WIDA MODEL Online 2020

Field Test Technical Report

WIDA Psychometric Department

June 2021

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Executive Summary

WIDA MODEL is an off-the-shelf series of academic English language proficiency assessments for English language learners (ELLs) in kindergarten through grade 12. The test for kindergarten students was developed from 2006–2008 and became available to WIDA Consortium members and nonmembers in October 2008. The tests for students in grades 1–2 and grades 3–5 were developed from 2008–2010 and became available in August 2010. The tests for students in grades 6–8 and grades 9–12 were developed from 2009–2011 and became available in September 2011. The grades 1–12 paper test forms for MODEL were converted to online forms in 2015 and the test is currently available in both paper and online formats.

The purpose of this technical report is to describe the content refreshment and field test of MODEL Online tests for grades 1–12. The field testing occurred in the fall of 2019 through January 2020, with U.S. and international test takers. 12,352 students from 35 states participated in the U.S. and 5,622 students participated from 66 countries.

This report consists of chapters that describe the purpose of MODEL (chapter 1), test development (chapter 2), field testing (chapter 3) and scoring and administration (chapter 4), student results (chapter 5), analysis of the test (chapter 6), and updated test blueprint (chapter 7). Chapters 1 to 4 provide background information on the MODEL test and explain how field test items were developed, and how field testing was planned and administered/scored. Chapters 5 and 6 describe information about participants, the analysis method of field test items, item statistics, a comparison of current and new tests' characteristics, and new scoring tables. Chapter 7 presents the updated blueprint for each grade-level cluster as a result of the content refreshment.

Contents

1. Purpose of MODEL

WIDA MODEL was originally created as a paper-based test. Two technical reports were written to document the development of that iteration of the test: WIDA Technical Report: Development and Field Test of MODEL Grades 1–2 and 3–5 (2012) and WIDA Technical Report: Development and Field Test of MODEL Grades 6–8 and 9–12 (2014). These reports are still available and should continue to be referred to for information about WIDA MODEL Paper. WIDA MODEL Online was launched in 2015, with minor changes in content from the Paper version (e.g., an additional Writing task was made available per grade-level cluster). In 2020, MODEL Online had a large portion of its content refreshed. This report documents those changes and should serve as a reference for technical information relating to the online version of the test. However, the purpose of MODEL, whether it is the paper or the online version, has remained the same, and is detailed in Table 1.1, below.

Table 1.1 Uses of MODEL

In the U.S. (WIDA Consortium)	**In the WIDA International Consortium**
Serve as an interim assessment during the school year, providing information that informs instructional planning and other decisions related to students' education.	Serve as an interim assessment during the school year, providing information that informs instructional planning and other decisions related to students' education.
Guide instructional and curricular decisions while waiting for ACCESS for ELLs score reports.	Track student progress (growth) annually to help inform whether students are on track with their English language development.
Determine tier placement on ACCESS for ELLs (ACCESS for ELLs Paper).	Support decisions to exit students from English language support services, when used with other criteria such as teacher recommendations and performance in content classes.
Some schools use WIDA MODEL for Kindergarten as an alternative to the Kindergarten W-APT for identification or placement of incoming kindergarten students.	Some schools use WIDA MODEL for Kindergarten as an alternative to the Kindergarten W-APT for identification or placement of incoming kindergarten students.

1.1. MODEL design

MODEL is grounded in the WIDA English Language Development Standards (2012) that underlie ACCESS for ELLs and WIDA Screener:

- Social and Instructional Language (SIL)
- Language of Language Arts (LoLA)
- Language of Mathematics (LoMA)
- Language of Science (LoSC)

- Language of Social Studies (LoSS)

Table 1.1.1 below shows how the five standards are covered across each grade-level cluster test on MODEL and how many tasks or items per standard there are across the four domains assessed on the test: Speaking, Listening, Writing, and Reading. All five standards are represented in the Listening and Reading domains. Because Speaking and Writing have fewer tasks, the coverage is not as broad, or utilizes tasks representing integrated (IT) standards, i.e., tasks that cover language of math and science together or cover language of language arts and of social studies together.

Table 1.1.1: Standards coverage for all grade-level clusters on MODEL

Speaking	**Listening Entry***	**Listening Low***	**Listening Mid***	**Listening High***
Standard (tasks)	*Standard (items)*			
SIL (3)	LoLA (4)	SIL (3)	LoLA (3)	LoLA (3)
LoLA/LoSS (5)		LoLA (3)	LoMA (3)	LoMA (3)
		LoMA (3)	LoSC (3)	LoSC (3)
			LoSS (3)	LoSS (3)
Writing	**Reading Entry***	**Reading Low***	**Reading Mid***	**Reading High***
Standard (tasks)	*Standard (items)*			
IT (1)**	LoLA (4)	LoLA (3)	LoLA (3)	LoLA (3)
		LoMA (3)	LoMA (3)	LoMA (3)
		LoSC (3)	LoSC (3)	LoSC (3)
			LoSS (3)	LoSS (3)

*Entry, Low, Mid and High are defined below.
**There are three operational tasks available for MODEL Online Writing but one task is used per administration.

The test covers the WIDA English language proficiency levels in all four domains (Speaking, Listening, Writing, Reading) for students from grades 1–12.

Figure 1: WIDA English Language Proficiency Levels

As shown in Figure 1, the WIDA English Language Proficiency Standards framework divides the continuum of language development into six proficiency levels: "Entering," "Beginning," "Developing," "Expanding," "Bridging," and "Reaching." The "ceiling" of English language

proficiency defined by the Standards for assessment purposes is called "Reaching." The five defined language proficiency levels are assessed across all four domains. Below is a brief description of each domain test on MODEL: how each domain is organized, how many tasks or items they contain, and how they cover the proficiency levels. Note that for MODEL, the term "folder" refers to a set of three or four thematically linked items (Listening and Reading) or a set of two to five thematically linked tasks (Speaking and Writing) of operational content).

The Speaking test contains two folders of tasks, known as Part A and Part B. Part A contains three tasks for the lower grade-level clusters, 1–2 and 3–5. Part A contains five tasks for the higher-grade-level clusters, 6–8 and 9–12. Part B contains five tasks for all grade-level clusters. Tasks in both Parts A and B are designed to increase in difficulty, from proficiency level 1 through proficiency level 5. These tasks are scored dichotomously, reflecting whether the student meets the linguistic expectations of the task. A test administrator decides when to end Part A and move on to Part B based on the student's performance on Part A.

The Listening Test follows the administration of the Speaking test. The Listening test begins with an entry folder with four questions, which are multiple choice and which increase in difficulty, targeting proficiency levels 1 through 4. The entry folders are also referred to as "Step 1." For grades 1–2 and 3–5, there are two entry folders; an alternate entry folder is administered to students re-taking MODEL within the same grade-level cluster. There is no alternate entry folder for Grades 6–8 and 9–12. All folders pertain to a particular theme. Students must take the Speaking test before the Listening test, because the scores from the Speaking items combined with performance on the Listening entry folder will determine whether they are routed into Low, Mid, or High track folders for the remainder of the Listening test. These tracks are also referred to as "Step 2." The folders on the Low track target PL 1–3, the folders on Mid target 2–5 and the folders on high target PL3–5.

The Writing test consists of one task (with two parts) that is scored on a rating scale of 1–6, using a rubric based on the WIDA English language proficiency level descriptors. Students in all grades are presented with Writing tasks online. Students in Grades 1–5 respond to Writing prompts by handwriting their responses; students in Grades 6–12 keyboard their responses.

The Reading Test follows the Writing Test. As with Listening, the Reading Test also begins with an entry folder with four questions, which are multiple choice and which increase in difficulty, from proficiency level 1 through 4. The Reading entry folders are also referred to as "Step 1." For grades 1–2 and 3–5, there are two entry folders; an alternate entry folder is administered to students re-taking MODEL within the same grade-level cluster. There is no alternate entry folder for Grades 6–8 and 9–12. Before the Reading Test, students will have taken the Writing test. The quick score from the Writing test is combined with performance on Reading entry folder to determine whether students are routed into Low, Mid, or High track folders for the remainder of the Reading test. These tracks are also referred to as "Step 2." The folders on the Low track target proficiency levels 1–3, the folders on Mid target proficiency levels 2–5 and the folders on high target proficiency levels 3–5.

MODEL Online is delivered via an online platform, known as the Test Administrator Interface, or TAI, which is hosted by WIDA test delivery vendor, MetriTech. (MetriTech's involvement in

MODEL Online is discussed further below.) Figure 2 illustrates the order of domains described above (Speaking before Listening and Writing before Reading) and how the Listening and Reading domains are broken out into three tracks targeting differing levels of proficiency: Low, Mid, and High.

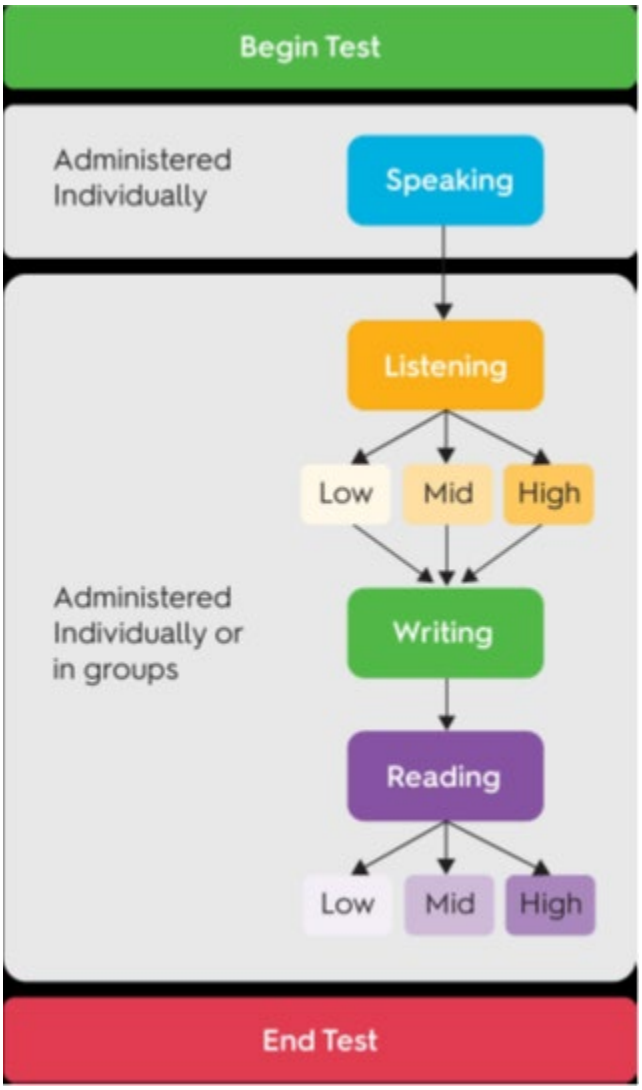


Figure 2: Structure and Administration order of MODEL

2. Test Development

In summer 2018 WIDA decided to refresh content on WIDA MODEL Online, Grades 1–12. The primary goal was to update the content on the test as a matter of best practice, considering that much of the content had remained static since MODEL's launch in 2010 (Grades 1–2 and 3–5) and 2011 (Grades 6–8 and 9–12). Secondary goals were to take the opportunity of a content refreshment project to try to address concerns expressed by the WIDA International School Consortium about a) the U.S.-centric focus of the content and b) the lack of appropriate levels of difficulty of the Speaking and Reading domains.

The refreshment project entailed making decisions on what content to replace, creating new content, field testing the new content, and then choosing new operational content across the four domains (Speaking, Listening, Writing, and Reading) and four grade-level clusters (Grades 1–2, Grades 3–5, Grades 6–8, and Grades 9–12) of the MODEL assessment. The scope of the refreshment was to replenish about half of the Listening and Reading domains and about two-thirds of Speaking and Writing. Another aspect of the project was that as much of the new content as possible, preferably more than half, would come from retired ACCESS for ELLs (hereafter "ACCESS") folders. From the outset, changes to the test design, test platform functionality, training materials, and all other operational and administrative aspects of MODEL Online were considered out of scope.

This chapter outlines the work done to develop the content for the MODEL Online refreshment project, covering the following steps:

1) Identifying MODEL Online content to be retired

2) Identifying retired ACCESS content to be repurposed

3) Revising ACCESS content and creating new content

2.1. Identifying MODEL Online content to be retired

The first step of a refreshment project is to determine what content is to be retired from the test and replaced with newer content. The approach taken by the WIDA project team was two-fold: first, item-level statistics generated by WIDA psychometrics for a subset of MODEL Online data were used to flag items that were not performing as robustly as expected. The second step was to review qualitatively every item on MODEL Online (hereafter just "MODEL"; if MODEL Paper is meant rather than MODEL Online, it will be indicated as such). During the qualitative review, the project team considered the following questions:

1) Does this item seem out of date?

2) Does this item seem U.S.-centric?

3) Does this item have flaws in any other regard?

This required review of 116 folders of operational MODEL Online content. All 116 folders (Table 2.1.1) were reviewed by at least two members of the project team who conducted independent reviews and noted their observations in spreadsheets.

Table 2.1.1: Number of operational folders (by domain) on MODEL Online

Grade-level cluster	Speaking folders	Listening folders	Writing folders	Reading folders
1–2	2	12*	3	12*
3–5	2	12*	3	12*
6–8	2	12	3	12
9–12	2	12	3	12

Grade-level cluster	Speaking folders	Listening folders	Writing folders	Reading folders
Totals	8	48	12	48

*These totals do not include the Grades 1–2 and 3–5 alternate entry folders for Listening and Reading, which were not considered for replacement

After the independent reviews were completed, a series of meetings were held to discuss the team's qualitative observations, in conjunction with the psychometric information that had been provided. Tables 2.1.2–2.1.5 show the blueprint from Table 1.1.1 above, but broken out by each of the four grade-level clusters to show where refreshment was targeted. The cells shaded in grey show folders and standards that were targeted for refreshment.

Table 2.1.2: Grades 1–2 content targeted for refreshment (indicated with grey shade)

Speaking	**Listening Entry**	**Listening Low**	**Listening Mid**	**Listening High**
Standard (tasks)	*Standard (items)*			
SIL (3)	LoLA (4)	SIL (3)	LoLA (3)	LoLA (3)
LoLA/LoSS (5)		LoLA (3)	LoMA (3)	LoMA (3)
		LoMA (3)	LoSC (3)	LoSC (3)
			LoSS (3)	LoSS (3)
Writing	**Reading Entry**	**Reading Low**	**Reading Mid**	**Reading High**
Standard (tasks)	*Standard (items)*			
IT (1)	LoLA (4)	LoLA (3)	LoLA (3)	LoLA (3)
IT (1)		LoMA (3)	LoMA (3)	LoMA (3)
		LoSC (3)	LoSC (3)	LoSC (3)
			LoSS (3)	LoSS (3)

Table 2.1.3: Grades 3–5 content targeted for refreshment (indicated with grey shade)

Speaking	**Listening Entry**	**Listening Low**	**Listening Mid**	**Listening High**
Standard (tasks)	*Standard (items)*			
SIL (3)	LoLA (4)	SIL (3)	LoLA (3)	LoLA (3)
LoLA/LoSS (5)		LoLA (3)	LoMA (3)	LoMA (3)

Speaking	**Listening Entry**	**Listening Low**	**Listening Mid**	**Listening High**
		LoMA (3)	LoSC (3)	LoSC (3)
			LoSS (3)	LoSS (3)
Writing	**Reading Entry**	**Reading Low**	**Reading Mid**	**Reading High**
Standard (tasks)	*Standard (items)*			
IT (1)	LoLA (4)	LoLA (3)	LoLA (3)	LoLA (3)
		LoMA (3)	LoMA (3)	LoMA (3)
		LoSC (3)	LoSC (3)	LoSC (3)
			LoSS (3)	LoSS (3)

Table 2.1.4: Grades 6–8 content targeted for refreshment (indicated with grey shade)

Speaking	**Listening Entry**	**Listening Low**	**Listening Mid**	**Listening High**
Standard (tasks)	*Standard (items)*			
SIL (5)	LoLA (4)	SIL (3)	LoLA (3)	LoLA (3)
LoLA/LoSS (5)		LoLA (3)	LoMA (3)	LoMA (3)
		LoMA (3)	LoSC (3)	LoSC (3)
			LoSS (3)	LoSS (3)
Writing	**Reading Entry**	**Reading Low**	**Reading Mid**	**Reading High**
Standard (tasks)	*Standard (items)*			
IT (1)	LoLA (4)	LoLA (3)	LoLA (3)	LoLA (3)
		LoMA (3)	LoMA (3)	LoMA (3)
		LoSC (3)	LoSC (3)	LoSC (3)
			LoSS (3)	LoSS (3)

Table 2.1.5: Grades 9–12 content targeted for refreshment (indicated with grey shade)

Speaking	**Listening Entry**	**Listening Low**	**Listening Mid**	**Listening High**
Standard (tasks)	*Standard (items)*			
SIL (5)	LoLA/LoSS (4)	SIL (3)	LoLA (3)	LoLA (3)
LoSS (5)		LoLA (3)	LoMA (3)	LoMA (3)
		LoMA (3)	LoSC (3)	LoSC (3)
			LoSS (3)	LoSS (3)
Writing	**Reading Entry**	**Reading Low**	**Reading Mid**	**Reading High**
Standard (tasks)	*Standard (items)*			
IT (1)	LoLA (4)	LoLA (3)	LoLA (3)	LoLA (3)
		LoMA (3)	LoMA (3)	LoMA (3)
		LoSC (3)	LoSC (3)	LoSC (3)
			LoSS (3)	LoSS (3)

Table 2.1.6 shows the total number of folders targeted for replacement by domain and grade-level cluster; for ease of representation total values are used below, but updated test blueprints showing the actual refresh across the four grade-level clusters are included in Chapter 6.

Table 2.1.6: Number of operational folders to replace on MODEL Online*

Grade-level cluster	**Target # of new Speaking folders**	**Target # of new Listening folders**	**Target # of new Writing folders**	**Target # of new Reading folders**
1–2	2 (2)	5 (12)	2 (3)	5 (12)
3–5	1 (2)	8 (12)	2 (3)	5 (12)
6–8	1 (2)	8 (12)	2 (3)	5 (12)
9–12	1 (2)	4 (12)	2 (3)	8 (12)
Totals	5 (8)	25 (48)	8 (12)	23 (48)

*Values in parentheses are total operational folder numbers from Table 2.1.1

As the values in the Totals row show, these targets match the project scope of replacing about two-thirds of Speaking and Writing (63% and 66%, respectively) and about half of Listening and Reading (52% and 48%).

Once the specific target folders and the total quantity of target folders had been identified, the team made decisions about quantities of material to develop and field test. Note that decisions about standards and target proficiency levels did not need to be made; folders were meant to be replaced with new folders on the same standard and at the same target proficiency level. The project team had to make its development quantity decisions in advance of the December 2018 launch meeting with the vendors who would be responsible for content development. However, because a project goal was to make use of retired ACCESS folders, and to not solely commission new content to replace the 61 folders listed in Table 2.1.2, the next phase of the project was to identify retired ACCESS content that could be repurposed.

2.2. Identifying retired ACCESS content to repurpose

After identifying the slots, or folders, for replenishment, the next task, evaluating retired ACCESS content for repurposing on MODEL Online, was carried out by the WIDA project team. WIDA requested delivery of retired ACCESS folders from WIDA's test development partners at the Center for Applied Linguistics (CAL). The project team provided CAL with details of the domain, grade-level cluster, WIDA standard, and target proficiency level of the MODEL Online folders that were targeted for replacement. CAL provided the MODEL project team with 90 folders in an initial delivery of retired ACCESS content that fit the requested criteria and had not been released publicly as sample items or in any other format; they provided a further 40 folders of retired ACCESS content in a second delivery. In a process similar to the review of the original 116 folders of MODEL content, three members of the project team reviewed the 130 folders of retired ACCESS content; at least two members reviewed each folder and in many cases all three team members reviewed folders. Spreadsheets that CAL had provided were adapted to include qualitative comments from the WIDA team regarding 1) suitability of the folder "as is" and 2) suitability of the folder with revisions, with notes about what to revise and why, and often with suggestions on how to revise.

After individual reviews were completed and meetings were held to reach consensus, a number of retired ACCESS folders were selected to re-purpose for MODEL Online. The third columns of Tables 2.2.1–2.2.4 below show the quantity of retired ACCESS content that were selected per domain and grade-level cluster. The fourth column of the tables shows the quantity of "from scratch" (i.e., brand new) development, and the column on the far right shows the total quantity of folders to be developed.

Table 2.2.1: Development totals for Speaking

Grade-level cluster	Target new Operational folders	From retired ACCESS	From scratch	Speaking folders to develop & field test
1–2	2	0	3	3
3–5	1	3	0	2 (3)*
6–8	1	1	1	2
9–12	1	1	1	2

Grade-level cluster	Target new Operational folders	From retired ACCESS	From scratch	Speaking folders to develop & field test
Totals	5	5	5	9 (10)

*One folder was dropped after educator panel reviews; 3 were developed but only two were field tested

Table 2.2.2: Development totals for Listening

Grade-level cluster	Target new Operational folders	From retired ACCESS	From scratch	Listening folders to develop & field test
1–2	5	4	2	6
3–5	8	9	0	9
6–8	8	8	2	9 (10)*
9–12	4	5	0	5
Totals	25	26	4	29 (30)

*One folder was dropped after educator panel reviews; 10 were developed but only 9 were field tested

Table 2.2.3: Development totals for Writing

Grade-level cluster	Target new Operational folders	From retired ACCESS	From scratch	Writing folders to develop & field test
1–2	2	3	0	3
3–5	2	0	3	3
6–8	2	3	0	3
9–12	2	2	0	2
Totals	8	8	3	11

Table 2.2.4: Development totals for Reading

Grade-level cluster	Target new Operational folders	From retired ACCESS	From scratch	Reading folders to develop & field test
1–2	5	1	5	6
3–5	5	5	1	6
6–8	5	5	1	6
9–12	8	3	6	9
Totals	23	14	12	27

Category 3: Revised from MODEL

A third category of new content (in addition to "revise from ACCESS" and "from scratch") emerged in the process of the work done to review current operational MODEL items. This

category entailed four folders where only one of the three items in the folder was underperforming in terms of discrimination and for which the project team saw a possible solution. These four folders were referred to as "revise from MODEL" field test (FT) content. They were operational folders that had one new field test item created and then embedded within the folder, with the goal of replacing the weaker item after field testing. There were only four folders in this category, and they are not included in the counts of new FT content above (nor were they included in the educator panel reviews). These four folders are detailed in Table 2.2.5 below.

Table 2.2.5 "Revise from MODEL" FT content

Grade-level cluster	Domain	Track	Folder name
3–5	Listening	High	Animal Adaptations (LoSC)
3–5	Reading	High	Learning about Weather (LoMA)
3–5	Reading	High	Ancient Civilizations (LoSS)
6–8	Listening	Low	Tara at the Art Museum (LoLA)

2.3. Content development: Revising retired ACCESS folders and "from scratch" development

Two vendors were contracted for content development on the MODEL Online refreshment project: The Center for Applied Linguistics (hereafter CAL) was contracted to do the Speaking task development, and MetriTech was contracted to do the Listening, Reading, and Writing development. MetriTech also did the graphics work for the Speaking tasks, and was the vendor for all other aspects of the project (e.g., finalizing materials for educator reviews, recording new audio for all new operational forms post-field test, and providing customer service and technical support for the duration of the project). As mentioned above, MetriTech also hosts MODEL Online on its Test Administrator Interface (TAI) and worked with the project team on the technical quality control and user-acceptance testing steps related to the launch of the MODEL Online refresh field test.

The WIDA project team worked on multiple rounds of review of all content with both vendors in order to prepare the content for two panels of educator review. After the educator review panels were completed, further revisions were made to the content before the content was approved for field testing. These three steps: initial content review, a Bias, Sensitivity, and Content (hereafter "BSC") panel review, and post-BSC revisions, are described below.

2.3.1. Initial development

For the "from scratch" folders, ACCESS item specifications which included WIDA standard and target proficiency level, were provided to the vendors. For "revise from ACCESS" content, information about areas to target in revision, generated via the WIDA internal reviews described above, were provided to the vendors.

The "from scratch" folders had at least three rounds of WIDA review built into the project plan: initial topic/draft review, Review 1 of completed folder, and Review 2 of completed folder. The "revise from ACCESS" folders had two rounds of review: Review 1 of completed folder and Review 2 of completed folder. However, folders in both categories often had more than three rounds of review before finalizing for educator review.

2.3.2. Educator review panels

Two panels of educators were convened to review the content being developed for MODEL Online and to provide WIDA with feedback for revision. One panel consisted of educators from the WIDA consortium. This group met in Rosemont, Illinois on April 23 and 24, 2019.

The second panel was made up of educators from the WIDA International School Consortium. This panel met May 11 and 12, 2019 in Brussels, Belgium. The content that was brought to both panels was almost identical (the one exception is described below) and the training and procedures were identical.

Educator review panel: Rosemont, Illinois

Educators were recruited from across the WIDA consortium to review the new MODEL Online content by grade-level cluster. Five educators per grade-level cluster, for a total of 20 reviewers, participated in the meetings. Efforts were made during recruitment to get representation from a variety of regions and backgrounds. Table 2.3.1 shows the 14 U.S. states that the twenty educators came from.

Table 2.3.1: Domestic BSC Participants by U.S. state

State	Number of participants	State	Number of participants
Alaska	1	Minnesota	1
Florida	1	Missouri	1
Georgia	3	New Mexico	1
Illinois	3	North Carolina	1
Maine	1	Pennsylvania	2
Maryland	1	South Dakota	1
Massachusetts	1	Virginia	2

The event was held over two days and each panel of five educators was asked to review the content for their grade-level clusters from both a content perspective (i.e., topic, cognitive, and linguistic appropriacy for the grade-level cluster and target proficiency level) and a bias and sensitivity perspective (i.e., might content be more accessible to some learners than others in a construct irrelevant way and might content be upsetting to test-takers). The morning of the first day consisted of a training for content reviewing and bias and sensitivity reviewing. The educators then met in grade-level cluster specific breakout groups. Each breakout group consisted of the five educators, one WIDA facilitator and one note-taker from MetriTech.

The content under review was projected on a large screen for the educators, who were also given hard copy packets of the materials. For the Listening domain, draft audio was played for the educators. For the Writing domain, the audio input was read aloud by the facilitators. The Speaking test administrator script was used by the WIDA facilitator to "administer" those tasks to the panelists.

The WIDA facilitator went through the material item by item and solicited comments from the educators from both the content perspective and the bias and sensitivity perspective. The educators also completed logs to indicate that they had reviewed the content, but were asked to voice their concerns orally in real time, so they could be recorded by the notetaker and clarifications or elaboration could be sought in real time. These detailed notes were then evaluated by the WIDA project team after the meetings to be categorized as either actionable or not.

Educator review panel: Brussels, Belgium

The decision was taken at the start of the project to also convene a panel of international educators because the WIDA International School Consortium are stakeholders in MODEL, and because some of the concerns that the project was trying to address, e.g., overly U.S.-centric content, had originated with its international users. The International School of Brussels was selected to host the event and educators who were working across the WIDA International School Consortium were recruited to attend. The target number of participants, four per grade-level cluster, was slightly lower than for the Rosemont meetings, principally because of the higher cost of international travel. In total, 16 educators from 11 countries participated in the meetings; Table 2.3.2 provides the details.

Table 2.3.2: International BSC Participants by country

Country of employment	Number of participants	Country of employment	Number of participants
Belgium	5	Luxembourg	1
China	2	Netherlands	1
England	1	Singapore	1
Germany	1	South Korea	1
Hungary	1	Switzerland	1
Italy	1		

The duration of the meetings and the procedures were the same as for the domestic consortium meeting in Rosemont. As mentioned above, the content was exactly the same, except for the decision to drop one writing folder from the Grades 3–5 review. The same training was provided by the same WIDA staff, and the same WIDA facilitators worked with each grade-level cluster. The note-takers, however, were different; two WIDA staff served as note-takers for two grade-level clusters and two International School of Brussels staff served as note-takers for the other two grade-level clusters. The process of soliciting comments was the same, and note-takers provided their records of the comments to the WIDA facilitators at the end of the review

meetings, which WIDA evaluated in conjunction with the feedback from the domestic meeting, as described below.

2.3.3. Post-BSC revisions

There was a large amount of educator feedback to review, evaluate, and consolidate. The feedback was also provided to CAL and MetriTech, but WIDA project team did this work internally over a roughly three-week period. Of the 76 folders taken to the meetings more than 90% were revised. Some of the revisions were minor, e.g., making a small change to a graphic, and some were major, e.g., revising the entire focus of a three-item listening passage; most fell between these two poles. Additionally, when the domestic and international feedback converged, decisions were fairly easy to make. However, in instances where one group commented on something that was not noted by the other group, or where feedback diverged, the experiences of the WIDA facilitator who participated in both meetings was crucial for revision decisions. Finally, in addition to the Grades 3–5 Writing folder that was dropped after the domestic meeting, a Grades 6–8 Listening folder was dropped from consideration for field testing after the international meeting.

After the educator feedback was consolidated, specific decisions on what to edit were posted to MetriTech and CAL via spreadsheets. Over a two-month period, the two vendors and the WIDA project team went back and forth on revisions until WIDA signed off on them for field testing. At that point MetriTech created audio as necessary and moved the item content into necessary formats for delivery via the MODEL Online platform known as the Test Administration Interface, or TAI. After the content was moved into digital format, the WIDA project team did a final content review in the TAI, to confirm accurate rendering of text, graphics, and audio in the online platform. Once that was completed, the team carried out a round of user acceptance testing (UAT) with 24 mock students across the four grade-level clusters (six mock students across each grade-level cluster). The UAT was necessary due to the complexity of the embedded field test design for the Speaking, Listening, and Reading domains. The field test design for MODEL Online is described in the next section, and more details on the field test UAT are provided below.

3. Field Test

An embedded field test design, i.e., inserting field test content within the operational content that the student is being scored on, has the advantage of not needing to recruit students to participate in separate field-test events (referred to below as a "stand-alone field test"). However, an embedded field test has the drawback of extending the seat time for students. Because new content for all four domains needed to be field-tested, the project team decided that both an embedded field test design and stand-alone field test would be necessary to a) attain the desired sample of students and b) minimize inconvenience for test takers and test administrators.

After sitting the test themselves, and tracking the time necessary for completing folders across domains, the project team estimated that it would take 9–12 minutes to complete a new Speaking

folder, 4–5 minutes for a Listening folder, around 30 minutes for a new Writing folder, and 5 minutes for a new Reading folder. Embedding all four domains meant potentially increasing seat time by an hour for a student. This seemed like too much to ask of current test administrators and test-takers, so the decision was made to run the Writing field test as a stand-alone event and to embed only folders from Speaking, Listening, and Reading within the operational MODEL Online forms. Although the goal was to minimize inconvenience, the test-users were being asked to give up some of their time, so incentives were provided to operational MODEL test-users who were testing during the field test window. Incentives were also provided to participants in the stand-alone Writing field test.

3.1. Embedded field test for Speaking, Listening, and Reading

Following psychometric best practices, the goal was for 500 students to be administered each embedded FT folder, with generally equal distribution of the grades of students within each grade-level cluster. The project team analyzed MODEL Online test administration n counts from fall 2017 and fall 2018 to help estimate the length of the field-testing window that would be needed. Taking into account the number of folders to be field-tested and the different track levels for the Listening and Reading domains, the team estimated that almost five months was necessary to reach an adequate number of students across all three difficulty tracks, and the embedded field test was scheduled for September 9, 2019 through January 31, 2020.

The embedded design for Speaking was the most straightforward of the three domains: every student taking operational MODEL Online during the field test window was administered a third folder of Speaking tasks after being administered their two operational speaking folders. That is, a speaking field test folder was appended to the operational test. For the Grades 1–2 cluster, the students were administered one of three possible field test folders, and for the Grades 3–5, 6–8, and 9–12 clusters, they were administered one of two possible field test folders.

The embedded field test design for Listening and Reading was more complicated than for Speaking. As mentioned in the first chapter, the MODEL design includes two "Steps" for both of these domains: a four-item Step 1 "entry" folder and then Step 2, which is divided into three tracks: Low, which includes three 3-item folders, and Intermediate and High, both comprised of four 3-item folders. Because of their high rates of use, the project team wanted to replace all of the current primary entry folders for Listening and Reading, so two entry folders were developed and field-tested for both domains for all grade-level clusters. To ensure adequate n counts for the entry folders, all students were administered one of the two entry folders before being placed in their tracks. After being placed in their tracks, the students would then receive either one more FT folder, or no FT folder, depending on their grade-level cluster and track.

Tables 3.1.2 and 3.1.3 show the number of FT folders for Listening and Reading by grade-level cluster. The Folder Distribution column shows the percentage of students within that grade-level cluster, domain, track combination who would receive each FT folder.

Table 3.1.2 Listening Step 2 Field Test Folders:

Grade-level cluster	Track	# Step 2 FT folders*	Folder distribution
1-2	Low	0	NA
	Mid	3	33%
	High	2	50%
3-5	Low	2	50%
	Mid	6	16.7%
	High	3	33%
6-8	Low	2	50%
	Mid	4	25%
	High	4	25%
9-12	Low	1	100%
	Mid	2	50%
	High	2	50%

*Technically this is the number of FT "slots," not folders, as some Listening folders were field tested in more than one track

Table 3.1.3 Reading Step 2 Field Test Folders:

Grade-level cluster	Track	# Step 2 FT folders*	Folder distribution
1-2	Low	0	NA
	Mid	3	33%
	High	2	50%
3-5	Low	1	100%
	Mid	2	50%
	High	2	50%
6-8	Low	3	33%
	Mid	0	NA
	High	1	100%
9-12	Low	2	50%
	Mid	6	16.7%
	High	3	33%

*Technically this is the number of FT "slots," not folders, as some Reading folders were field tested in more than one track

An additional complexity of the Listening and Reading embedded FT design was the need to field test some folders at more than one track. After looking at historical administration counts, the project team realized that for some grade-level cluster/domain/track combinations (e.g., Grades 9–12 Reading High), there would not be enough students to support the necessary sample size, so some High track and Low track FT folders were also administered with Mid track students, which generally had the largest number of test takers. This field test design proved to

be successful in attaining desired n counts for entry folders, as is discussed in the following chapters.

3.2. Stand-alone field test for Writing

As discussed above, the project team decided that embedding the FT Writing tasks within operational MODEL Online would be too much of a burden on test administrators and students, so a stand-alone design was selected. The stand-alone design was straightforward: for each grade-level cluster, a current operational MODEL Writing task was selected as a linking task, and each FT Writing task was appended to that operational linking task. This meant that the number of FT forms equaled the number of FT folders; see Table 3.2.1.

Regarding the selection of the operational linking task for the FT Writing forms, as stated above, each MODEL Online grade-level cluster has three separate operational Writing tasks. The first of these three operational tasks, i.e., "Task 1," was selected as the linking task for the FT forms because a) they were the tasks within each grade-level cluster that psychometrics had the most reliable difficulty estimates to use to calibrate the new FT tasks, and b) they were the operational tasks with the highest exposure, so all were slated for refreshment. This meant that the additional exposure in a stand-alone field-test event was less of a concern. More details on the calibration of the new FT tasks are in Chapter 6.

Table 3.2.1 Stand-alone Writing Field Test Forms by Grade-level cluster

Grade-level cluster	Number of Field Test Folders	Number of Forms	Form details
1–2	3	3	Form A: Gr. 1–2 Op task 1 + G1-2 FT task 1 Form B: Gr. 1–2 Op task 1 + G1-2 FT task 2 Form C: Gr. 1–2 Op task 1 + G1-2 FT task 3
3–5	3	3	Form A: Gr. 3–5 Op task 1 + 3–5 FT task 1 Form B: Gr. 3–5 Op task 1 + 3–5 FT task 2 Form C: Gr. 3–5 Op task 1 + 3–5 FT task 3
6–8	3	3	Form A: Gr. 6–8 Op task 1 + 6–8 FT task 1 Form B: Gr. 6–8 Op task 1 + 6–8 FT task 2 Form C: Gr. 6–8 Op task 1 + 6–8 FT task 3
9–12	2	2	Form A: Gr. 9–12 Op task 1 + 9–12 FT task 1 Form B: Gr. 9–12 Op task 1 + 9–12 FT task 2

(Note: "Op" = operational and "FT" = field test)

Although the design was straightforward, the stand-alone writing test required several logistical steps that were not necessary for the embedded field test to ensure its success: recruiting participants, creating separate FT forms in the TAI, creating separate stand-alone directions for participants (both for using the TAI and for test administration), creating procedures for materials return (both for domestic and international participants), and scoring.

Recruitment was done by staff at WIDA and the tracking of n count numbers was done jointly by WIDA and MetriTech. Follow-up communications with participants to ensure their completion of the field test (e.g., the return of physical booklets for Grades 1–2 and 3–5) were also done jointly by WIDA and MetriTech. These joint efforts were successful, and despite attrition of some FT participants (particularly at Grades 1–2 and 3–5, whose materials needed to be physically mailed back to MetriTech), sufficient numbers of test-takers were attained to be able to calibrate all 11 FT writing tasks, as is discussed in detail in Chapter 5.

4. Administration and Scoring of the Field Test

As mentioned above, the field test window was open from September 9, 2019 through January 31, 2020 for both the embedded field test of Speaking, Listening, and Reading folders and for the stand-alone field test for Writing. However, two additional weeks were added to the window for the stand-alone Writing field test for participants who had already begun their testing or were in the process of returning their field test booklets. How the four domains were administered and then scored once the administration window had closed is described below.

4.1. Speaking, Listening, and Reading FT folders

The administration and scoring of FT tasks in the Speaking, Listening, and Reading domains did not differ from how operational items are scored in those domains. That is, the Speaking test for MODEL Online is delivered one-to-one by a test administrator to the test taker and is scored in real time using the Speaking rubric and information in the Speaking Test Administrator Script. To accommodate the Speaking FT tasks, the only change in administration was to create new Speaking Test Administrator scripts for each grade-level cluster to include the FT tasks after the operational tasks. Because there were either two or three Speaking FT tasks per grade-level cluster, and the students were only being administered one Speaking task, the MODEL Online TAI prompted test administrators to turn to the correct page in the test administrator script when the FT task was being administered. Test administrators scored the Speaking FT tasks using the same rating scale as operational Speaking tasks and the scores they assigned to Speaking FT tasks were captured by the TAI and submitted just as they are with operational Speaking tasks.

For Listening and Reading, no changes to directions or administration were needed. Test administrators and schools were notified of the addition of field test folders, but because MODEL Online is not a timed test, there was no change in directions to notify students of the presence of field test tasks. The Listening and Reading FT folders are multiple choice, and were machine scored after the students had completed their sessions. Writing FT folders

The administration and scoring of the stand-alone Writing field test was different from how the operational MODEL writing test is administered and scored. As mentioned above, participants for the writing field test were recruited from both the domestic and the international consortia and were offered incentives for their participation. The creation of this unique stand-alone FT event required the creation of a separate instructions document, which was done jointly by MetriTech and WIDA. The document provided details on:

- preparing for the field test, which differed depending on whether students were in Grades 1–2 and 3–5 and using writing booklets or were in Grades 6–8 and 9–12 and were solely engaging with the Writing tasks via the TAI,
- using the TAI to set up test sessions and administer the test, which differed depending on whether participants were already MODEL Online users or were new to the platform,
- administering the test and test security, and
- returning materials (relevant for students in Grades 1–2 and 3–5).

When MODEL Writing tasks are administered operationally (both Paper and Online versions), scoring is done by local test administrators. The Writing FT tasks from the stand-alone Writing field test were all scored centrally by seven raters at MetriTech. However, the raters at MetriTech used the same training and certification materials that local writing raters use to prepare for scoring MODEL writing, and used the same rating scale. In addition, in order to ensure adequate reliability and to monitor rater performance, MetriTech double-rated 10% of all Writing tasks. MetriTech also provided the WIDA project team with weekly reports on rater reliability and the progress of scoring during the handscoring window. The reliability of MetriTech's raters exceeded industry standards (raters demonstrated agreement on roughly 95% of the 1,258 responses that were double rated), which gave WIDA good confidence in the scores that were used for the calibration of the FT tasks. Details on the analyses and calibration of all the field test content are provided in the following chapters.

5. Student Results

5.1. Student participation and performance

This section of the report provides an overview of students' participation in the MODEL field testing occurred in 2020 by grade-level cluster, grade, and track (for Listening and Reading), and also by students in the U.S. and internationally.

5.1.1. Participation

Tables 5.1.1.1-5.1.1.5 show the number of participants by region (U.S./international), grade-level cluster, and gender.

Table 5.1.1.1 Participation by State: U.S.

State	N	%
Alabama	900	7.28
Alaska	3	0.02
California	51	0.41
Colorado	262	2.12
District of Columbia	113	0.91
Florida	1,599	12.93
Georgia	109	0.88

State	N	%
Hawaii	4	0.03
Illinois	1,244	10.06
Indiana	423	3.42
Iowa	3	0.02
Kentucky	28	0.23
Maine	18	0.15
Maryland	17	0.14
Massachusetts	1,531	12.38
Michigan	36	0.29
Minnesota	206	1.67
Missouri	111	0.90
Nevada	428	3.46
New Hampshire	15	0.12
New Jersey	839	6.79
New Mexico	371	3.00
New York	425	3.44
North Carolina	76	0.61
Ohio	42	0.34
Pennsylvania	1,316	10.65
Rhode Island	8	0.06
South Carolina	44	0.36
Tennessee	1,415	11.45
Texas	39	0.32
Utah	150	1.21
Virginia	377	3.05
Washington	53	0.43
Wisconsin	13	0.11
Wyoming	83	0.67
Total	12,352	100.00

Table 5.1.1.2 Participation by Country: International

Country	N	%		Country	N	%
Albania	2	0.04		Malaysia	48	0.85
Argentina	3	0.05		Mali	17	0.30
Aruba	12	0.21		Mauritius	2	0.04
Austria	13	0.23		Mexico	3	0.05
Azerbaijan	49	0.87		Morocco	14	0.25
Brazil	812	14.44		Myanmar	47	0.84
Cambodia	42	0.75		Netherlands	7	0.12
Cameroon	1	0.02		Panama	34	0.60
Canada	35	0.62		Peru	1	0.02
Chile	5	0.09		Philippines	8	0.14

Country	N	%		Country	N	%
China	1,319	23.46		Poland	66	1.17
Colombia	17	0.30		Portugal	39	0.69
Congo	9	0.16		Qatar	121	2.15
Czech Republic	5	0.09		Romania	2	0.04
Denmark	1	0.02		Russian Federation	19	0.34
Dominican Republic	13	0.23		Rwanda	9	0.16
Egypt	4	0.07		Saudi Arabia	59	1.05
Estonia	2	0.04		Serbia	9	0.16
Finland	12	0.21		Singapore	742	13.20
Germany	19	0.34		South Africa	14	0.25
Ghana	23	0.41		Spain	17	0.30
Guatemala	7	0.12		Sudan	25	0.44
Hong Kong	128	2.28		Sweden	8	0.14
Hungary	20	0.36		Switzerland	27	0.48
India	96	1.71		Taiwan	166	2.95
Indonesia	42	0.75		Tanzania; United Republic of	11	0.20
Israel	4	0.07		Thailand	526	9.36
Italy	1	0.02		Trinidad and Tobago	1	0.02
Japan	229	4.07		Turkey	24	0.43
Korea (Republic of)	111	1.97		United Arab Emirates	218	3.88
Lithuania	5	0.09		United Kingdom	25	0.44
Macedonia	9	0.16		Viet Nam	257	4.57
Madagascar	4	0.07		Zimbabwe	2	0.04
Total	N=5,622					

Table 5.1.1.3 Participation by grade-level cluster by global: U.S. and International

Cluster	Global	N	%
1-2	International	1,099	32.96
	United States	2,235	67.04
3-5	International	2,177	37.16
	United States	3,682	62.84
6-8	International	1,554	32.46
	United States	3,233	67.54
9-12	International	792	19.78
	United States	3,212	80.22

Table 5.1.1.4 Participation by grade-level cluster by gender: U.S. and International

		U.S.		International	
		N	%	N	%
1-2	F	600	26.85	387	35.21
	M	684	30.60	483	43.95
	Missing	951	42.55	229	20.84
	Total	2,235	100.00	1,099	100.00
3-5	F	920	24.99	656	30.13
	M	1,232	33.46	782	35.92
	Missing	1,530	41.55	739	33.95
	Total	3,682	100.00	2,177	100.00
6-8	F	794	24.56	454	29.21
	M	1,020	31.55	638	41.06
	Missing	1,419	43.89	462	29.73
	Total	3,233	100.00	1,554	100.00
9-12	F	889	27.68	212	26.77
	M	1,110	34.56	324	40.91
	Missing	1,213	37.76	256	32.32
	Total	3,212	100.00	792	100.00

Table 5.1.1.5 Participation by gender: U.S. and International

	U.S.		International	
	N	%	N	%
F	3,203	25.91	1,709	30.4
M	4,046	32.73	2,227	39.61
Missing	5,113	41.36	1,686	29.99
Total	12,362	100.00	5,622	100.00

6. Analysis of Test

6.1. Calibration of MODEL Field Test items

For all four domains, Listening, Reading, Speaking and Writing, MODEL field test items were linked to the original MODEL scale using a concurrent calibration with a common-item linking method. Field test items were administered with previously operational MODEL items. For each domain, item parameters of previously operational items were anchored on the operational items and field test items were calibrated concurrently together with the operational items.

For the Listening, Reading and Speaking domains, anchor item parameters of the operational items were evaluated on displacement values. Anchor items with displacement greater than |0.3|

were released one item at a time from the anchor set and freely calibrated with the rest of the items. This process was iterated until no anchor items showed above the displacement threshold.

For Writing, the first step was to establish previously operational item parameters. The original MODEL Writing scoring tables were created based on content experts' judgement of proficiency levels, not drawn from item parameters. In order to estimate original MODEL operational item parameters, WIDA calibrated Writing items on the reading scale. For each grade-level cluster, there was one operational Writing item (Part B) to be calibrated. Since one item cannot be calibrated using an IRT model, WIDA calibrated each Writing item with reading operational items per grade-level cluster so that the Writing test is on the reading scale. WIDA used final reading item parameters anchored on reading operational items and concurrently calibrated reading items and one Writing item together per grade-level cluster. Since this calibration had a mixture of dichotomous and polytomous items in the data, a Partial Credit Model was applied. Then only Writing item and step parameters were taken as operational Writing item parameters.

The second step was to calibrate MODEL Writing field test items with the original MODEL operational Writing items. Per grade-level cluster, there were two or three field test items administered along with one operational item. Field test items were calibrated on the item and step values of the operational item derived from the first step per grade-level cluster using the Partial Credit Model.

6.1.1. IRT model

Rasch model

For Listening, Reading and Speaking, items are dichotomous. 0/1 binary item responses are measured using the Rasch Model. The Rasch model for dichotomous data computes the probability that a person *n* gets an item *I* correct as:

$$\Pr\{X_{ni} = 1\} = \frac{e^{\beta n - \delta_i}}{1 + e^{\beta n - \delta_i}},$$

where β_n is the ability of person *n* and δ_i is the difficulty of item *i*. Thus, in the case of a dichotomous attainment item, $\Pr\{X_{ni} = 1\}$ is the probability of success upon the interaction between the relevant person and assessment item. It is readily shown that the log odds, or logit, of a correct response by a person to an item, based on the model, is equal to $\beta_n - \delta_i$. Given two examinees with different ability parameters β_1 and β_2 and an arbitrary item with difficulty δ_i, we can compute the difference in logits for these two examinees by $(\beta_1 - \delta_i) - (\beta_2 - \delta_i)$. This difference becomes $\beta_1 - \beta_2$. Conversely, it can be shown that the log odds of a correct response by the same person to one item, *conditional* on a correct response to one of two items, is equal to the difference between the item locations. For example,

$$\log - \text{odds}\{X_{ni} = 1 | r_n = 1\} = \delta_2 - \delta_1 ,$$

where r_n is the total score of person *n* over the two items, which implies a correct response to one or other of the items. Hence, the conditional log odds do not involve the person parameter β_n , which can therefore be *eliminated* by conditioning on the total score $r_n = 1$. That is, by partitioning the responses according to raw scores and calculating the log odds of a correct response, an estimate $\delta_2 - \delta_1$ is obtained without involvement of β_n . More generally, a number of item parameters can be estimated iteratively through application of a process such as Conditional Maximum Likelihood estimation.

Partial credit model

Writing items have an ordered polytomous scale with 0-18 raw score points. The partial credit model has a response structure modeled uniquely to each item. The Masters Partial credit mode allocates each item to its own grouping. Field test items were calibrated on the MODEL operational item step value using Partial credit model per grade-level cluster.

The conventional representation of the Partial Credit model is

$$\log\left(\frac{P_{nij}}{P_{ni(j-1)}}\right) = \beta_n - \delta_i = \text{theta - delta}$$

Winsteps parameterizes δ_{ij} as $\delta_i + F_{ij}$ where sum $(F_{ij}) = 0$. F_{ij} is the Andrich threshold of each item, and δ_i is the average (δ_{ij}) for all thresholds *j* of item *i*.

$$\log\left(\frac{P_{nij}}{P_{ni(j-1)}}\right) = \beta_n - \delta_i - F_{ij}$$

Algebraically these two representations are identical. Thus every item has a mean difficulty, δ_i.

6.2. Scaling

6.2.1. Scaling of domain scores

Scale scores are calculated by transforming the person ability estimate via a scaling equation. The following scaling equations are used to convert ability measures in logits to scale scores:

- L: (Ability Measure in Logits * 37.571) + 316.637
- R: (Ability Measure in Logits * 26.000) + 323.272

- W: (Ability Measure in Logits * 31.097) + 317.068
- S: (Ability Measure in Logits * 20.084) + 322.686

6.2.2. Scaling of composite scores

MODEL has three composite domains: Overall, Literacy, and Oral. Each composite domain is composed of sum of weighted individual domains in the following:

Overall composite: Listening (0.15) + Reading (0.35) + Speaking (0.15) + Writing (0.35)

Literacy composite: Reading (0.5) + Writing (0.5)

Oral composite: Listening (0.5) + Speaking (0.5)

Each individual domain is multiplied by the weight and then truncated to an integer value. Each integer is summed to become a composite scale score.

6.3. Item Analysis Results

6.3.1. Number of items in calibrations

This section describes the number of items, anchor items, and field test items in the calibration analysis in each grade-level cluster and domain.

Table 6.3.1.1 Number of items in calibration: Listening

Cluster	Total number of items	Number of operational items	Number of field test items
1-2	51	31	20
3-5	64	34	30
6-8	64	34	30
9-12	51	34	17

Table 6.3.1.2 Number of items in calibration: Reading

Cluster	Total number of items	Number of operational items	Number of field test items
1-2	60	40	20
3-5	56	34	22
6-8	54	34	20
9-12	63	34	29

Table 6.3.1.3 Number of items in calibration: Speaking

Cluster	Total number of items	Number of operational items	Number of field test items
1-2	21	8	13
3-5	18	8	10
6-8	20	10	10
9-12	20	10	10

Table 6.3.1.4 Number of items in calibration: Writing

Cluster	Total number of items	Number of operational items	Number of field test items
1-2	4	1	3
3-5	4	1	3
6-8	4	1	3
9-12	3	1	2

6.3.2. Complete Item or task analysis and summary

This section describes the summary of item statistics of field test calibration results in each grade-level cluster test and domain. Statistics included are the number of students responding to an item correctly, the total number of students responding to an item, the Rasch difficulty measure, p value, point biserial, and infit/outfit statistics. All analyses were conducted using the measurement software program *Winsteps* (Linacre, 2014). Item difficulty measure is expressed in Rasch logit scale.

Fit statistics for the Rasch model are calculated by comparing the observed empirical data with the data that would be expected to be produced by the Rasch model if the data fit the model perfectly. Outfit mean square statistics are influenced by outliers. For example, a difficult item that some low-ability examinees get correct—for reasons unknown—will have a high outfit mean square statistic. Infit mean square statistics are influenced by unexpected patterns of observations by persons on items that are roughly targeted for them and generally indicate a more serious measurement problem. The expectation for both of these statistics is 1.00, and values near 1.00 are not of great concern. Values less than 1.00 indicate that the observations are too predictable and thus redundant, but are not of great concern. High values are of greater concern.

Linacre (2002) provided more guidance on how to interpret these statistics for dichotomous items.

- Values greater than 2.0 "distort or degrade the measurement system."
- Values between 1.5 and 2.0 are "unproductive for construction of measurement, but not degrading."
- Values between 0.5 and 1.5 should be considered "productive for measurement."
- Values below 0.5 are "less productive for measurement, but not degrading."

Linacre also stated that infit problems are more serious to the construction of measurement than are outfit problems.

In selecting field test items for a new operational test, we applied the following criteria: 1) mean square fit statistics in the range of 0.5 and 1.5, 2) point biserial value greater than 0.1, 3) p values in the range of 0.1 and 0.9, and 4) difficulty measure matching to the targeted proficiency level difficulty

The average item difficulty, number of items, average p-value, average infit and outfit values are of the newly assembled Online MODEL operational form in the Item Analysis and Summary tables.

Table 6.3.2.1 Complete Item Analysis and Summary: Listening grade-level cluster 1-2 Low track

Name	Score	count	Average item difficulty (in logits) / MEASURE	Number of items / Anchored?	Average P-value / P Value	Average Ptbs / Point biserial	Average infit mean square / IN.MSQ	Average outfit mean square / OUT.MS	Final Status
			-1.86	13	0.63	0.31	0.96	0.93	
Listening_Step_1_Art_Class_1	1,832	3,004	-0.68	Yes	0.61	0.3	1.03	1.11	Retired
Listening_Step_1_Art_Class_2	1,923	3,004	-1.22	Yes	0.64	0.31	1.09	1.08	Retired
Listening_Step_1_Art_Class_3	1,292	3,004	0.11	Yes	0.43	0.25	1.09	1.25	Retired
Listening_Step_1_Art_Class_4	2,013	3,004	-1.16	No	0.67	0.39	0.96	0.92	Retired
Listening_Low_The_Clever_Village_1_FT[1]	1,168	1,498	-1.89	No	0.78	0.43	0.89	0.83	FT[1] (NS[2])
Listening_Low_The_Clever_Village_2_FT	945	1,500	-0.92	No	0.63	0.38	1.00	1.01	FT (NS)
Listening_Low_The_Clever_Village_3_FT	1,170	1,500	-1.91	No	0.78	0.42	0.92	0.74	FT (NS)
Listening_Low_The_Clever_Village_4_FT	1,020	1,500	-1.22	No	0.68	0.39	0.99	0.94	FT (NS)
Listening_Low_George_Washington_Carver_1_FT	1,099	1,505	-1.54	No	0.73	0.27	1.10	1.09	Op[3]
Listening_Low_George_Washington_Carver_2_FT	1,069	1,505	-1.44	No	0.71	0.47	0.85	0.73	Op
Listening_Low_George_Washington_Carver_3_FT	557	1,505	0.43	No	0.37	0.28	1.04	1.19	Op
Listening_Low_George_Washington_Carver_4_FT	858	1,505	-0.61	No	0.57	0.27	1.10	1.15	Op
Listening_Low_Around_Brookside_Community_A1	535	713	-2.89	No	0.75	0.38	0.86	0.75	Op
Listening_Low_Around_Brookside_Community_A2	386	714	-2.08	Yes	0.54	0.29	1.01	0.96	Op
Listening_Low_Around_Brookside_Community_A3	393	714	-1.81	No	0.55	0.28	0.97	0.93	Op
Listening_Low_Shapes_at_the_Park_B4	536	714	-2.85	No	0.75	0.39	0.85	0.75	Op
Listening_Low_Shapes_at_the_Park_B5	536	714	-2.85	No	0.75	0.24	0.98	0.93	Op
Listening_Low_Shapes_at_the_Park_B6	300	714	-1.18	No	0.42	0.27	0.96	0.97	Op
Listening_Low_Getting_Ready_for_School_C7	528	714	-2.82	No	0.74	0.32	0.91	0.87	Op
Listening_Low_Getting_Ready_for_School_C8	471	714	-2.35	No	0.66	0.32	0.92	0.87	Op
Listening_Low_Getting_Ready_for_School_C9	443	714	-2.15	No	0.62	0.3	0.95	0.89	Op

Note: FT[1] refers to field test items. NS[2] indicates “not selected”. OP[3] refers to the newly created final MODEL operational items.

