

**Technical Report on the Alignment and Accessibility of Virginia Alternate Assessment
Program (VAAP) Test Items to the Virginia Essentialized Standards of Learning (VESOL)**

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Virginia Department of Education

Behavioral Research and Teaching – University of Oregon

Acknowledgements

Examining the alignment and accessibility of test items from the Virginia Alternate Assessment Program (VAAP) could not have been accomplished without the expertise and collaboration of many individuals. The Virginia Department of Education (VDOE), Virginia educators, and Behavioral Research and Teaching (BRT) at the University of Oregon (UO) collaborated to review and revise VAAP test items. The dedication and careful attention to detail of these stakeholders were operationalized in the item review process and are, thus, a key element in the ongoing development and validation of the VAAP system.

Abstract and Report Organization

In this technical report, we report on the alignment and accessibility of test items comprising the Virginia Alternate Assessment Program (VAAP). The purpose of the study is straightforward. To draw valid test-based inferences within a standards-based model of instruction and assessment within the context of alternate assessment systems, test items must sufficiently align with alternate academic content standards that are sufficiently linked to grade-level academic content standards, while being accessible to the testing population—students with significant cognitive disabilities (SWSCD). Respectively, VAAP test items must be sufficiently aligned with the Virginia Essentialized Standards of Learning (VESOL), which are sufficiently linked to Virginia’s Standards of Learning (SOL). We studied alignment of VAAP test items with a sample of special education teachers from across Virginia. In a second, smaller phase of study, a sample of educator specialists reviewed a subset of VAAP test items for their accessibility for visually impaired/blind SWSCD. The report is divided into four sections: (a) Section 1 – Study Context and Purpose, (b) Section 2 – Methods, (c) Section 3 – Results, and (d) Section 4 – Discussion and Conclusion.

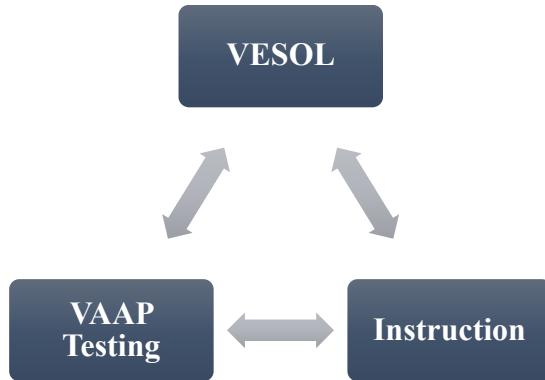
Section 1 — Study Context and Purpose

In collaboration with [Behavioral Research & Teaching \(BRT\)](#) at the [University of Oregon \(UO\)](#), the [Virginia Department of Education \(VDOE\)](#) and educators representing the eight regions of Virginia selected grade-level [Standards of Learning \(SOL\)](#) academic content standards in Reading, Mathematics, and Science and reduced them in depth, breadth, and complexity through a process called *essentialization*. The most important aspects of the essentialization process addressed a reduction in language complexity and an increase in access to content for SWSCD relative to their receptive, as well as expressive, communication needs. Additionally, the academic content was reduced in breadth (a reduced number of SOL were selected for essentialization) and depth (the cognitive complexity demands of SOL selected for essentialization was reduced). The result of this iterative development process, a partnership between the VDOE, BRT, and special and general educators from across Virginia, was the development and validation of new, challenging alternate academic content standards called the [Virginia Essentialized Standards of Learning \(VESOL\)](#) that have been deemed sufficiently linked with grade-level SOL, while being accessible and appropriate/relevant for students with significant cognitive disabilities (SWSCD) in Virginia.

VESOL were implemented for the 2021-22 academic year and are the foundation for alternate assessment and classroom instruction in Virginia for SWSCD. Specifically, the VESOL form the foundation of the [Virginia Alternate Assessment Program \(VAAP\)](#). Detailed information on the essentialization process, the iterative development, review, revision, and reconciliation of the VESOL, and evidence of the alternate standards' linkage to grade-level content and accessibility and appropriateness/relevance for the student population can be found in the report entitled [Technical Report on the Development of the Virginia Essentialized](#)

Standards of Learning (VESOL).

This report provides documentation within a framework of ongoing development and validation of the VAAP system, specifically, the alignment of VAAP test items with respect to the VESOL and their accessibility for students with visual impairment/blindness (VIB). If stakeholders are to make valid test-based inferences within the VAAP model of alternate assessment and instruction, VAAP test items must sufficiently align with VESOL, while also being accessible and appropriate/relevant for the SWSACD testing population.



Section 2 — Methods

Alignment and accessibility studies were conducted in two phases. During Phase 1, we worked with Virginia special educators to review VAAP test items for alignment with the Virginia Essentialized Standards of Learning (VESOL). In Phase 2, four education specialists reviewed a subset of VAAP items from the alignment study for their accessibility for students with visual impairment/blindness (VIB).

Participants

Phase 1

In March 2021, VDOE recruited special educators from the eight regions and dozens of school divisions across Virginia. A total of 41 educators participated in the training and review of VAAP items for alignment with VESOL. These educators held a variety of positions, and all taught in Virginia classrooms serving SWSCD or in generalized special education. Educators had substantial experience teaching SWSCD. Twenty-six educators had 10 years or more of experience ($M = 12.64$ years; *Median* = 10 years; *Range* = 3 to 31 years). The majority taught students in multiple grades and subject areas, including across elementary, middle school, and/or high school in Reading and Language Arts, Mathematics, Science, and Social Studies. All had at least one bachelor's degree in education, special education, and/or related education field. Nineteen educators had master's degrees, and three teachers had earned a doctorate in education. All 41 educators had certificates and/or endorsements in specific disabilities (e.g., emotional, intellectual, specific learning, blind and visual impairments). Four also held certificates and/or endorsements in specific grade bands (e.g., early and elementary education). Of the participating educators who provided demographic background information, 37 were female, 27 were White, 9 were Black or African American, and 2 were Asian. Three educators did not report their

race/ethnicity. During the recruiting process, educators' personal and professional statements emphasized expertise in teaching academic content to SWSCD. A majority emphasized experience developing and using adapted curriculum, behavioral supports, and embedded functional life skills with SWSCD.

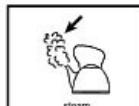
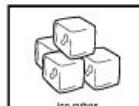
Phase 2

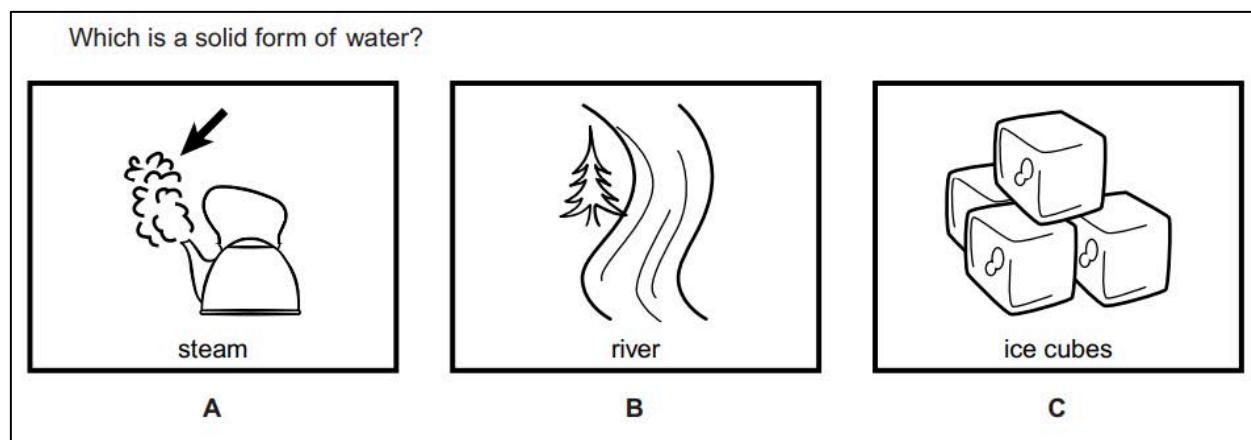
In the Phase 2 visual accessibility/bias review, in April 2021, VDOE recruited four education specialists to review a subset of VAAP items (that had been deemed strongly aligned with VESOL) for accessibility for students with VIB. The four education specialists were all members of the Special Forms Committee SFC), a group of stakeholders (e.g., teachers, school administrators, and content specialists) with diverse professional backgrounds and expertise, who review Virginia's state assessments to help confirm that they measure student knowledge accurately and fairly. All four specialists had greater than 10 years of experience teaching students with VIB ($M = 18.00$ years; *Range* = 11 to 27 years). Two specialists had served on SFC for at least 15 years, while the other two participating specialists were new to the SFC in 2021. All four specialists had documented experience teaching VIB students who also experienced significant cognitive disabilities, including students with comorbid physical disabilities, who were non-verbal, and/or required large-print or braille. In their personal and professional statements, the four specialists emphasized their experience developing and using adapted curriculum, assisted technologies, behavioral supports, and embedded functional life skills in their own classrooms, as well as aiding other teachers and school divisions in Virginia who were also teaching SWSCD that also experience VIB.

Test Items and Selection

The review of VAAP test items occurred during the school year prior to implementing

the VESOL and new VAAP tests in the subject areas of Reading and Mathematics (Grades 3-8 and High School) and Science (Grades 5, 8, and High School). VAAP test items are multiple choice in nature, comprised of a single prompt and three possible answer options — one correct, a near distractor, and far distractor. Many items, especially in Mathematics and Science, also include simple, black/white line art graphics. Each test item meets psychometric standards of quality for large-scale testing (see Linacre, 2022a; 2022b), are developed using principles of Universal Design for Assessment (UDA; Thompson et al., 2002) and widely accepted, content-referenced multiple-choice item writing techniques (Downing, 2006), and are written to align with a single grade-level alternate standard (VESOL). During VAAP test administration, students are presented items via an online test application or paper/pencil. A variety of universal testing conditions (e.g., text to speech, zoom tools, large print) are available to all SWSCD taking the VAAP. Individualized testing accommodations are also available based on student need as documented in their Individualized Education Program (IEP). In addition to the prompt and answer options that the student accesses visually and/or auditorily, each test item includes examiner text, which either the computer or human test administrator reads to provide context and help hone students' attention on the performance demands of the item. An example Grade 8 Science item is displayed, below, from the set of publicly available [VAAP practice items](#) — paper/pencil versions of both the examiner materials and student materials, respectively.

Item 4	<i>Option:</i>	<i>Student Response</i>	
Here are three pictures with words. (Point to student materials.) Which is a solid form of water? steam, river, or ice cubes	A  steam	B  river	C  ice cubes



Phase 1 Item Selection

For the Phase 1 alignment study, we selected VAAP test items after an initial screening by BRT and VDOE subject area and test development experts, in which they deemed each item to be preliminarily aligned with a single VESOL. Within each grade and subject area, we selected at least three items per VESOL that (a) measured a range of cognitive processing demands/estimated item difficulty (from low to high), and (b) represented a range of content topics. For example, related to cognitive processing, items selected for a Grade 8 VESOL that requires students to recognize traits of animals needed for survival and their function might range from simple processing demands, like identifying the long neck of a giraffe, to more complex processing demands, like correctly identifying the purpose of a camel's hump from among other traits. Related to range of content, items selected represented different topical aspects within the performance demands of the VESOL. In the prior (hypothetical) examples, note that the cognitively simpler item had a giraffe as its topic, while the other more cognitively complex item had a camel. We avoided selecting multiple items with overly similar topics or context. In total, we selected 303 test items for review in Reading, 312 in Mathematics, and 112 in Science. Table 1 displays item counts by grade and subject area, with the number of reviewers for each grade-level, subject area group of items shown in the far-right column.

Table 1*Item Selection Counts by Grade and Subject Area and Number of Reviewers*

Grade	Reading	Mathematics	Science	Reviewers
3	45	44	-	5
4	42	54	-	6
5	46	45	49	6
6	42	44	-	6
7	42	41	-	6
8	42	48	62	6
High School	44	36	39	6

Phase 2 Item Selection

For the Phase 2 visual accessibility/bias study, we selected a subset of test items from the prior alignment study pool that reviewers deemed (sufficiently or strongly) aligned with their paired VESOL. Within each grade and subject area, we selected VAAP items that represented academic content and contextual topics visually in different ways. For example, some items had a graphic associated with the prompt, others with the answer options, while others had graphics associated with both the prompt and answer options. In general, for Mathematics and Science, we selected more items for Grades 7-8 and High School because of the increased complexity of the academic content, and thus, the increased complexity of the graphics in comparison to lower grades. The goal was to select VESOL-aligned VAAP test items that adequately represented the visual complexity of the item bank across grades and subject areas. In total, we selected 35 items to include in the visual accessibility/bias study — 7 test items in Reading, 17 in Mathematics, and 12 in Science. Table 2 displays item counts for the visual accessibility/bias study by grade and subject area, with all four reviewers reviewing all 35 items included in the study.

Table 2
Item Selection Counts by Grade and Subject Area

Grade	Reading	Mathematics	Science
3	1	2	-
4	1	2	-
5	1	2	3
6	1	2	-
7	1	3	-
8	1	3	4
High School	1	3	4

Note. All four education specialist reviewers in the visual accessibility/bias study reviewed each item included in the study.

Study Design

For the **Phase 1** alignment study, there were five steps. First, the 41 participating special educator reviewers were trained. Second, reviewers securely and independently rated the degree of alignment of VAAP test items online. Third, reviewers participated in grade-level breakout Zoom discussion of items with two or more ratings of “not aligned”, with the primary goal of gleaning feedback on reviewers’ thinking and possibly reaching consensus around alignment ratings. Fourth, reviewers re-rated those items that were discussed in the third step. Lastly, reviewers completed a secure, online survey designed to gather feedback on study participation and design to improve future VAAP studies. A summary of the alignment study design, agenda, and VDOE/BRT personnel assignments, with names redacted for privacy, is in **Appendix A**.

