T6_4_3	0.000	0.996	-0.015
T6_8_3	0.012	0.913	-0.038
T6_9_3	0.000	0.988	-0.026
T6_11_3	0.000	0.991	-0.018
T6_12_3	0.002	0.961	-0.008
T6_13_3	0.000	0.991	-0.014
T6_15_3	0.055	0.815	0.020
T6_16_3	0.066	0.798	0.017
T6_17_3	0.029	0.866	0.010
T6_18_3	0.076	0.782	0.026
T6_19_3	0.004	0.950	-0.007
T6_22_3	0.006	0.937	-0.004
T6_23_3	0.000	0.993	-0.020
T6_26_3	0.008	0.927	-0.023
T6_27_3	0.007	0.935	0.009

T6_28_3	0.063	0.802	0.036
T6_29_3	0.026	0.873	-0.035
T6_30_3	0.126	0.723	-0.063
T6_32_3	0.040	0.842	0.027
T6_33_3	0.020	0.889	0.018
T6_34_3	0.000	0.999	-0.003
T6_36_3	0.064	0.801	-0.047
T6_37_3	0.003	0.955	0.006
T6_38_3	0.073	0.788	0.039
T6_39_3	0.000	0.989	-0.011
T6_44_3	0.021	0.885	-0.031
T6_45_3	0.000	0.988	-0.006
T6_47_3	0.010	0.920	0.013
T6_2_4	0.141	0.708	0.022
T6_3_4	0.016	0.899	0.024
T6_5_4	0.001	0.978	-0.005
T6_10_4	0.000	0.996	0.000
T6_11_4	0.000	0.985	-0.004
T6_12_4	0.000	0.999	-0.001
T6_16_4	0.063	0.803	-0.002
T6_17_4	0.000	0.998	0.000
T6_18_4	0.149	0.699	0.022
T6_19_4	0.007	0.935	0.017
T6_20_4	0.000	0.997	-0.039
T6_21_4	0.001	0.971	0.009
T6_23_4	0.027	0.870	-0.026
T6_24_4	0.012	0.911	-0.018
T6_25_4	0.006	0.936	-0.013
T6_26_4	0.117	0.732	0.017
T6_29_4	0.220	0.639	0.034
T6_31_4	0.311	0.577	0.048
T6_33_4	0.264	0.607	0.040
T6_34_4	0.140	0.708	0.020
T6_35_4	0.228	0.633	0.036
T6_36_4	0.178	0.673	0.026
T6_38_4	0.468	0.494	0.068
T6_40_4	0.387	0.534	0.057
T6_42_4	0.015	0.904	-0.021
T6_43_4	0.087	0.769	0.006
T6_44_4	0.585	0.444	0.080
T6_45_4	0.004	0.947	-0.028

T6_46_4	0.040	0.843	-0.009
T6_48_4	0.020	0.887	-0.016
T6_49_4	0.082	0.775	0.005
T6_3_5	0.001	0.973	-0.020
T6_7_5	0.000	0.992	-0.027
T6_8_5	0.007	0.935	-0.012
T6_9_5	0.000	0.990	0.044
T6_10_5	0.001	0.971	-0.036
T6_11_5	0.013	0.909	-0.048
T6_12_5	0.012	0.914	-0.009
T6_13_5	0.000	0.998	-0.031
T6_15_5	0.000	0.992	-0.024
T6_16_5	0.008	0.929	0.028
T6_17_5	0.000	0.990	-0.024
T6_19_5	0.000	0.986	-0.023
T6_20_5	0.062	0.804	0.080
T6_22_5	0.000	0.984	-0.023
T6_24_5	0.019	0.891	-0.004
T6_26_5	0.000	0.990	0.071
T6_27_5	0.123	0.726	0.014
T6_29_5	0.439	0.508	-0.038
T6_30_5	0.070	0.792	0.028
T6_31_5	0.006	0.939	0.084
T6_33_5	0.039	0.843	0.038
T6_34_5	0.027	0.870	0.041
T6_35_5	0.160	0.689	0.004
T6_36_5	0.037	0.847	0.039
T6_37_5	0.023	0.881	0.041
T6_38_5	0.061	0.806	0.030
T6_43_5	0.002	0.967	0.063
T6_46_5	0.166	0.684	0.006
T6_47_5	0.084	0.772	0.022
T6_49_5	0.022	0.883	0.044
T6_1_6	0.087	0.768	0.053
T6_5_6	0.001	0.974	-0.003
T6_6_6	0.025	0.875	-0.021
T6_7_6	0.054	0.817	-0.031
T6_8_6	0.048	0.826	0.014
T6_9_6	0.066	0.797	0.008
T6_10_6	0.000	0.995	0.055
T6_11_6	0.051	0.821	0.014

T6_12_6	0.000	0.994	0.047
T6_16_6	0.012	0.914	0.032
T6_20_6	0.012	0.913	0.032
T6_22_6	0.110	0.740	-0.004
T6_23_6	0.008	0.930	0.035
T6_24_6	0.228	0.633	-0.027
T6_25_6	0.001	0.972	0.043
T6_27_6	0.025	0.874	-0.022
T6_28_6	0.001	0.979	-0.054
T6_30_6	0.054	0.817	-0.011
T6_31_6	0.001	0.978	-0.042
T6_34_6	0.002	0.964	-0.056
T6_35_6	0.008	0.929	-0.032
T6_36_6	0.130	0.719	0.011
T6_38_6	0.027	0.870	-0.020
T6_40_6	0.000	0.991	-0.049
T6_41_6	0.156	0.693	0.018
T6_42_6	0.040	0.841	-0.013
T6_43_6	0.004	0.948	-0.035
T6_44_6	0.137	0.711	0.014
T6_45_6	0.111	0.739	0.006
T6_46_6	0.001	0.980	-0.041
T6_47_6	0.002	0.969	-0.036
T6_48_6	0.011	0.918	-0.030

Table 52

Task 6 DIF: Latinx vs. Sample

ItemID	ChiSq	pvalue	EffectSize
T6_16_12	0.037	0.849	0.023
T6_19_12	0.000	0.997	-0.041
T6_21_12	0.045	0.832	0.033
T6_26_12	0.134	0.715	0.033
T6_41_12	0.433	0.510	0.129
T6_17_23	0.039	0.844	0.050
T6_20_23	0.060	0.807	0.064
T6_36_23	0.287	0.592	0.068
T6_42_23	0.323	0.570	0.077
T6_1_34	0.301	0.583	-0.176
T6_5_34	0.445	0.505	-0.148
T6_10_34	0.160	0.689	-0.055
T6_21_34	0.204	0.652	-0.077
T6_24_34	0.016	0.898	0.039
T6_12_3.1	0.230	0.632	0.102
T6_40_34	0.327	0.567	-0.014
T6_43_34	0.243	0.622	-0.037
T6_27_45	0.233	0.629	0.005
T6_28_45	0.146	0.703	-0.023
T6_1_56	0.252	0.616	-0.071
T6_2_56	0.000	0.987	0.085
T6_6_56	0.000	0.989	0.100
T6_18_56	0.579	0.447	-0.160
T6_28_56	0.034	0.855	0.245
T6_32_56	0.065	0.799	0.053
T6_45_56	0.186	0.666	-0.008
T6_1_456	0.444	0.505	-0.015
T6_4_456	1.108	0.293	-0.151
T6_8_456	0.106	0.745	0.112
T6_14_456	Inf	0.000	NaN
T6_22_456	0.029	0.866	0.165
T6_1_1	0.038	0.845	-0.034
T6_2_1	0.067	0.796	-0.014
T6_3_1	0.086	0.769	0.018
T6_4_1	0.027	0.871	0.027
T6_5_1	0.012	0.914	0.007
T6_6_1	0.004	0.953	-0.008

T6_7_1	0.612	0.434	0.168
T6_8_1	0.011	0.917	0.006
T6_9_1	0.010	0.919	0.004
T6_11_1	0.037	0.847	0.035
T6_12_1	0.010	0.919	-0.084
T6_13_1	0.002	0.962	-0.013
T6_14_1	0.019	0.892	0.017
T6_17_1	0.029	0.865	0.026
T6_18_1	0.004	0.948	-0.006
T6_19_12.1	0.000	0.997	-0.041
T6_20_1	0.044	0.834	0.041
T6_22_1	0.002	0.961	-0.012
T6_23_1	0.000	0.987	-0.023
T6_24_1	0.000	0.984	-0.046
T6_25_1	0.036	0.849	0.033
T6_27_1	0.208	0.649	0.105
T6_28_1	0.100	0.752	0.061
T6_29_1	0.004	0.949	-0.023
T6_30_1	0.104	0.747	0.061
T6_31_1	0.048	0.826	0.021
T6_32_1	0.228	0.633	0.107
T6_34_1	0.031	0.861	0.001
T6_35_1	0.042	0.838	0.006
T6_36_1	0.002	0.966	-0.035
T6_37_1	0.000	0.995	-0.048
T6_39_1	0.028	0.867	0.008
T6_40_1	0.071	0.790	0.040
T6_41_12.1	0.433	0.510	0.129
T6_42_1	0.001	0.983	-0.034
T6_43_1	0.003	0.955	-0.029
T6_45_1	0.171	0.679	0.085
T6_46_1	0.000	0.988	-0.043
T6_47_1	0.105	0.746	0.054
T6_48_1	0.050	0.824	0.023
T6_1_2	0.010	0.922	-0.009
T6_3_2	0.004	0.951	-0.019
T6_4_2	0.071	0.790	0.039
T6_5_2	0.042	0.838	-0.087
T6_7_2	0.015	0.901	0.044
T6_8_2	0.045	0.832	-0.090
T6_10_2	0.000	0.986	-0.003

T6_12_2	0.002	0.969	0.015
T6_14_2	0.001	0.981	-0.005
T6_15_2	0.000	0.997	-0.048
T6_16_2	0.001	0.977	-0.006
T6_18_2	0.002	0.966	0.016
T6_19_2	0.000	0.990	-0.001
T6_22_2	0.001	0.983	0.008
T6_23_2	0.009	0.924	-0.052
T6_26_2	0.001	0.977	-0.050
T6_28_2	0.001	0.974	-0.044
T6_29_2	0.111	0.739	0.078
T6_31_2	0.080	0.778	0.064
T6_32_2	0.036	0.850	0.031
T6_35_2	0.171	0.680	0.105
T6_38_2	0.057	0.811	0.050
T6_39_2	0.007	0.933	-0.005
T6_40_2	0.051	0.822	0.041
T6_41_2	0.027	0.870	0.022
T6_43_2	0.003	0.961	-0.015
T6_44_2	0.134	0.715	0.090
T6_45_2	0.000	0.996	-0.055
T6_46_2	0.032	0.859	0.026
T6_47_2	0.112	0.738	0.080
T6_49_2	0.043	0.837	-0.122
T6_2_3	0.001	0.971	-0.118
T6_3_3	0.000	0.993	0.000
T6_4_3	0.000	0.993	-0.007
T6_8_3	0.001	0.980	0.005
T6_9_3	0.001	0.977	-0.073
T6_11_3	0.000	0.993	-0.030
T6_12_3	0.001	0.978	0.006
T6_13_3	0.001	0.980	-0.012
T6_15_3	0.000	0.998	-0.026
T6_16_3	0.123	0.726	0.035
T6_17_3	0.000	0.984	-0.021
T6_18_3	0.000	0.997	-0.026
T6_19_3	0.004	0.947	-0.049
T6_22_3	0.000	0.984	0.004
T6_23_3	0.000	0.983	0.003
T6_26_3	0.057	0.812	0.017
T6_27_3	0.001	0.973	-0.049

T6_28_3	0.010	0.920	-0.028
T6_29_3	0.053	0.817	0.018
T6_30_3	0.001	0.979	-0.051
T6_32_3	0.001	0.974	-0.099
T6_33_3	0.006	0.939	-0.112
T6_34_3	0.026	0.873	-0.013
T6_36_3	0.012	0.914	-0.124
T6_37_3	0.001	0.974	-0.096
T6_38_3	0.064	0.800	0.026
T6_39_3	0.008	0.928	-0.029
T6_44_3	0.000	0.999	-0.064
T6_45_3	0.078	0.780	0.034
T6_47_3	0.316	0.574	0.123
T6_2_4	0.048	0.828	-0.098
T6_3_4	0.181	0.670	-0.050
T6_5_4	0.059	0.808	0.014
T6_10_4	0.000	0.985	0.091
T6_11_4	0.016	0.900	0.053
T6_12_4	0.086	0.769	-0.004
T6_16_4	0.176	0.675	-0.171
T6_17_4	0.108	0.742	-0.017
T6_18_4	0.125	0.724	-0.147
T6_19_4	0.390	0.532	-0.118
T6_20_4	0.060	0.807	-0.106
T6_21_4	0.001	0.975	0.083
T6_23_4	0.007	0.931	0.065
T6_24_4	0.084	0.773	-0.005
T6_25_4	0.007	0.934	0.068
T6_26_4	0.161	0.689	0.031
T6_29_4	0.016	0.899	-0.058
T6_31_4	0.021	0.885	-0.055
T6_33_4	0.011	0.918	-0.066
T6_34_4	0.025	0.875	-0.052
T6_35_4	0.057	0.812	-0.024
T6_36_4	0.012	0.913	-0.066
T6_38_4	0.035	0.852	-0.038
T6_40_4	0.001	0.977	-0.116
T6_42_4	0.000	0.994	-0.130
T6_43_4	0.028	0.868	-0.052
T6_44_4	0.265	0.607	0.071
T6_45_4	0.013	0.908	-0.067