Table 6.3.2.2 Complete Item Analysis and Summary: Listening grade-level cluster 1-2 Mid track

Name	Score	count	Average item difficulty (in logits) / Measure	Number of items / Anchored?	Average P-value / P Value	Average Ptbs / Point biserial	Average infit mean square / IN.MSQ	Average outfit mean square / OUT.MS	Final Status
			-0.85	16	0.64	0.26	1.02	1.02	
Listening_Step_1_Art_Class_1	1,832	3,004	-0.68	Yes	0.61	0.3	1.03	1.11	Retired
Listening_Step_1_Art_Class_2	1,923	3,004	-1.22	Yes	0.64	0.31	1.09	1.08	Retired
Listening_Step_1_Art_Class_3	1,292	3,004	0.11	Yes	0.43	0.25	1.09	1.25	Retired
Listening_Step_1_Art_Class_4	2,013	3,004	-1.16	No	0.67	0.39	0.96	0.92	Retired
Listening_Low_The_Clever_Village_1_FT	1,168	1,498	-1.89	No	0.78	0.43	0.89	0.83	FT (NS)
Listening_Low_The_Clever_Village_2_FT	945	1,500	-0.92	No	0.63	0.38	1.00	1.01	FT (NS)
Listening_Low_The_Clever_Village_3_FT	1,170	1,500	-1.91	No	0.78	0.42	0.92	0.74	FT (NS)
Listening_Low_The_Clever_Village_4_FT	1,020	1,500	-1.22	No	0.68	0.39	0.99	0.94	FT (NS)
Listening_Low_George_Washington_Carver_1_FT	1,099	1,505	-1.54	No	0.73	0.27	1.10	1.09	Op
Listening_Low_George_Washington_Carver_2_FT	1,069	1,505	-1.44	No	0.71	0.47	0.85	0.73	Op
Listening_Low_George_Washington_Carver_3_FT	557	1,505	0.43	No	0.37	0.28	1.04	1.19	Op
Listening_Low_George_Washington_Carver_4_FT	858	1,505	-0.61	No	0.57	0.27	1.10	1.15	Op
Listening_Mid_Shapes_A1	1,066	1,480	-1.43	No	0.72	0.26	1.01	0.99	Op
Listening_Mid_Shapes_A2	1,215	1,482	-2.08	No	0.82	0.3	0.97	0.82	Op
Listening_Mid_Shapes_A3	1,097	1,482	-1.42	No	0.74	0.27	0.95	0.90	Op
Listening_Mid_Kitchen_B4	1,215	1,482	-1.98	No	0.82	0.29	0.92	0.85	Retired
Listening_Mid_Kitchen_B5	1,186	1,482	-1.83	Yes	0.8	0.18	1.00	1.06	Retired
Listening_Mid_Kitchen_B6	1,260	1,482	-2.17	No	0.85	0.24	0.96	0.95	Retired
Listening_Mid_Sorting_Rocks_1_FT	403	491	-1.97	No	0.82	0.29	0.94	0.92	Op
Listening_Mid_Sorting_Rocks_2_FT	388	491	-1.77	No	0.79	0.21	1.00	0.95	Op
Listening_Mid_Sorting_Rocks_3_FT	147	491	0.73	No	0.3	0.25	0.97	0.97	Op
Listening_Mid_Making_Friends_C7	1,535	2,291	-0.65	Yes	0.67	0.34	0.92	0.89	Op
Listening_Mid_Making_Friends_C8	1,581	2,291	-0.90	Yes	0.69	0.28	0.99	0.97	Op
Listening_Mid_Making_Friends_C9	1,650	2,291	-1.01	No	0.72	0.25	1.01	1.09	Op
Listening_Mid_Bingo's_Toy_D10	1,099	2,290	0.21	No	0.48	0.17	1.09	1.14	Op
Listening_Mid_Bingo's_Toy_D11	1,191	2,291	0.05	No	0.52	0.1	1.19	1.26	Op
Listening_Mid_Bingo's_Toy_D12	1,306	2,291	-0.24	No	0.57	0.09	1.19	1.24	Op
Listening_Mid_Different_Jobs_1_FT	227	494	-0.09	No	0.46	0.14	1.07	1.09	FT (red)
Listening_Mid_Different_Jobs_2_FT	469	494	-3.54	No	0.95	0.18	0.96	0.73	FT (red)
Listening_Mid_Different_Jobs_3_FT	445	494	-2.72	No	0.9	0.2	0.96	0.84	FT (red)

Table 6.3.2.3 Complete Item Analysis and Summary: Listening grade-level cluster 1-2 High track

Name	Score	count	Average item difficulty (in logits) / Measure	Number of items / Anchored?	Average P-value / P Value	Average Ptbs / Point biserial	Average infit mean square / IN.MSQ	Average outfit mean square / OUT.MS	Final Status
			-0.11	16	0.61	0.27	1.01	1.02	
Listening_Step_1_Art_Class_1	1,832	3,004	-0.68	Yes	0.61	0.3	1.03	1.11	Retired
Listening_Step_1_Art_Class_2	1,923	3,004	-1.22	Yes	0.64	0.31	1.09	1.08	Retired
Listening_Step_1_Art_Class_3	1,292	3,004	0.11	Yes	0.43	0.25	1.09	1.25	Retired
Listening_Step_1_Art_Class_4	2,013	3,004	-1.16	No	0.67	0.39	0.96	0.92	Retired
Listening_Low_The_Clever_Village_1_FT	1,168	1,498	-1.89	No	0.78	0.43	0.89	0.83	FT (NS)
Listening_Low_The_Clever_Village_2_FT	945	1,500	-0.92	No	0.63	0.38	1.00	1.01	FT (NS)
Listening_Low_The_Clever_Village_3_FT	1,170	1,500	-1.91	No	0.78	0.42	0.92	0.74	FT (NS)
Listening_Low_The_Clever_Village_4_FT	1,020	1,500	-1.22	No	0.68	0.39	0.99	0.94	FT (NS)
Listening_Low_George_Washington_Carver_1_FT	1,099	1,505	-1.54	No	0.73	0.27	1.10	1.09	Op
Listening_Low_George_Washington_Carver_2_FT	1,069	1,505	-1.44	No	0.71	0.47	0.85	0.73	Op
Listening_Low_George_Washington_Carver_3_FT	557	1,505	0.43	No	0.37	0.28	1.04	1.19	Op
Listening_Low_George_Washington_Carver_4_FT	858	1,505	-0.61	No	0.57	0.27	1.10	1.15	Op
Listening_High_Making_Friends_A1	1,535	2,291	-0.65	Yes	0.67	0.34	0.92	0.89	Retired
Listening_High_Making_Friends_A2	1,581	2,291	-0.90	Yes	0.69	0.28	0.99	0.97	Retired
Listening_High_Making_Friends_A3	1,650	2,291	-1.01	No	0.72	0.25	1.01	1.09	Retired
Listening_High_The_Magic_Door_1_FT	267	405	0.12	No	0.66	0.38	0.90	0.87	Op
Listening_High_The_Magic_Door_2_FT	308	405	-0.48	No	0.76	0.24	0.99	0.95	Op
Listening_High_The_Magic_Door_3_FT	324	405	-0.74	No	0.8	0.14	1.04	1.19	Op
Listening_High_Complex_Patterns_B4	445	809	0.87	Yes	0.55	0.35	0.93	0.92	Op
Listening_High_Complex_Patterns_B5	364	809	1.20	Yes	0.45	0.22	1.05	1.07	Op
Listening_High_Complex_Patterns_B6	509	808	0.19	No	0.63	0.31	0.95	0.94	Op
Listening_High_Fish_C7	549	808	-0.12	Yes	0.68	0.27	1.00	1.02	Op
Listening_High_Fish_C8	493	809	0.34	No	0.61	0.4	0.88	0.84	Op
Listening_High_Fish_C9	566	809	-0.02	Yes	0.7	0.39	0.86	0.78	Op
Listening_High_Bingo's_Toy_D10	1,099	2,290	0.21	No	0.48	0.17	1.09	1.14	Op
Listening_High_Bingo's_Toy_D11	1,191	2,291	0.05	No	0.52	0.1	1.19	1.26	Op
Listening_High_Bingo's_Toy_D12	1,306	2,291	-0.24	No	0.57	0.09	1.19	1.24	Op
Listening_Mid_Trees_are_Important_1_FT	622	901	-0.69	No	0.69	0.33	0.94	0.86	FT (red)
Listening_Mid_Trees_are_Important_2_FT	613	901	-0.68	No	0.68	-0.1	1.35	1.56	FT (red)
Listening_Mid_Trees_are_Important_3_FT	423	901	0.38	No	0.47	0.26	1.03	1.05	FT (red)

Table 6.3.2.4 Complete Item Analysis and Summary: Listening grade-level cluster 3-5 Low track

			Average item difficulty (in logits)	Number of items	Average P-value	Average Ptbs	Average infit mean square	Average outfit mean square	Final Status
			-0.56	13	0.59	0.36	0.99	0.98	
Name	Score	count	Measure	Anchored?	P Value	Point biserial	IN.MSQ	OUT.MS	
Listening_Step_1_Mystery_1	4,071	5,357	-0.42	Yes	0.76	0.36	0.92	0.92	Retired
Listening_Step_1_Mystery_2	4,928	5,357	-2.08	No	0.92	0.33	0.87	0.66	Retired
Listening_Step_1_Mystery_3	4,661	5,357	-1.67	Yes	0.87	0.39	1.03	0.87	Retired
Listening_Step_1_Mystery_4	4,071	5,357	-0.65	Yes	0.76	0.45	0.96	0.83	Retired
Listening_Low_A_New_School_1_FT	1,533	2,689	0.64	No	0.57	0.1	1.31	1.54	FT (NS)
Listening_Low_A_New_School_2_FT	1,533	2,689	0.67	No	0.57	0	1.46	1.67	FT (NS)
Listening_Low_A_New_School_3_FT	2,232	2,689	-1.01	No	0.83	0.44	0.86	0.65	FT (NS)
Listening_Low_A_New_School_4_FT	1,694	2,689	0.33	No	0.63	0.31	1.09	1.10	FT (NS)
Listening_Low_Emma_and_Her_Family_1_FT	2,214	2,667	-1.08	No	0.83	0.4	0.92	0.86	Op
Listening_Low_Emma_and_Her_Family_2_FT	1,841	2,668	-0.01	No	0.69	0.42	0.96	0.98	Op
Listening_Low_Emma_and_Her_Family_3_FT	1,868	2,668	-0.06	No	0.7	0.3	1.14	1.12	Op
Listening_Low_Emma_and_Her_Family_4_FT	1,521	2,668	0.68	No	0.57	0.24	1.19	1.32	Op
Listening_Low_Following_Instructions_1	395	693	-1.42	No	0.57	0.33	0.89	0.86	Op
Listening_Low_Following_Instructions_2	298	694	-0.76	No	0.43	0.28	0.93	0.92	Op
Listening_Low_Following_Instructions_3	257	694	-0.48	No	0.37	0.38	0.87	0.83	Op
Listening_Low_Missing_Card_4	569	694	-2.75	No	0.82	0.09	1.04	1.04	Retired
Listening_Low_Missing_Card_5	264	694	-0.51	No	0.38	0.29	0.93	0.90	Retired
Listening_Low_Missing_Card_6	257	694	-0.48	No	0.37	0.19	1.01	1.03	Retired
Listening_Low_Mystery_of_the_Missing_Backpack_1_FT	517	689	-1.57	No	0.75	0.42	0.90	0.83	Op
Listening_Low_Mystery_of_the_Missing_Backpack_2_FT	420	689	-0.73	No	0.61	0.5	0.89	0.82	Op
Listening_Low_Mystery_of_the_Missing_Backpack_3_FT	558	689	-2.00	No	0.81	0.36	0.93	0.92	Op
Listening_Low_School_Lunch_7	139	693	0.50	No	0.2	-0.03	1.12	1.39	Retired
Listening_Low_School_Lunch_8	618	694	-3.41	No	0.89	0.19	0.94	0.81	Retired
Listening_Low_School_Lunch_9	118	694	0.71	No	0.17	0.06	1.05	1.18	Retired
Listening_Low_Gym_Class_Vote_1_FT	387	691	-0.51	No	0.56	0.25	1.20	1.32	Op
Listening_Low_Gym_Class_Vote_2_FT	249	691	0.57	No	0.36	0.48	0.89	0.86	Op
Listening_Low_Gym_Class_Vote_3_FT	311	691	0.05	No	0.45	0.32	1.14	1.15	Op

Table 6.3.2.5 Complete Item Analysis and Summary: Listening grade-level cluster 3-5 Mid track

Name	Score	count	Average item difficulty (in logits)	Number of items	Average P-value	Average Ptbs	Average infit mean square	Average outfit mean square	Final Status
			0.17	16	0.67	0.26	1.00	0.98	
			Measure	Anchored?	P Value	Point biserial	IN.MSQ	OUT.MS	
Listening_Step_1_Mystery_1	4,071	5,357	-0.42	Yes	0.76	0.36	0.92	0.92	Retired
Listening_Step_1_Mystery_2	4,928	5,357	-2.08	No	0.92	0.33	0.87	0.66	Retired
Listening_Step_1_Mystery_3	4,661	5,357	-1.67	Yes	0.87	0.39	1.03	0.87	Retired
Listening_Step_1_Mystery_4	4,071	5,357	-0.65	Yes	0.76	0.45	0.96	0.83	Retired
Listening_Low_A_New_School_1_FT	1,533	2,689	0.64	No	0.57	0.1	1.31	1.54	FT (NS)
Listening_Low_A_New_School_2_FT	1,533	2,689	0.67	No	0.57	0	1.46	1.67	FT (NS)
Listening_Low_A_New_School_3_FT	2,232	2,689	-1.01	No	0.83	0.44	0.86	0.65	FT (NS)
Listening_Low_A_New_School_4_FT	1,694	2,689	0.33	No	0.63	0.31	1.09	1.10	FT (NS)
Listening_Low_Emma_and_Her_Family_1_FT	2,214	2,667	-1.08	No	0.83	0.4	0.92	0.86	Op
Listening_Low_Emma_and_Her_Family_2_FT	1,841	2,668	-0.01	No	0.69	0.42	0.96	0.98	Op
Listening_Low_Emma_and_Her_Family_3_FT	1,868	2,668	-0.06	No	0.7	0.3	1.14	1.12	Op
Listening_Low_Emma_and_Her_Family_4_FT	1,521	2,668	0.68	No	0.57	0.24	1.19	1.32	Op
Listening_Mid_School_Supply_Store_1	926	2,058	0.89	Yes	0.45	0.2	1.03	1.05	Retired
Listening_Mid_School_Supply_Store_2	721	2,059	1.53	No	0.35	0.26	0.98	1.00	Retired
Listening_Mid_School_Supply_Store_3	761	2,058	1.57	Yes	0.37	0.21	1.07	1.09	Retired
Listening_Mid_Fish_Tank_Fractions_1_FT	235	340	-0.12	No	0.69	0.17	1.02	1.06	Op
Listening_Mid_Fish_Tank_Fractions_2_FT	139	340	1.24	No	0.41	0.2	1.01	1.05	Op
Listening_Mid_Fish_Tank_Fractions_3_FT	173	340	0.76	No	0.51	0.27	0.96	0.93	Op
Listening_Mid_States_of_Matter_4	1,008	2,058	0.84	No	0.49	0.27	0.98	0.98	Retired
Listening_Mid_States_of_Matter_5	947	2,059	0.95	Yes	0.46	0.27	0.98	0.96	Retired
Listening_Mid_States_of_Matter_6	1,153	2,059	0.52	No	0.56	0.35	0.91	0.88	Retired
Listening_Mid_Animal_Camouflage_1_FT	234	349	-0.07	No	0.67	0.15	1.06	1.07	Op
Listening_Mid_Animal_Camouflage_2_FT	272	349	-0.73	No	0.78	0.3	0.94	0.82	Op
Listening_Mid_Animal_Camouflage_3_FT	297	349	-1.24	No	0.85	0.34	0.89	0.73	Op
Listening_Mid_The_Case_of_the_Missing_Globe_7	4,242	4,661	-1.41	No	0.91	0.28	0.93	0.70	Retired
Listening_Mid_The_Case_of_the_Missing_Globe_8	2,565	4,663	1.11	Yes	0.55	0.23	1.04	1.05	Retired
Listening_Mid_The_Case_of_the_Missing_Globe_9	3,124	4,663	0.59	Yes	0.67	0.44	0.82	0.76	Retired
Listening_High_Linda's_Favorite_Activity_1_FT	715	862	-0.18	No	0.83	0.08	1.06	1.16	Op
Listening_High_Linda's_Favorite_Activity_2_FT	759	863	-0.61	No	0.88	0.27	0.92	0.81	Op
Listening_High_Linda's_Favorite_Activity_3_FT	768	863	-0.70	No	0.89	0.29	0.92	0.71	Op
Listening_Mid_Oregon_Trail_10	761	2,058	1.42	Yes	0.37	0.22	1.02	1.03	Retired
Listening_Mid_Oregon_Trail_11	453	2,059	2.28	No	0.22	0.01	1.17	1.39	Retired
Listening_Mid_Oregon_Trail_12	1,009	2,059	0.86	No	0.49	0.12	1.11	1.12	Retired
Listening_Mid_African_Trade_Routes_1_FT	724	1,207	0.95	No	0.6	0.33	0.94	0.91	Op
Listening_Mid_African_Trade_Routes_2_FT	628	1,207	1.36	No	0.52	0.27	0.99	0.98	Op
Listening_Mid_African_Trade_Routes_3_FT	350	1,208	2.48	No	0.29	0.16	1.06	1.11	Op

Table 6.3.2.6 Complete Item Analysis and Summary: Listening grade-level cluster 3-5 High track

Name	Score	count	Average item difficulty (in logits)	Number of items	Average P-value	Average Ptbs	Average infit mean square	Average outfit mean square	Final Status
			0.69	16	0.63	0.28	0.98	0.97	
	Score	count	Measure	Anchored?	P Value	Point biserial	IN.MSQ	OUT.MS	
Listening_Step_1_Mystery_1	4,071	5,357	-0.42	Yes	0.76	0.36	0.92	0.92	Retired
Listening_Step_1_Mystery_2	4,928	5,357	-2.08	No	0.92	0.33	0.87	0.66	Retired
Listening_Step_1_Mystery_3	4,661	5,357	-1.67	Yes	0.87	0.39	1.03	0.87	Retired
Listening_Step_1_Mystery_4	4,071	5,357	-0.65	Yes	0.76	0.45	0.96	0.83	Retired
Listening_Low_A_New_School_1_FT	1,533	2,689	0.64	No	0.57	0.1	1.31	1.54	FT (NS)
Listening_Low_A_New_School_2_FT	1,533	2,689	0.67	No	0.57	0	1.46	1.67	FT (NS)
Listening_Low_A_New_School_3_FT	2,232	2,689	-1.01	No	0.83	0.44	0.86	0.65	FT (NS)
Listening_Low_A_New_School_4_FT	1,694	2,689	0.33	No	0.63	0.31	1.09	1.10	FT (NS)
Listening_Low_Emma_and_Her_Family_1_FT	2,214	2,667	-1.08	No	0.83	0.4	0.92	0.86	Op
Listening_Low_Emma_and_Her_Family_2_FT	1,841	2,668	-0.01	No	0.69	0.42	0.96	0.98	Op
Listening_Low_Emma_and_Her_Family_3_FT	1,868	2,668	-0.06	No	0.7	0.3	1.14	1.12	Op
Listening_Low_Emma_and_Her_Family_4_FT	1,521	2,668	0.68	No	0.57	0.24	1.19	1.32	Op
Listening_High_The_Case_of_the_Missing_Globe_1	4,242	4,661	-1.41	No	0.91	0.28	0.93	0.70	Op
Listening_High_The_Case_of_the_Missing_Globe_2	2,565	4,663	1.11	Yes	0.55	0.23	1.04	1.05	Op
Listening_High_The_Case_of_the_Missing_Globe_3	3,124	4,663	0.59	Yes	0.67	0.44	0.82	0.76	Op
Listening_High_Tree_Heights_4	2,001	2,599	0.52	Yes	0.77	0.19	0.92	0.90	Op
Listening_High_Tree_Heights_5	1,172	2,604	1.68	Yes	0.45	0.25	0.95	0.95	Op
Listening_High_Tree_Heights_6	1,901	2,604	0.65	Yes	0.73	0.23	0.92	0.87	Op
Listening_High_Animal_Adaptations_7	2,030	2,602	0.05	Yes	0.78	0.21	1.06	1.05	Retired
Listening_High_Animal_Adaptations_2_FT	1,719	2,604	0.91	No	0.66	0.24	0.96	0.94	Op
Listening_High_Animal_Adaptations_8	1,745	2,604	0.80	Yes	0.67	0.26	0.96	0.93	Op
Listening_High_Animal_Adaptations_9	1,250	2,604	1.75	No	0.48	0.28	0.94	0.93	Op
Listening_High_Alaska_10	1,119	2,602	1.98	Yes	0.43	0.25	0.95	0.95	Retired
Listening_High_Alaska_11	572	2,602	3.10	No	0.22	-0.13	1.28	1.56	Retired
Listening_High_Alaska_12	1,120	2,604	1.97	Yes	0.43	0.21	0.98	0.98	Retired
Listening_Mid_Ancient_Rome_1_FT	778	1,215	0.77	No	0.64	0.3	0.97	0.93	Op
Listening_Mid_Ancient_Rome_2_FT	572	1,217	1.59	No	0.47	0.25	1.00	1.00	Op
Listening_Mid_Ancient_Rome_3_FT	340	1,216	2.54	No	0.28	0.12	1.07	1.20	Op

Table 6.3.2.7 Complete Item Analysis and Summary: Listening grade-level cluster 6-8 Low track

Name	Score	count	Average item difficulty (in logits)	Number of items	Average P-value	Average Ptbs	Average infit mean square	Average outfit mean square	Final Status
			0.25	13	0.57	0.29	0.96	0.93	
			Measure	Anchored?	P Value	Point biserial	IN.MSQ	OUT.MS	
Listening_Step_1_The_Traveler_1	3,271	4,543	0.42	Yes	0.72	0.34	0.98	0.99	Retired
Listening_Step_1_The_Traveler_2	2,044	4,543	1.91	Yes	0.45	0.22	1.12	1.20	Retired
Listening_Step_1_The_Traveler_3	2,090	4,543	1.79	No	0.46	0.31	1.01	1.00	Retired
Listening_Step_1_The_Traveler_4	3,226	4,543	0.47	No	0.71	0.43	0.90	0.79	Retired
Listening_Low_Sun_and_Moon_1_FT	1,938	2,280	-0.59	No	0.85	0.38	0.90	0.81	Op
Listening_Low_Sun_and_Moon_2_FT	1,892	2,280	-0.48	No	0.83	0.43	0.84	0.79	Op
Listening_Low_Sun_and_Moon_3_FT	1,664	2,280	0.30	No	0.73	0.38	0.99	0.90	Op
Listening_Low_Sun_and_Moon_4_FT	1,482	2,280	0.78	No	0.65	0.32	1.10	1.06	Op
Listening_Low_Haiku_Poems_1_FT	1,651	2,262	0.36	No	0.73	0.26	1.08	1.12	FT (red)
Listening_Low_Haiku_Poems_2_FT	1,924	2,263	-0.59	No	0.85	0.31	0.96	0.96	FT (red)
Listening_Low_Haiku_Poems_3_FT	1,494	2,263	0.75	No	0.66	0.36	0.99	0.95	FT (red)
Listening_Low_Haiku_Poems_4_FT	747	2,263	2.50	No	0.33	0.11	1.24	1.44	FT (red)
Listening_Low_Poster_Project_A1	587	1,087	0.29	Yes	0.54	0.27	0.96	0.94	Retired
Listening_Low_Poster_Project_A2	903	1,088	-1.46	Yes	0.83	0.14	0.96	0.91	Retired
Listening_Low_Poster_Project_A3	435	1,088	0.68	No	0.4	0.14	1.04	1.04	Retired
Listening_Low_Journal_Writing_1_FT	362	548	-0.54	No	0.66	0.27	0.94	0.91	Op
Listening_Low_Journal_Writing_2_FT	77	548	2.28	No	0.14	0.27	0.91	0.89	Op
Listening_Low_Journal_Writing_3_FT	252	548	0.42	No	0.46	0.03	1.13	1.16	Op
Listening_Low_Tara_at_the_Art_Museum_B4	435	1,088	0.60	Yes	0.4	0.03	1.11	1.14	Retired
Listening_Low_Tara at the Art Museum_2_FT	762	1,088	-0.70	No	0.7	0.29	0.93	0.88	Op
Listening_Low_Tara_at_the_Art_Museum_B5	566	1,088	0.32	Yes	0.52	0.36	0.88	0.87	Op
Listening_Low_Tara_at_the_Art_Museum_B6	468	1,088	0.58	Yes	0.43	0.46	0.82	0.79	Op
Listening_Low_Buying_Books_C7	283	1,087	1.20	Yes	0.26	0.12	0.97	1.02	Retired
Listening_Low_Buying_Books_C8	609	1,088	0.23	Yes	0.56	0.32	0.91	0.89	Retired
Listening_Low_Buying_Books_C9	207	1,088	1.71	Yes	0.19	0	1.03	1.19	Retired
Listening_Low_Hours_of_Sleep_1_FT	346	540	-0.42	No	0.64	0.24	0.96	0.95	Op
Listening_Low_Hours_of_Sleep_2_FT	243	540	0.49	No	0.45	0.27	0.95	0.94	Op
Listening_Low_Hours_of_Sleep_3_FT	205	540	0.82	No	0.38	0.1	1.08	1.10	Op

Table 6.3.2.8 Complete Item Analysis and Summary: Listening grade-level cluster 6-8 Mid track

Name	Score	count	Average item difficulty (in logits)	Number of items	Average P-value	Average Ptbs	Average infit mean square	Average outfit mean square	Final Status
			0.82	16	0.66	0.28	0.97	0.95	
			Measure	Anchored?	P Value	Point biserial	IN.MSQ	OUT.MS	
Listening_Step_1_The_Traveler_1	3,271	4,543	0.42	Yes	0.72	0.34	0.98	0.99	Retired
Listening_Step_1_The_Traveler_2	2,044	4,543	1.91	Yes	0.45	0.22	1.12	1.20	Retired
Listening_Step_1_The_Traveler_3	2,090	4,543	1.79	No	0.46	0.31	1.01	1.00	Retired
Listening_Step_1_The_Traveler_4	3,226	4,543	0.47	No	0.71	0.43	0.90	0.79	Retired
Listening_Low_Sun_and_Moon_1_FT	1,938	2,280	-0.59	No	0.85	0.38	0.90	0.81	Op
Listening_Low_Sun_and_Moon_2_FT	1,892	2,280	-0.48	No	0.83	0.43	0.84	0.79	Op
Listening_Low_Sun_and_Moon_3_FT	1,664	2,280	0.30	No	0.73	0.38	0.99	0.90	Op
Listening_Low_Sun_and_Moon_4_FT	1,482	2,280	0.78	No	0.65	0.32	1.10	1.06	Op
Listening_Low_Haiku_Poems_1_FT	1,651	2,262	0.36	No	0.73	0.26	1.08	1.12	FT (red)
Listening_Low_Haiku_Poems_2_FT	1,924	2,263	-0.59	No	0.85	0.31	0.96	0.96	FT (red)
Listening_Low_Haiku_Poems_3_FT	1,494	2,263	0.75	No	0.66	0.36	0.99	0.95	FT (red)
Listening_Low_Haiku_Poems_4_FT	747	2,263	2.50	No	0.33	0.11	1.24	1.44	FT (red)
Listening_Mid_Growing_Tomatoes_A1	2,246	2,495	-0.68	No	0.9	0.26	0.94	0.78	Op
Listening_Mid_Growing_Tomatoes_A2	1,697	2,495	1.00	Yes	0.68	0.31	0.90	0.87	Op
Listening_Mid_Growing_Tomatoes_A3	998	2,496	2.25	Yes	0.4	0.25	0.99	1.01	Op
Listening_Mid_Exploring_the_Solar_System_B4	1,423	2,496	1.47	Yes	0.57	0.18	1.04	1.06	Op
Listening_Mid_Exploring_the_Solar_System_B5	1,273	2,496	1.50	Yes	0.51	0.26	0.99	0.99	Op
Listening_Mid_Exploring_the_Solar_System_B6	1,173	2,496	1.82	Yes	0.47	0.26	0.97	0.97	Op
Listening_Mid_Railroads_C7	1,522	2,495	1.05	Yes	0.61	0.32	0.96	0.93	Retired
Listening_Mid_Railroads_C8	849	2,496	2.49	Yes	0.34	-0.03	1.21	1.32	Retired
Listening_Mid_Railroads_C9	1,148	2,496	1.85	Yes	0.46	0.23	1.00	1.01	Retired
Listening_Mid_Agriculture_in_China_1_FT	352	629	1.38	No	0.56	0.26	0.98	0.97	Op
Listening_Mid_Agriculture_in_China_2_FT	372	630	1.24	No	0.59	0.26	0.98	0.97	Op
Listening_Mid_Agriculture_in_China_3_FT	221	630	2.38	No	0.35	0.15	1.06	1.10	Op
Listening_Mid_The_Hungry_Coat_D10	3,075	3,455	-0.32	Yes	0.89	0.28	0.85	0.73	Retired
Listening_Mid_The_Hungry_Coat_D11	2,108	3,455	1.47	No	0.61	0.33	0.95	0.95	Retired
Listening_Mid_The_Hungry_Coat_D12	2,453	3,455	0.94	No	0.71	0.34	0.93	0.88	Retired
Listening_Mid_Wangari_Maathai_1_FT	705	860	0.23	No	0.82	0.22	1.01	1.06	Op
Listening_Mid_Wangari_Maathai_2_FT	714	860	0.18	No	0.83	0.32	0.92	0.85	Op
Listening_Mid_Wangari_Maathai_3_FT	688	860	0.36	No	0.8	0.25	0.98	0.96	Op

Table 6.3.2.9 Complete Item Analysis and Summary: Listening grade-level cluster 6-8 High track

Name	Score	count	Average item difficulty (in logits)	Number of items	Average P-value	Average Ptbs	Average infit mean square	Average outfit mean square	Final Status
			1.49	16	0.64	0.28	0.96	0.91	
			Measure	Anchored?	P Value	Point biserial	IN.MSQ	OUT.MS	
Listening_Step_1_The_Traveler_1	3,271	4,543	0.42	Yes	0.72	0.34	0.98	0.99	Retired
Listening_Step_1_The_Traveler_2	2,044	4,543	1.91	Yes	0.45	0.22	1.12	1.20	Retired
Listening_Step_1_The_Traveler_3	2,090	4,543	1.79	No	0.46	0.31	1.01	1.00	Retired
Listening_Step_1_The_Traveler_4	3,226	4,543	0.47	No	0.71	0.43	0.90	0.79	Retired
Listening_Low_Sun_and_Moon_1_FT	1,938	2,280	-0.59	No	0.85	0.38	0.90	0.81	Op
Listening_Low_Sun_and_Moon_2_FT	1,892	2,280	-0.48	No	0.83	0.43	0.84	0.79	Op
Listening_Low_Sun_and_Moon_3_FT	1,664	2,280	0.30	No	0.73	0.38	0.99	0.90	Op
Listening_Low_Sun_and_Moon_4_FT	1,482	2,280	0.78	No	0.65	0.32	1.10	1.06	Op
Listening_Low_Haiku_Poems_1_FT	1,651	2,262	0.36	No	0.73	0.26	1.08	1.12	FT (red)
Listening_Low_Haiku_Poems_2_FT	1,924	2,263	-0.59	No	0.85	0.31	0.96	0.96	FT (red)
Listening_Low_Haiku_Poems_3_FT	1,494	2,263	0.75	No	0.66	0.36	0.99	0.95	FT (red)
Listening_Low_Haiku_Poems_4_FT	747	2,263	2.50	No	0.33	0.11	1.24	1.44	FT (red)
Listening_High_Buying_Candy_A1	681	959	1.67	No	0.71	0.26	0.93	0.87	Op
Listening_High_Buying_Candy_A2	566	959	2.31	No	0.59	0.18	1.01	0.99	Op
Listening_High_Buying_Candy_A3	230	959	4.07	No	0.24	0.24	0.95	0.92	Op
Listening_High_Science_Tools_B4	681	959	1.70	No	0.71	0.26	0.93	0.88	Retired
Listening_High_Science_Tools_B5	844	959	0.46	No	0.88	0.07	1.04	1.00	Retired
Listening_High_Science_Tools_B6	316	959	3.54	No	0.33	-0.02	1.15	1.24	Retired
Listening_High_Tropical_Rainforest_Types_1_FT	143	238	2.26	No	0.6	0.16	1.02	1.02	Op
Listening_High_Tropical_Rainforest_Types_2_FT	98	239	3.15	No	0.41	0.25	0.93	0.93	Op
Listening_High_Tropical_Rainforest_Types_3_FT	148	239	2.17	No	0.62	0.15	1.03	1.04	Op
Listening_High_Renewable Energy_1	843	958	0.46	No	0.88	0.24	0.94	0.76	Op
Listening_High_Renewable_Energy_C8	364	959	3.26	No	0.38	0.21	0.97	0.97	Op
Listening_High_Renewable_Energy_C9	556	959	2.32	No	0.58	0.26	0.94	0.92	Op
Listening_Mid_The_Chocolate_Belt_1_FT	148	868	3.83	No	0.17	0.1	1.06	1.53	FT (red)
Listening_Mid_The_Chocolate_Belt_2_FT	373	868	2.35	No	0.43	0.29	0.98	0.96	FT (red)
Listening_Mid_The_Chocolate_Belt_3_FT	408	868	2.16	No	0.47	0.19	1.06	1.10	FT (red)
Listening_High_The_Hungry_Coat_D10	3,075	3,455	-0.32	Yes	0.89	0.28	0.85	0.73	Op
Listening_High_The_Hungry_Coat_D11	2,108	3,455	1.47	No	0.61	0.33	0.95	0.95	Op
Listening_High_The_Hungry_Coat_D12	2,453	3,455	0.94	No	0.71	0.34	0.93	0.88	Op
Listening_Mid_Exploring_a_Story_1_FT	506	857	1.61	No	0.59	0.3	0.97	0.95	FT (red)
Listening_Mid_Exploring_a_Story_2_FT	463	858	1.82	No	0.54	0.2	1.07	1.09	FT (red)
Listening_Mid_Exploring_a_Story_3_FT	420	858	2.09	No	0.49	0.16	1.08	1.11	FT (red)

Table 6.3.2.10 Complete Item Analysis and Summary: Listening grade-level cluster 9-12 Low track

Name	Score	count	Average item difficulty (in logits) Measure	Number of items Anchored?	Average P-value P Value	Average Ptbs Point biserial	Average infit mean square IN.MSQ	Average outfit mean square OUT.MS	Final Status
			1.04	13	0.47	0.32	0.96	0.96	
Listening_Step_1_Group_Behavior_1	2,573	3,573	0.28	Yes	0.72	0.44	0.96	0.79	Retired
Listening_Step_1_Group_Behavior_2	2,465	3,573	0.78	Yes	0.69	0.43	0.86	0.77	Retired
Listening_Step_1_Group_Behavior_3	1,251	3,573	2.55	Yes	0.35	0.36	0.99	1.10	Retired
Listening_Step_1_Group_Behavior_4	2,394	3,573	1.12	Yes	0.67	0.17	1.18	1.22	Retired
Listening_Low_Limericks_1_FT	1,289	1,790	0.56	No	0.72	0.39	0.93	0.92	FT (NS)
Listening_Low_Limericks_2_FT	1,056	1,790	1.30	No	0.59	0.32	1.08	1.11	FT (NS)
Listening_Low_Limericks_3_FT	895	1,790	1.81	No	0.5	0.42	0.97	0.96	FT (NS)
Listening_Low_Limericks_4_FT	1,020	1,790	1.41	No	0.57	0.32	1.09	1.10	FT (NS)
Listening_Low_Ready_to_Fly_1_FT	1,195	1,783	0.88	No	0.67	0.36	1.00	1.00	Op
Listening_Low_Ready_to_Fly_2_FT	785	1,783	2.13	No	0.44	0.48	0.89	0.90	Op
Listening_Low_Ready_to_Fly_3_FT	1,088	1,783	1.25	No	0.61	0.26	1.15	1.24	Op
Listening_Low_Ready_to_Fly_4_FT	981	1,783	1.57	No	0.55	0.5	0.85	0.82	Op
Listening_Low_Sources_of_Information_A1	444	807	0.24	No	0.55	0.06	1.14	1.17	Op
Listening_Low_Sources_of_Information_A2	347	807	0.90	Yes	0.43	0.28	0.98	1.01	Op
Listening_Low_Sources_of_Information_A3	258	807	1.24	Yes	0.32	0.15	1.03	1.03	Op
Listening_Low_Science_Class_1_FT	516	807	-0.15	No	0.64	0.36	0.89	0.85	FT (NS)
Listening_Low_Science_Class_2_FT	573	807	-0.55	No	0.71	0.41	0.84	0.74	FT (NS)
Listening_Low_Science_Class_3_FT	581	807	-0.59	No	0.72	0.36	0.88	0.81	FT (NS)
Listening_Low_One_Day_After_School_B4	339	807	0.88	No	0.42	0.53	0.77	0.72	Op
Listening_Low_One_Day_After_School_B5	500	807	-0.10	Yes	0.62	0.34	0.92	0.87	Op
Listening_Low_One_Day_After_School_B6	395	807	0.73	Yes	0.49	0.4	0.89	0.89	Op
Listening_Low_Camilla's_Plant_C7	258	807	1.35	No	0.32	0.29	0.95	0.96	Op
Listening_Low_Camilla's_Plant_C8	178	807	1.68	Yes	0.22	0.21	0.90	0.91	Op
Listening_Low_Camilla's_Plant_C9	363	807	0.81	Yes	0.45	0.26	1.00	0.98	Op

Table 6.3.2.11 Complete Item Analysis and Summary: Listening grade-level cluster 9-12 Mid track

Name	Score	count	Average item difficulty (in logits)	Number of items	Average P-value	Average Ptbs	Average infit mean square	Average outfit mean square	Final Status
			1.87	16	0.51	0.29	1.02	1.03	
			Measure	Anchored?	P Value	Point biserial	IN.MSQ	OUT.MS	
Listening_Step_1_Group_Behavior_1	2,573	3,573	0.28	Yes	0.72	0.44	0.96	0.79	Retired
Listening_Step_1_Group_Behavior_2	2,465	3,573	0.78	Yes	0.69	0.43	0.86	0.77	Retired
Listening_Step_1_Group_Behavior_3	1,251	3,573	2.55	Yes	0.35	0.36	0.99	1.10	Retired
Listening_Step_1_Group_Behavior_4	2,394	3,573	1.12	Yes	0.67	0.17	1.18	1.22	Retired
Listening_Low_Limericks_1_FT	1,289	1,790	0.56	No	0.72	0.39	0.93	0.92	FT (NS)
Listening_Low_Limericks_2_FT	1,056	1,790	1.30	No	0.59	0.32	1.08	1.11	FT (NS)
Listening_Low_Limericks_3_FT	895	1,790	1.81	No	0.5	0.42	0.97	0.96	FT (NS)
Listening_Low_Limericks_4_FT	1,020	1,790	1.41	No	0.57	0.32	1.09	1.10	FT (NS)
Listening_Low_Ready_to_Fly_1_FT	1,195	1,783	0.88	No	0.67	0.36	1.00	1.00	Op
Listening_Low_Ready_to_Fly_2_FT	785	1,783	2.13	No	0.44	0.48	0.89	0.90	Op
Listening_Low_Ready_to_Fly_3_FT	1,088	1,783	1.25	No	0.61	0.26	1.15	1.24	Op
Listening_Low_Ready_to_Fly_4_FT	981	1,783	1.57	No	0.55	0.5	0.85	0.82	Op
Listening_Mid_Mr._Lee's_Store_A1	1,420	1,972	0.75	Yes	0.72	0.26	0.96	0.93	Retired
Listening_Mid_Mr._Lee's_Store_A2	690	1,972	2.69	Yes	0.35	0.23	1.06	1.08	Retired
Listening_Mid_Mr._Lee's_Store_A3	848	1,972	1.97	Yes	0.43	0.24	1.01	1.01	Retired
Listening_Mid_Making_a_Mosaic_1_FT	1,098	1,390	0.56	No	0.79	0.27	0.99	0.92	Op
Listening_Mid_Making_a_Mosaic_2_FT	751	1,390	1.99	No	0.54	0.28	1.04	1.06	Op
Listening_Mid_Making_a_Mosaic_3_FT	806	1,390	1.80	No	0.58	0.18	1.13	1.17	Op
Listening_Mid_Blue_Crabs_B4	1,223	1,972	1.28	No	0.62	0.19	1.04	1.10	Op
Listening_Mid_Blue_Crabs_B5	907	1,972	1.85	Yes	0.46	0.37	0.91	0.90	Op
Listening_Mid_Blue_Crabs_B6	749	1,972	2.34	Yes	0.38	0.27	0.99	0.99	Op
Listening_Mid_Political_Alliances_C7	1,045	1,972	1.90	Yes	0.53	0.3	0.98	0.97	Op
Listening_Mid_Political_Alliances_C8	868	1,972	2.16	Yes	0.44	0.2	1.06	1.07	Op
Listening_Mid_Political_Alliances_C9	651	1,972	2.69	No	0.33	0.16	1.08	1.14	Op
Listening_Mid_Sea_Story_D10	1,300	2,766	2.23	Yes	0.47	0.25	1.07	1.10	Op
Listening_Mid_Sea_Story_D11	1,162	2,766	2.55	No	0.42	0.21	1.12	1.18	Op
Listening_Mid_Sea_Story_D12	1,051	2,766	2.75	Yes	0.38	0.35	0.98	0.99	Op

Table 6.3.2.12 Complete Item Analysis and Summary: Listening grade-level cluster 9-12 High track

Name	Score	count	Average item difficulty (in logits)	Number of items	Average P-value	Average Ptbs	Average infit mean square	Average outfit mean square	Final Status
			2.12	16	0.55	0.30	1.00	1.01	
			Measure	Anchored?	P Value	Point biserial	IN.MSQ	OUT.MS	
Listening_Step_1_Group_Behavior_1	2,573	3,573	0.28	Yes	0.72	0.44	0.96	0.79	Retired
Listening_Step_1_Group_Behavior_2	2,465	3,573	0.78	Yes	0.69	0.43	0.86	0.77	Retired
Listening_Step_1_Group_Behavior_3	1,251	3,573	2.55	Yes	0.35	0.36	0.99	1.10	Retired
Listening_Step_1_Group_Behavior_4	2,394	3,573	1.12	Yes	0.67	0.17	1.18	1.22	Retired
Listening_Low_Limericks_1_FT	1,289	1,790	0.56	No	0.72	0.39	0.93	0.92	FT (NS)
Listening_Low_Limericks_2_FT	1,056	1,790	1.30	No	0.59	0.32	1.08	1.11	FT (NS)
Listening_Low_Limericks_3_FT	895	1,790	1.81	No	0.5	0.42	0.97	0.96	FT (NS)
Listening_Low_Limericks_4_FT	1,020	1,790	1.41	No	0.57	0.32	1.09	1.10	FT (NS)
Listening_Low_Ready_to_Fly_1_FT	1,195	1,783	0.88	No	0.67	0.36	1.00	1.00	Op
Listening_Low_Ready_to_Fly_2_FT	785	1,783	2.13	No	0.44	0.48	0.89	0.90	Op
Listening_Low_Ready_to_Fly_3_FT	1,088	1,783	1.25	No	0.61	0.26	1.15	1.24	Op
Listening_Low_Ready_to_Fly_4_FT	981	1,783	1.57	No	0.55	0.5	0.85	0.82	Op
Listening_High_Statistics_A1	683	794	1.22	Yes	0.86	0.15	0.90	0.86	Retired
Listening_High_Statistics_A2	373	794	3.38	Yes	0.47	0.29	1.02	1.02	Retired
Listening_High_Statistics_A3	492	794	2.45	No	0.62	0.34	0.93	0.90	Retired
Listening_Mid_Popcorn_Project_1_FT	1,018	1,376	0.90	No	0.74	0.3	0.98	0.92	Op
Listening_Mid_Popcorn_Project_2_FT	826	1,376	1.65	No	0.6	0.35	0.97	0.92	Op
Listening_Mid_Popcorn_Project_3_FT	647	1,376	2.30	No	0.47	0.2	1.14	1.21	Op
Listening_High_Single-Celled_Organisms_B4	580	794	1.92	Yes	0.73	0.27	0.94	0.90	Op
Listening_High_Single-Celled_Organisms_B5	651	794	1.28	No	0.82	0.31	0.92	0.87	Op
Listening_High_Single-Celled_Organisms_B6	405	794	3.00	No	0.51	0.29	0.98	0.96	Op
Listening_High_European_Explorers_C7	445	794	2.75	No	0.56	0.33	0.94	0.93	Op
Listening_High_European_Explorers_C8	349	794	3.39	Yes	0.44	0.18	1.09	1.14	Op
Listening_High_European_Explorers_C9	326	794	3.44	No	0.41	0.23	1.02	1.04	Op
Listening_High_Sea_Story_D10	1,300	2,766	2.23	Yes	0.47	0.25	1.07	1.10	Op
Listening_High_Sea_Story_D11	1,162	2,766	2.55	No	0.42	0.21	1.12	1.18	Op
Listening_High_Sea_Story_D12	1,051	2,766	2.75	Yes	0.38	0.35	0.98	0.99	Op

Table 6.3.2.13 Complete Item Analysis and Summary: Reading grade-level cluster 1-2 Low track

Name	Score	count	Average item difficulty (in logits) / Measure	Number of items / Anchored?	Average P-value / P Value	Average Ptbs / Point biserial	Average infit mean square / IN.MSQ	Average outfit mean square / OUT.MS	Final Status
			-2.16	19	0.52	0.46	0.91	0.89	
Reading_Step_1_Big_Balloon_1	2,700	3,068	-3.60	No	0.88	0.27	0.96	0.86	Retired
Reading_Step_1_Big_Balloon_2	2,209	3,068	-2.25	No	0.72	0.28	1.06	1.12	Retired
Reading_Step_1_Big_Balloon_3	1,687	3,068	-1.23	No	0.55	0.29	1.08	1.12	Retired
Reading_Step_1_Big_Balloon_4	1,626	3,068	-1.14	Yes	0.53	0.36	1.01	1.03	Retired
Reading_Low_Caterpillar_1_FT	872	1,530	-1.30	No	0.57	0.39	1.06	1.07	Op
Reading_Low_Caterpillar_2_FT	964	1,530	-1.67	No	0.63	0.38	1.05	1.10	Op
Reading_Low_Caterpillar_3_FT	1,071	1,530	-2.05	No	0.7	0.32	1.11	1.15	Op
Reading_Low_Caterpillar_4_FT	887	1,530	-1.34	No	0.58	0.39	1.07	1.12	Op
Reading_Low_Part_A1	470	770	-2.93	No	0.61	0.46	0.88	0.86	Op
Reading_Low_Part_A2	538	769	-3.45	No	0.7	0.48	0.82	0.73	Op
Reading_Low_Part_A3	470	770	-2.96	No	0.61	0.53	0.81	0.72	Op
Reading_Low_Part_B1	462	770	-2.89	No	0.6	0.54	0.80	0.71	Op
Reading_Low_Part_B2	393	770	-2.45	No	0.51	0.47	0.89	0.87	Op
Reading_Low_Part_B3	361	769	-2.22	No	0.47	0.55	0.81	0.76	Op
Reading_Low_Part_B4	377	770	-2.32	No	0.49	0.57	0.78	0.73	Op
Reading_Low_Part_C1	400	770	-2.51	No	0.52	0.4	0.97	0.93	Op
Reading_Low_Part_C2	308	770	-1.89	No	0.4	0.45	0.91	0.91	Op
Reading_Low_Part_C3	323	770	-1.98	No	0.42	0.54	0.83	0.78	Op
Reading_Low_Part_C4	370	770	-2.29	No	0.48	0.56	0.79	0.75	Op
Reading_Low_Part_D1	439	770	-2.73	No	0.57	0.4	0.97	0.90	Op
Reading_Low_Part_D2	223	770	-1.26	No	0.29	0.43	0.90	0.96	Op
Reading_Low_Part_D3	323	770	-1.95	No	0.42	0.56	0.79	0.76	Op
Reading_Low_Part_D4	185	770	-0.92	No	0.24	0.32	1.01	1.09	Op

Table 6.3.2.14 Complete Item Analysis and Summary: Reading grade-level cluster 1-2 Mid track

Name	Score	count	Average item difficulty (in logits) / Measure	Number of items / Anchored?	Average P-value / P Value	Average Ptbs / Point biserial	Average infit mean square / IN.MSQ	Average outfit mean square / OUT.MS	Final Status
			-1.08	16	0.56	0.39	1.03	1.05	
Reading_Step_1_Big_Balloon_1	2,700	3,068	-3.60	No	0.88	0.27	0.96	0.86	Retired
Reading_Step_1_Big_Balloon_2	2,209	3,068	-2.25	No	0.72	0.28	1.06	1.12	Retired
Reading_Step_1_Big_Balloon_3	1,687	3,068	-1.23	No	0.55	0.29	1.08	1.12	Retired
Reading_Step_1_Big_Balloon_4	1,626	3,068	-1.14	Yes	0.53	0.36	1.01	1.03	Retired
Reading_Low_Caterpillar_1_FT	872	1,530	-1.30	No	0.57	0.39	1.06	1.07	Op
Reading_Low_Caterpillar_2_FT	964	1,530	-1.67	No	0.63	0.38	1.05	1.10	Op
Reading_Low_Caterpillar_3_FT	1,071	1,530	-2.05	No	0.7	0.32	1.11	1.15	Op
Reading_Low_Caterpillar_4_FT	887	1,530	-1.34	No	0.58	0.39	1.07	1.12	Op
Reading_Mid_Spring_Garden_1	1,447	2,067	-1.94	Yes	0.7	0.49	0.93	0.76	Op
Reading_Mid_Spring_Garden_2	1,468	2,067	-1.75	No	0.71	0.5	0.82	0.65	Op
Reading_Mid_Spring_Garden_3	1,385	2,067	-1.56	Yes	0.67	0.44	0.92	0.80	Op
Reading_Mid_Market_4	1,652	2,065	-2.34	No	0.8	0.29	0.98	0.90	Op
Reading_Mid_Market_5	992	2,067	-0.29	Yes	0.48	0.3	1.17	1.20	Op
Reading_Mid_Market_6	723	2,067	0.46	Yes	0.35	0.32	1.17	1.34	Op
Reading_Mid_Animals_7	1,240	2,067	-1.38	Yes	0.6	0.47	0.92	0.83	Retired
Reading_Mid_Animals_8	868	2,067	-0.03	Yes	0.42	0.43	1.01	0.99	Retired
Reading_Mid_Animals_9	992	2,067	-0.46	Yes	0.48	0.15	1.31	1.40	Retired
Reading_Mid_Taking_Care of Cotton_1_FT	315	684	-0.41	No	0.46	0.42	1.01	0.99	Op
Reading_Mid_Taking_Care of Cotton_2_FT	363	685	-0.76	No	0.53	0.41	1.00	0.96	Op
Reading_Mid_Taking_Care of Cotton_3_FT	308	685	-0.34	No	0.45	0.41	1.02	1.01	Op
Reading_Mid_Eddie_and_Timmy_10	1,286	2,297	-0.94	Yes	0.56	0.46	0.94	0.89	Retired
Reading_Mid_Eddie_and_Timmy_11	1,149	2,298	-0.46	No	0.5	0.59	0.78	0.71	Retired
Reading_Mid_Eddie_and_Timmy_12	1,540	2,298	-1.35	Yes	0.67	0.29	1.07	1.12	Retired
Reading_Low_A_Family_Visit_1_FT	784	1,537	-1.01	No	0.51	0.45	0.99	1.16	Op
Reading_Low_A_Family_Visit_2_FT	615	1,538	-0.38	No	0.4	0.27	1.24	1.58	Op
Reading_Low_A_Family_Visit_3_FT	569	1,538	-0.24	No	0.37	0.34	1.15	1.58	FT (red)
Reading_Low_A_Family_Visit_4_FT	661	1,538	-0.55	No	0.43	0.47	0.96	1.06	Op

Table 6.3.2.15 Complete Item Analysis and Summary: Reading grade-level cluster 1-2 High track

			Average item difficulty (in logits)	Number of items	Average P-value	Average Ptbs	Average infit mean square	Average outfit mean square	
			-0.45	16	0.59	0.32	1.09	1.07	
Name	Score	count	Measure	Anchored?	P Value	Point biserial	IN.MSQ	OUT.MS	Final Status
Reading_Step_1_Big_Balloon_1	2,700	3,068	-3.60	No	0.88	0.27	0.96	0.86	Retired
Reading_Step_1_Big_Balloon_2	2,209	3,068	-2.25	No	0.72	0.28	1.06	1.12	Retired
Reading_Step_1_Big_Balloon_3	1,687	3,068	-1.23	No	0.55	0.29	1.08	1.12	Retired
Reading_Step_1_Big_Balloon_4	1,626	3,068	-1.14	Yes	0.53	0.36	1.01	1.03	Retired
Reading_Low_Caterpillar_1_FT	872	1,530	-1.30	No	0.57	0.39	1.06	1.07	Op
Reading_Low_Caterpillar_2_FT	964	1,530	-1.67	No	0.63	0.38	1.05	1.10	Op
Reading_Low_Caterpillar_3_FT	1,071	1,530	-2.05	No	0.7	0.32	1.11	1.15	Op
Reading_Low_Caterpillar_4_FT	887	1,530	-1.34	No	0.58	0.39	1.07	1.12	Op
Reading_Low_A_Family_Visit_3_FT	569	1,538	-0.24	No	0.37	0.34	1.15	1.58	FT (red)
Reading_High_Musical_Instruments_of_the_World_1	194	231	-1.32	No	0.84	0.45	0.84	0.57	Op
Reading_High_Musical_Instruments_of_the_World_2	120	231	0.72	No	0.52	0.38	0.97	0.94	Op
Reading_High_Musical_Instruments_of_the_World_3	127	231	0.51	Yes	0.55	0.2	1.23	1.30	Op
Reading_High_Ladybug_Life_Cycle_4	192	231	-1.38	Yes	0.83	0.4	1.00	0.72	Op
Reading_High_Ladybug_Life_Cycle_5	187	231	-1.00	No	0.81	0.41	0.89	0.67	Op
Reading_High_Ladybug_Life_Cycle_6	127	231	0.53	No	0.55	0.31	1.08	1.09	Op
Reading_High_At_the_Fun_Fair_7	129	231	0.48	No	0.56	0.34	1.04	1.06	Retired
Reading_High_At_the_Fun_Fair_8	125	231	0.63	No	0.54	0.52	0.82	0.76	Retired
Reading_High_At_the_Fun_Fair_9	79	231	1.72	No	0.34	0.22	1.14	1.40	Retired
Reading_High_A_Day_at_School_1_FT	69	115	0.19	No	0.6	0.05	1.35	1.40	Op
Reading_High_A_Day_at_School_2_FT	70	115	0.14	No	0.61	0.37	0.99	1.02	Op
Reading_High_A_Day_at_School_3_FT	40	115	1.54	No	0.35	0.24	1.15	1.17	Op
Reading_High_Eddie_and_Timmy_10	1,286	2,297	-0.94	Yes	0.56	0.46	0.94	0.89	Retired
Reading_High_Eddie_and_Timmy_11	1,149	2,298	-0.46	No	0.5	0.59	0.78	0.71	Retired
Reading_High_Eddie_and_Timmy_12	1,540	2,298	-1.35	Yes	0.67	0.29	1.07	1.12	Retired
Reading_Mid_The_Farm_1_FT	276	691	-0.07	No	0.4	0.39	1.04	1.06	Op
Reading_Mid_The_Farm_2_FT	263	691	0.05	No	0.38	0.2	1.31	1.39	Op
Reading_Mid_The_Farm_3_FT	373	691	-0.80	No	0.54	0.21	1.22	1.34	Op
Reading_Mid_Marie_Curie_1_FT	297	691	-0.25	No	0.43	0.18	1.21	1.24	FT (NS)
Reading_Mid_Marie_Curie_2_FT	235	691	0.24	No	0.34	0.04	1.39	1.54	FT (NS)
Reading_Mid_Marie_Curie_3_FT	339	691	-0.53	No	0.49	0.19	1.18	1.18	FT (NS)

Table 6.3.2.16 Complete Item Analysis and Summary: Reading grade-level cluster 3-5 Low track

Name	Score	count	Average item difficulty (in logits)	Number of items	Average P-value	Average Ptbs	Average infit mean square	Average outfit mean square	Final Status
			-0.83	13	0.49	0.29	0.99	1.01	
			Measure	Anchored?	P Value	Point biserial	IN.MSQ	OUT.MS	
Reading_Step_1_Canoe_Adventure_1	5,052	5,552	-2.76	Yes	0.91	0.33	0.95	0.61	Retired
Reading_Step_1_Canoe_Adventure_2	2,943	5,552	0.20	Yes	0.53	0.37	1.04	1.07	Retired
Reading_Step_1_Canoe_Adventure_3	3,276	5,552	0.19	Yes	0.59	0.39	0.99	1.02	Retired
Reading_Step_1_Canoe_Adventure_4	3,609	5,552	-0.19	Yes	0.65	0.41	0.94	0.91	Retired
Reading_Low_Jason_and_His_Dog_1_FT	2,109	2,775	-1.08	No	0.76	0.2	1.23	1.51	Op
Reading_Low_Jason_and_His_Dog_2_FT	1,971	2,776	-0.76	No	0.71	0.48	0.86	0.77	Op
Reading_Low_Jason_and_His_Dog_3_FT	1,832	2,776	-0.47	No	0.66	0.47	0.91	0.83	Op
Reading_Low_Jason_and_His_Dog_4_FT	999	2,776	1.21	No	0.36	0.3	1.10	1.41	Op
Reading_Low_Pet_Care_1_FT	2,191	2,774	-1.37	No	0.79	0.5	0.83	0.60	FT (NS)
Reading_Low_Pet_Care_2_FT	1,721	2,776	-0.22	No	0.62	0.43	1.01	0.99	FT (NS)
Reading_Low_Pet_Care_3_FT	1,721	2,776	-0.23	No	0.62	0.47	0.96	0.91	FT (NS)
Reading_Low_Pet_Care_4_FT	1,915	2,776	-0.65	No	0.69	0.5	0.90	0.83	FT (NS)
Reading_Low_New_Book_1	932	1,096	-3.56	Yes	0.85	0.3	1.11	0.84	Op
Reading_Low_New_Book_2	538	1,097	-1.51	Yes	0.49	0.39	0.89	0.86	Op
Reading_Low_New_Book_3	494	1,097	-1.30	Yes	0.45	0.42	0.86	0.81	Op
Reading_Low_Painted_Walls_4	274	1,096	-0.02	No	0.25	0.38	0.87	0.85	Op
Reading_Low_Painted_Walls_5	208	1,096	0.21	Yes	0.19	0.1	0.99	1.14	Op
Reading_Low_Painted_Walls_6	318	1,097	-0.49	Yes	0.29	0.31	0.87	0.86	Op
Reading_Low_Rocks_7	636	1,096	-1.53	Yes	0.58	0.14	1.04	1.07	Retired
Reading_Low_Rocks_8	713	1,097	-2.08	Yes	0.65	0.24	0.99	0.96	Retired
Reading_Low_Rocks_9	252	1,097	0.23	Yes	0.23	0.07	1.15	1.29	Retired
Reading_Low_Different_Kinds_of_Erosion_1_FT	625	1,096	-1.61	No	0.57	0.22	0.99	0.98	Op
Reading_Low_Different_Kinds_of_Erosion_2_FT	373	1,097	-0.54	No	0.34	0.2	1.02	1.02	Op
Reading_Low_Different_Kinds_of_Erosion_3_FT	461	1,097	-0.91	No	0.42	0.02	1.17	1.20	Op

Table 6.3.2.17 Complete Item Analysis and Summary: Reading grade-level cluster 3-5 Mid track

Name	Score	count	Average item difficulty (in logits) Measure	Number of items Anchored?	Average P-value P Value	Average Ptbs Point biserial	Average infit mean square IN.MSQ	Average outfit mean square OUT.MS	Final Status
			0.16	16	0.58	0.32	1.01	1.04	
Reading_Step_1_Canoe_Adventure_1	5,052	5,552	-2.76	Yes	0.91	0.33	0.95	0.61	Retired
Reading_Step_1_Canoe_Adventure_2	2,943	5,552	0.20	Yes	0.53	0.37	1.04	1.07	Retired
Reading_Step_1_Canoe_Adventure_3	3,276	5,552	0.19	Yes	0.59	0.39	0.99	1.02	Retired
Reading_Step_1_Canoe_Adventure_4	3,609	5,552	-0.19	Yes	0.65	0.41	0.94	0.91	Retired
Reading_Low_Jason_and_His_Dog_1_FT	2,109	2,775	-1.08	No	0.76	0.2	1.23	1.51	Op
Reading_Low_Jason_and_His_Dog_2_FT	1,971	2,776	-0.76	No	0.71	0.48	0.86	0.77	Op
Reading_Low_Jason_and_His_Dog_3_FT	1,832	2,776	-0.47	No	0.66	0.47	0.91	0.83	Op
Reading_Low_Jason_and_His_Dog_4_FT	999	2,776	1.21	No	0.36	0.3	1.10	1.41	Op
Reading_Low_Pet_Care_1_FT	2,191	2,774	-1.37	No	0.79	0.5	0.83	0.60	FT (NS)
Reading_Low_Pet_Care_2_FT	1,721	2,776	-0.22	No	0.62	0.43	1.01	0.99	FT (NS)
Reading_Low_Pet_Care_3_FT	1,721	2,776	-0.23	No	0.62	0.47	0.96	0.91	FT (NS)
Reading_Low_Pet_Care_4_FT	1,915	2,776	-0.65	No	0.69	0.5	0.90	0.83	FT (NS)
Reading_Mid_Pencils_1	3,398	3,775	-1.94	Yes	0.9	0.25	1.00	0.98	Op
Reading_Mid_Pencils_2	1,359	3,776	1.52	Yes	0.36	0.26	1.08	1.15	Op
Reading_Mid_Pencils_3	2,190	3,775	0.18	Yes	0.58	0.39	0.94	0.91	Op
Reading_Mid_Observing_Birds_4	3,321	3,774	-1.50	Yes	0.88	0.31	0.81	0.62	Op
Reading_Mid_Observing_Birds_5	2,190	3,775	0.15	Yes	0.58	0.47	0.87	0.81	Op
Reading_Mid_Observing_Birds_6	1,397	3,776	1.62	Yes	0.37	0.25	1.15	1.28	Op
Reading_Mid_Nurses_7	2,092	4,452	0.79	Yes	0.47	0.32	1.03	1.03	Op
Reading_Mid_Nurses_8	2,272	4,454	0.76	Yes	0.51	0.31	1.04	1.06	Op
Reading_Mid_Nurses_9	1,469	4,452	1.72	No	0.33	0.2	1.12	1.30	Op
Reading_Mid_The_Kingdom_of_Mali_Orientation_10	3,132	3,773	-1.30	Yes	0.83	0.31	0.98	0.87	Op
Reading_Mid_The_Kingdom_of_Mali_Orientation_11	1,849	3,774	0.59	Yes	0.49	0.31	1.01	1.02	Op
Reading_Mid_The_Kingdom_of_Mali_Orientation_12	1,547	3,774	1.02	Yes	0.41	0.3	1.00	1.02	Op

Table 6.3.2.18 Complete Item Analysis and Summary: Reading grade-level cluster 3-5 High track

Name	Score	count	Average item difficulty (in logits)	Number of items	Average P-value	Average Ptbs	Average infit mean square	Average outfit mean square	Final Status
			1.14	16	0.51	0.30	1.02	1.09	
			Measure	Anchored?	P Value	Point biserial	IN.MSQ	OUT.MS	
Reading_Step_1_Canoe_Adventure_1	5,052	5,552	-2.76	Yes	0.91	0.33	0.95	0.61	Retired
Reading_Step_1_Canoe_Adventure_2	2,943	5,552	0.20	Yes	0.53	0.37	1.04	1.07	Retired
Reading_Step_1_Canoe_Adventure_3	3,276	5,552	0.19	Yes	0.59	0.39	0.99	1.02	Retired
Reading_Step_1_Canoe_Adventure_4	3,609	5,552	-0.19	Yes	0.65	0.41	0.94	0.91	Retired
Reading_Low_Jason_and_His_Dog_1_FT	2,109	2,775	-1.08	No	0.76	0.2	1.23	1.51	Op
Reading_Low_Jason_and_His_Dog_2_FT	1,971	2,776	-0.76	No	0.71	0.48	0.86	0.77	Op
Reading_Low_Jason_and_His_Dog_3_FT	1,832	2,776	-0.47	No	0.66	0.47	0.91	0.83	Op
Reading_Low_Jason_and_His_Dog_4_FT	999	2,776	1.21	No	0.36	0.3	1.10	1.41	Op
Reading_Low_Pet_Care_1_FT	2,191	2,774	-1.37	No	0.79	0.5	0.83	0.60	FT (NS)
Reading_Low_Pet_Care_2_FT	1,721	2,776	-0.22	No	0.62	0.43	1.01	0.99	FT (NS)
Reading_Low_Pet_Care_3_FT	1,721	2,776	-0.23	No	0.62	0.47	0.96	0.91	FT (NS)
Reading_Low_Pet_Care_4_FT	1,915	2,776	-0.65	No	0.69	0.5	0.90	0.83	FT (NS)
Reading_High_Nurses_1	2,092	4,452	0.79	Yes	0.47	0.32	1.03	1.03	Retired
Reading_High_Nurses_2	2,272	4,454	0.76	Yes	0.51	0.31	1.04	1.06	Retired
Reading_High_Nurses_3	1,469	4,452	1.72	No	0.33	0.2	1.12	1.30	Retired
Reading_Mid_A_Trip_to_the_History_Museum_1_FT	739	1,895	1.23	No	0.39	0.2	1.12	1.17	Op
Reading_Mid_A_Trip_to_the_History_Museum_2_FT	797	1,897	1.05	No	0.42	0.25	1.07	1.12	Op
Reading_Mid_A_Trip_to_the_History_Museum_3_FT	436	1,897	2.19	No	0.23	0.07	1.21	1.57	Op
Reading_Mid_Changes_in_Communication_Over_Time_1_FT	1,131	2,217	0.75	No	0.51	0.49	0.82	0.77	FT (red)
Reading_Mid_Changes_in_Communication_Over_Time_2_FT	620	2,216	1.99	No	0.28	-0.05	1.37	1.80	FT (red)
Reading_Mid_Changes_in_Communication_Over_Time_3_FT	621	2,217	1.97	No	0.28	0.03	1.29	1.61	FT (red)
Reading_High_Learning_about_Weather_4	394	679	1.37	No	0.58	0.36	0.93	0.87	Op
Reading_High_Learning_about_Weather_5	550	679	-0.06	Yes	0.81	0.34	0.98	0.84	Retired
Reading_High_Learning_about_Weather_FT_FT	197	679	2.88	No	0.29	0.29	1.01	1.05	Op
Reading_High_Learning_about_Weather_6	346	679	1.95	Yes	0.51	0.43	0.90	0.89	Op
Reading_High_Cells_and_Their_Functions_7	272	679	2.23	Yes	0.4	0.33	0.97	0.98	Retired
Reading_High_Cells_and_Their_Functions_8	536	679	0.15	Yes	0.79	0.32	0.97	0.82	Retired
Reading_High_Cells_and_Their_Functions_9	170	679	3.12	No	0.25	0.08	1.21	1.45	Retired
Reading_High_Inclined_Planes_1_FT	314	341	-1.03	No	0.92	0.11	1.02	1.17	Op
Reading_High_Inclined_Planes_2_FT	147	341	2.18	No	0.43	0.27	1.04	1.10	Op
Reading_High_Inclined_Planes_3_FT	171	341	1.81	No	0.5	0.39	0.93	0.92	Op
Reading_High_Ancient_Civilizations_10	407	678	1.23	Yes	0.6	0.33	0.96	0.92	Op
Reading_High_Ancient_Civilizations_11	292	679	2.11	No	0.43	0.3	1.01	1.03	Op
Reading_High_Ancient_Civilizations_FT_FT	258	679	2.34	No	0.38	0.27	1.04	1.08	Op
Reading_High_Ancient_Civilizations_12	346	679	2.02	Yes	0.51	0.34	1.01	0.98	Retired