The **Phase 2** visual accessibility/bias study was designed in the same vein as the preceding alignment study and also had five steps. First, the four participating education specialist reviewers were trained. Second, reviewers securely and independently rated the accessibility of VAAP test items for students with VIB online. Third, reviewers participated in Zoom discussion of items with poor accessibility ratings, with the primary goal of gleaning

clarity around reviewers' thinking and recommendations for improving accessibility. Fourth, reviewers completed a secure, online survey designed to gather reviewers' feedback on study participation and design to improve future VAAP studies. Lastly, the reviewers reconvened one week later for discussion focused on the interim actions taken by BRT and VDOE to improve accessibility for VIB students (i.e., a "show & tell" of item revisions/replacements made by BRT and of a working list of universal testing conditions and individualized accommodations and supports created by VDOE).

Phase 1 Alignment Reviewer Trainings

Prior to implementing the alignment study, reviewers were organized by grade consistent with their education, current position, and professional experience. These grade-level groups were then combined based on the subject areas of the VAAP tests administered in each grade and were required to attend one of two trainings led by BRT and VDOE. Reviewers assigned to Grades 3, 4, 6 and 7 (Reading and Math) were required to attend a 1.5-hour synchronous online training (via Zoom) on April 2, 2021, and then complete the remaining four steps of the alignment study that same day (via Zoom). Reviewers assigned to Grades 5, 8 and High School (Reading, Math, and Science) were required to attend a 2-hour synchronous online training (via Zoom) on March 30, 2021, and then complete the remaining four steps of the alignment study the next day (via Zoom). Reviewer trainings focused on maintaining test security during and after the study, providing context around the SWSCD population and the new VAAP, the essentialization of alternate academic content standards in Virginia (i.e., VESOL), and through a series of examples and non-examples, defining and rating the alignment of test items to VESOL. Trainings also included guided practice of independently rating the alignment of example VAAP test items and follow-up discussion. This "hands-on" guided practice helped hone reviewers'

thinking and process for rating the alignment of test items and address any conceptual and process-oriented misconceptions. Additionally, trainings detailed the use of the Distributed Item Review (DIR), a BRT proprietary tool designed to securely display and collect independent ratings and feedback from professionals on test items and standards (Irvin, 2016). The training slides distributed to reviewers in Grades 5, 8, and High School are available in **Appendix B**.

Phase 2 Accessibility Reviewer Trainings

Prior to reviewing items for the accessibility for students with VIB, reviewers were required to attend a 1.25-hour synchronous online training (via Zoom) on May 7, 2021, and then complete steps two through four of the study that same day (via Zoom), with the last step in the study occurring one week later on May 13, 2021 (synchronously via Zoom). The training focused on maintaining test security during and after the study, providing context around the SWSCD population, including those with VIB, and the new VAAP, the essentialization of VESOL, and through a series of examples and non-examples, defining and rating the accessibility of test items. Another major goal of the training was to convey UDA as an overarching principle that is applied in VAAP test and item design, and also the broad set of (at the time, working) universal testing condition supports and individualized accommodations available to students who take the new VAAP. A discussion of specific supports and accommodations that target the needs of students with VIB in the broader SWSCD testing population was also part of training. Additionally, we detailed the use of the DIR (Irvin, 2016), to collect the reviewers' ratings and recommendations. The training slides distributed to the participating education specialist reviewers are available in **Appendix C**.

Phase 1 Alignment Review Process

Subsequent to the training, after creating a secure DIR user account, reviewers logged in

and viewed a DIR “homepage” where they confirmed the details of their review assignment and viewed or downloaded support materials (i.e., short videos of SWSCD, PDF of VESOL, training slides, and a one-page item alignment review guide — see **Appendix D**). Reviewers then independently examined individual test items paired with VESOL on individual webpages and answered three review questions (*one* required radio button selected-response and *two* text box constructed-response). To move from one test item to the next and save their responses, reviewers clicked “Save and Continue”. Slides 53 through 57, in **Appendix B** show examples of the review assignment homepage and item review pages in the DIR.

For the online, independent review, reviewers were given, on average, 1-1.5 minutes per item, and encouraged to self-monitor attentiveness and consistency in responses and to budget their time for accuracy and quality. They were allowed to start/stop their online reviews any number of times and edit previously saved responses as needed. The three review questions are given below. Selected-response question 1 was required for all test item/VESOL pairs. Open-ended constructed- response option questions 2-3 gave reviewers space to provide their rationale and recommendations for improving the alignment of test items, with question 3 required for any rating of “0 = Not Aligned” in question 1.

1. Rate the strength of alignment between the test item and the Virginia Essentialized Standard of Learning (VESOL). (3-pt rating scale)
0 = Not Aligned; 1 = Sufficiently Aligned; 2 = Strongly Aligned
2. For any test item rated as “1 = Sufficiently Aligned”, a recommendation for strengthening the alignment with the VESOL.
3. For any test item rated as “0 = Not Aligned”, provide a succinct/constructive rationale and recommendation for improving the alignment between the test item and VESOL.

Once review responses were recorded in the DIR, ratings were averaged across reviewers, with any item rated near or below 1.00 examined for revision or replacement in the item bank. Reviewer rationale and recommendation comments were aggregated and examined for strengthening alignment on an item-by-item basis, especially so for items with average ratings near or below 1.00, although all comments were considered. BRT selected a subset of representative items for inclusion in grade-level break-out discussion.

Phase 2 Accessibility Review Process

After being trained, reviewers created a secure DIR user account and reviewed test items for their accessibility for students with VIB in the same manner as the Phase 1 alignment study but using different review questions. The three review questions are given below. Selected-response option question 1 was required for all included test items. Open-ended constructed-response option questions 2 and 3 provided reviewers with space to give their rationale and recommendations for improving the accessibility of test items for students with VIB and was required for any rating of “1 = Yes, with recommendation” or “0 = No, inaccessible”, respectively, in question 1.

1. Is the test item accessible for visually impaired / blind students? (3-pt rating scale)
2 = Yes, as is; 1 = Yes, with recommendation; 0 = No, inaccessible
2. For any test item rated as “1 = Yes, with recommendation”, provide a recommendation to improve accessibility. e.g., Does the item need the change?; Does the list of accommodations need to change/expand? (textbox)
3. For any test item rated as “0 = No, inaccessible”, provide a succinct/constructive rationale. (textbox)

After the participating education specialist reviewers rated test items for accessibility for students with VIB, BRT aggregated and analyzed ratings data and reviewer rationale and recommendation comments, and then, revised test items based on reviewer feedback. Based on these results, VDOE developed a working list of universal testing conditions and individualized accommodations based, in part, on those available for Standards of Learning (SOL) testing in Virginia as well as reviewer feedback. One week later, on May 13, 2021, BRT and VDOE reconvened reviewers to achieve the following four goals:

1. Sharing and discussing accessibility study data (including revisions to specific items) by subject area,
2. Discussing use of invisible text, embedded supports, and accommodations beyond the SOL test for low vision VAAP test takers,
3. Sharing information on development of Braille forms and discussing experience of specialists with VAAP students who also use Braille, and
4. Generating a list of allowable accommodations and embedded supports for blind students taking the VAAP using the SOL accommodations list as a baseline.

A framing discussion guide, shown in **Appendix E**, was distributed to reviewers prior to the follow-up discussion phase of the visual accessibility/bias study. During the follow-up discussion BRT and VDOE shared examples of revised and potential replacement test items along with working lists of universal testing conditions and individualized accommodations targeting the needs of student with VIB. BRT and VDOE personnel took notes as reviewers verbally responded to open-ended discussion prompts.

Section 3 — Results

Phase 1 Alignment Review Results

In this initial phase of preparing items for VAAP testing, we present the average mean ratings by grade (Table 3), subject area (Table 4), and subject area by grade (Table 5; i.e., average of the mean, lower bound, and upper bound). We then present average alignment ratings for each reviewer—first, within grade and across subject areas (Table 6), and then, within grade but disaggregated by subject area (Table 7).

Table 3

Grade Level Averages of Mean, Lower, and Upper Bounds for Alignment on a 0-2 Scale

Grade	Ave. Mean Rating	Ave. Lower Bound	Ave. Higher Bound
3	1.64	1.13	1.97
4	1.70	1.35	1.95
5	1.70	1.33	1.96
6	1.86	1.67	1.99
7	1.81	1.57	1.98
8	1.88	1.71	1.99
11	1.81	1.59	1.98
Grand Total	1.78	1.49	1.98

As reflected in Table 3, all average mean alignment ratings, as well as lower and upper bounds, were above 1 (indicating sufficient alignment), with all values also > 1.5 and most approaching 2 (indicating strong alignment) across all grade-level items and content areas.

Table 4

Subject Area Averages of Mean, Lower, and Upper Bounds for Alignment on a 0-2 Scale

Subject	Ave. Mean Rating	Ave. Lower Bound	Ave. Upper Bound
Math	1.78	1.49	1.98
Reading	1.76	1.45	1.98
Science	1.81	1.57	1.98
Grand Total	1.78	1.49	1.98

As in the grade level analysis, data displayed in Table 4 shows that all average mean alignment ratings, as well as lower and upper bounds, were above 1 (indicating sufficient alignment), with all values also > 1.75 and approaching 2 (indicating strong alignment) across each subject area.

Table 5

Subject Area Averages of Mean, Lower, and Upper Bounds for Alignment on a 0-2 Scale

Subject-Grade	Ave. Mean Rating	Ave. Lower Bound	Ave. Upper Bound
Math-Grade	1.78	1.49	1.98
3	1.69	1.22	1.97
4	1.69	1.31	1.96
5	1.73	1.41	1.97
6	1.93	1.81	2.00
7	1.74	1.46	1.97
8	1.90	1.72	2.00
HS	1.80	1.57	1.96
Reading-Grade	1.76	1.45	1.98
3	1.59	1.04	1.98
4	1.72	1.40	1.95
5	1.73	1.39	1.98
6	1.79	1.53	1.99
7	1.87	1.67	2.00
8	1.83	1.60	1.98
HS	1.78	1.52	1.97
Science-Grade	1.81	1.57	1.98
5	1.64	1.21	1.95
8	1.90	1.77	1.99
HS	1.87	1.69	2.00
Grand Total	1.78	1.49	1.98

As in previous outcomes, all average mean alignment ratings displayed in Table 5 (as well as lower and upper bounds) were well above 1 (indicating sufficient alignment), with all

values also > 1.5 , and most average mean ratings approaching 2 (indicating strong alignment) within each grade and subject area.

Table 6*Reviewer Averages of Mean, Lower, and Upper Bounds for Alignment on a 0-2 Scale*

Reviewer ID	Ave. Mean Rating	Average Lower Bound	Average Upper Bound
1	1.94	1.90	1.99
2	1.73	1.58	1.87
3	1.83	1.71	1.93
4	1.93	1.84	2.00
5	1.88	1.75	1.99
6	1.82	1.71	1.93
7	1.64	1.48	1.79
8	1.70	1.51	1.89
9	1.80	1.64	1.96
10	1.95	1.91	1.99
11	1.90	1.79	2.00
12	1.84	1.72	1.97
13	1.98	1.94	2.00
14	1.82	1.68	1.95
15	1.91	1.83	1.97
16	0.85	0.59	1.12
17	1.71	1.56	1.87
18	1.81	1.69	1.93
19	1.90	1.81	1.98
20	1.36	1.15	1.57
21	1.90	1.84	1.97
22	1.78	1.66	1.90
23	1.90	1.81	1.97
24	1.78	1.61	1.92
25	1.72	1.55	1.89

Table continued on next page.

Table 6 (cont.)*Reviewer Averages of Mean, Lower, and Upper Bounds for Alignment on a 0-2 Scale*

Reviewer ID	Ave. Mean Rating	Average Lower Bound	Average Upper Bound
26	1.78	1.65	1.90
27	1.84	1.69	1.99
28	1.94	1.88	2.00
29	1.74	1.60	1.89
30	1.82	1.67	1.97
31	1.59	1.38	1.79
32	1.74	1.59	1.89
33	1.81	1.69	1.93
34	1.73	1.59	1.86
35	1.68	1.52	1.84
36	1.89	1.79	1.97
37	1.88	1.76	1.99
38	1.78	1.62	1.93
39	1.89	1.79	1.97
40	1.60	1.41	1.78
41	1.64	1.47	1.81
Grand Total	1.78	1.65	1.90

Again, as seen in previous outcomes, except for one reviewer (#16), all averages, as well as lower and upper bounds, of the alignment ratings for each reviewer were above 1 (indicating sufficient alignment), with the vast majority near 2 (indicating strong alignment).

Table 7*Reviewer Subject Averages of Mean, Lower, and Upper Bounds for Alignment on a 0-2 Scale*

Reviewer ID	Ave. Mean Rating	Average Lower Bound	Average Upper Bound
1	1.94	1.90	1.99
Math	2.00	2.00	2.00
Reading	1.83	1.70	1.97
Science	2.00	2.00	2.00
2	1.73	1.58	1.87
Math	1.53	1.31	1.74
Reading	1.93	1.86	2.00
Science	1.72	1.57	1.86
3	1.83	1.71	1.93
Math	1.68	1.50	1.87
Reading	1.98	1.93	2.00
4	1.93	1.84	2.00
Math	1.88	1.76	2.00
Reading	1.98	1.93	2.00
5	1.88	1.75	1.99
Math	1.89	1.74	2.00
Reading	1.80	1.62	1.97
Science	1.95	1.88	2.00
6	1.82	1.71	1.93
Math	1.82	1.71	1.94
Reading	1.89	1.80	1.98
Science	1.73	1.61	1.86
7	1.64	1.48	1.79
Math	1.60	1.44	1.76
Reading	1.74	1.60	1.88
Science	1.57	1.40	1.74

Table continued on next page.