T6_46_4	0.001	0.972	-0.141
T6_48_4	0.068	0.794	-0.018
T6_49_4	0.030	0.862	-0.048
T6_3_5	0.001	0.980	0.086
T6_7_5	0.000	0.990	0.082
T6_8_5	0.026	0.873	-0.001
T6_9_5	0.000	0.997	0.014
T6_10_5	0.000	0.994	0.074
T6_11_5	0.009	0.926	0.108
T6_12_5	0.016	0.901	0.012
T6_13_5	0.001	0.976	0.064
T6_15_5	0.001	0.971	0.042
T6_16_5	0.064	0.801	-0.064
T6_17_5	0.014	0.907	0.016
T6_19_5	0.004	0.947	0.030
T6_20_5	0.156	0.693	-0.112
T6_22_5	0.018	0.895	0.122
T6_24_5	0.047	0.829	-0.019
T6_26_5	0.006	0.941	-0.072
T6_27_5	0.001	0.980	-0.040
T6_29_5	0.001	0.970	-0.033
T6_30_5	0.007	0.932	0.004
T6_31_5	0.001	0.971	-0.060
T6_33_5	0.002	0.965	-0.064
T6_34_5	0.001	0.982	-0.030
T6_35_5	0.130	0.718	0.095
T6_36_5	0.001	0.980	-0.033
T6_37_5	0.002	0.962	-0.062
T6_38_5	0.010	0.921	-0.080
T6_43_5	0.000	0.990	-0.021
T6_46_5	0.020	0.888	-0.096
T6_47_5	0.000	0.990	-0.044
T6_49_5	0.004	0.951	-0.069
T6_1_6	0.243	0.622	0.058
T6_5_6	0.161	0.689	0.082
T6_6_6	0.079	0.779	0.125
T6_7_6	0.139	0.710	0.082
T6_8_6	0.001	0.983	0.037
T6_9_6	0.066	0.798	-0.058
T6_10_6	0.002	0.966	0.016
T6_11_6	0.003	0.960	0.013

T6_12_6	0.013	0.911	-0.008
T6_16_6	0.040	0.841	-0.038
T6_20_6	0.042	0.838	-0.039
T6_22_6	0.063	0.801	-0.055
T6_23_6	0.072	0.789	-0.060
T6_24_6	0.057	0.812	-0.051
T6_25_6	0.008	0.927	-0.001
T6_27_6	0.083	0.774	0.076
T6_28_6	0.012	0.914	0.132
T6_30_6	0.009	0.923	0.138
T6_31_6	0.001	0.982	0.170
T6_34_6	0.325	0.569	-0.028
T6_35_6	0.016	0.900	0.128
T6_36_6	0.103	0.748	0.055
T6_38_6	0.039	0.844	0.104
T6_40_6	0.000	0.992	0.202
T6_41_6	0.512	0.474	-0.080
T6_42_6	0.107	0.744	0.058
T6_43_6	0.084	0.771	0.069
T6_44_6	1.229	0.268	-0.215
T6_45_6	0.078	0.780	0.078
T6_46_6	0.061	0.804	0.088
T6_47_6	0.414	0.520	-0.052
T6_48_6	0.000	0.995	0.202

Table 53

Task 7 DIF: Male vs. female

ItemID	ChiSq	pvalue	EffectSize
T7_6_12	0.000	0.987	-0.011
T7_8_12	0.011	0.917	0.006
T7_22_12	0.114	0.736	-0.031
T7_29_12	0.039	0.843	-0.011
T7_29_12.1	0.021	0.886	0.020
T7_4_23	0.057	0.811	0.011
T7_12_23	0.032	0.859	0.005
T7_15_23	0.062	0.803	0.016
T7_17_23	0.009	0.925	0.059
T7_26_23	0.039	0.844	0.010
T7_2_34	0.001	0.981	0.003
T7_9_34	0.037	0.847	0.045
T7_15_34	0.000	0.988	0.003
T7_29_34	0.000	0.989	0.072
T7_31_34	0.304	0.582	-0.024
T7_16_45	0.005	0.942	0.012
T7_1_56	0.377	0.539	0.084
T7_15_56	0.001	0.979	-0.002
T7_17_56	0.444	0.505	0.051
T7_9_456	0.056	0.813	0.047
T7_15_456	0.030	0.862	-0.019
T7_1_1	0.007	0.933	-0.020
T7_2_1	0.000	0.995	-0.003
T7_3_1	0.127	0.721	-0.037
T7_4_1	0.003	0.954	0.006
T7_5_1	0.019	0.890	-0.028
T7_7_1	0.000	0.998	-0.008
T7_8_12.1	0.011	0.917	0.006
T7_9_1	0.000	0.996	-0.009
T7_10_1	0.012	0.913	0.013
T7_12_1	0.017	0.898	-0.027
T7_13_1	0.058	0.809	-0.018
T7_14_1	0.345	0.557	-0.072
T7_15_1	0.001	0.980	-0.012
T7_16_1	0.114	0.736	-0.029
T7_17_1	0.165	0.685	-0.039
T7_18_1	0.052	0.820	-0.012

T7_19_1	0.212	0.645	-0.047
T7_20_1	0.292	0.589	-0.058
T7_21_1	0.369	0.543	-0.069
T7_22_12.1	0.114	0.736	-0.031
T7_25_1	0.068	0.794	-0.015
T7_26_1	0.196	0.658	-0.044
T7_27_1	0.193	0.661	-0.042
T7_28_1	0.023	0.879	0.002
T7_29_12.2	0.039	0.843	-0.011
T7_30_1	0.161	0.688	-0.038
T7_31_1	0.035	0.852	-0.003
T7_33_1	0.033	0.856	-0.003
T7_1_2	0.004	0.950	0.006
T7_2_2	0.096	0.756	-0.058
T7_5_2	0.152	0.697	0.050
T7_6_2	0.000	0.992	-0.007
T7_7_2	0.012	0.912	0.014
T7_8_2	0.001	0.980	0.000
T7_9_2	0.001	0.976	0.001
T7_11_2	0.000	0.996	-0.002
T7_13_2	0.024	0.878	0.019
T7_16_2	0.000	0.991	0.001
T7_19_2	0.001	0.980	-0.011
T7_20_2	0.033	0.857	-0.034
T7_21_2	0.012	0.914	-0.020
T7_22_2	0.007	0.936	-0.018
T7_24_2	0.015	0.904	-0.023
T7_27_2	0.031	0.860	-0.032
T7_28_2	0.012	0.912	0.018
T7_32_2	0.064	0.801	-0.045
T7_33_2	0.003	0.956	-0.015
T7_1_3	0.075	0.784	0.025
T7_3_3	0.068	0.795	0.023
T7_4_3	0.003	0.959	-0.030
T7_5_3	0.097	0.756	0.029
T7_6_3	0.060	0.807	-0.018
T7_8_3	0.056	0.814	0.018
T7_10_3	0.002	0.970	-0.027
T7_11_3	0.000	0.999	0.019
T7_14_3	0.230	0.631	-0.053
T7_16_3	0.000	0.984	0.033

T7_17_3	0.008	0.930	0.056
T7_19_3	0.228	0.633	-0.039
T7_20_3	0.002	0.962	0.051
T7_22_3	0.040	0.841	0.006
T7_24_3	0.024	0.877	0.010
T7_27_3	0.032	0.858	0.012
T7_28_3	0.009	0.924	0.021
T7_30_3	0.000	0.986	0.027
T7_31_34.1	0.304	0.582	-0.024
T7_32_3	0.248	0.618	-0.041
T7_33_3	0.010	0.923	0.023
T7_2_4	0.074	0.785	-0.027
T7_4_4	0.030	0.862	-0.012
T7_5_4	0.000	0.987	0.021
T7_6_4	0.034	0.854	-0.014
T7_7_4	0.007	0.933	0.021
T7_10_4	0.024	0.878	-0.009
T7_11_4	0.100	0.752	-0.016
T7_13_4	0.001	0.973	0.009
T7_14_4	0.001	0.974	0.009
T7_17_4	0.000	0.997	0.021
T7_18_4	0.004	0.951	0.028
T7_19_4	0.059	0.808	-0.021
T7_20_4	0.000	0.992	0.015
T7_21_4	0.003	0.959	0.008
T7_24_4	0.000	0.997	0.018
T7_26_4	0.066	0.798	-0.022
T7_27_4	0.001	0.980	0.025
T7_29_4	0.045	0.832	-0.018
T7_32_4	0.084	0.772	-0.030
T7_33_4	0.096	0.757	-0.032
T7_2_5	0.009	0.926	0.008
T7_3_5	0.008	0.929	0.008
T7_4_5	0.757	0.384	0.104
T7_7_5	0.015	0.904	0.013
T7_9_5	0.033	0.856	-0.036
T7_10_5	0.004	0.951	0.004
T7_11_5	0.000	0.992	-0.023
T7_12_5	0.328	0.567	0.063
T7_13_5	0.010	0.921	0.009
T7_18_5	0.065	0.799	0.023

T7_19_5	0.003	0.958	-0.008
T7_20_5	0.015	0.904	-0.040
T7_23_5	0.051	0.821	0.017
T7_24_5	0.092	0.762	0.030
T7_25_5	0.030	0.862	-0.048
T7_26_5	0.148	0.700	0.042
T7_30_5	0.030	0.864	0.010
T7_31_5	0.057	0.811	0.020
T7_32_5	0.013	0.909	0.002
T7_2_6	0.001	0.970	0.007
T7_3_6	0.002	0.963	-0.011
T7_4_6	0.065	0.799	0.039
T7_7_6	0.000	0.992	-0.003
T7_8_6	0.024	0.878	0.023
T7_9_6	0.007	0.932	0.014
T7_10_6	0.426	0.514	0.062
T7_14_6	0.004	0.948	-0.025
T7_15_6	0.298	0.585	0.047
T7_16_6	0.001	0.974	-0.028
T7_17_6	0.012	0.914	-0.017
T7_21_6	0.000	0.988	-0.036
T7_22_6	0.003	0.956	-0.024
T7_24_6	0.007	0.934	-0.049
T7_25_6	0.020	0.887	-0.011
T7_27_6	0.053	0.818	0.001
T7_28_6	0.058	0.810	0.004
T7_29_6	0.017	0.898	-0.057
T7_30_6	0.008	0.927	-0.019
T7_31_6	0.010	0.921	-0.018
T7_32_6	0.001	0.976	-0.043

Table 54

Task 7 DIF: White vs. Sample

ItemID	ChiSq	pvalue	EffectSize
T7_6_12	0.075	0.784	-0.020
T7_8_12	0.066	0.797	-0.018
T7_22_12	0.421	0.516	-0.136
T7_29_12	5.959	0.015	0.185
T7_29_12.1	0.842	0.359	0.054
T7_4_23	0.829	0.363	0.095
T7_12_23	0.067	0.795	-0.003
T7_15_23	0.001	0.979	0.046
T7_17_23	0.003	0.953	-0.217
T7_26_23	0.101	0.751	-0.168
T7_2_34	1.247	0.264	-0.085
T7_9_34	1.397	0.237	-0.043
T7_15_34	1.176	0.278	-0.079
T7_29_34	1.061	0.303	0.114
T7_31_34	0.302	0.583	0.048
T7_16_45	0.000	0.995	0.096
T7_1_56	0.070	0.792	0.017
T7_15_56	0.000	0.988	0.064
T7_17_56	0.525	0.469	-0.056
T7_9_456	0.002	0.963	0.086
T7_15_456	0.707	0.400	-0.043
T7_1_1	0.205	0.651	-0.022
T7_2_1	0.012	0.915	0.031
T7_3_1	0.819	0.365	0.084
T7_4_1	0.446	0.504	-0.056
T7_5_1	0.004	0.949	0.063
T7_7_1	0.139	0.709	-0.010
T7_8_12.1	0.066	0.797	-0.018
T7_9_1	0.484	0.487	-0.060
T7_10_1	0.295	0.587	-0.037
T7_12_1	0.022	0.883	0.026
T7_13_1	0.056	0.814	-0.032
T7_14_1	0.024	0.878	-0.043
T7_15_1	0.120	0.729	-0.003
T7_16_1	0.710	0.400	0.022
T7_17_1	2.219	0.136	0.124
T7_18_1	1.427	0.232	0.080

T7_19_1	0.151	0.698	-0.052
T7_20_1	2.385	0.123	0.124
T7_21_1	0.551	0.458	0.004
T7_22_12.1	0.421	0.516	-0.136
T7_25_1	1.272	0.259	0.059
T7_26_1	1.172	0.279	0.056
T7_27_1	0.271	0.603	-0.038
T7_28_1	0.042	0.837	-0.087
T7_29_12.2	5.959	0.015	0.185
T7_30_1	0.067	0.796	-0.072
T7_31_1	0.001	0.983	-0.117
T7_33_1	0.025	0.875	-0.095
T7_1_2	0.101	0.750	0.026
T7_2_2	1.417	0.234	0.070
T7_5_2	0.577	0.448	0.002
T7_6_2	0.003	0.953	-0.015
T7_7_2	0.080	0.778	0.021
T7_8_2	0.016	0.900	-0.005
T7_9_2	0.006	0.938	-0.012
T7_11_2	0.005	0.946	-0.039
T7_13_2	0.000	0.991	-0.021
T7_16_2	1.368	0.242	0.097
T7_19_2	0.220	0.639	-0.021
T7_20_2	0.029	0.864	-0.068
T7_21_2	0.701	0.402	0.043
T7_22_2	0.005	0.946	-0.111
T7_24_2	1.299	0.254	0.092
T7_27_2	0.203	0.652	-0.021
T7_28_2	0.221	0.638	-0.011
T7_32_2	0.080	0.778	-0.049
T7_33_2	0.199	0.656	-0.023
T7_1_3	0.633	0.426	-0.061
T7_3_3	0.602	0.438	-0.058
T7_4_3	0.042	0.837	0.032
T7_5_3	0.364	0.547	-0.030
T7_6_3	0.384	0.535	0.078
T7_8_3	0.048	0.827	0.029
T7_10_3	0.001	0.978	0.073
T7_11_3	0.014	0.905	-0.043
T7_14_3	0.060	0.807	-0.064
T7_16_3	0.019	0.891	-0.073

T7_17_3	0.013	0.909	-0.074
T7_19_3	1.455	0.228	0.105
T7_20_3	0.149	0.700	-0.033
T7_22_3	0.005	0.943	-0.071
T7_24_3	1.708	0.191	0.117
T7_27_3	0.336	0.562	0.001
T7_28_3	0.360	0.549	0.001
T7_30_3	1.314	0.252	0.093
T7_31_34.1	0.302	0.583	0.048
T7_32_3	1.229	0.268	0.091
T7_33_3	0.001	0.975	-0.085
T7_2_4	0.000	0.990	0.021
T7_4_4	0.097	0.756	-0.025
T7_5_4	0.002	0.968	0.035
T7_6_4	0.010	0.921	0.008
T7_7_4	0.107	0.744	0.133
T7_10_4	0.017	0.896	0.003
T7_11_4	0.807	0.369	-0.069
T7_13_4	0.006	0.940	0.040
T7_14_4	0.000	0.988	0.031
T7_17_4	0.000	0.990	0.050
T7_18_4	0.000	0.987	0.047
T7_19_4	0.024	0.876	0.022
T7_20_4	0.188	0.665	-0.025
T7_21_4	0.002	0.965	0.060
T7_24_4	0.139	0.709	-0.014
T7_26_4	0.001	0.976	0.058
T7_27_4	0.002	0.961	0.040
T7_29_4	0.358	0.550	-0.050
T7_32_4	0.205	0.651	-0.028
T7_33_4	0.413	0.521	-0.056
T7_2_5	0.350	0.554	-0.037
T7_3_5	0.456	0.499	-0.051
T7_4_5	0.469	0.493	-0.015
T7_7_5	0.511	0.475	-0.057
T7_9_5	0.008	0.928	0.041
T7_10_5	0.012	0.913	0.038
T7_11_5	0.011	0.917	0.074
T7_12_5	0.800	0.371	-0.054
T7_13_5	0.000	0.987	0.052
T7_18_5	0.000	0.985	0.037