Table 6.3.2.19 Complete Item Analysis and Summary: Reading grade-level cluster 6-8 Low track

Name	Score	count	Average item difficulty (in logits) / Measure	Number of items / Anchored?	Average P-value / P Value	Average Ptbs / Point biserial	Average infit mean square / IN.MSQ	Average outfit mean square / OUT.MS	Final Status
			0.89	13	0.51	0.28	0.96	0.93	
Reading_Step_1_Restaurant_Review_1	3,100	4,559	0.28	Yes	0.68	0.37	0.96	0.86	Retired
Reading_Step_1_Restaurant_Review_2	1,778	4,559	1.91	Yes	0.39	0.16	1.13	1.19	Retired
Reading_Step_1_Restaurant_Review_3	1,459	4,559	2.26	Yes	0.32	0.17	1.11	1.19	Retired
Reading_Step_1_Restaurant_Review_4	1,140	4,559	2.94	Yes	0.25	0.05	1.33	1.67	Retired
Reading_Low_Movie_Reviews_1_FT	731	2,283	2.30	No	0.32	0.16	1.15	1.22	Op
Reading_Low_Movie_Reviews_2_FT	1,278	2,283	1.07	No	0.56	0.4	0.88	0.82	Op
Reading_Low_Movie_Reviews_3_FT	1,096	2,283	1.48	No	0.48	0.3	1.00	0.98	Op
Reading_Low_Movie_Reviews_4_FT	1,119	2,283	1.43	No	0.49	0.38	0.91	0.89	Op
Reading_Low_The_Race_1_FT	1,229	2,276	1.19	No	0.54	0.32	0.98	0.97	FT (NS)
Reading_Low_The_Race_2_FT	1,115	2,276	1.44	No	0.49	0.33	0.97	0.96	FT (NS)
Reading_Low_The_Race_3_FT	1,366	2,276	0.92	No	0.6	0.35	0.93	0.93	FT (NS)
Reading_Low_The_Race_4_FT	1,411	2,276	0.80	No	0.62	0.29	0.97	0.96	FT (NS)
Reading_Low_Cooking_Eggs_A1	512	1,348	1.12	Yes	0.38	-0.16	1.26	1.31	Retired
Reading_Low_Cooking_Eggs_A2	593	1,348	1.00	Yes	0.44	0.34	0.89	0.88	Retired
Reading_Low_Cooking_Eggs_A3	566	1,348	1.12	Yes	0.42	0.36	0.88	0.87	Retired
Reading_Low_The_Sounds_of_My_Day_1_FT	296	448	0.00	No	0.66	0.3	0.92	0.84	Op
Reading_Low_The_Sounds_of_My_Day_2_FT	202	448	0.96	No	0.45	0.21	0.99	0.98	Op
Reading_Low_The_Sounds_of_My_Day_3_FT	215	448	0.83	No	0.48	0.28	0.93	0.90	Op
Reading_Low_Covering_a_Box_B4	1,024	1,347	-0.32	Yes	0.76	0.3	0.84	0.75	Retired
Reading_Low_Covering_a_Box_B5	714	1,348	0.77	Yes	0.53	0.18	1.01	1.00	Retired
Reading_Low_Covering_a_Box_B6	404	1,348	1.73	No	0.3	0.33	0.90	0.88	Retired
Reading_Low_Doghouse_1_FT	334	452	-0.42	No	0.74	0.27	0.93	0.86	Op
Reading_Low_Doghouse_2_FT	325	452	-0.30	No	0.72	0.34	0.87	0.78	Op
Reading_Low_Doghouse_3_FT	194	452	1.09	No	0.43	0.28	0.95	0.93	Op
Reading_Low_Convection_Currents_C7	822	1,347	0.47	Yes	0.61	0.41	0.82	0.78	Retired
Reading_Low_Convection_Currents_C8	809	1,348	0.28	No	0.6	0.08	1.08	1.08	Retired
Reading_Low_Convection_Currents_C9	445	1,348	1.39	Yes	0.33	0.12	1.04	1.03	Retired
Reading_Low_The_Water_Cycle_1_FT	273	447	0.26	No	0.61	0.2	0.99	0.98	Op
Reading_Low_The_Water_Cycle_2_FT	157	448	1.46	No	0.35	0.34	0.90	0.87	Op
Reading_Low_The_Water_Cycle_3_FT	166	448	1.37	No	0.37	0.15	1.04	1.07	Op

Table 6.3.2.20 Complete Item Analysis and Summary: Reading grade-level cluster 6-8 Mid track

Name	Score	count	Average item difficulty (in logits) Measure	Number of items Anchored?	Average P-value P Value	Average Ptbs Point biserial	Average infit mean square IN.MSQ	Average outfit mean square OUT.MS	Final Status
			1.60	16	0.49	0.29	0.99	0.98	
Reading_Step_1_Restaurant_Review_1	3,100	4,559	0.28	Yes	0.68	0.37	0.96	0.86	Retired
Reading_Step_1_Restaurant_Review_2	1,778	4,559	1.91	Yes	0.39	0.16	1.13	1.19	Retired
Reading_Step_1_Restaurant_Review_3	1,459	4,559	2.26	Yes	0.32	0.17	1.11	1.19	Retired
Reading_Step_1_Restaurant_Review_4	1,140	4,559	2.94	Yes	0.25	0.05	1.33	1.67	Retired
Reading_Low_Movie_Reviews_1_FT	731	2,283	2.30	No	0.32	0.16	1.15	1.22	Op
Reading_Low_Movie_Reviews_2_FT	1,278	2,283	1.07	No	0.56	0.4	0.88	0.82	Op
Reading_Low_Movie_Reviews_3_FT	1,096	2,283	1.48	No	0.48	0.3	1.00	0.98	Op
Reading_Low_Movie_Reviews_4_FT	1,119	2,283	1.43	No	0.49	0.38	0.91	0.89	Op
Reading_Low_The_Race_1_FT	1,229	2,276	1.19	No	0.54	0.32	0.98	0.97	FT (NS)
Reading_Low_The_Race_2_FT	1,115	2,276	1.44	No	0.49	0.33	0.97	0.96	FT (NS)
Reading_Low_The_Race_3_FT	1,366	2,276	0.92	No	0.6	0.35	0.93	0.93	FT (NS)
Reading_Low_The_Race_4_FT	1,411	2,276	0.80	No	0.62	0.29	0.97	0.96	FT (NS)
Reading_Mid_School_Store_A1	2,205	3,021	0.40	No	0.73	0.28	0.96	0.94	Op
Reading_Mid_School_Store_A2	1,814	3,023	1.20	Yes	0.6	0.33	0.93	0.90	Op
Reading_Mid_School_Store_A3	1,542	3,023	1.77	Yes	0.51	0.34	0.95	0.94	Op
Reading_Mid_How_Plants_Make_Their_Food_B4	2,418	3,022	-0.02	No	0.8	0.32	0.91	0.81	Op
Reading_Mid_How_Plants_Make_Their_Food_B5	1,572	3,023	1.67	Yes	0.52	0.29	0.99	0.98	Op
Reading_Mid_How_Plants_Make_Their_Food_B6	1,239	3,023	2.16	Yes	0.41	0.32	0.98	1.00	Op
Reading_Mid_The_Industrial_Revolution_C7	2,539	3,023	-0.61	Yes	0.84	0.3	1.09	0.91	Op
Reading_Mid_The_Industrial_Revolution_C8	635	3,023	3.09	Yes	0.21	0.26	0.94	1.01	Op
Reading_Mid_The_Industrial_Revolution_C9	937	3,023	2.35	Yes	0.31	0.22	1.00	1.04	Op
Reading_Mid_Winter_Sun_D10	1,188	3,210	2.29	Yes	0.37	0.24	1.05	1.09	Op
Reading_Mid_Winter_Sun_D11	899	3,210	2.81	Yes	0.28	0.28	1.00	1.05	Op
Reading_Mid_Winter_Sun_D12	1,156	3,211	2.20	Yes	0.36	0.21	1.05	1.11	Op

Table 6.3.2.21 Complete Item Analysis and Summary: Reading grade-level cluster 6-8 High track

			Average item difficulty (in logits)	Number of items	Average P-value	Average Ptbs	Average infit mean square	Average outfit mean square	
			2.14	16	0.53	0.31	0.98	0.96	
Name	Score	count	Measure	Anchored?	P Value	Point biserial	IN.MSQ	OUT.MS	Final Status
Reading_Step_1_Restaurant_Review_1	3,100	4,559	0.28	Yes	0.68	0.37	0.96	0.86	Retired
Reading_Step_1_Restaurant_Review_2	1,778	4,559	1.91	Yes	0.39	0.16	1.13	1.19	Retired
Reading_Step_1_Restaurant_Review_3	1,459	4,559	2.26	Yes	0.32	0.17	1.11	1.19	Retired
Reading_Step_1_Restaurant_Review_4	1,140	4,559	2.94	Yes	0.25	0.05	1.33	1.67	Retired
Reading_Low_Movie_Reviews_1_FT	731	2,283	2.30	No	0.32	0.16	1.15	1.22	Op
Reading_Low_Movie_Reviews_2_FT	1,278	2,283	1.07	No	0.56	0.4	0.88	0.82	Op
Reading_Low_Movie_Reviews_3_FT	1,096	2,283	1.48	No	0.48	0.3	1.00	0.98	Op
Reading_Low_Movie_Reviews_4_FT	1,119	2,283	1.43	No	0.49	0.38	0.91	0.89	Op
Reading_Low_The_Race_1_FT	1,229	2,276	1.19	No	0.54	0.32	0.98	0.97	FT (NS)
Reading_Low_The_Race_2_FT	1,115	2,276	1.44	No	0.49	0.33	0.97	0.96	FT (NS)
Reading_Low_The_Race_3_FT	1,366	2,276	0.92	No	0.6	0.35	0.93	0.93	FT (NS)
Reading_Low_The_Race_4_FT	1,411	2,276	0.80	No	0.62	0.29	0.97	0.96	FT (NS)
Reading_High_Book_Sale_A1	160	188	0.92	No	0.85	0.27	0.97	0.84	Op
Reading_High_Book_Sale_A2	120	188	2.27	No	0.64	0.33	0.97	0.90	Op
Reading_High_Book_Sale_A3	96	188	2.90	No	0.51	0.39	0.93	0.91	Op
Reading_High_Pancakes_B4	135	188	1.84	No	0.72	0.36	0.93	0.89	Op
Reading_High_Pancakes_B5	113	188	2.48	No	0.6	0.3	1.00	0.95	Op
Reading_High_Pancakes_B6	105	188	2.67	No	0.56	0.26	1.03	1.11	Op
Reading_High_Photography_Firsts_C7	118	188	2.53	Yes	0.63	0.43	0.87	0.82	Retired
Reading_High_Photography_Firsts_C8	90	188	3.06	No	0.48	0.41	0.89	0.87	Retired
Reading_High_Photography_Firsts_C9	120	188	2.27	No	0.64	0.31	0.98	0.92	Retired
Reading_High_Trade_in_Ancient_Egypt_1_FT	105	188	2.67	No	0.56	0.41	0.91	0.85	Op
Reading_High_Trade_in_Ancient_Egypt_2_FT	124	188	2.16	No	0.66	0.45	0.86	0.80	Op
Reading_High_Trade_in_Ancient_Egypt_3_FT	103	188	2.72	No	0.55	0.29	1.00	1.00	Op
Reading_High_Winter_Sun_D10	1,188	3,210	2.29	Yes	0.37	0.24	1.05	1.09	Op
Reading_High_Winter_Sun_D11	899	3,210	2.81	Yes	0.28	0.28	1.00	1.05	Op
Reading_High_Winter_Sun_D12	1,156	3,211	2.20	Yes	0.36	0.21	1.05	1.11	Op

Table 6.3.2.22 Complete Item Analysis and Summary: Reading grade-level cluster 9-12 Low track

Name	Score	count	Average item difficulty (in logits) Measure	Number of items Anchored?	Average P-value P Value	Average Ptbs Point biserial	Average infit mean square IN.MSQ	Average outfit mean square OUT.MS	Final Status
			0.92	13	0.52	0.33	0.97	0.97	
Reading_Step_1_The_Northern_Sea_1	2,717	3,528	-0.04	Yes	0.77	0.23	1.13	1.16	Retired
Reading_Step_1_The_Northern_Sea_2	1,905	3,528	1.42	Yes	0.54	0.38	0.93	0.90	Retired
Reading_Step_1_The_Northern_Sea_3	1,200	3,528	2.65	Yes	0.34	0.31	1.03	1.13	Retired
Reading_Step_1_The_Northern_Sea_4	1,341	3,528	2.20	Yes	0.38	0.3	1.03	1.11	Retired
Reading_Low_A_Letter_to_the_Editor_1_FT	1,341	1,765	0.13	No	0.76	0.41	0.86	0.72	FT (NS)
Reading_Low_A_Letter_to_the_Editor_2_FT	795	1,766	1.90	No	0.45	0.27	1.12	1.23	FT (NS)
Reading_Low_A_Letter_to_the_Editor_3_FT	1,289	1,766	0.36	No	0.73	0.47	0.81	0.67	FT (NS)
Reading_Low_A_Letter_to_the_Editor_4_FT	1,342	1,766	0.17	No	0.76	0.41	0.89	0.73	FT (NS)
Reading_Low_Technology_1_FT	1,321	1,761	0.30	No	0.75	0.4	0.90	0.76	Op
Reading_Low_Technology_2_FT	1,092	1,761	1.00	No	0.62	0.47	0.86	0.79	Op
Reading_Low_Technology_3_FT	564	1,762	2.63	No	0.32	0.15	1.23	1.48	Op
Reading_Low_Technology_4_FT	863	1,762	1.72	No	0.49	0.36	1.01	1.03	Op
Reading_Low_Julia_Child_A1	553	970	0.41	Yes	0.57	0.41	0.86	0.84	Op
Reading_Low_Julia_Child_A2	689	970	-0.46	No	0.71	0.34	0.91	0.83	Op
Reading_Low_Julia_Child_A3	281	970	1.46	Yes	0.29	0.19	1.00	1.04	Op
Reading_Low_Polygons_B4	718	970	-0.77	Yes	0.74	0.32	0.97	0.87	Retired
Reading_Low_Polygons_B5	514	970	0.63	Yes	0.53	0.29	0.98	0.96	Retired
Reading_Low_Polygons_B6	272	970	1.68	Yes	0.28	0.13	1.07	1.15	Retired
Reading_Low_Percentages_1_FT	342	488	-0.47	No	0.7	0.33	0.92	0.88	Op
Reading_Low_Percentages_2_FT	215	488	0.84	No	0.44	0.44	0.86	0.83	Op
Reading_Low_Percentages_3_FT	200	488	0.98	No	0.41	0.25	1.03	1.01	Op
Reading_Low_Dietary_Guidelines_C7	611	970	-0.04	No	0.63	0.21	1.03	1.05	Retired
Reading_Low_Dietary_Guidelines_C8	601	970	0.04	Yes	0.62	0.42	0.84	0.79	Retired
Reading_Low_Dietary_Guidelines_C9	262	970	1.93	Yes	0.27	0.17	1.11	1.27	Retired
Reading_Low_Different_Kinds_of_Energy_1_FT	492	848	0.71	No	0.58	0.38	0.94	0.90	Op
Reading_Low_Different_Kinds_of_Energy_2_FT	467	849	0.87	No	0.55	0.36	0.95	0.94	Op
Reading_Low_Different_Kinds_of_Energy_3_FT	289	849	1.99	No	0.34	0.24	1.08	1.23	Op

Table 6.3.2.23 Complete Item Analysis and Summary: Reading grade-level cluster 9-12 Mid track

Name	Score	count	Average item difficulty (in logits) Measure	Number of items Anchored?	Average P-value P Value	Average Ptbs Point biserial	Average infit mean square IN.MSQ	Average outfit mean square OUT.MS	Final Status
			1.77	16	0.51	0.33	0.97	0.98	
Reading_Step_1_The_Northern_Sea_1	2,717	3,528	-0.04	Yes	0.77	0.23	1.13	1.16	Retired
Reading_Step_1_The_Northern_Sea_2	1,905	3,528	1.42	Yes	0.54	0.38	0.93	0.90	Retired
Reading_Step_1_The_Northern_Sea_3	1,200	3,528	2.65	Yes	0.34	0.31	1.03	1.13	Retired
Reading_Step_1_The_Northern_Sea_4	1,341	3,528	2.20	Yes	0.38	0.3	1.03	1.11	Retired
Reading_Low_A_Letter_to_the_Editor_1_FT	1,341	1,765	0.13	No	0.76	0.41	0.86	0.72	FT (NS)
Reading_Low_A_Letter_to_the_Editor_2_FT	795	1,766	1.90	No	0.45	0.27	1.12	1.23	FT (NS)
Reading_Low_A_Letter_to_the_Editor_3_FT	1,289	1,766	0.36	No	0.73	0.47	0.81	0.67	FT (NS)
Reading_Low_A_Letter_to_the_Editor_4_FT	1,342	1,766	0.17	No	0.76	0.41	0.89	0.73	FT (NS)
Reading_Low_Technology_1_FT	1,321	1,761	0.30	No	0.75	0.4	0.90	0.76	Op
Reading_Low_Technology_2_FT	1,092	1,761	1.00	No	0.62	0.47	0.86	0.79	Op
Reading_Low_Technology_3_FT	564	1,762	2.63	No	0.32	0.15	1.23	1.48	Op
Reading_Low_Technology_4_FT	863	1,762	1.72	No	0.49	0.36	1.01	1.03	Op
Reading_Mid_Angles_in_FourSided_Shapes_A1	1,038	2,209	2.01	No	0.47	0.34	0.96	0.97	Op
Reading_Mid_Angles_in_FourSided_Shapes_A2	1,149	2,209	1.94	Yes	0.52	0.39	0.92	0.91	Op
Reading_Mid_Angles_in_FourSided_Shapes_A3	729	2,209	2.71	No	0.33	0.21	1.07	1.16	Op
Reading_Mid_Model_Rockets_B4	994	2,209	2.10	No	0.45	0.19	1.10	1.14	Retired
Reading_Mid_Model_Rockets_B5	663	2,209	3.12	Yes	0.3	0.27	1.11	1.25	Retired
Reading_Mid_Model_Rockets_B6	950	2,209	2.08	Yes	0.43	0.07	1.20	1.29	Retired
Reading_Mid_Parts_of_a_Cell_1_FT	278	366	0.55	No	0.76	0.26	1.00	0.93	Op
Reading_Mid_Parts_of_a_Cell_2_FT	176	366	1.99	No	0.48	0.33	0.97	0.95	Op
Reading_Mid_Parts_of_a_Cell_3_FT	154	366	2.30	No	0.42	0.46	0.87	0.86	Op
Reading_Mid_Ancient_Writing_C7	1,259	2,209	1.61	Yes	0.57	0.28	1.00	0.98	Op
Reading_Mid_Ancient_Writing_C8	1,082	2,209	1.88	Yes	0.49	0.27	1.02	1.03	Op
Reading_Mid_Ancient_Writing_C9	994	2,209	2.11	No	0.45	0.29	1.01	1.01	Op
Reading_Mid_Conservationist_Joy_Adamson_D10	1,560	2,557	1.41	Yes	0.61	0.32	1.00	1.00	Retired
Reading_Mid_Conservationist_Joy_Adamson_D11	1,253	2,558	1.84	Yes	0.49	0.34	0.99	0.96	Retired
Reading_Mid_Conservationist_Joy_Adamson_D12	1,100	2,558	2.42	Yes	0.43	0.17	1.18	1.22	Retired
Reading_Mid_Celia_Cruz_1_FT	188	368	1.83	No	0.51	0.45	0.86	0.83	Op
Reading_Mid_Celia_Cruz_2_FT	232	369	1.21	No	0.63	0.33	0.95	0.97	Op
Reading_Mid_Celia_Cruz_3_FT	140	369	2.46	No	0.38	0.33	0.96	0.97	Op

Table 6.3.2.24 Complete Item Analysis and Summary: Reading grade-level cluster 9-12 High track

Name	Score	count	Average item difficulty (in logits) / Measure	Number of items / Anchored?	Average P-value / P Value	Average Ptbs / Point biserial	Average infit mean square / IN.MSQ	Average outfit mean square / OUT.MS	Final Status
			2.41	16	0.50	0.33	0.97	0.96	
Reading_Step_1_The_Northern_Sea_1	2,717	3,528	-0.04	Yes	0.77	0.23	1.13	1.16	Retired
Reading_Step_1_The_Northern_Sea_2	1,905	3,528	1.42	Yes	0.54	0.38	0.93	0.90	Retired
Reading_Step_1_The_Northern_Sea_3	1,200	3,528	2.65	Yes	0.34	0.31	1.03	1.13	Retired
Reading_Step_1_The_Northern_Sea_4	1,341	3,528	2.20	Yes	0.38	0.3	1.03	1.11	Retired
Reading_Low_A_Letter_to_the_Editor_1_FT	1,341	1,765	0.13	No	0.76	0.41	0.86	0.72	FT (NS)
Reading_Low_A_Letter_to_the_Editor_2_FT	795	1,766	1.90	No	0.45	0.27	1.12	1.23	FT (NS)
Reading_Low_A_Letter_to_the_Editor_3_FT	1,289	1,766	0.36	No	0.73	0.47	0.81	0.67	FT (NS)
Reading_Low_A_Letter_to_the_Editor_4_FT	1,342	1,766	0.17	No	0.76	0.41	0.89	0.73	FT (NS)
Reading_Low_Technology_1_FT	1,321	1,761	0.30	No	0.75	0.4	0.90	0.76	Op
Reading_Low_Technology_2_FT	1,092	1,761	1.00	No	0.62	0.47	0.86	0.79	Op
Reading_Low_Technology_3_FT	564	1,762	2.63	No	0.32	0.15	1.23	1.48	Op
Reading_Low_Technology_4_FT	863	1,762	1.72	No	0.49	0.36	1.01	1.03	Op
Reading_High_Perspective_A1	258	349	1.91	No	0.74	0.14	1.05	1.14	Retired
Reading_High_Perspective_A2	154	349	3.38	No	0.44	0.22	1.00	1.01	Retired
Reading_High_Perspective_A3	129	349	3.73	No	0.37	-0.03	1.23	1.34	Retired
Reading_Mid_Math_Functions_1_FT	243	485	2.18	No	0.5	0.32	1.03	0.99	Op
Reading_Mid_Math_Functions_2_FT	233	485	2.24	No	0.48	0.42	0.93	0.93	Op
Reading_Mid_Math_Functions_3_FT	160	485	3.04	No	0.33	0.26	1.07	1.20	Op
Reading_High_Bacterial_Growth_B4	195	349	2.84	No	0.56	0.31	0.94	0.90	Op
Reading_High_Bacterial_Growth_B5	209	349	2.84	Yes	0.6	0.34	0.89	0.85	Op
Reading_High_Bacterial_Growth_B6	209	349	2.65	No	0.6	0.33	0.91	0.86	Op
Reading_High_Ancient_Civilizations_C7	223	349	2.42	No	0.64	0.38	0.87	0.80	Op
Reading_High_Ancient_Civilizations_C8	157	349	3.35	No	0.45	0.18	1.03	1.05	Op
Reading_High_Ancient_Civilizations_C9	59	349	4.97	No	0.17	0.21	1.01	0.99	Op
Reading_Mid_The_Song_Dynasty_1_FT	192	369	1.69	No	0.52	0.34	0.93	0.90	FT (NS)
Reading_Mid_The_Song_Dynasty_2_FT	115	370	2.73	No	0.31	0.12	1.11	1.23	FT (NS)
Reading_Mid_The_Song_Dynasty_3_FT	96	370	3.00	No	0.26	0.13	1.10	1.16	FT (NS)
Reading_High_Conservationist_Joy_Adamson_D10	1,560	2,557	1.41	Yes	0.61	0.32	1.00	1.00	Retired
Reading_High_Conservationist_Joy_Adamson_D11	1,253	2,558	1.84	Yes	0.49	0.34	0.99	0.96	Retired
Reading_High_Conservationist_Joy_Adamson_D12	1,100	2,558	2.42	Yes	0.43	0.17	1.18	1.22	Retired
Reading_Mid_Red_Moon_1_FT	321	486	1.37	No	0.66	0.48	0.84	0.77	Op
Reading_Mid_Red_Moon_2_FT	180	486	2.85	No	0.37	0.29	1.04	1.07	Op
Reading_Mid_Red_Moon_3_FT	243	486	2.21	No	0.5	0.41	0.93	0.89	Op

Table 6.3.2.25 Complete Item Analysis and Summary: Speaking grade-level cluster 1-2

Name			Average item difficulty (in logits)	Number of items	Average P-value	Average Ptbs	Average infit mean square	Average outfit mean square	Final Status
			1.36	8	0.63	0.63	1.09	1.38	
	Score	count	Measure	Anchored?	P Value	Point biserial	IN.MSQ	OUT.MS	
Speaking_Part_A_A1	2,762	2,938	-4.91	No	0.94	0.44	1.03	7.45	Retired
Speaking_Part_A_A2	2,409	2,938	-1.06	No	0.82	0.64	0.91	1.67	Retired
Speaking_Part_A_A3	1,998	2,938	1.03	Yes	0.68	0.68	1.13	1.97	Retired
Speaking_Part_B_B1	2,674	2,938	-3.23	No	0.91	0.53	0.88	0.47	Retired
Speaking_Part_B_B2	2,409	2,938	-1.13	Yes	0.82	0.65	0.79	0.52	Retired
Speaking_Part_B_B3	1,822	2,938	1.87	Yes	0.62	0.74	0.87	0.68	Retired
Speaking_Part_B_B4	1,440	2,938	3.40	Yes	0.49	0.73	0.86	0.61	Retired
Speaking_Part_B_B5	1,116	2,938	5.30	Yes	0.38	0.66	1.24	0.68	Retired
Speaking_Class_Supplies_1_FT	899	977	-3.58	No	0.92	0.44	1.44	4.36	Op
Speaking_Class_Supplies_2_FT	596	977	2.06	No	0.61	0.7	1.15	1.75	Op
Speaking_Class_Supplies_3_FT	528	977	2.95	No	0.54	0.7	1.10	1.20	Op
Speaking_Carl's_Community_1_FT	927	976	-4.64	No	0.95	0.39	1.13	0.88	Op
Speaking_Carl's_Community_2_FT	742	976	0.08	No	0.76	0.62	1.26	1.28	Op
Speaking_Carl's_Community_3_FT	498	976	3.28	No	0.51	0.78	0.77	0.47	Op
Speaking_Carl's_Community_4_FT	420	976	4.46	No	0.43	0.76	0.76	0.41	Op
Speaking_Carl's_Community_5_FT	322	976	6.29	No	0.33	0.67	1.13	0.67	Op
Speaking_The_Lost_Book_1_FT	896	985	-4.12	No	0.91	0.51	1.15	4.74	FT (NS)
Speaking_The_Lost_Book_2_FT	749	985	-0.20	No	0.76	0.67	1.26	1.30	FT (NS)
Speaking_The_Lost_Book_3_FT	493	985	3.32	No	0.5	0.72	1.00	0.70	FT (NS)
Speaking_The_Lost_Book_4_FT	345	985	5.32	No	0.35	0.66	0.88	1.05	FT (NS)
Speaking_The_Lost_Book_5_FT	296	985	6.35	No	0.3	0.62	0.97	2.15	FT (NS)

Table 6.3.2.26 Complete Item Analysis and Summary: Speaking grade-level cluster 3-5

			Average item difficulty (in logits)	Number of items	Average P-value	Average Ptbs	Average infit mean square	Average outfit mean square	
			-0.04	8	0.68	0.66	1.00	1.12	
Name	Score	count	Measure	Anchored?	P Value	Point biserial	IN.MSQ	OUT.MS	Final Status
Speaking_Part_A_A1	4,366	4,798	-3.96	No	0.91	0.52	1.26	3.21	Retired
Speaking_Part_A_A2	3,886	4,798	-1.67	No	0.81	0.66	1.08	1.67	Retired
Speaking_Part_A_A3	3,551	4,798	-0.52	No	0.74	0.69	1.09	1.66	Retired
Speaking_Part_B_B1	4,366	4,798	-4.22	No	0.91	0.57	0.90	0.36	Retired
Speaking_Part_B_B2	3,982	4,798	-2.02	Yes	0.83	0.71	0.74	0.37	Retired
Speaking_Part_B_B3	3,455	4,798	-0.03	No	0.72	0.76	0.80	0.49	Retired
Speaking_Part_B_B4	2,831	4,798	1.21	Yes	0.59	0.73	0.91	0.61	Retired
Speaking_Part_B_B5	2,159	4,798	3.16	Yes	0.45	0.64	1.12	0.99	Retired
Speaking_Silk_Road_1_FT	2,196	2,387	-4.47	No	0.92	0.52	1.08	1.15	Op
Speaking_Silk_Road_2_FT	1,814	2,387	-0.80	No	0.76	0.72	0.99	0.60	Op
Speaking_Silk_Road_3_FT	1,432	2,387	1.22	No	0.6	0.75	0.80	0.56	Op
Speaking_Silk_Road_4_FT	1,146	2,387	2.73	No	0.48	0.68	0.90	0.87	FT (NS)
Speaking_Silk_Road_5_FT	525	2,387	7.38	No	0.22	0.45	1.19	6.45	FT (NS)
Speaking_Alexander_1_FT	2,194	2,411	-3.98	No	0.91	0.52	1.40	1.60	Op
Speaking_Alexander_2_FT	1,784	2,411	-0.48	No	0.74	0.73	0.99	0.70	Op
Speaking_Alexander_3_FT	1,543	2,411	0.85	No	0.64	0.78	0.72	0.48	Op
Speaking_Alexander_4_FT	1,302	2,411	2.09	No	0.54	0.73	0.83	0.63	Op
Speaking_Alexander_5_FT	820	2,411	5.25	No	0.34	0.56	1.16	3.26	Op

Table 6.3.2.27 Complete Item Analysis and Summary: Speaking grade-level cluster 6-8

Name	Score	count	Average item difficulty (in logits) / Measure	Number of items / Anchored?	Average P-value / P Value	Average Ptbs / Point biserial	Average infit mean square / IN.MSQ	Average outfit mean square / OUT.MS	Final Status
			0.39	10	0.63	0.65	1.03	2.11	
Speaking_Part_A_A1	4,198	4,415	-7.33	No	0.95	0.38	1.33	9.90	Op
Speaking_Part_A_A2	3,762	4,415	-2.65	No	0.85	0.60	0.93	1.57	Op
Speaking_Part_A_A3	3,275	4,415	-0.47	Yes	0.74	0.69	0.94	0.80	Op
Speaking_Part_A_A4	2,270	4,415	2.72	Yes	0.51	0.73	0.99	0.97	Op
Speaking_Part_A_A5	1,577	4,415	4.30	Yes	0.35	0.65	1.20	1.23	Op
Speaking_Part_B_B1	3,982	4,415	-4.21	Yes	0.90	0.53	0.93	1.65	Retired
Speaking_Part_B_B2	3,542	4,415	-1.57	No	0.80	0.65	0.94	1.17	Retired
Speaking_Part_B_B3	2,707	4,415	0.97	Yes	0.61	0.76	0.84	0.57	Retired
Speaking_Part_B_B4	2,087	4,415	2.99	Yes	0.47	0.75	0.78	0.51	Retired
Speaking_Part_B_B5	1,461	4,415	4.96	Yes	0.33	0.66	1.04	0.83	Retired
Speaking_Junko_Tabei_1_FT	1,942	2,215	-3.24	No	0.87	0.56	1.07	1.99	Op
Speaking_Junko_Tabei_2_FT	1,631	2,215	-0.39	No	0.73	0.68	1.06	1.17	Op
Speaking_Junko_Tabei_3_FT	1,259	2,215	1.87	No	0.56	0.75	0.89	0.63	Op
Speaking_Junko_Tabei_4_FT	967	2,215	3.48	No	0.43	0.73	0.85	0.84	Op
Speaking_Junko_Tabei_5_FT	653	2,215	5.62	No	0.29	0.62	1.06	2.04	Op
Speaking_Ralph_Bunche_1_FT	1,965	2,200	-3.98	No	0.89	0.53	1.06	5.09	FT (red)
Speaking_Ralph_Bunche_2_FT	1,579	2,200	-0.22	No	0.71	0.66	1.21	1.50	FT (red)
Speaking_Ralph_Bunche_3_FT	1,180	2,200	2.11	No	0.53	0.72	1.04	0.93	FT (red)
Speaking_Ralph_Bunche_4_FT	742	2,200	4.70	No	0.33	0.67	0.98	0.83	FT (red)
Speaking_Ralph_Bunche_5_FT	524	2,200	6.66	No	0.23	0.59	1.05	1.80	FT (red)

Table 6.3.2.28 Complete Item Analysis and Summary: Speaking grade-level cluster 9-12

			Average item difficulty (in logits)	Number of items	Average P-value	Average Ptbs	Average infit mean square	Average outfit mean square	Final Status
			-0.43	10	0.58	0.65	1.05	1.51	
Name	Score	count	Measure	Anchored?	P Value	Point biserial	IN.MSQ	OUT.MS	
Speaking_Part_A_A1	3,389	3,791	-5.18	Yes	0.89	0.55	0.85	1.34	Retired
Speaking_Part_A_A2	3,155	3,791	-3.77	No	0.83	0.65	0.74	0.59	Retired
Speaking_Part_A_A3	2,797	3,791	-2.09	Yes	0.73	0.71	0.79	0.55	Retired
Speaking_Part_A_A4	2,058	3,791	0.10	No	0.54	0.73	0.90	0.75	Retired
Speaking_Part_A_A5	1,527	3,791	1.74	No	0.40	0.67	1.13	1.07	Retired
Speaking_Part_B_B1	3,503	3,791	-6.66	Yes	0.92	0.48	1.13	1.97	Retired
Speaking_Part_B_B2	3,117	3,791	-3.33	Yes	0.82	0.63	0.93	0.91	Retired
Speaking_Part_B_B3	2,188	3,791	-0.28	Yes	0.57	0.72	0.93	0.76	Retired
Speaking_Part_B_B4	1,602	3,791	1.22	Yes	0.42	0.72	0.83	0.61	Retired
Speaking_Part_B_B5	1,124	3,791	3.29	Yes	0.29	0.63	0.99	0.99	Retired
Speaking_Kareem's_Choice_1_FT	1,692	1,888	-5.32	No	0.89	0.50	1.40	3.33	Op
Speaking_Kareem's_Choice_2_FT	1,422	1,888	-2.38	No	0.75	0.67	0.98	0.95	Op
Speaking_Kareem's_Choice_3_FT	1,171	1,888	-0.73	No	0.62	0.74	0.83	0.60	Op
Speaking_Kareem's_Choice_4_FT	886	1,888	0.96	No	0.46	0.73	0.83	0.61	Op
Speaking_Kareem's_Choice_5_FT	636	1,888	2.72	No	0.33	0.65	1.03	0.88	Op
Speaking_Magnifying_Lenses_1_FT	1,645	1,903	-4.57	No	0.86	0.53	1.35	2.62	Op
Speaking_Magnifying_Lenses_2_FT	1,426	1,903	-2.44	No	0.74	0.67	0.99	0.85	Op
Speaking_Magnifying_Lenses_3_FT	995	1,903	0.30	No	0.52	0.73	0.87	0.72	Op
Speaking_Magnifying_Lenses_4_FT	696	1,903	2.20	No	0.36	0.69	0.91	1.01	Op
Speaking_Magnifying_Lenses_5_FT	429	1,903	5.01	No	0.22	0.57	1.26	3.48	Op

Table 6.3.2.29 Complete Item Analysis and Summary: Writing grade-level cluster 1-2

Name	Score	count	Average item difficulty (in logits)	Number of items	Average P-value	Average Ptbs	Average infit mean square	Average outfit mean square	Inter-rater Reliability	Final Status
			0.40	3	0.33	0.87	0.46	0.44		
			Measure	Anchored?	P Value	Point biserial	IN.MSQ	OUT.MS		
Writing_Task_1_Main_Part_A	5,448	842	0.69	Yes	0.36	0.88	0.39	0.40	0.94	Retired
Writing_After_School_Art_Activity_Part_A_FT	1,637	259	0.65	No	0.35	0.86	0.47	0.41	0.93	Op
Writing_Building_a_Playhouse_Part_A_FT	1,565	260	0.09	No	0.34	0.85	0.50	0.47	0.93	Op
Writing_Going_to_the_Park_Part_A_FT	1,787	323	0.47	No	0.31	0.89	0.42	0.45	0.86	Op

Table 6.3.2.30 Complete Item Analysis and Summary: Writing grade-level cluster 3-5

Name	Score	count	Average item difficulty (in logits)	Number of items	Average P-value	Average Ptbs	Average infit mean square	Average outfit mean square	Inter-rater Reliability	Final Status
			1.19	3	0.35	0.82				
			Measure	Anchored?	P Value	Point biserial	IN.MSQ	OUT.MS		
Writing_Lion_and_Mouse_Part_B	8,758	1,215	1.00	Yes	0.40	0.85	0.47	0.48	0.87	Retired
Writing_The_Little_Library_Part_B_FT	1,966	313	1.40	No	0.35	0.82	0.51	0.51	0.91	Op
Writing_Neighborhood_Garden_Part_B_FT	2,173	334	1.17	No	0.36	0.80	0.53	0.52	0.88	Op
Writing_The_Book_Collection_Part_B_FT	3,617	568	1.00	No	0.35	0.84	0.59	0.56	0.87	Op

Table 6.3.2.31 Complete Item Analysis and Summary: Writing grade-level cluster 6-8

Name	Score	count	Average item difficulty (in logits)	Number of items	Average P-value	Average Ptbs	Average infit mean square	Average outfit mean square	Inter-rater Reliability	Final Status
			1.51	2	0.39	0.82	0.51	0.50		
			Measure	Anchored?	P Value	Point biserial	IN.MSQ	OUT.MS		
Writing_Mural_Ideas_Part_B	4,322	636	2.05	Yes	0.38	0.82	0.40	0.39	0.96	Retired
Writing_Choosing_a_New_Class_Part_B_FT	1,634	229	1.36	No	0.40	0.75	0.56	0.50	0.96	FT (NS)
Writing_School_Spirit_Week_Part_B_FT	1,669	231	1.67	No	0.40	0.80	0.63	0.61	1.00	Op
Writing_Ways_to_Advertise_Part_B_FT	1,131	176	1.34	No	0.38	0.83	0.38	0.39	0.90	Op

Table 6.3.2.32 Complete Item Analysis and Summary: Writing grade-level cluster 9-12

Name	Score	count	Average item difficulty (in logits) / Measure	Number of items / Anchored?	Average P-value / P Value	Average Ptbs / Point biserial	Average infit mean square / IN.MSQ	Average outfit mean square / OUT.MS	Inter-rater Reliability	Final Status
			1.64	2	0.33	0.90	0.55	0.49		
Writing_Shirley_Chisholm_Part_B	4,546	772	2.11	Yes	0.33	0.89	0.40	0.42	0.88	Retired
Writing_Nikola_Tesla_Part_B_FT	2,766	496	1.61	No	0.31	0.90	0.55	0.50	0.87	Op
Writing_Zora_Neale_Hurston_Part_B_FT	1,700	276	1.67	No	0.34	0.89	0.55	0.48	0.94	Op

6.4. Test Information Function

With the Rasch measurement model, as with any measurement model following item response theory, the relationship between the ability measure (in logits) and the accuracy of test scores can be modeled. It is recognized that tests measure most accurately when the abilities of the examinees and the difficulty of the items are most appropriate for each other. If a test is too difficult for an examinee (i.e., the examinee scores close to zero), or if a test is too easy for an examinee (i.e., the examinee receives a perfect or near-perfect score), the examinee's ability cannot be accurately measured. The figures in this section show graphically how well the test is measuring across the ability measure spectrum. High test information values indicate more accuracy in measurement. Figures show the relationship between the ability measure (in logits) on the horizontal axis and measurement accuracy, represented as the Fisher information value (which is the inverse squared of the standard error), on the vertical axis. The test information function (TIF), then, reflects the conditional standard errors of measurement.

Five vertical lines in the figure indicate the five MODEL cut scores for the highest grade in the grade-level cluster for the test form, dividing the figure into six sections for each of the WIDA proficiency levels (1–6) for the domain being tested. The MODEL cut scores lines are presented along with the test information function to facilitate the interpretation of the test information curves. The test information curve and the corresponding MODEL cut score lines are both expressed on the MODEL logit scale.

The test information function is an advanced IRT concept. It is important mainly because it provides indices analogous to reliability and SEM in the classical test theory. Without using statistical formulations, we can conceptualize the idea this way: in a well-designed test, every item responded to correctly provides a bit of information about what a student knows and can do, and every item responded to incorrectly indicates what a student does not know and can't do. When there are a sufficient number of items, information accumulates to provide an accurate estimate of student ability. In this sense, information is directly related to the reliability of test scores: the more information, the higher the reliability and the smaller the SEM.

Test information varies as a function of student ability. The same test can provide a significant amount of information for some students, but little information for other students. Usually an achievement assessment is designed for students ranging from relatively low ability to relatively high ability. A student in this range is expected to answer some items correctly and some items incorrectly. However, if a student has extremely high ability which is far beyond the ability level required by the test, he or she might answer all items correctly. This is good from an educational point of view, but it is tricky from an ability-estimation point of view, since this test provides little information about the student's true level of ability. We certainly know the student has high ability, but there is no way to determine how high it is. To determine the true ability would require the administration of several additional items at the top of the difficulty range. From this example, it is clear that IRT test information is conditioned on ability. Usually, the test

information curve has a bell shape --- intermediate abilities provide for the greatest test information and high reliability, whereas extreme abilities correspond to less information and low reliability.

Statistically, at every ability point, the test information function is inversely proportional to the square of the CSEM. This relationship is used to calculate the CSEM for each obtainable scale score point. The information function of Rasch model is written as:

$$I(\theta) = \sum_{i=1}^{N} P_i(\theta)\, Q_i(\theta)$$

where: $I(\theta)$ is the amount of test information at an ability level of θ,

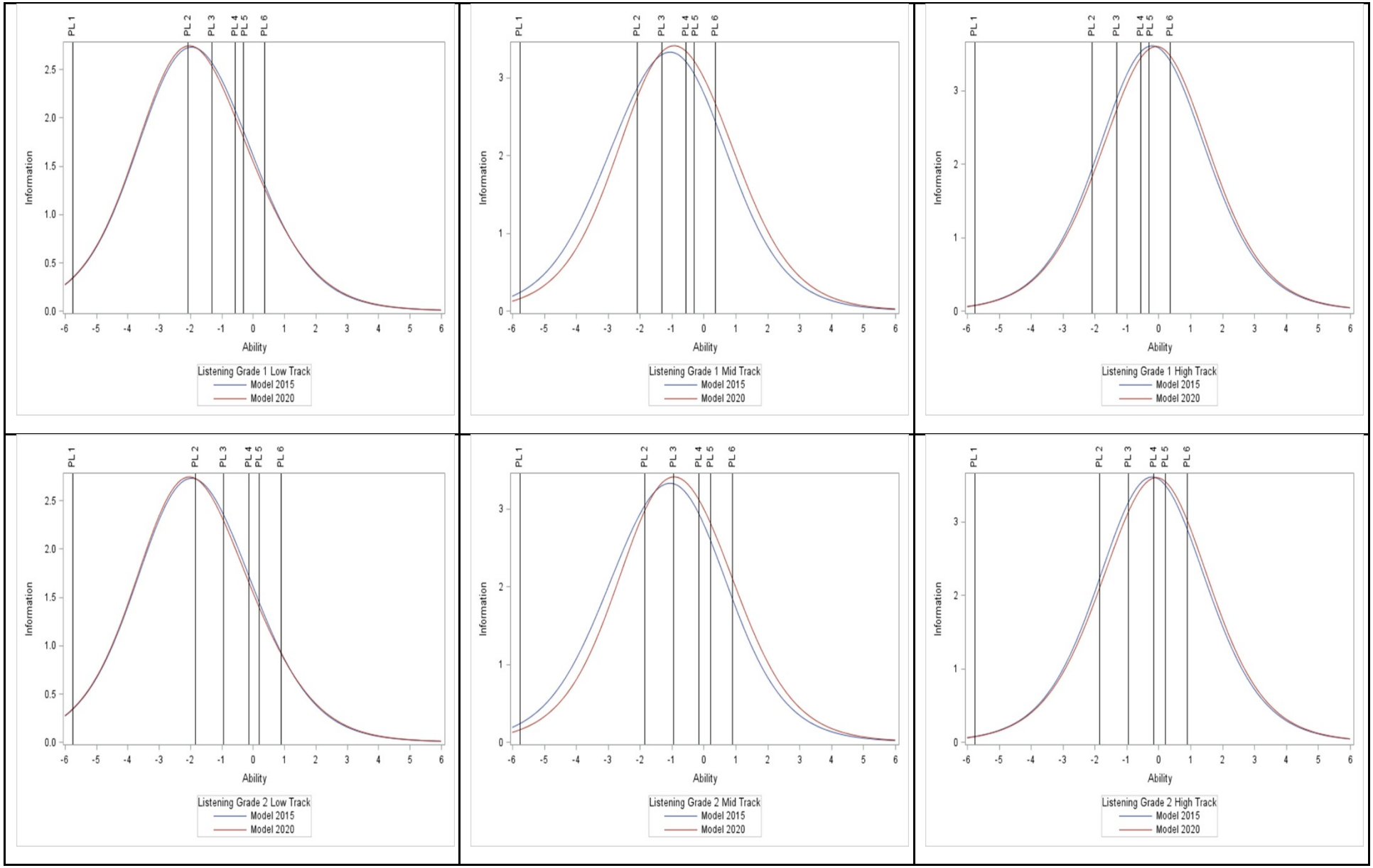
$P_i(\theta)Q_i(\theta) = I_i(\theta)$ is the amount of information for item i at ability level θ, and N is the number of items in the test.

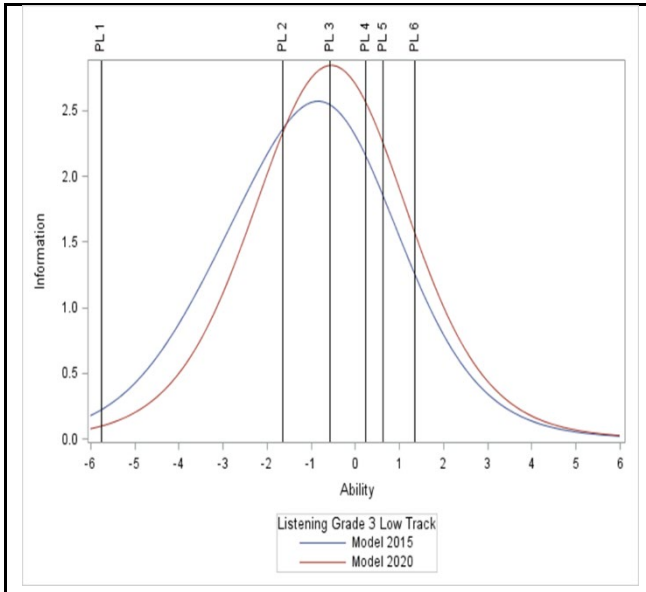
After $I(\theta)$ is obtained, the CSEM is calculated as

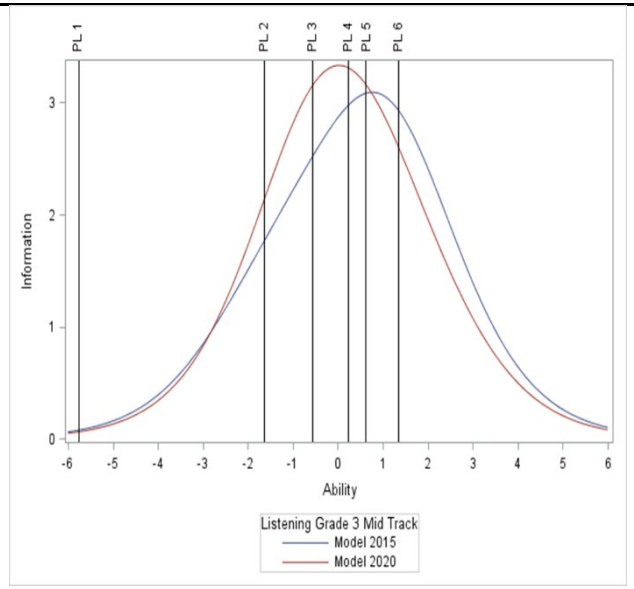
$$CSEM = \frac{1}{\sqrt{I(\theta)}}$$

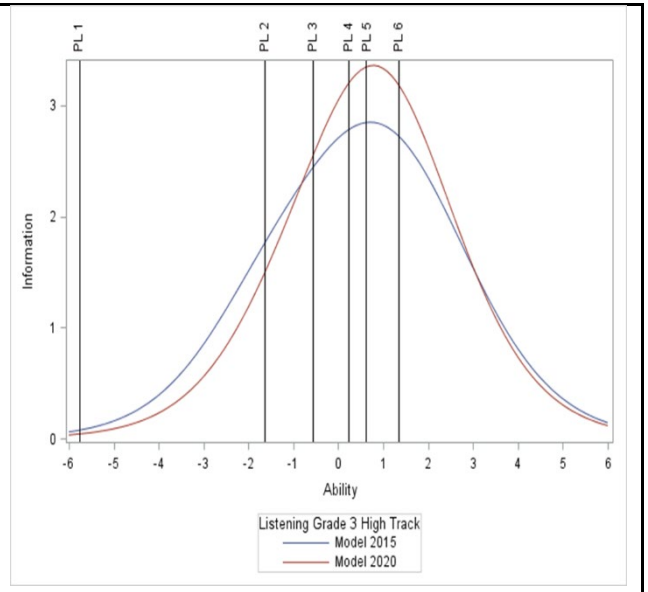
In this section, test information curves of the original MODEL test forms and the new Online MODEL assessment are overlaid so that the precision of the two forms can be directly compared.

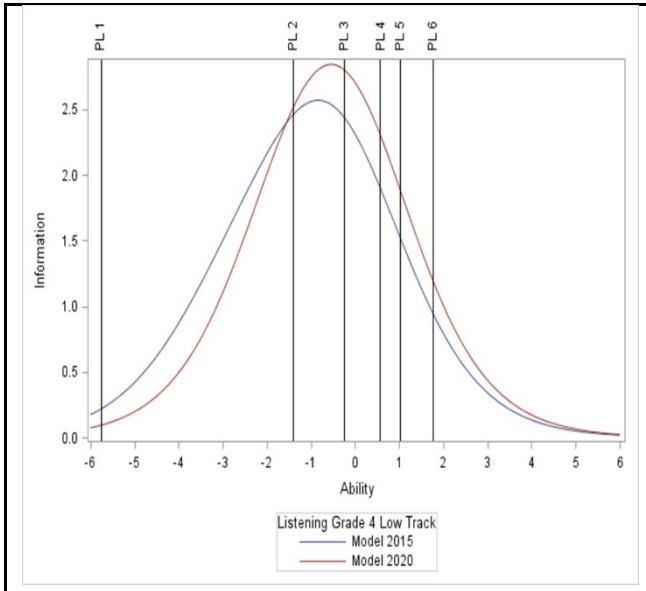
6.4.1. TIFs of Listening domain by grade

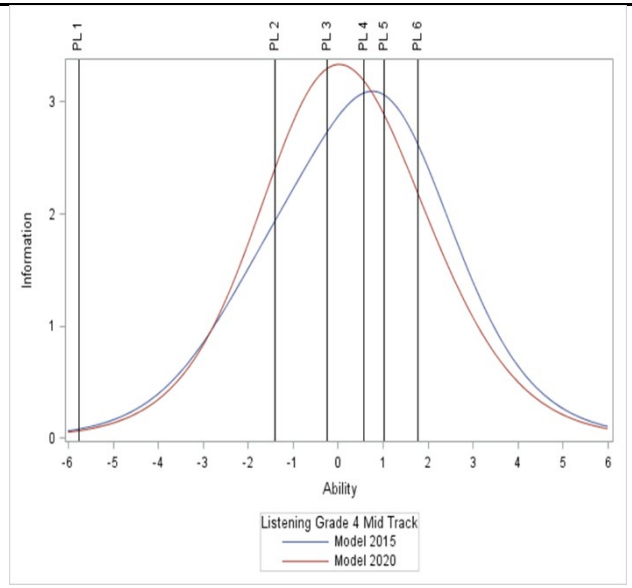


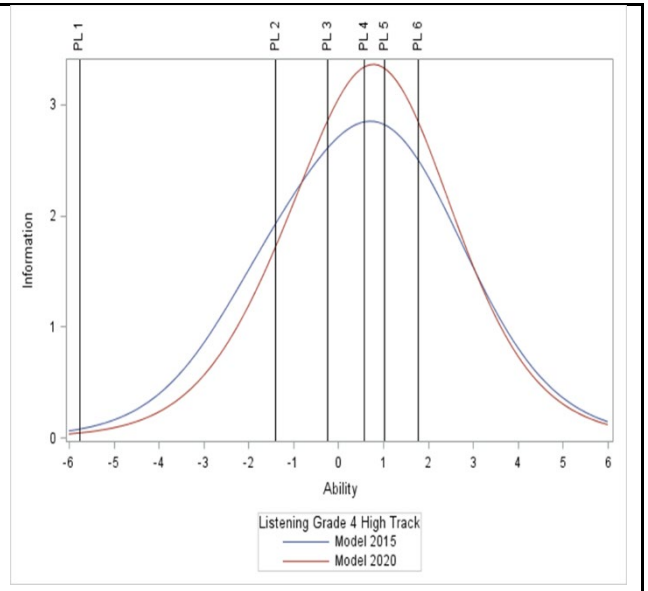

PL 1
PL 2
PL 3
PL 4
PL 5
PL 6
Information
Ability
Listening Grade 3 Low Track
Model 2015
Model 2020

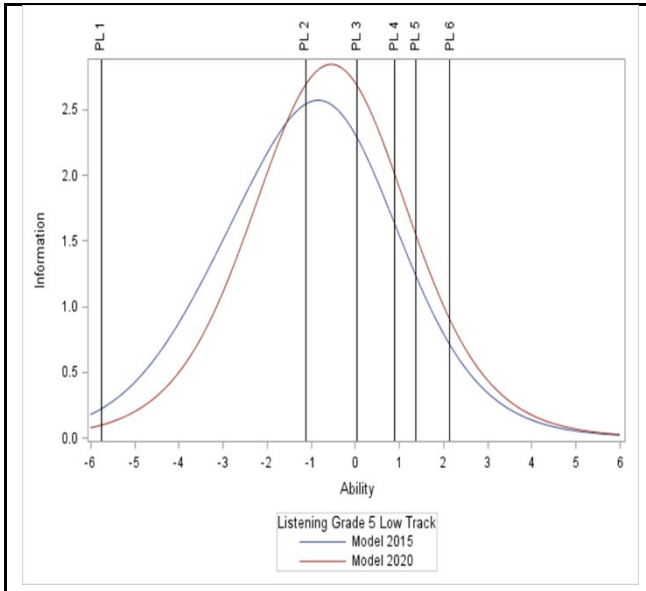

PL 1
PL 2
PL 3
PL 4
PL 5
PL 6
Information
Ability
Listening Grade 3 Mid Track
Model 2015
Model 2020

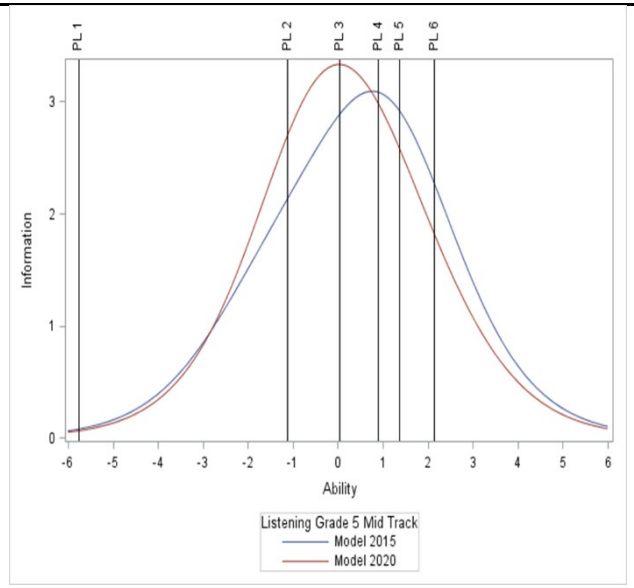

PL 1
PL 2
PL 3
PL 4
PL 5
PL 6
Information
Ability
Listening Grade 3 High Track
Model 2015
Model 2020

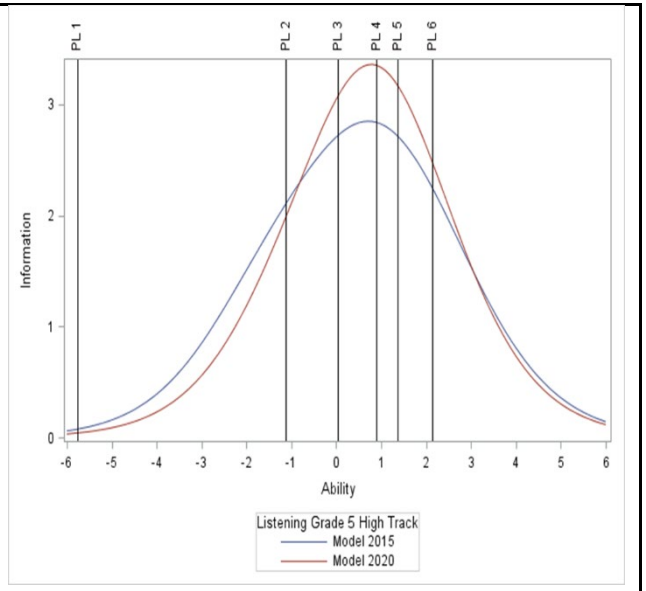

PL 1
PL 2
PL 3
PL 4
PL 5
PL 6
Information
Ability
Listening Grade 4 Low Track
Model 2015
Model 2020

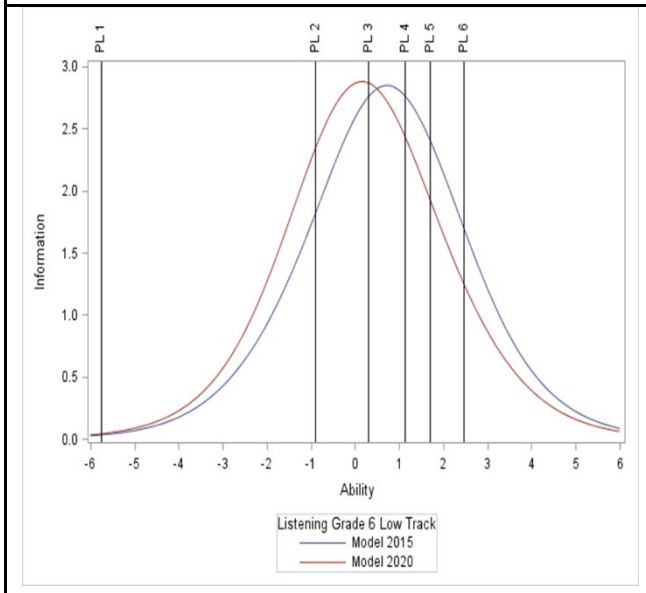

PL 1
PL 2
PL 3
PL 4
PL 5
PL 6
Information
Ability
Listening Grade 4 Mid Track
Model 2015
Model 2020

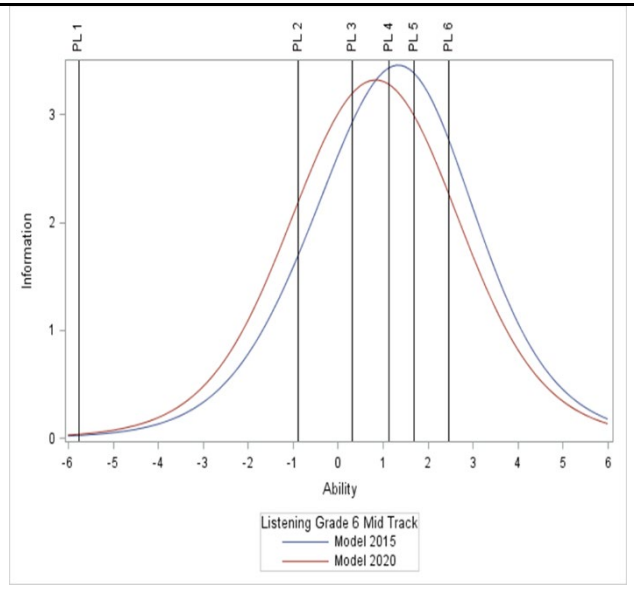

PL 1
PL 2
PL 3
PL 4
PL 5
PL 6
Information
Ability
Listening Grade 4 High Track
Model 2015
Model 2020

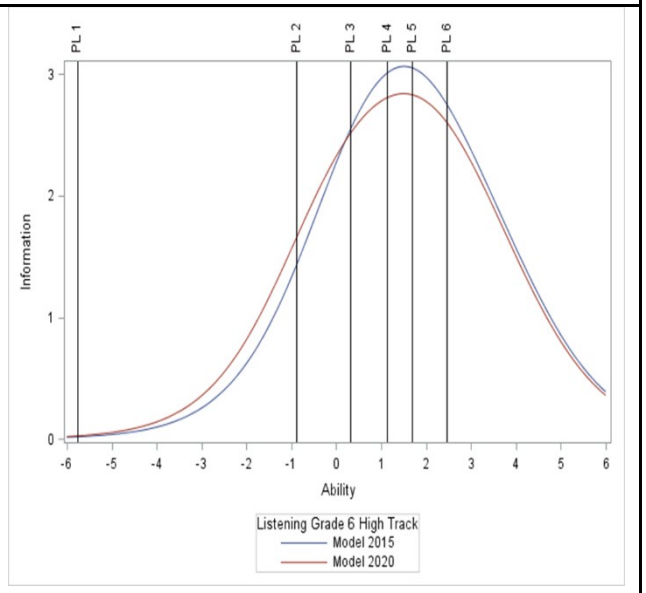

PL 1
PL 2
PL 3
PL 4
PL 5
PL 6
Information
Ability
Listening Grade 5 Low Track
Model 2015
Model 2020