Table 7 (cont.)*Reviewer Subject Averages of Mean, Lower, and Upper Bounds for Alignment on a 0-2 Scale*

Reviewer ID	Ave. Mean Rating	Average Lower Bound	Average Upper Bound
8	1.70	1.51	1.89
Math	1.66	1.46	1.86
Reading	1.74	1.56	1.92
Science	1.95	1.88	2.00
9	1.80	1.64	1.96
Math	1.81	1.66	1.97
Reading	1.79	1.61	1.96
10	1.95	1.91	1.99
Math	2.00	2.00	2.00
Reading	1.98	1.93	2.00
Science	1.89	1.81	1.97
11	1.90	1.79	2.00
Math	1.95	1.89	2.00
Reading	1.84	1.69	2.00
12	1.84	1.72	1.97
Math	1.84	1.70	1.98
Reading	1.84	1.74	1.95
13	1.98	1.94	2.00
Math	2.00	2.00	2.00
Reading	1.98	1.93	2.00
Science	1.95	1.90	2.00
14	1.82	1.68	1.95
Math	1.91	1.80	2.00
Reading	1.73	1.56	1.90
15	1.91	1.83	1.97
Math	1.98	1.93	2.00
Reading	1.83	1.72	1.95

Table continued on next page.

Table 7 (cont.)*Reviewer Subject Averages of Mean, Lower, and Upper Bounds for Alignment on a 0-2 Scale*

Reviewer ID	Ave. Mean Rating	Average Lower Bound	Average Upper Bound
16	0.85	0.59	1.12
Math	0.80	0.53	1.06
Reading	0.91	0.65	1.17
17	1.71	1.56	1.87
Math	1.71	1.58	1.84
Reading	1.57	1.34	1.80
Science	1.85	1.76	1.95
18	1.81	1.69	1.93
Math	1.83	1.71	1.95
Reading	1.79	1.66	1.91
19	1.90	1.81	1.98
Math	1.83	1.69	1.96
Reading	1.98	1.93	2.00
20	1.36	1.15	1.57
Math	1.17	0.98	1.35
Reading	1.55	1.31	1.78
21	1.90	1.84	1.97
Math	2.00	2.00	2.00
Reading	1.81	1.67	1.95
22	1.78	1.66	1.90
Math	1.75	1.63	1.87
Reading	1.69	1.53	1.85
Science	1.90	1.82	1.99
23	1.90	1.81	1.97
Math	1.98	1.95	2.00
Reading	1.81	1.67	1.95

Table continued on next page.

Table 7 (cont.)*Reviewer Subject Averages of Mean, Lower, and Upper Bounds for Alignment on a 0-2 Scale*

Reviewer ID	Ave. Mean Rating	Average Lower Bound	Average Upper Bound
24	1.78	1.61	1.92
Math	1.93	1.83	2.00
Reading	1.62	1.40	1.85
25	1.72	1.55	1.89
Math	1.76	1.57	1.94
Reading	1.65	1.47	1.84
Science	1.76	1.61	1.90
26	1.78	1.65	1.90
Math	1.80	1.67	1.92
Reading	1.76	1.63	1.89
27	1.84	1.69	1.99
Math	1.81	1.66	1.97
Reading	1.86	1.71	2.00
28	1.94	1.88	2.00
Math	1.91	1.82	2.00
Reading	1.98	1.93	2.00
29	1.74	1.60	1.89
Math	1.70	1.54	1.86
Reading	1.79	1.66	1.91
30	1.82	1.67	1.97
Math	1.89	1.76	2.00
Reading	1.76	1.59	1.94
31	1.59	1.38	1.79
Math	1.59	1.38	1.79
32	1.74	1.59	1.89
Reading	1.74	1.59	1.89

Table continued on next page.

Table 7 (cont.)*Reviewer Subject Averages of Mean, Lower, and Upper Bounds for Alignment on a 0-2 Scale*

Reviewer ID	Ave. Mean Rating	Average Lower Bound	Average Upper Bound
33	1.81	1.69	1.93
Math	2.00	2.00	2.00
Reading	1.62	1.38	1.86
34	1.73	1.59	1.86
Math	1.64	1.45	1.83
Reading	1.57	1.39	1.74
Science	1.97	1.92	2.00
35	1.68	1.52	1.84
Math	1.69	1.53	1.85
Reading	1.70	1.55	1.84
Science	1.65	1.49	1.82
36	1.89	1.79	1.97
Math	1.92	1.82	2.00
Reading	1.95	1.86	2.00
Science	1.81	1.69	1.92
37	1.88	1.76	1.99
Math	1.86	1.70	2.00
Reading	1.93	1.86	2.00
Science	1.85	1.73	1.96
38	1.78	1.62	1.93
Math	1.92	1.83	2.00
Reading	1.68	1.50	1.86
Science	1.74	1.54	1.94

Table continued on next page.

Table 7 (cont.)*Reviewer Subject Averages of Mean, Lower, and Upper Bounds for Alignment on a 0-2 Scale*

Reviewer ID	Ave. Mean Rating	Average Lower Bound	Average Upper Bound
39	1.89	1.79	1.97
Math	1.94	1.87	2.00
Reading	1.75	1.58	1.92
Science	1.97	1.92	2.00
40	1.60	1.41	1.78
Math	1.67	1.50	1.83
Reading	1.52	1.31	1.74
41	1.64	1.47	1.81
Math	1.78	1.63	1.93
Reading	1.67	1.52	1.82
Science	1.47	1.27	1.67
Grand Total	1.78	1.65	1.90

The analysis of alignment ratings by reviewer by subject area revealed highly similar results to all previous analyses. Except for one reviewer (#16), all average mean ratings, as well as lower and upper bounds, were above 1 (indicating sufficient alignment) and the vast majority near 2 (indicating strong alignment).

We present plots of average mean alignment ratings by item by subject area and grade in **Appendix F**. We also list item-level plots for each reviewer by grade and subject area in **Appendix G**. Open-ended comments associated with alignment review questions 2-3 (ratings rationale and suggestions for improving item alignment) are far too numerous to include in this report but are available upon request. Reviewers' comments are presented as submitted, without revision, for transparency. We report reviewers' survey evaluation of the quality of the alignment study in the summary report entitled [Teacher Review & Validation Study: Alignment Teacher Evaluation Survey](#). Survey results were used to improve the design and implementation of future

VAAP development and validation studies.

Phase 2 Accessibility Review Results

For this phase of item development and review, we present average mean ratings for accessibility for students with VIB (including lower and upper bounds) by grade (Table 8), then by subject area (Table 9), and finally by grade and subject area (Table 10). We then present average accessibility ratings for each reviewer—first, within grade and across subject areas (Table 11), and then, within grade but disaggregated by subject area (Table 12).

Table 8

Grade Averages of Mean, Lower, and Upper Bounds for Accessibility on a 0-2 Scale

Grade	Ave. Mean Rating	Average Lower Bound	Average Upper Bound
3	1.83	1.51	2.00
4	1.67	1.34	1.91
5	1.29	0.92	1.64
6	1.50	0.98	1.91
7	1.69	1.32	1.93
8	1.25	0.83	1.63
11	1.34	1.14	1.50
Grand Total	1.43	1.08	1.71

The average mean accessibility ratings, as well as lower and upper bounds, by grade were all above 1 (indicating items are accessible for students with VIB given a recommendation), with four grades having average mean ratings ≥ 1.5 and approaching 2 (indicating items are accessible for students with VIB “as is”).

Table 9

Subject Area Averages of Mean, Lower, and Upper Bounds for Accessibility on a 0-2 Scale

Content	Ave. Mean Rating	Average Lower Bound	Average Upper Bound
Math	1.62	1.25	1.88
Reading	1.32	1.03	1.57

Science	1.23	0.88	1.56
Grand Total	1.43	1.08	1.71

The average mean accessibility ratings displayed in Table 9, as well as lower and upper bounds, by subject were all above 1, except for the average lower bound for science, (indicating item are accessible for students with VIB given a recommendation) and most near 2 (indicating items are accessible for students with VIB “as is”).

Table 10*Subject Area Averages of Mean, Lower, and Upper Bounds for Accessibility on a 0-2 Scale*

Grade-Content	Ave. Mean Rating	Average Lower Bound	Average Upper Bound
3	1.83	1.51	2.00
Math	1.88	1.63	2.00
Reading	1.75	1.26	2.00
4	1.67	1.34	1.91
Math	1.88	1.63	2.00
Reading	1.25	0.76	1.74
5	1.29	0.92	1.64
Math	1.50	1.50	1.50
Reading	0.75	0.26	1.24
Science	1.31	0.80	1.80
6	1.50	0.98	1.91
Math	1.50	1.01	1.87
Reading	1.50	0.93	2.00
7	1.69	1.32	1.93
Math	1.58	1.09	1.91
Reading	2.00	2.00	2.00
8	1.25	0.83	1.63
Math	1.33	0.74	1.85
Reading	1.00	1.00	1.00
Science	1.25	0.86	1.62
11	1.34	1.14	1.50

Math	1.75	1.40	2.00
Reading	1.00	1.00	1.00
Science	1.13	0.98	1.25
Grand Total	1.43	1.08	1.71

Again, as seen in previous outcomes, except for Grade 5 Reading, all average mean ratings shown in Table 10, for accessibility by grade and subject area were above ≥ 1 (indicating items are accessible for students with VIB given a recommendation), with most near 2 (indicating items are accessible for students with VIB “as is”). Most lower and upper bounds average mean ratings were between 1-2.

Table 11*Subject Area Averages of Mean, Lower, and Upper Bounds for Accessibility on a 0-2 Scale*

Content	Ave. Mean Rating	Average Lower Bound	Average Upper Bound
Math	1.62	1.38	1.86
Reading	1.32	0.91	1.73
Science	1.23	1.06	1.39
Grand Total	1.39	1.12	1.66

The average subject area accessibility, as well as lower and upper bounds (except for the Reading lower bound), were rated > 1 (indicating items are accessible for students with VIB given a recommendation), with several closer to 2 (indicating items are accessible for students with VIB “as is”).

Table 12

Reviewer Subject Area Averages of Mean, Lower, and Upper Bounds for Accessibility on a 0-2 Scale

Reviewer ID	Ave. Mean Rating	Average Lower Bound	Average Upper Bound
1	1.30	1.14	1.47
Math	1.76	1.56	1.97
Reading	1.14	0.86	1.42
Science	1.00	1.00	1.00
2	1.34	1.03	1.64
Math	1.41	1.12	1.71
Reading	1.43	1.03	1.82
Science	1.17	0.95	1.39
3	1.32	1.00	1.64
Math	1.59	1.35	1.83
Reading	1.29	0.73	1.85
Science	1.08	0.92	1.25
4	1.60	1.30	1.90
Math	1.71	1.48	1.93
Reading	1.43	1.03	1.82
Science	1.67	1.39	1.95
Grand Total	1.39	1.12	1.66

The average mean reviewer and subject area accessibility ratings were all ≥ 1 (indicating items are accessible for students with VIB given a recommendation), with several closer to 2 (indicating items are accessible for students with VIB “as is”). Average mean lower bounds were all ≥ 1 (except for reviewers 2 and 3 for Science, which were 0.95 and 0.92, respectively). We present plots of average mean accessibility by item by subject area and grade in **Appendix H**. We also list item-level plots for each reviewer by grade and subject area in **Appendix I**, and all open-ended comments (ratings rationale and suggestions for improving item VIB accessibility) in **Appendix J**. Reviewers’ comments associated with de-identified item identification codes are

presented as submitted, without revision, for transparency. We report reviewers' survey evaluation of the quality of the VIB accessibility study in the summary report entitled [VAAP Visually Impaired/Blind \(VI/B\) Accessibility Study: Teacher Evaluation Survey](#). Survey results were also used to improve the design and implementation of future VAAP development and validation studies.

Section 4 — Discussion and Conclusion

Alignment ratings across grades, subject areas, and reviewers broadly indicated sufficient, if not, strong alignment between VAAP test items and VESOL. When reviewers, on average, deemed items insufficiently aligned (rating of < 1.00), rationale and recommendations largely focused on items being too easy or too difficult relative to the VESOL. During discussion after reviewers independently rated the alignment of items, VDOE, BRT, and reviewers focused on garnering clarity around reviewers' thinking, particularly for test items with characteristics (e.g., item design, performance demands), lower alignment ratings, and/or feedback that were representative of broader patterns of reviewer responses. Although coming to consensus was not an explicit goal of grade-level discussion (either in alignment or accessibility discussions), consensus was often reached regarding rationale and recommendations.

One main theme that emerged in alignment ratings rationale/recommendations and follow-up discussion was around the inclusion of items targeting prerequisite, or fundamental, skills relative to the performance demands comprising VESOL. For example, in Reading, identifying a word in a sentence or paragraph was considered (by BRT and VDOE) a prerequisite to being able to identify and understand the meaning of words. Similarly, in Math, counting unit squares was considered a prerequisite to calculating more complex surface area problems using the area formulae. While in Science, distinguishing living organisms from non-living parts of ecosystems, and identifying a plant or animal from among everyday objects was considered a prerequisite to identifying parts of plants and animals that are key to survival and their function. A portion of VAAP test items were designed to target fundamental/prerequisite skills, on test forms, and thus, in the alignment study as well. In other words, given the cognitive diversity observed across the SWSCD population, it is critical that prerequisite/fundamental

skills to most, if not all, VESOL be represented in the VAAP item bank. As such, during discussion it was important that the educators understood that a small portion of test items would indeed sufficiently or strongly align with such skills relative to the VESOL.

Accessibility ratings, while slightly lower than alignment ratings, on average, for some grades and subject areas, were similar in value to those gathered during the alignment study. When reviewers, on average, deemed items as inaccessible (rating of < 1.00), rationale and recommendations largely focused on the overcomplexity of the text and/or graphics that may unfairly inhibit SWSCD with VIB from demonstrating VESOL performance demands based on their disability (less so their subject area knowledge/skills). VI specialists generally recommended removing superfluous details that were largely unrelated to demonstrating proficiency or meeting VESOL performance demands. For example, it was often the case that specialists recommended simplifying text by removing extra words and using simpler phrasing and vocabulary to improve content accessibility for SWSCD with VIB. Regarding graphics, recommendations often entailed removing finer details (e.g., the number of lines representing the feathers on a bird's wing, the lines or shading representing the bark on a tree) that they deemed would be inaccessible to a majority of SWSCD with VIB.