T7_19_5	0.020	0.889	0.055
T7_20_5	0.078	0.780	0.076
T7_23_5	0.003	0.955	0.020
T7_24_5	0.001	0.983	0.036
T7_25_5	0.001	0.972	0.039
T7_26_5	0.000	0.998	0.032
T7_30_5	0.022	0.883	0.005
T7_31_5	0.001	0.979	0.025
T7_32_5	0.028	0.866	0.004
T7_2_6	0.042	0.838	0.037
T7_3_6	0.036	0.850	0.035
T7_4_6	0.000	0.992	0.008
T7_7_6	0.000	0.990	-0.001
T7_8_6	0.005	0.946	0.016
T7_9_6	0.008	0.927	-0.013
T7_10_6	0.005	0.946	0.053
T7_14_6	0.019	0.891	0.063
T7_15_6	0.021	0.884	0.014
T7_16_6	0.019	0.890	0.057
T7_17_6	0.000	0.997	0.032
T7_21_6	0.028	0.868	0.061
T7_22_6	0.000	0.991	0.032
T7_24_6	0.033	0.856	0.063
T7_25_6	0.000	0.991	0.033
T7_27_6	0.277	0.599	0.116
T7_28_6	0.017	0.895	0.010
T7_29_6	0.020	0.888	0.057
T7_30_6	0.090	0.765	0.082
T7_31_6	0.001	0.978	0.026
T7_32_6	0.000	0.993	0.029

Table 55

Task 7 DIF: Black vs. Sample

ItemID	ChiSq	pvalue	EffectSize
T7_6_12	0.036	0.850	0.011
T7_8_12	0.090	0.765	0.028
T7_22_12	0.206	0.650	0.146
T7_29_12	5.979	0.015	-0.208
T7_29_12.1	0.494	0.482	-0.045
T7_4_23	0.339	0.561	-0.063
T7_12_23	0.000	0.989	-0.035
T7_15_23	0.000	0.992	-0.035
T7_17_23	0.045	0.832	0.188
T7_26_23	0.106	0.745	0.164
T7_2_34	1.303	0.254	0.081
T7_9_34	1.393	0.238	0.029
T7_15_34	1.231	0.267	0.075
T7_29_34	0.784	0.376	-0.071
T7_31_34	0.563	0.453	-0.057
T7_16_45	0.000	0.990	-0.064
T7_1_56	0.157	0.692	-0.001
T7_15_56	0.001	0.983	-0.064
T7_17_56	0.372	0.542	0.045
T7_9_456	0.039	0.844	-0.094
T7_15_456	1.239	0.266	0.059
T7_1_1	0.136	0.713	0.023
T7_2_1	0.000	0.993	-0.035
T7_3_1	1.192	0.275	-0.096
T7_4_1	0.253	0.615	0.045
T7_5_1	0.000	0.988	-0.038
T7_7_1	0.017	0.896	-0.014
T7_8_12.1	0.090	0.765	0.028
T7_9_1	0.177	0.674	0.032
T7_10_1	0.141	0.707	0.025
T7_12_1	0.000	0.995	-0.036
T7_13_1	0.069	0.793	0.052
T7_14_1	0.214	0.643	0.016
T7_15_1	0.006	0.941	-0.025
T7_16_1	1.201	0.273	-0.057
T7_17_1	2.851	0.091	-0.151
T7_18_1	1.462	0.227	-0.079

T7_19_1	0.117	0.732	0.066
T7_20_1	3.479	0.062	-0.171
T7_21_1	0.736	0.391	-0.017
T7_22_12.1	0.206	0.650	0.146
T7_25_1	1.851	0.174	-0.090
T7_26_1	1.738	0.187	-0.089
T7_27_1	0.130	0.718	0.070
T7_28_1	0.080	0.777	0.084
T7_29_12.2	5.979	0.015	-0.208
T7_30_1	0.295	0.587	0.033
T7_31_1	0.000	1.000	0.130
T7_33_1	0.067	0.795	0.087
T7_1_2	0.035	0.852	-0.016
T7_2_2	0.376	0.540	-0.015
T7_5_2	0.238	0.626	0.007
T7_6_2	0.009	0.926	-0.001
T7_7_2	0.114	0.736	-0.039
T7_8_2	0.000	0.998	0.014
T7_9_2	0.004	0.948	0.029
T7_11_2	0.020	0.889	0.041
T7_13_2	0.000	0.984	0.022
T7_16_2	0.834	0.361	-0.080
T7_19_2	0.112	0.738	0.018
T7_20_2	0.003	0.956	0.062
T7_21_2	0.574	0.449	-0.054
T7_22_2	0.000	0.990	0.074
T7_24_2	0.728	0.394	-0.070
T7_27_2	0.060	0.806	0.029
T7_28_2	0.226	0.634	-0.011
T7_32_2	0.037	0.847	0.039
T7_33_2	0.102	0.749	0.018
T7_1_3	0.393	0.531	0.049
T7_3_3	0.392	0.531	0.049
T7_4_3	0.059	0.808	-0.013
T7_5_3	0.251	0.617	0.029
T7_6_3	1.273	0.259	-0.123
T7_8_3	0.039	0.843	-0.019
T7_10_3	0.000	0.989	-0.053
T7_11_3	0.000	0.985	0.067
T7_14_3	0.051	0.821	0.100
T7_16_3	0.001	0.976	0.111

T7_17_3	0.017	0.898	0.094
T7_19_3	2.080	0.149	-0.125
T7_20_3	0.167	0.683	0.050
T7_22_3	0.104	0.747	0.057
T7_24_3	2.337	0.126	-0.131
T7_27_3	0.438	0.508	0.006
T7_28_3	0.334	0.563	0.024
T7_30_3	1.005	0.316	-0.055
T7_31_34.1	0.563	0.453	-0.057
T7_32_3	1.852	0.174	-0.113
T7_33_3	0.001	0.971	0.108
T7_2_4	0.004	0.953	-0.037
T7_4_4	0.335	0.563	0.045
T7_5_4	0.001	0.977	-0.043
T7_6_4	0.052	0.819	-0.010
T7_7_4	0.011	0.918	-0.126
T7_10_4	0.085	0.770	-0.001
T7_11_4	1.170	0.280	0.072
T7_13_4	0.000	0.992	-0.049
T7_14_4	0.009	0.926	-0.033
T7_17_4	0.002	0.967	-0.062
T7_18_4	0.008	0.928	-0.035
T7_19_4	0.072	0.789	-0.008
T7_20_4	0.222	0.638	0.027
T7_21_4	0.007	0.933	-0.037
T7_24_4	0.029	0.865	-0.020
T7_26_4	0.011	0.918	-0.072
T7_27_4	0.006	0.938	-0.039
T7_29_4	0.400	0.527	0.053
T7_32_4	0.251	0.617	0.032
T7_33_4	0.416	0.519	0.054
T7_2_5	0.516	0.473	0.039
T7_3_5	0.830	0.362	0.070
T7_4_5	0.257	0.612	0.000
T7_7_5	0.877	0.349	0.074
T7_9_5	0.000	0.992	-0.080
T7_10_5	0.049	0.826	-0.040
T7_11_5	0.207	0.649	-0.151
T7_12_5	0.607	0.436	0.049
T7_13_5	0.013	0.910	-0.057
T7_18_5	0.037	0.847	-0.032

T7_19_5	0.066	0.797	-0.042
T7_20_5	0.091	0.763	-0.048
T7_23_5	0.006	0.939	-0.014
T7_24_5	0.267	0.605	-0.082
T7_25_5	0.001	0.971	-0.007
T7_26_5	0.108	0.743	-0.052
T7_30_5	0.000	0.987	0.006
T7_31_5	0.090	0.764	-0.049
T7_32_5	0.005	0.943	-0.015
T7_2_6	0.023	0.879	-0.016
T7_3_6	0.077	0.782	-0.035
T7_4_6	0.002	0.969	0.002
T7_7_6	0.013	0.911	-0.010
T7_8_6	0.018	0.894	-0.013
T7_9_6	0.000	0.991	0.006
T7_10_6	0.030	0.862	-0.021
T7_14_6	0.008	0.930	-0.067
T7_15_6	0.099	0.753	0.002
T7_16_6	0.000	0.997	-0.056
T7_17_6	0.070	0.792	-0.015
T7_21_6	0.010	0.920	-0.041
T7_22_6	0.083	0.774	-0.011
T7_24_6	0.002	0.961	-0.048
T7_25_6	0.108	0.742	-0.004
T7_27_6	0.024	0.878	-0.084
T7_28_6	0.155	0.694	0.007
T7_29_6	0.000	0.988	-0.059
T7_30_6	0.001	0.976	-0.066
T7_31_6	0.006	0.939	-0.044
T7_32_6	0.016	0.899	-0.037

Table 56

Task 7 DIF: Latinx vs. Sample

ItemID	ChiSq	pvalue	EffectSize
T7_6_12	0.295	0.587	0.088
T7_8_12	0.389	0.533	0.115
T7_22_12	0.021	0.884	-0.069
T7_29_12	0.027	0.869	0.051
T7_29_12.1	0.060	0.806	-0.063
T7_4_23	0.019	0.891	-0.013
T7_12_23	0.294	0.588	0.089
T7_15_23	0.101	0.750	0.013
T7_17_23	0.002	0.962	0.042
T7_26_23	0.063	0.802	-0.035
T7_2_34	0.000	0.992	0.027
T7_9_34	0.321	0.571	0.134
T7_15_34	0.004	0.953	-0.021
T7_29_34	0.040	0.841	-0.126
T7_31_34	0.048	0.827	-0.124
T7_16_45	0.015	0.901	-0.118
T7_1_56	0.061	0.806	-0.081
T7_15_56	0.007	0.935	-0.020
T7_17_56	0.744	0.388	-0.184
T7_9_456	0.001	0.982	0.083
T7_15_456	0.152	0.696	-0.054
T7_1_1	0.110	0.740	0.051
T7_2_1	0.064	0.801	0.023
T7_3_1	0.600	0.439	0.159
T7_4_1	0.161	0.688	0.073
T7_5_1	0.014	0.906	-0.023
T7_7_1	0.231	0.631	0.098
T7_8_12.1	0.389	0.533	0.115
T7_9_1	0.232	0.630	0.098
T7_10_1	0.083	0.773	0.036
T7_12_1	0.013	0.909	-0.023
T7_13_1	0.040	0.841	-0.047
T7_14_1	0.238	0.625	0.056
T7_15_1	0.037	0.849	0.001
T7_16_1	0.039	0.843	0.039
T7_17_1	0.031	0.860	0.034
T7_18_1	0.071	0.790	0.061

T7_19_1	0.048	0.827	0.046
T7_20_1	0.098	0.754	0.077
T7_21_1	0.014	0.906	0.015
T7_22_12.1	0.021	0.884	-0.069
T7_25_1	0.004	0.951	-0.008
T7_26_1	0.164	0.685	0.107
T7_27_1	0.022	0.882	-0.105
T7_28_1	0.000	0.986	-0.025
T7_29_12.2	0.027	0.869	0.051
T7_30_1	0.016	0.901	0.016
T7_31_1	0.011	0.916	0.005
T7_33_1	0.017	0.897	0.014
T7_1_2	0.027	0.869	0.035
T7_2_2	0.055	0.815	-0.093
T7_5_2	0.001	0.971	0.022
T7_6_2	0.001	0.979	-0.014
T7_7_2	0.031	0.861	0.036
T7_8_2	0.001	0.972	-0.035
T7_9_2	0.000	0.987	-0.052
T7_11_2	0.000	0.998	-0.046
T7_13_2	0.010	0.920	-0.079
T7_16_2	0.009	0.925	-0.016
T7_19_2	0.017	0.895	-0.023
T7_20_2	0.000	0.999	0.021
T7_21_2	0.001	0.980	0.025
T7_22_2	0.002	0.968	0.060
T7_24_2	0.032	0.857	-0.041
T7_27_2	0.026	0.871	-0.037
T7_28_2	0.000	0.993	0.021
T7_32_2	0.026	0.872	-0.034
T7_33_2	0.036	0.850	-0.045
T7_1_3	0.143	0.706	0.070
T7_3_3	0.137	0.711	0.067
T7_4_3	0.006	0.938	-0.109
T7_5_3	0.050	0.823	0.016
T7_6_3	0.102	0.749	0.072
T7_8_3	0.010	0.922	-0.025
T7_10_3	0.001	0.982	-0.052
T7_11_3	0.001	0.972	-0.044
T7_14_3	0.018	0.892	-0.105
T7_16_3	0.000	0.997	0.020