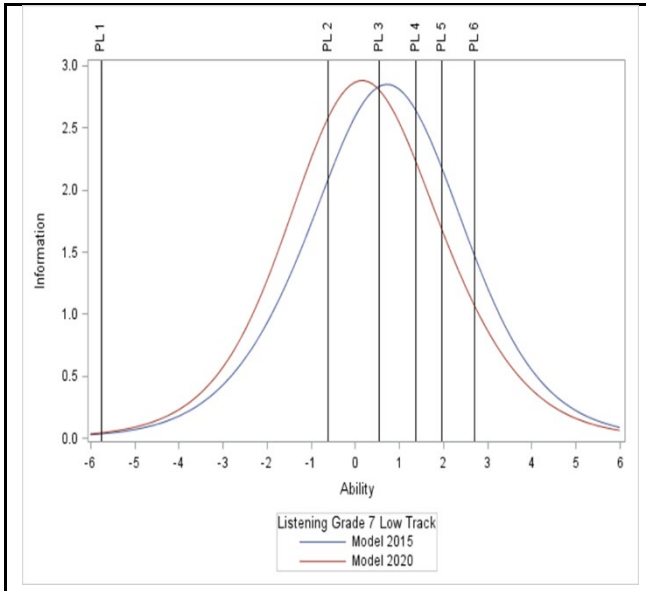

PL 1
PL 2
PL 3
PL 4
PL 5
PL 6
Information
Ability
Listening Grade 5 Mid Track
Model 2015
Model 2020

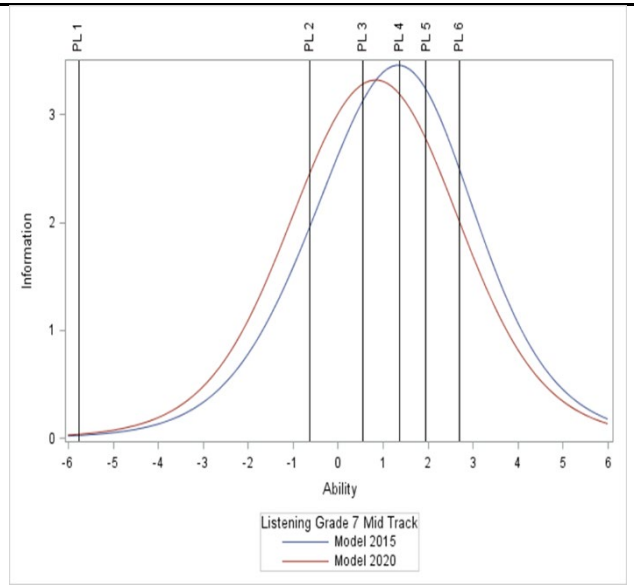

PL 1
PL 2
PL 3
PL 4
PL 5
PL 6
Information
Ability
Listening Grade 5 High Track
Model 2015
Model 2020

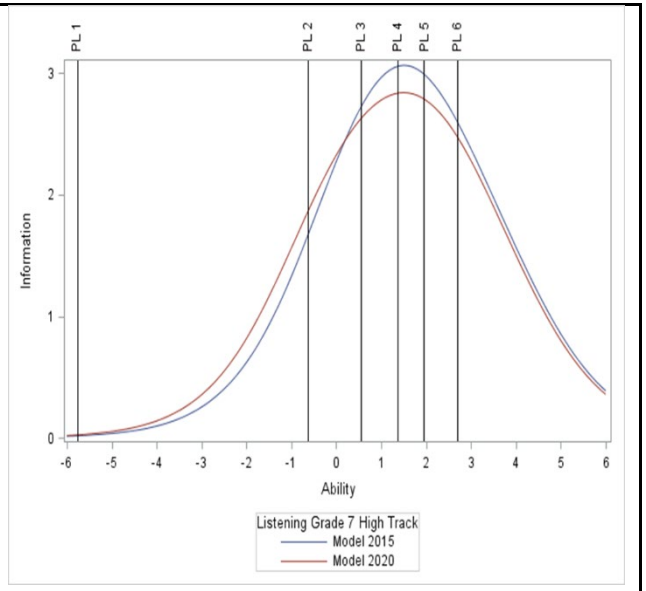

PL 1
PL 2
PL 3
PL 4
PL 5
PL 6
Information
Ability
Listening Grade 6 Low Track
Model 2015
Model 2020

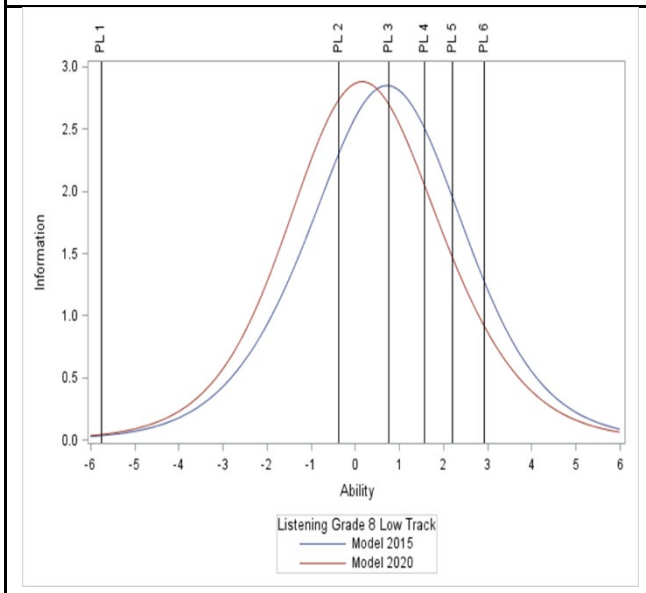

PL 1
PL 2
PL 3
PL 4
PL 5
PL 6
Information
Ability
Listening Grade 6 Mid Track
Model 2015
Model 2020

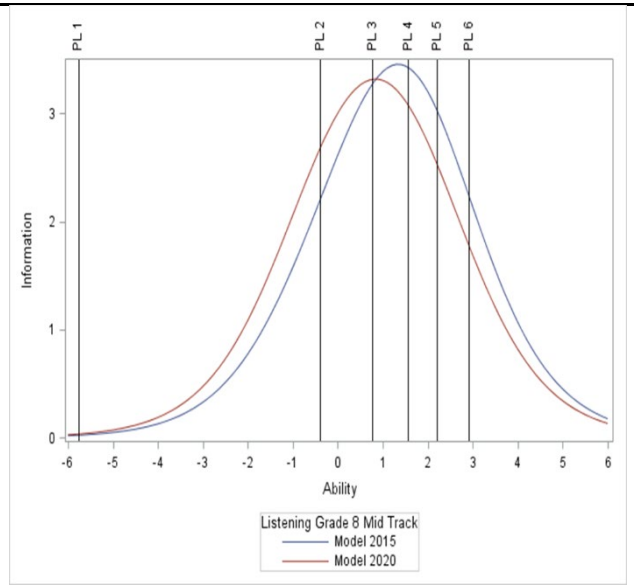

PL 1
PL 2
PL 3
PL 4
PL 5
PL 6
Information
Ability
Listening Grade 6 High Track
Model 2015
Model 2020

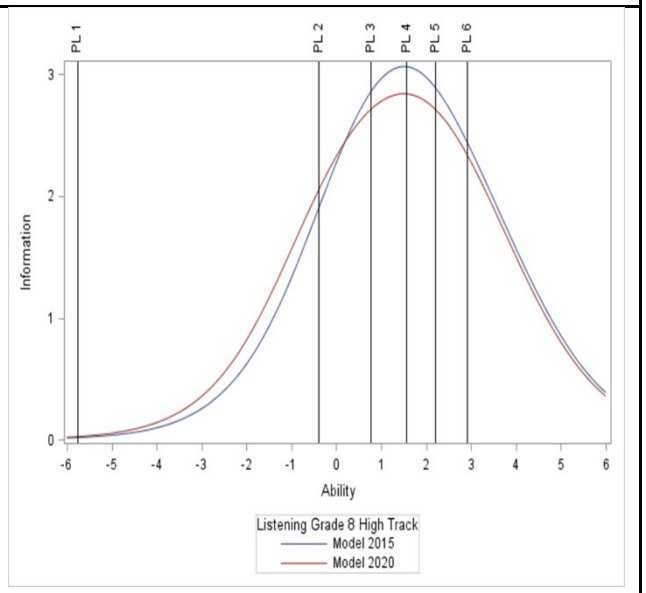

PL 1
PL 2
PL 3
PL 4
PL 5
PL 6
Information
Ability
Listening Grade 7 Low Track
Model 2015
Model 2020

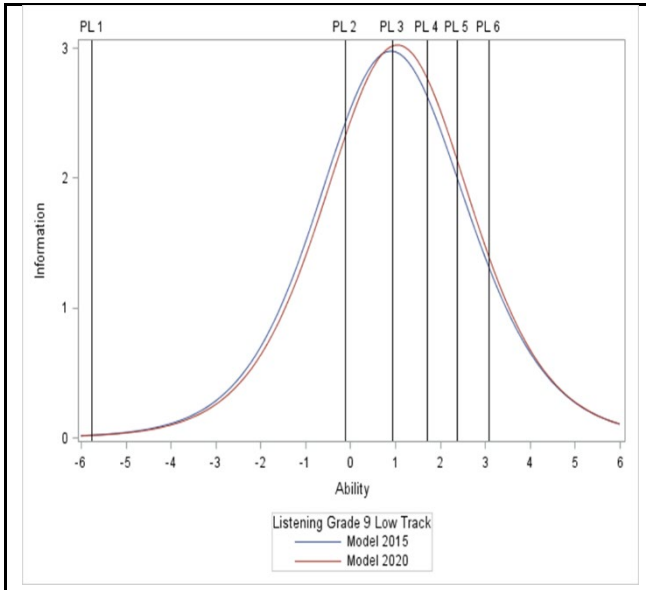

PL 1
PL 2
PL 3
PL 4
PL 5
PL 6
Information
Ability
Listening Grade 7 Mid Track
Model 2015
Model 2020

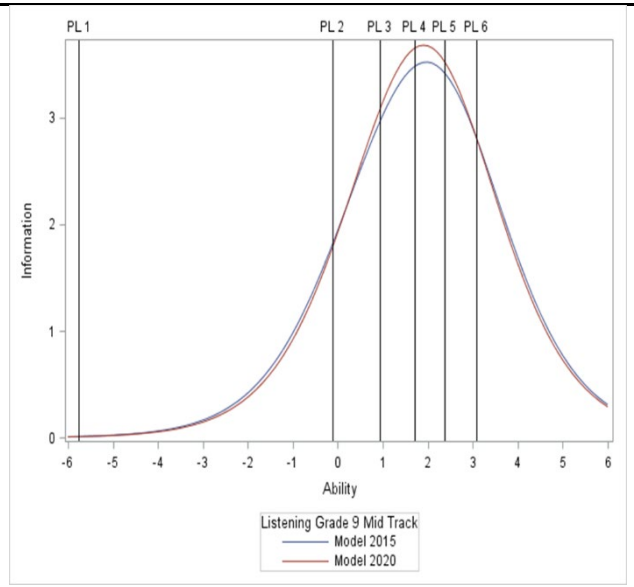

PL 1
PL 2
PL 3
PL 4
PL 5
PL 6
Information
Ability
Listening Grade 7 High Track
Model 2015
Model 2020

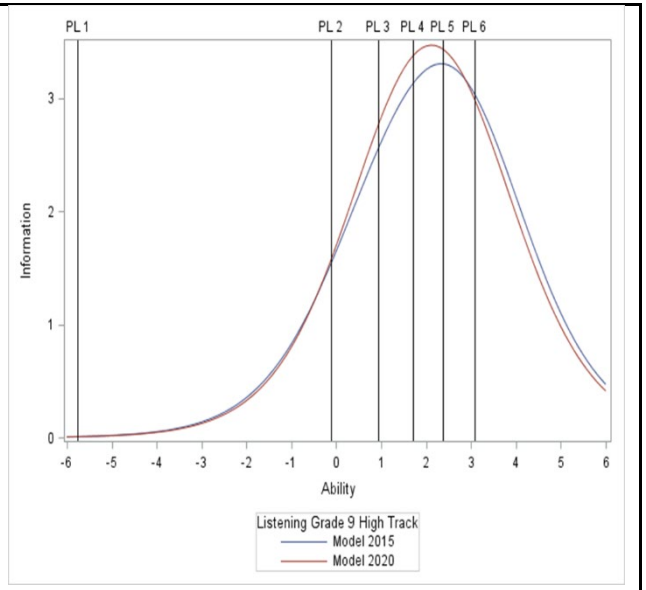

PL 1
PL 2
PL 3
PL 4
PL 5
PL 6
Information
Ability
Listening Grade 8 Low Track
Model 2015
Model 2020

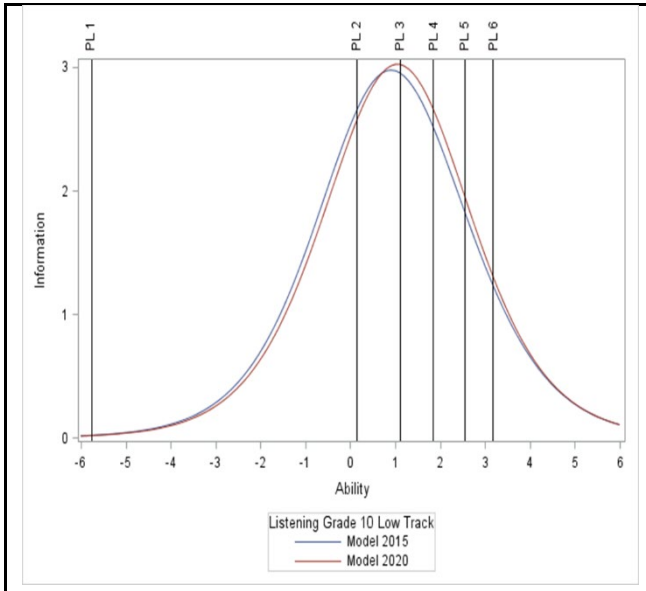

PL 1
PL 2
PL 3
PL 4
PL 5
PL 6
Information
Ability
Listening Grade 8 Mid Track
Model 2015
Model 2020

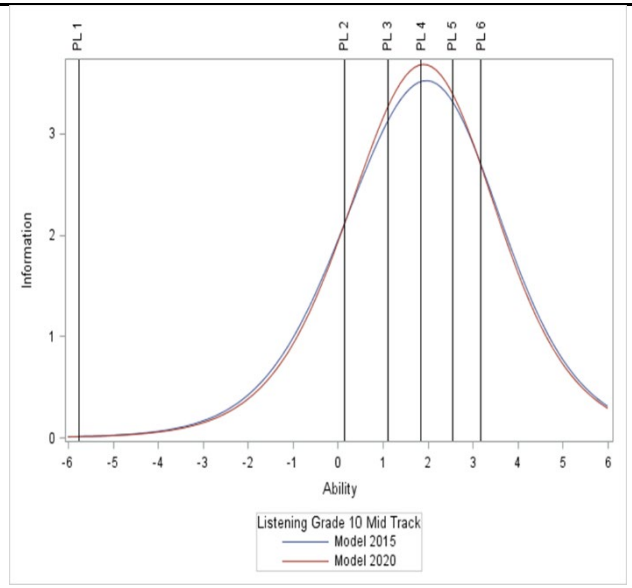

PL 1
PL 2
PL 3
PL 4
PL 5
PL 6
Information
Ability
Listening Grade 8 High Track
Model 2015
Model 2020

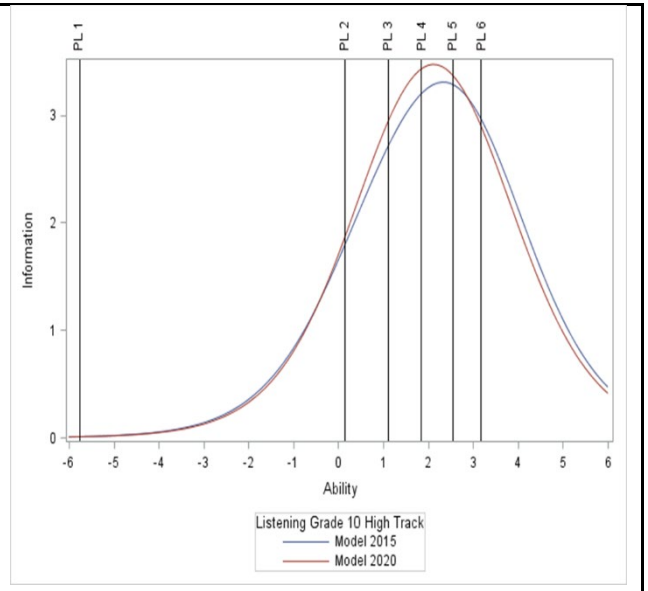

PL 1
PL 2
PL 3
PL 4
PL 5
PL 6
Information
Ability
Listening Grade 9 Low Track
Model 2015
Model 2020

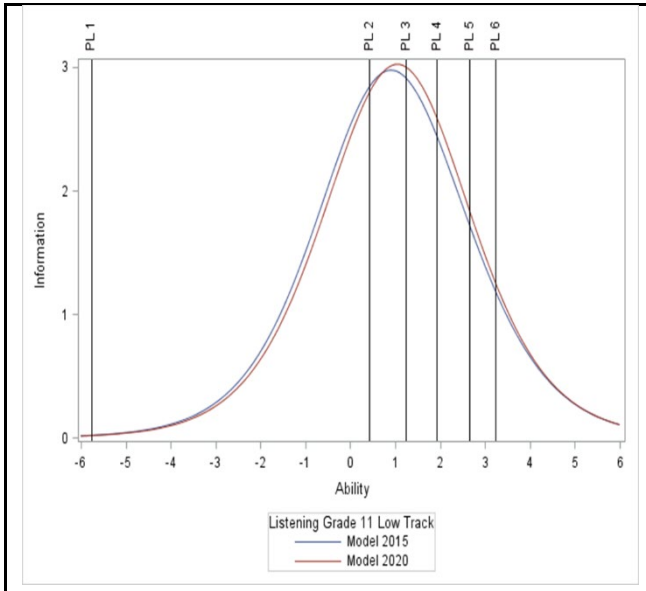

PL 1
PL 2
PL 3
PL 4
PL 5
PL 6
Information
Ability
Listening Grade 9 Mid Track
Model 2015
Model 2020

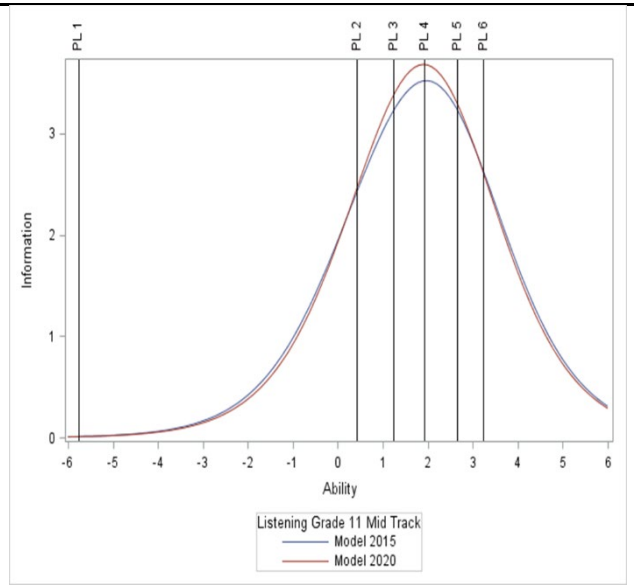

PL 1
PL 2
PL 3
PL 4
PL 5
PL 6
Information
Ability
Listening Grade 9 High Track
Model 2015
Model 2020

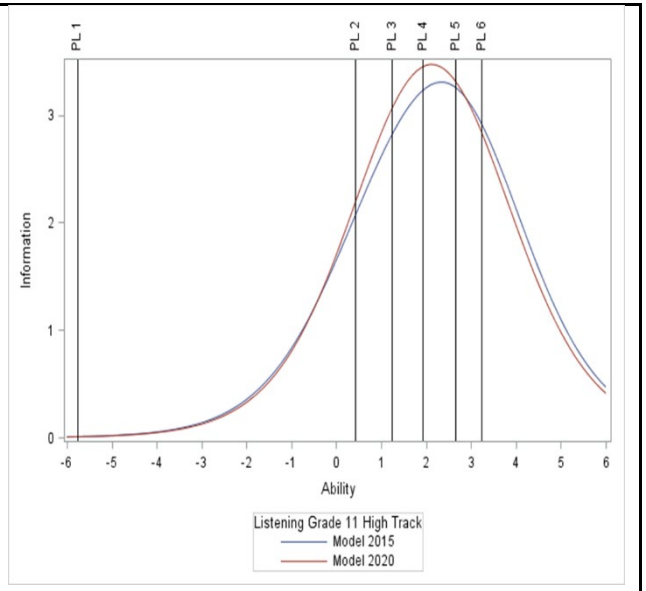

PL 1
PL 2
PL 3
PL 4
PL 5
PL 6
Information
Ability
Listening Grade 10 Low Track
Model 2015
Model 2020

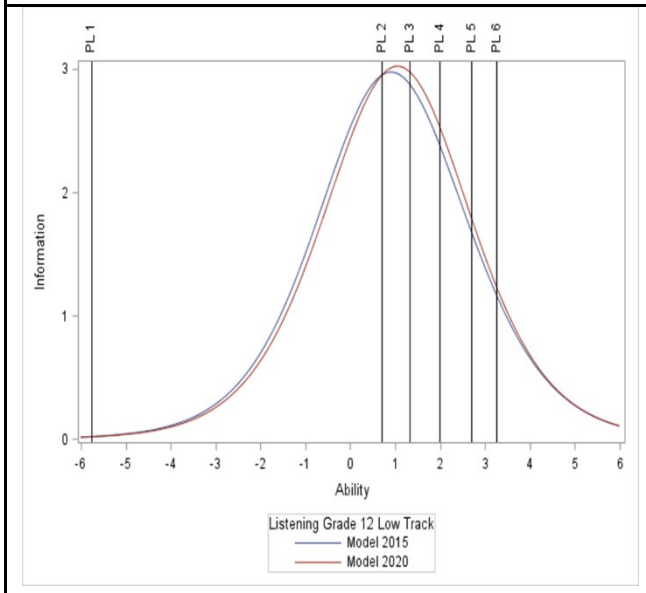

PL 1
PL 2
PL 3
PL 4
PL 5
PL 6
Information
Ability
Listening Grade 10 Mid Track
Model 2015
Model 2020

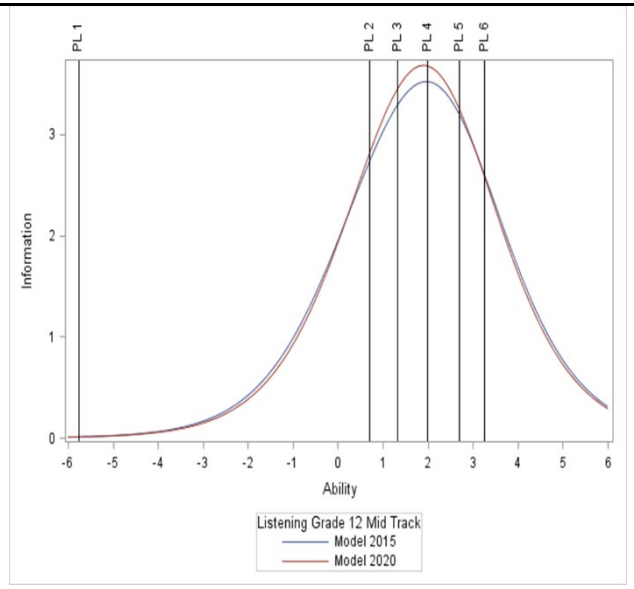

PL 1
PL 2
PL 3
PL 4
PL 5
PL 6
Information
Ability
Listening Grade 10 High Track
Model 2015
Model 2020

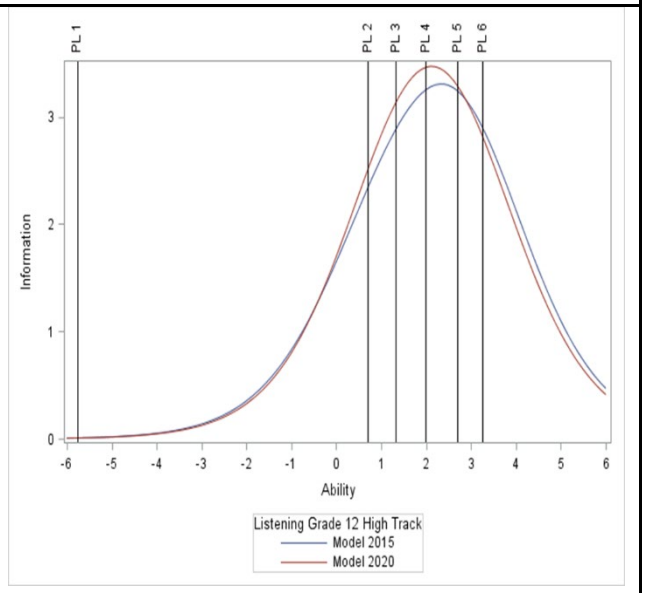

PL 1
PL 2
PL 3
PL 4
PL 5
PL 6
Information
Ability
Listening Grade 11 Low Track
Model 2015
Model 2020


PL 1
PL 2
PL 3
PL 4
PL 5
PL 6
Information
Ability
Listening Grade 11 Mid Track
Model 2015
Model 2020

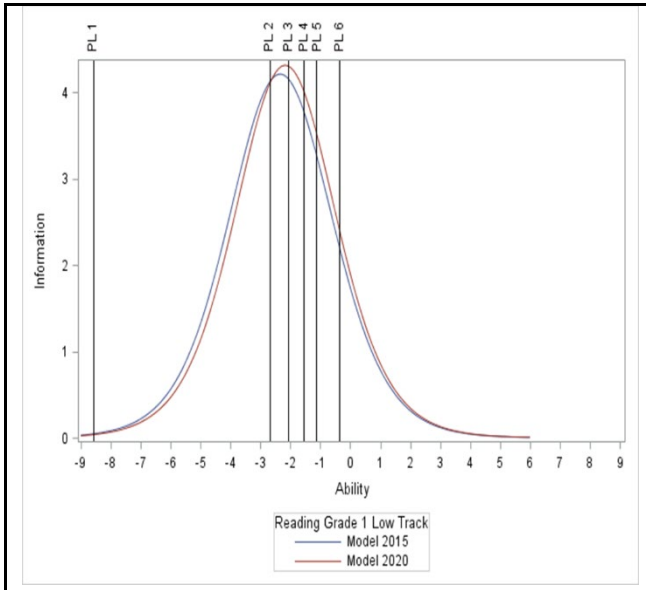

PL 1
PL 2
PL 3
PL 4
PL 5
PL 6
Information
Ability
Listening Grade 11 High Track
Model 2015
Model 2020

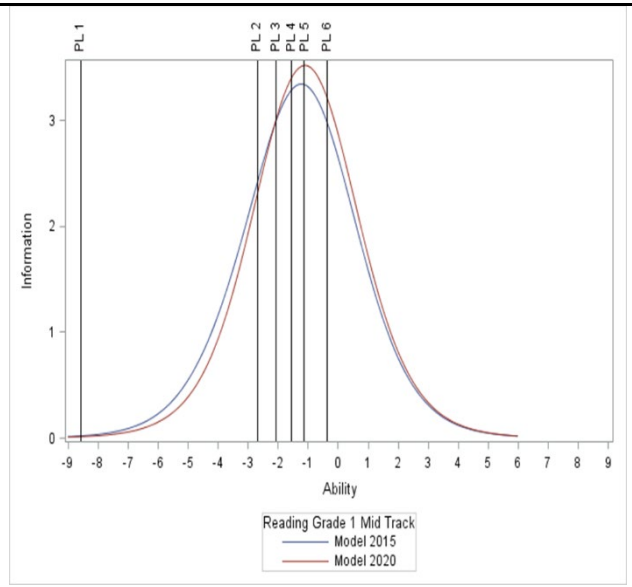

PL 1
PL 2
PL 3
PL 4
PL 5
PL 6
Information
Ability
Listening Grade 12 Low Track
Model 2015
Model 2020

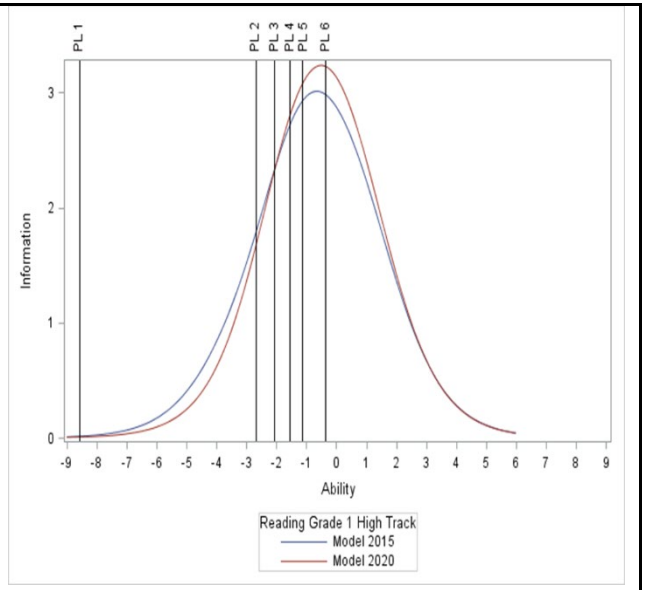

PL 1
PL 2
PL 3
PL 4
PL 5
PL 6
Information
Ability
Listening Grade 12 Mid Track
Model 2015
Model 2020

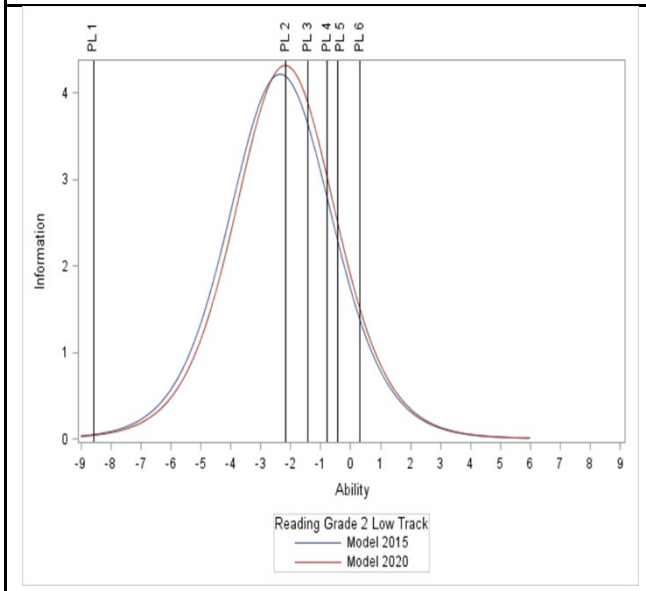

PL 1
PL 2
PL 3
PL 4
PL 5
PL 6
Information
Ability
Listening Grade 12 High Track
Model 2015
Model 2020

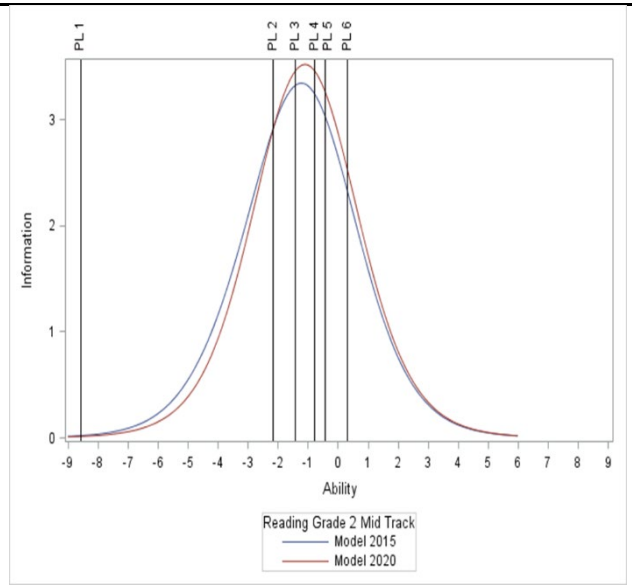
6.4.2. TIFs of Reading domain by grade

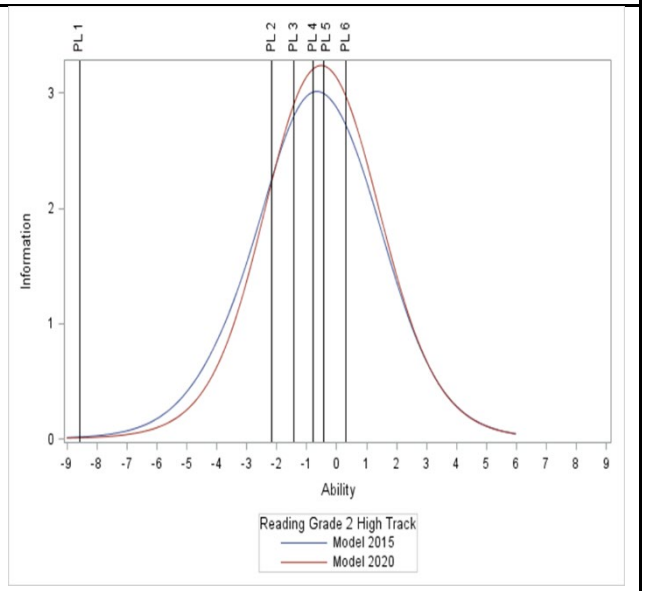


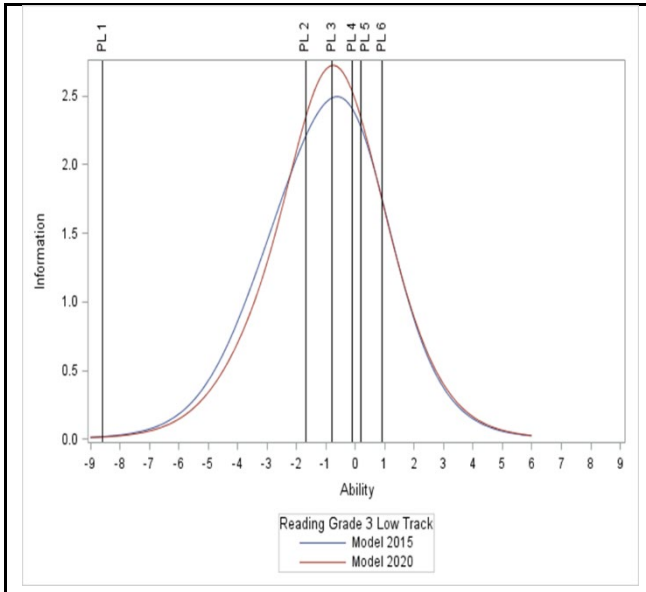


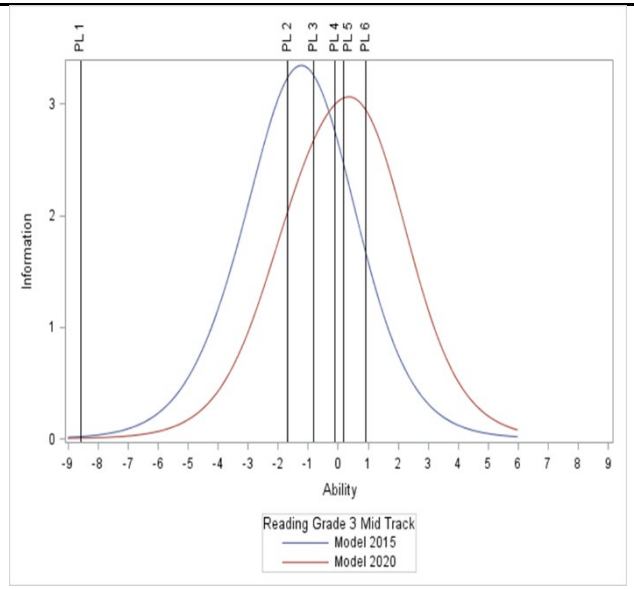


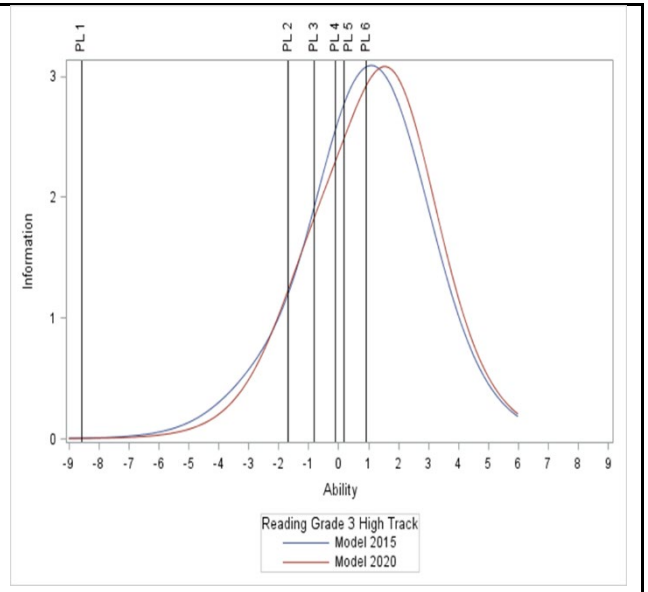


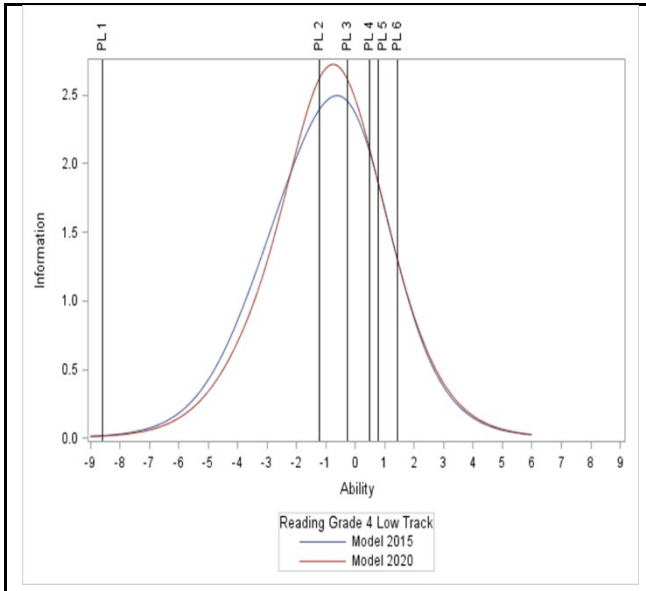


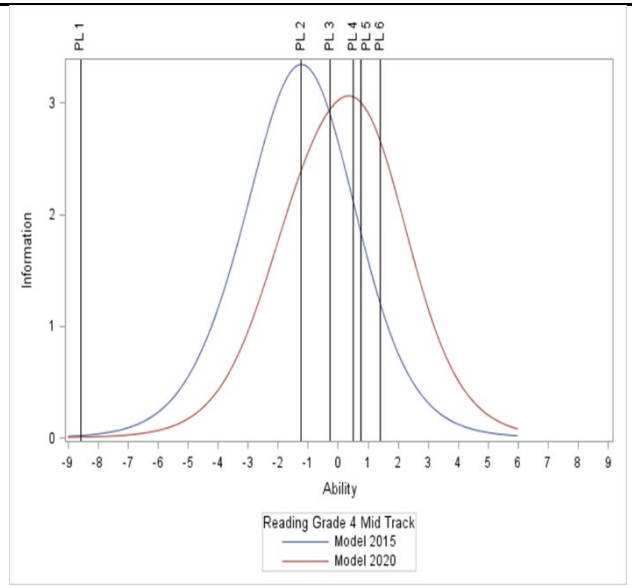


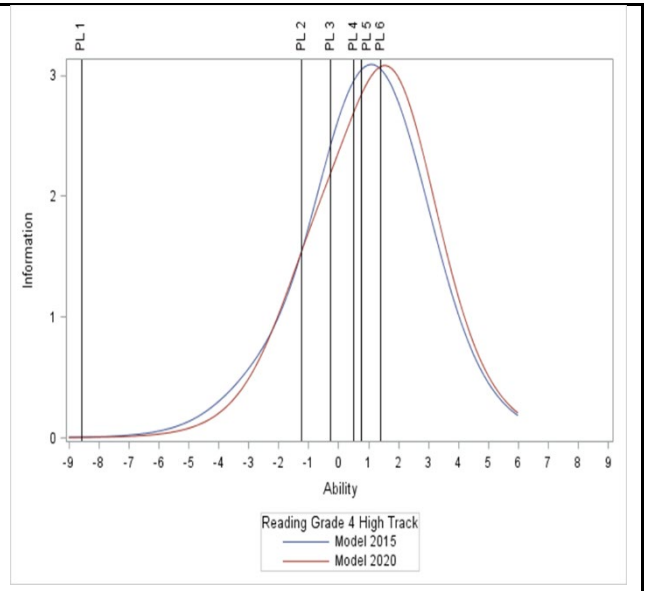

PL 1
PL 2
PL 3
PL 4
PL 5
PL 6
Information
Ability
Reading Grade 3 Low Track
Model 2015
Model 2020

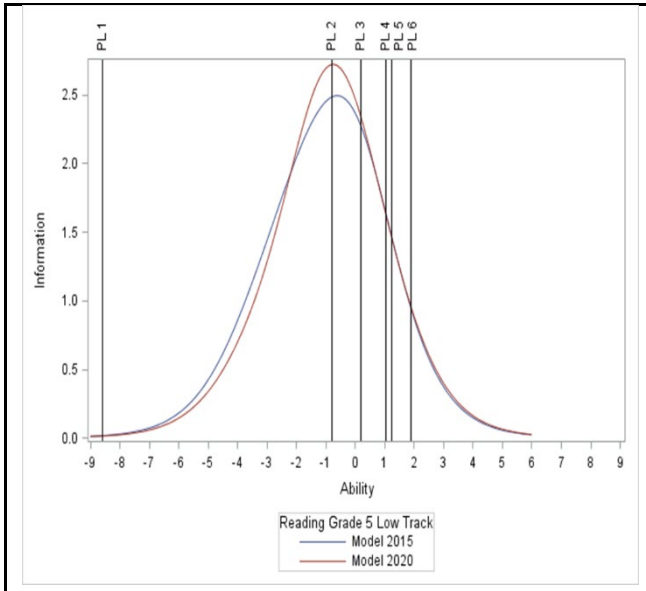

PL 1
PL 2
PL 3
PL 4
PL 5
PL 6
Information
Ability
Reading Grade 3 Mid Track
Model 2015
Model 2020

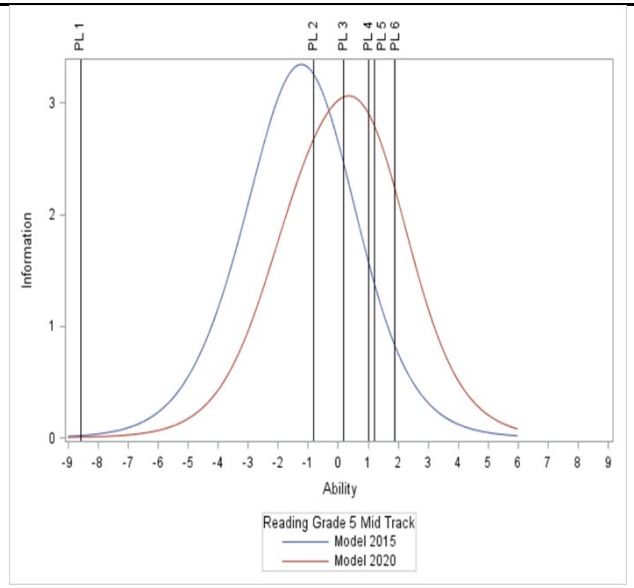

PL 1
PL 2
PL 3
PL 4
PL 5
PL 6
Information
Ability
Reading Grade 3 High Track
Model 2015
Model 2020

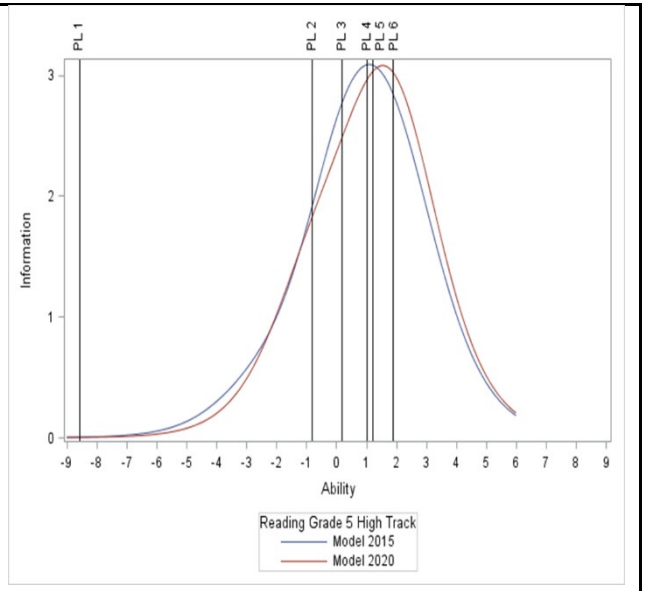

PL 1
PL 2
PL 3
PL 4
PL 5
PL 6
Information
Ability
Reading Grade 4 Low Track
Model 2015
Model 2020

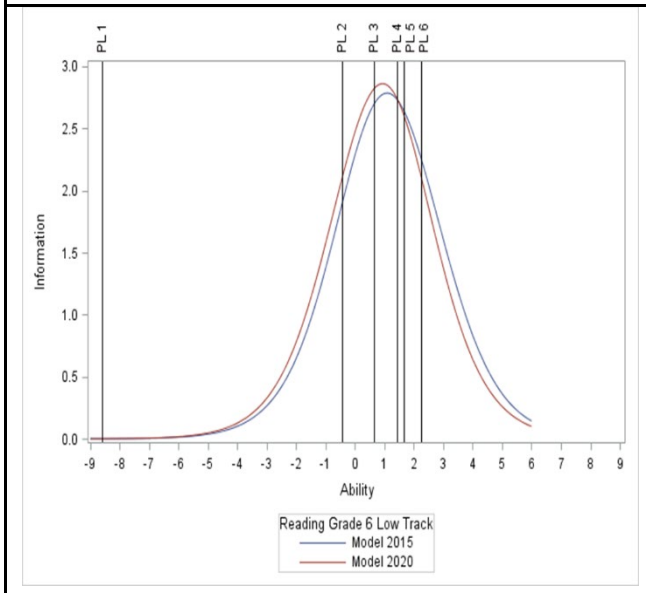

PL 1
PL 2
PL 3
PL 4
PL 5
PL 6
Information
Ability
Reading Grade 4 Mid Track
Model 2015
Model 2020

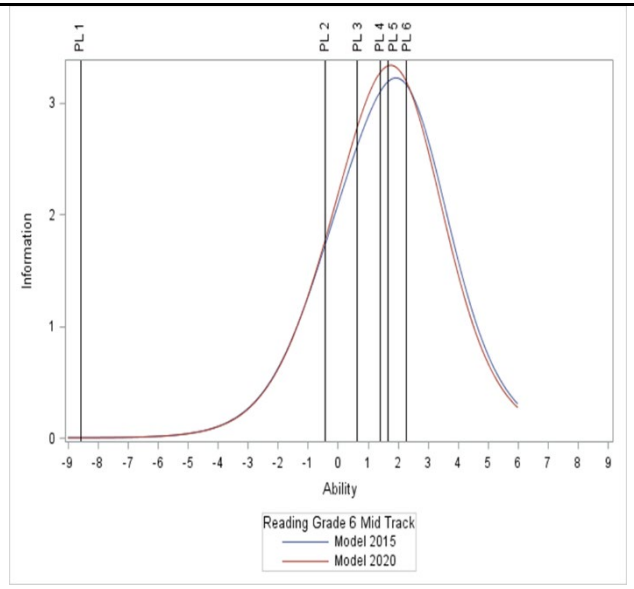

PL 1
PL 2
PL 3
PL 4
PL 5
PL 6
Information
Ability
Reading Grade 4 High Track
Model 2015
Model 2020

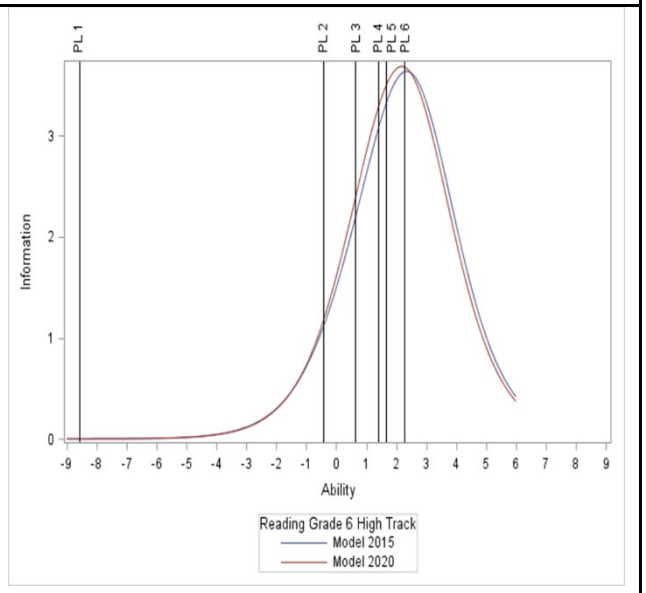

PL 1
PL 2
PL 3
PL 4
PL 5
PL 6
Information
Ability
Reading Grade 5 Low Track
Model 2015
Model 2020

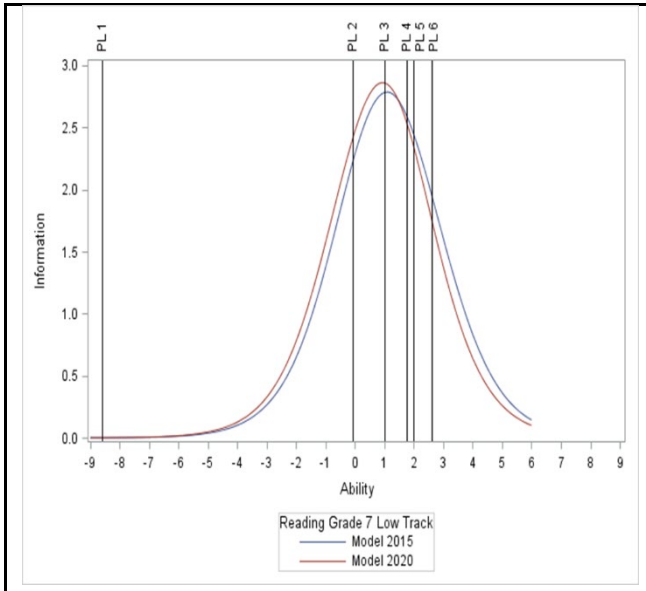

PL 1
PL 2
PL 3
PL 4
PL 5
PL 6
Information
Ability
Reading Grade 5 Mid Track
Model 2015
Model 2020

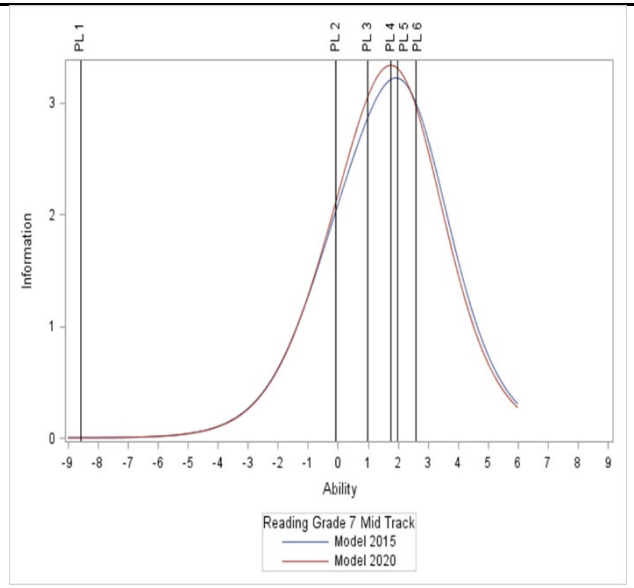

PL 1
PL 2
PL 3
PL 4
PL 5
PL 6
Information
Ability
Reading Grade 5 High Track
Model 2015
Model 2020

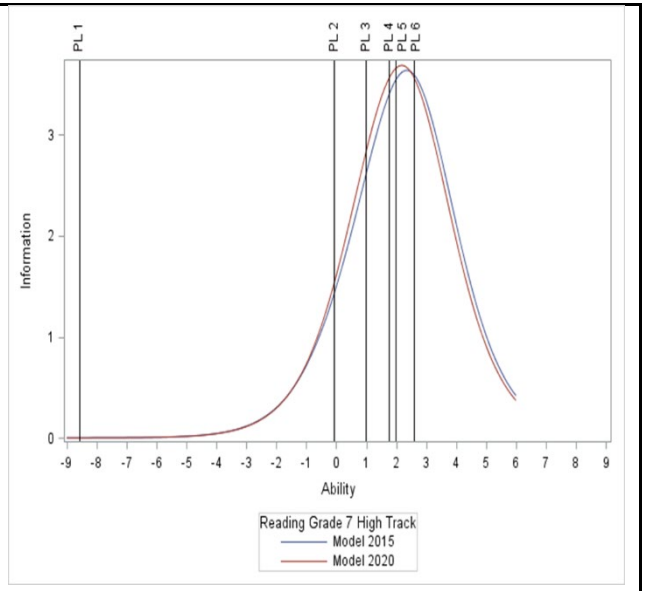

PL 1
PL 2
PL 3
PL 4
PL 5
PL 6
Information
Ability
Reading Grade 6 Low Track
Model 2015
Model 2020

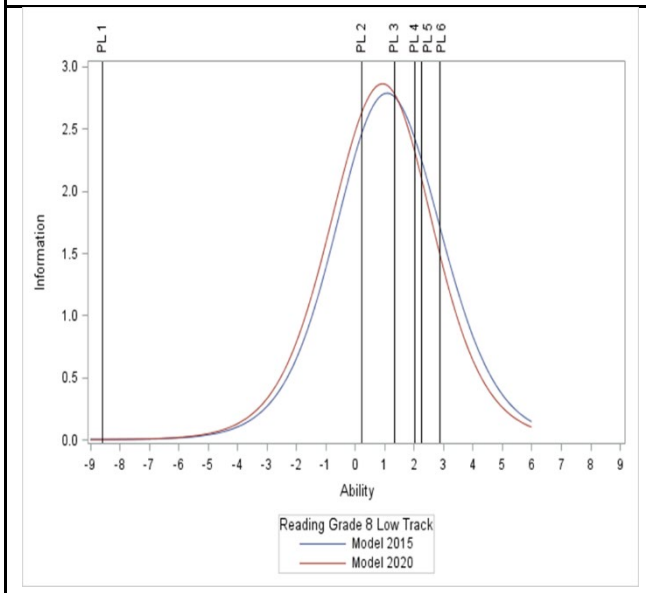

PL 1
PL 2
PL 3
PL 4
PL 5
PL 6
Information
Ability
Reading Grade 6 Mid Track
Model 2015
Model 2020

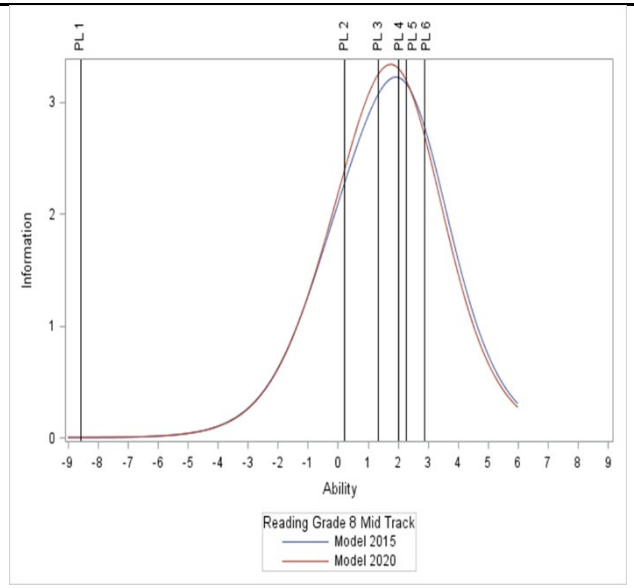

PL 1
PL 2
PL 3
PL 4
PL 5
PL 6
Information
Ability
Reading Grade 6 High Track
Model 2015
Model 2020

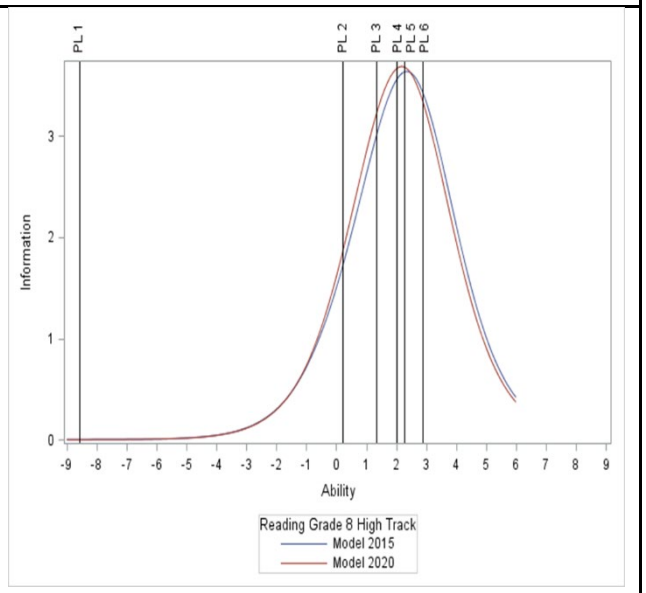

PL 1
PL 2
PL 3
PL 4
PL 5
PL 6
Information
Ability
Reading Grade 7 Low Track
Model 2015
Model 2020

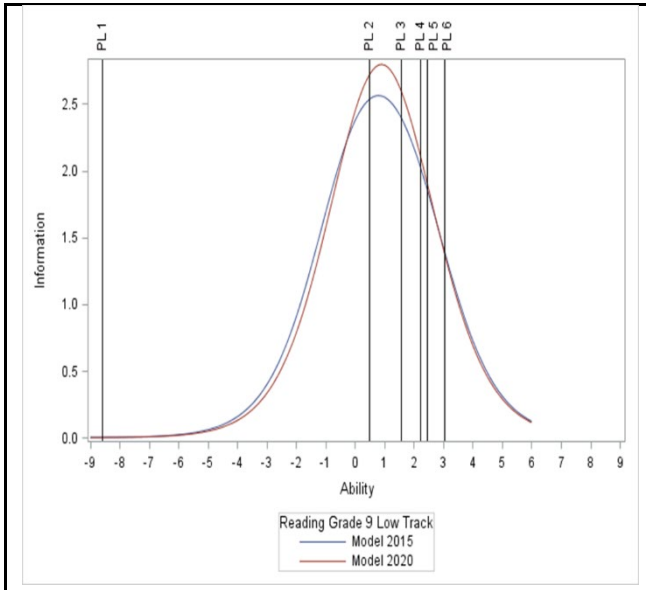

PL 1
PL 2
PL 3
PL 4
PL 5
PL 6
Information
Ability
Reading Grade 7 Mid Track
Model 2015
Model 2020

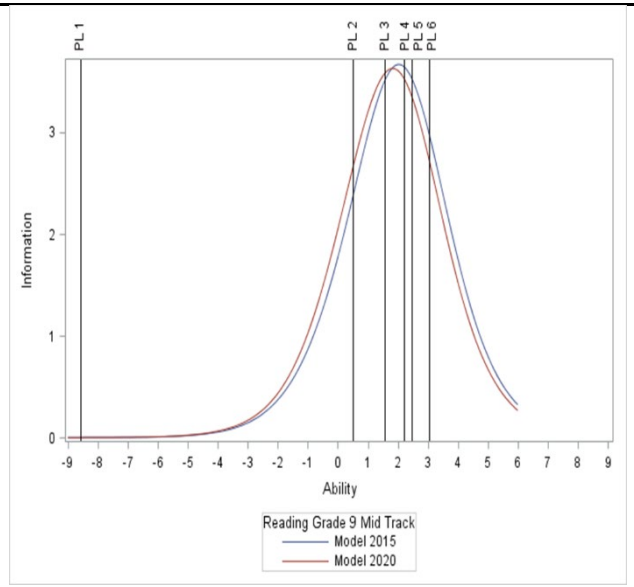

PL 1
PL 2
PL 3
PL 4
PL 5
PL 6
Information
Ability
Reading Grade 7 High Track
Model 2015
Model 2020

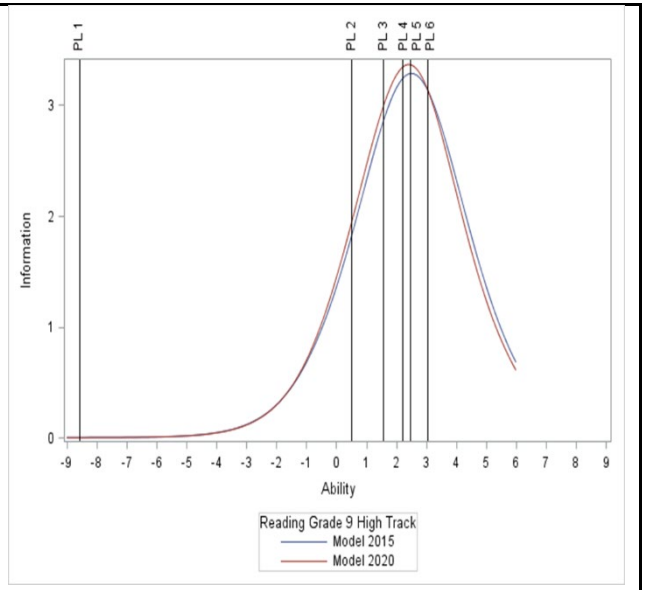

PL 1
PL 2
PL 3
PL 4
PL 5
PL 6
Information
Ability
Reading Grade 8 Low Track
Model 2015
Model 2020