Further, a main theme that emerged around item design/graphics was to revise or replace any item that relied predominantly (or solely) on visual discernment to meet VESOL performance demands. For example, a hypothetical item that addressed VESOL S-8.1 in Science (Recognize and compare objects in the solar system and their features.) might have prompted: “Which is Earth?” and offered three answer options labeled “A”, “B”, or “C”, with line art graphics representing the Earth, a beach ball, and an apple, respectively. The bias against students with VIB is apparent in this example. A student must be able to *both* see and cognitively

process the graphic representation of the three objects in order to answer the item correctly. Thus, SWSCD with VIB would likely have a decided disadvantage relative to the rest of the SWSCD population. Recommendations for improving the accessibility of such items involved reframing the prompt and answer options to avoid visual bias and more precisely hone students' attention on the performance demand required by the VESOL. In this hypothetical example, the prompt might be rephrased as "Which is the planet that we live on?", with the same three graphics offered as answer options, but labeled as "Earth", "ball", or "apple" (instead of letters).

For both the alignment and accessibility studies, results—ratings, rationale and recommendations, and notes gathered during follow-up discussion—were used to identify test items with potential insufficient alignment and/or accessibility. Using reviewer comments/feedback, identified items were revised or discarded and replaced by items exhibiting stronger alignment and/or accessibility characteristics, with comments/feedback used to also revise items not included in either study but that bore similar characteristics to those that were identified as having alignment or accessibility bias issues. Additionally, since these studies, item writing and selection for inclusion on VAAP test forms has been supplemented by internal review by VDOE and BRT personnel with subject area expertise and experience working with special populations, including SWSCD. Items included on VAAP test forms, either as operational (scored) items or as field-test items are, thus, all reviewed internally, and revised or replaced as necessary, in order to administer test items with sufficient to strong alignment to the VESOL and that have broadly accessible test content. In part, this strengthens stakeholders' capacity for drawing valid test-based inferences around student performance on the VAAP.

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Appendices

Appendices are presented, below. They are named and ordered based on the section in which they appear in the main body of this technical report.

Appendix A

Teacher Alignment Study Design, Assignments, and Agenda

**VAAP Teacher Alignment Study
Spring 2021**

Spring Alignment Study at a Glance:

- Three major sections:
 - o Whole-group training →
 - o Grade-level Zoom breakouts for: DIR review/rating of test items + Discussion of items w/ 2+ ratings of 'Not Aligned' + Re-rating of items discussed →
 - o Wrap-up & Survey

Training: XX (VDOE) & XX (BRT)

- Time budgeted for **Training** = 1.5 hours (no Science); 2 hours (incl Science)
- Content-area and grade-level relevant (i.e., two slide shows, w/ and w/out Science), incorporate Q&A / practice, and consist of the following general sections:
 - o Day at-a-glance: Goals, Tasks, & Test Security
 - o Old VAAP → New VAAP (historical and current context for the move from portfolio to selected-response test based on essentialized academic standards)
 - o Essentialization & VESOLs at a Glance (incl examples of VESOL from each content area on given day)
 - o Alignment of test items to VESOL (examples across cognitive processing ranges using prev viewed VESOL and 3-point scale)
 - o Teacher Alignment Review Practice (Ratings/Comments)
 - o Item Alignment in the DIR (DIR how-to & operationalizing the training content just learned)

DIR Item Review + Discussion + Lunch: All personnel; grade-level breakouts

- **Review/Discussion order:** Reading + Discussion → Math + Discussion → Science + Discussion (w/ lunch; see agenda tables, below)
- Time budgeted for "in-person/breakout" **DIR Item Review, Discussion, & Lunch**
 - o **DIR Item Review** = 1 to 1.5 minute per test item → ~1 hour to review each of Grades 3-8, and 11 items (~40-60 items per grade per content area)
 - o **Lunch** = 30 minutes
 - o **Discussion** = ~45 minutes/content area (BRT + VDOE)
- Teachers answer one required selected-response (SR) **DIR Item Review** question, w/ two follow-up constructed-response (CR) prompts to give context to their ratings
 - o (SR) Rate the strength of alignment between the test item and the Virginia Essentialized Standard of Learning (VESOL).
 - 3-point scale: 0 = Not Aligned; 1 = Sufficiently Aligned; 2 = Strongly Aligned
 - o (CR) For any test item rated as '1 = Sufficiently Aligned', please give a recommendation for strengthening the alignment with the VESOL.
 - o (CR) For any item rated as '0 = Not Aligned', please provide a succinct/constructive rationale and recommendation for improving the alignment between the test item and VESOL.

- BRT monitors teachers' progress during each content area **DIR Item Review** (appropriateness, completeness, timeliness) and contact teachers as necessary
 - o Items w/ ≥ 2 ratings of '0 = Not Aligned' become candidates
 - o BRT uses .csv of alignment review results and selects items w/ ≥ 2 ratings of '0 = Not Aligned' for **Discussion** (selection is ongoing during content area review portions of day)
- BRT personnel lead each **Discussion** session, w/ support and note-taking from VDOE team member, using .csv of results and user-end view of DIR
 - o Protect teachers' identity when displaying ratings/comments in CSV
 - o Use item ID and find (e.g., cmd + f on Mac; ctrl + f on PC) to locate, display, and then discuss selected items with teachers (BRT personnel = will be assigned to each review for access to user-end view of items)
 - o Clarity around feedback is main goal; consensus desirable though not required
 - o Teachers re-rate items in the DIR, w/ BRT personnel providing direct link to DIR page for each item in the Zoom chat

Wrap-up & Survey: XX (VDOE) & XX (BRT)

- Time budgeted = 30-45 minutes
- Detail what we'll do with alignment feedback
- Test security reminder
- Survey administered via Qualtrics (link given in Zoom Chat / PPTX)

Personnel Assignments by Grade, Date, & Time:

Grade	VDOE	BRT	Date & Time
3	XX	XX	<u>Training/Review:</u> F/4-2-21; 9am to 4pm EDT/6am to 1pm PDT
4	XX	XX	<u>Training/Review:</u> F/4-2-21; 9am to 4pm EDT/6am to 1pm PDT
5	XX	XX	<u>Training:</u> T/3-30-21; 3 to 5pm EDT/12pm to 2pm PDT <u>Review:</u> W/3-31-21; 9am to 4pm EDT/6am to 1pm PDT
6	XX	XX	<u>Training/Review:</u> F/4-2-21; 9am to 4pm EDT/6am to 1pm PDT
7	XX	XX	<u>Training/Review:</u> F/4-2-21; 9am to 4pm EDT/6am to 1pm PDT
8	XX	XX	<u>Training:</u> T/3-30-21; 3 to 5pm EDT/12pm to 2pm PDT <u>Review:</u> W/3-31-21; 9am to 4pm EDT/6am to 1pm PDT
11	XX	XX	<u>Training:</u> T/3-30-21; 3 to 5pm EDT/12pm to 2pm PDT <u>Review:</u> W/3-31-21; 9am to 4pm EDT/6am to 1pm PDT

Working Agenda for 3-30 (3-5pm EDT) and 3-31 (9am-4pm EDT / 6am-1pm PDT)
Grades 5, 8, & 11 – Reading, Math, & Science:

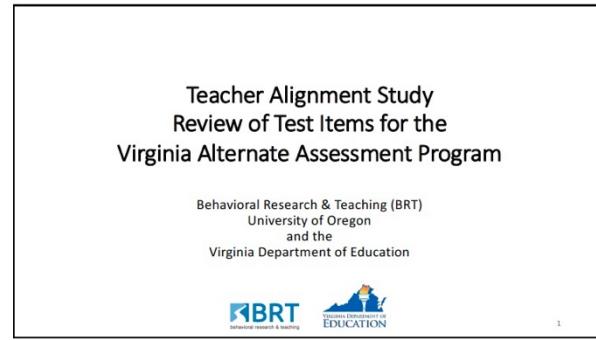
Date	Task	Time
T/3-30-21	Training	3-5pm (E); 12-2pm (P)
W/3-31-21	Training Review	9-9:15am (E); 6-6:15am (P)
	Reading Review + Discussion	9:15am-11:00am (E); 6:15-8:00am (P)
	Lunch	11:00am-11:30am (E); 8:00am-8:30am (P)
	Math Review + Discussion	11:30am-1:15pm (E); 8:30am-10:15am (P)
	Break	1:15pm-1:30pm (E); 10:15am-10:30am (P)
	Science Review + Discussion	1:30pm-3:15pm (E); 10:30am-12:15pm (P)
	Break	3:15pm-3:30pm (E); 12:15pm-12:30pm (P)
	Wrap-up & Survey	3:30pm-4:00pm (E); 12:30pm-1:00pm (P)

Working Agenda for 4-2 (9am to 4pm EDT / 6am-1pm PDT)
Grades 3, 4, 6, & 7 – Reading & Math:

Date	Task	Time	Personnel
F/4-2-21	Training	9-10:45am (E); 6-7:30am (P)	BRT – XX, XX, XX, & XX; VDOE – XX, XX, XX, XX
	Break	10:45am-11:00am (E); 7:30am-7:45am (P)	
	Reading Review + Discussion	11:00am-12:45pm (E); 7:45am-9:30am (P)	
	Lunch	12:45pm-1:15pm (E); 9:30am-10:00am (P)	
	Math Review + Discussion	1:15pm-3:00pm (E); 10:00am-12:00pm (P)	
	Break	3:00pm-3:15pm (E); 12:00pm-12:15pm (P)	
	Wrap-up & Survey	3:15pm-4:00pm (E); 12:15pm-1:00pm (P)	

Appendix B
Alignment Study Training Slides

6/11/23



Training Content

- Day at-a-glance (5 minutes)
 - Goals & Tasks
 - Test Security
 - Agenda
- Student Population (5 minutes)
- Background & Context of New VAAP (5 minutes)
- Virginia Essentialized Standards of Learning (VESOL) (10 minutes)
 - Essentialization Process
 - VESOL Examples from Reading, Math, & Science
 - Ranges in Cognitive Processing (Developing VESOL & Test Items)
- Rating Content and Performance Expectations Alignment: Examples & Practice (45 minutes)
 - VAAP Teacher Alignment Review
 - Rating Test Items: Examples from Reading, Math, & Science
 - Considerations when Rating Alignment
 - Rating Practice
- Distributed Item Review (DIR) and the Review & Discussion Process (15 minutes)
- Q & A (5 minutes)

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6/11/23

Day at-a-glance:
Goals, Tasks, & Test Security
(5 minutes)

3

4

Goals & Tasks

Goal: Review and rate the content alignment of preliminary test items to the Virginia Essentialized Standards of Learning (VESOL)

Tasks & Order of Events: (1) Whole-group training & practice → (2) Grade-level Zoom breakouts for: Reviewing & rating test items + Discussing items with ≥ 2 ratings of 0 + Re-rate items discussed → (3) Wrap-up & Survey

4

5

2

6/1/23

<p>Test Security (1 of 3)</p> <ul style="list-style-type: none"> • All participants have reviewed and signed the Virginia Alternate Assessment Program (VAAP) Non-Disclosure/Conflict of Interest Agreement. 	<p>Virginia Alternate Assessment Program (VAAP) Virtual Alignment Study Committee Members Non-Disclosure/Conflict of Interest Agreement</p> <p>All persons agreeing to serve on committees for the Virginia Board of Education or Virginia Department of Education, or any employees of the Virginia Board of Education or Virginia Department of Education, or members of the Virginia Alternate Assessment Program (VAAP) assessments or related confidential testing materials, or persons otherwise authorized to have access to VAAP assessments or related confidential testing materials must do so with the full knowledge that the security and confidentiality of the test items and related materials is of the utmost importance.</p> <p>I have been authorized by the Virginia Board of Education and the Virginia Department of Education to have access to VAAP assessments or related confidential testing materials. In having the responsibility to serve in this capacity, I acknowledge the following:</p> <ul style="list-style-type: none"> • I only have access to the VAAP assessment items and related materials as determined by the Virginia Board of Education or Virginia Department of Education. • I have read and understood that I am subject to the provisions of 12.1-10.1 of the Code of Virginia entitled "Actions for violation of security procedures." (page 3 of this document) • I have read and understood that I am subject to the provisions of 12.1-10.2 of the Code of Virginia entitled "Violations of security of test items and related materials" (page 4 of this document). • I understand that if my security is breached, I will be held responsible by my school division. • I understand that if my security is breached, I will be held responsible by each institution. • I understand that if my security is breached, I will be held responsible by the Virginia Department of Education or Virginia Board of Education. • I have a duty to disclose any existing position, advisor, or consultant that would pose a conflict of interest, whether real or perceived, with any participation in the Virginia Board of Education or Virginia Department of Education, or any employee of the Virginia Board of Education or Virginia Department of Education, or any person with access to VAAP assessments or related confidential testing materials, or my ability to otherwise have authorized access to VAAP assessments or related confidential testing materials.
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<p>Test Security (2 of 3)</p> <ul style="list-style-type: none"> • All participants have reviewed and signed the Virginia Alternate Assessment Program (VAAP) Non-Disclosure/Conflict of Interest Agreement. 	<p>Virginia Alternate Assessment Program (VAAP) Virtual Alignment Study Committee Members Non-Disclosure/Conflict of Interest Agreement</p> <p>In order to have access to VAAP assessments and related confidential testing materials, I agree that I shall not:</p> <ul style="list-style-type: none"> • Disclose or allow to be disclosed VAAP assessment items and/or content, scoring keys, or other related confidential testing materials. • Disclose or allow to be disclosed student-level information relating to VAAP assessments in compliance with 12.1-10.1 of the Code of Virginia. • Disclose or allow to be disclosed school and division level information relating to testing implications or timelines of testing security at the local level. • Disclose or allow to be disclosed any testing VAAP assessments or related confidential testing materials with any person other than designated Department of Education staff or during the committee meeting or any time the committee meets to discuss the VAAP assessments or related confidential testing materials. • Convey any information to anyone outside any access to VAAP assessments or related confidential testing materials in a classroom setting, conference presentation, or any other venue. • Make any comments or statements under cover of any part of the VAAP assessments or related confidential testing materials. • Reproduce, edit, modify, or otherwise, in whole or in part, any VAAP assessment items and related confidential testing materials. • Mention any VAAP assessment items and related confidential testing materials in an interview, statement before a committee, or any other forum. • Use or access to VAAP assessments or related confidential testing materials for financial gain as a test item writer for any assessments, an author or co-author of textbooks and professional journals, or any such publication related to the Virginia Alternate Assessment Program. • Fail to report any suspicious or illegal activities of test security and resolution day VDOE staff.
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3

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Test Security

(3 of 3)

- During your alignment study work:
 - Keep your webcam on and stay connected in Zoom.
 - Others should not be in the same room with you.
 - Do not have your cell phone available or your email open during the meeting.
 - Do not save or take notes in any format about the VAAP test items.
 - If you need to take a break other than during scheduled breaks, please put a message in the chat that you will be away from your desk and log out of the Distributed Item Review (DIR) application.
- After your alignment study work:
 - Do not discuss or share test content with others.
 - It is permissible to talk about the process you completed, but not the test content.