T7_17_3	0.040	0.841	-0.051
T7_19_3	0.022	0.881	-0.035
T7_20_3	0.003	0.959	0.001
T7_22_3	0.001	0.973	0.021
T7_24_3	0.012	0.912	-0.025
T7_27_3	0.001	0.981	0.028
T7_28_3	0.012	0.915	-0.022
T7_30_3	0.040	0.842	-0.056
T7_31_34.1	0.048	0.827	-0.124
T7_32_3	0.006	0.937	-0.012
T7_33_3	0.000	0.990	0.022
T7_2_4	0.030	0.862	0.008
T7_4_4	0.253	0.615	-0.105
T7_5_4	0.021	0.886	0.022
T7_6_4	0.153	0.696	-0.066
T7_7_4	0.165	0.684	-0.147
T7_10_4	0.029	0.865	0.011
T7_11_4	0.000	0.999	0.023
T7_13_4	0.046	0.830	0.000
T7_14_4	0.031	0.861	0.012
T7_17_4	0.000	0.998	-0.061
T7_18_4	0.059	0.809	0.022
T7_19_4	0.000	0.993	-0.053
T7_20_4	0.129	0.720	0.067
T7_21_4	0.015	0.903	-0.127
T7_24_4	0.102	0.750	0.050
T7_26_4	0.002	0.963	-0.095
T7_27_4	0.003	0.954	-0.102
T7_29_4	0.141	0.707	0.072
T7_32_4	0.098	0.755	0.051
T7_33_4	0.146	0.702	0.075
T7_2_5	0.011	0.916	0.060
T7_3_5	0.003	0.956	-0.019
T7_4_5	0.265	0.607	0.117
T7_7_5	0.002	0.962	-0.017
T7_9_5	0.001	0.978	0.009
T7_10_5	0.001	0.982	0.008
T7_11_5	0.433	0.511	0.161
T7_12_5	0.227	0.634	0.107
T7_13_5	0.014	0.906	-0.039
T7_18_5	0.025	0.875	-0.014

T7_19_5	0.006	0.936	-0.038
T7_20_5	0.000	0.984	-0.086
T7_23_5	0.035	0.851	-0.003
T7_24_5	0.307	0.579	0.118
T7_25_5	0.038	0.846	-0.004
T7_26_5	0.125	0.724	0.052
T7_30_5	0.152	0.696	0.064
T7_31_5	0.089	0.766	0.033
T7_32_5	0.084	0.773	0.030
T7_2_6	0.060	0.806	-0.090
T7_3_6	0.003	0.958	-0.026
T7_4_6	0.000	0.996	-0.010
T7_7_6	0.001	0.970	-0.021
T7_8_6	0.022	0.883	-0.058
T7_9_6	0.011	0.916	-0.044
T7_10_6	0.594	0.441	-0.054
T7_14_6	0.086	0.770	0.123
T7_15_6	1.069	0.301	-0.144
T7_16_6	0.109	0.741	0.095
T7_17_6	0.293	0.589	0.018
T7_21_6	0.177	0.674	0.060
T7_22_6	0.797	0.372	-0.106
T7_24_6	0.298	0.585	0.014
T7_25_6	0.750	0.387	-0.101
T7_27_6	0.275	0.600	0.025
T7_28_6	0.525	0.469	-0.052
T7_29_6	0.034	0.854	0.148
T7_30_6	0.345	0.557	-0.001
T7_31_6	0.145	0.704	0.072
T7_32_6	0.264	0.608	0.029

Table 57

Task 8 DIF: Male vs. female

ItemID	ChiSq	pvalue	EffectSize
T8_16_34	0.000	0.988	0.005
T8_18_34	0.010	0.919	0.027
T8_20_34	0.053	0.817	0.047
T8_21_34	0.015	0.904	0.030
T8_37_34	0.357	0.551	-0.035
T8_46_34	0.325	0.569	-0.025
T8_31_45	0.398	0.528	-0.061
T8_43_45	0.319	0.572	-0.055
T8_4_56	0.004	0.951	0.006
T8_5_56	0.002	0.965	-0.014
T8_8_56	0.021	0.886	0.018
T8_27_56	0.111	0.739	0.028
T8_39_56	0.001	0.983	-0.033
T8_43_56	0.113	0.737	-0.071
T8_9_456	0.032	0.858	-0.011
T8_13_456	0.023	0.880	0.035
T8_20_456	0.002	0.961	0.009
T8_24_456	0.057	0.812	-0.017
T8_25_456	0.122	0.727	-0.037
T8_1_3	0.029	0.864	0.014
T8_2_3	0.032	0.858	0.016
T8_3_3	0.029	0.864	0.014
T8_4_3	0.045	0.832	0.021
T8_5_3	0.010	0.922	0.003
T8_6_3	0.000	0.989	-0.009
T8_8_3	0.051	0.821	-0.022
T8_9_3	0.273	0.602	-0.068
T8_10_3	0.032	0.859	-0.016
T8_11_3	0.018	0.895	-0.010
T8_12_3	0.017	0.896	0.008
T8_13_3	0.047	0.828	0.021
T8_14_3	0.000	0.990	-0.015
T8_15_3	0.005	0.946	-0.001
T8_17_3	0.026	0.872	0.013
T8_19_3	0.023	0.880	0.011
T8_22_3	0.051	0.822	0.022
T8_23_3	0.006	0.940	0.000

T8_24_3	0.053	0.818	0.023
T8_25_3	0.018	0.894	0.008
T8_26_3	0.222	0.638	-0.045
T8_27_3	0.100	0.752	-0.024
T8_28_3	0.011	0.918	0.005
T8_29_3	0.175	0.676	-0.039
T8_30_3	0.569	0.451	-0.085
T8_32_3	0.202	0.653	-0.043
T8_33_3	0.106	0.744	-0.025
T8_34_3	0.491	0.483	-0.078
T8_36_3	0.209	0.648	-0.045
T8_40_3	0.107	0.743	-0.025
T8_41_3	0.138	0.711	-0.031
T8_42_3	0.028	0.866	-0.003
T8_43_3	0.401	0.527	-0.069
T8_44_3	0.400	0.527	-0.067
T8_45_3	0.002	0.963	0.032
T8_47_3	0.190	0.663	-0.041
T8_48_3	0.038	0.846	-0.007
T8_49_3	0.009	0.924	0.008
T8_1_4	0.330	0.566	-0.031
T8_2_4	0.385	0.535	-0.037
T8_3_4	0.700	0.403	-0.069
T8_4_4	0.073	0.787	-0.021
T8_5_4	0.040	0.842	-0.010
T8_6_4	0.034	0.855	-0.007
T8_7_4	0.046	0.830	-0.012
T8_8_4	0.000	0.999	0.021
T8_10_4	0.102	0.750	-0.027
T8_12_4	0.078	0.780	-0.022
T8_15_4	0.004	0.949	0.044
T8_16_4	0.032	0.858	-0.007
T8_17_4	0.002	0.968	0.015
T8_21_4	0.018	0.894	0.001
T8_23_4	0.048	0.827	-0.012
T8_26_4	0.050	0.824	-0.001
T8_27_4	0.013	0.911	0.015
T8_29_4	0.020	0.887	0.007
T8_32_4	0.230	0.632	-0.041
T8_33_4	0.136	0.713	-0.026
T8_34_4	0.230	0.631	-0.040

T8_35_4	0.086	0.769	-0.014
T8_38_4	0.043	0.837	0.000
T8_41_4	0.036	0.850	0.002
T8_44_4	0.183	0.668	-0.035
T8_45_4	0.052	0.820	-0.005
T8_46_4	0.000	0.998	0.031
T8_47_4	0.061	0.805	-0.007
T8_48_4	0.138	0.711	-0.027
T8_49_4	0.192	0.661	-0.037
T8_1_5	0.031	0.859	0.018
T8_2_5	0.004	0.953	0.003
T8_3_56	0.051	0.822	0.014
T8_6_5	0.011	0.918	-0.022
T8_7_5	0.001	0.976	-0.011
T8_8_56.1	0.021	0.886	0.018
T8_10_5	0.014	0.907	-0.025
T8_11_5	0.018	0.893	-0.031
T8_13_5	0.005	0.943	0.008
T8_14_5	0.030	0.864	-0.033
T8_15_5	0.014	0.906	0.015
T8_18_5	0.002	0.962	-0.014
T8_19_5	0.006	0.941	-0.018
T8_20_5	0.000	0.992	-0.001
T8_22_5	0.000	0.989	-0.009
T8_23_5	0.000	0.998	-0.008
T8_25_5	0.014	0.907	-0.025
T8_26_5	0.009	0.926	0.014
T8_29_5	0.029	0.866	-0.031
T8_31_5	0.002	0.963	-0.014
T8_33_5	0.321	0.571	0.080
T8_35_5	0.004	0.951	-0.017
T8_36_5	0.000	0.987	0.001
T8_38_5	0.118	0.731	-0.054
T8_40_5	0.003	0.959	-0.013
T8_41_5	0.001	0.977	-0.011
T8_42_5	0.092	0.761	-0.052
T8_44_5	0.003	0.960	0.007
T8_45_5	0.000	0.987	-0.009
T8_46_5	0.014	0.907	-0.023
T8_48_5	0.031	0.861	-0.032
T8_49_5	0.013	0.909	-0.022

T8_1_6	0.074	0.786	0.025
T8_2_6	0.060	0.807	0.021
T8_5_6	0.002	0.969	0.008
T8_7_6	0.037	0.847	0.014
T8_9_6	0.000	0.997	0.002
T8_10_6	0.026	0.871	0.027
T8_15_6	0.001	0.972	0.007
T8_17_6	0.001	0.977	0.007
T8_19_6	0.006	0.939	0.013
T8_20_6	0.014	0.908	0.020
T8_21_6	0.000	0.994	0.004
T8_22_6	0.000	0.992	-0.005
T8_23_6	0.004	0.947	0.012
T8_24_6	0.006	0.940	0.013
T8_25_6	0.023	0.879	0.025
T8_28_6	0.046	0.831	0.016
T8_29_6	0.029	0.865	0.010
T8_30_6	0.062	0.804	0.020
T8_31_6	0.085	0.770	0.027
T8_32_6	0.000	0.990	-0.018
T8_34_6	0.045	0.833	0.017
T8_35_6	0.001	0.972	-0.025
T8_36_6	0.005	0.943	-0.031
T8_37_6	0.039	0.843	0.014
T8_38_6	0.048	0.826	0.016
T8_39_6	0.001	0.979	-0.025
T8_40_6	0.006	0.941	-0.005
T8_42_6	0.013	0.911	0.002
T8_43_6	0.000	0.988	-0.022
T8_44_6	0.002	0.964	-0.010
T8_46_6	0.030	0.862	0.009
T8_49_6	0.057	0.811	0.020

Table 58

Task 8 DIF: White vs. Sample

ItemID	ChiSq	pvalue	EffectSize
T8_16_34	0.126	0.722	-0.051
T8_18_34	0.033	0.856	-0.026
T8_20_34	0.056	0.814	-0.034
T8_21_34	0.006	0.940	-0.010
T8_37_34	0.138	0.710	0.074
T8_46_34	0.095	0.758	0.066
T8_31_45	0.233	0.630	-0.088
T8_43_45	0.885	0.347	-0.151
T8_4_56	0.597	0.440	0.064
T8_5_56	0.301	0.583	0.030
T8_8_56	0.359	0.549	0.036
T8_27_56	0.052	0.820	0.041
T8_39_56	0.264	0.608	0.082
T8_43_56	0.251	0.617	0.077
T8_9_456	0.572	0.450	0.041
T8_13_456	0.617	0.432	-0.023
T8_20_456	0.003	0.957	-0.066
T8_24_456	0.230	0.632	-0.004
T8_25_456	1.195	0.274	0.090
T8_1_3	0.112	0.738	-0.027
T8_2_3	0.097	0.755	-0.024
T8_3_3	0.112	0.738	-0.027
T8_4_3	0.089	0.766	-0.021
T8_5_3	0.114	0.735	-0.027
T8_6_3	0.058	0.810	-0.013
T8_8_3	0.003	0.953	0.024
T8_9_3	0.033	0.856	0.045
T8_10_3	0.026	0.872	-0.015
T8_11_3	0.033	0.856	-0.015
T8_12_3	0.111	0.739	-0.027
T8_13_3	0.066	0.797	-0.015
T8_14_3	0.069	0.794	-0.016
T8_15_3	0.047	0.829	-0.009
T8_17_3	0.056	0.812	-0.011
T8_19_3	0.082	0.775	-0.019
T8_22_3	0.144	0.705	-0.034
T8_23_3	0.129	0.720	-0.030

T8_24_3	0.038	0.846	-0.006
T8_25_3	0.012	0.915	0.007
T8_26_3	0.021	0.886	0.012
T8_27_3	0.125	0.724	0.042
T8_28_3	0.100	0.751	0.037
T8_29_3	0.139	0.709	0.045
T8_30_3	0.050	0.824	0.023
T8_32_3	0.032	0.857	-0.039
T8_33_3	0.237	0.627	0.061
T8_34_3	0.013	0.911	0.008
T8_36_3	0.001	0.973	-0.004
T8_40_3	0.238	0.626	0.064
T8_41_3	0.033	0.857	0.016
T8_42_3	0.125	0.723	0.043
T8_43_3	0.030	0.864	0.017
T8_44_3	0.434	0.510	0.087
T8_45_3	0.005	0.942	0.002
T8_47_3	0.063	0.802	0.029
T8_48_3	0.157	0.692	0.048
T8_49_3	0.056	0.812	0.027
T8_1_4	0.037	0.847	0.037
T8_2_4	0.017	0.897	-0.016
T8_3_4	0.005	0.946	0.019
T8_4_4	0.081	0.776	0.025
T8_5_4	0.017	0.898	0.001
T8_6_4	0.034	0.854	0.009
T8_7_4	0.025	0.874	0.005
T8_8_4	0.031	0.861	0.007
T8_10_4	0.067	0.797	0.020
T8_12_4	0.032	0.858	0.009
T8_15_4	0.035	0.852	-0.024
T8_16_4	0.027	0.870	0.006
T8_17_4	0.005	0.941	-0.008
T8_21_4	0.014	0.905	-0.041
T8_23_4	0.010	0.922	-0.004
T8_26_4	0.234	0.629	-0.044
T8_27_4	0.041	0.839	-0.002
T8_29_4	0.007	0.935	0.042
T8_32_4	0.003	0.956	0.038
T8_33_4	0.080	0.778	-0.016
T8_34_4	0.220	0.639	-0.042