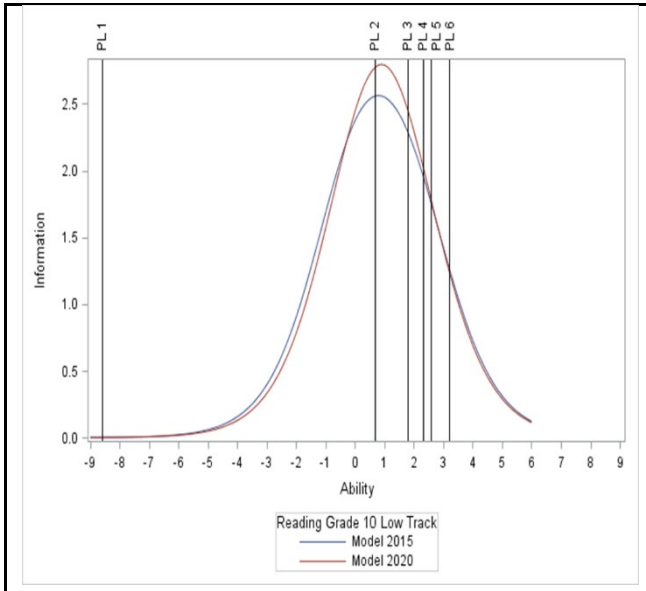

PL 1
PL 2
PL 3
PL 4
PL 5
PL 6
Information
Ability
Reading Grade 8 Mid Track
Model 2015
Model 2020

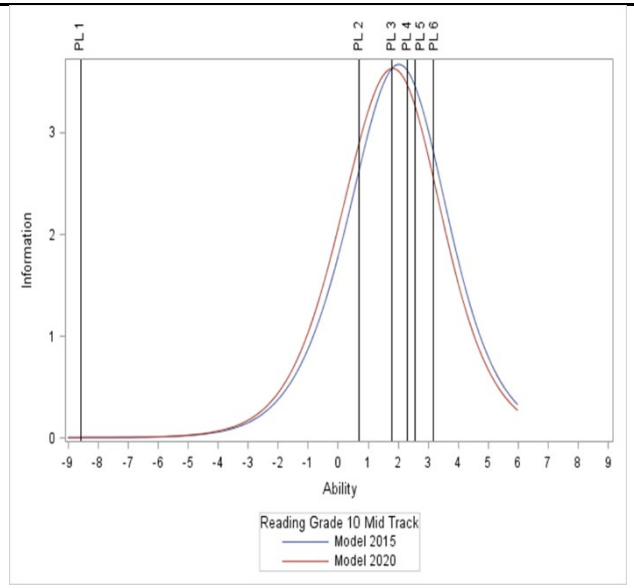

PL 1
PL 2
PL 3
PL 4
PL 5
PL 6
Information
Ability
Reading Grade 8 High Track
Model 2015
Model 2020

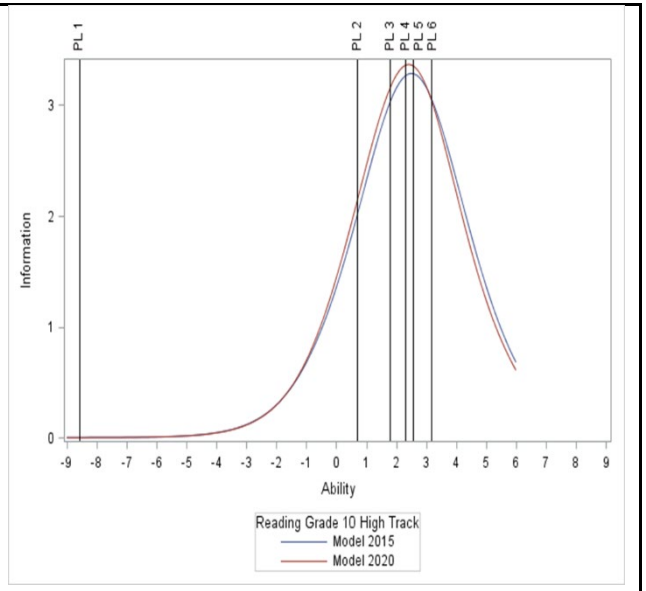

PL 1
PL 2
PL 3
PL 4
PL 5
PL 6
Information
Ability
Reading Grade 9 Low Track
Model 2015
Model 2020

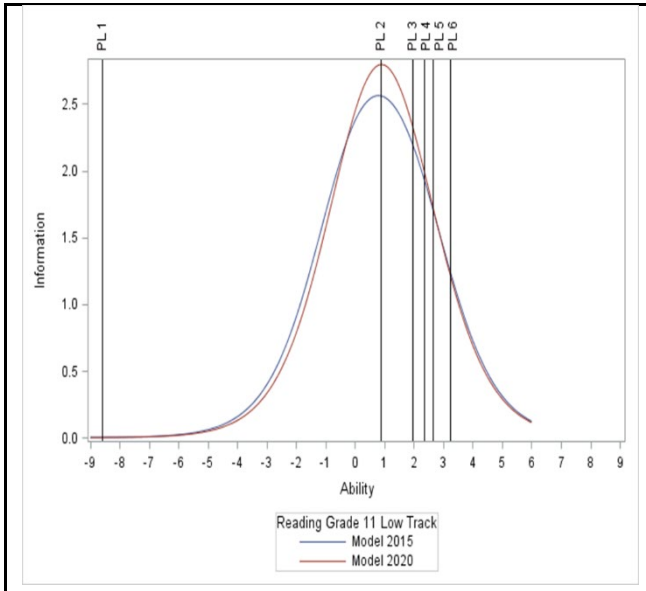

PL 1
PL 2
PL 3
PL 4
PL 5
PL 6
Information
Ability
Reading Grade 9 Mid Track
Model 2015
Model 2020

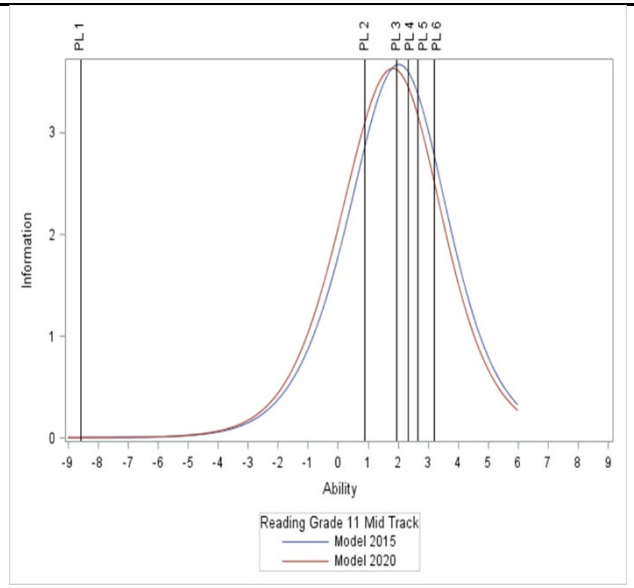

PL 1
PL 2
PL 3
PL 4
PL 5
PL 6
Information
Ability
Reading Grade 9 High Track
Model 2015
Model 2020

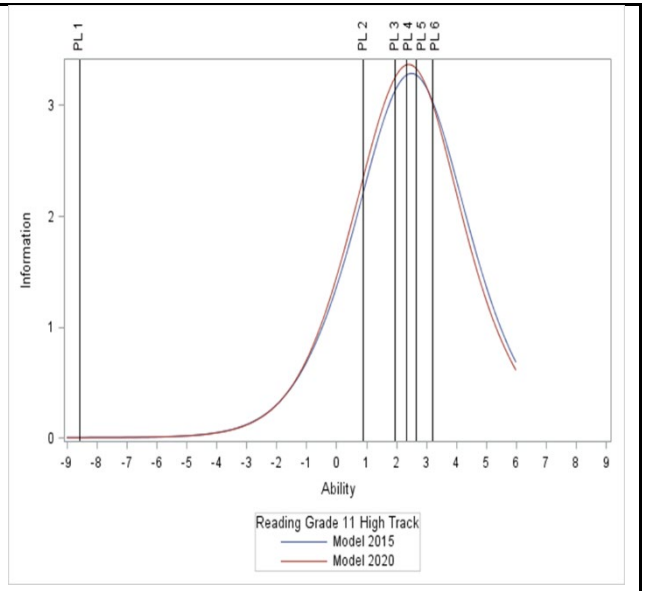

PL 1
PL 2
PL 3
PL 4
PL 5
PL 6
Information
Ability
Reading Grade 10 Low Track
Model 2015
Model 2020

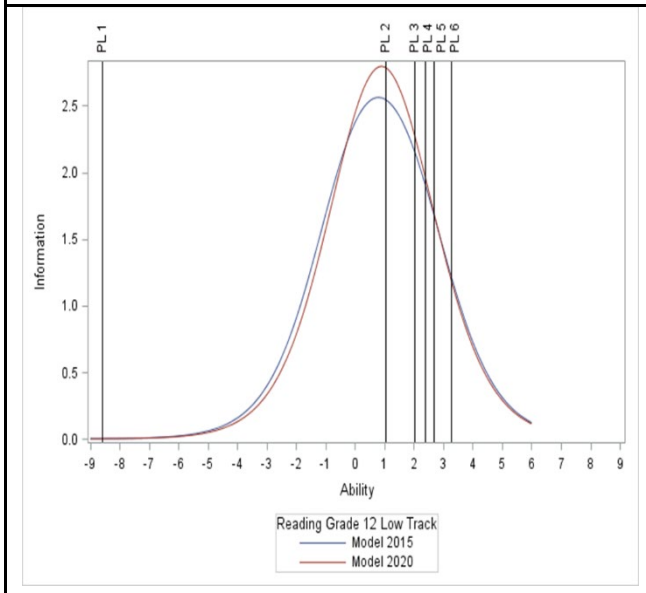

PL 1
PL 2
PL 3
PL 4
PL 5
PL 6
Information
Ability
Reading Grade 10 Mid Track
Model 2015
Model 2020

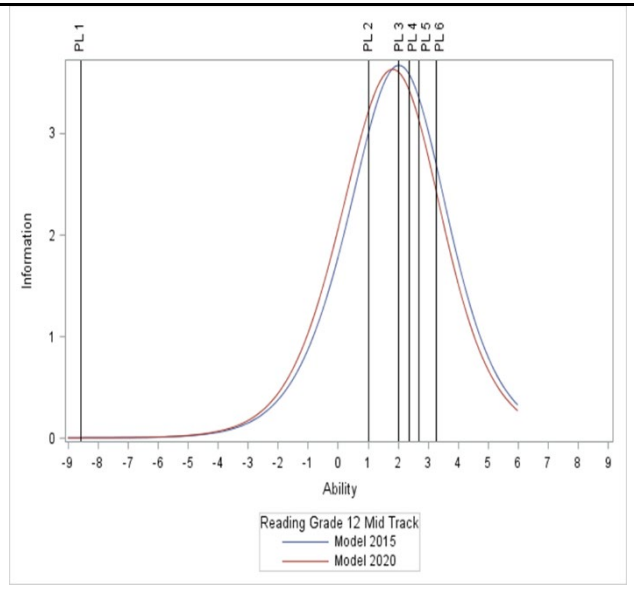

PL 1
PL 2
PL 3
PL 4
PL 5
PL 6
Information
Ability
Reading Grade 10 High Track
Model 2015
Model 2020

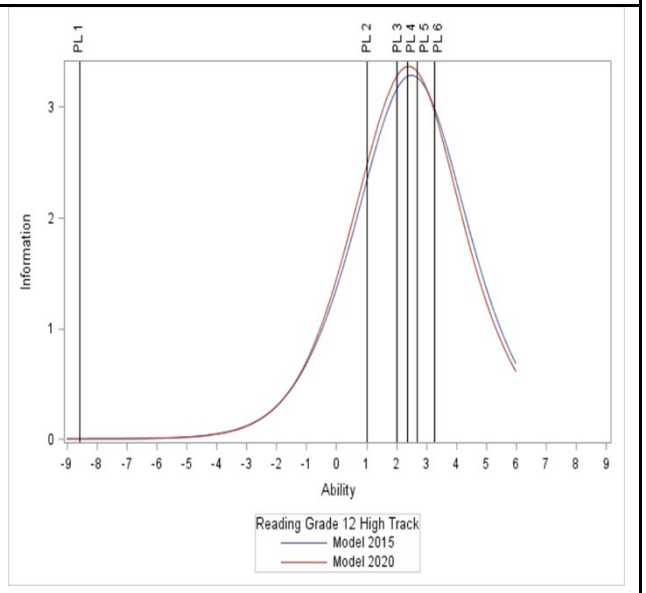

PL 1
PL 2
PL 3
PL 4
PL 5
PL 6
Information
Ability
Reading Grade 11 Low Track
Model 2015
Model 2020


PL 1
PL 2
PL 3
PL 4
PL 5
PL 6
Information
Ability
Reading Grade 11 Mid Track
Model 2015
Model 2020

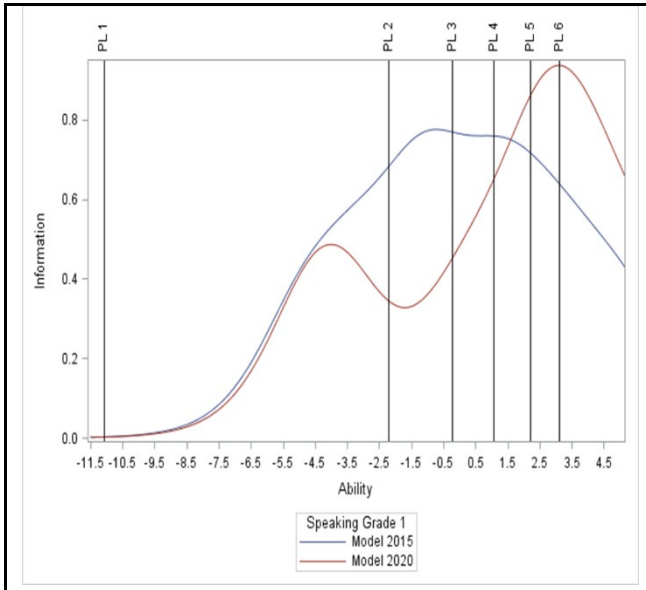

PL 1
PL 2
PL 3
PL 4
PL 5
PL 6
Information
Ability
Reading Grade 11 High Track
Model 2015
Model 2020

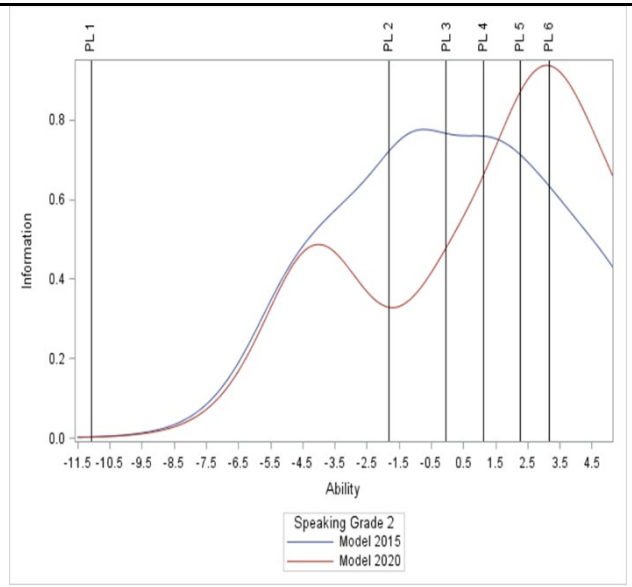

PL 1
PL 2
PL 3
PL 4
PL 5
PL 6
Information
Ability
Reading Grade 12 Low Track
Model 2015
Model 2020

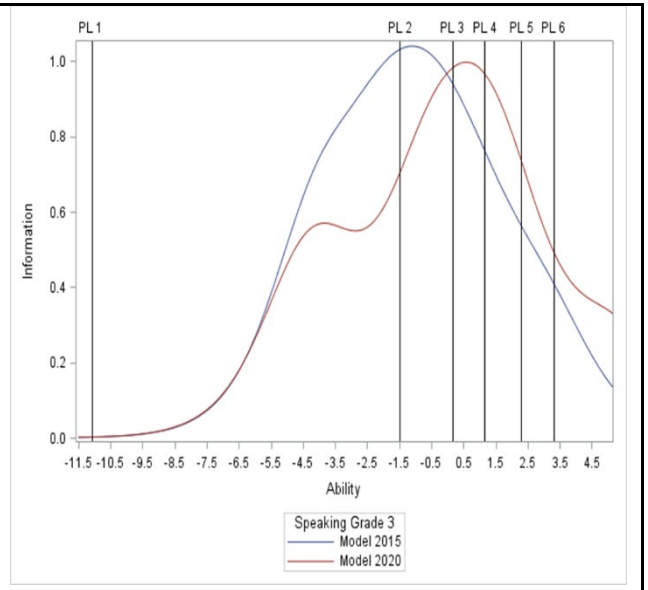

PL 1
PL 2
PL 3
PL 4
PL 5
PL 6
Information
Ability
Reading Grade 12 Mid Track
Model 2015
Model 2020

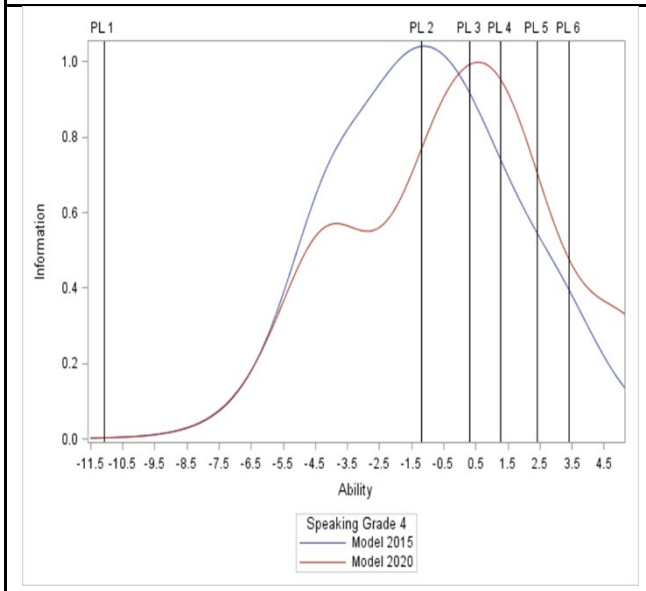

PL 1
PL 2
PL 3
PL 4
PL 5
PL 6
Information
Ability
Reading Grade 12 High Track
Model 2015
Model 2020

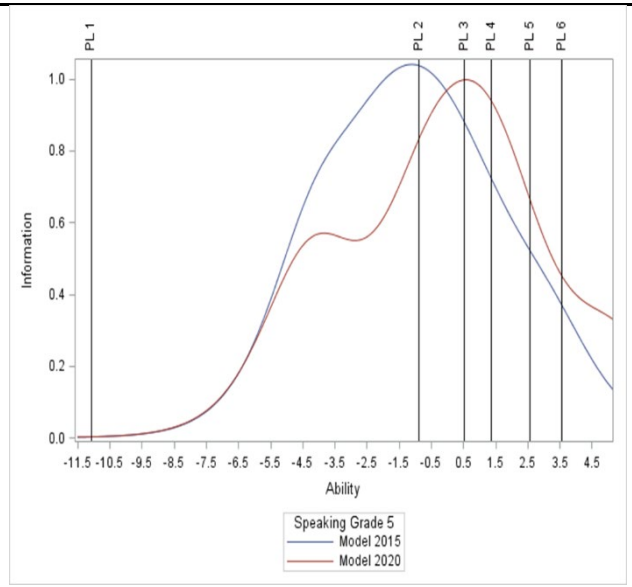
6.4.3. TIFs of Speaking domain by grade

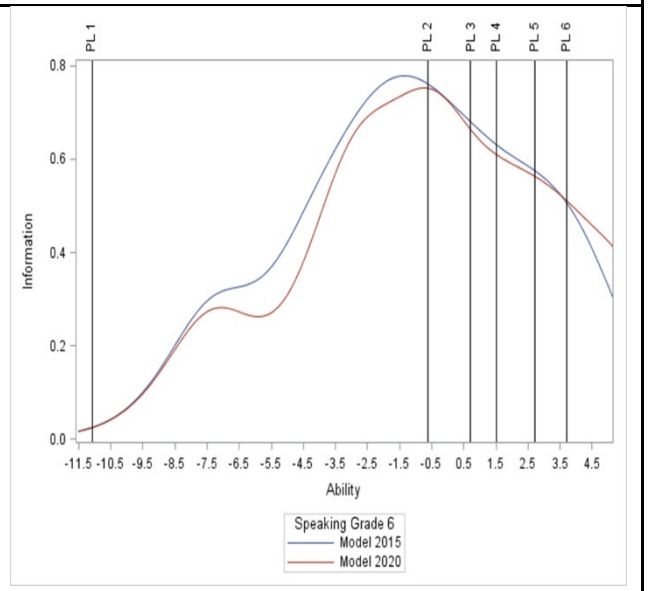


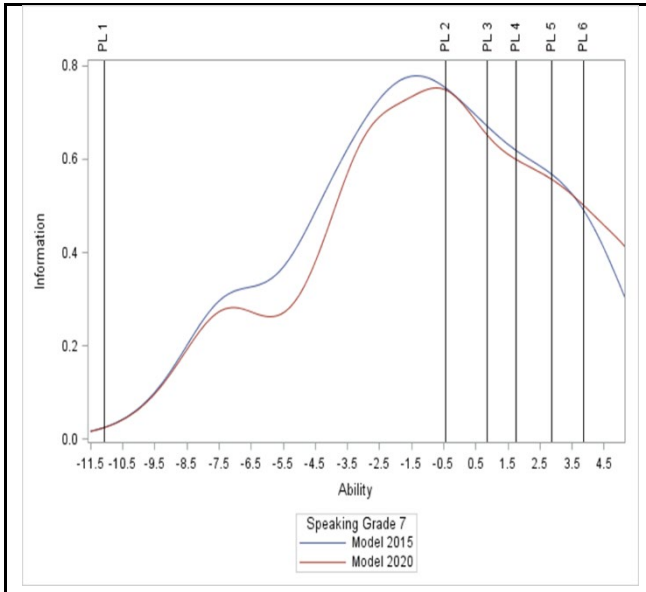


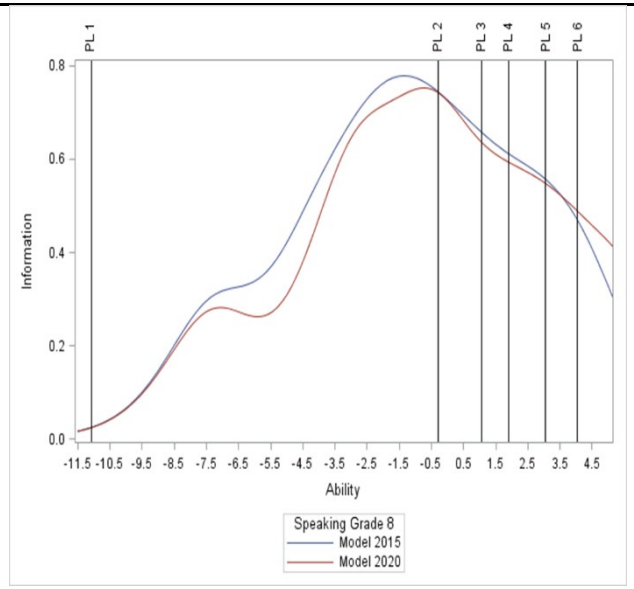


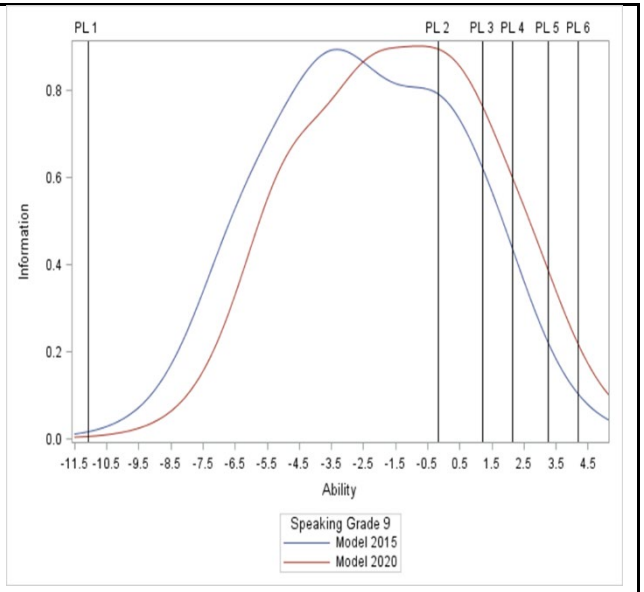


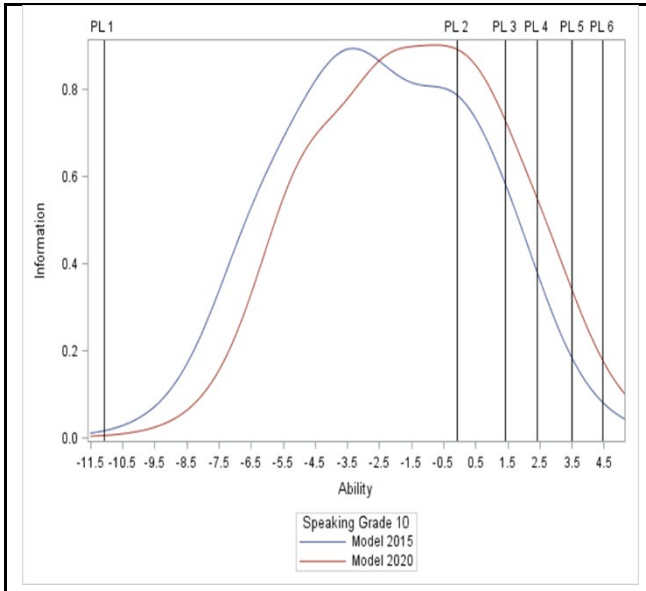


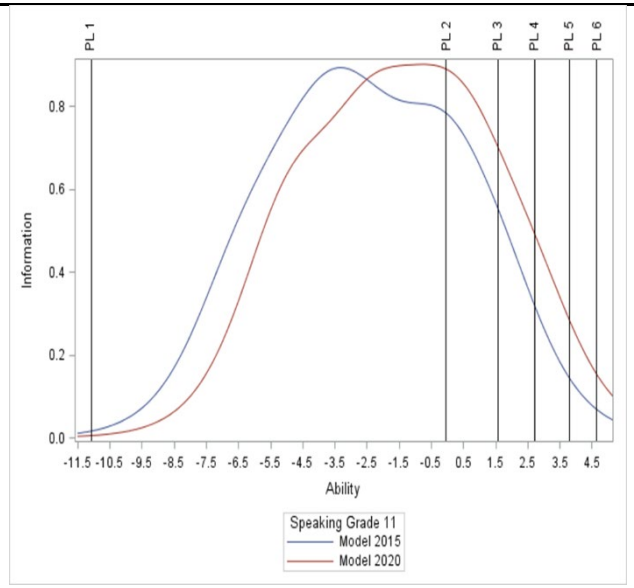


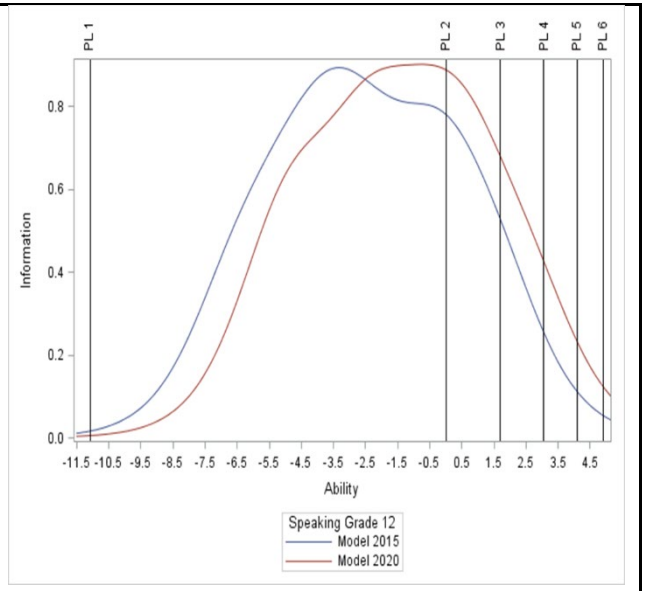

PL 1
PL 2
PL 3
PL 4
PL 5
PL 6
Information
0.0
0.2
0.4
0.6
0.8
-11.5 -10.5 -9.5 -8.5 -7.5 -6.5 -5.5 -4.5 -3.5 -2.5 -1.5 -0.5 0.5 1.5 2.5 3.5 4.5
Ability
Speaking Grade 7
Model 2015
Model 2020


PL 1
PL 2
PL 3
PL 4
PL 5
PL 6
Information
0.0
0.2
0.4
0.6
0.8
-11.5 -10.5 -9.5 -8.5 -7.5 -6.5 -5.5 -4.5 -3.5 -2.5 -1.5 -0.5 0.5 1.5 2.5 3.5 4.5
Ability
Speaking Grade 8
Model 2015
Model 2020

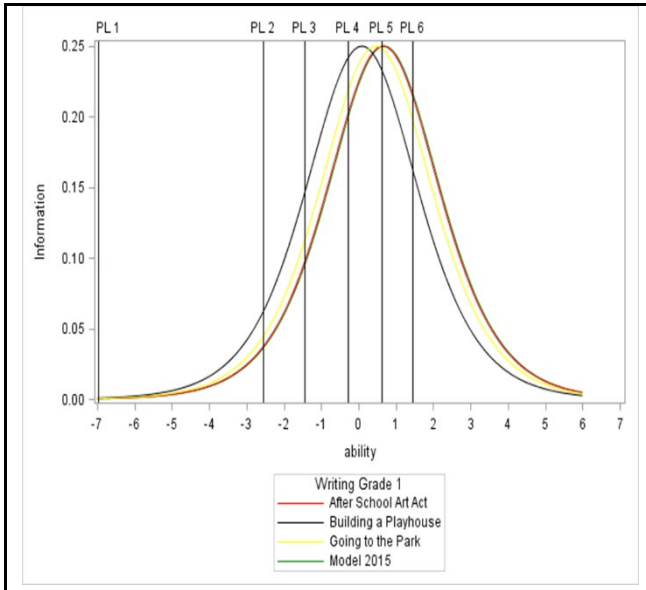

PL 1
PL 2
PL 3
PL 4
PL 5
PL 6
Information
0.0
0.2
0.4
0.6
0.8
-11.5 -10.5 -9.5 -8.5 -7.5 -6.5 -5.5 -4.5 -3.5 -2.5 -1.5 -0.5 0.5 1.5 2.5 3.5 4.5
Ability
Speaking Grade 9
Model 2015
Model 2020

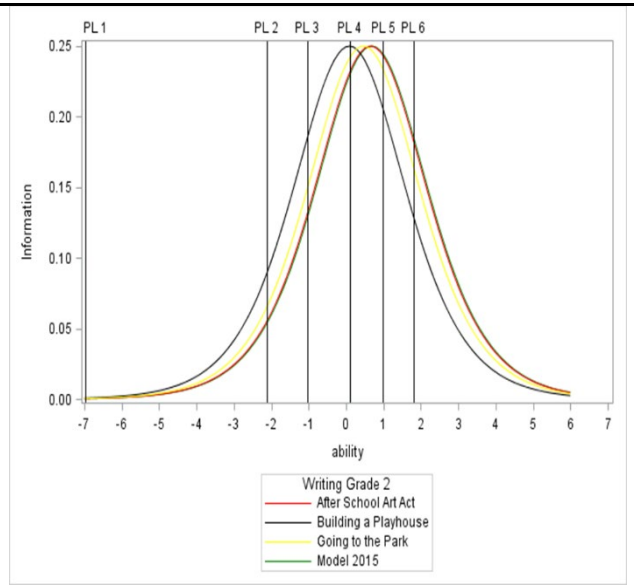

PL 1
PL 2
PL 3
PL 4
PL 5
PL 6
Information
0.0
0.2
0.4
0.6
0.8
-11.5 -10.5 -9.5 -8.5 -7.5 -6.5 -5.5 -4.5 -3.5 -2.5 -1.5 -0.5 0.5 1.5 2.5 3.5 4.5
Ability
Speaking Grade 10
Model 2015
Model 2020

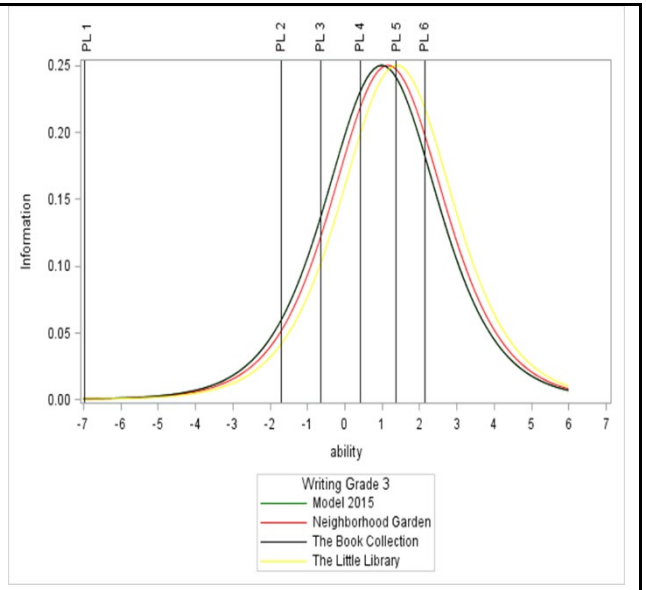

PL 1
PL 2
PL 3
PL 4
PL 5
PL 6
Information
0.0
0.2
0.4
0.6
0.8
-11.5 -10.5 -9.5 -8.5 -7.5 -6.5 -5.5 -4.5 -3.5 -2.5 -1.5 -0.5 0.5 1.5 2.5 3.5 4.5
Ability
Speaking Grade 11
Model 2015
Model 2020

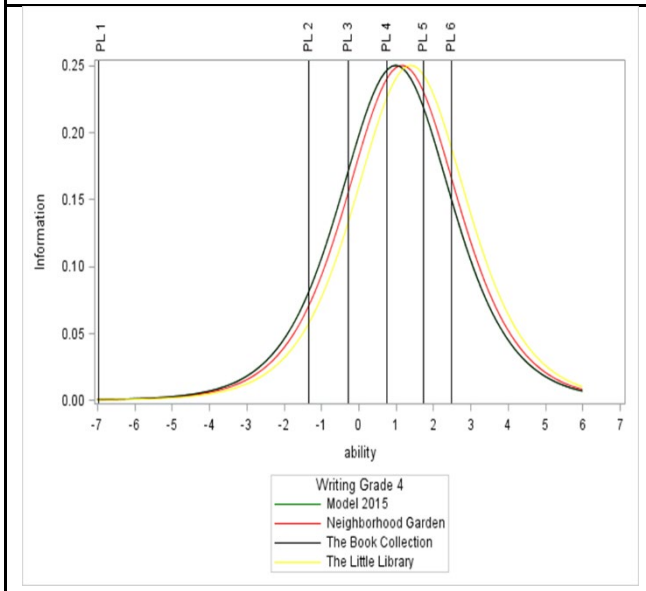

PL 1
PL 2
PL 3
PL 4
PL 5
PL 6
Information
0.0
0.2
0.4
0.6
0.8
-11.5 -10.5 -9.5 -8.5 -7.5 -6.5 -5.5 -4.5 -3.5 -2.5 -1.5 -0.5 0.5 1.5 2.5 3.5 4.5
Ability
Speaking Grade 12
Model 2015
Model 2020

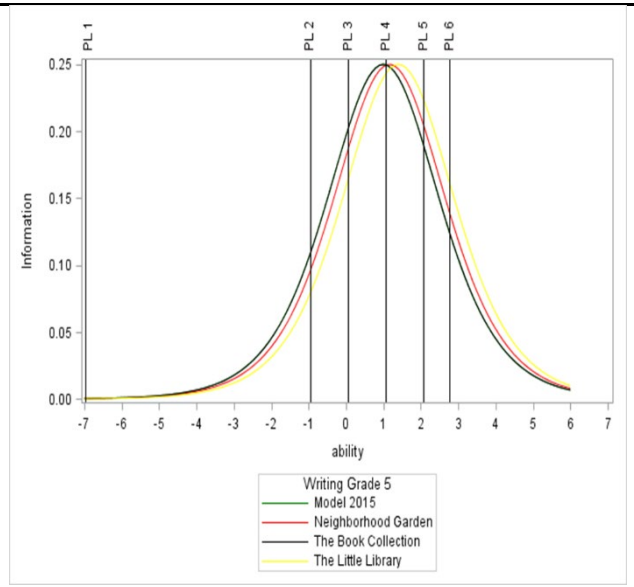
6.4.4. TIFs of Writing domain by grade

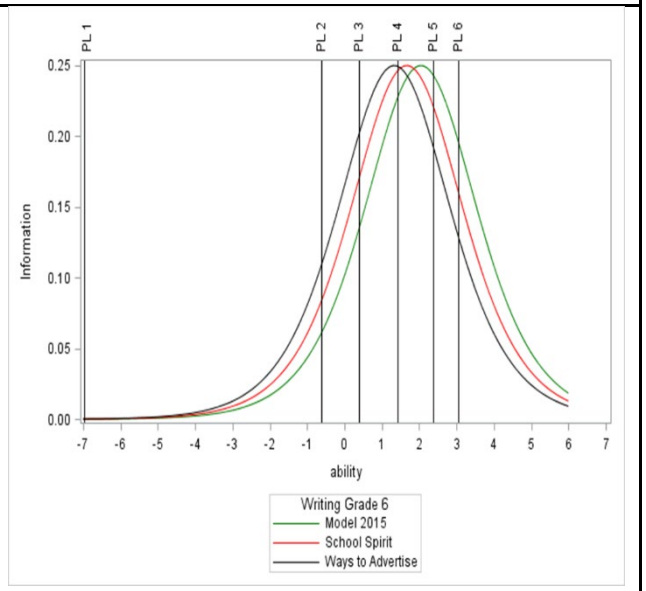


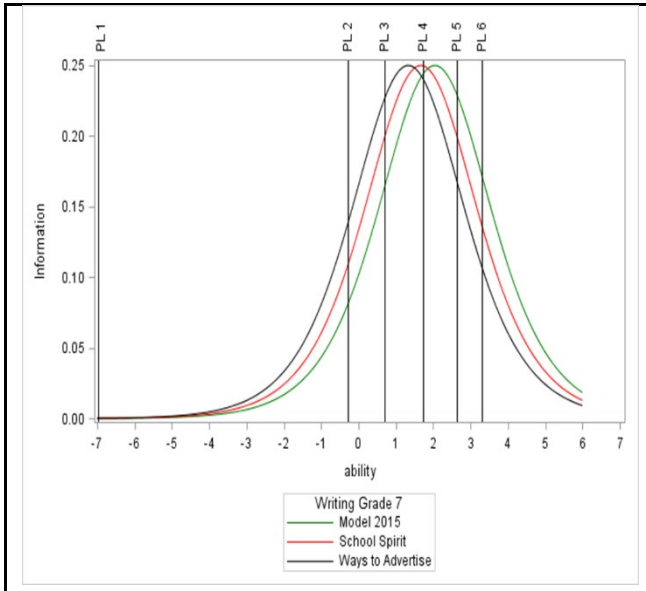


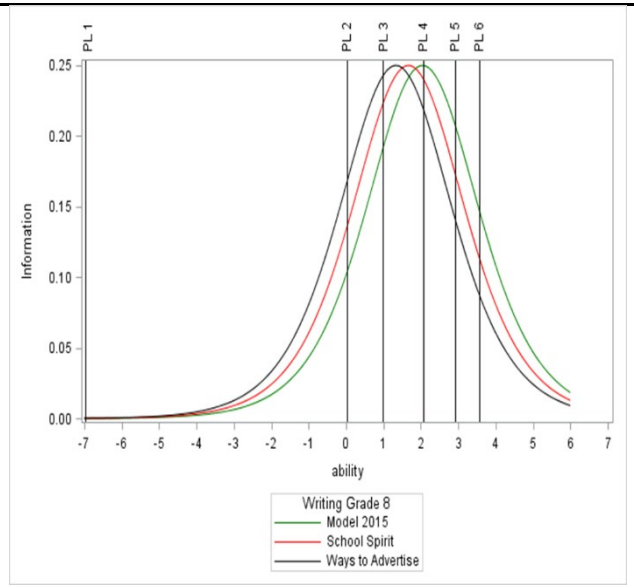


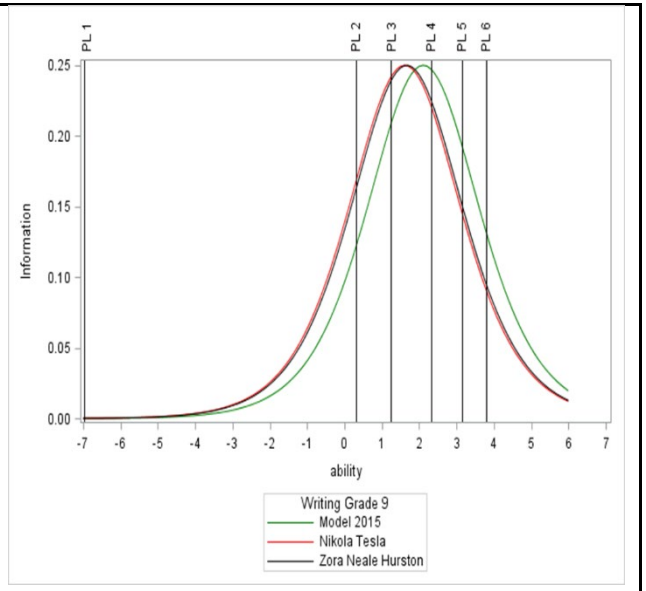


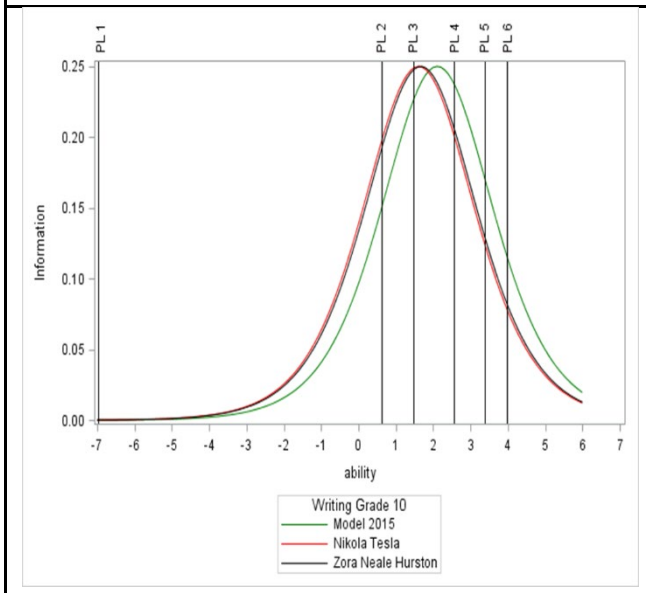


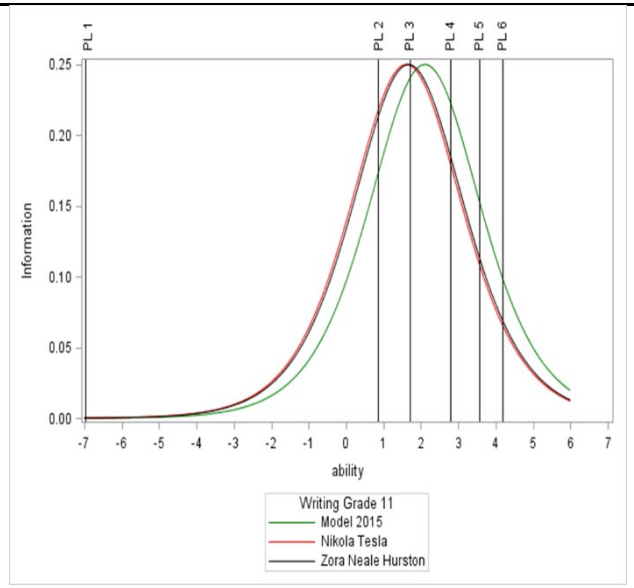


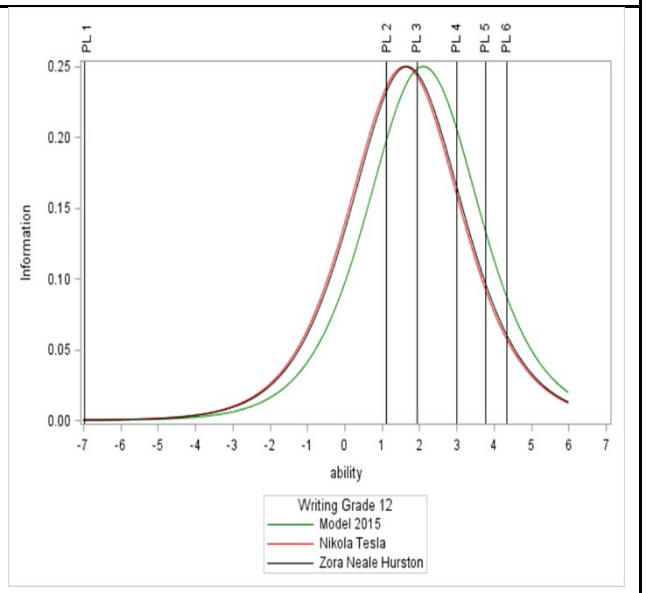

PL 1
PL 2
PL 3
PL 4
PL 5
PL 6
Information
ability
Writing Grade 7
Model 2015
School Spirit
Ways to Advertise


PL 1
PL 2
PL 3
PL 4
PL 5
PL 6
Information
ability
Writing Grade 8
Model 2015
School Spirit
Ways to Advertise


PL 1
PL 2
PL 3
PL 4
PL 5
PL 6
Information
ability
Writing Grade 9
Model 2015
Nikola Tesla
Zora Neale Hurston


PL 1
PL 2
PL 3
PL 4
PL 5
PL 6
Information
ability
Writing Grade 10
Model 2015
Nikola Tesla
Zora Neale Hurston


PL 1
PL 2
PL 3
PL 4
PL 5
PL 6
Information
ability
Writing Grade 11
Model 2015
Nikola Tesla
Zora Neale Hurston


PL 1
PL 2
PL 3
PL 4
PL 5
PL 6
Information
ability
Writing Grade 12
Model 2015
Nikola Tesla
Zora Neale Hurston

6.5. Test Characteristic Curve

The main purpose of the test characteristic curve (TCC) is to provide information on how ability scores correspond to true scores. In the item selection and form creation procedures, it provides information on how to interpret an ability score in practical terms.

Test characteristic curves graphically show the relationship between the ability measure (in logits) on the horizontal axis and the expected raw score on the vertical axis. Five vertical lines indicate the five cut scores for the highest grade in the grade-level cluster for the test form, dividing the figure into six sections for each of the WIDA proficiency levels (PLs 1–6) for the domain being tested. As would be expected, higher raw scores are required to be placed into higher language proficiency levels. The relative width of each section between the cut score lines, however, gives an indication of how many raw score points must be earned to be placed into a WIDA language proficiency level.

In item response theory, the definition of a true score according to D.N. Lawley (Baker and Kim, 2017) is used. The formula for a true score is given in equation below:

$$True\ Score_j = \sum_{i=1}^{N} P_i(\theta_j)$$

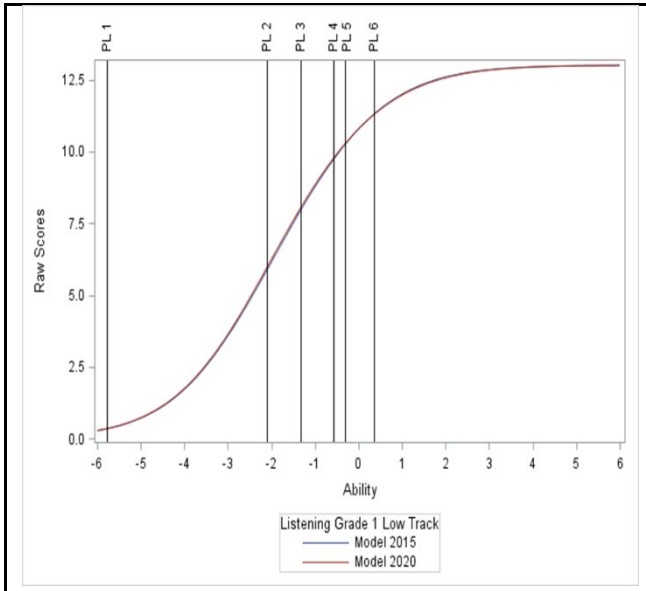
where:

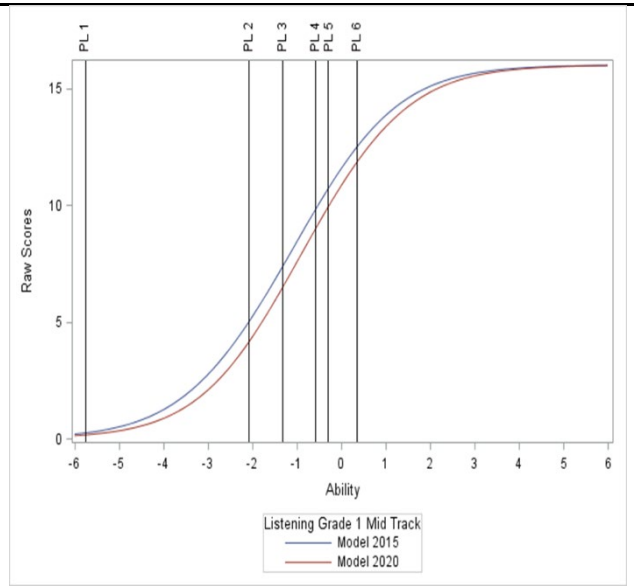
TS_j is the true score for examinees with ability level θ_j.
i denotes an item and $P_i(\theta_j)$ depends upon the particular item characteristic curve model employed. Here we used the Rasch probability model to compute the probability of each item. N is the total number of items in the test.

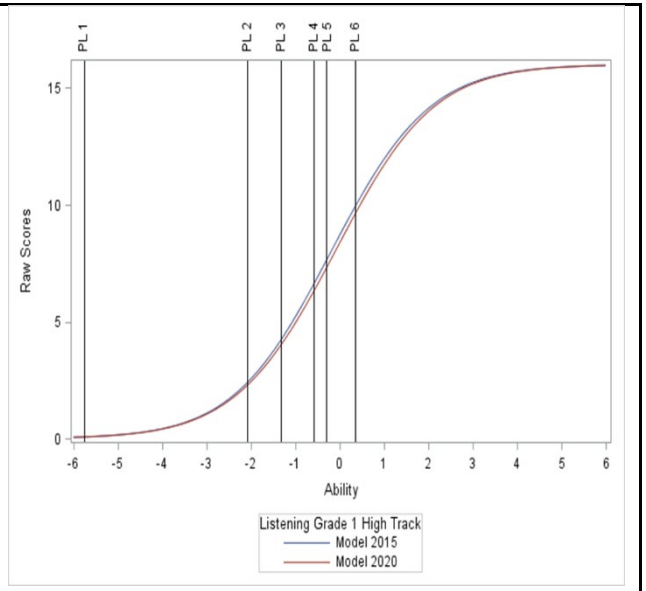
The number of items at ability scores indicate the average of all the raw scores students at the ability level would get if they took the test multiple times.

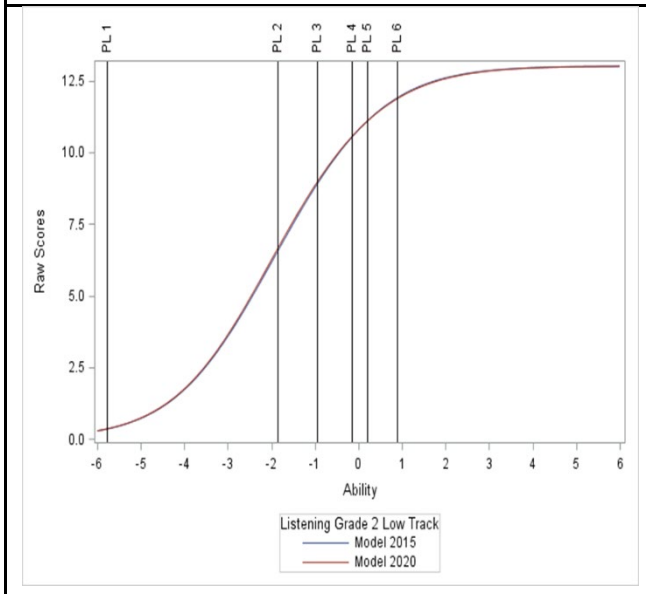
In this section, test characteristic curves of the original MODEL test and the new Online MODEL test are overlaid so that performance on ability scales of the two forms of tests can be directly compared.

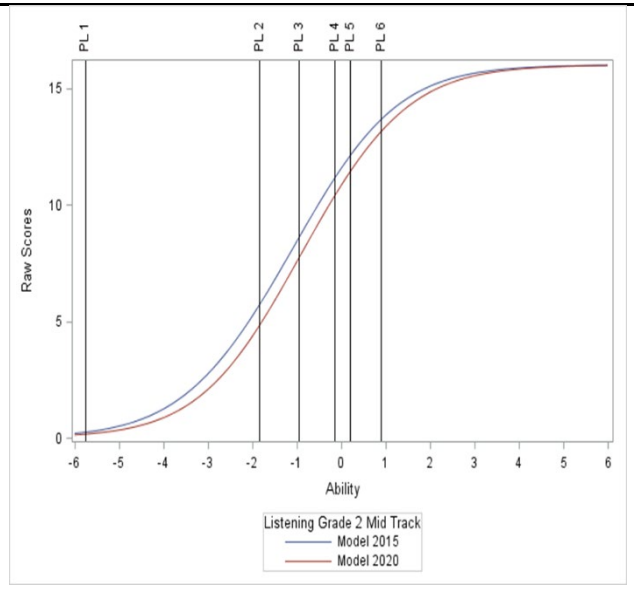
6.5.1. TCCs of Listening domain by grade

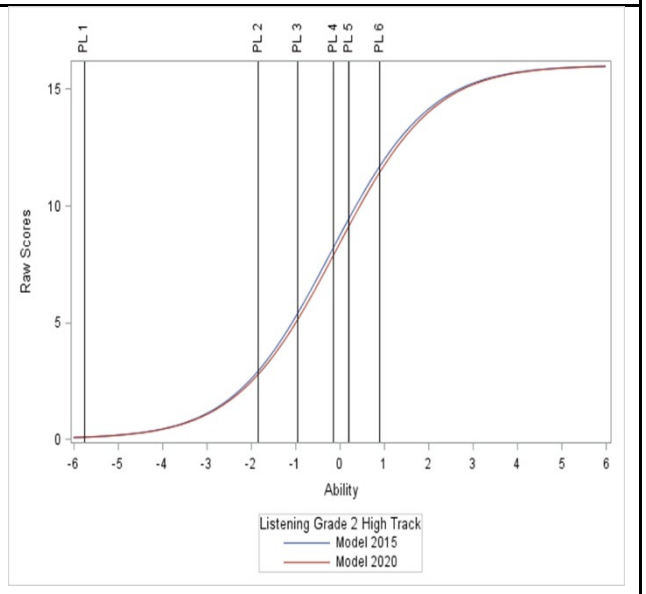


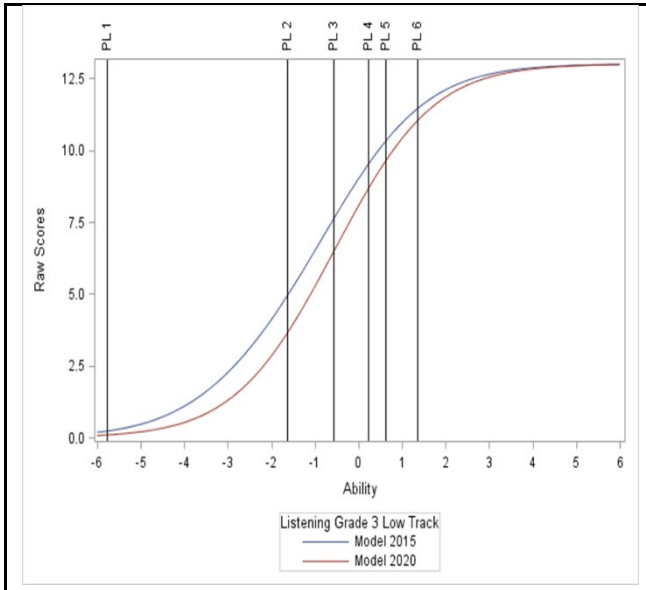


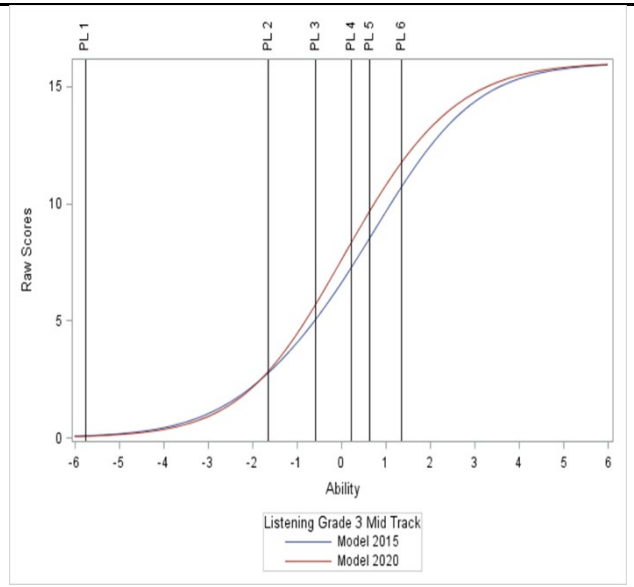


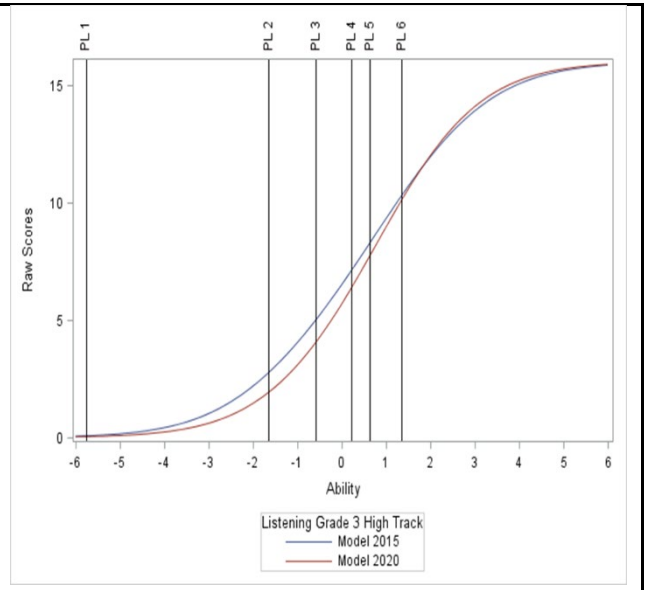


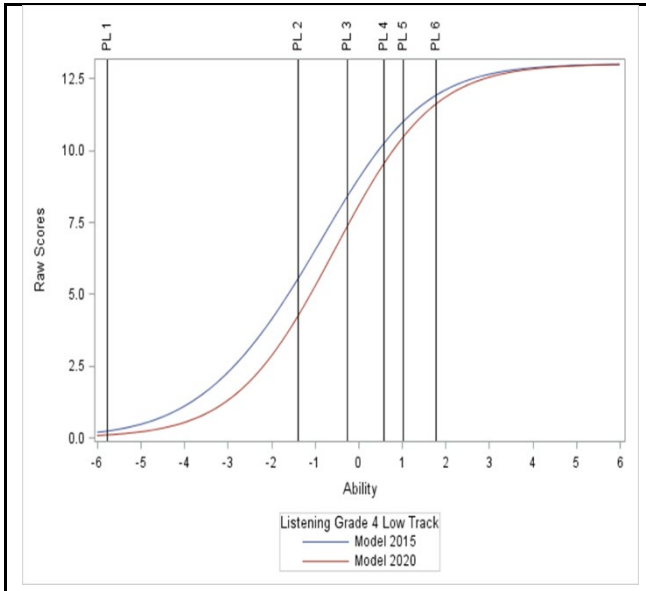


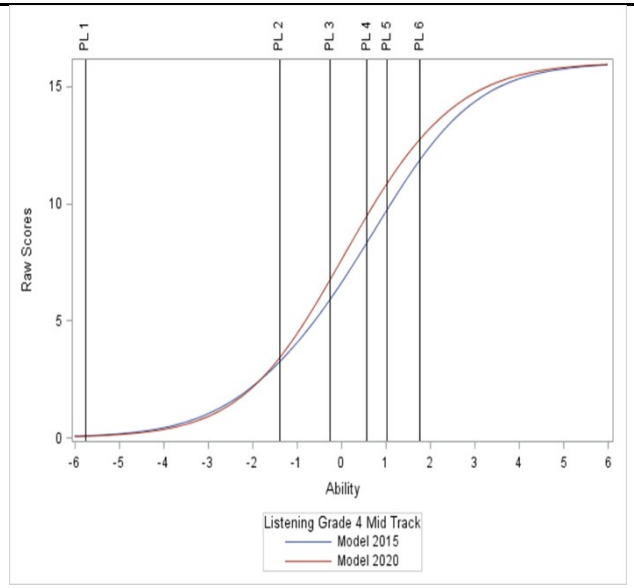


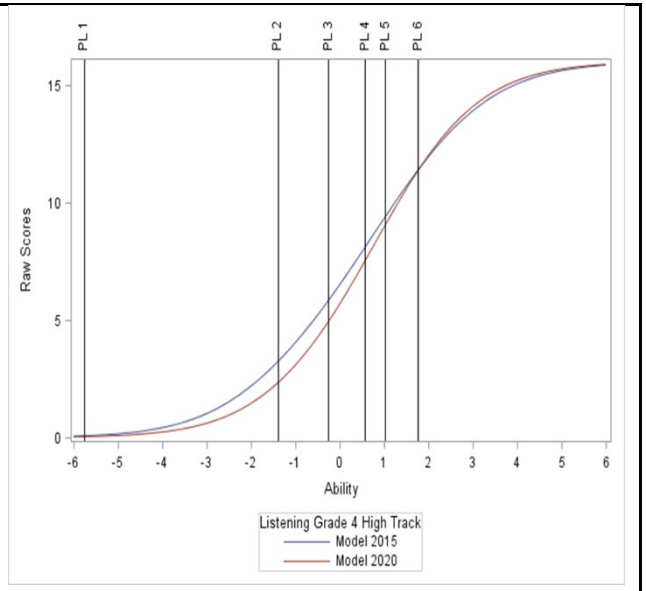

PL 1
PL 2
PL 3
PL 4
PL 5
PL 6
Raw Scores
Ability
Listening Grade 3 Low Track
Model 2015
Model 2020