7

Agenda

Date	Task	Time
7/3-30-21	Training	3:5pm (E); 12:2pm (P)
W/3-31-21	Training Review	9:9:15am (E); 6:6:15am (P)
	Reading Review + Discussion	9:15am-11:00am (E); 6:15-8:00am (P)
	Lunch	11:00am-11:30am (E); 4:00pm-8:30am (P)
	Math Review + Discussion	11:30am-1:15pm (E); 9:30am-10:30am (P)
	Break	1:15pm-1:30pm (E); 10:15am-10:45am (P)
	Science Review + Discussion	1:30pm-3:15pm (E); 10:30am-12:15pm (P)
	Break	3:15pm-3:30pm (E); 12:15pm-12:30pm (P)
	Wrap-up & Survey	3:30pm-4:00pm (E); 12:30pm-1:00pm (P)

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**Student Population —
Students with Significant Cognitive Disabilities
(SWSCD) — Video Clips**

(5 minutes)

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**Students with Significant Cognitive Disabilities
(SWSCD) Population & Diverse Learning Needs**

CJ – higher functioning (verbal, reads, writes) student with significant cognitive disabilities (0:00 to 0:20)
http://ora12test.com/teachers/auth/training/view_task?hubject-training&id=73

Talisha – experiences significant cognitive disability and requires reinforcement to elicit verbal/gestural communication/response (0 to 0:38)
http://ora12test.com/teachers/auth/training/view_task?hubject-training&id=49

Grant – student experiences significant cognitive disability, partially verbal and uses gesture to respond (0 to 0:20)
http://ora12test.com/teachers/auth/training/view_task?hubject-training&id=74

Austin – experiences very significant cognitive and physical disabilities, non-verbal, and uses augmentative communication device, many non-responses, met minimum participation rule – 10 items (0 to 0:45)
http://ora12test.com/teachers/auth/training/view_task?hubject-training&id=51

Chloe – experiences significant cognitive disability, (non-verbal) augmentative communication device to routinely respond (1:45-2:40)
http://ora12test.com/teachers/auth/training/view_task?hubject-training&id=75

Note the diversity in cognitive processing across these students

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**Background & Context of
New VAAP**
(5 minutes)

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VAAP Background and Context

- The original VAAP, implemented in the 2000-2001 school year, was designed as a portfolio-based state assessment for students with significant cognitive disabilities.
- Early versions were closely aligned to students' IEP goals and best practices such as community-based instruction, interactions with peers without disabilities, and instruction in a variety of settings.
- Later versions (as required by USDOE) shifted to an academic focus based on general education content standards reduced in depth, breadth, and complexity.

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VAAP Background and Context

- On February 5, 2019, USDOE (as a result of Peer Review) notified Virginia that the portfolio design of the VAAP did not meet the requirements of the Every Student Succeeds Act (ESSA).
- USDOE advised Virginia to:
 - Redesign or replace the VAAP
 - Provide evidence as such to USDOE by January 5, 2021*
 - Schedule implementation of a "new VAAP" by 2021-22 school year

*Note: VDOE was given an extension to January 2022.

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VAAP Current Status

- Despite various versions, the design of the VAAP has remained portfolio-based.
- The current VAAP evaluates academic standards derived from the Standards of Learning (SOL) in grades 3-8 and high school in reading, writing, mathematics, science, and history/social science that have been reduced in complexity and depth.
- These standards are referred to as Aligned Standards of Learning (ASOL).

HOWEVER...2020-2021 will be the last school year that the portfolio design will used.

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New VAAP: Important Design Considerations

- Allows for variability in the student population, including very low functioning students
- Meets the requirements of Federal Peer Review
- Incorporates positive components of the current VAAP (i.e., Levels of Performance)
- Uses linkages to instruction based on SOL content
- Nimble enough to change as the SOL change
- Offers opportunity for involvement of VA educators
- Produces scores that match current reporting timelines
- Permits incorporation of scores and reports in the Pearson system

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New VAAP: Design Basics

Replace the portfolio design with reading, mathematics, and science assessments composed of test items with 3 answer options delivered in an:

- Online administration
- Paper/pencil administration

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New VAAP: Design Basics

Offers multiple and diverse ways for students to respond:

- Students may enter answer selections on computer or paper.
- Students may enter answer selections with the support of assistive technology.
- Teachers/Examiners may enter answers selected by students based on their preferred response modality (see IEP), for example:
 - Verbal response
 - Pointing
 - Head Movement
 - Eye gaze

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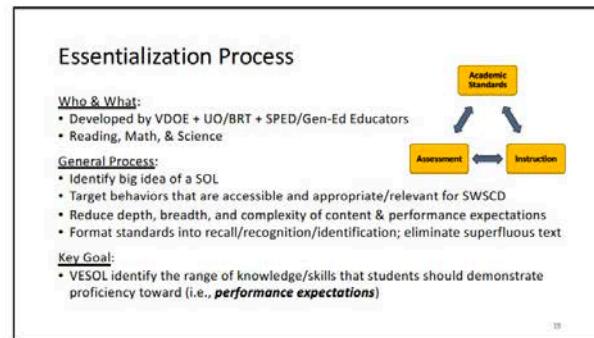
Virginia Essentialized Standards of Learning (VESOL)

(10 minutes)

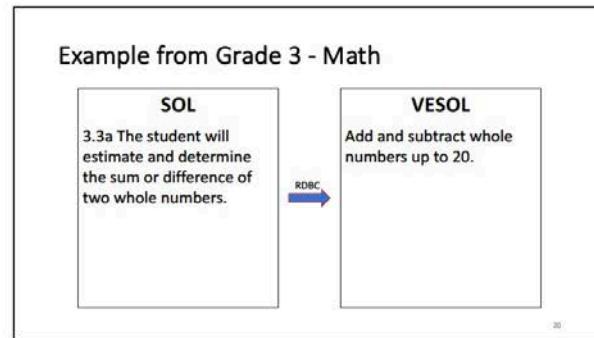
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Example from Grade 5 - Reading**SOL**

- 5.5A Summarize plot events using details from text.
- 5.5B Discuss the impact of setting on plot development.
- 5.5C Describe character development.
- 5.5E Explain the resolution of conflict(s).

VESOL

Identify a character, setting, or event in a story read to student.

RDBC

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Example from Grade 11 - Science**SOL**

BIO.2 The student will investigate and understand that chemical and biochemical processes are essential for life. Key ideas include a) water chemistry has an influence on life processes; b) macromolecules have roles in maintaining life processes; c) enzymes have a role in biochemical processes; d) protein synthesis is the process of forming proteins which influences inheritance and evolution; and e) the processes of photosynthesis and respiration include the capture, storage, transformation, and flow of energy.

VESOL

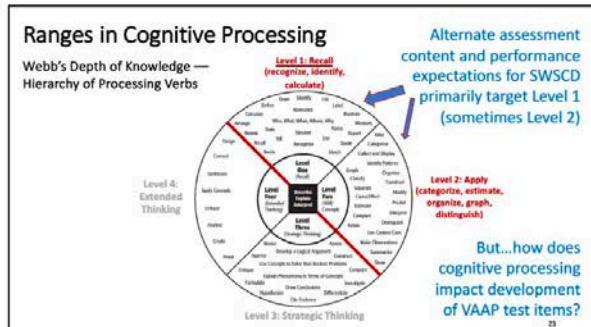
Recognize that plants need light, air, and water to grow and create energy through photosynthesis.

RDBC

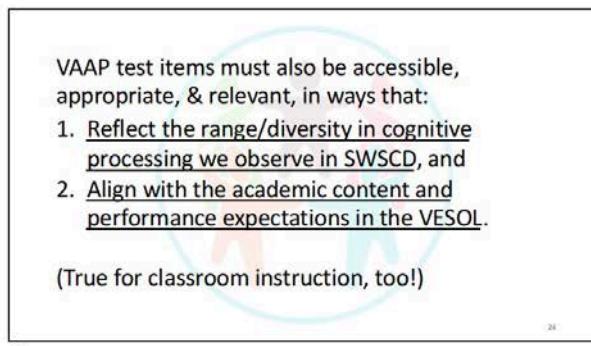
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Content & Performance Expectations Alignment – Test Items, Academic Standards, & Instruction

- Test items should show whether students have learned the academic content that we want them to learn, and instruction should make sure that they learn it.
- Therefore, assessments, academic standards, & instruction should be **closely aligned** — working together and reinforcing one another — so we can make valid decisions across a range of grade-level performance expectations.



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Rating Content and Performance Expectations Alignment: Examples & Practice

{45 minutes}

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Content & Performance Expectations Alignment – VAAP Teacher Alignment Review

- **Key claim:** The academic content in VAAP test items should be *aligned* with the academic content and performance expectations in the associated VESOL.
- **Key question:** Does each test item you review *measure the academic content and performance expectations* in the VESOL that it is supposed to measure?

see Standards for Educational and Psychological Testing (AERA, APA, & NCME, 2014)

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Content & Performance Expectations Alignment – VAAP Teacher Alignment Review

Use your expertise to make sound judgments about the alignment between VAAP test items and associated VESOL.

Your judgments are gathered from 3 questions in an online review system:

1. Rate the strength of alignment between the test item and the Virginia Essentialized Standard of Learning (VESOL). 3-pt rating scale: 0 = Not Aligned; 1 = Sufficiently Aligned; 2 = Strongly Aligned
2. For any test item rated as '1 = Sufficiently Aligned', please provide a recommendation for strengthening the alignment with the VESOL. [Textbox](#)
3. For any test item rated as '0 = Not Aligned', please provide a succinct/constructive rationale and recommendation for improving the alignment between the test item and VESOL. [Textbox](#)

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Rating Alignment

1. Rate the strength of alignment between the test item and the Virginia Essentialized Standard of Learning (VESOL). (3-point rating scale)

0 = Not Aligned: Broad mismatch between test item and VESOL content and performance expectations (i.e., they are simply not the same stuff)

1 = Sufficiently Aligned: Adequate match between test item and VESOL content and performance expectations (i.e., item might be improved to strengthen alignment)

2 = Strongly Aligned: Close match between test item and VESOL content and performance expectations that allows students to demonstrate performance expectations (i.e., item is "spot on", with no improvements needed to improve alignment)

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Strongly Aligned

2 = Strongly Aligned: Close match between test item and VESOL content and performance expectations that allows students to demonstrate performance expectations

The test item is "spot on", with no improvements needed to improve alignment.

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Strongly Aligned Examples from Grade 3 - Math**VESOL** – Add and subtract whole numbers up to 20.

$1 + 4 = ?$

1	3	5
---	---	---

(single-digit #'s)

$6 + 8 = ?$

6	18	14
---	----	----

(double-digit #'s)

Alignment Rating: 2 = Strongly Aligned → content and performance expectations closely match (all #'s within 0-20; addition)

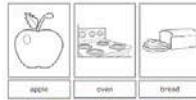
31

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Strongly Aligned Examples from Grade 5 - Reading**VESOL** – identify a character, setting, or event in a story read to student.

Ben likes to bake bread.

What does Ben like to bake?



apple oven bread

(single, short sentence/story)

Gracie was tired and told John to clear his plate after dinner. John left the plate on the table.

Who told John to clear his plate?

Garcia	John	Gracie
--------	------	--------

(two, medium sentences/story)

Alignment Rating: 2 = Strongly Aligned → content and performance expectations closely match (identifying event and character in a story)

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Strongly Aligned Examples from Grade 11 - Science

VESOL – Recognize that plants need light, air, and water to grow and create energy through photosynthesis.



During photosynthesis, plants use light to make food and grow. Which gives plants light?


Leaves Sun Clouds

(photosynthesis explained, Sun in prompt, single-concept) (multi-concept — parts + function + link to photosynthesis)



Which part of the plant takes in sunlight during photosynthesis?


Leaves Roots Clouds

Alignment Rating: 2 = Strongly Aligned → content and performance expectations closely match (plants; functions; photosynthetic processes)

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Sufficiently Aligned

1 = Sufficiently Aligned: Adequate match between test item and VESOL content and performance expectations

Test Item  VESOL

The test item might be improved in some way to strengthen alignment.

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Providing Rationale and Recommendations

2. For any test item rated as '1 = Sufficiently Aligned', please provide a recommendation for strengthening the alignment with the VESOL. (Textbox)

The recommendations you provide should:

- Focus on content alignment & performance expectations,
- Be specific, succinct, and constructive, and
- Give actionable guidance for improving test items.

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Sufficiently Aligned Examples from Grade 3 - Math

VESOL – Add and subtract whole numbers up to 20.