T8_35_4	0.141	0.707	-0.030
T8_38_4	0.014	0.905	0.009
T8_41_4	0.333	0.564	-0.059
T8_44_4	0.151	0.697	-0.032
T8_45_4	0.003	0.956	0.018
T8_46_4	0.160	0.689	-0.032
T8_47_4	0.028	0.867	0.001
T8_48_4	0.154	0.695	-0.033
T8_49_4	0.255	0.614	-0.049
T8_1_5	0.228	0.633	0.026
T8_2_5	0.301	0.584	0.035
T8_3_56	0.000	0.985	0.001
T8_6_5	0.006	0.939	0.012
T8_7_5	0.017	0.896	-0.024
T8_8_56.1	0.359	0.549	0.036
T8_10_5	0.000	0.996	0.000
T8_11_5	0.269	0.604	0.031
T8_13_5	0.003	0.955	0.008
T8_14_5	0.008	0.930	0.014
T8_15_5	0.020	0.887	0.021
T8_18_5	0.005	0.943	-0.016
T8_19_5	0.007	0.935	-0.017
T8_20_5	0.011	0.915	-0.021
T8_22_5	0.031	0.860	-0.031
T8_23_5	0.000	0.996	-0.005
T8_25_5	0.016	0.899	0.020
T8_26_5	0.383	0.536	0.048
T8_29_5	0.055	0.815	-0.010
T8_31_5	0.293	0.588	0.033
T8_33_5	0.642	0.423	0.073
T8_35_5	0.153	0.696	0.011
T8_36_5	0.271	0.603	0.032
T8_38_5	0.944	0.331	0.099
T8_40_5	0.089	0.766	0.000
T8_41_5	0.143	0.705	0.010
T8_42_5	0.057	0.812	-0.010
T8_44_5	0.363	0.547	0.046
T8_45_5	0.640	0.424	0.073
T8_46_5	0.126	0.722	0.007
T8_48_5	0.023	0.881	-0.022
T8_49_5	0.204	0.652	0.024

T8_1_6	0.000	0.985	0.003
T8_2_6	0.048	0.827	0.032
T8_5_6	0.148	0.701	0.007
T8_7_6	0.061	0.805	0.036
T8_9_6	0.490	0.484	0.056
T8_10_6	0.059	0.808	-0.014
T8_15_6	0.083	0.773	-0.007
T8_17_6	0.269	0.604	0.028
T8_19_6	0.255	0.614	0.026
T8_20_6	0.038	0.846	-0.022
T8_21_6	0.311	0.577	0.034
T8_22_6	0.410	0.522	0.047
T8_23_6	0.046	0.830	-0.018
T8_24_6	0.141	0.707	0.007
T8_25_6	0.041	0.840	-0.021
T8_28_6	0.001	0.972	0.040
T8_29_6	0.386	0.535	-0.047
T8_30_6	0.011	0.916	0.034
T8_31_6	0.108	0.742	-0.003
T8_32_6	0.002	0.966	0.044
T8_34_6	0.459	0.498	-0.056
T8_35_6	0.269	0.604	-0.030
T8_36_6	0.010	0.922	0.036
T8_37_6	0.126	0.723	-0.004
T8_38_6	0.270	0.603	-0.029
T8_39_6	0.039	0.844	0.085
T8_40_6	0.335	0.563	-0.036
T8_42_6	0.113	0.737	-0.001
T8_43_6	0.196	0.658	-0.020
T8_44_6	0.001	0.971	0.061
T8_46_6	0.065	0.799	0.011
T8_49_6	0.193	0.660	-0.019

Table 59

Task 8 DIF: Black vs. Sample

ItemID	ChiSq	pvalue	EffectSize
T8_16_34	0.395	0.530	0.069
T8_18_34	0.156	0.693	0.033
T8_20_34	0.160	0.690	0.032
T8_21_34	0.004	0.951	-0.020
T8_37_34	0.367	0.545	-0.069
T8_46_34	0.388	0.534	-0.066
T8_31_45	0.000	0.991	0.051
T8_43_45	0.027	0.869	0.075
T8_4_56	0.189	0.664	-0.036
T8_5_56	0.285	0.594	-0.051
T8_8_56	0.028	0.867	0.006
T8_27_56	0.124	0.725	-0.052
T8_39_56	0.435	0.510	-0.098
T8_43_56	0.580	0.446	-0.111
T8_9_456	0.082	0.775	-0.022
T8_13_456	0.624	0.430	-0.005
T8_20_456	0.259	0.611	0.105
T8_24_456	0.000	0.995	0.029
T8_25_456	0.102	0.749	-0.027
T8_1_3	0.083	0.773	0.024
T8_2_3	0.075	0.785	0.022
T8_3_3	0.083	0.773	0.024
T8_4_3	0.076	0.782	0.022
T8_5_3	0.041	0.840	0.011
T8_6_3	0.022	0.883	0.001
T8_8_3	0.272	0.602	-0.053
T8_9_3	0.493	0.483	-0.081
T8_10_3	0.174	0.677	-0.037
T8_11_3	0.073	0.786	-0.017
T8_12_3	0.078	0.780	0.023
T8_13_3	0.045	0.833	0.012
T8_14_3	0.012	0.914	-0.004
T8_15_3	0.042	0.837	0.011
T8_17_3	0.032	0.857	0.006
T8_19_3	0.005	0.945	-0.010
T8_22_3	0.110	0.741	0.031
T8_23_3	0.079	0.779	0.022

T8_24_3	0.019	0.890	0.001
T8_25_3	0.000	0.989	-0.018
T8_26_3	0.170	0.680	-0.011
T8_27_3	0.697	0.404	-0.077
T8_28_3	0.831	0.362	-0.089
T8_29_3	0.537	0.464	-0.058
T8_30_3	0.374	0.541	-0.045
T8_32_3	0.046	0.830	0.014
T8_33_3	0.667	0.414	-0.074
T8_34_3	0.086	0.770	0.003
T8_36_3	0.367	0.544	-0.041
T8_40_3	0.899	0.343	-0.093
T8_41_3	0.531	0.466	-0.062
T8_42_3	0.573	0.449	-0.065
T8_43_3	0.430	0.512	-0.051
T8_44_3	1.227	0.268	-0.118
T8_45_3	0.216	0.642	-0.022
T8_47_3	0.373	0.541	-0.046
T8_48_3	0.524	0.469	-0.062
T8_49_3	0.537	0.464	-0.062
T8_1_4	0.018	0.893	-0.007
T8_2_4	0.027	0.869	-0.001
T8_3_4	0.083	0.773	0.016
T8_4_4	0.005	0.943	0.006
T8_5_4	0.008	0.930	0.008
T8_6_4	0.002	0.967	-0.016
T8_7_4	0.014	0.904	0.014
T8_8_4	0.001	0.978	-0.001
T8_10_4	0.007	0.935	0.008
T8_12_4	0.016	0.898	0.014
T8_15_4	0.046	0.831	0.006
T8_16_4	0.023	0.881	0.019
T8_17_4	0.000	0.996	-0.011
T8_21_4	0.052	0.819	0.030
T8_23_4	0.042	0.837	0.027
T8_26_4	0.161	0.688	0.040
T8_27_4	0.049	0.825	0.013
T8_29_4	0.011	0.916	-0.040
T8_32_4	0.018	0.894	-0.044
T8_33_4	0.011	0.918	-0.004
T8_34_4	0.223	0.637	0.050

T8_35_4	0.040	0.841	0.010
T8_38_4	0.023	0.880	0.002
T8_41_4	0.220	0.639	0.049
T8_44_4	0.087	0.768	0.025
T8_45_4	0.000	0.985	-0.027
T8_46_4	0.036	0.849	0.008
T8_47_4	0.039	0.844	0.010
T8_48_4	0.092	0.762	0.027
T8_49_4	0.091	0.763	0.025
T8_1_5	0.292	0.589	-0.041
T8_2_5	0.405	0.525	-0.054
T8_3_56	0.266	0.606	0.045
T8_6_5	0.000	0.987	-0.032
T8_7_5	0.132	0.716	0.033
T8_8_56.1	0.028	0.867	0.006
T8_10_5	0.012	0.912	-0.006
T8_11_5	0.586	0.444	-0.073
T8_13_5	0.031	0.861	0.004
T8_14_5	0.000	0.991	-0.025
T8_15_5	0.034	0.854	0.006
T8_18_5	0.085	0.771	0.022
T8_19_5	0.031	0.860	0.004
T8_20_5	0.145	0.703	0.035
T8_22_5	0.049	0.825	0.011
T8_23_5	0.035	0.852	0.005
T8_25_5	0.000	0.991	-0.026
T8_26_5	0.764	0.382	-0.066
T8_29_5	0.080	0.778	0.028
T8_31_5	0.212	0.645	0.002
T8_33_5	0.466	0.495	-0.033
T8_35_5	0.276	0.599	-0.007
T8_36_5	0.596	0.440	-0.048
T8_38_5	1.358	0.244	-0.107
T8_40_5	0.203	0.653	0.002
T8_41_5	0.120	0.729	0.021
T8_42_5	0.146	0.703	0.014
T8_44_5	0.683	0.409	-0.059
T8_45_5	0.451	0.502	-0.031
T8_46_5	0.281	0.596	-0.007
T8_48_5	0.062	0.804	0.032
T8_49_5	0.536	0.464	-0.043

T8_1_6	0.015	0.902	0.010
T8_2_6	0.006	0.938	0.004
T8_5_6	0.053	0.818	0.021
T8_7_6	0.000	0.988	-0.016
T8_9_6	0.668	0.414	-0.070
T8_10_6	0.031	0.859	0.030
T8_15_6	0.063	0.802	0.019
T8_17_6	0.151	0.698	-0.003
T8_19_6	0.175	0.676	-0.008
T8_20_6	0.020	0.889	0.036
T8_21_6	0.259	0.611	-0.023
T8_22_6	0.403	0.526	-0.043
T8_23_6	0.013	0.910	0.040
T8_24_6	0.100	0.752	0.008
T8_25_6	0.008	0.928	0.044
T8_28_6	0.118	0.732	-0.014
T8_29_6	0.788	0.375	0.069
T8_30_6	0.091	0.763	-0.026
T8_31_6	0.434	0.510	0.034
T8_32_6	0.052	0.820	-0.038
T8_34_6	0.900	0.343	0.079
T8_35_6	0.684	0.408	0.058
T8_36_6	0.021	0.885	-0.049
T8_37_6	0.354	0.552	0.020
T8_38_6	0.502	0.479	0.039
T8_39_6	0.023	0.880	-0.100
T8_40_6	0.670	0.413	0.054
T8_42_6	0.261	0.610	0.008
T8_43_6	0.661	0.416	0.058
T8_44_6	0.001	0.979	-0.068
T8_46_6	0.106	0.745	-0.020
T8_49_6	0.518	0.472	0.042

Table 60

Task 8 DIF: Latinx vs. Sample

ItemID	ChiSq	pvalue	EffectSize
T8_16_34	0.182	0.670	-0.087
T8_18_34	0.091	0.764	-0.044
T8_20_34	0.129	0.719	-0.063
T8_21_34	0.014	0.905	0.020
T8_37_34	0.518	0.472	0.045
T8_46_34	0.254	0.614	-0.042
T8_31_45	0.280	0.597	0.012
T8_43_45	0.681	0.409	0.088
T8_4_56	0.407	0.523	-0.123
T8_5_56	0.034	0.855	0.029
T8_8_56	0.326	0.568	-0.096
T8_27_56	0.140	0.708	-0.039
T8_39_56	0.083	0.773	0.003
T8_43_56	0.397	0.529	-0.122
T8_9_456	1.390	0.239	-0.216
T8_13_456	0.146	0.702	0.025
T8_20_456	0.795	0.373	-0.105
T8_24_456	0.879	0.349	-0.123
T8_25_456	1.713	0.191	-0.259
T8_1_3	0.018	0.893	0.029
T8_2_3	0.018	0.894	0.029
T8_3_3	0.018	0.893	0.029
T8_4_3	0.004	0.953	0.004
T8_5_3	0.048	0.827	0.055
T8_6_3	0.001	0.981	-0.007
T8_8_3	0.441	0.507	0.134
T8_9_3	0.244	0.621	0.070
T8_10_3	0.384	0.536	0.119
T8_11_3	0.226	0.634	0.072
T8_12_3	0.015	0.903	0.025
T8_13_3	0.006	0.939	0.009
T8_14_3	0.053	0.817	0.059
T8_15_3	0.004	0.953	0.004
T8_17_3	0.007	0.933	0.012
T8_19_3	0.011	0.917	0.018
T8_22_3	0.003	0.956	0.003
T8_23_3	0.000	0.983	-0.009

T8_24_3	0.000	0.988	-0.011
T8_25_3	0.025	0.874	0.035
T8_26_3	0.017	0.897	-0.021
T8_27_3	0.148	0.700	0.073
T8_28_3	0.224	0.636	0.098
T8_29_3	0.115	0.734	0.048
T8_30_3	0.182	0.669	0.084
T8_32_3	0.208	0.648	0.087
T8_33_3	0.090	0.764	0.044
T8_34_3	0.078	0.780	0.032
T8_36_3	0.158	0.691	0.068
T8_40_3	0.223	0.637	0.095
T8_41_3	0.177	0.674	0.081
T8_42_3	0.008	0.928	-0.023
T8_43_3	0.078	0.780	0.031
T8_44_3	0.105	0.745	0.052
T8_45_3	0.104	0.747	0.047
T8_47_3	0.151	0.697	0.069
T8_48_3	0.071	0.790	0.033
T8_49_3	0.055	0.815	0.018
T8_1_4	0.013	0.908	-0.078
T8_2_4	0.048	0.826	0.050
T8_3_4	0.001	0.971	-0.027
T8_4_4	0.314	0.575	-0.104
T8_5_4	0.285	0.593	-0.095
T8_6_4	0.157	0.692	-0.046
T8_7_4	0.320	0.572	-0.106
T8_8_4	0.156	0.693	-0.045
T8_10_4	0.343	0.558	-0.113
T8_12_4	0.329	0.566	-0.109
T8_15_4	0.101	0.750	0.079
T8_16_4	0.421	0.517	-0.133
T8_17_4	0.023	0.879	0.036
T8_21_4	0.093	0.761	-0.016
T8_23_4	0.315	0.575	-0.104
T8_26_4	0.019	0.892	-0.077
T8_27_4	0.001	0.971	-0.135
T8_29_4	0.415	0.520	0.099
T8_32_4	0.261	0.609	0.055
T8_33_4	0.452	0.501	0.111
T8_34_4	0.165	0.685	0.020