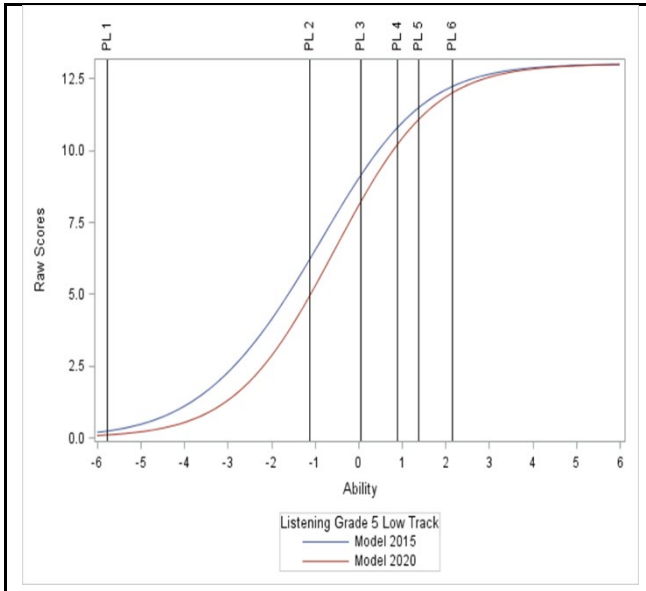

PL 1
PL 2
PL 3
PL 4
PL 5
PL 6
Raw Scores
Ability
Listening Grade 3 Mid Track
Model 2015
Model 2020

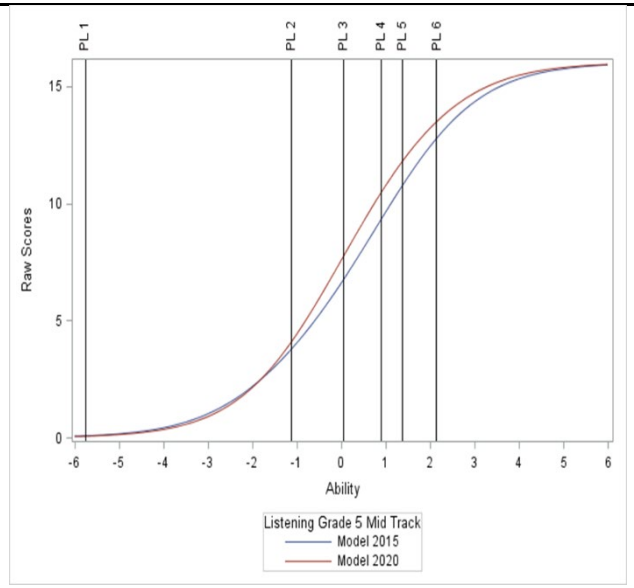

PL 1
PL 2
PL 3
PL 4
PL 5
PL 6
Raw Scores
Ability
Listening Grade 3 High Track
Model 2015
Model 2020

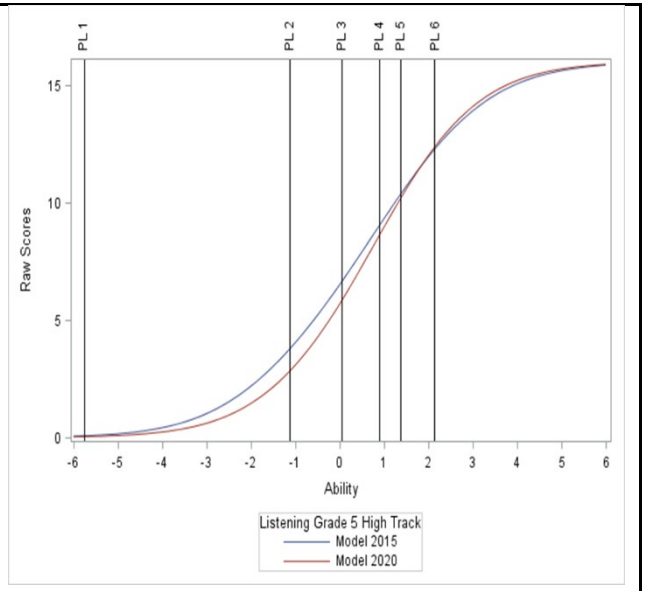

PL 1
PL 2
PL 3
PL 4
PL 5
PL 6
Raw Scores
Ability
Listening Grade 4 Low Track
Model 2015
Model 2020

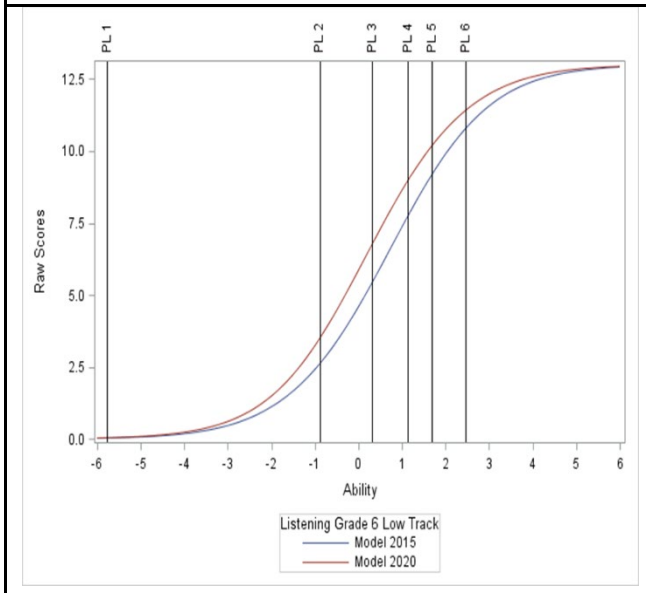

PL 1
PL 2
PL 3
PL 4
PL 5
PL 6
Raw Scores
Ability
Listening Grade 4 Mid Track
Model 2015
Model 2020

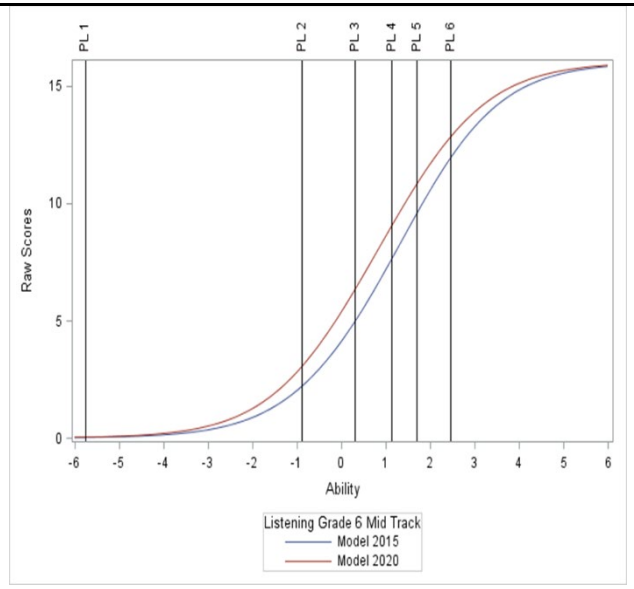

PL 1
PL 2
PL 3
PL 4
PL 5
PL 6
Raw Scores
Ability
Listening Grade 4 High Track
Model 2015
Model 2020

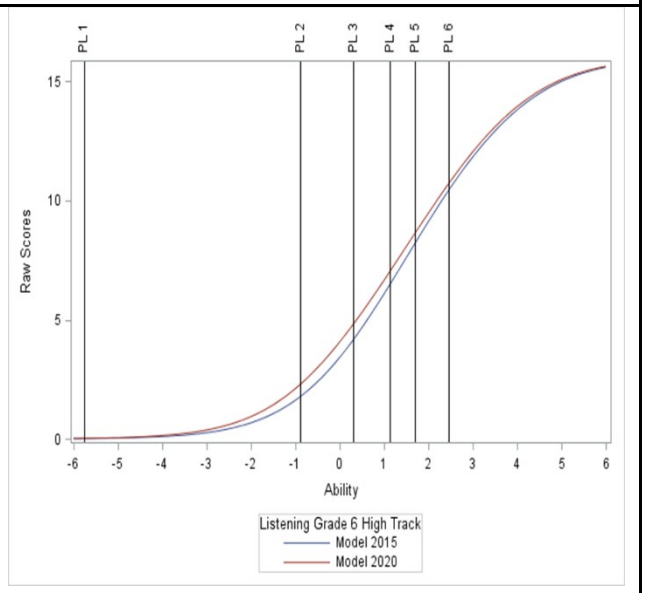

PL 1
PL 2
PL 3
PL 4
PL 5
PL 6
Raw Scores
Ability
Listening Grade 5 Low Track
Model 2015
Model 2020

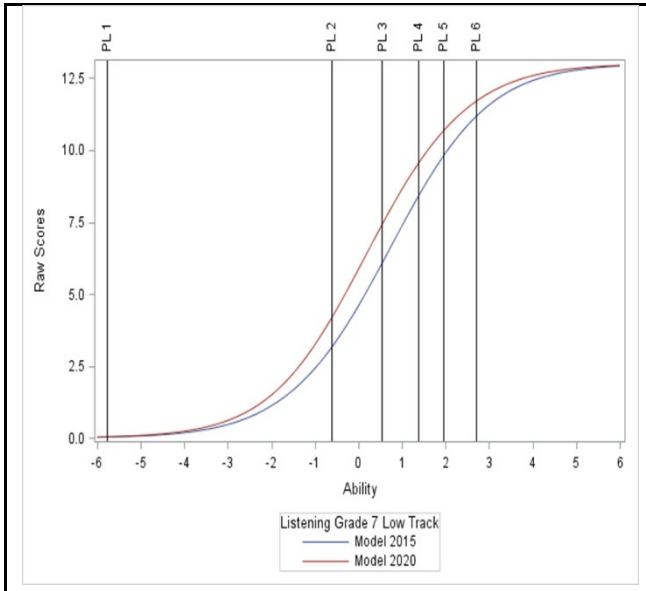

PL 1
PL 2
PL 3
PL 4
PL 5
PL 6
Raw Scores
Ability
Listening Grade 5 Mid Track
Model 2015
Model 2020

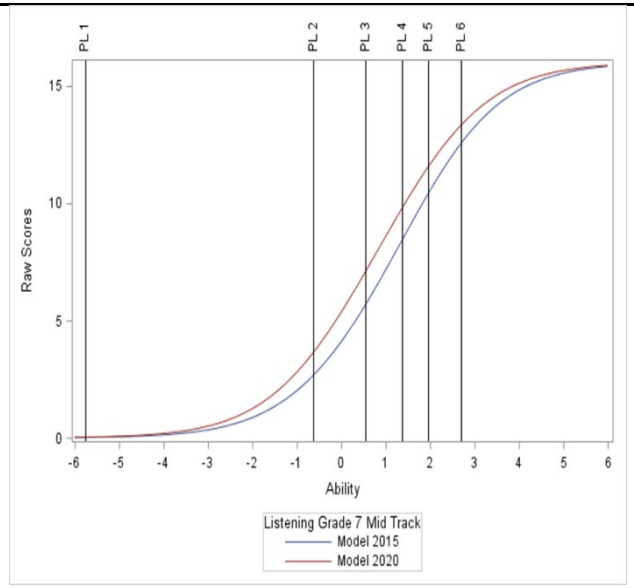

PL 1
PL 2
PL 3
PL 4
PL 5
PL 6
Raw Scores
Ability
Listening Grade 5 High Track
Model 2015
Model 2020

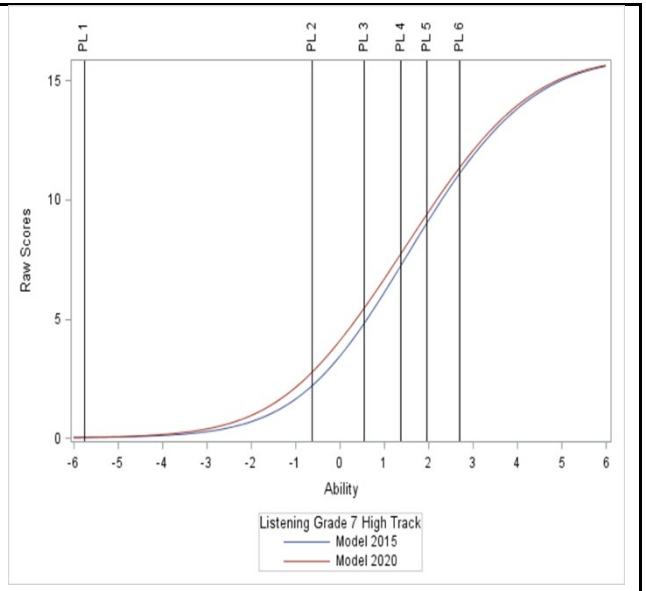

PL 1
PL 2
PL 3
PL 4
PL 5
PL 6
Raw Scores
Ability
Listening Grade 6 Low Track
Model 2015
Model 2020

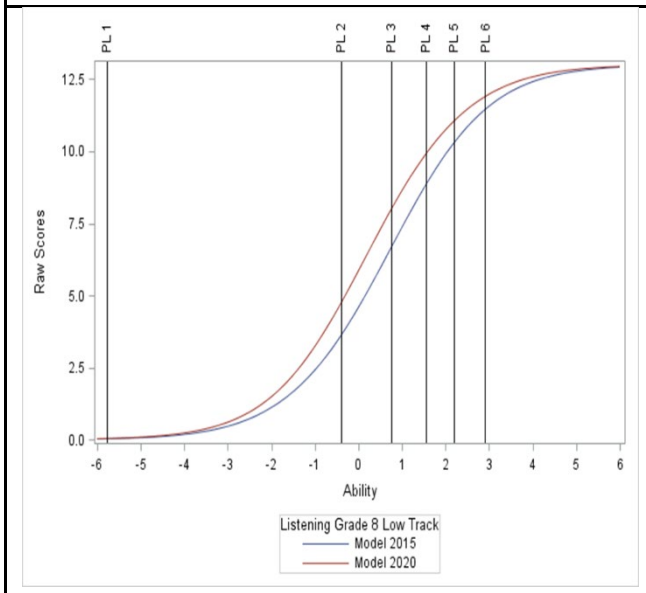

PL 1
PL 2
PL 3
PL 4
PL 5
PL 6
Raw Scores
Ability
Listening Grade 6 Mid Track
Model 2015
Model 2020

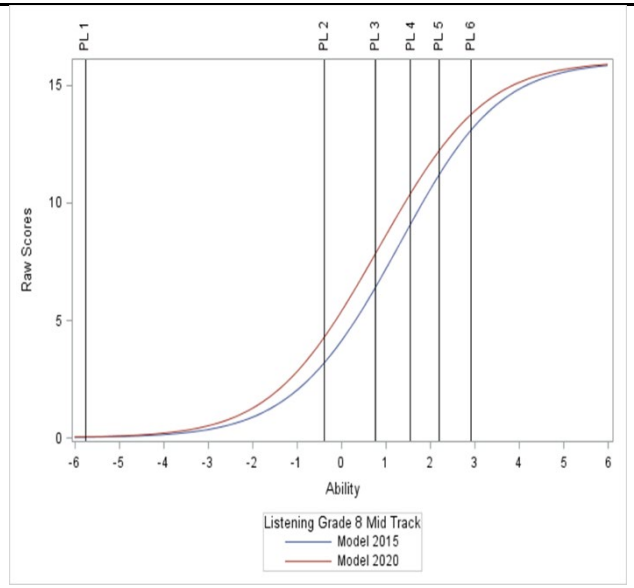

PL 1
PL 2
PL 3
PL 4
PL 5
PL 6
Raw Scores
Ability
Listening Grade 6 High Track
Model 2015
Model 2020

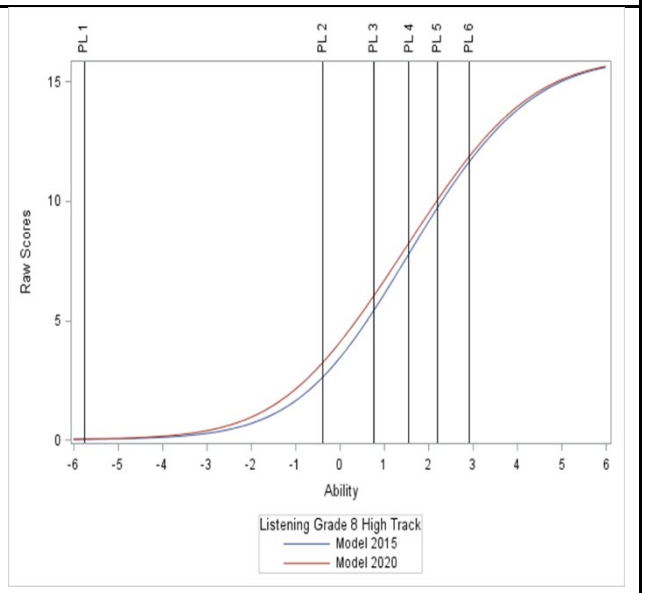

PL 1
PL 2
PL 3
PL 4
PL 5
PL 6
Raw Scores
Ability
Listening Grade 7 Low Track
Model 2015
Model 2020

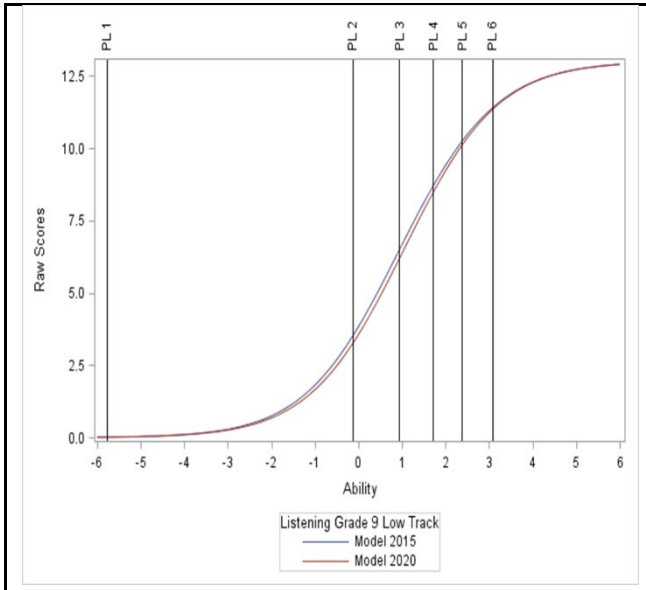

PL 1
PL 2
PL 3
PL 4
PL 5
PL 6
Raw Scores
Ability
Listening Grade 7 Mid Track
Model 2015
Model 2020

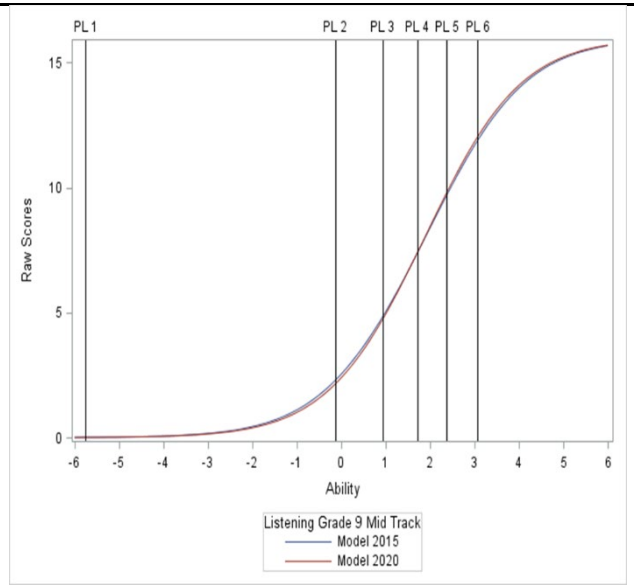

PL 1
PL 2
PL 3
PL 4
PL 5
PL 6
Raw Scores
Ability
Listening Grade 7 High Track
Model 2015
Model 2020

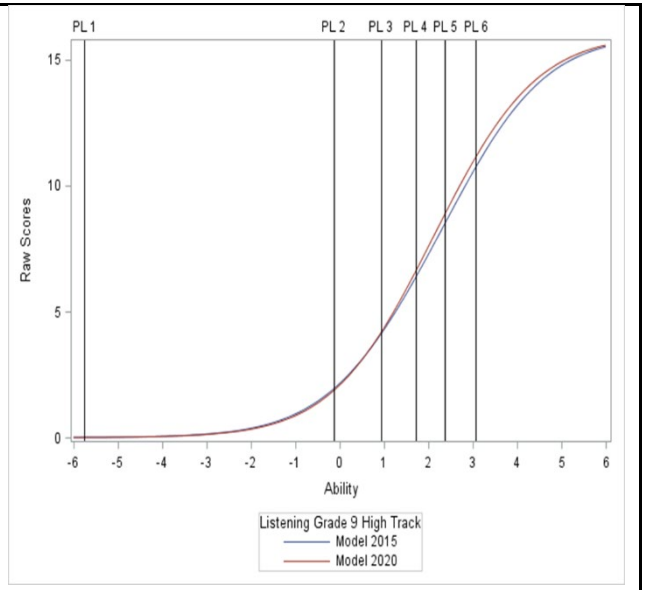

PL 1
PL 2
PL 3
PL 4
PL 5
PL 6
Raw Scores
Ability
Listening Grade 8 Low Track
Model 2015
Model 2020

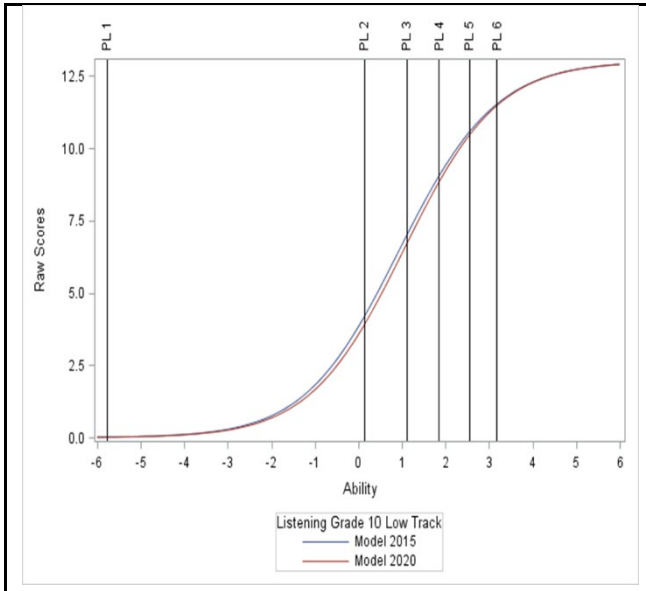

PL 1
PL 2
PL 3
PL 4
PL 5
PL 6
Raw Scores
Ability
Listening Grade 8 Mid Track
Model 2015
Model 2020

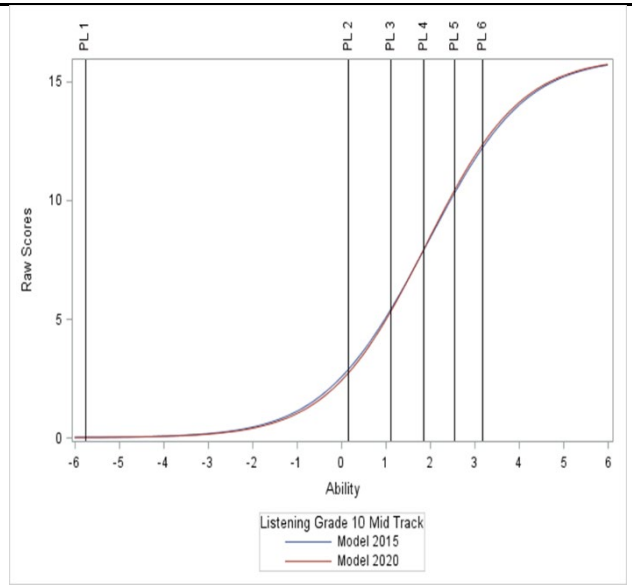

PL 1
PL 2
PL 3
PL 4
PL 5
PL 6
Raw Scores
Ability
Listening Grade 8 High Track
Model 2015
Model 2020

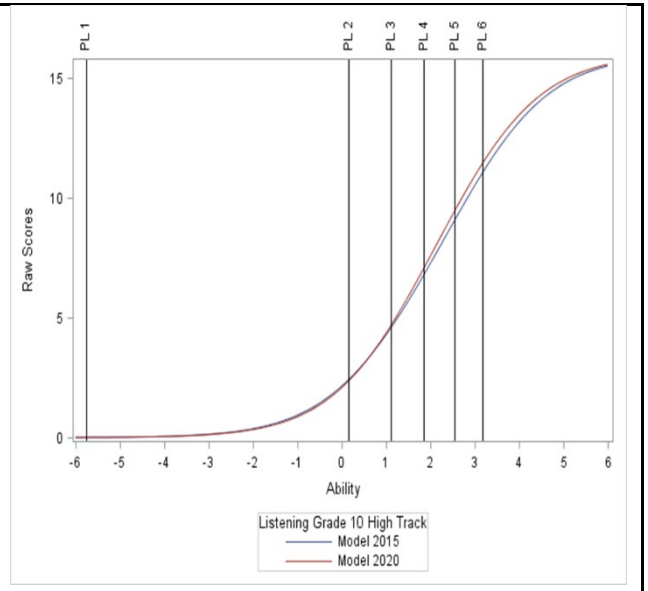

PL 1
PL 2
PL 3
PL 4
PL 5
PL 6
Raw Scores
Ability
Listening Grade 9 Low Track
Model 2015
Model 2020

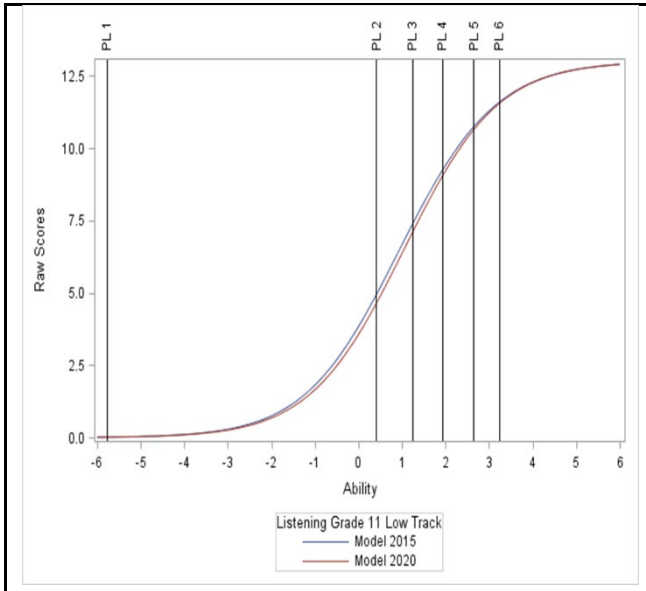

PL 1
PL 2
PL 3
PL 4
PL 5
PL 6
Raw Scores
Ability
Listening Grade 9 Mid Track
Model 2015
Model 2020

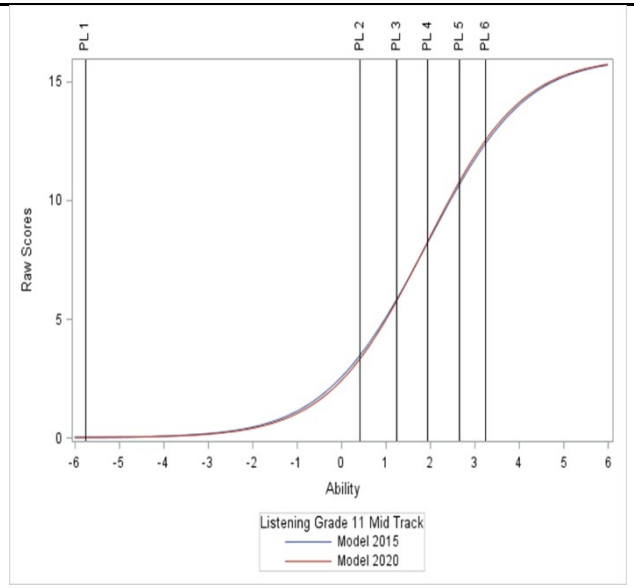

PL 1
PL 2
PL 3
PL 4
PL 5
PL 6
Raw Scores
Ability
Listening Grade 9 High Track
Model 2015
Model 2020

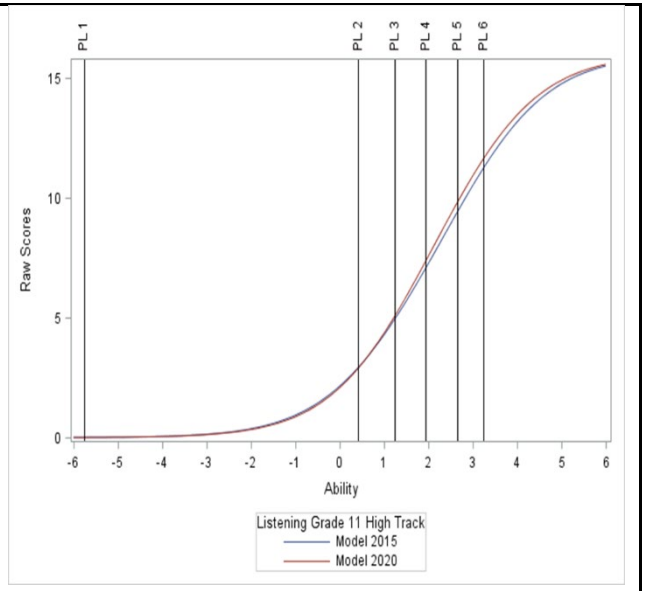

PL 1
PL 2
PL 3
PL 4
PL 5
PL 6
Raw Scores
Ability
Listening Grade 10 Low Track
Model 2015
Model 2020

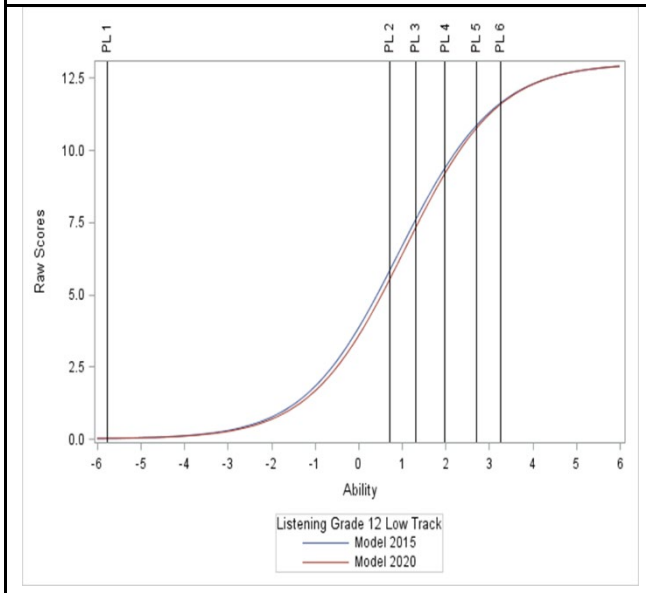

PL 1
PL 2
PL 3
PL 4
PL 5
PL 6
Raw Scores
Ability
Listening Grade 10 Mid Track
Model 2015
Model 2020

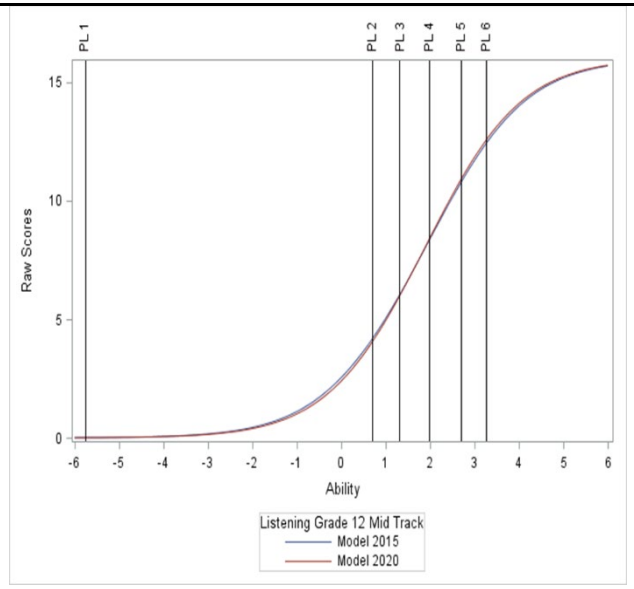

PL 1
PL 2
PL 3
PL 4
PL 5
PL 6
Raw Scores
Ability
Listening Grade 10 High Track
Model 2015
Model 2020

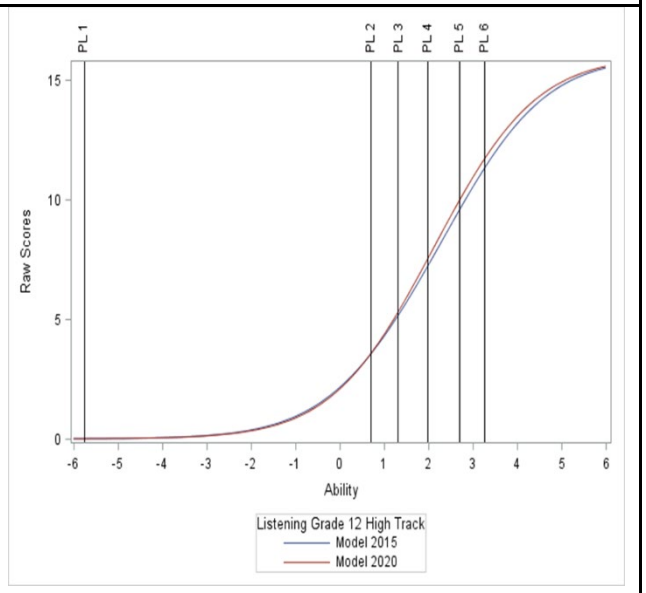

PL 1
PL 2
PL 3
PL 4
PL 5
PL 6
Raw Scores
Ability
Listening Grade 11 Low Track
Model 2015
Model 2020


PL 1
PL 2
PL 3
PL 4
PL 5
PL 6
Raw Scores
Ability
Listening Grade 11 Mid Track
Model 2015
Model 2020

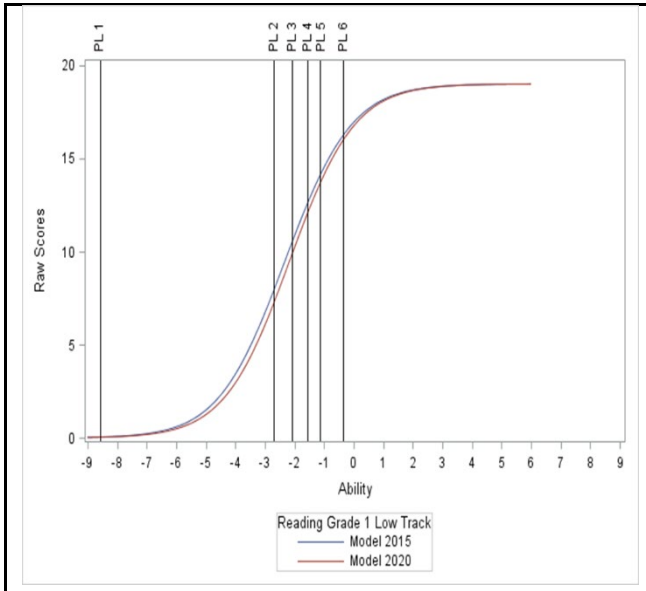

PL 1
PL 2
PL 3
PL 4
PL 5
PL 6
Raw Scores
Ability
Listening Grade 11 High Track
Model 2015
Model 2020

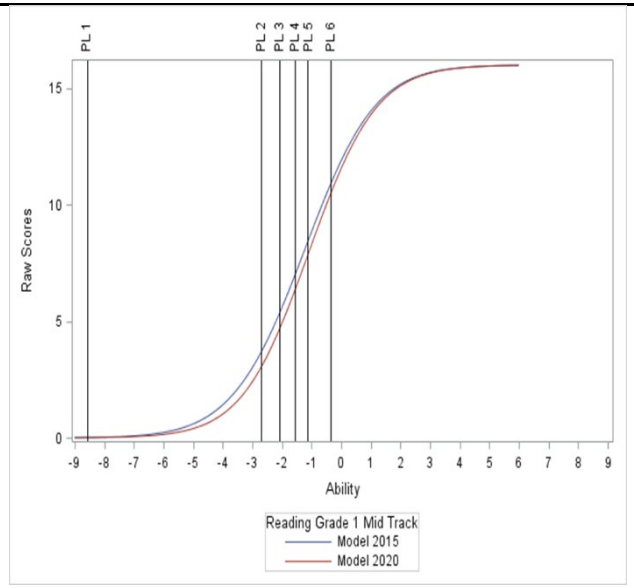

PL 1
PL 2
PL 3
PL 4
PL 5
PL 6
Raw Scores
Ability
Listening Grade 12 Low Track
Model 2015
Model 2020

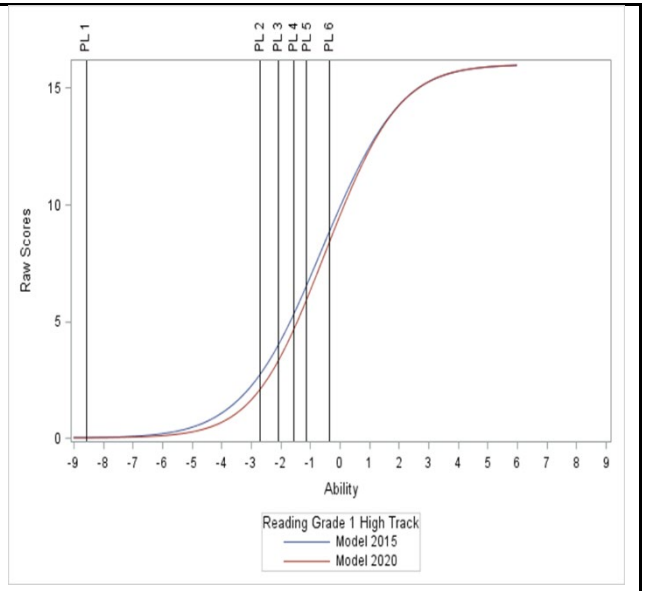

PL 1
PL 2
PL 3
PL 4
PL 5
PL 6
Raw Scores
Ability
Listening Grade 12 Mid Track
Model 2015
Model 2020

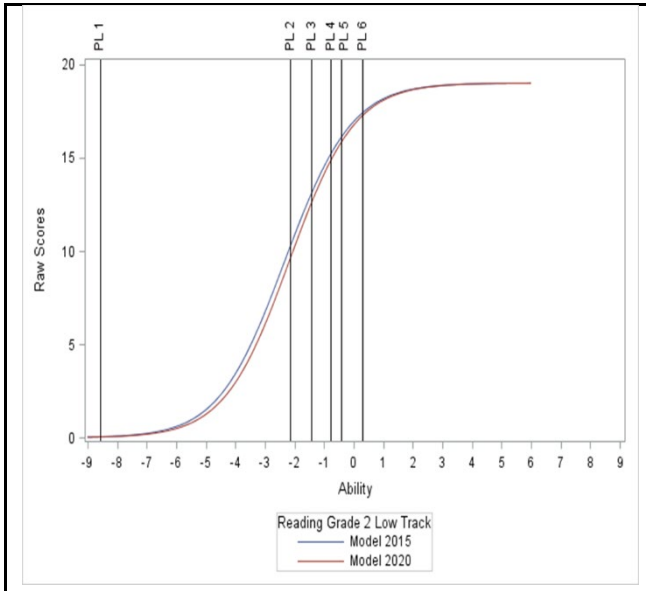

PL 1
PL 2
PL 3
PL 4
PL 5
PL 6
Raw Scores
Ability
Listening Grade 12 High Track
Model 2015
Model 2020

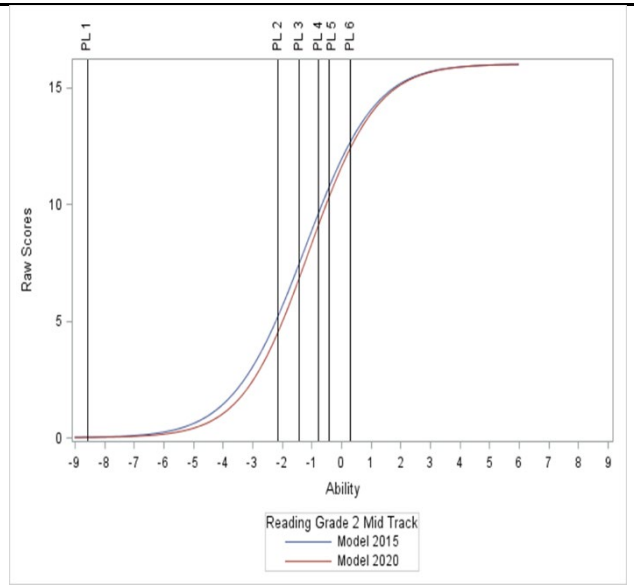
6.5.2. TCCs of Reading domain by grade

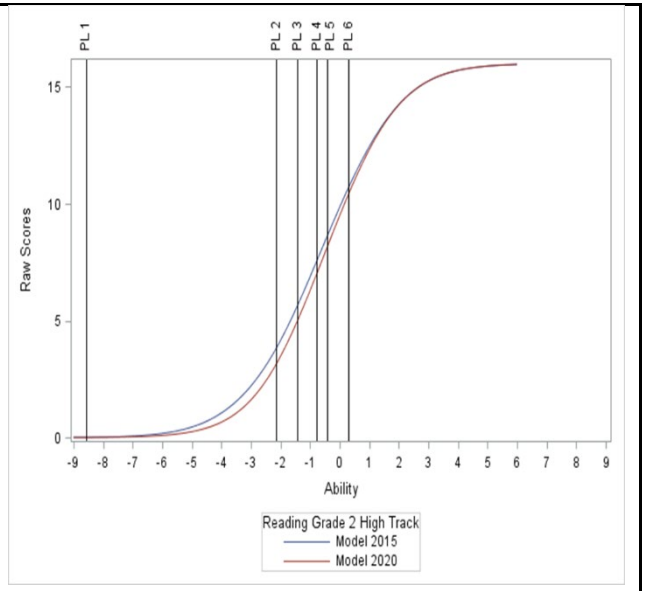


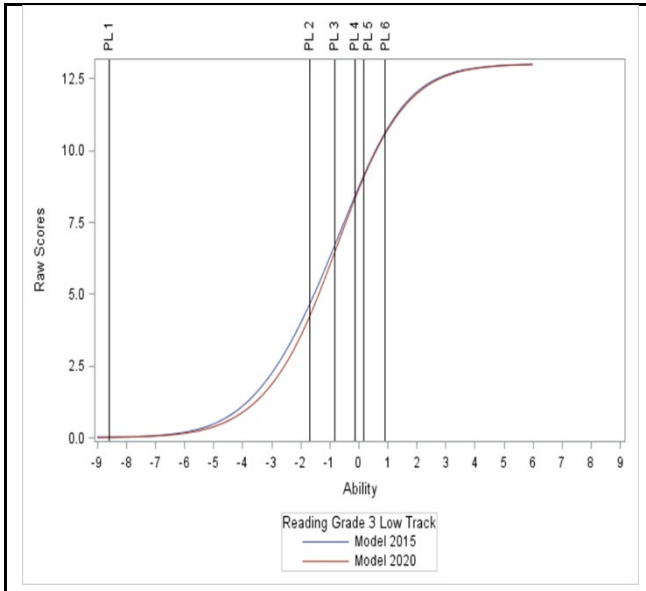


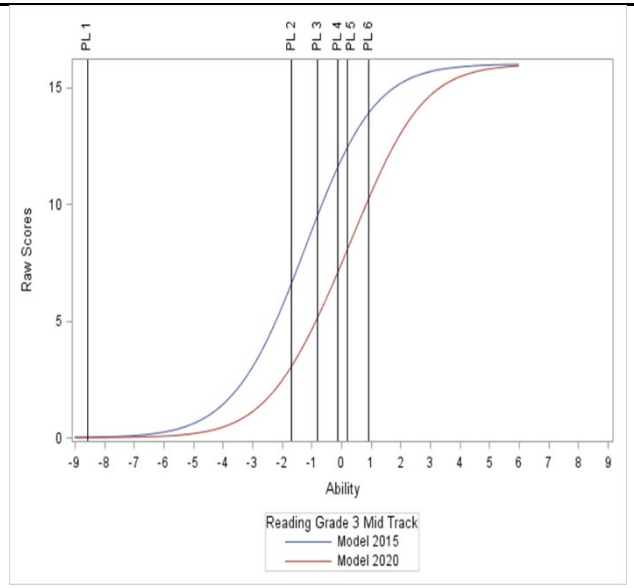


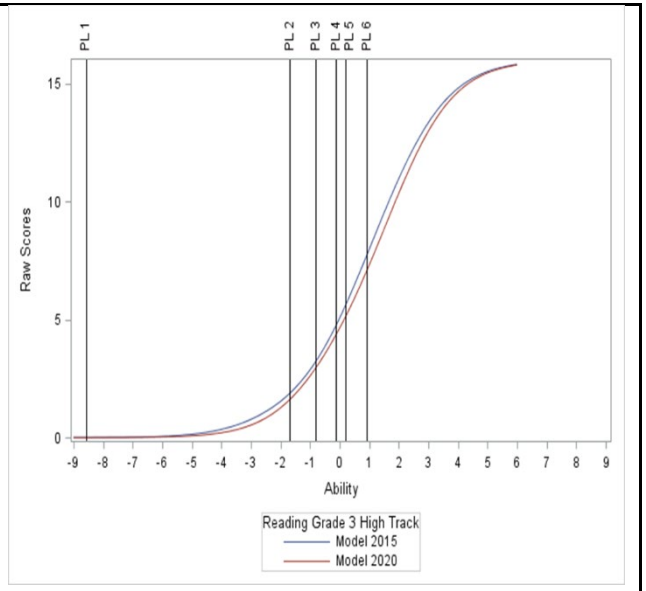

PL 1
PL 2
PL 3
PL 4
PL 5
PL 6
Raw Scores
Ability
Reading Grade 2 Low Track
Model 2015
Model 2020

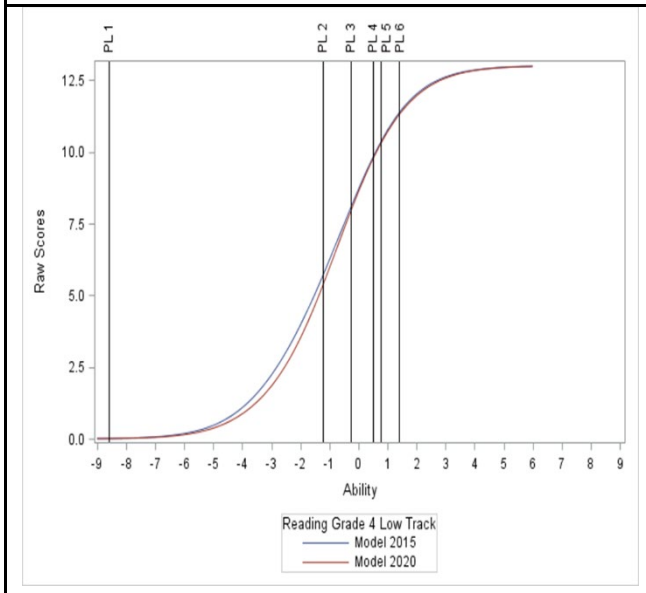

PL 1
PL 2
PL 3
PL 4
PL 5
PL 6
Raw Scores
Ability
Reading Grade 2 Mid Track
Model 2015
Model 2020

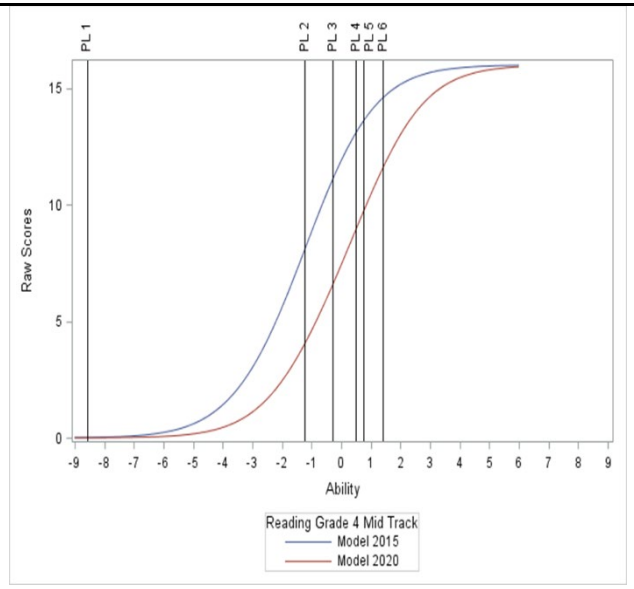

PL 1
PL 2
PL 3
PL 4
PL 5
PL 6
Raw Scores
Ability
Reading Grade 2 High Track
Model 2015
Model 2020

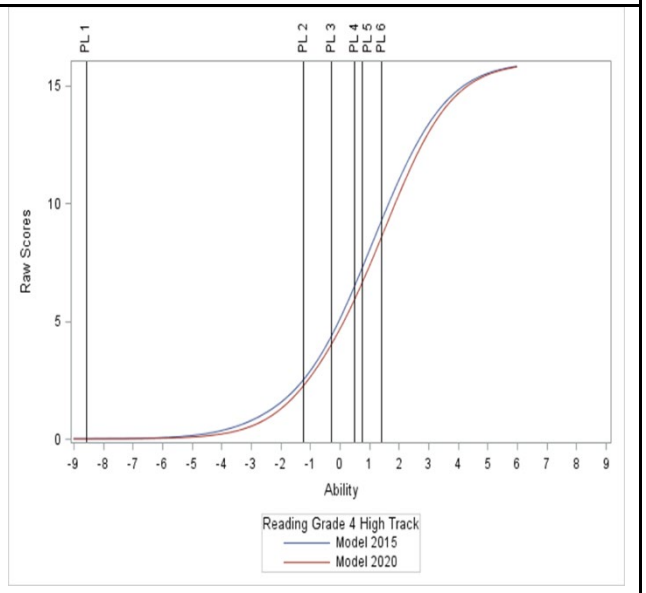

PL 1
PL 2
PL 3
PL 4
PL 5
PL 6
Raw Scores
Ability
Reading Grade 3 Low Track
Model 2015
Model 2020

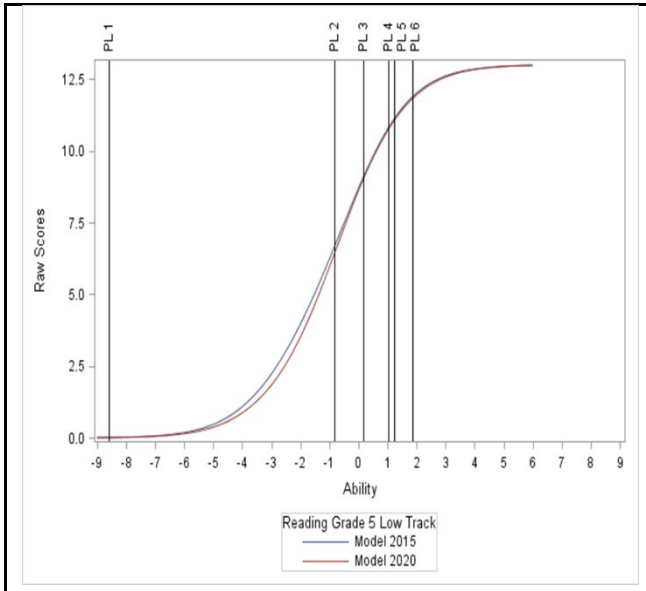

PL 1
PL 2
PL 3
PL 4
PL 5
PL 6
Raw Scores
Ability
Reading Grade 3 Mid Track
Model 2015
Model 2020

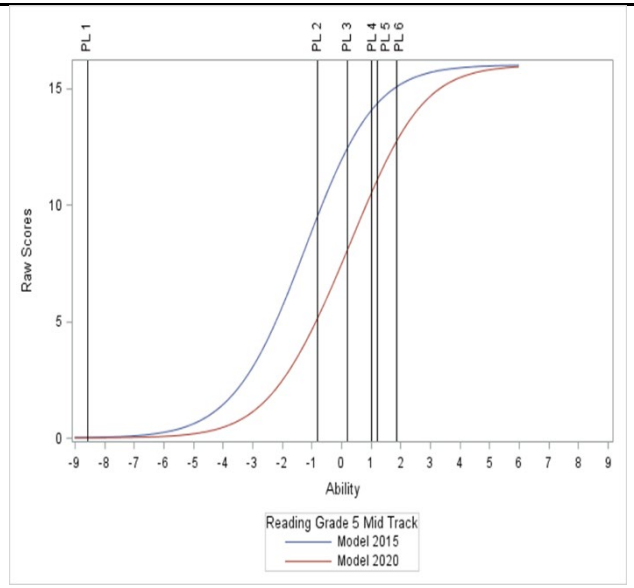

PL 1
PL 2
PL 3
PL 4
PL 5
PL 6
Raw Scores
Ability
Reading Grade 3 High Track
Model 2015
Model 2020

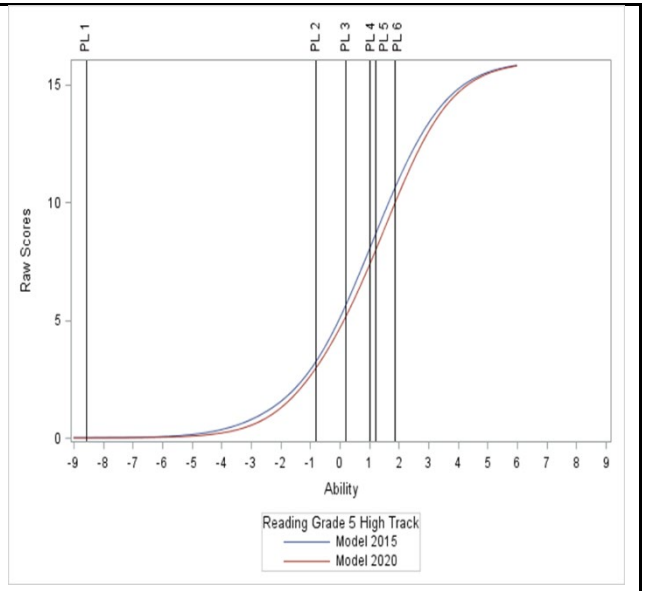

PL 1
PL 2
PL 3
PL 4
PL 5
PL 6
Raw Scores
Ability
Reading Grade 4 Low Track
Model 2015
Model 2020

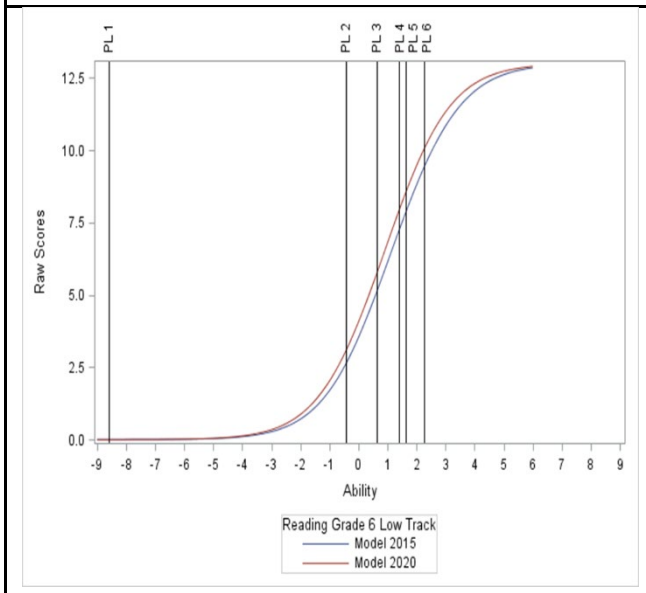

PL 1
PL 2
PL 3
PL 4
PL 5
PL 6
Raw Scores
Ability
Reading Grade 4 Mid Track
Model 2015
Model 2020

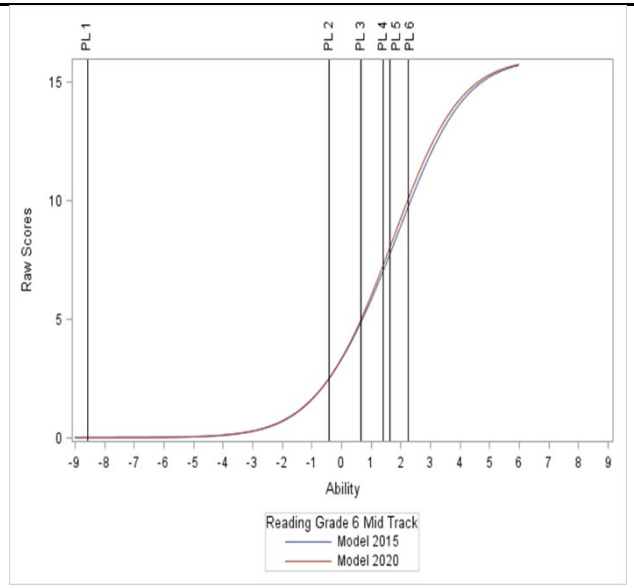

PL 1
PL 2
PL 3
PL 4
PL 5
PL 6
Raw Scores
Ability
Reading Grade 4 High Track
Model 2015
Model 2020

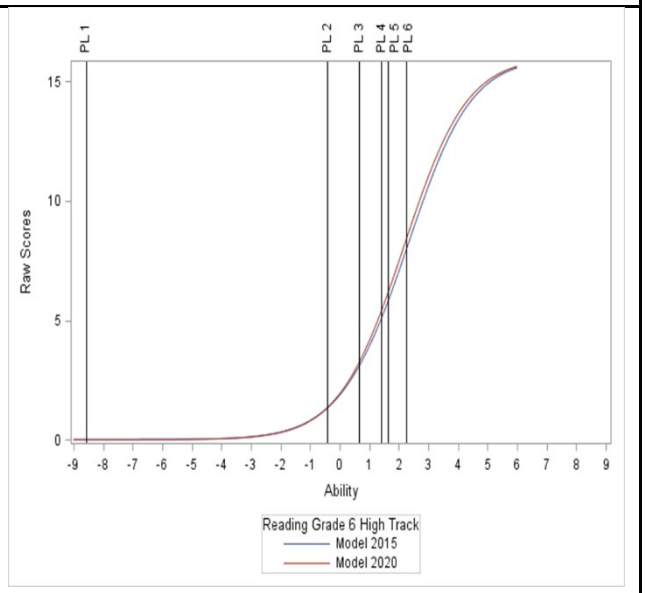

PL 1
PL 2
PL 3
PL 4
PL 5
PL 6
Raw Scores
Ability
Reading Grade 5 Low Track
Model 2015
Model 2020

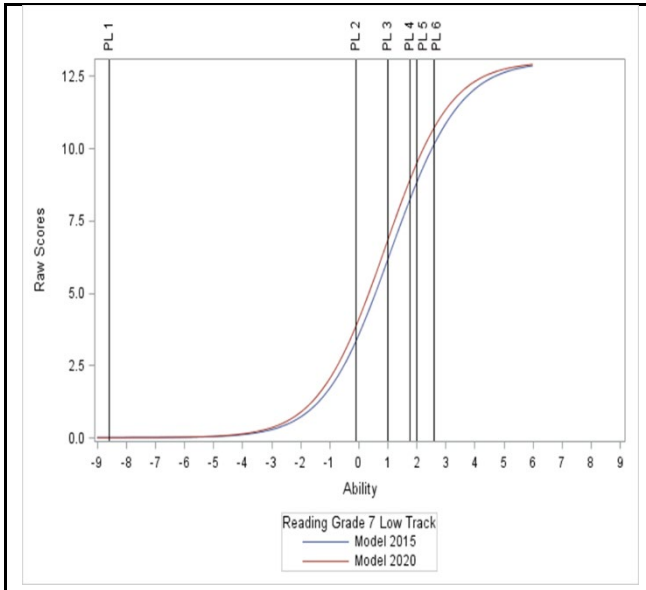

PL 1
PL 2
PL 3
PL 4
PL 5
PL 6
Raw Scores
Ability
Reading Grade 5 Mid Track
Model 2015
Model 2020

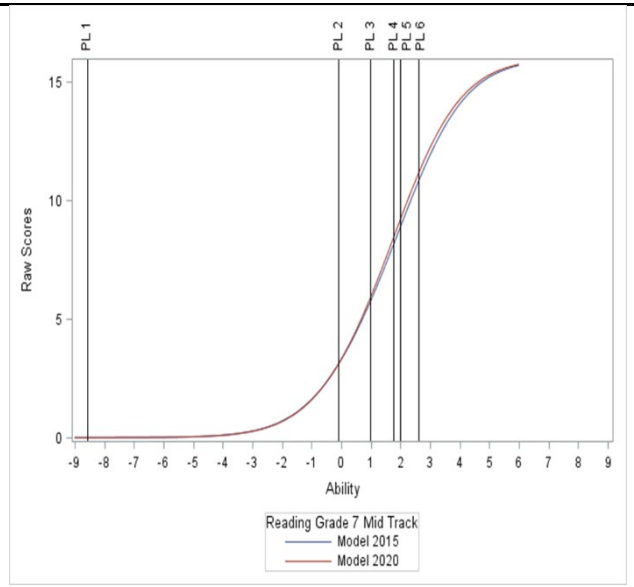

PL 1
PL 2
PL 3
PL 4
PL 5
PL 6
Raw Scores
Ability
Reading Grade 5 High Track
Model 2015
Model 2020