$4 + 2 = ?$			$16 + 8 = ?$		
1	42	6	16	24	168
(single-digit operands/answer)			(double- and triple-digits)		

Alignment Rating: 1 = Sufficiently Aligned → adequate match of content and performance expectations (all operands are within 0-20 range, but two answer options are > 40 — to strengthen alignment, decrease values of those)

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Sufficiently Aligned → Strongly Aligned**VESOL** – Add and subtract whole numbers up to 20.

$4 + 2 = ?$

1	4	6
---	---	---

(single-digit operands/answer)

$16 + 8 = ?$

16	24	18
----	----	----

(double- and triple-digits)

Alignment Rating: 2 = Strongly Aligned → content and performance expectations closely match (all #s within 0-20; addition)

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Sufficiently Aligned Examples from Grade 5 - Reading**VESOL** – identify a character, setting, or event in a story read to student.

Ben likes to bake bread at home.

What does Ben use to bake bread?



Apple Oven Sun

(single, short sentence/story)

Gracie told John to clear his plate after dinner.
John left the plate on the table.

Who was mad after John left his plate?

James John Gracie

(two, medium sentences/story)

Alignment Rating: 1 = Sufficiently Aligned → adequate match of content and performance expectations (identifying events/character, but *inference is not in VESOL*; to strengthen alignment, target concrete / remove inference)

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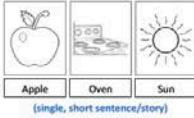
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Sufficiently Aligned → Strongly Aligned

VESOL – Identify a character, setting, or event in a story read to student.

Ben likes to bake bread at home in his oven.

What does Ben use to bake bread?



Apple Oven Sun
(single, short sentence/story)

Gracie told John to clear his plate after dinner. John left his plate on the table and Gracie was mad.

Who was mad after John left his plate?



James John Gracie
(two, medium sentences/story)

Alignment Rating: 2 = Strongly Aligned → content and performance expectations closely match (inference removed by adding detail to stories)

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Sufficiently Aligned Examples from Grade 11 - Science

VESOL – Recognize that plants need light, air, and water to grow and create energy through photosynthesis.



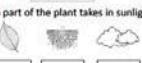
Which gives plants light?



Leaves Sun Clouds
(Sun in prompt, single-concept)



Which part of the plant takes in sunlight?



Leaves Roots Clouds
(multi-concept Q/A — plant parts + function)

Alignment Rating: 1 = Sufficiently Aligned → adequate match of content and performance expectations (plants, parts/functions, **but photosynthesis not mentioned/assessed**; to strengthen alignment, consider incorporating the process)

40

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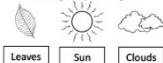
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Sufficiently Aligned → Strongly Aligned

VESOL – Recognize that plants need light, air, and water to grow and create energy through photosynthesis.

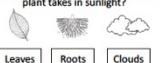


Photosynthesis is when plants use light to make food and grow.
Which gives plants light?


Leaves Sun Clouds
(Sun in prompt, single-concept)



During photosynthesis, which part of the plant takes in sunlight?


Leaves Roots Clouds
(multi-concept Q/A — plant parts + function)

Alignment Rating: 2 = Strongly Aligned → content and performance expectations closely match (photosynthesis incorporated)

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Not Aligned

0 = Not Aligned: Broad mismatch between test item and VESOL content and performance expectations



Test Item **VESOL**

The test item and VESOL being compared are simply not the same stuff.

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Providing Rationale and Recommendations

3. For any test item rated as '0 = Not Aligned', please provide a succinct/constructive rationale and recommendation for improving the alignment between the test item and VESOL. (Textbox)

The rationale and recommendations you provide should:

- Focus on content alignment & performance expectations,
- Be specific, succinct, and constructive, and
- Give actionable guidance for improving test items.

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Not Aligned Examples from Grade 4 - Reading

VESOL – Answer questions about the main idea of a nonfiction text that is read to student.

Maya thinks cats are the best animal in the world.
What is this sentence about?

Cats Dogs Outdoors

(single, short sentence/story)

James got a new soccer ball. He asked his dad to teach him to play soccer.
What are these sentences about?

Friends Soccer Games

(two, medium sentences/story)

Alignment Rating: 0 = Not Aligned → broad mismatch of content and performance expectations (the stories are fictional; to strengthen alignment, use nonfiction passages)

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Not Aligned → Strongly Aligned**VESOL** – Answer questions about the main idea of a nonfiction text that is read to student.

People across the United States have cats as pets.
What is this sentence about?

Soccer is played in many places around the world. Many children learn to play soccer.
What are these sentences about?

Cats Dogs Outdoors

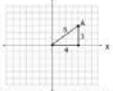
Friends Soccer Games

(single, short sentence/story)

(two, medium sentences/story)

Alignment Rating: 2 = Strongly Aligned → content and performance expectations closely match (nonfiction passages used)

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Not Aligned Example from Grade 6 - Math**VESOL** – Identify points graphed in the first quadrant of the coordinate plane.

What is the perimeter of the triangle in the coordinate plane?

5 53 12

Alignment Rating: 0 = Not Aligned → broad mismatch of content and performance expectations (points graphed in quadrant 1, but question asks about perimeter, not location of points — to strengthen alignment, ask for one or both coordinates for point A)

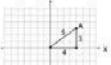
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Not Aligned Example from Grade 6 - Math

VESOL – Identify points graphed in the first quadrant of the coordinate plane.



What is the missing coordinate of point A?

(7, 3)

Alignment Rating: 2 = Strongly Aligned → content and performance expectations closely match
(student must identify the x-coordinate for a point in the first quadrant)

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Considerations When Rating Alignment

- Match between content and performance expectations is key consideration
- Keep SWSCD, and the **cognitive diversity we observe at the population-level**, at the forefront of your mind.
- Remember, test items will include prerequisite / fundamental skills — these are aligned with the VESOL if the content & performance expectations match.
 - Science** — identifying plants and animals from among other objects is a prerequisite to identifying parts of plants and animals and their function/purpose;
 - Math** — counting unit squares is a prerequisite to calculating more complex surface area problems using the area formula ($A = l \times w$); and
 - Reading** — identifying a word in a sentence/paragraph is a prerequisite to being able to identify and understand the meaning of words.

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Considerations When Rating Alignment cont.

Issues that you might note but are unrelated to rating alignment include:

- Typos / mistakes in spelling or grammar
- Incorrect or missing graphics
- Incorrect answer keyed as correct
- Whether you "like" the test item or VESOL
- Whether the content has been taught or assessed in previous years
- Whether you think a particular student can master the content

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a)

Rating Practice: Your Turn!! (Grade 8 - Reading)

VESOL – Answer questions about the main idea of a nonfiction text that is read to student.

Orcas are sometimes called killer whales. They live in groups called pods made up of 6 to 30 individuals. Orcas communicate to each other using many different sounds.
Orcas are smart. They use teamwork to catch prey. Orcas eat fish, squid, seals, penguins, and many other sea animals.

What is this story about?

Groups

Orcas

Clouds

1. Rate the strength of alignment between the test item and the VESOL.
(0 = Not Aligned; 1 = Sufficiently Aligned; 2 = Strongly Aligned)
2. For any test item rated as 'Not Aligned', please provide a succinct/constructive rationale and recommendation for improving the alignment between the test item and VESOL. [\[text\]](#)

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Rating Practice: Your Turn!! (Grade 5 - Math)**VESOL** – Determine whether a number between 1-40 is divisible by 2, 3, 5, or 10.

What is half of 20?

 11 5 10

1. Rate the strength of alignment between the test item and the VESOL.
(0 = Not Aligned; 1 = Sufficiently Aligned; 2 = Strongly Aligned)
2. For any test item rated as "Not Aligned", please provide a succinct/constructive rationale and recommendation for improving the alignment between the test item and VESOL. ([text](#))

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Rating Practice: Your Turn!! (Grade 11 - Science)**VESOL** – Recognize that objects, animals and plants are made of smaller parts and identify various seen and unseen parts.

Which is a part of water that is too small to be seen with just your eyes?



1. Rate the strength of alignment between the test item and the VESOL.
(0 = Not Aligned; 1 = Sufficiently Aligned; 2 = Strongly Aligned)
2. For any test item rated as "Not Aligned", please provide a succinct/constructive rationale and recommendation for improving the alignment between the test item and VESOL. ([text](#))

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Distributed Item Review (DIR) Review & Discussion Process

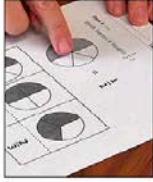
(15 minutes)

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Distributed Item Review (DIR) System

<https://bank.brititemreview.com>

A web-based system for presenting **standards and test items to experts** across a **broad geographic region** so they can **review** them for important dimensions of quality, including **accessibility, appropriateness, bias, sensitivity, and alignment**.



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Accessing and Confirming Your Review Assignment

1. Login to the DIR.
2. Carefully confirm details (correct grade, three content areas).
3. Click "Start".



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Accessing and Confirming Review Assignment

3. Take time as needed to review resources, videos, and instructions to frame study and orient yourself. For example:
 - Cheat Sheet
 - Webb's Cognitive Processing
 - Training Slides
4. Begin reviewing VESOL by clicking "Next".



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Reviewing Test Items

1. Carefully review all aspects of test item & associated VESOL – framed by SWSRD population.
2. Have pertinent resources open during review (e.g., Slides, Cheat Sheet).
3. Answer required alignment question.
4. Provide rationale and/or recommendations on improving test item in textboxes.
5. Click "Save and Continue".

Resources

Review Questions

Item List is clickable, shows those completed (V) & not yet completed (*)

Teacher prompt

Student-view of test Item; correct answer keyed

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Important Things to DO

- Stop and start your review at anytime and any number of times – the DIR keeps track of what you've successfully saved/completed by giving you a green check (V) next to the ID code (always top-left side of screen).
- Edit previously saved responses by clicking on the ID code — click "Save and Continue" to keep changes.
- Self-monitor patterns of attentiveness and consistency in your responses.
- Budget and monitor your time — accuracy, quality of responses, and timeliness are important to the success of today and the study results overall.

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Important Things to AVOID

- You are not being asked to make judgments about the appropriateness of statewide alternate assessment program (VAAP) in Virginia. Policy issues, while certainly important in that they have practical implications for students, teachers, schools, and districts, are not a concern in this study.
- This process is aimed exclusively at determining the alignment between potential VAAP test items and VESOL as a basis for item revision, refinement, and improvement.

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Review & Discussion Process

1. Login to DIR account: <http://www.bank.brtitemreview.com/>
2. We will move into grade-level Zoom breakout rooms.
3. Review assignments will open — begin with Reading.
4. We will monitor progress and may contact you if we see you going down a rabbit hole, or if the deadline is nearing and many test items are yet to review.
5. Use Zoom chat to ask questions directly of BRT/VDOE personnel.
6. For each content area, items with ≥ 2 teacher ratings of '0 = Not Aligned' become candidates for grade-level group discussion.
7. We will protect teachers' identity when displaying/discussion ratings & comments.
8. During discussion, clarity around understanding feedback is the primary goal; consensus is desirable, although not required.
9. Teachers will re-rate the test items discussed in breakout.

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Agenda

Date	Task	Time
1/3-30-21	Training	3-5pm (E); 12-2pm (P)
W/3-31-21	Training Review	9-9:15am (E); 6-6:15am (P)
	Reading Review + Discussion	9:15am-11:00am (E); 6:15-11:00am (P)
	Lunch	11:00am-11:30am (E); 12-1pm (P)
	Math Review + Discussion	11:30am-1:15pm (E); 6:30am-12:15pm (P)
	Break	1:15pm-1:30pm (E); 6:30am-12:30pm (P)
	Science Review + Discussion	1:30pm-3:15pm (E); 6:30am-12:30pm (P)
	Break	3:15pm-3:30pm (E); 12:30pm-1:30pm (P)
	Wrap-up & Survey	3:30pm-4:00pm (E); 12:30pm-1:00pm (P)

Grade	VDOE	BBT
5	Lesin Dippold	Shawn Irvin
8	Frank Gilhooley	Jerry Tindal
11	Sarah Susbury	Joe Swinehart

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Q & A

(5 minutes)

Do you have any questions or comments to share before we move into Breakouts?



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Breakout Review & Discussion

(see Agenda table for times)

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Wrap-up: Test Security Reminder

Thank you!! We enjoyed working with you today!



- Remember the Virginia Alternate Assessment Program (VAAP) Non-Disclosure/Conflict of Interest Agreement.
- Do not discuss or share VAAP test content with others.
- It is permissible to talk about the process you completed – evaluating the alignment of VAAP test items with the Virginia Essentialized Standards of Learning (VESOL).
- It is not permissible to disclose, share, or recreate VAAP test content.



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Wrap-up: Next-Steps**Thank you!! We enjoyed working with you today!**

Your ratings and feedback will be used to select/edit these and other potential items from the broader test item pool for ongoing VAAP test development.

Your work is crucial to building an alternate assessment system that meets federal peer-review and works for students—giving them an opportunity to demonstrate proficiency toward grade-level academic content.

Do you have any questions or comments?



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Teacher Evaluation Survey

https://oregon.qualtrics.com/jfe/form/SV_b4uyKMftqpSTBVl

1. Please navigate to the evaluation survey using the link above.
2. The anonymous survey should take about 5 minutes to complete.
3. We will use your feedback to improve future studies.



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Review & Extra Slides

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Test Security Reminder

- During your alignment study work:
 - Keep your webcam on and stay connected in Zoom.
 - Others should not be in the same room with you.
 - Do not have your cell phone available or your email open during the meeting.
 - Do not save or take notes in any format about the VAAP test items.
 - If you need to take a break other than during scheduled breaks, please put a message in the chat that you will be away from your desk and log out of the Distributed Item Review (DIR) application.
- After your alignment study work:
 - Do not discuss or share test content with others.
 - It is permissible to talk about the process you completed, but not the test content.