T8_35_4	0.362	0.547	0.086
T8_38_4	0.027	0.870	-0.063
T8_41_4	0.234	0.629	0.046
T8_44_4	0.550	0.458	0.134
T8_45_4	0.105	0.746	-0.009
T8_46_4	0.103	0.749	-0.014
T8_47_4	0.072	0.788	-0.023
T8_48_4	0.461	0.497	0.112
T8_49_4	0.420	0.517	0.103
T8_1_5	0.014	0.906	0.064
T8_2_5	0.003	0.957	-0.012
T8_3_56	2.064	0.151	-0.258
T8_6_5	0.001	0.971	0.035
T8_7_5	0.036	0.849	-0.019
T8_8_56.1	0.326	0.568	-0.096
T8_10_5	0.000	0.996	0.047
T8_11_5	0.003	0.958	0.043
T8_13_5	0.026	0.873	-0.008
T8_14_5	0.019	0.892	0.000
T8_15_5	0.132	0.716	-0.077
T8_18_5	0.028	0.867	-0.010
T8_19_5	0.001	0.983	0.039
T8_20_5	0.068	0.795	-0.041
T8_22_5	0.001	0.977	0.054
T8_23_5	0.024	0.877	-0.005
T8_25_5	0.002	0.964	0.032
T8_26_5	0.067	0.796	0.057
T8_29_5	0.000	0.989	-0.028
T8_31_5	0.001	0.977	-0.040
T8_33_5	0.000	0.989	-0.050
T8_35_5	0.000	0.994	-0.059
T8_36_5	0.015	0.902	0.011
T8_38_5	0.004	0.949	-0.009
T8_40_5	0.016	0.901	0.007
T8_41_5	0.052	0.819	-0.131
T8_42_5	0.012	0.914	0.002
T8_44_5	0.034	0.853	0.033
T8_45_5	0.001	0.981	-0.040
T8_46_5	0.040	0.841	0.030
T8_48_5	0.000	0.986	-0.025
T8_49_5	0.083	0.773	0.063

T8_1_6	1.319	0.251	-0.212
T8_2_6	1.539	0.215	-0.243
T8_5_6	0.136	0.712	-0.089
T8_7_6	1.259	0.262	-0.202
T8_9_6	0.016	0.899	-0.009
T8_10_6	0.024	0.878	-0.017
T8_15_6	0.014	0.907	-0.006
T8_17_6	0.086	0.769	-0.064
T8_19_6	0.088	0.766	-0.065
T8_20_6	0.008	0.928	0.005
T8_21_6	0.105	0.746	-0.075
T8_22_6	0.074	0.786	-0.057
T8_23_6	0.024	0.878	-0.017
T8_24_6	0.080	0.777	-0.060
T8_25_6	0.053	0.818	-0.042
T8_28_6	0.727	0.394	-0.152
T8_29_6	0.734	0.392	-0.155
T8_30_6	0.091	0.763	0.041
T8_31_6	0.913	0.339	-0.187
T8_32_6	0.095	0.758	0.041
T8_34_6	0.701	0.403	-0.149
T8_35_6	0.559	0.455	-0.112
T8_36_6	0.411	0.521	-0.071
T8_37_6	0.438	0.508	-0.082
T8_38_6	0.408	0.523	-0.078
T8_39_6	0.118	0.732	0.032
T8_40_6	0.368	0.544	-0.067
T8_42_6	0.305	0.581	-0.046
T8_43_6	0.918	0.338	-0.189
T8_44_6	0.058	0.809	0.063
T8_46_6	0.167	0.683	0.003
T8_49_6	0.396	0.529	-0.077

Table 61

Year 1, Grade 1 correlations

Task	Task 1	Task 3	Task 5	Task 6	Task 7	PPVT	SWE	PDE	TWS
Task 1	1.00								
Task 3	0.07	1.00							
Task 5	0.05	0.46	1.00						
Task 6	0.03	0.53	0.62	1.00					
Task 7	0.15	0.25	0.33	0.23	1.00				
PPVT	0.00	0.14	0.23	0.14	0.23	1.00			
SWE	0.06	0.33	0.39	0.40	0.18	0.16	1.00		
PDE	0.01	0.38	0.48	0.44	0.12	0.19	0.41	1.00	
TWS	0.04	0.39	0.47	0.46	0.18	0.18	0.46	0.33	1.00

Note. PPVT = Peabody Picture Vocabulary Test, SWE = TOWRE Sight Word Efficiency, PDE = TOWRE Phoneme Deletion, TWS = Test of Written Spelling

Table 62

Year 1, Grade 2 correlations

Task	Task 1	Task 3	Task 5	Task 6	Task 7	PPVT	SWE	PDE	TWS
Task 1	1.00								
Task 3	0.23	1.00							
Task 5	0.21	0.57	1.00						
Task 6	0.23	0.58	0.72	1.00					
Task 7	0.26	0.49	0.43	0.42	1.00				
PPVT	0.17	0.22	0.28	0.22	0.31	1.00			
SWE	0.05	0.32	0.48	0.32	0.19	0.25	1.00		
PDE	0.05	0.09	0.31	0.17	0.05	0.05	0.19	1.00	
TWS	0.03	0.33	0.53	0.41	0.16	0.24	0.33	0.28	1.00

Note. PPVT = Peabody Picture Vocabulary Test, SWE = TOWRE Sight Word Efficiency, PDE = TOWRE Phoneme Deletion, TWS = Test of Written Spelling

Table 63

Year 1, Grade 3 correlations

Task	Task 1	Task 3	Task 4	Task 5	Task 6	Task 7	Task 8	PPVT	SWE	PDE	TWS
Task 1	1.00										
Task 3	0.09	1.00									
Task 4	0.08	0.66	1.00								
Task 5	0.09	0.61	0.67	1.00							
Task 6	0.10	0.62	0.62	0.73	1.00						
Task 7	0.12	0.45	0.46	0.41	0.38	1.00					
Task 8	0.12	0.67	0.73	0.74	0.68	0.51	1.00				
PPVT	0.04	0.35	0.22	0.20	0.08	0.22	0.23	1.00			
SWE	0.05	0.17	0.24	0.30	0.15	0.23	0.26	0.17	1.00		
PDE	0.12	0.20	0.23	0.32	0.27	0.04	0.25	0.15	0.45	1.00	
TWS	0.00	0.39	0.44	0.48	0.37	0.28	0.41	0.16	0.41	0.29	1.00

Note. PPVT = Peabody Picture Vocabulary Test, SWE = TOWRE Sight Word Efficiency, PDE = TOWRE Phoneme Deletion, TWS = Test of Written Spelling

Table 64

Year 1, Grade 4 correlations

Task	Task 1	Task 3	Task 4	Task 5	Task 6	Task 7	Task 8	PPVT	SWE	PDE	TWS
Task 1	1.00										
Task 3	0.08	1.00									
Task 4	0.08	0.65	1.00								
Task 5	0.09	0.54	0.69	1.00							
Task 6	0.06	0.58	0.71	0.67	1.00						
Task 7	0.08	0.47	0.49	0.45	0.38	1.00					
Task 8	0.10	0.66	0.77	0.76	0.71	0.55	1.00				
PPVT	-0.05	0.40	0.36	0.35	0.28	0.43	0.34	1.00			
SWE	0.00	0.25	0.23	0.36	0.18	0.19	0.25	0.19	1.00		
PDE	-0.03	0.25	0.23	0.36	0.14	0.26	0.30	0.16	0.33	1.00	
TWS	0.01	0.32	0.38	0.49	0.38	0.20	0.38	0.15	0.30	0.22	1.00

Note. PPVT = Peabody Picture Vocabulary Test, SWE = TOWRE Sight Word Efficiency, PDE = TOWRE Phoneme Deletion, TWS = Test of Written Spelling

Table 65

Year 1, Grade 5 correlations

Task	Task 1	Task 3	Task 4	Task 5	Task 6	Task 7	Task 8	PPVT	SWE	PDE	TWS
Task 1	1.00										
Task 3	0.22	1.00									
Task 4	0.15	0.67	1.00								
Task 5	0.16	0.57	0.72	1.00							
Task 6	0.18	0.56	0.66	0.72	1.00						
Task 7	0.11	0.50	0.56	0.58	0.39	1.00					
Task 8	0.17	0.62	0.73	0.77	0.67	0.61	1.00				
PPVT	0.07	0.34	0.35	0.31	0.12	0.36	0.28	1.00			
SWE	0.02	0.08	0.21	0.22	0.08	0.25	0.30	0.20	1.00		
PDE	0.01	0.03	0.04	0.21	0.04	0.16	0.13	0.13	0.44	1.00	0.24
TWS	0.00	0.30	0.39	0.51	0.28	0.29	0.41	0.18	0.30	0.24	1.00

Note. PPVT = Peabody Picture Vocabulary Test, SWE = TOWRE Sight Word Efficiency, PDE = TOWRE Phoneme Deletion, TWS = Test of Written Spelling

Table 66

Year 1, Grade 6 correlations

Task	Task 1	Task 3	Task 4	Task 5	Task 6	Task 7	Task 8	PPVT	SWE	PDE	TWS
Task 1	1.00										
Task 3	0.03	1.00									
Task 4	-0.03	0.64	1.00								
Task 5	-0.04	0.58	0.71	1.00							
Task 6	-0.02	0.57	0.64	0.65	1.00						
Task 7	0.11	0.59	0.57	0.59	0.52	1.00					
Task 8	0.04	0.63	0.71	0.75	0.62	0.61	1.00				
PPVT	0.00	0.30	0.26	0.37	0.18	0.39	0.37	1.00			
SWE	-0.07	0.26	0.31	0.23	0.17	0.22	0.28	0.30	1.00		
PDE	-0.08	0.09	0.23	0.26	0.14	0.20	0.22	0.10	0.32	1.00	
TWS	-0.01	0.13	0.35	0.48	0.19	0.22	0.45	0.12	0.16	0.17	1.00

Note. PPVT = Peabody Picture Vocabulary Test, SWE = TOWRE Sight Word Efficiency, PDE = TOWRE Phoneme Deletion, TWS = Test of Written Spelling

Table 67

Year 1, summary r-squared for main effect and interaction effect models of MATRS tasks by grade and outcome

Model	Grade	PPVT	SWE	PDE	TWS
Main	1	0.08	0.20	0.26	0.27
	2	0.15	0.25	0.10	0.30
	3	0.16	0.11	0.14	0.27
	4	0.24	0.15	0.18	0.26
	5	0.21	0.13	0.08	0.27
	6	0.2	0.13	0.12	0.35
Interaction	Grade	PPVT	SWE	PDE	TWS
	1	0.17	0.30	0.36	0.40
	2	0.29	0.33	0.17	0.42
	3	0.82	0.81	0.81	0.81
	4	0.66	0.60	0.66	0.67
	5	0.72	0.71	0.73	0.76
	6	0.86	0.79	0.81	0.83

Note. PPVT = Peabody Picture Vocabulary Test, SWE = TOWRE Sight Word Efficiency, PDE = TOWRE Phoneme Deletion, TWS = Test of Written Spelling

Table 68

Year 3 Grade 1, Form A correlations

	Task	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1	Task 1	1.00																
2	Task 2	0.05	1.00															
3	Task 3	0.06	0.19	1.00														
4	Task 5	0.14	0.08	0.27	1.00													
5	Task 6	0.04	0.07	0.12	0.28	1.00												
6	Task 7	0.05	0.16	0.36	0.34	0.08	1.00											
7	LWID1	0.10	0.06	0.23	0.48	0.00	0.24	1.00										
8	WA1	0.07	0.11	0.17	0.49	0.04	0.26	0.84	1.00									
9	PC1	0.04	0.14	0.19	0.43	-0.02	0.26	0.84	0.80	1.00								
10	PPVT1	0.07	0.13	0.30	0.26	0.01	0.44	0.38	0.41	0.44	1.00							
11	TWS1	0.06	0.10	0.13	0.51	0.09	0.17	0.82	0.80	0.74	0.30	1.00						
12	ELI1	0.06	0.16	0.12	0.48	0.11	0.23	0.74	0.78	0.74	0.51	0.69	1.00					
13	BLEND1	0.08	0.09	0.18	0.45	0.07	0.33	0.63	0.63	0.65	0.54	0.59	0.66	1.00				
14	LWID2	0.10	0.06	0.23	0.53	0.08	0.29	0.88	0.80	0.76	0.36	0.80	0.69	0.60	1.00			
15	WA2	0.08	0.01	0.27	0.53	0.17	0.34	0.79	0.83	0.71	0.31	0.76	0.64	0.57	0.88	1.00		
16	PC2	0.11	0.12	0.22	0.44	0.06	0.31	0.77	0.74	0.79	0.42	0.67	0.67	0.56	0.80	0.74	1.00	
17	TWS2	0.05	0.09	0.29	0.56	0.19	0.26	0.84	0.80	0.73	0.24	0.81	0.72	0.60	0.87	0.82	0.70	1.00

Note. Outcomes with an appended “1” denote fall outcomes; outcomes with an appended “2” denote spring outcomes. PPVT = Peabody Picture Vocabulary Test, SWE = TOWRE Sight Word Efficiency, PDE = TOWRE Phoneme Deletion, TWS = Test of Written Spelling, LWID = WRMT-3 Letter Word Identification, WA = WRMT-3 Word Attack, ELI = Elision, BLEND = Blending, PC = Passage Comprehension.

Table 69

Grade 2, Form A correlations

	Task	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1	Task 1	1.00																
2	Task 2	0.03	1.00															
3	Task 3	0.05	0.39	1.00														
4	Task 5	0.10	0.34	0.52	1.00													
5	Task 6	0.06	0.37	0.50	0.65	1.00												
6	Task 7	0.34	0.20	0.26	0.35	0.35	1.00											
7	LWID1	0.20	0.37	0.47	0.73	0.63	0.45	1.00										
8	WA1	0.13	0.23	0.47	0.75	0.59	0.40	0.83	1.00									
9	PC1	0.18	0.35	0.47	0.56	0.53	0.44	0.73	0.68	1.00								
10	PPVT1	0.21	0.43	0.60	0.54	0.51	0.64	0.62	0.58	0.59	1.00							
11	TWS1	0.11	0.23	0.45	0.74	0.58	0.35	0.82	0.78	0.75	0.51	1.00						
12	ELI1	0.05	0.21	0.49	0.50	0.45	0.34	0.68	0.73	0.59	0.51	0.64	1.00					
13	BLEND1	0.07	0.14	0.28	0.44	0.26	0.29	0.44	0.52	0.43	0.39	0.44	0.55	1.00				
14	LWID2	0.34	0.24	0.46	0.68	0.46	0.44	0.81	0.80	0.82	0.58	0.83	0.79	0.80	1.00			
15	WA2	0.26	0.24	0.57	0.72	0.57	0.38	0.71	0.84	0.74	0.63	0.73	0.84	0.73	0.80	1.00		
16	PC2	0.35	0.25	0.51	0.61	0.48	0.50	0.74	0.64	0.78	0.77	0.71	0.64	0.71	0.76	0.67	1.00	
17	TWS2	0.34	0.33	0.60	0.78	0.58	0.43	0.85	0.83	0.76	0.65	0.84	0.89	0.76	0.86	0.83	0.71	1.00

Note. Outcomes with an appended “1” denote fall outcomes; outcomes with an appended “2” denote spring outcomes. PPVT = Peabody Picture Vocabulary Test, SWE = TOWRE Sight Word Efficiency, PDE = TOWRE Phoneme Deletion, TWS = Test of Written Spelling, LWID = WRMT-3 Letter Word Identification, WA = WRMT-3 Word Attack, ELI = Elision, BLEND = Blending, PC = Passage Comprehension.