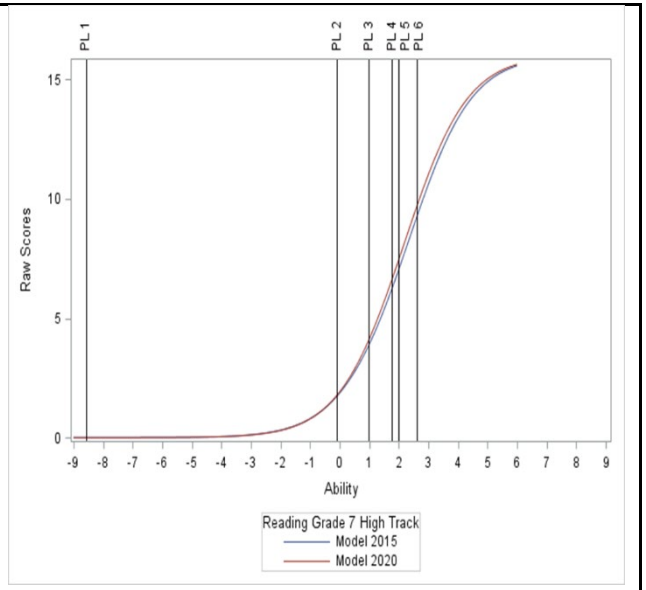

PL 1
PL 2
PL 3
PL 4
PL 5
PL 6
Raw Scores
Ability
Reading Grade 6 Low Track
Model 2015
Model 2020

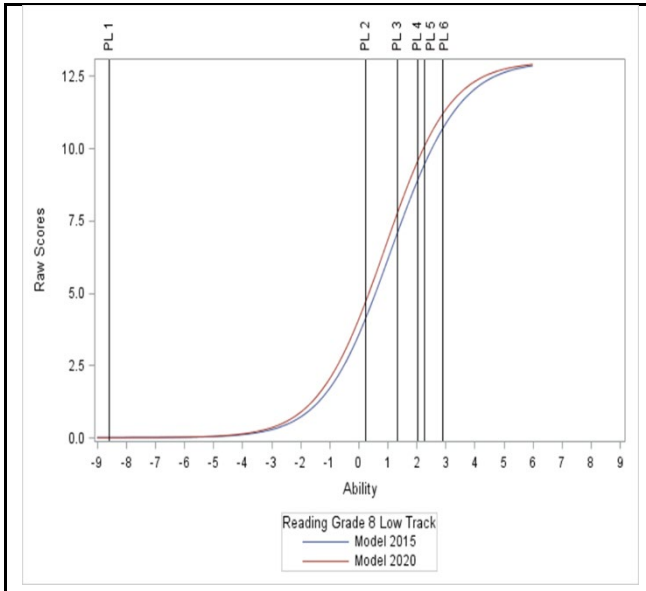

PL 1
PL 2
PL 3
PL 4
PL 5
PL 6
Raw Scores
Ability
Reading Grade 6 Mid Track
Model 2015
Model 2020

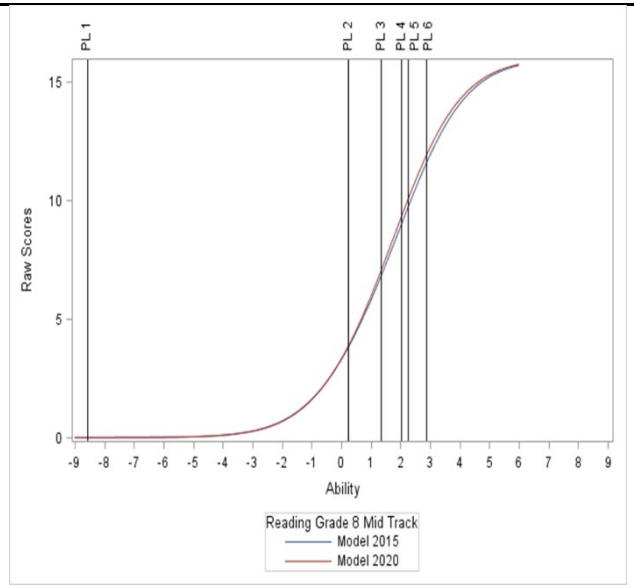

PL 1
PL 2
PL 3
PL 4
PL 5
PL 6
Raw Scores
Ability
Reading Grade 6 High Track
Model 2015
Model 2020

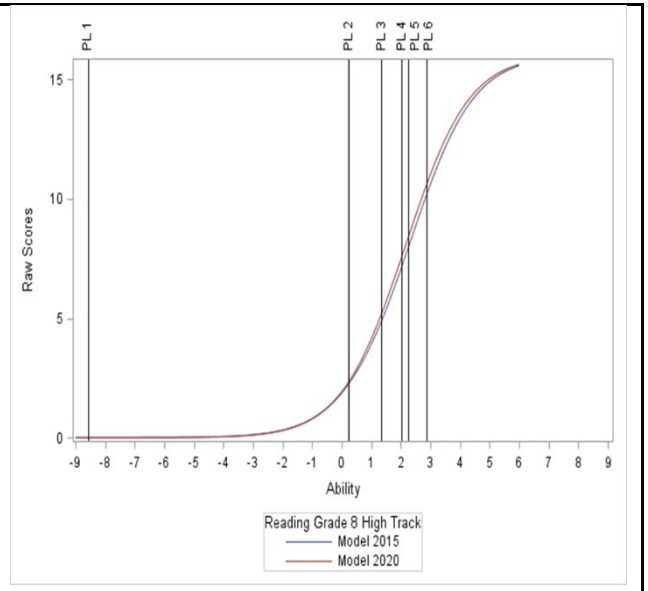

PL 1
PL 2
PL 3
PL 4
PL 5
PL 6
Raw Scores
Ability
Reading Grade 7 Low Track
Model 2015
Model 2020

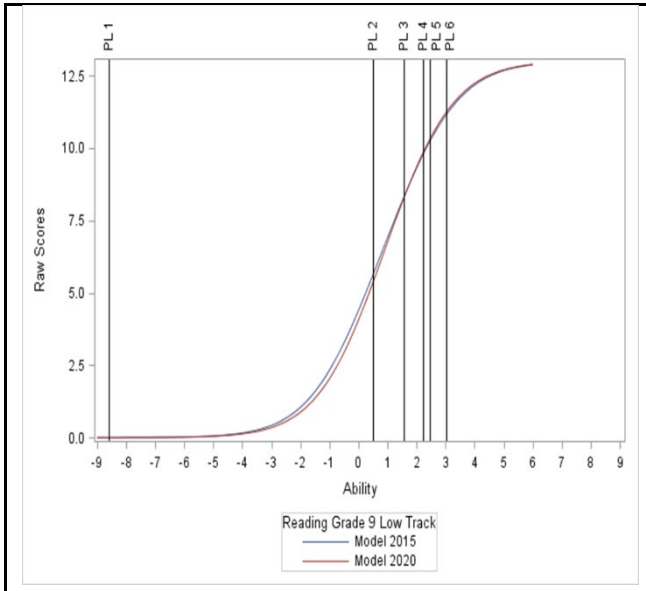

PL 1
PL 2
PL 3
PL 4
PL 5
PL 6
Raw Scores
Ability
Reading Grade 7 Mid Track
Model 2015
Model 2020

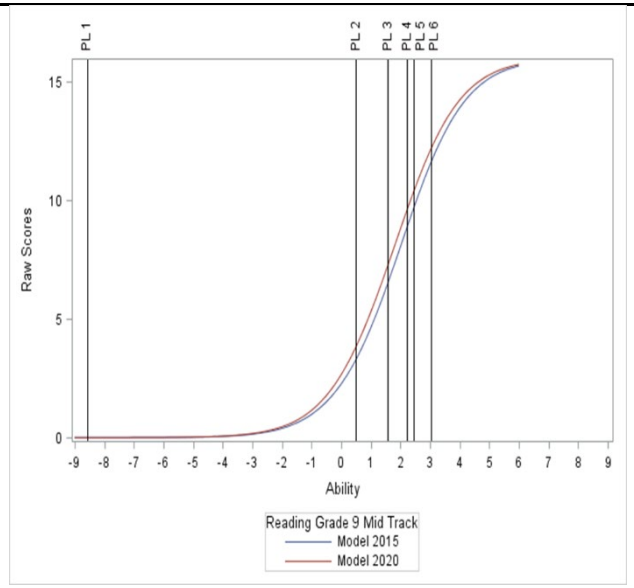

PL 1
PL 2
PL 3
PL 4
PL 5
PL 6
Raw Scores
Ability
Reading Grade 7 High Track
Model 2015
Model 2020

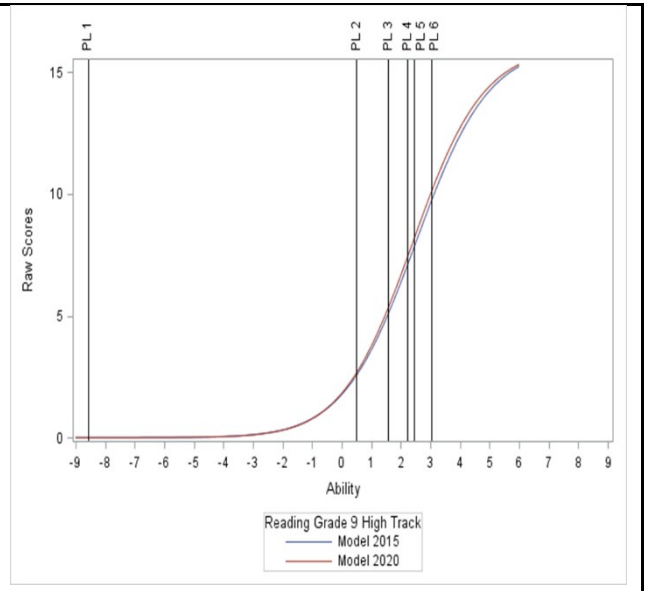

PL 1
PL 2
PL 3
PL 4
PL 5
PL 6
Raw Scores
Ability
Reading Grade 8 Low Track
Model 2015
Model 2020

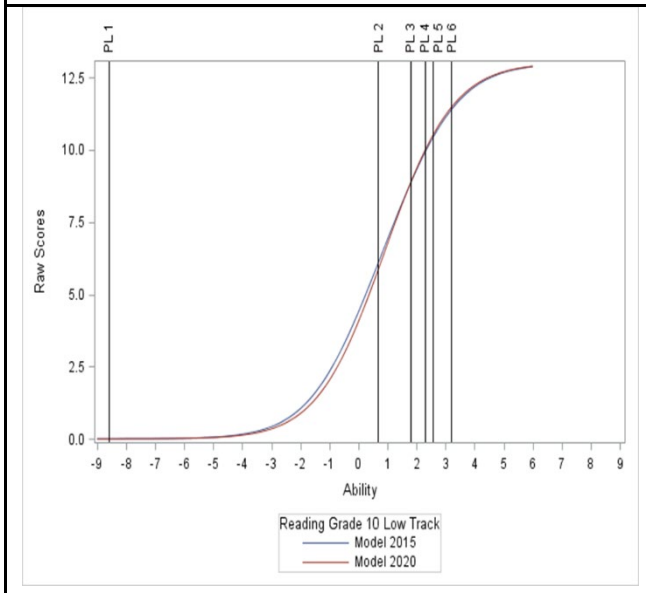

PL 1
PL 2
PL 3
PL 4
PL 5
PL 6
Raw Scores
Ability
Reading Grade 8 Mid Track
Model 2015
Model 2020

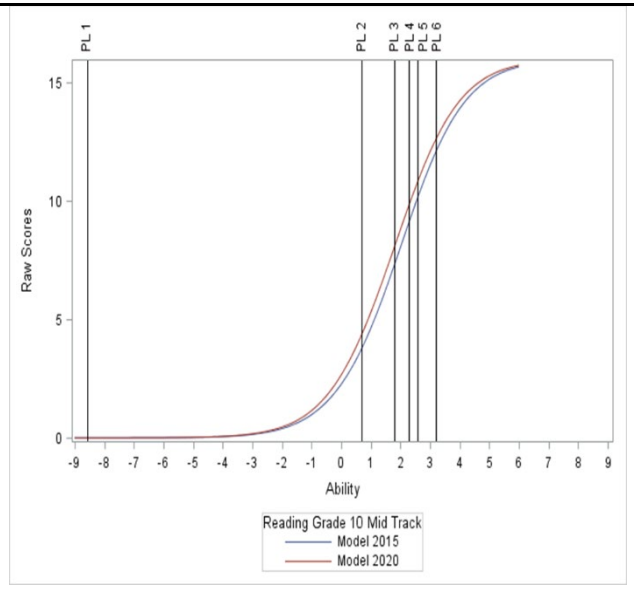

PL 1
PL 2
PL 3
PL 4
PL 5
PL 6
Raw Scores
Ability
Reading Grade 8 High Track
Model 2015
Model 2020

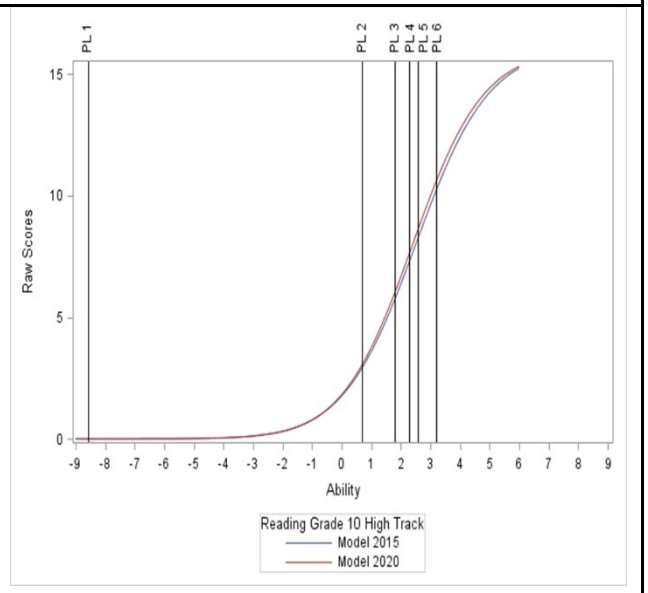

PL 1
PL 2
PL 3
PL 4
PL 5
PL 6
Raw Scores
Ability
Reading Grade 9 Low Track
Model 2015
Model 2020

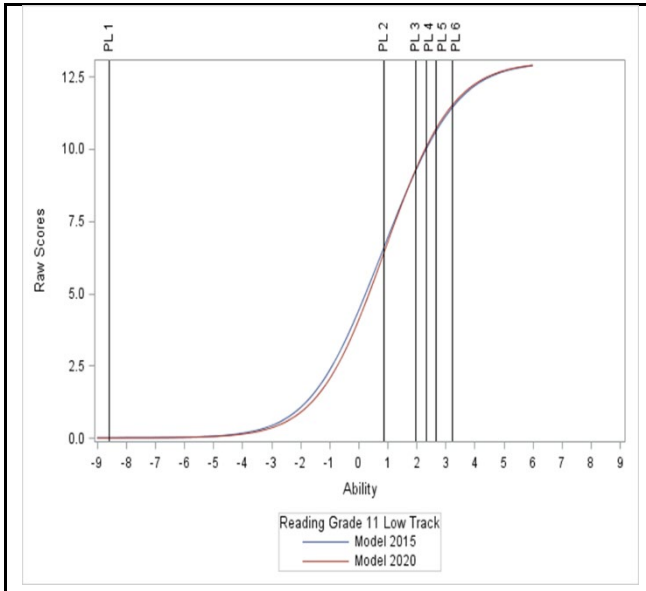

PL 1
PL 2
PL 3
PL 4
PL 5
PL 6
Raw Scores
Ability
Reading Grade 9 Mid Track
Model 2015
Model 2020

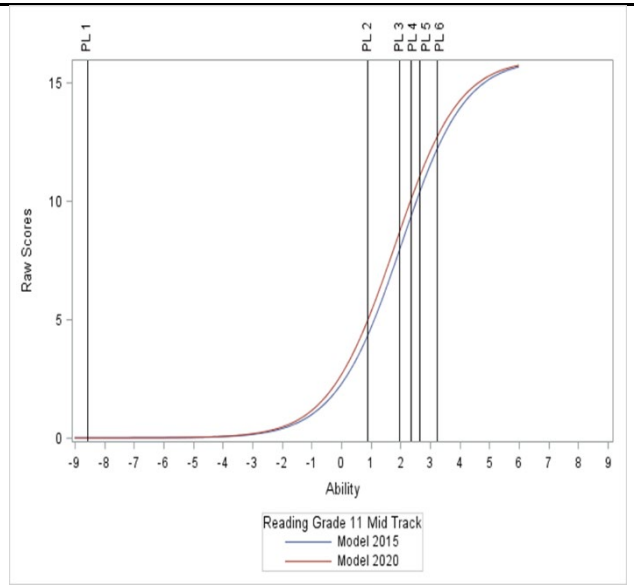

PL 1
PL 2
PL 3
PL 4
PL 5
PL 6
Raw Scores
Ability
Reading Grade 9 High Track
Model 2015
Model 2020

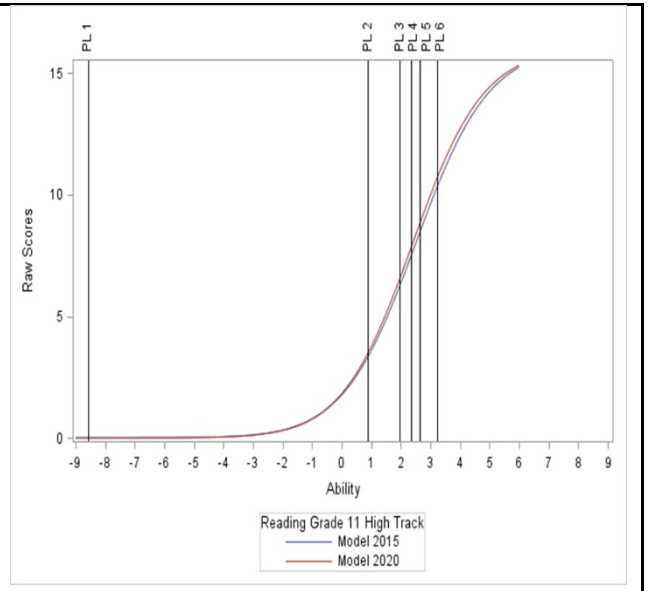

PL 1
PL 2
PL 3
PL 4
PL 5
PL 6
Raw Scores
Ability
Reading Grade 10 Low Track
Model 2015
Model 2020

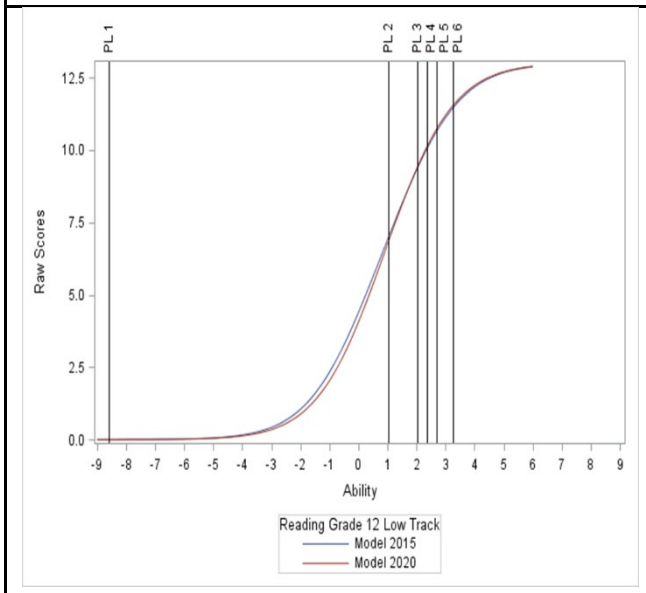

PL 1
PL 2
PL 3
PL 4
PL 5
PL 6
Raw Scores
Ability
Reading Grade 10 Mid Track
Model 2015
Model 2020

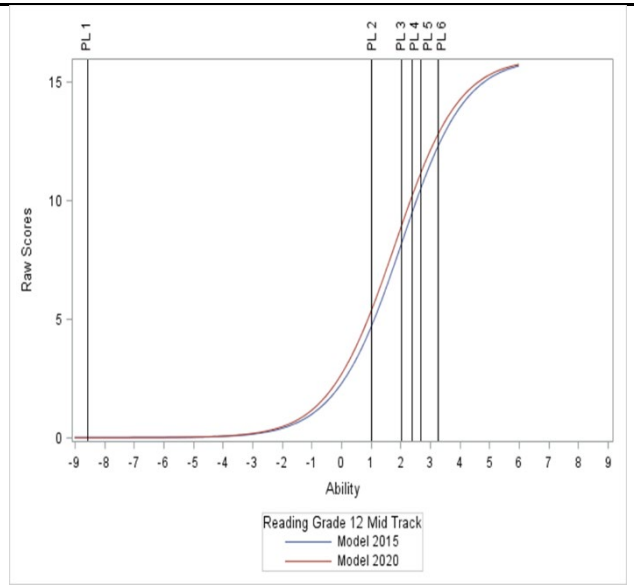

PL 1
PL 2
PL 3
PL 4
PL 5
PL 6
Raw Scores
Ability
Reading Grade 10 High Track
Model 2015
Model 2020

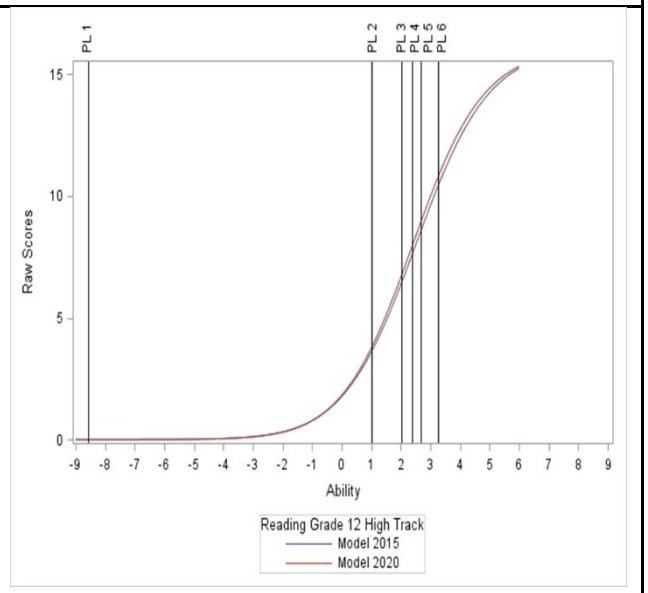

PL 1
PL 2
PL 3
PL 4
PL 5
PL 6
Raw Scores
Ability
Reading Grade 11 Low Track
Model 2015
Model 2020


PL 1
PL 2
PL 3
PL 4
PL 5
PL 6
Raw Scores
Ability
Reading Grade 11 Mid Track
Model 2015
Model 2020

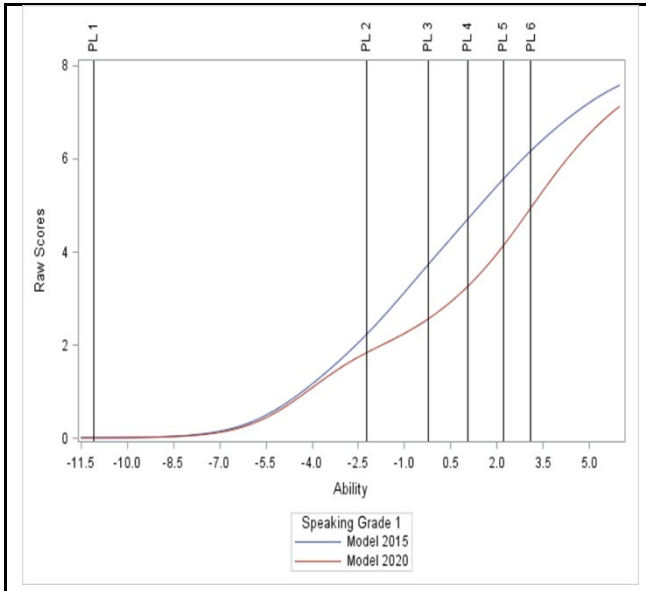

PL 1
PL 2
PL 3
PL 4
PL 5
PL 6
Raw Scores
Ability
Reading Grade 11 High Track
Model 2015
Model 2020

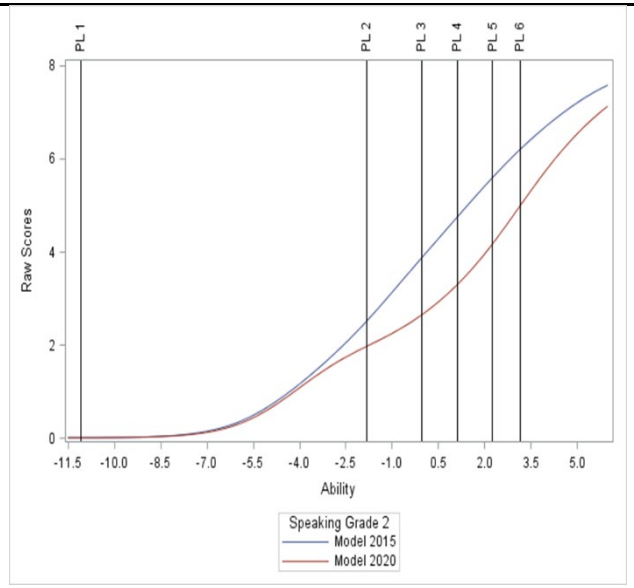

PL 1
PL 2
PL 3
PL 4
PL 5
PL 6
Raw Scores
Ability
Reading Grade 12 Low Track
Model 2015
Model 2020

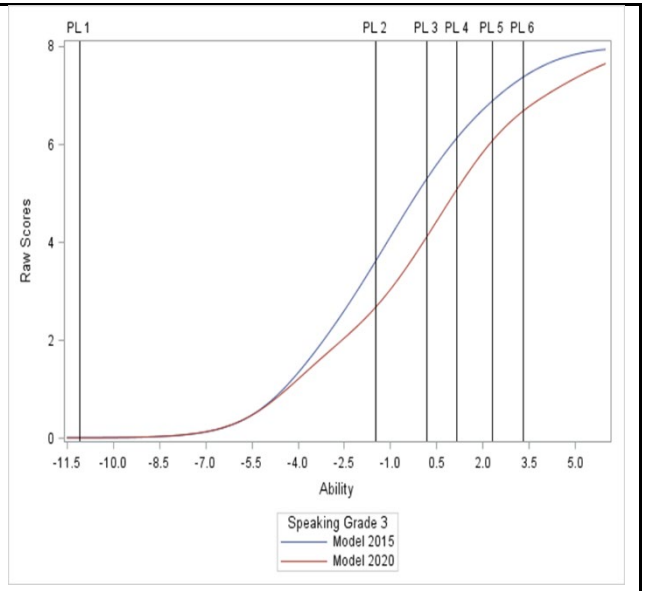

PL 1
PL 2
PL 3
PL 4
PL 5
PL 6
Raw Scores
Ability
Reading Grade 12 Mid Track
Model 2015
Model 2020

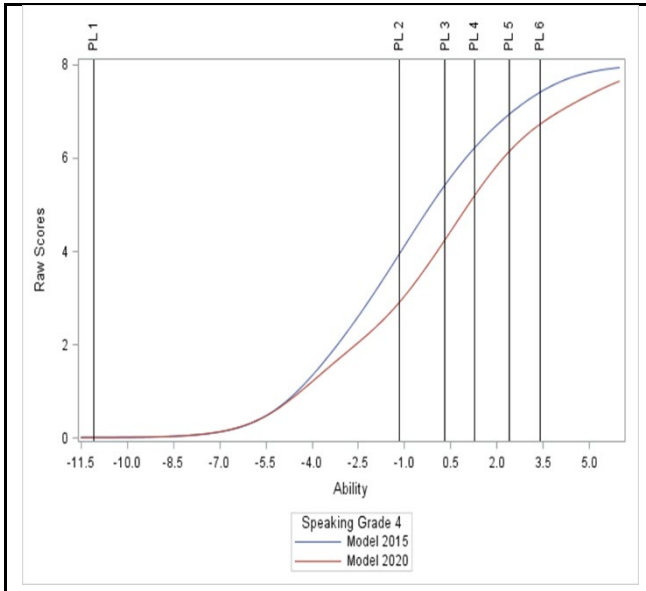

PL 1
PL 2
PL 3
PL 4
PL 5
PL 6
Raw Scores
Ability
Reading Grade 12 High Track
Model 2015
Model 2020

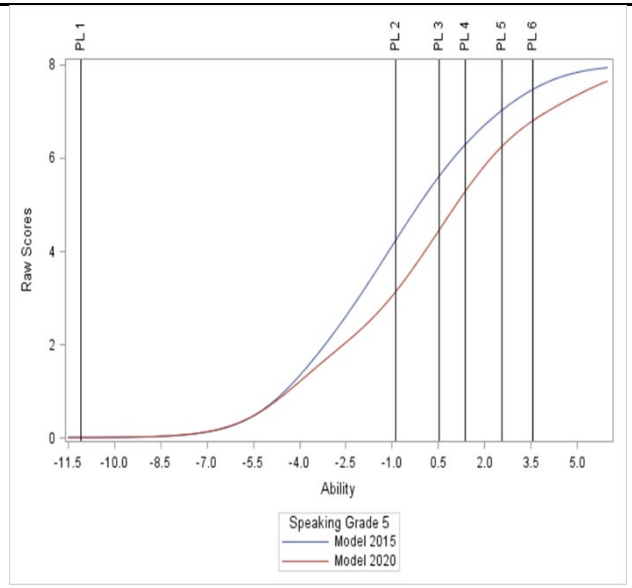
6.5.3. TCCs of Speaking domain by grade

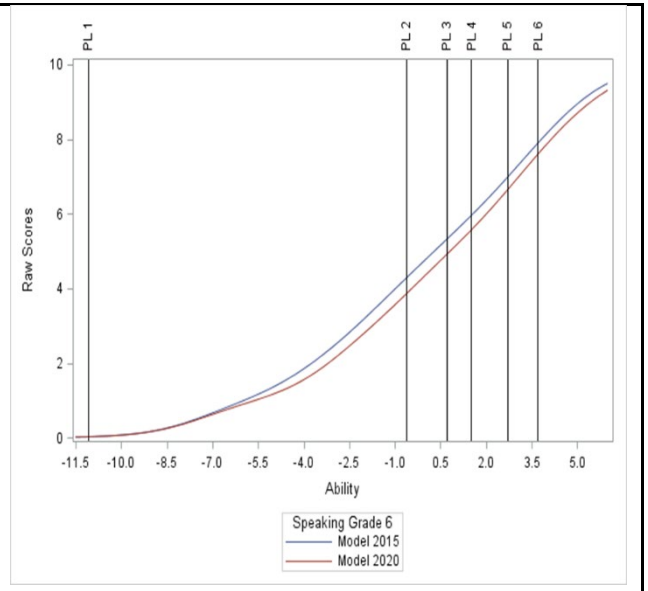


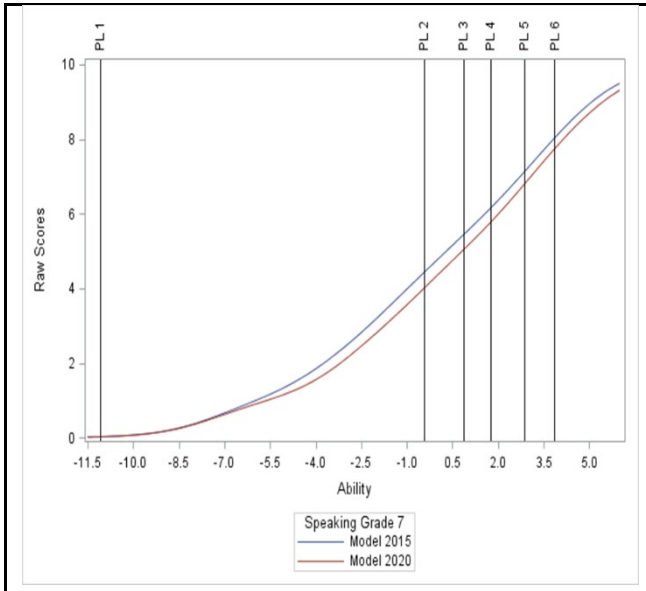


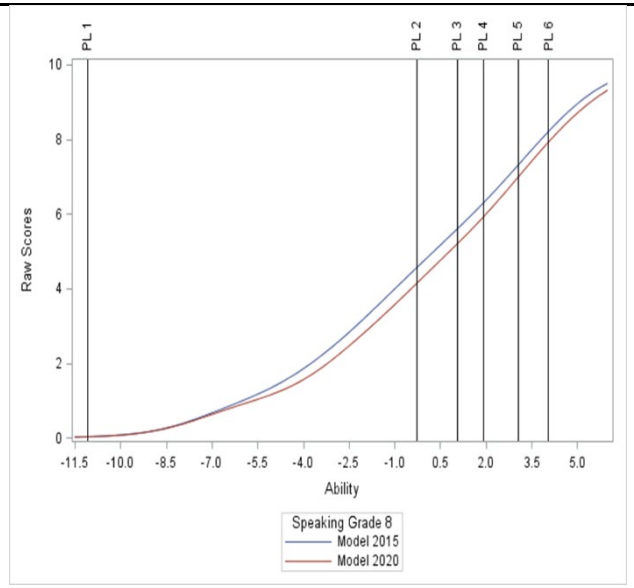


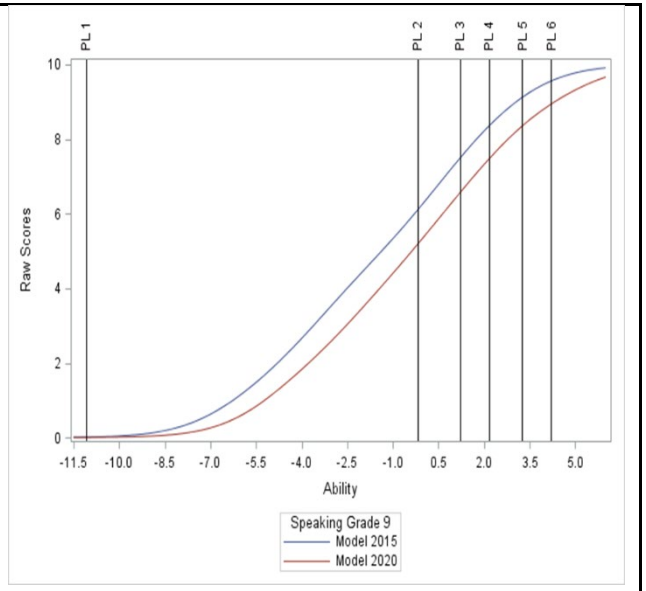

PL 1
PL 2
PL 3
PL 4
PL 5
PL 6
Raw Scores
Ability
Speaking Grade 4
Model 2015
Model 2020

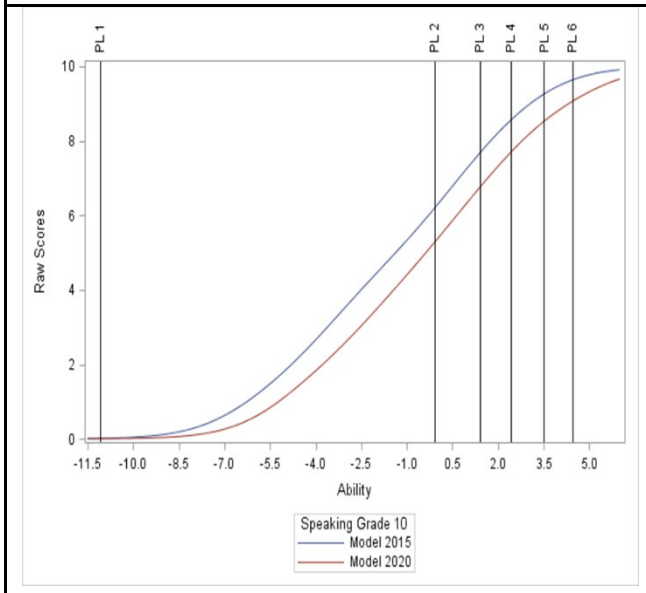

PL 1
PL 2
PL 3
PL 4
PL 5
PL 6
Raw Scores
Ability
Speaking Grade 5
Model 2015
Model 2020

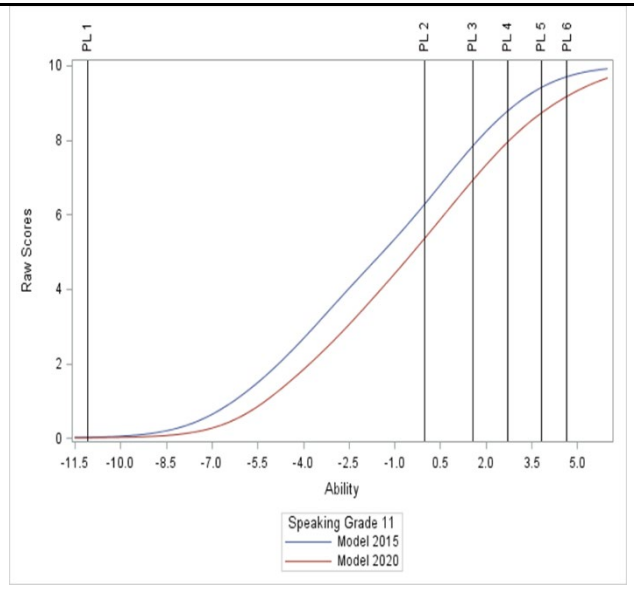

PL 1
PL 2
PL 3
PL 4
PL 5
PL 6
Raw Scores
Ability
Speaking Grade 6
Model 2015
Model 2020

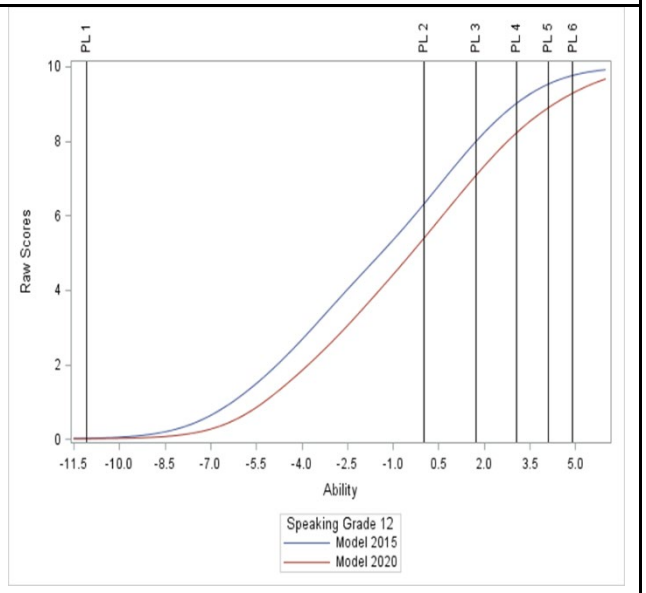

PL 1
PL 2
PL 3
PL 4
PL 5
PL 6
Raw Scores
Ability
Speaking Grade 7
Model 2015
Model 2020


PL 1
PL 2
PL 3
PL 4
PL 5
PL 6
Raw Scores
Ability
Speaking Grade 8
Model 2015
Model 2020

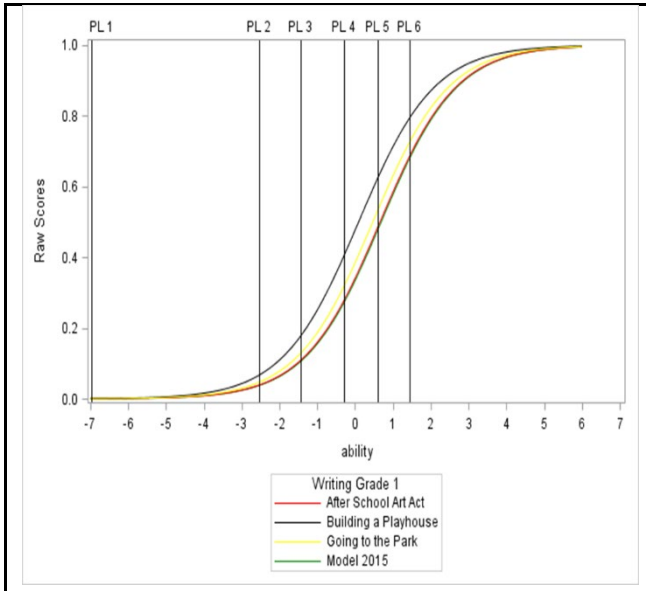

PL 1
PL 2
PL 3
PL 4
PL 5
PL 6
Raw Scores
Ability
Speaking Grade 9
Model 2015
Model 2020

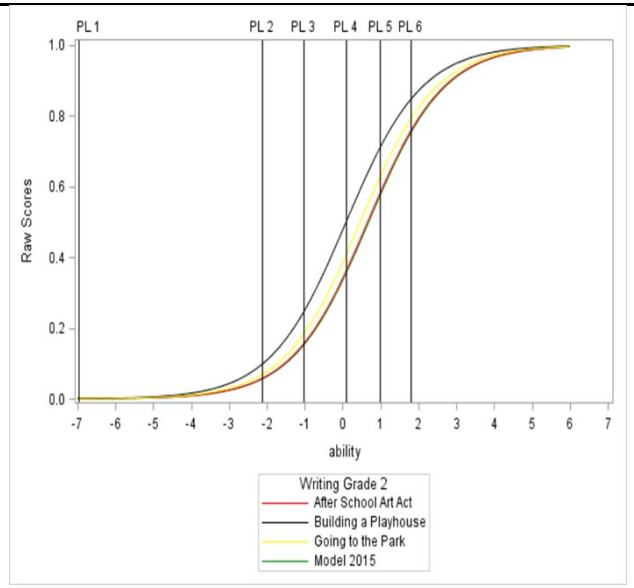

PL 1
PL 2
PL 3
PL 4
PL 5
PL 6
Raw Scores
Ability
Speaking Grade 10
Model 2015
Model 2020

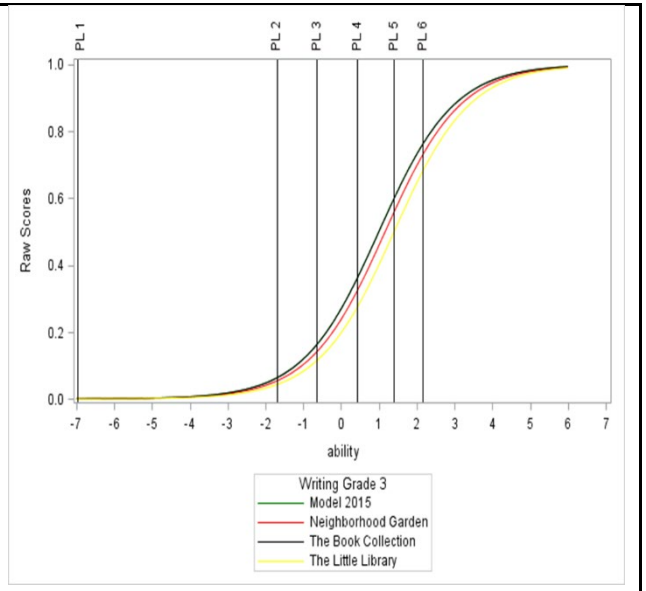

PL 1
PL 2
PL 3
PL 4
PL 5
PL 6
Raw Scores
Ability
Speaking Grade 11
Model 2015
Model 2020

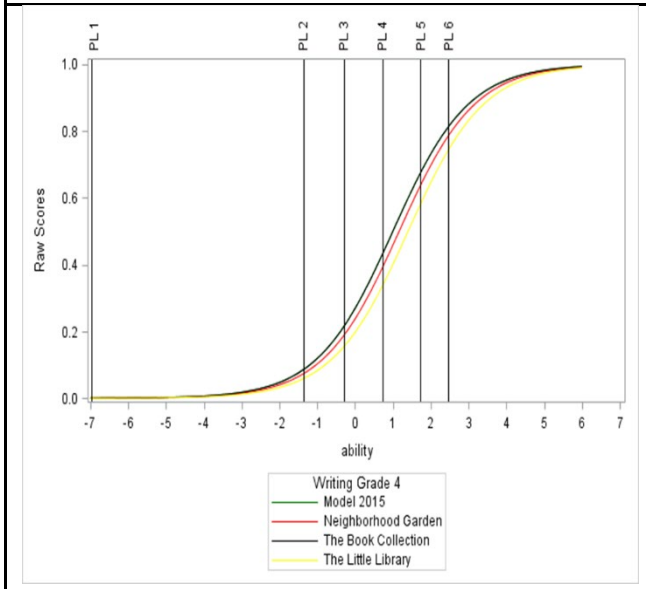

PL 1
PL 2
PL 3
PL 4
PL 5
PL 6
Raw Scores
Ability
Speaking Grade 12
Model 2015
Model 2020

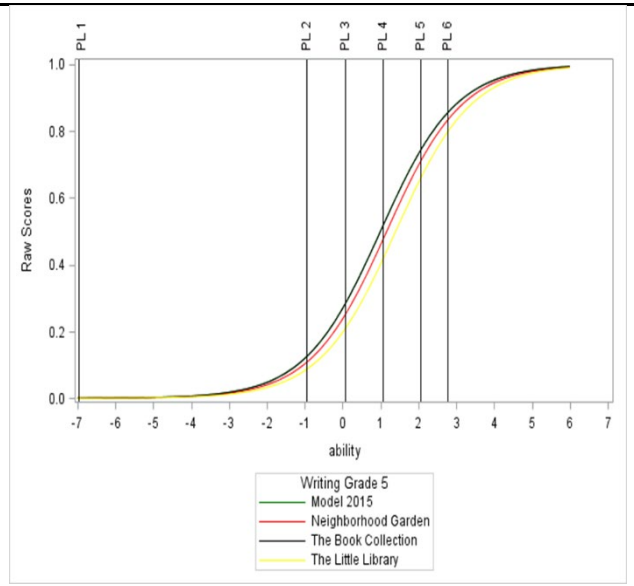
6.5.4. TCCs of Writing domain by grade

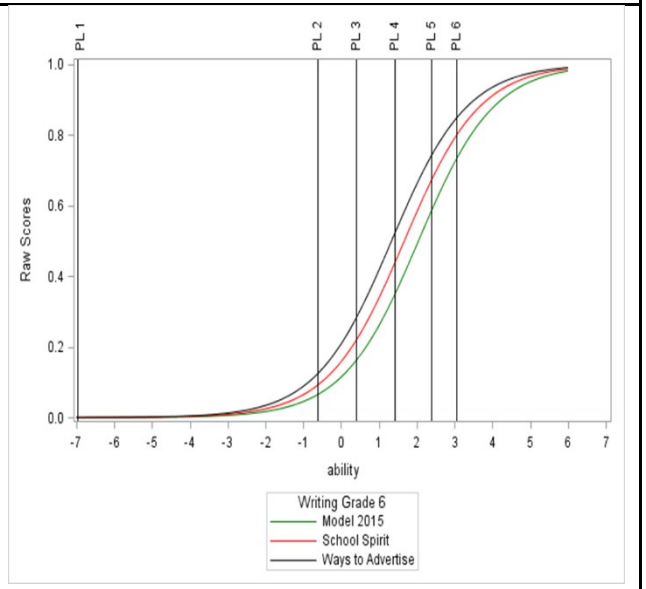


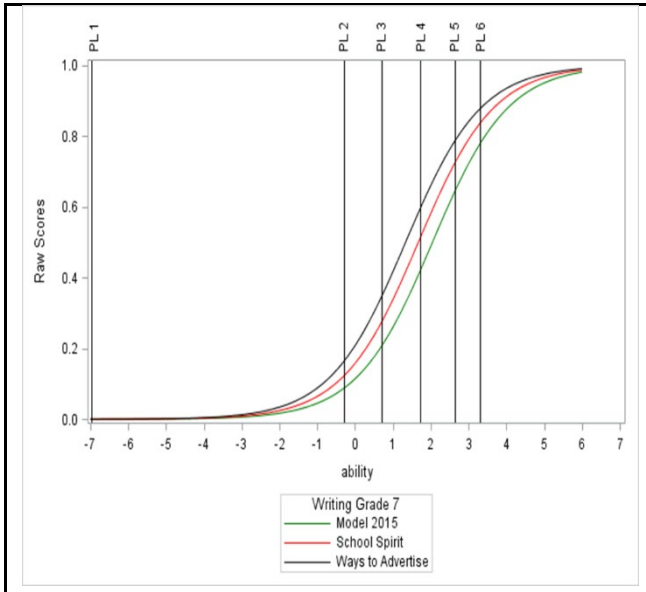


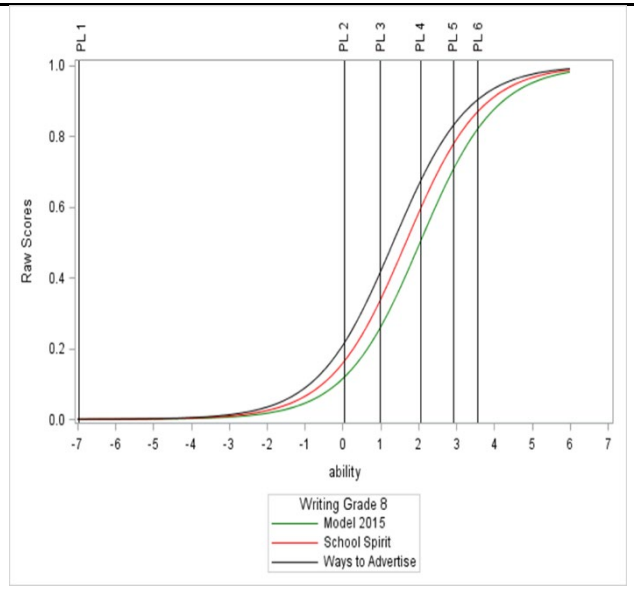


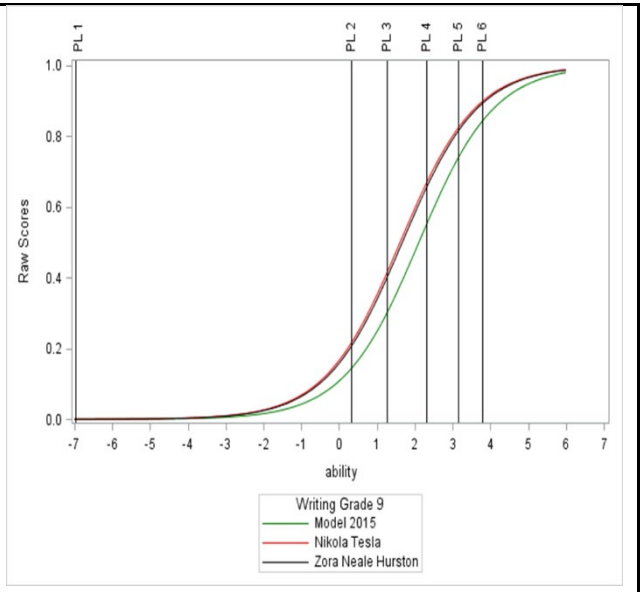


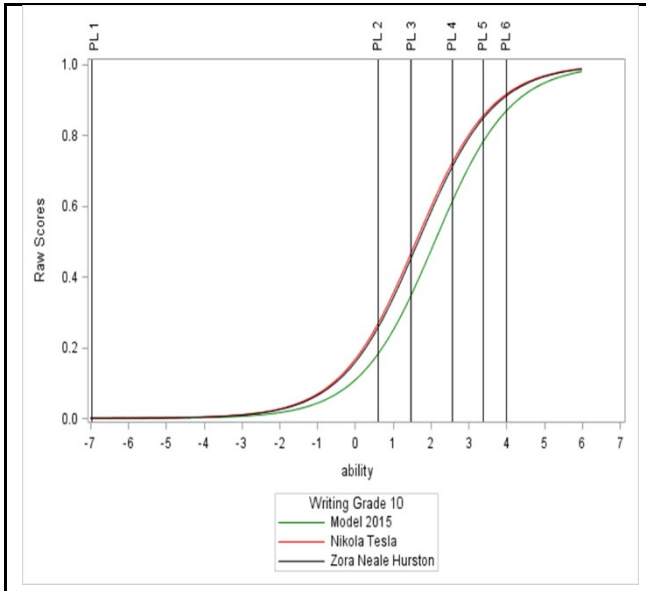


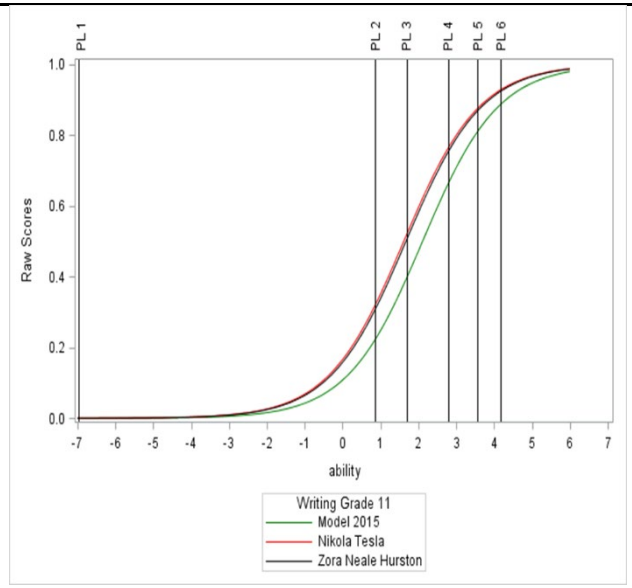


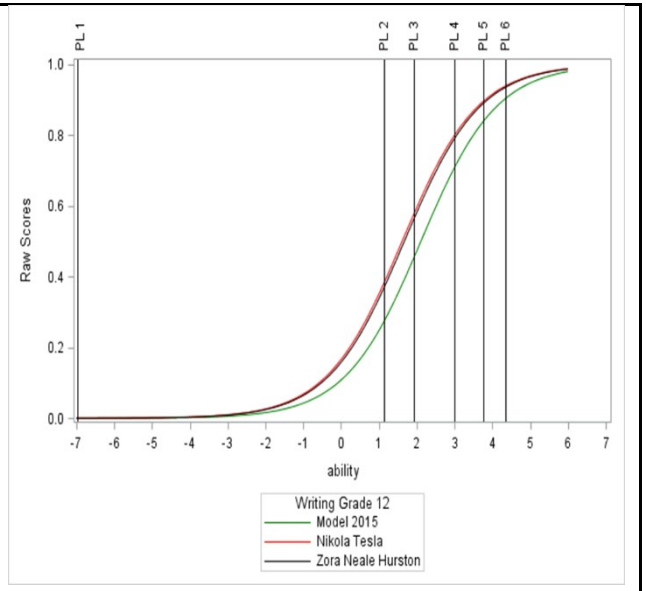

PL 1
PL 2
PL 3
PL 4
PL 5
PL 6
Raw Scores
1.0
0.8
0.6
0.4
0.2
0.0
-7 -6 -5 -4 -3 -2 -1 0 1 2 3 4 5 6 7
ability
Writing Grade 7
Model 2015
School Spirit
Ways to Advertise


PL 1
PL 2
PL 3
PL 4
PL 5
PL 6
Raw Scores
1.0
0.8
0.6
0.4
0.2
0.0
-7 -6 -5 -4 -3 -2 -1 0 1 2 3 4 5 6 7
ability
Writing Grade 8
Model 2015
School Spirit
Ways to Advertise


PL 1
PL 2
PL 3
PL 4
PL 5
PL 6
Raw Scores
1.0
0.8
0.6
0.4
0.2
0.0
-7 -6 -5 -4 -3 -2 -1 0 1 2 3 4 5 6 7
ability
Writing Grade 9
Model 2015
Nikola Tesla
Zora Neale Hurston


PL 1
PL 2
PL 3
PL 4
PL 5
PL 6
Raw Scores
ability
Writing Grade 10
Model 2015
Nikola Tesla
Zora Neale Hurston


PL 1
PL 2
PL 3
PL 4
PL 5
PL 6
Raw Scores
ability
Writing Grade 11
Model 2015
Nikola Tesla
Zora Neale Hurston


PL 1
PL 2
PL 3
PL 4
PL 5
PL 6
Raw Scores
ability
Writing Grade 12
Model 2015
Nikola Tesla
Zora Neale Hurston

6.6. Raw-Scale Score-Proficiency Level Tables

This section presents the new Online MODEL final forms' raw scores to scale scores to proficiency level (PL) correspondence tables per grade-level cluster and track in each domain. Each score table is broken down by grade level.