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Agenda

Date	Task	Time
1/3-30-21	Training	3-5pm (E); 12-2pm (P)
W/3-31-21	Training Review	9-9:15am (E); 6-6:15am (P)
	Reading Review + Discussion	9:15am-11:00am (E); 6:15-11:00am (P)
	Lunch	11:00am-11:30am (E); 12-1pm (P)
	Math Review + Discussion	11:30am-1:15pm (E); 6:30am-12:15pm (P)
	Break	1:15pm-1:30pm (E); 6:15am-8:30am (P)
	Science Review + Discussion	1:30pm-3:15pm (E); 10:30am-12:15pm (P)
	Break	3:15pm-3:30pm (E); 12:15pm-1:30pm (P)
	Wrap-up & Survey	3:30pm-4:00pm (E); 12:30pm-1:00pm (P)

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Considerations When Rating Alignment

- Match between content and performance expectations is key consideration
- Keep SWSCD, and the **cognitive diversity we observe at the population-level**, at the forefront of your mind.
- Remember, test items will include prerequisite / fundamental skills — these are aligned with the VESOL if the content & performance expectations match.
 - **Science** — identifying plants and animals from among other objects is a prerequisite to identifying parts of plants and animals and their function/purpose;
 - **Math** — counting unit squares is a prerequisite to calculating more complex surface area problems using the area formula ($A = l \times w$); and
 - **Reading** — identifying a word in a sentence/paragraph is a prerequisite to being able to identify and understand the meaning of words.

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Considerations When Rating Alignment cont.

Issues that you might note but are unrelated to rating alignment include:

- Typos / mistakes in spelling or grammar
- Incorrect or missing graphics
- Incorrect answer keyed as correct
- Whether you “like” the test item or VESOL
- Whether the content has been taught or assessed in previous years
- Whether you think a particular student can master the content

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Accessing and Confirming Your Review Assignment

1. Login to the DIR.
2. Carefully confirm details (correct grade, three content areas).
3. Click “Start”.



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Accessing and Confirming Review Assignment

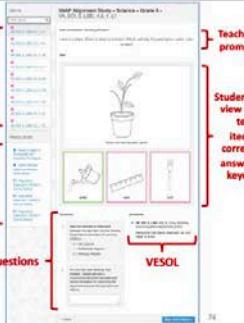
3. Take time as needed to review resources, videos, and instructions to frame study and orient yourself. For example:
 - Cheat Sheet
 - Webb's Cognitive Processing
 - Training Slides
4. Begin reviewing VESOL by clicking "Next".



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Reviewing Test Items

1. Carefully review all aspects of test item & associated VESOL – framed by SWSCD population.
2. Have pertinent resources open during review (e.g., Slides, Cheat Sheet).
3. Answer required alignment question.
4. Provide rationale and/or recommendations on improving test item in textboxes.
5. Click "Save and Continue".



Item List is clickable, shows those completed (V) & not yet completed (=)

Resources

Review Questions

Teacher prompt

Student-view of test item; correct answer keyed

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Review & Discussion Process

1. Login to DIR account: <http://www.bank.brtitemreview.com/>
2. We will move into grade-level Zoom breakout rooms.
3. Review assignments will open — begin with Reading.
4. We will monitor progress and may contact you if we see you going down a rabbit hole, or if the deadline is nearing and many test items are yet to review.
5. Use Zoom chat to ask questions directly of BRT/VDOE personnel.
6. For each content area, items with ≥ 2 teacher ratings of '0 = Not Aligned' become candidates for grade-level group discussion.
7. We will protect teachers' identity when displaying/discussion ratings & comments.
8. During discussion, clarity around understanding feedback is the primary goal; consensus is desirable, although not required.
9. Teachers will re-rate the test items discussed in breakout.

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Appendix C
Accessibility Study Training Slides

6/11/23

Review of Test Items for the
Virginia Alternate Assessment Program (VAAP):
Supporting the Participation of
Visually Impaired Students

Behavioral Research & Teaching (BRT)
University of Oregon
and the
Virginia Department of Education



1

Training Content

- Day at-a-glance: Introductions, Goals & Tasks, Test Security, and Agenda [\(5 min\)](#)
- Student Population [\(5 min\)](#)
- Background & Overview of New VAAP [\(5 min\)](#)
- VAAP Test & Item Design: Virginia Essentialized Standards of Learning [\(3 min\)](#)
- VAAP Test & Item Design: Universal Design & Accommodations [\(15 min\)](#)
- Rating the Accessibility of Test Items [\(15 min\)](#)
- Distributed Item Review (DIR) and the Review & Discussion Process [\(15 min\)](#)
- Q & A [\(5 min\)](#)



2

1

6/1/23

Day at-a-glance:
Introduction, Goals, Tasks, & Test Security
(5 minutes)

 behavioral research & teaching



3

Test Security
(1 of 3)

• All participants have reviewed and signed the Virginia Alternate Assessment Program (VAAP) Non-Disclosure/Conflict of Interest Agreement.

Virginia Alternate Assessment Program (VAAP)
Virtual Accessibility Study Committee Members
Non-Disclosure/Conflict of Interest Agreement

All persons agreeing to serve on committees for the Virginia Board of Education or Virginia Department of Education shall be bound by the provisions of the Virginia Alternate Assessment Program (VAAP) non-disclosure/conflict of interest agreement. No person shall have access to VAAP assessments or related confidential testing materials unless he or she with the due knowledge has the security and confidentiality agreement signed.

I have been authorized by the Virginia Board of Education and the Virginia Department of Education to have access to VAAP assessments or related confidential testing materials. In having the responsibility to serve on a committee, I agree to the following:

- I may have access to the VAAP assessment items and related materials in determined appropriate by the Virginia Department of Education Office of Student Assessment.
- I have agreed to the provisions of 22.1-18.1 of the Code of Virginia entitled "Action for violation of test security procedures." (page 3 of this Agreement).
- I have agreed to the provisions of 22.1-302.1 of the Code of Virginia entitled "Violation of test security procedures; revocation of license." (page 4 of this document).
- I understand that the test items are owned and copyrighted by the Oregon Department of Education or Oregon Department of Education Testing Services.
- I have a duty to disclose any existing position, interest, or commitment that would pose a conflict of interest, directly or indirectly, with my role as a member of the committee. I will report any such conflict to the chairperson of the committee responsible for reviewing, editing, or funding VAAP assessments or related confidential testing materials, or my ability to otherwise have authorized access to VAAP assessments or related confidential testing materials.



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2

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**Test Security
(2 of 3)**

All participants have reviewed and signed the Virginia Alternate Assessment Program (VAAP) Non-Disclosure/Conflict of Interest Agreement.

Virginia Alternate Assessment Program (VAAP)
Virtual Accessibility Study Committee Members
Non-Disclosure/Conflict of Interest Agreement

In order to have access to VAAP assessments and related confidential testing materials, I agree that I will not:

- Disclose or allow to be disclosed VAAP assessment items and/or content, scoring keys, or other related confidential testing materials.
- Disclose or allow to be disclosed student-level information relating to VAAP assessments as compliance with the requirements of the law.
- Disclose or allow to be disclosed school and district level information relating to testing accommodations or structure for testing security at the local level.
- Disclose or allow to be disclosed information relating to VAAP assessments or related confidential testing materials with any person other than designated Department of Education staff or during the committee meeting or a committee meeting, conference presentation, or other committee-related event.
- Convey any information obtained through my access to VAAP assessments or related confidential testing materials to a committee meeting, conference presentation, or other committee-related event.
- Meetings or discussions are neither a part of the VAAP assessments or related confidential testing materials.
- Share or disclose electronically or otherwise, in whole or in part, any VAAP assessment items and related confidential testing materials.
- Share or disclose VAAP assessment items and related confidential testing materials in an unsecured, unauthorized location.
- Use my access to VAAP assessments or related confidential testing materials for financial gain or as a tool for self-promotion or advancement, in either or its capacity as an employee and professional practice, or in such publications related to the Virginia Alternate Assessment Program committee.
- Fail to report any suspected or illegal violation of this security and confidentiality VDOE rule.

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Test Security (3 of 3)

During your independent review, please:

- Keep your webcam on and stay connected in Zoom.
- Others should not be in the same room with you.
- Do not have your cell phone available or your email open during the meeting.
- Do not save or take notes in any format about the VAAP test items.
- If you need to take a break other than during scheduled breaks, please put a message in the chat that you will be away from your desk and log out of the Distributed Item Review (DIR) application.

After our work today, please:

- Do not discuss or share test content with others.
- It is permissible to talk about the process you completed, but not the test content.

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Agenda

Date	Task	Time
F/5-7-21	Training	9:30-1:15am (EDT) 6am-7:15am (PDT)
	Break	10:15am-10:20am (EDT); 7:15pm-7:20pm (PDT)
	Independent Review + Lunch	10:20am-12pm (EDT); 7:20am-9:00am (PDT)
	Discussion	12pm-1:15pm (EDT); 9am-10:15am (PDT)
	Wrap-up & Survey	1:15pm-1:30pm (EDT); 10:15am-10:30am (PDT)



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Student Population — Students with Significant Cognitive Disabilities (SWSCD) Experiencing Visual Impairment/Blindness — Video Clips (5 minutes)



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Students with Significant Cognitive Disabilities (SWSCD) Population & Diverse Learning Needs	
CJ – higher functioning (verbal, reads, writes) student with significant cognitive disabilities (0:00 to 0:20)	https://oeek12ed.com/teachers/auth/training/view_task?subject=training&id=23
Tasha – experiences significant cognitive disability and requires reinforcement to elicit verbal/gestural communication/response (0 to 0:38)	https://oeek12ed.com/teachers/auth/training/view_task?subject=training&id=49
Grant – student experiences significant cognitive disability, primarily verbal and uses gesture to respond (0 to 0:20)	https://oeek12ed.com/teachers/auth/training/view_task?subject=training&id=74
Austin – experiences very significant cognitive and physical disabilities, non-verbal, and uses augmentative communication device, many non-responses, met minimum participation rule - 10 items (0 to 0:45)	https://oeek12ed.com/teachers/auth/training/view_task?subject=training&id=51
Chloe – experiences significant cognitive disability, (non-verbal) augmentative communication device to routinely respond (1:45-2:40)	https://oeek12ed.com/teachers/auth/training/view_task?subject=training&id=75
Note the diversity in cognitive processing & exceptionailities	

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6/11/23

Goals & Tasks

Goal: Review and rate the accessibility of representative test items for the Virginia Alternate Assessment Program (VAAP) with respect to students with significant cognitive disabilities who also experience visual impairment or blindness.

Tasks & Order of Events: (1) Whole-group training → (2) Independent review & rating of test items → (3) Whole-group discussion of items for clarity → (4) Wrap-up & Evaluation Survey



11

Overview of the Virginia Alternate Assessment Program Old and New

(5 minutes)



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6/11/23

VAAP Background and Context

- The original VAAP, implemented in the 2000-2001 school year, was designed as a portfolio-based state assessment for students with significant cognitive disabilities.
- Early versions were closely aligned to students' IEP goals and best practices such as community-based instruction, interactions with peers without disabilities, and instruction in a variety of settings.
- Later versions (as required by USDOE) shifted to an academic focus based on general education content standards reduced in depth, breadth, and complexity.



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VAAP Background and Context

- Despite various versions, the design of the "old" VAAP remained portfolio-based.
- The "old" VAAP evaluates academic standards derived from the Standards of Learning (SOL) in grades 3-8 and high school in reading, writing, mathematics, science, and history/social science that have been reduced in complexity and depth.
- These standards are referred to as Aligned Standards of Learning (ASOL).

HOWEVER...2020-2021 will be the last school year that the portfolio design will used.



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6/11/23

VAAP Background and Context

- On February 5, 2019, USDOE (as a result of Peer Review) notified Virginia that the portfolio design of the VAAP did not meet the requirements of the Every Student Succeeds Act (ESSA).
- USDOE advised Virginia to:
 - Redesign or replace the VAAP
 - Provide evidence as such to USDOE by January 5, 2021*
 - Schedule implementation of a "new VAAP" by 2021-22 school year

*Note: VDOE was given an extension to January 2022.



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VDOE Response

FALL 2019

- Created an internal VDOE team from Assessment and Special Education
- Conferred with National Center for Educational Outcomes and USDOE
- Developed a workplan to meet USDOE deadlines

WINTER and SPRING 2020

- Reviewed alternate assessments for students with significant cognitive disabilities from national assessment consortia and other states
- Conferred with state assessment staff from across the country
- Selected assessment partners: Behavioral Research & Teaching (BRT) at the University of Oregon and the Oregon Department of Education



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New VAAP: Important Design Considerations

- Allows for variability in the student population, including very low functioning students and those experiencing various exceptionalities
- Meets the requirements of Federal Peer Review
- Incorporates positive components of the current VAAP (i.e., Levels of Performance)
- Uses linkages to instruction based on SOL content
- Nimble enough to change as the SOL change
- Offers opportunity for involvement of VA educators
- Produces scores that match current reporting timelines
- Permits incorporation of scores and reports in the Pearson system



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New VAAP: Design Basics

- The new VAAP test is available to eligible students with significant cognitive disabilities in grades 3 through 8 and high school in the areas of reading, mathematics, and science.
- Test items will be based on the Virginia Essentialized Standards of Learning (VESOL) which are the new academic content standards.
- The test will include items with three answer options, presented online but students may also be provided with a paper copy of the items if needed.
- Most test items may be read to the student or the text to speech option may be used



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Student Participation

- It is expected that most students will be tested individually using multiple and flexible ways to demonstrate their knowledge.
- Test items will be presented online but students may also be provided with a paper copy of the items if needed.
- Students may enter answer selections on computer or paper.
- Teachers/Examiners may enter answers selected by students based on their preferred response modality (see IEP).
- Support of assistive technology and alternative communications modes such as verbal responses, pointing, head movement, or eye gaze are allowable response options.
- Presentation accommodations such as magnification, read aloud and text-to-speech are also allowable



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The New VAAP... A Work in Progress

Completed Tasks

- Reading, Mathematics and Science VESOL developed
- VESOL Teacher Validation Study
- Teacher Item Alignment Study
- Stakeholder Committee established

Tasks in Progress

- Reading, Mathematics, and Science test form development
- Accessibility Review
- Introductory Presentations and Resources
- Development of Curricular Resources



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Old versus New Comparison

Old VAAP

- A portfolio design where students submitted Collections of Evidence consisting of work samples in the assessed content areas.
- Administered throughout the school year.
- Locally scored by school division teams.