Table 70

Grade 3, Form A correlations

Task	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1 Task 1	1.00																		
2 Task 2	0.20	1.00																	
3 Task 3	0.07	0.34	1.00																
4 Task 5	0.00	0.41	0.43	1.00															
5 Task 6	-0.04	0.48	0.41	0.67	1.00														
6 Task 7	0.12	0.33	0.39	0.40	0.44	1.00													
7 Task 4	-0.14	0.34	0.56	0.65	0.66	0.44	1.00												
8 Task 8	0.00	0.45	0.60	0.73	0.73	0.65	0.75	1.00											
9 LWID1	-0.05	0.38	0.48	0.63	0.63	0.51	0.70	0.74	1.00										
10 WA1	0.06	0.43	0.39	0.74	0.59	0.43	0.65	0.67	0.80	1.00									
11 PC1	-0.10	0.34	0.40	0.39	0.42	0.41	0.50	0.57	0.63	0.36	1.00								
12 PPVT1	0.06	0.33	0.63	0.27	0.40	0.59	0.49	0.53	0.49	0.29	0.60	1.00							
13 TWS1	0.01	0.39	0.32	0.76	0.70	0.42	0.59	0.71	0.73	0.71	0.49	0.28	1.00						
14 ELI1	-0.05	0.44	0.38	0.61	0.62	0.40	0.57	0.57	0.59	0.57	0.42	0.42	0.61	1.00					
15 BLEND1	0.12	0.35	0.42	0.34	0.41	0.42	0.48	0.50	0.52	0.46	0.34	0.45	0.43	0.63	1.00				
16 LWID2	-0.04	0.42	0.54	0.70	0.68	0.59	0.69	0.81	0.86	0.72	0.62	0.48	0.78	0.59	0.55	1.00			
17 WA2	0.01	0.32	0.42	0.66	0.58	0.54	0.66	0.74	0.69	0.72	0.49	0.40	0.67	0.55	0.54	0.77	1.00		
18 PC2	0.05	0.57	0.46	0.46	0.57	0.63	0.55	0.68	0.72	0.58	0.63	0.60	0.49	0.43	0.36	0.74	0.58	1.00	
19 TWS2	0.06	0.36	0.44	0.76	0.69	0.52	0.63	0.74	0.79	0.78	0.45	0.32	0.82	0.64	0.54	0.84	0.75	0.59	1.00

Note. Outcomes with an appended “1” denote fall outcomes; outcomes with an appended “2” denote spring outcomes. PPVT = Peabody Picture Vocabulary Test, SWE = TOWRE Sight Word Efficiency, PDE = TOWRE Phoneme Deletion, TWS = Test of Written Spelling, LWID = WRMT-3 Letter Word Identification, WA = WRMT-3 Word Attack, ELI = Elision, BLEND = Blending, PC = Passage Comprehension.

Table 71

Grade 4, Form A correlations

	Task	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1	Task 1	1.00																		
2	Task 2	0.04	1.00																	
3	Task 3	0.05	0.42	1.00																
4	Task 5	0.18	0.33	0.17	1.00															
5	Task 6	0.03	0.44	0.33	0.51	1.00	0.32													
6	Task 7	0.02	0.24	0.16	0.39	0.32	1.00													
7	Task 4	0.33	0.47	0.36	0.64	0.56	0.28	1.00												
8	Task 8	0.14	0.47	0.41	0.73	0.57	0.49	0.65	1.00											
9	LWID1	0.18	0.48	0.41	0.72	0.61	0.35	0.68	0.66	1.00										
10	WA1	0.15	0.37	0.26	0.73	0.60	0.35	0.59	0.63	0.80	1.00									
11	PC1	0.32	0.52	0.37	0.64	0.59	0.46	0.72	0.64	0.70	0.62	1.00								
12	PPVT1	0.19	0.45	0.39	0.31	0.32	0.47	0.47	0.45	0.49	0.32	0.64	1.00							
13	TWS1	0.08	0.49	0.33	0.73	0.72	0.38	0.64	0.67	0.76	0.73	0.66	0.42	1.00						
14	ELI1	0.14	0.36	0.28	0.62	0.40	0.32	0.50	0.55	0.65	0.50	0.43	0.32	0.60	1.00					
15	BLEND1	0.13	0.04	0.06	0.13	0.03	0.12	0.08	0.12	0.28	0.09	0.21	0.25	0.11	0.27	1.00				
16	LWID2	0.09	0.49	0.37	0.77	0.58	0.48	0.66	0.70	0.85	0.78	0.67	0.37	0.68	0.60	0.11	1.00			
17	WA2	0.19	0.35	0.36	0.70	0.50	0.40	0.59	0.67	0.65	0.72	0.54	0.33	0.67	0.52	-0.09	0.75	1.00		
18	PC2	0.26	0.47	0.39	0.45	0.39	0.38	0.56	0.54	0.64	0.50	0.68	0.57	0.54	0.42	0.20	0.63	0.58	1.00	
19	TWS2	0.16	0.47	0.41	0.66	0.56	0.31	0.60	0.60	0.67	0.67	0.57	0.26	0.66	0.62	0.17	0.68	0.57	0.48	1.00

Note. Outcomes with an appended “1” denote fall outcomes; outcomes with an appended “2” denote spring outcomes. PPVT = Peabody Picture Vocabulary Test, SWE = TOWRE Sight Word Efficiency, PDE = TOWRE Phoneme Deletion, TWS = Test of Written Spelling, LWID = WRMT-3 Letter Word Identification, WA = WRMT-3 Word Attack, ELI = Elision, BLEND = Blending, PC = Passage Comprehension.

Table 72

Grade 5, Form A correlations

	Task	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1	Task 1	1.00																		
2	Task 2	0.03	1.00																	
3	Task 3	0.16	0.33	1.00																
4	Task 5	0.11	0.48	0.53	1.00															
5	Task 6	0.27	0.23	0.44	0.63	1.00														
6	Task 7	0.27	0.36	0.62	0.51	0.56	1.00													
7	Task 4	0.21	0.60	0.46	0.58	0.35	0.46	1.00												
8	Task 8	0.29	0.65	0.59	0.62	0.45	0.62	0.76	1.00											
9	LWID1	0.25	0.55	0.61	0.72	0.51	0.65	0.70	0.85	1.00										
10	WA1	0.15	0.44	0.48	0.63	0.50	0.54	0.55	0.61	0.75	1.00									
11	PC1	0.14	0.53	0.67	0.68	0.58	0.63	0.63	0.85	0.77	0.58	1.00								
12	PPVT1	0.24	0.41	0.71	0.64	0.46	0.68	0.54	0.73	0.73	0.56	0.82	1.00							
13	TWS1	0.29	0.50	0.49	0.63	0.66	0.51	0.67	0.75	0.80	0.69	0.69	0.56	1.00						
14	ELI1	0.34	0.24	0.40	0.51	0.46	0.54	0.52	0.54	0.62	0.69	0.60	0.59	0.62	1.00					
15	BLEND1	0.28	0.23	0.33	0.40	0.41	0.47	0.32	0.43	0.30	0.19	0.43	0.52	0.22	0.41	1.00				
16	LWID2	0.31	0.65	0.47	0.54	0.58	0.46	0.79	0.83	0.86	0.74	0.77	0.38	0.87	0.76	0.20	1.00			
17	WA2	0.17	0.54	0.45	0.42	0.77	0.53	0.87	0.77	0.65	0.63	0.87	0.37	0.76	0.61	0.39	0.84	1.00		
18	PC2	0.04	0.62	0.48	0.59	0.61	0.50	0.86	0.77	0.80	0.61	0.90	0.81	0.74	0.56	0.49	0.78	0.75	1.00	
19	TWS2	0.39	0.70	0.43	0.52	0.63	0.44	0.86	0.92	0.87	0.80	0.77	0.51	0.93	0.73	0.37	0.93	0.83	0.83	1.00

Note. Outcomes with an appended “1” denote fall outcomes; outcomes with an appended “2” denote spring outcomes. PPVT = Peabody Picture Vocabulary Test, SWE = TOWRE Sight Word Efficiency, PDE = TOWRE Phoneme Deletion, TWS Test of Written Spelling, LWID = WRMT-3 Letter Word Identification, WA = WRMT-3 Word Attack, ELI = Elision, BLEND = Blending, PC = Passage Comprehension.

Table 73

Grade 6, Form A correlations

	Task	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1	Task 1	1.00																		
2	Task 2	0.20	1.00																	
3	Task 3	0.06	0.42	1.00																
4	Task 5	-0.06	0.38	0.44	1.00															
5	Task 6	-0.06	0.19	0.27	0.46	1.00														
6	Task 7	-0.15	0.44	0.44	0.60	0.47	1.00													
7	Task 4	0.05	0.42	0.45	0.53	0.44	0.52	1.00												
8	Task 8	0.12	0.42	0.50	0.70	0.61	0.61	0.64	1.00											
9	LWID1	-0.03	0.39	0.38	0.70	0.48	0.68	0.62	0.71	1.00										
10	WA1	-0.02	0.33	0.42	0.69	0.46	0.56	0.63	0.62	0.73	1.00									
11	PC1	-0.09	0.34	0.38	0.52	0.35	0.61	0.38	0.46	0.59	0.53	1.00								
12	PPVT1	-0.04	0.42	0.49	0.44	0.39	0.65	0.50	0.53	0.58	0.34	0.56	1.00							
13	TWS1	0.02	0.41	0.48	0.81	0.60	0.66	0.57	0.84	0.80	0.69	0.55	0.53	1.00						
14	ELI1	-0.01	0.34	0.35	0.60	0.32	0.55	0.43	0.47	0.66	0.72	0.49	0.36	0.65						
15	BLEND1	-0.10	0.35	0.36	0.53	0.52	0.53	0.51	0.47	0.52	0.51	0.37	0.43	0.60	0.49	1.00				
16	LWID2	-0.18	0.38	0.54	0.58	0.74	0.47	0.33	0.33	0.48	0.52	0.68	0.43	0.65	0.48	0.48	1.00			
17	WA2	-0.23	0.11	0.42	0.57	0.59	0.51	0.38	0.41	0.41	0.77	0.41	0.19	0.65	0.62	0.55	0.68	1.00		
18	PC2	-0.03	0.63	0.63	0.53	0.73	0.66	0.70	0.63	0.65	0.51	0.64	0.71	0.67	0.59	0.35	0.75	0.51	1.00	
19	TWS2	-0.13	0.40	0.47	0.82	0.64	0.62	0.66	0.63	0.60	0.78	0.53	0.28	0.86	0.70	0.48	0.71	0.75	0.73	1.00

Note. Outcomes with an appended “1” denote fall outcomes; outcomes with an appended “2” denote spring outcomes. PPVT = Peabody Picture Vocabulary Test, SWE = TOWRE Sight Word Efficiency, PDE = TOWRE Phoneme Deletion, TWS = Test of Written Spelling, LWID = WRMT-3 Letter Word Identification, WA = WRMT-3 Word Attack, ELI = Elision, BLEND = Blending, PC = Passage Comprehension.

Table 74

Grade 1, Form B correlations

	Task	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1	Task 1	1.00																
2	Task 2	0.08	1.00															
3	Task 3	0.23	0.20	1.00														
4	Task 5	0.08	0.23	0.36	1.00													
5	Task 6	0.15	0.24	0.25	0.63	1.00												
6	Task 7	0.17	0.31	0.15	0.35	0.10	1.00											
7	LWID1	0.07	0.25	0.22	0.71	0.42	0.33	1.00										
8	WA1	0.09	0.20	0.20	0.71	0.44	0.38	0.88	1.00									
9	PC1	0.05	0.24	0.21	0.53	0.24	0.41	0.82	0.77	1.00								
10	PPVT1	0.30	0.36	0.30	0.38	0.24	0.42	0.46	0.42	0.50	1.00							
11	TWS1	0.08	0.23	0.25	0.81	0.52	0.36	0.83	0.82	0.72	0.53	1.00						
12	ELI1	0.11	0.17	0.26	0.69	0.41	0.31	0.65	0.73	0.62	0.49	0.78	1.00					
13	BLEND1	0.06	0.18	0.22	0.49	0.22	0.33	0.61	0.66	0.54	0.43	0.58	0.54	1.00				
14	LWID2	0.22	0.11	0.31	0.71	0.32	0.39	0.93	0.86	0.86	0.30	0.81	0.51	0.65	1.00			
15	WA2	0.03	0.10	0.14	0.71	0.32	0.41	0.86	0.89	0.75	0.30	0.79	0.56	0.67	0.86	1.00		
16	PC2	0.25	0.08	0.25	0.63	0.20	0.35	0.70	0.65	0.81	0.37	0.71	0.64	0.62	0.76	0.63	1.00	
17	TWS2	0.12	-0.02	0.16	0.78	0.23	0.46	0.76	0.80	0.63	0.29	0.86	0.53	0.75	0.75	0.79	0.60	1.00

Note. Outcomes with an appended “1” denote fall outcomes; outcomes with an appended “2” denote spring outcomes. PPVT = Peabody Picture Vocabulary Test, SWE = TOWRE Sight Word Efficiency, PDE = TOWRE Phoneme Deletion, TWS = Test of Written Spelling, LWID = WRMT-3 Letter Word Identification, WA = WRMT-3 Word Attack, ELI = Elision, BLEND = Blending, PC = Passage Comprehension.