6.6.1. Raw-scale score-PL tables of grades 1-2 (-3)

Table 6.6.1.1 Raw-Scale Score-PL Tables: Listening 1-2 (-3)

Grade/ Track	Raw Score	Scale Score	PL	Grade/ Track	Raw Score	Scale Score	PL	Grade/ Track	Raw Score	Scale Score	PL
1st Low	0	110	1.0	2nd Low	0	114	1.0	3rd Low	0	119	1.0
1st Low	1	142	1.3	2nd Low	1	142	1.2	3rd Low	1	142	1.2
1st Low	2	173	1.5	2nd Low	2	173	1.5	3rd Low	2	173	1.4
1st Low	3	193	1.7	2nd Low	3	193	1.6	3rd Low	3	193	1.6
1st Low	4	210	1.8	2nd Low	4	210	1.7	3rd Low	4	210	1.7
1st Low	5	224	1.9	2nd Low	5	224	1.8	3rd Low	5	224	1.8
1st Low	6	238	2.0	2nd Low	6	238	1.9	3rd Low	6	238	1.9
1st Low	7	252	2.5	2nd Low	7	252	2.2	3rd Low	7	255	2.0
1st Low	8	266	2.9	2nd Low	8	266	2.6	3rd Low	8	266	2.3
1st Low	9	282	3.6	2nd Low	9	282	3.0	3rd Low	9	282	2.7
1st Low	10	295	4.0	2nd Low	10	300	3.7	3rd Low	10	300	3.2
1st Low	11	295	4.0	2nd Low	11	311	4.0	3rd Low	11	325	4.0
1st Low	12	295	4.0	2nd Low	12	311	4.0	3rd Low	12	325	4.0
1st Low	13	295	4.0	2nd Low	13	311	4.0	3rd Low	13	325	4.0
1st Mid	0	110	1.0	2nd Mid	0	114	1.0	3rd Mid	0	119	1.0
1st Mid	1	172	1.5	2nd Mid	1	172	1.5	3rd Mid	1	172	1.4
1st Mid	2	202	1.7	2nd Mid	2	202	1.7	3rd Mid	2	202	1.6
1st Mid	3	222	1.9	2nd Mid	3	222	1.8	3rd Mid	3	222	1.8
1st Mid	4	238	2.0	2nd Mid	4	237	1.9	3rd Mid	4	237	1.9
1st Mid	5	250	2.4	2nd Mid	5	250	2.1	3rd Mid	5	255	2.0
1st Mid	6	262	2.9	2nd Mid	6	262	2.5	3rd Mid	6	262	2.2
1st Mid	7	273	3.2	2nd Mid	7	273	2.8	3rd Mid	7	273	2.5
1st Mid	8	284	3.6	2nd Mid	8	284	3.1	3rd Mid	8	284	2.7
1st Mid	9	295	4.0	2nd Mid	9	295	3.5	3rd Mid	9	295	3.0
1st Mid	10	307	5.1	2nd Mid	10	307	3.9	3rd Mid	10	307	3.4
1st Mid	11	319	5.6	2nd Mid	11	319	4.7	3rd Mid	11	319	3.8
1st Mid	12	332	6.0	2nd Mid	12	332	5.3	3rd Mid	12	332	4.5
1st Mid	13	332	6.0	2nd Mid	13	348	5.9	3rd Mid	13	348	5.3
1st Mid	14	332	6.0	2nd Mid	14	368	6.0	3rd Mid	14	368	6.0
1st Mid	15	332	6.0	2nd Mid	15	368	6.0	3rd Mid	15	368	6.0
1st Mid	16	332	6.0	2nd Mid	16	368	6.0	3rd Mid	16	368	6.0
1st High	0	110	1.0	2nd High	0	114	1.0	3rd High	0	119	1.0
1st High	1	202	1.7	2nd High	1	202	1.7	3rd High	1	202	1.6

1st High	2	232	1.9	2nd High	2	232	1.9	3rd High	2	232	1.8
1st High	3	252	2.5	2nd High	3	252	2.2	3rd High	3	252	1.9
1st High	4	267	3.0	2nd High	4	267	2.6	3rd High	4	267	2.3
1st High	5	280	3.5	2nd High	5	280	2.9	3rd High	5	280	2.6
1st High	6	295	4.0	2nd High	6	291	3.3	3rd High	6	291	2.9
1st High	7	302	4.8	2nd High	7	302	3.7	3rd High	7	302	3.2
1st High	8	313	5.3	2nd High	8	313	4.2	3rd High	8	313	3.6
1st High	9	323	5.8	2nd High	9	323	4.9	3rd High	9	325	4.0
1st High	10	334	6.0	2nd High	10	334	5.4	3rd High	10	334	4.6
1st High	11	334	6.0	2nd High	11	346	5.9	3rd High	11	346	5.2
1st High	12	334	6.0	2nd High	12	358	6.0	3rd High	12	358	5.7
1st High	13	334	6.0	2nd High	13	358	6.0	3rd High	13	373	6.0
1st High	14	334	6.0	2nd High	14	358	6.0	3rd High	14	373	6.0
1st High	15	334	6.0	2nd High	15	358	6.0	3rd High	15	373	6.0
1st High	16	334	6.0	2nd High	16	358	6.0	3rd High	16	373	6.0

Table 6.6.1.2 Raw-Scale Score-PL Tables: Reading 1-2 (-3)

Grade/ Track	Raw Score	Scale Score	PL	Grade/ Track	Raw Score	Scale Score	PL	Grade	Raw Score	Scale Score	PL
1st Low	0	146	1.0	2nd Low	0	155	1.0	3rd Low	0	163	1.0
1st Low	1	187	1.4	2nd Low	1	187	1.3	3rd Low	1	187	1.2
1st Low	2	207	1.6	2nd Low	2	207	1.5	3rd Low	2	207	1.4
1st Low	3	220	1.7	2nd Low	3	220	1.6	3rd Low	3	220	1.5
1st Low	4	230	1.8	2nd Low	4	230	1.7	3rd Low	4	230	1.6
1st Low	5	238	1.9	2nd Low	5	238	1.8	3rd Low	5	238	1.7
1st Low	6	253	2.0	2nd Low	6	249	1.9	3rd Low	6	245	1.7
1st Low	7	254	2.1	2nd Low	7	252	1.9	3rd Low	7	252	1.8
1st Low	8	258	2.3	2nd Low	8	258	1.9	3rd Low	8	258	1.8
1st Low	9	264	2.7	2nd Low	9	264	1.9	3rd Low	9	264	1.9
1st Low	10	270	3.1	2nd Low	10	270	2.2	3rd Low	10	270	1.9
1st Low	11	276	3.5	2nd Low	11	276	2.5	3rd Low	11	279	2.0
1st Low	12	283	4.0	2nd Low	12	282	2.8	3rd Low	12	282	2.1
1st Low	13	283	4.0	2nd Low	13	289	3.2	3rd Low	13	289	2.5
1st Low	14	283	4.0	2nd Low	14	296	3.6	3rd Low	14	296	2.8
1st Low	15	283	4.0	2nd Low	15	303	4.0	3rd Low	15	304	3.1
1st Low	16	283	4.0	2nd Low	16	303	4.0	3rd Low	16	314	3.7
1st Low	17	283	4.0	2nd Low	17	303	4.0	3rd Low	17	320	4.0
1st Low	18	283	4.0	2nd Low	18	303	4.0	3rd Low	18	320	4.0
1st Low	19	283	4.0	2nd Low	19	303	4.0	3rd Low	19	320	4.0
1st Mid	0	146	1.0	2nd Mid	0	155	1.0	3rd Mid	0	163	1.0
1st Mid	1	219	1.7	2nd Mid	1	219	1.6	3rd Mid	1	219	1.5
1st Mid	2	239	1.9	2nd Mid	2	239	1.8	3rd Mid	2	239	1.7
1st Mid	3	253	2.0	2nd Mid	3	253	1.9	3rd Mid	3	253	1.8
1st Mid	4	263	2.7	2nd Mid	4	267	2.0	3rd Mid	4	263	1.9
1st Mid	5	272	3.2	2nd Mid	5	272	2.3	3rd Mid	5	272	1.9
1st Mid	6	280	3.8	2nd Mid	6	280	2.7	3rd Mid	6	280	2.0
1st Mid	7	288	4.5	2nd Mid	7	288	3.1	3rd Mid	7	288	2.4
1st Mid	8	295	5.1	2nd Mid	8	295	3.6	3rd Mid	8	295	2.7
1st Mid	9	303	5.5	2nd Mid	9	303	4.0	3rd Mid	9	303	3.1
1st Mid	10	310	5.8	2nd Mid	10	310	4.9	3rd Mid	10	310	3.5
1st Mid	11	318	6.0	2nd Mid	11	318	5.3	3rd Mid	11	318	3.9
1st Mid	12	318	6.0	2nd Mid	12	327	5.8	3rd Mid	12	327	4.9
1st Mid	13	318	6.0	2nd Mid	13	338	6.0	3rd Mid	13	338	5.6
1st Mid	14	318	6.0	2nd Mid	14	338	6.0	3rd Mid	14	351	6.0
1st Mid	15	318	6.0	2nd Mid	15	338	6.0	3rd Mid	15	351	6.0
1st Mid	16	318	6.0	2nd Mid	16	338	6.0	3rd Mid	16	351	6.0
1st High	0	146	1.0	2nd High	0	155	1.0	3rd High	0	163	1.0
1st High	1	231	1.8	2nd High	1	231	1.7	3rd High	1	231	1.6
1st High	2	252	1.9	2nd High	2	252	1.9	3rd High	2	252	1.8
1st High	3	266	2.9	2nd High	3	267	2.0	3rd High	3	266	1.9
1st High	4	277	3.6	2nd High	4	277	2.6	3rd High	4	279	2.0
1st High	5	286	4.3	2nd High	5	286	3.0	3rd High	5	286	2.3

1st High	6	295	5.1	2nd High	6	295	3.6	3rd High	6	295	2.7
1st High	7	303	5.5	2nd High	7	303	4.0	3rd High	7	303	3.1
1st High	8	311	5.9	2nd High	8	311	4.9	3rd High	8	311	3.5
1st High	9	319	6.0	2nd High	9	319	5.4	3rd High	9	320	4.0
1st High	10	319	6.0	2nd High	10	328	5.9	3rd High	10	328	5.0
1st High	11	319	6.0	2nd High	11	336	6.0	3rd High	11	336	5.4
1st High	12	319	6.0	2nd High	12	336	6.0	3rd High	12	346	5.9
1st High	13	319	6.0	2nd High	13	336	6.0	3rd High	13	357	6.0
1st High	14	319	6.0	2nd High	14	336	6.0	3rd High	14	357	6.0
1st High	15	319	6.0	2nd High	15	336	6.0	3rd High	15	357	6.0
1st High	16	319	6.0	2nd High	16	336	6.0	3rd High	16	357	6.0

Table 6.6.1.3 Raw-Scale Score-PL Tables: Speaking 1-2 (-3)

Grade	Raw Score	Scale Score	PL	Grade	Raw Score	Scale Score	PL	Grade	Raw Score	Scale Score	PL
1	0	178	1.0	2	0	179	1.0	3	0	180	1.0
1	1	239	1.6	2	1	239	1.6	3	1	239	1.5
1	2	288	2.3	2	2	288	2.1	3	2	293	2.0
1	3	336	3.7	2	3	336	3.6	3	3	336	3.5
1	4	364	4.9	2	4	364	4.9	3	4	364	4.8
1	5	381	5.8	2	5	382	5.8	3	5	387	5.9
1	6	409	6.0	2	6	409	6.0	3	6	409	6.0
1	7	409	6.0	2	7	409	6.0	3	7	409	6.0
1	8	409	6.0	2	8	409	6.0	3	8	409	6.0

Table 6.6.1.4 Raw-Scale Score-PL Tables: Writing 1-2 (-3)

Grade	Raw Score	Scale Score	PL	Grade	Raw Score	Scale Score	PL	Grade	Raw Score	Scale Score	PL
1	N/R	203	1.0	2	N/R	209	1.0	3	N/R	215	1.0
1	1-	216	1.4	2	1-	216	1.2	3	1-	216	1.0
1	1 No Adjustment	228	1.7	2	1 No Adjustment	228	1.5	3	1 No Adjustment	228	1.3
1	1+	240	2.1	2	1+	240	1.8	3	1+	240	1.5
1	2-	256	2.5	2	2-	256	2.2	3	2-	256	1.9
1	2 No Adjustment	266	2.8	2	2 No Adjustment	266	2.5	3	2 No Adjustment	266	2.1
1	2+	276	3.1	2	2+	276	2.8	3	2+	276	2.4
1	3-	291	3.5	2	3-	291	3.2	3	3-	291	2.8
1	3 No Adjustment	301	3.8	2	3 No Adjustment	301	3.5	3	3 No Adjustment	301	3.1
1	3+	311	4.1	2	3+	311	3.8	3	3+	311	3.4
1	4-	325	4.6	2	4-	325	4.2	3	4-	325	3.9
1	4 No Adjustment	333	4.9	2	4 No Adjustment	333	4.5	3	4 No Adjustment	333	4.1
1	4+	341	5.2	2	4+	341	4.8	3	4+	341	4.4
1	5-	352	5.6	2	5-	352	5.2	3	5-	352	4.8
1	5 No Adjustment	359	5.9	2	5 No Adjustment	359	5.5	3	5 No Adjustment	359	4.9

1	5+	362	6.0	2	5+	366	5.8	3	5+	366	5.3
1	6-	362	6.0	2	6-	373	6.0	3	6-	373	5.6
1	6 No Adjustment	362	6.0	2	6 No Adjustment	373	6.0	3	6 No Adjustment	384	6.0
1	6+	362	6.0	2	6+	373	6.0	3	6+	384	6.0

6.6.2. Raw-scale score-PL tables of grades 3-5 (-6)

Table 6.6.2.1 Raw-Scale Score-PL Tables: Listening 3-5 (-6)

Grade	Raw Score	Scale Score	PL	Grade	Raw Score	Scale Score	PL	Grade	Raw Score	Scale Score	PL	Grade	Raw Score	Scale Score	PL
3rd Low	0	119	1.0	4th Low	0	123	1.0	5th Low	0	127	1.0	6th Low	0	131	1.0
3rd Low	1	193	1.6	4th Low	1	193	1.5	5th Low	1	193	1.5	6th Low	1	193	1.4
3rd Low	2	224	1.8	4th Low	2	224	1.7	5th Low	2	224	1.7	6th Low	2	224	1.6
3rd Low	3	244	1.9	4th Low	3	240	1.8	5th Low	3	244	1.8	6th Low	3	244	1.8
3rd Low	4	261	2.2	4th Low	4	261	1.9	5th Low	4	261	1.9	6th Low	4	258	1.9
3rd Low	5	276	2.5	4th Low	5	276	2.3	5th Low	5	276	2.0	6th Low	5	276	1.9
3rd Low	6	289	2.9	4th Low	6	289	2.6	5th Low	6	289	2.3	6th Low	6	289	2.1
3rd Low	7	302	3.2	4th Low	7	302	2.9	5th Low	7	302	2.7	6th Low	7	302	2.4
3rd Low	8	316	3.7	4th Low	8	316	3.3	5th Low	8	316	2.9	6th Low	8	316	2.8
3rd Low	9	325	4.0	4th Low	9	330	3.8	5th Low	9	330	3.4	6th Low	9	330	3.1
3rd Low	10	325	4.0	4th Low	10	338	4.0	5th Low	10	347	3.9	6th Low	10	347	3.6
3rd Low	11	325	4.0	4th Low	11	338	4.0	5th Low	11	350	4.0	6th Low	11	359	4.0
3rd Low	12	325	4.0	4th Low	12	338	4.0	5th Low	12	350	4.0	6th Low	12	359	4.0
3rd Low	13	325	4.0	4th Low	13	338	4.0	5th Low	13	350	4.0	6th Low	13	359	4.0
3rd Mid	0	119	1.0	4th Mid	0	123	1.0	5th Mid	0	127	1.0	6th Mid	0	131	1.0
3rd Mid	1	208	1.7	4th Mid	1	208	1.6	5th Mid	1	208	1.6	6th Mid	1	208	1.5
3rd Mid	2	238	1.9	4th Mid	2	238	1.8	5th Mid	2	238	1.8	6th Mid	2	238	1.7
3rd Mid	3	258	2.1	4th Mid	3	258	1.9	5th Mid	3	258	1.9	6th Mid	3	258	1.8
3rd Mid	4	273	2.5	4th Mid	4	273	2.2	5th Mid	4	274	2.0	6th Mid	4	273	1.9
3rd Mid	5	287	2.8	4th Mid	5	287	2.5	5th Mid	5	287	2.3	6th Mid	5	287	2.1
3rd Mid	6	299	3.1	4th Mid	6	299	2.8	5th Mid	6	299	2.6	6th Mid	6	299	2.4
3rd Mid	7	310	3.5	4th Mid	7	310	3.1	5th Mid	7	310	2.8	6th Mid	7	310	2.6
3rd Mid	8	322	3.9	4th Mid	8	322	3.5	5th Mid	8	322	3.1	6th Mid	8	322	2.9
3rd Mid	9	333	4.6	4th Mid	9	333	3.9	5th Mid	9	333	3.5	6th Mid	9	333	3.2
3rd Mid	10	345	5.2	4th Mid	10	345	4.4	5th Mid	10	345	3.9	6th Mid	10	345	3.6
3rd Mid	11	357	5.7	4th Mid	11	357	5.1	5th Mid	11	357	4.4	6th Mid	11	357	3.9
3rd Mid	12	372	6.0	4th Mid	12	372	5.6	5th Mid	12	372	5.1	6th Mid	12	372	4.7
3rd Mid	13	372	6.0	4th Mid	13	388	6.0	5th Mid	13	388	5.7	6th Mid	13	388	5.3
3rd Mid	14	372	6.0	4th Mid	14	388	6.0	5th Mid	14	409	6.0	6th Mid	14	409	6.0
3rd Mid	15	372	6.0	4th Mid	15	388	6.0	5th Mid	15	409	6.0	6th Mid	15	409	6.0
3rd Mid	16	372	6.0	4th Mid	16	388	6.0	5th Mid	16	409	6.0	6th Mid	16	409	6.0
3rd High	0	119	1.0	4th High	0	123	1.0	5th High	0	127	1.0	6th High	0	131	1.0
3rd High	1	225	1.8	4th High	1	225	1.7	5th High	1	225	1.7	6th High	1	225	1.6
3rd High	2	257	2.1	4th High	2	257	1.9	5th High	2	257	1.9	6th High	2	257	1.8
3rd High	3	278	2.6	4th High	3	278	2.3	5th High	3	278	2.1	6th High	3	278	1.9
3rd High	4	294	2.9	4th High	4	294	2.7	5th High	4	294	2.5	6th High	4	294	2.3
3rd High	5	308	3.4	4th High	5	308	3.0	5th High	5	308	2.8	6th High	5	308	2.6
3rd High	6	320	3.9	4th High	6	320	3.4	5th High	6	320	3.1	6th High	6	320	2.8
3rd High	7	332	4.5	4th High	7	332	3.8	5th High	7	332	3.5	6th High	7	332	3.1
3rd High	8	343	5.1	4th High	8	343	4.3	5th High	8	343	3.8	6th High	8	343	3.5
3rd High	9	355	5.6	4th High	9	355	5.0	5th High	9	355	4.3	6th High	9	355	3.9

3rd High	10	366	5.9	4th High	10	366	5.4	5th High	10	366	4.9	6th High	10	366	4.4
3rd High	11	378	6.0	4th High	11	378	5.9	5th High	11	378	5.4	6th High	11	378	4.9
3rd High	12	378	6.0	4th High	12	392	6.0	5th High	12	392	5.9	6th High	12	392	5.4
3rd High	13	378	6.0	4th High	13	392	6.0	5th High	13	407	6.0	6th High	13	407	5.9
3rd High	14	378	6.0	4th High	14	392	6.0	5th High	14	407	6.0	6th High	14	427	6.0
3rd High	15	378	6.0	4th High	15	392	6.0	5th High	15	407	6.0	6th High	15	427	6.0
3rd High	16	378	6.0	4th High	16	392	6.0	5th High	16	407	6.0	6th High	16	427	6.0

Table 6.6.2.2 Raw-Scale Score-PL Tables: Reading 3-5 (-6)

Grade	Raw Score	Scale Score	PL	Grade	Raw Score	Scale Score	PL	Grade	Raw Score	Scale Score	PL	Grade	Raw Score	Scale Score	PL
3rd Low	0	163	1.0	4th Low	0	172	1.0	5th Low	0	181	1.0	6th Low	0	189	1.0
3rd Low	1	224	1.6	4th Low	1	224	1.5	5th Low	1	224	1.4	6th Low	1	224	1.3
3rd Low	2	248	1.8	4th Low	2	248	1.7	5th Low	2	248	1.6	6th Low	2	248	1.5
3rd Low	3	265	1.9	4th Low	3	265	1.8	5th Low	3	265	1.7	6th Low	3	265	1.6
3rd Low	4	279	2.0	4th Low	4	277	1.9	5th Low	4	277	1.8	6th Low	4	277	1.7
3rd Low	5	288	2.4	4th Low	5	291	2.0	5th Low	5	288	1.9	6th Low	5	288	1.8
3rd Low	6	298	2.9	4th Low	6	298	2.3	5th Low	6	302	2.0	6th Low	6	298	1.9
3rd Low	7	307	3.3	4th Low	7	307	2.7	5th Low	7	307	2.2	6th Low	7	307	1.9
3rd Low	8	317	3.9	4th Low	8	317	3.1	5th Low	8	317	2.6	6th Low	8	317	2.2
3rd Low	9	320	4.0	4th Low	9	328	3.6	5th Low	9	328	3.0	6th Low	9	328	2.6
3rd Low	10	320	4.0	4th Low	10	336	4.0	5th Low	10	339	3.5	6th Low	10	339	2.9
3rd Low	11	320	4.0	4th Low	11	336	4.0	5th Low	11	350	4.0	6th Low	11	354	3.7
3rd Low	12	320	4.0	4th Low	12	336	4.0	5th Low	13	350	4.0	6th Low	12	360	4.0
3rd Low	13	320	4.0	4th Low	13	336	4.0	5th Low	12	350	4.0	6th Low	13	360	4.0
3rd Mid	0	163	1.0	4th Mid	0	172	1.0	5th Mid	0	181	1.0	6th Mid	0	189	1.0
3rd Mid	1	242	1.7	4th Mid	1	242	1.6	5th Mid	1	242	1.5	6th Mid	1	242	1.5
3rd Mid	2	264	1.9	4th Mid	2	264	1.8	5th Mid	2	264	1.7	6th Mid	2	264	1.6
3rd Mid	3	279	2.0	4th Mid	3	279	1.9	5th Mid	3	279	1.8	6th Mid	3	278	1.7
3rd Mid	4	291	2.5	4th Mid	4	291	2.0	5th Mid	4	291	1.9	6th Mid	4	291	1.8
3rd Mid	5	302	3.0	4th Mid	5	301	2.4	5th Mid	5	302	2.0	6th Mid	5	301	1.9
3rd Mid	6	311	3.5	4th Mid	6	311	2.8	5th Mid	6	311	2.4	6th Mid	6	311	1.9
3rd Mid	7	320	4.0	4th Mid	7	320	3.2	5th Mid	7	320	2.7	6th Mid	7	320	2.3
3rd Mid	8	328	5.0	4th Mid	8	328	3.6	5th Mid	8	328	3.0	6th Mid	8	328	2.6
3rd Mid	9	337	5.5	4th Mid	9	337	4.2	5th Mid	9	337	3.4	6th Mid	9	337	2.9
3rd Mid	10	345	5.9	4th Mid	10	345	5.1	5th Mid	10	345	3.8	6th Mid	10	345	3.3
3rd Mid	11	354	6.0	4th Mid	11	354	5.7	5th Mid	11	354	4.9	6th Mid	11	354	3.7
3rd Mid	12	354	6.0	4th Mid	12	364	6.0	5th Mid	12	364	5.6	6th Mid	12	364	4.8
3rd Mid	13	354	6.0	4th Mid	13	364	6.0	5th Mid	13	375	6.0	6th Mid	13	375	5.6
3rd Mid	14	354	6.0	4th Mid	14	364	6.0	5th Mid	14	375	6.0	6th Mid	14	389	6.0
3rd Mid	15	354	6.0	4th Mid	15	364	6.0	5th Mid	15	375	6.0	6th Mid	15	389	6.0
3rd Mid	16	354	6.0	4th Mid	16	364	6.0	5th Mid	16	375	6.0	6th Mid	16	389	6.0
3rd High	0	163	1.0	4th High	0	172	1.0	5th High	0	181	1.0	6th High	0	189	1.0
3rd High	1	264	1.9	4th High	1	264	1.8	5th High	1	264	1.7	6th High	1	264	1.6
3rd High	2	287	2.4	4th High	2	287	1.9	5th High	2	287	1.9	6th High	2	287	1.8
3rd High	3	303	3.1	4th High	3	303	2.5	5th High	3	303	2.0	6th High	3	303	1.9
3rd High	4	316	3.8	4th High	4	316	3.0	5th High	4	316	2.6	6th High	4	316	2.1
3rd High	5	327	4.9	4th High	5	327	3.6	5th High	5	327	2.9	6th High	5	327	2.6
3rd High	6	337	5.5	4th High	6	337	4.2	5th High	6	337	3.4	6th High	6	337	2.9
3rd High	7	347	6.0	4th High	7	347	5.3	5th High	7	347	3.9	6th High	7	347	3.4
3rd High	8	347	6.0	4th High	8	355	5.8	5th High	8	354	4.9	6th High	8	355	3.8
3rd High	9	347	6.0	4th High	9	364	6.0	5th High	9	364	5.6	6th High	9	364	4.8
3rd High	10	347	6.0	4th High	10	364	6.0	5th High	10	372	6.0	6th High	10	372	5.4
3rd High	11	347	6.0	4th High	11	364	6.0	5th High	11	372	6.0	6th High	11	381	5.9

3rd High	12	347	6.0	4th High	12	364	6.0	5th High	12	372	6.0	6th High	12	391	6.0
3rd High	13	347	6.0	4th High	13	364	6.0	5th High	13	372	6.0	6th High	13	391	6.0
3rd High	14	347	6.0	4th High	14	364	6.0	5th High	14	372	6.0	6th High	14	391	6.0
3rd High	15	347	6.0	4th High	15	364	6.0	5th High	15	372	6.0	6th High	15	391	6.0
3rd High	16	347	6.0	4th High	16	364	6.0	5th High	16	372	6.0	6th High	16	391	6.0

Table 6.6.2.3 Raw-Scale Score-PL Tables: Speaking 3-5 (-6)

Grade	Raw Score	Scale Score	PL	Grade	Raw Score	Scale Score	PL	Grade	Raw Score	Scale Score	PL	Grade	Raw Score	Scale Score	PL
3	0	180	1.0	4	0	182	1.0	5	0	183	1.0	6	0	184	1.0
3	1	235	1.5	4	1	235	1.5	5	1	235	1.5	6	1	235	1.4
3	2	271	1.8	4	2	271	1.8	5	2	271	1.7	6	2	271	1.7
3	3	302	2.3	4	3	302	2.1	5	3	302	1.9	6	3	302	1.9
3	4	324	2.9	4	4	324	2.9	5	4	324	2.7	6	4	324	2.5
3	5	345	3.9	4	5	345	3.9	5	5	345	3.8	6	5	345	3.5
3	6	367	4.9	4	6	367	4.9	5	6	367	4.7	6	6	367	4.6
3	7	385	5.8	4	7	385	5.7	5	7	385	5.6	6	7	385	5.4
3	8	400	6.0	4	8	400	6.0	5	8	400	6.0	6	8	400	6.0

Table 6.6.2.4 Raw-Scale Score-PL Tables: Writing 3-5 (-6)

Grade	Raw Score	Scale Score	PL	Grade	Raw Score	Scale Score	PL	Grade	Raw Score	Scale Score	PL	Grade	Raw Score	Scale Score	PL
3	N/R	215	1.0	4	N/R	221	1.0	5	N/R	227	1.0	6	N/R	233	1.0
3	1-	236	1.4	4	1-	236	1.3	5	1-	236	1.2	6	1-	236	1.0
3	1 No Adjustment	254	1.8	4	1 No Adjustment	254	1.6	5	1 No Adjustment	254	1.5	6	1 No Adjustment	254	1.3
3	1+	272	2.3	4	1+	272	1.9	5	1+	272	1.8	6	1+	272	1.6
3	2-	292	2.9	4	2-	292	2.5	5	2-	292	2.2	6	2-	292	1.9
3	2 No Adjustment	301	3.1	4	2 No Adjustment	301	2.8	5	2 No Adjustment	301	2.5	6	2 No Adjustment	301	2.1
3	2+	311	3.4	4	2+	311	3.1	5	2+	311	2.8	6	2+	311	2.4
3	3-	324	3.8	4	3-	324	3.5	5	3-	324	3.2	6	3-	324	2.9
3	3 No Adjustment	333	4.1	4	3 No Adjustment	333	3.8	5	3 No Adjustment	333	3.5	6	3 No Adjustment	333	3.1
3	3+	342	4.4	4	3+	342	4.1	5	3+	342	3.8	6	3+	342	3.4
3	4-	355	4.9	4	4-	355	4.5	5	4-	355	4.2	6	4-	355	3.8
3	4 No Adjustment	364	5.2	4	4 No Adjustment	364	4.8	5	4 No Adjustment	364	4.5	6	4 No Adjustment	364	4.1
3	4+	373	5.6	4	4+	373	5.1	5	4+	373	4.8	6	4+	373	4.4
3	5-	384	6.0	4	5-	385	5.6	5	5-	385	5.2	6	5-	385	4.8
3	5 No Adjustment	384	6.0	4	5 No Adjustment	391	5.9	5	5 No Adjustment	391	5.5	6	5 No Adjustment	391	5.0
3	5+	384	6.0	4	5+	394	6.0	5	5+	397	5.8	6	5+	397	5.3
3	6-	384	6.0	4	6-	394	6.0	5	6-	403	6.0	6	6-	403	5.6
3	6 No Adjustment	384	6.0	4	6 No Adjustment	394	6.0	5	6 No Adjustment	403	6.0	6	6 No Adjustment	412	6.0
3	6+	384	6.0	4	6+	394	6.0	5	6+	403	6.0	6	6+	412	6.0

6.6.3. Raw-scale score-PL tables of grades 6-8 (-9)

Table 6.6.3.1 Raw-Scale Score-PL Tables: Listening 6-8 (-9)

Grade	Raw Score	Scale Score	PL	Grade	Raw Score	Scale Score	PL	Grade	Raw Score	Scale Score	PL	Grade	Raw Score	Scale Score	PL
6th Low	0	131	1.0	7th Low	0	136	1.0	8th Low	0	140	1.0	9th Low	0	144	1.0
6th Low	1	225	1.6	7th Low	1	225	1.6	8th Low	1	225	1.6	9th Low	1	225	1.5
6th Low	2	255	1.8	7th Low	2	255	1.8	8th Low	2	255	1.7	9th Low	2	255	1.7
6th Low	3	275	1.9	7th Low	3	275	1.9	8th Low	3	275	1.8	9th Low	3	275	1.8
6th Low	4	291	2.2	7th Low	4	293	2.0	8th Low	4	291	1.9	9th Low	4	291	1.9
6th Low	5	305	2.5	7th Low	5	305	2.3	8th Low	5	305	2.1	9th Low	5	305	1.9
6th Low	6	319	2.8	7th Low	6	319	2.6	8th Low	6	319	2.4	9th Low	6	319	2.2
6th Low	7	332	3.1	7th Low	7	332	2.9	8th Low	7	332	2.7	9th Low	7	332	2.5
6th Low	8	345	3.6	7th Low	8	345	3.3	8th Low	8	345	3.0	9th Low	8	345	2.8
6th Low	9	359	4.0	7th Low	9	360	3.8	8th Low	9	360	3.5	9th Low	9	360	3.3
6th Low	10	359	4.0	7th Low	10	368	4.0	8th Low	10	376	4.0	9th Low	10	377	3.9
6th Low	11	359	4.0	7th Low	11	368	4.0	8th Low	11	376	4.0	9th Low	11	381	4.0
6th Low	12	359	4.0	7th Low	12	368	4.0	8th Low	12	376	4.0	9th Low	12	381	4.0
6th Low	13	359	4.0	7th Low	13	368	4.0	8th Low	13	376	4.0	9th Low	13	381	4.0
6th Mid	0	131	1.0	7th Mid	0	136	1.0	8th Mid	0	140	1.0	9th Mid	0	144	1.0
6th Mid	1	232	1.7	7th Mid	1	232	1.6	8th Mid	1	232	1.6	9th Mid	1	232	1.5
6th Mid	2	263	1.9	7th Mid	2	263	1.8	8th Mid	2	263	1.8	9th Mid	2	263	1.7
6th Mid	3	283	2.0	7th Mid	3	283	1.9	8th Mid	3	283	1.9	9th Mid	3	283	1.8
6th Mid	4	299	2.4	7th Mid	4	299	2.1	8th Mid	4	302	2.0	9th Mid	4	299	1.9
6th Mid	5	312	2.7	7th Mid	5	312	2.4	8th Mid	5	312	2.2	9th Mid	5	312	2.0
6th Mid	6	325	2.9	7th Mid	6	325	2.7	8th Mid	6	325	2.5	9th Mid	6	325	2.3
6th Mid	7	336	3.3	7th Mid	7	336	2.9	8th Mid	7	336	2.8	9th Mid	7	336	2.6
6th Mid	8	348	3.7	7th Mid	8	348	3.4	8th Mid	8	348	3.1	9th Mid	8	348	2.9
6th Mid	9	359	4.0	7th Mid	9	359	3.7	8th Mid	9	359	3.5	9th Mid	9	359	3.3
6th Mid	10	371	4.6	7th Mid	10	371	4.1	8th Mid	10	371	3.9	9th Mid	10	371	3.7
6th Mid	11	383	5.1	7th Mid	11	383	4.7	8th Mid	11	383	4.3	9th Mid	11	383	4.1
6th Mid	12	397	5.6	7th Mid	12	397	5.3	8th Mid	12	397	4.9	9th Mid	12	397	4.7
6th Mid	13	412	6.0	7th Mid	13	412	5.8	8th Mid	13	412	5.5	9th Mid	13	412	5.2
6th Mid	14	412	6.0	7th Mid	14	432	6.0	8th Mid	14	432	6.0	9th Mid	14	432	6.0
6th Mid	15	412	6.0	7th Mid	15	432	6.0	8th Mid	15	432	6.0	9th Mid	15	432	6.0
6th Mid	16	412	6.0	7th Mid	16	432	6.0	8th Mid	16	432	6.0	9th Mid	16	432	6.0
6th High	0	131	1.0	7th High	0	136	1.0	8th High	0	140	1.0	9th High	0	144	1.0
6th High	1	244	1.8	7th High	1	244	1.7	8th High	1	244	1.7	9th High	1	244	1.6
6th High	2	277	1.9	7th High	2	277	1.9	8th High	2	275	1.8	9th High	2	277	1.8
6th High	3	298	2.3	7th High	3	298	2.1	8th High	3	298	1.9	9th High	3	298	1.9
6th High	4	316	2.8	7th High	4	316	2.5	8th High	4	316	2.3	9th High	4	316	2.1
6th High	5	331	3.1	7th High	5	331	2.9	8th High	5	331	2.7	9th High	5	331	2.5
6th High	6	345	3.6	7th High	6	345	3.3	8th High	6	345	3.0	9th High	6	345	2.8
6th High	7	359	4.0	7th High	7	359	3.7	8th High	7	359	3.5	9th High	7	359	3.3
6th High	8	372	4.7	7th High	8	372	4.2	8th High	8	372	3.9	9th High	8	372	3.7
6th High	9	386	5.2	7th High	9	386	4.9	8th High	9	386	4.5	9th High	9	386	4.2
6th High	10	399	5.7	7th High	10	399	5.3	8th High	10	399	5.0	9th High	10	399	4.8
6th High	11	413	6.0	7th High	11	413	5.9	8th High	11	413	5.5	9th High	11	413	5.3
6th High	12	413	6.0	7th High	12	429	6.0	8th High	12	429	6.0	9th High	12	429	5.9
6th High	13	413	6.0	7th High	13	429	6.0	8th High	13	429	6.0	9th High	13	447	6.0
6th High	14	413	6.0	7th High	14	429	6.0	8th High	14	429	6.0	9th High	14	447	6.0

6th High	15	413	6.0	7th High	15	429	6.0	8th High	15	429	6.0	9th High	15	447	6.0
6th High	16	413	6.0	7th High	16	429	6.0	8th High	16	429	6.0	9th High	16	447	6.0

Table 6.6.3.2 Raw-Scale Score-PL Tables: Reading 6-8 (-9)

Grade	Raw Score	Scale Score	PL	Grade	Raw Score	Scale Score	PL	Grade	Raw Score	Scale Score	PL	Grade	Raw Score	Scale Score	PL
6th Low	0	189	1.0	7th Low	0	197	1.0	8th Low	0	206	1.0	9th Low	0	214	1.0
6th Low	1	275	1.7	7th Low	1	275	1.7	8th Low	1	275	1.6	9th Low	1	275	1.5
6th Low	2	297	1.9	7th Low	2	297	1.8	8th Low	2	297	1.8	9th Low	2	297	1.7
6th Low	3	312	2.0	7th Low	3	311	1.9	8th Low	3	311	1.9	9th Low	3	311	1.8
6th Low	4	323	2.4	7th Low	4	323	2.1	8th Low	4	323	1.9	9th Low	4	323	1.9
6th Low	5	333	2.8	7th Low	5	333	2.4	8th Low	5	333	2.1	9th Low	5	333	1.9
6th Low	6	342	3.1	7th Low	6	342	2.8	8th Low	6	342	2.5	9th Low	6	342	2.2
6th Low	7	351	3.6	7th Low	7	351	3.1	8th Low	7	351	2.8	9th Low	7	351	2.6
6th Low	8	360	4.0	7th Low	8	360	3.6	8th Low	8	360	3.1	9th Low	8	360	2.9
6th Low	9	360	4.0	7th Low	9	369	4.0	8th Low	9	370	3.7	9th Low	9	370	3.4
6th Low	10	360	4.0	7th Low	10	369	4.0	8th Low	10	376	4.0	9th Low	10	381	4.0
6th Low	11	360	4.0	7th Low	11	369	4.0	8th Low	11	376	4.0	9th Low	11	381	4.0
6th Low	12	360	4.0	7th Low	12	369	4.0	8th Low	12	376	4.0	9th Low	12	381	4.0
6th Low	13	360	4.0	7th Low	13	369	4.0	8th Low	13	376	4.0	9th Low	13	381	4.0
6th Mid	0	189	1.0	7th Mid	0	197	1.0	8th Mid	0	206	1.0	9th Mid	0	214	1.0
6th Mid	1	283	1.8	7th Mid	1	283	1.7	8th Mid	1	283	1.6	9th Mid	1	283	1.6
6th Mid	2	305	1.9	7th Mid	2	305	1.9	8th Mid	2	305	1.8	9th Mid	2	305	1.8
6th Mid	3	320	2.3	7th Mid	3	320	1.9	8th Mid	3	320	1.9	9th Mid	3	320	1.9
6th Mid	4	331	2.7	7th Mid	4	331	2.4	8th Mid	4	331	2.1	9th Mid	4	331	1.9
6th Mid	5	341	3.1	7th Mid	5	341	2.7	8th Mid	5	341	2.4	9th Mid	5	341	2.2
6th Mid	6	350	3.5	7th Mid	6	350	3.1	8th Mid	6	350	2.8	9th Mid	6	350	2.5
6th Mid	7	358	3.9	7th Mid	7	358	3.5	8th Mid	7	358	3.0	9th Mid	7	358	2.8
6th Mid	8	365	4.9	7th Mid	8	366	3.9	8th Mid	8	366	3.5	9th Mid	8	366	3.1
6th Mid	9	374	5.5	7th Mid	9	374	4.9	8th Mid	9	374	3.9	9th Mid	9	374	3.6
6th Mid	10	382	6.0	7th Mid	10	382	5.5	8th Mid	10	381	4.9	9th Mid	10	382	4.2
6th Mid	11	382	6.0	7th Mid	11	390	5.9	8th Mid	11	390	5.5	9th Mid	11	390	5.2
6th Mid	12	382	6.0	7th Mid	12	399	6.0	8th Mid	12	399	6.0	9th Mid	12	399	5.9
6th Mid	13	382	6.0	7th Mid	13	399	6.0	8th Mid	13	399	6.0	9th Mid	13	410	6.0
6th Mid	14	382	6.0	7th Mid	14	399	6.0	8th Mid	14	399	6.0	9th Mid	14	410	6.0
6th Mid	15	382	6.0	7th Mid	15	399	6.0	8th Mid	15	399	6.0	9th Mid	15	410	6.0
6th Mid	16	382	6.0	7th Mid	16	399	6.0	8th Mid	16	399	6.0	9th Mid	16	410	6.0
6th High	0	189	1.0	7th High	0	197	1.0	8th High	0	206	1.0	9th High	0	214	1.0
6th High	1	304	1.9	7th High	1	304	1.9	8th High	1	304	1.8	9th High	1	304	1.8
6th High	2	325	2.5	7th High	2	325	2.1	8th High	2	325	1.9	9th High	2	325	1.9
6th High	3	338	2.9	7th High	3	338	2.6	8th High	3	338	2.3	9th High	3	338	2.1
6th High	4	348	3.4	7th High	4	348	2.9	8th High	4	348	2.7	9th High	4	348	2.4
6th High	5	357	3.9	7th High	5	357	3.4	8th High	5	357	2.9	9th High	5	357	2.8
6th High	6	365	4.9	7th High	6	365	3.8	8th High	6	365	3.4	9th High	6	365	3.1
6th High	7	372	5.4	7th High	7	372	4.6	8th High	7	372	3.8	9th High	7	372	3.5
6th High	8	379	5.9	7th High	8	379	5.3	8th High	8	379	4.6	9th High	8	379	3.9
6th High	9	386	6.0	7th High	9	386	5.7	8th High	9	386	5.3	9th High	9	386	4.9
6th High	10	386	6.0	7th High	10	394	6.0	8th High	10	394	5.8	9th High	10	394	5.5
6th High	11	386	6.0	7th High	11	394	6.0	8th High	11	401	6.0	9th High	11	401	5.9
6th High	12	386	6.0	7th High	12	394	6.0	8th High	12	401	6.0	9th High	12	410	6.0
6th High	13	386	6.0	7th High	13	394	6.0	8th High	13	401	6.0	9th High	13	410	6.0
6th High	14	386	6.0	7th High	14	394	6.0	8th High	14	401	6.0	9th High	14	410	6.0
6th High	15	386	6.0	7th High	15	394	6.0	8th High	15	401	6.0	9th High	15	410	6.0
6th High	16	386	6.0	7th High	16	394	6.0	8th High	16	401	6.0	9th High	16	410	6.0

Table 6.6.3.3 Raw-Scale Score-PL Tables: Speaking 6-8 (-9)

Grade	Raw Score	Scale Score	PL	Grade	Raw Score	Scale Score	PL	Grade	Raw Score	Scale Score	PL	Grade	Raw Score	Scale Score	PL
6	0	184	1.0	7	0	185	1.0	8	0	186	1.0	9	0	187	1.0
6	1	210	1.2	7	1	210	1.2	8	1	210	1.2	9	1	210	1.2
6	2	259	1.6	7	2	259	1.6	8	2	259	1.6	9	2	259	1.6
6	3	288	1.8	7	3	288	1.8	8	3	288	1.8	9	3	288	1.8
6	4	314	2.2	7	4	314	2.0	8	4	319	2.1	9	4	314	1.9
6	5	339	3.1	7	5	340	3.0	8	5	334	3.0	9	5	339	2.7
6	6	363	4.4	7	6	363	4.2	8	6	363	4.1	9	6	363	3.9
6	7	385	5.4	7	7	385	5.3	8	7	385	5.1	9	7	385	4.9
6	8	406	6.0	7	8	406	6.0	8	8	406	6.0	9	8	406	5.9
6	9	406	6.0	7	9	406	6.0	8	9	406	6.0	9	9	432	6.0
6	10	406	6.0	7	10	406	6.0	8	10	406	6.0	9	10	432	6.0

Table 6.6.3.4 Raw-Scale Score-PL Tables: Writing 6-8 (-9)

Grade	Raw Score	Scale Score	PL	Grade	Raw Score	Scale Score	PL	Grade	Raw Score	Scale Score	PL	Grade	Raw Score	Scale Score	PL
6	N/R	233	1.0	7	N/R	239	1.0	8	N/R	245	1.0	9	N/R	251	1.0
6	1-	245	1.2	7	1-	245	1.1	8	1-	245	1.0	9	1-	251	1.0
6	1 No Adjustment	270	1.6	7	1 No Adjustment	270	1.5	8	1 No Adjustment	270	1.3	9	1 No Adjustment	270	1.3
6	1+	291	1.9	7	1+	291	1.8	8	1+	291	1.6	9	1+	291	1.5
6	2-	318	2.7	7	2-	318	2.3	8	2-	318	2.0	9	2-	318	1.9
6	2 No Adjustment	328	2.9	7	2 No Adjustment	328	2.7	8	2 No Adjustment	328	2.3	9	2 No Adjustment	328	2.0
6	2+	336	3.2	7	2+	336	2.9	8	2+	336	2.6	9	2+	336	2.3
6	3-	348	3.6	7	3-	348	3.3	8	3-	348	3.0	9	3-	348	2.8
6	3 No Adjustment	359	3.9	7	3 No Adjustment	359	3.6	8	3 No Adjustment	359	3.3	9	3 No Adjustment	359	3.1
6	3+	368	4.2	7	3+	368	3.9	8	3+	368	3.6	9	3+	368	3.4
6	4-	381	4.7	7	4-	381	4.4	8	4-	381	4.0	9	4-	381	3.8
6	4 No Adjustment	390	4.9	7	4 No Adjustment	390	4.7	8	4 No Adjustment	390	4.3	9	4 No Adjustment	390	4.0
6	4+	397	5.3	7	4+	397	4.9	8	4+	397	4.6	9	4+	397	4.3
6	5-	408	5.9	7	5-	408	5.5	8	5-	408	5.0	9	5-	408	4.8
6	5 No Adjustment	412	6.0	7	5 No Adjustment	414	5.8	8	5 No Adjustment	414	5.3	9	5 No Adjustment	414	4.9
6	5+	412	6.0	7	5+	420	6.0	8	5+	420	5.6	9	5+	420	5.3
6	6-	412	6.0	7	6-	420	6.0	8	6-	428	6.0	9	6-	428	5.7
6	6 No Adjustment	412	6.0	7	6 No Adjustment	420	6.0	8	6 No Adjustment	428	6.0	9	6 No Adjustment	435	6.0
6	6+	412	6.0	7	6+	420	6.0	8	6+	428	6.0	9	6+	435	6.0

6.6.4. Raw-scale score-PL tables of grades 9-12

Table 6.6.4.1 Raw-Scale Score-PL Tables: Listening 9-12

Grade	Raw Score	Scale Score	PL	Grade	Raw Score	Scale Score	PL	Grade	Raw Score	Scale Score	PL	Grade	Raw Score	Scale Score	PL
9th Low	0	144	1.0	10th Low	0	149	1.0	11th Low	0	153	1.0	12th Low	0	157	1.0
9th Low	1	257	1.7	10th Low	1	257	1.6	11th Low	1	257	1.6	12th Low	1	257	1.6
9th Low	2	284	1.8	10th Low	2	288	1.8	11th Low	2	288	1.8	12th Low	2	288	1.7
9th Low	3	307	1.9	10th Low	3	307	1.9	11th Low	3	307	1.9	12th Low	3	307	1.8
9th Low	4	323	2.3	10th Low	4	323	2.0	11th Low	4	323	1.9	12th Low	4	323	1.9
9th Low	5	337	2.6	10th Low	5	337	2.4	11th Low	5	337	2.2	12th Low	5	337	1.9
9th Low	6	350	2.9	10th Low	6	350	2.8	11th Low	6	350	2.6	12th Low	6	350	2.3
9th Low	7	362	3.4	10th Low	7	362	3.1	11th Low	7	362	2.9	12th Low	7	362	2.9
9th Low	8	375	3.8	10th Low	8	375	3.6	11th Low	8	375	3.5	12th Low	8	375	3.4
9th Low	9	381	4.0	10th Low	9	386	4.0	11th Low	9	389	4.0	12th Low	9	389	3.9
9th Low	10	381	4.0	10th Low	10	386	4.0	11th Low	10	389	4.0	12th Low	10	391	4.0
9th Low	11	381	4.0	10th Low	11	386	4.0	11th Low	11	389	4.0	12th Low	11	391	4.0
9th Low	12	381	4.0	10th Low	12	386	4.0	11th Low	12	389	4.0	12th Low	12	391	4.0
9th Low	13	381	4.0	10th Low	13	386	4.0	11th Low	13	389	4.0	12th Low	13	391	4.0
9th Mid	0	144	1.0	10th Mid	0	149	1.0	11th Mid	0	153	1.0	12th Mid	0	157	1.0
9th Mid	1	279	1.8	10th Mid	1	279	1.8	11th Mid	1	279	1.7	12th Mid	1	279	1.7
9th Mid	2	308	1.9	10th Mid	2	308	1.9	11th Mid	2	308	1.9	12th Mid	2	308	1.8
9th Mid	3	328	2.4	10th Mid	3	328	2.2	11th Mid	3	328	1.9	12th Mid	3	328	1.9
9th Mid	4	342	2.8	10th Mid	4	342	2.6	11th Mid	4	342	2.3	12th Mid	4	343	2.0
9th Mid	5	355	3.1	10th Mid	5	355	2.9	11th Mid	5	355	2.8	12th Mid	5	355	2.5
9th Mid	6	366	3.5	10th Mid	6	366	3.3	11th Mid	6	366	3.1	12th Mid	6	366	3.0
9th Mid	7	377	3.9	10th Mid	7	377	3.7	11th Mid	7	377	3.6	12th Mid	7	377	3.5
9th Mid	8	387	4.3	10th Mid	8	387	4.0	11th Mid	8	387	3.9	12th Mid	8	387	3.9
9th Mid	9	397	4.7	10th Mid	9	397	4.4	11th Mid	9	397	4.3	12th Mid	9	397	4.2
9th Mid	10	408	5.1	10th Mid	10	408	4.9	11th Mid	10	408	4.7	12th Mid	10	408	4.7
9th Mid	11	419	5.5	10th Mid	11	419	5.3	11th Mid	11	419	5.1	12th Mid	11	419	5.1
9th Mid	12	432	6.0	10th Mid	12	432	5.9	11th Mid	12	432	5.8	12th Mid	12	432	5.7
9th Mid	13	432	6.0	10th Mid	13	446	6.0	11th Mid	13	446	6.0	12th Mid	13	446	6.0
9th Mid	14	432	6.0	10th Mid	14	446	6.0	11th Mid	14	446	6.0	12th Mid	14	446	6.0
9th Mid	15	432	6.0	10th Mid	15	446	6.0	11th Mid	15	446	6.0	12th Mid	15	446	6.0
9th Mid	16	432	6.0	10th Mid	16	446	6.0	11th Mid	16	446	6.0	12th Mid	16	446	6.0
9th High	0	144	1.0	10th High	0	149	1.0	11th High	0	153	1.0	12th High	0	157	1.0
9th High	1	285	1.9	10th High	1	285	1.8	11th High	1	285	1.8	12th High	1	285	1.7
9th High	2	315	2.1	10th High	2	315	1.9	11th High	2	315	1.9	12th High	2	312	1.8
9th High	3	334	2.6	10th High	3	334	2.3	11th High	3	334	2.1	12th High	3	334	1.9
9th High	4	349	2.9	10th High	4	349	2.8	11th High	4	349	2.6	12th High	4	349	2.3
9th High	5	362	3.4	10th High	5	362	3.1	11th High	5	362	2.9	12th High	5	362	2.9
9th High	6	374	3.8	10th High	6	374	3.6	11th High	6	374	3.4	12th High	6	374	3.3
9th High	7	386	4.2	10th High	7	386	4.0	11th High	7	386	3.9	12th High	7	386	3.8
9th High	8	396	4.6	10th High	8	396	4.4	11th High	8	396	4.3	12th High	8	396	4.2
9th High	9	407	5.0	10th High	9	407	4.8	11th High	9	407	4.7	12th High	9	407	4.6
9th High	10	418	5.5	10th High	10	418	5.3	11th High	10	418	5.1	12th High	10	418	5.0
9th High	11	430	5.9	10th High	11	430	5.8	11th High	11	430	5.7	12th High	11	430	5.6
9th High	12	443	6.0	10th High	12	443	6.0	11th High	12	443	6.0	12th High	12	443	6.0
9th High	13	443	6.0	10th High	13	443	6.0	11th High	13	443	6.0	12th High	13	443	6.0
9th High	14	443	6.0	10th High	14	443	6.0	11th High	14	443	6.0	12th High	14	443	6.0

9th High	15	443	6.0	10th High	15	443	6.0	11th High	15	443	6.0	12th High	15	443	6.0
9th High	16	443	6.0	10th High	16	443	6.0	11th High	16	443	6.0	12th High	16	443	6.0

Table 6.6.4.2 Raw-Scale Score-PL Tables: Reading 9-12

Grade	Raw Score	Scale Score	PL	Grade	Raw Score	Scale Score	PL	Grade	Raw Score	Scale Score	PL	Grade	Raw Score	Scale Score	PL
9th Low	0	214	1.0	10th Low	0	222	1.0	11th Low	0	230	1.0	12th Low	0	238	1.0
9th Low	1	275	1.5	10th Low	1	275	1.5	11th Low	1	275	1.4	12th Low	1	275	1.4
9th Low	2	297	1.7	10th Low	2	297	1.7	11th Low	2	297	1.6	12th Low	2	297	1.6
9th Low	3	311	1.8	10th Low	3	311	1.8	11th Low	3	311	1.7	12th Low	3	311	1.7
9th Low	4	323	1.9	10th Low	4	323	1.9	11th Low	4	323	1.8	12th Low	4	323	1.8
9th Low	5	336	2.0	10th Low	5	333	1.9	11th Low	5	333	1.9	12th Low	5	333	1.9
9th Low	6	342	2.2	10th Low	6	342	2.0	11th Low	6	342	1.9	12th Low	6	342	1.9
9th Low	7	352	2.6	10th Low	7	352	2.4	11th Low	7	352	2.2	12th Low	7	352	2.1
9th Low	8	361	2.9	10th Low	8	361	2.7	11th Low	8	361	2.6	12th Low	8	361	2.4
9th Low	9	371	3.4	10th Low	9	371	3.1	11th Low	9	374	3.0	12th Low	9	371	2.8
9th Low	10	381	4.0	10th Low	10	383	4.0	11th Low	10	384	4.0	12th Low	10	383	3.9
9th Low	11	381	4.0	10th Low	11	383	4.0	11th Low	11	384	4.0	12th Low	11	385	4.0
9th Low	12	381	4.0	10th Low	12	383	4.0	11th Low	12	384	4.0	12th Low	12	385	4.0
9th Low	13	381	4.0	10th Low	13	383	4.0	11th Low	13	384	4.0	12th Low	13	385	4.0
9th Mid	0	214	1.0	10th Mid	0	222	1.0	11th Mid	0	230	1.0	12th Mid	0	238	1.0
9th Mid	1	293	1.7	10th Mid	1	293	1.6	11th Mid	1	293	1.6	12th Mid	1	293	1.5
9th Mid	2	314	1.8	10th Mid	2	314	1.8	11th Mid	2	314	1.7	12th Mid	2	314	1.7
9th Mid	3	327	1.9	10th Mid	3	327	1.9	11th Mid	3	326	1.8	12th Mid	3	327	1.8
9th Mid	4	338	2.1	10th Mid	4	341	2.0	11th Mid	4	338	1.9	12th Mid	4	338	1.9
9th Mid	5	347	2.4	10th Mid	5	347	2.2	11th Mid	5	347	2.0	12th Mid	5	350	2.0
9th Mid	6	355	2.7	10th Mid	6	355	2.5	11th Mid	6	355	2.3	12th Mid	6	355	2.2
9th Mid	7	362	2.9	10th Mid	7	362	2.8	11th Mid	7	362	2.6	12th Mid	7	362	2.5
9th Mid	8	370	3.4	10th Mid	8	370	3.0	11th Mid	8	370	2.9	12th Mid	8	370	2.8
9th Mid	9	377	3.8	10th Mid	9	377	3.6	11th Mid	9	377	3.3	12th Mid	9	377	3.1
9th Mid	10	384	4.6	10th Mid	10	384	4.2	11th Mid	10	384	4.0	12th Mid	10	384	3.9
9th Mid	11	392	5.4	10th Mid	11	392	5.1	11th Mid	11	392	5.0	12th Mid	11	392	4.9
9th Mid	12	401	5.9	10th Mid	12	401	5.7	11th Mid	12	401	5.6	12th Mid	12	401	5.6
9th Mid	13	411	6.0	10th Mid	13	411	6.0	11th Mid	13	411	6.0	12th Mid	13	411	6.0
9th Mid	14	411	6.0	10th Mid	14	411	6.0	11th Mid	14	411	6.0	12th Mid	14	411	6.0
9th Mid	15	411	6.0	10th Mid	15	411	6.0	11th Mid	15	411	6.0	12th Mid	15	411	6.0
9th Mid	16	411	6.0	10th Mid	16	411	6.0	11th Mid	16	411	6.0	12th Mid	16	411	6.0
9th High	0	214	1.0	10th High	0	222	1.0	11th High	0	230	1.0	12th High	0	238	1.0
9th High	1	305	1.8	10th High	1	305	1.7	11th High	1	305	1.7	12th High	1	305	1.6
9th High	2	326	1.9	10th High	2	326	1.9	11th High	2	326	1.8	12th High	2	326	1.8
9th High	3	341	2.2	10th High	3	341	2.0	11th High	3	341	1.9	12th High	3	341	1.9
9th High	4	352	2.6	10th High	4	352	2.4	11th High	4	352	2.2	12th High	4	352	2.1
9th High	5	361	2.9	10th High	5	361	2.7	11th High	5	361	2.6	12th High	5	361	2.4
9th High	6	370	3.4	10th High	6	370	3.0	11th High	6	370	2.9	12th High	6	370	2.8
9th High	7	378	3.9	10th High	7	378	3.7	11th High	7	378	3.4	12th High	7	378	3.3
9th High	8	386	4.9	10th High	8	386	4.5	11th High	8	386	4.3	12th High	8	386	4.1
9th High	9	394	5.5	10th High	9	394	5.3	11th High	9	394	5.1	12th High	9	394	5.1
9th High	10	402	6.0	10th High	10	402	5.8	11th High	10	402	5.7	12th High	10	402	5.6
9th High	11	402	6.0	10th High	11	410	6.0	11th High	11	410	6.0	12th High	11	410	6.0
9th High	12	402	6.0	10th High	12	410	6.0	11th High	12	410	6.0	12th High	12	410	6.0
9th High	13	402	6.0	10th High	13	410	6.0	11th High	13	410	6.0	12th High	13	410	6.0
9th High	14	402	6.0	10th High	14	410	6.0	11th High	14	410	6.0	12th High	14	410	6.0
9th High	15	402	6.0	10th High	15	410	6.0	11th High	15	410	6.0	12th High	15	410	6.0
9th High	16	402	6.0	10th High	16	410	6.0	11th High	16	410	6.0	12th High	16	410	6.0

Table 6.6.4.3 Raw-Scale Score-PL Tables: Speaking 9-12

Grade	Raw Score	Scale Score	PL	Grade	Raw Score	Scale Score	PL	Grade	Raw Score	Scale Score	PL	Grade	Raw Score	Scale Score	PL
9	0	187	1.0	10	0	188	1.0	11	0	189	1.0	12	0	190	1.0
9	1	218	1.3	10	1	218	1.3	11	1	218	1.3	12	1	218	1.2
9	2	247	1.5	10	2	247	1.5	11	2	247	1.5	12	2	247	1.5
9	3	272	1.7	10	3	272	1.7	11	3	272	1.6	12	3	272	1.6
9	4	294	1.8	10	4	294	1.8	11	4	294	1.8	12	4	294	1.8
9	5	315	1.9	10	5	315	1.9	11	5	315	1.9	12	5	315	1.9
9	6	336	2.6	10	6	336	2.5	11	6	336	2.5	12	6	336	2.4
9	7	356	3.5	10	7	356	3.3	11	7	356	3.1	12	7	356	2.9
9	8	379	4.6	10	8	379	4.4	11	8	379	4.1	12	8	379	3.8
9	9	406	5.9	10	9	410	5.9	11	9	410	5.7	12	9	410	5.3
9	10	446	6.0	10	10	446	6.0	11	10	446	6.0	12	10	446	6.0

Table 6.6.4.4 Raw-Scale Score-PL Tables: Writing 9-12

Grade	Raw Score	Scale Score	PL	Grade	Raw Score	Scale Score	PL	Grade	Raw Score	Scale Score	PL	Grade	Raw Score	Scale Score	PL
9	N/R	251	1.0	10	N/R	257	1.0	11	N/R	263	1.0	12	N/R	269	1.0
9	1-	269	1.2	10	1-	269	1.2	11	1-	269	1.1	12	1-	269	1.0
9	1 No Adjustment	297	1.6	10	1 No Adjustment	297	1.5	11	1 No Adjustment	297	1.4	12	1 No Adjustment	297	1.3
9	1+	322	1.9	10	1+	322	1.8	11	1+	322	1.7	12	1+	322	1.6
9	2-	352	2.9	10	2-	352	2.6	11	2-	352	2.3	12	2-	352	2.0
9	2 No Adjustment	360	3.1	10	2 No Adjustment	360	2.9	11	2 No Adjustment	360	2.6	12	2 No Adjustment	360	2.3
9	2+	367	3.3	10	2+	367	3.1	11	2+	367	2.9	12	2+	367	2.6
9	3-	377	3.7	10	3-	377	3.4	11	3-	377	3.2	12	3-	377	3.0
9	3 No Adjustment	388	3.9	10	3 No Adjustment	388	3.8	11	3 No Adjustment	388	3.5	12	3 No Adjustment	388	3.3
9	3+	397	4.3	10	3+	397	4.0	11	3+	397	3.8	12	3+	397	3.6
9	4-	410	4.8	10	4-	410	4.5	11	4-	410	4.3	12	4-	410	4.0
9	4 No Adjustment	418	5.2	10	4 No Adjustment	418	4.9	11	4 No Adjustment	418	4.6	12	4 No Adjustment	418	4.3
9	4+	424	5.5	10	4+	424	5.1	11	4+	424	4.9	12	4+	424	4.6
9	5-	434	5.9	10	5-	434	5.7	11	5-	434	5.3	12	5-	434	5.0
9	5 No Adjustment	435	6.0	10	5 No Adjustment	439	5.9	11	5 No Adjustment	439	5.6	12	5 No Adjustment	439	5.3
9	5+	435	6.0	10	5+	441	6.0	11	5+	445	5.9	12	5+	445	5.6
9	6-	435	6.0	10	6-	441	6.0	11	6-	447	6.0	12	6-	452	6.0
9	6 No Adjustment	435	6.0	10	6 No Adjustment	441	6.0	11	6 No Adjustment	447	6.0	12	6 No Adjustment	452	6.0
9	6+	435	6.0	10	6+	441	6.0	11	6+	447	6.0	12	6+	452	6.0

7. Updated MODEL Online Test Blueprint

The results of the refresh of the MODEL Online test forms are shown in the blueprint tables below. These tables mirror Tables 2.1.2–2.1.5 that were included in Chapter 2 above, but show where refreshment occurred (grey shading), where it did not (tan shading), and where standards coverage changed slightly (within Speaking for Grades 3–5 and Grades 9–12).

Table 7.1 shows that except for two folders in Listening, all targeted slots for Grades 1–2 were refreshed, and the original standards coverage blueprint was maintained.

Table 7.1: MODEL Online Grades 1–2 updated test blueprint

Speaking	**Listening Entry**	**Listening Low**	**Listening Mid**	**Listening High**
Standard (tasks)	*Standard (items)*			
SIL (3)	LoLA (4)	SIL (3)	LoLA (3)	LoLA (3)
LoLA/LoSS (5)		LoLA (3)	LoMA (3)	LoMA (3)
		LoMA (3)	LoSC (3)	LoSC (3)
			LoSS (3)	LoSS (3)
Writing	**Reading Entry**	**Reading Low**	**Reading Mid**	**Reading High**
Standard (tasks)	*Standard (items)*			
IT (1)	LoLA (4)	LoLA (3)	LoLA (3)	LoLA (3)
IT (1)		LoMA (3)	LoMA (3)	LoMA (3)
		LoSC (3)	LoSC (3)	LoSC (3)
			LoSS (3)	LoSS (3)

Table 7.2 shows that except for one folder in Listening and one folder in Reading (indicated with tan shading), all targeted slots for Grades 3–5 were refreshed. In Grades 3–5 both folders in Speaking were refreshed, one more than originally planned (indicated with blue shading). This resulted in a minor change to the standards coverage within that domain.

Table 7.2: MODEL Online Grades 3–5 updated test blueprint

Speaking	**Listening Entry**	**Listening Low**	**Listening Mid**	**Listening High**
Standard (tasks)	*Standard (items)*			
LoLA/LoSS (3)*	LoLA (4)	SIL (3)	LoLA (3)	LoLA (3)
LoLA/LoSS (5)		LoLA (3)	LoMA (3)	LoMA (3)
		LoMA (3)	LoSC (3)	LoSC (3)
			LoSS (3)	LoSS (3)
Writing	**Reading Entry**	**Reading Low**	**Reading Mid**	**Reading High**
Standard (tasks)	*Standard (items)*			
IT (1)	LoLA (4)	LoLA (3)	LoLA (3)	LoLA (3)
		LoMA (3)	LoMA (3)	LoMA (3)
		LoSC (3)	LoSC (3)	LoSC (3)
			LoSS (3)	LoSS (3)

*With addition of new folder, standards coverage in this slot changed from SIL to LoLA/LoSS

Table 7.3 shows that except for two folders in Listening (indicated with tan shading), all targeted slots for Grades 6–8 were refreshed, and the original standards coverage map was maintained.

Table 7.3: MODEL Online Grades 6–8 updated test blueprint

Speaking	**Listening Entry**	**Listening Low**	**Listening Mid**	**Listening High**
Standard (tasks)	*Standard (items)*			
SIL (5)	LoLA (4)	SIL (3)	LoLA (3)	LoLA (3)
LoLA/LoSS (5)		LoLA (3)	LoMA (3)	LoMA (3)
		LoMA (3)	LoSC (3)	LoSC (3)
			LoSS (3)	LoSS (3)
Writing	**Reading Entry**	**Reading Low**	**Reading Mid**	**Reading High**
Standard (tasks)	*Standard (items)*			
IT (1)	LoLA (4)	LoLA (3)	LoLA (3)	LoLA (3)
		LoMA (3)	LoMA (3)	LoMA (3)
		LoSC (3)	LoSC (3)	LoSC (3)
			LoSS (3)	LoSS (3)

Table 7.4 shows that except for one folder in Listening and one folder in Reading (indicated with tan shading), all targeted slots for Grades 9–12 were refreshed. In Grades 9–12 both folders in Speaking were refreshed, one more than originally planned (indicated with blue shading). This resulted in a minor change to the standards coverage within that domain.

Table 7.4: MODEL Online Grades 9–12 updated test blueprint

Speaking	**Listening Entry**	**Listening Low**	**Listening Mid**	**Listening High**
Standard (tasks)	*Standard (items)*			
LoLA (5)*	LoLA/LoSS (4)	SIL (3)	LoLA (3)	LoLA (3)
LoSS (5)		LoLA (3)	LoMA (3)	LoMA (3)
		LoMA (3)	LoSC (3)	LoSC (3)
			LoSS (3)	LoSS (3)
Writing	**Reading Entry**	**Reading Low**	**Reading Mid**	**Reading High**
Standard (tasks)	*Standard (items)*			
IT (1)	LoLA (4)	LoLA (3)	LoLA (3)	LoLA (3)
		LoMA (3)	LoMA (3)	LoMA (3)
		LoSC (3)	LoSC (3)	LoSC (3)
			LoSS (3)	LoSS (3)

*With addition of new folder, standards coverage in this slot changed from SIL to LoLA