Table 75

Grade 2, Form B correlations

	Task	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1	Task 1	1.00																
2	Task 2	0.15	1.00															
3	Task 3	0.20	0.22	1.00														
4	Task 5	0.16	0.34	0.36	1.00													
5	Task 6	0.11	0.33	0.36	0.58	1.00												
6	Task 7	0.11	0.40	0.24	0.31	0.20	1.00											
7	LWID1	0.19	0.23	0.31	0.68	0.36	0.17	1.00										
8	WA1	0.27	0.24	0.31	0.66	0.33	0.24	0.83	1.00									
9	PC1	0.20	0.23	0.31	0.45	0.30	0.15	0.70	0.65	1.00								
10	PPVT1	0.09	0.08	0.25	0.23	0.11	0.31	0.39	0.36	0.40	1.00							
11	TWS1	0.18	0.22	0.26	0.68	0.40	0.09	0.78	0.76	0.67	0.33	1.00						
12	ELI1	0.21	0.27	0.35	0.62	0.34	0.33	0.62	0.67	0.48	0.30	0.60	1.00					
13	BLEND1	0.19	0.20	0.21	0.39	0.21	0.09	0.51	0.62	0.43	0.26	0.53	0.45	1.00				
14	LWID2	0.34	0.20	0.34	0.61	0.28	0.20	0.82	0.71	0.53	0.14	0.60	0.66	0.26	1.00			
15	WA2	0.18	0.31	0.17	0.70	0.40	0.25	0.77	0.77	0.51	0.12	0.63	0.74	0.40	0.77	1.00		
16	PC2	0.23	0.15	0.34	0.50	0.19	0.00	0.74	0.69	0.66	0.03	0.70	0.59	0.37	0.74	0.60	1.00	
17	TWS2	0.23	0.31	0.28	0.79	0.37	0.18	0.80	0.84	0.54	0.20	0.85	0.79	0.48	0.71	0.79	0.74	1.00

Note. Outcomes with an appended “1” denote fall outcomes; outcomes with an appended “2” denote spring outcomes. PPVT = Peabody Picture Vocabulary Test, SWE = TOWRE Sight Word Efficiency, PDE = TOWRE Phoneme Deletion, TWS = Test of Written Spelling, LWID = WRMT-3 Letter Word Identification, WA = WRMT-3 Word Attack, ELI = Elision, BLEND = Blending, PC = Passage Comprehension.

Table 76

Grade 3, Form B correlations

	Task	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1	Task 1	1.00																		
2	Task 2	0.01	1.00																	
3	Task 3	0.15	0.37	1.00																
4	Task 5	0.13	0.49	0.46	1.00															
5	Task 6	0.15	0.35	0.28	0.61	1.00														
6	Task 7	0.10	0.17	0.44	0.36	0.34	1.00													
7	Task 4	0.25	0.22	0.56	0.55	0.56	0.34	1.00												
8	Task 8	0.11	0.41	0.56	0.73	0.58	0.50	0.71	1.00											
9	LWID1	0.17	0.36	0.49	0.75	0.61	0.42	0.72	0.79	1.00										
10	WA1	0.15	0.29	0.35	0.71	0.55	0.32	0.62	0.69	0.81	1.00									
11	PC1	0.13	0.35	0.52	0.51	0.39	0.38	0.61	0.62	0.68	0.61	1.00								
12	PPVT1	0.23	0.27	0.56	0.36	0.26	0.60	0.48	0.54	0.56	0.39	0.57	1.00							
13	TWS1	0.13	0.45	0.46	0.78	0.70	0.34	0.71	0.75	0.84	0.74	0.65	0.40	1.00						
14	ELI1	0.15	0.35	0.52	0.62	0.45	0.42	0.61	0.60	0.72	0.66	0.60	0.51	0.67	1.00					
15	BLEND1	0.12	0.25	0.38	0.40	0.20	0.43	0.28	0.39	0.40	0.33	0.34	0.33	0.33	0.49	1.00				
16	LWID2	0.07	0.33	0.46	0.77	0.58	0.21	0.68	0.69	0.89	0.76	0.59	0.54	0.88	0.67	0.28	1.00			
17	WA2	-0.01	0.28	0.43	0.77	0.51	0.20	0.56	0.67	0.78	0.70	0.50	0.42	0.79	0.56	0.20	0.81	1.00		
18	PC2	0.03	0.11	0.38	0.38	0.24	0.22	0.55	0.50	0.59	0.49	0.45	0.46	0.50	0.53	0.23	0.60	0.53	1.00	
19	TWS2	-0.02	0.39	0.28	0.78	0.58	0.06	0.61	0.67	0.85	0.76	0.47	0.29	0.91	0.63	0.16	0.83	0.75	0.46	1.00

Note. Outcomes with an appended “1” denote fall outcomes; outcomes with an appended “2” denote spring outcomes. PPVT = Peabody Picture Vocabulary Test, SWE = TOWRE Sight Word Efficiency, PDE = TOWRE Phoneme Deletion, TWS = Test of Written Spelling, LWID = WRMT-3 Letter Word Identification, WA = WRMT-3 Word Attack, ELI = Elision, BLEND = Blending, PC = Passage Comprehension.

Table 77

Grade 4, Form B correlations

	Task	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1	Task 1	1.00																		
2	Task 2	0.21	1.00																	
3	Task 3	0.15	0.32	1.00																
4	Task 5	0.19	0.35	0.34	1.00															
5	Task 6	0.15	0.38	0.38	0.59	1.00														
6	Task 7	0.00	0.16	0.25	0.34	0.21	1.00													
7	Task 4	0.12	0.24	0.41	0.49	0.47	0.31	1.00												
8	Task 8	0.13	0.42	0.40	0.70	0.62	0.42	0.61	1.00											
9	LWID1	0.22	0.36	0.40	0.75	0.56	0.33	0.51	0.66	1.00										
10	WA1	0.27	0.33	0.29	0.72	0.52	0.32	0.51	0.66	0.81	1.00									
11	PC1	0.10	0.37	0.50	0.43	0.41	0.34	0.38	0.44	0.54	0.42	1.00								
12	PPVT1	-0.01	0.24	0.50	0.35	0.34	0.37	0.38	0.38	0.39	0.24	0.52	1.00							
13	TWS1	0.18	0.45	0.39	0.74	0.65	0.33	0.57	0.77	0.84	0.78	0.51	0.35	1.00						
14	ELI1	0.26	0.26	0.34	0.57	0.44	0.30	0.34	0.55	0.67	0.63	0.43	0.16	0.70	1.00					
15	BLEND1	0.06	0.12	0.28	0.31	0.21	0.34	0.15	0.27	0.38	0.37	0.36	0.24	0.42	0.56	1.00				
16	LWID2	0.16	0.46	0.46	0.71	0.57	0.37	0.51	0.73	0.83	0.77	0.60	0.42	0.86	0.70	0.31	1.00			
17	WA2	0.27	0.30	0.43	0.64	0.57	0.23	0.40	0.66	0.72	0.80	0.36	0.27	0.79	0.53	0.29	0.76	1.00		
18	PC2	0.27	0.36	0.47	0.35	0.40	0.19	0.26	0.55	0.37	0.39	0.46	0.38	0.55	0.44	0.19	0.49	0.44	1.00	
19	TWS2	0.17	0.46	0.47	0.70	0.59	0.37	0.50	0.78	0.84	0.81	0.54	0.41	0.92	0.65	0.36	0.86	0.80	0.49	1.00

Note. Outcomes with an appended “1” denote fall outcomes; outcomes with an appended “2” denote spring outcomes. PPVT = Peabody Picture Vocabulary Test, SWE = TOWRE Sight Word Efficiency, PDE = TOWRE Phoneme Deletion, TWS = Test of Written Spelling, LWID = WRMT-3 Letter Word Identification, WA = WRMT-3 Word Attack, ELI = Elision, BLEND = Blending, PC = Passage Comprehension.

Table 78

Grade 5, Form B correlations

Task	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1 Task 1	1.00																		
2 Task 2	0.29	1.00																	
3 Task 3	0.09	0.33	1.00																
4 Task 5	0.18	0.18	0.46	1.00															
5 Task 6	0.29	0.37	0.30	0.44	1.00														
6 Task 7	0.15	0.28	0.54	0.39	0.30	1.00													
7 Task 4	0.23	0.27	0.45	0.58	0.52	0.42	1.00												
8 Task 8	0.31	0.40	0.51	0.66	0.49	0.48	0.65	1.00											
9 LWID1	0.29	0.32	0.52	0.74	0.56	0.47	0.70	0.68	1.00										
10 WA1	0.27	0.18	0.29	0.63	0.60	0.28	0.58	0.53	0.75	1.00									
11 PC1	0.28	0.35	0.46	0.51	0.39	0.45	0.69	0.59	0.67	0.51	1.00								
12 PPVT1	0.12	0.29	0.46	0.36	0.22	0.46	0.53	0.42	0.50	0.29	0.71	1.00							
13 TWS1	0.34	0.37	0.46	0.71	0.63	0.48	0.68	0.74	0.83	0.70	0.62	0.43	1.00						
14 ELI1	0.27	0.19	0.30	0.49	0.50	0.26	0.46	0.44	0.58	0.54	0.49	0.45	0.64	1.00					
15 BLEND1	0.13	0.30	0.35	0.40	0.33	0.39	0.42	0.39	0.48	0.40	0.48	0.49	0.45	0.38	1.00				
16 LWID2	0.39	0.41	0.53	0.61	0.57	0.35	0.64	0.67	0.85	0.71	0.64	0.53	0.78	0.48	0.58	1.00			
17 WA2	0.38	0.21	0.46	0.62	0.47	0.25	0.67	0.52	0.75	0.71	0.67	0.41	0.70	0.60	0.49	0.74	1.00		
18 PC2	0.22	0.38	0.37	0.51	0.50	0.41	0.51	0.50	0.53	0.38	0.56	0.46	0.61	0.53	0.47	0.57	0.43	1.00	
19 TWS2	0.28	0.48	0.44	0.59	0.61	0.21	0.75	0.63	0.80	0.65	0.59	0.38	0.84	0.52	0.54	0.79	0.69	0.55	1.00

Note. Outcomes with an appended “1” denote fall outcomes; outcomes with an appended “2” denote spring outcomes. PPVT = Peabody Picture Vocabulary Test, SWE = TOWRE Sight Word Efficiency, PDE = TOWRE Phoneme Deletion, TWS = Test of Written Spelling, LWID = WRMT-3 Letter Word Identification, WA = WRMT-3 Word Attack, ELI = Elision, BLEND = Blending, PC = Passage Comprehension.

Table 79

Grade 6, Form B correlations

	Task	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1	Task 1	1.00																		
2	Task 2	-0.04	1.00																	
3	Task 3	-0.02	0.56	1.00																
4	Task 5	-0.03	0.49	0.63	1.00															
5	Task 6	-0.13	0.37	0.50	0.43	1.00														
6	Task 7	-0.02	0.37	0.53	0.58	0.40	1.00													
7	Task 4	-0.05	0.41	0.59	0.64	0.37	0.46	1.00												
8	Task 8	-0.10	0.54	0.62	0.70	0.56	0.61	0.53	1.00											
9	LWID1	-0.05	0.42	0.55	0.71	0.38	0.61	0.56	0.68	1.00										
10	WA1	0.02	0.18	0.37	0.66	0.32	0.42	0.41	0.54	0.66	1.00									
11	PC1	0.03	0.32	0.54	0.51	0.36	0.53	0.40	0.57	0.67	0.42	1.00								
12	PPVT1	-0.09	0.34	0.46	0.43	0.32	0.57	0.39	0.50	0.60	0.28	0.61	1.00							
13	TWS1	0.00	0.44	0.59	0.78	0.55	0.56	0.52	0.72	0.75	0.71	0.56	0.42	1.00						
14	ELI1	0.00	0.29	0.24	0.54	0.17	0.44	0.24	0.46	0.60	0.59	0.39	0.40	0.55	1.00					
15	BLEND1	0.00	0.36	0.28	0.35	0.27	0.34	0.21	0.46	0.44	0.31	0.40	0.32	0.41	0.46	1.00				
16	LWID2	0.27	0.44	0.71	0.88	0.24	0.59	0.39	0.82	0.84	0.67	0.63	0.53	0.86	0.68	0.61	1.00			
17	WA2	0.30	0.34	0.64	0.80	0.29	0.63	0.29	0.84	0.84	0.77	0.66	0.60	0.81	0.68	0.60	0.91	1.00		
18	PC2	0.28	0.54	0.55	0.58	0.38	0.62	0.22	0.68	0.66	0.39	0.72	0.70	0.76	0.52	0.28	0.68	0.65	1.00	
19	TWS2	0.29	0.52	0.66	0.70	0.50	0.53	0.29	0.78	0.70	0.47	0.68	0.59	0.80	0.56	0.65	0.81	0.70	0.67	1.00

Note. Outcomes with an appended “1” denote fall outcomes; outcomes with an appended “2” denote spring outcomes. PPVT = Peabody Picture Vocabulary Test, SWE = TOWRE Sight Word Efficiency, PDE = TOWRE Phoneme Deletion, TWS = Test of Written Spelling, LWID = WRMT-3 Letter Word Identification, WA = WRMT-3 Word Attack, ELI = Elision, BLEND = Blending, PC = Passage Comprehension.

Table 80

Year 3 summary predictive validity of MATRS tasks by form, grade, and outcome.

Form	Grade	LWID		WA		PC		TWS	
		R2	N	R2	N	R2	N	R2	N
Form A	1	0.30	123	0.31	123	0.23	123	0.33	123
	2	0.48	58	0.5	58	0.47	58	0.65	58
	3	0.71	76	0.61	76	0.64	76	0.68	73
	4	0.73	58	0.58	58	0.46	58	0.7	58
	5	0.76	13	0.83	13	0.88	13	0.92	13
	6	0.77	21	0.59	21	0.82	21	0.86	22
Form B	1	0.54	27	0.56	27	0.44	27	0.66	27
	2	0.48	48	0.57	48	0.37	48	0.65	47
	3	0.67	61	0.63	59	0.35	60	0.69	61
	4	0.67	72	0.58	72	0.42	72	0.58	70
	5	0.61	54	0.6	54	0.45	55	0.7	54
	6	0.91	27	0.89	28	0.59	27	0.67	27

Note. TWS = Test of Written Spelling, LWID = WRMT-3 Letter Word Identification, WA = WRMT-3 Word Attack, PC = Passage Comprehension.

Figure 1. Test Characteristic Curves by Task

Figure 2. Test Information Functions by Task