New VAAP

- Composed of test questions with 3 answer choices in reading, mathematics, and science. Test questions will be based on the VESOL with varying levels of complexity.
- Administered in the spring and most likely will be administered individually to students.
- Scored by the online test delivery software.



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Next Steps

Summer and Fall 2021

- Provide training to school division administrators and teachers
- Provide instructional resources to teachers based on VESOL

Winter and Spring 2022

- Prepare for 1st test administration
- Administer the new VAAP

Summer 2022

- Report scores



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VAAP Test & Item Design:
Virginia Essentialized Standards of Learning (VESOL)
(5 minutes)

BRT behavioral research & teaching

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Essentialization

Who & What:

- Developed by VDOE + UO/BRT + VA SPED/Gen-Ed Educators
- Reading, Math, & Science
- SOL → VESOL

General Process:

- Target accessible, appropriate, & relevant behaviors for SWSCD
- Reduce depth, breadth, and complexity of content
- Format standards concisely into recall/recognition/identification

Key Goal:

- Identify knowledge/skills for demonstrating proficiency (i.e., **performance expectations**)
- Foundation for developing accessible, unbiased test items and classroom instruction

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Example from Grade 3 - Math**SOL**

3.3a The student will estimate and determine the sum or difference of two whole numbers.

RDBC
→**VESOL**

Add and subtract whole numbers up to 20.



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Example from Grade 5 - Reading**SOL**

5.5A Summarize plot events using details from text.
5.5B Discuss the impact of setting on plot development.
5.5C Describe character development.
5.5E Explain the resolution of conflict(s).

RDBC
→**VESOL**

Identify a character, setting, or event in a story read to student.

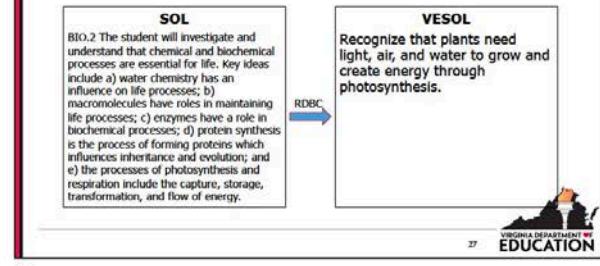


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Example from Grade 11 - Science



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Ranges in Cognitive Processing for SWSCD

Webb's Depth of Knowledge — Hierarchy of Processing Verbs



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VAAP test items must be accessible, appropriate, & relevant, in ways that:

1. Reflect the range/diversity in cognitive processing and disability exceptionalities that we observe in SWS, and
2. Work together with the VESOL and classroom instruction to allow students to show what they know and can do.

The diagram illustrates the relationship between three components: Academic Standards, Assessment, and Instruction. They are represented by yellow rectangular boxes. A double-headed arrow connects Academic Standards and Assessment. Another double-headed arrow connects Assessment and Instruction. A third double-headed arrow connects Academic Standards and Instruction, forming a triangular cycle.

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VAAP Test & Item Design: Universal Design & Accommodations

(15 minutes)

BRT
behavioral research & teaching

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Supporting the Participation of Visually Impaired (VI) SWSCD



VAAP Test & Item Design
Presentation Accommodations
Response Accommodations
Pearson System Accommodations

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Universal Design for Assessment (UDA)

The goal of universal design is to improve access to assessments for all students...a more accurate understanding of what students know and can do. – National Center on Educational Outcomes (NCEO)

- Inclusive assessment population
- Precisely defined constructs
- Accessible, non-biased items
- Amenable and flexible to accommodations
- Simple, clear, and intuitive instructions and procedures
- Maximum readability and comprehensibility
- Maximum legibility

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Adapted from: <https://nceo.info/Assessments/UniversalDesignforAssessment.aspx>



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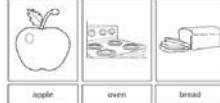
Applying UDA in VAAAP Test & Item Design

- 1 test item / page
- 3 answer options
- Teacher materials (oral preamble)
- Student materials
- Consistent size and spacing
- Significant white space
- Black/white for text and graphics
- Line art, very little fill for graphics
- Simple and clear instructions
- Concise preambles, prompts, and answer options
- Simple and parallel grammar
- Remove superfluous detail

Here is a sentence about Ben.

Ben likes to bake bread.

What does Ben like to bake?



apple oven bread

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**Applying UDA in VAAAP Test & Item Design**

- 1 test item / page
- 3 answer options
- Teacher materials (oral preamble)
- Student materials
- Consistent size and spacing
- Significant white space
- Black/white for text and graphics
- Line art, very little fill for graphics
- Simple and clear instructions
- Concise preambles, prompts, and answer options
- Simple and parallel grammar
- Remove superfluous detail

Here is an addition problem.

What is 1 plus 4?

1 + 4 = ?

1	3	5
---	---	---

1 3 5

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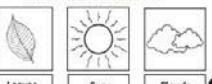
6/11/23

Applying UDA in VAAP Test & Item Design

Here is a plant in the Sun.
Photosynthesis is how plants use light to make food and grow.



What gives light to plants?



Leaves Sun Clouds

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Virginia Department of Education

Presentation Accommodations

Embedded and non-embedded universal supports (Oregon):

- Large Print (10-15 year / 4,000)
- Braille (2-3 year / 4,000)
- Visual magnification devices/software
- Computer administration functions (resize, repeat, volume, pace, resetting, high contrast)
- Auditory amplification/buffers
- Manipulatives (wide-ranging)
- Writing/highlighting implements

• Markers/Masking devices

- Calculators/Abacus
- Measurement tools (e.g., ruler)
- Color overlays
- Projection devices
- Human- and computer-based read aloud
- Visual point-to support of directions/prompt/answer options
- Attentional sensory supports
- Physical position supports

Adapted from: <https://www.oac.virginia.gov/doe/policy/test-accessibility/>

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Response Accommodations

Embedded and non-embedded universal supports (Oregon):

- Student assistive technology (any device that serves as primary communication mode; word processing, typewriter, adaptative keyboard, tactile communicator)
- Response aids for printed items (e.g., adaptive pencils, key guards, skins)
- Computer response functions (write, erase, keyboard, touchscreen, stylus)
- Point-to or physical response dictation

- Student read-aloud and sub-vocalization
- Alternate response options (e.g., adaptive keyboard, large keyboard, StickyKeys, MouseKeys, FilterKeys, adapted mouse, touchscreen, head wand, switches)

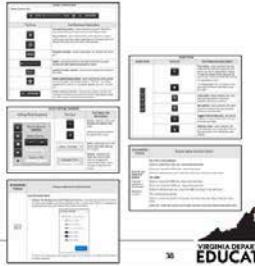
Adapted from: <https://www.oregon.gov/ode/education-commerce/test-items/test-accommodations/Pages/default.aspx>

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Pearson System Accommodations

Embedded universal supports:

- Audio control box
- Audio tools
- Audio settings
- Online Tools and Features
- Accessibility Features
 - Zoom and resizing
 - Keyboard and touchscreen
 - Background/foreground color
 - Line reader masking
 - Answer masking
 - Sign out for breaking/restart



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Building on Previous Work

Test items have been reviewed for:

- Alignment to alternate standards (OR teachers; VA teachers)
- Bias for protected populations (OR teachers)
- Accessibility for SWSCD (OR teachers; VA teachers)
- Accessibility for VI/B (OR independent/external VI/B specialists)

Your work today extends an iterative, design-based review/revise/refine approach to test development and validation and builds on the previous and ongoing work of many stakeholders!



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Rating the Accessibility of Test Items for Students with VI & Providing Recommendations and Rationale for Improvement

(15 minutes)



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6/11/23

Accessibility of Test Content for Students with VI

- **Key claim:** VAAP test content should be accessible to all students, particularly those experiencing sensory disabilities.
- **Key question:** Given universal design features and the collection of accommodations and supports, are the test items you review accessible for visually-impaired/blind students?



Standards for Educational and Psychological Testing (AES-VA-04-2014-2015)

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Accessibility of Test Content for Students with VI – VAAP Accessibility Review

Use your expertise to soundly judge the accessibility of VAAP test items for students with VI.

Your judgments are gathered from 3 questions in an online review system:

1. Is the test item accessible for visually impaired / blind students? (3-pt rating scale)
2 = Yes, as is
1 = Yes, with recommendation
0 = No, inaccessible
2. For any test item rated as '1 = Yes, with recommendation', please provide a recommendation to improve accessibility, e.g., Does the item need the change?; Does the list of accommodations need to change/expand? (textbox)
3. For any test item rated as '0 = No, inaccessible', please provide a succinct/constructive rationale. (textbox)



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Rating Test Item Accessibility

- 1. Is the test item accessible for visually impaired / blind students?**

2 = Yes, as is: Test item is **clearly accessible**, students with VI can demonstrate performance expectation (i.e., item is "spot on", no change needed to improve accessibility)

1 = Yes, with recommendation: Test item can be **accessible given a change** (i.e., adjust item or accommodations to improve accessibility)

0 = No, inaccessible: Test item is **broadly inaccessible**, and students with VI can likely not demonstrate performance expectation given bias in item (i.e., improving accessibility is impractical for the item — e.g., replace item; needed accommodation support would give away answer)



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Providing Recommendations & Rationale

- 2.** For any test item rated as '1 = Yes, with recommendation', please provide a recommendation to improve accessibility e.g., Does the item need the change?; Does the list of accommodations need to change/expand? (textbox)
- 3.** For any test item rated as '0 = No, inaccessible', please provide a succinct/constructive rationale. (textbox)

The recommendations & rationale you provide should:

- Focus on accessibility of test content for demonstrating performance expectations,
- Be specific, succinct, and constructive, and
- Give actionable guidance for improving test items / accommodations.



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6/11/23

Providing Recommendations & Rationale: 3 General Areas of Feedback You Might Provide

1. Adjust teacher material / oral preamble (e.g., add context to better frame content or scaffold toward performance expectation)
2. Adjust graphic (e.g., remove superfluous details unrelated to content or performance expectation)
3. Create additional / modify existing accommodations (e.g., presentation or response related accommodations that would make content / performance expectation more accessible)



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Considerations When Rating Accessibility

- Accessibility for students experiencing VI/B is key consideration.
 - Leverage your expertise teaching and assessing these students.
- Keep SWSRD and the range/diversity in cognitive processing and disability exceptionalities we observe across students, in mind.
 - While SWSRD, including those with VI/B, have individual needs, judging accessibility is inherently a population-level judgment.
- Remember, to judge accessibility in the context of universal design elements and the collection of accommodations and supports.
 - Your basic task is to say, "Given universal design, accommodations, and student supports, this test item is: (2) accessible as is, (1) accessible given a change, or (0) inaccessible without some type of impractical change."



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Considerations When Rating Accessibility cont.

Issues you might note but are unrelated to rating accessibility include:

- Typos / mistakes in spelling or grammar
- Incorrect or missing graphics
- Incorrect answer keyed as correct
- Whether you "like" the test item
- Whether the content has been taught or assessed in previous years
- Whether you think a particular student can master the content



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Distributed Item Review (DIR) Review & Discussion Process

(10 minutes)



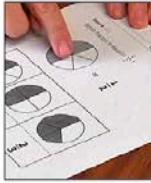
48

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Distributed Item Review (DIR) System

<https://bank.brtitemreview.com>
A web-based system for presenting *standards and test items* to experts across a *broad geographic region* so they can *review* them for important dimensions of quality, including *accessibility, appropriateness, bias, sensitivity, and alignment*.



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Accessing and Confirming Your Review Assignment

1. Login to the DIR.
2. Carefully confirm details (VI/B Accessibility — 3 assignments in Reading, Math, & Science).
3. Click "Start".



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Accessing and Confirming Review Assignment

3. Take time as needed to review resources, videos, and instructions to frame study and orient yourself.
4. Begin item review by clicking "Next".

VAAP VIB Accessibility Study
Reading Assignment

Resources

Student Population Videos

Instructions

VIRGINIA DEPARTMENT OF EDUCATION

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Reviewing Test Items

Item List is clickable, shows those completed ✓ & not yet completed ✎

Resources

Review Questions

Review Questions

Teacher materials; Oral prompt

Student-view of test item; correct answer keyed

VESOL

A DEPARTMENT OF EDUCATION

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Reviewing Test Items

1. Carefully review ALL aspects of each test item, framed by SWSCD + VI/B population.
2. Have pertinent resources open (e.g., Slides).
3. Answer required accessibility question.
4. Provide rationale and/or recommendations for improving accommodations and test items in textboxes.
5. Click "Save and Continue".

Item List is clickable, shows those completed ✓ & not yet completed ✎

Resources

Review Questions

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Important Things to DO

- Stop and start your review at anytime and any number of times – the DIR keeps track of what you've successfully saved/completed by giving you a green check (✓) next to the ID code (always top-left side of screen).
- Edit previously saved responses by clicking on the ID code — click "Save and Continue" to keep changes.
- Self-monitor patterns of attentiveness and consistency in your responses.
- Budget and monitor your time — accuracy, quality of responses, and timeliness are important to the success of today and the usefulness of the study results overall.



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Important Things to AVOID

- You are not being asked to make judgments about the appropriateness of statewide alternate assessment program (VAAP) in Virginia. Policy Issues, while certainly important in that they have practical implications for students, teachers, schools, and districts, are not a concern in this study.
- This process is aimed exclusively at determining the accessibility of potential VAAP test items for students experiencing VI/B as a basis for item revision, refinement, and selection.



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Review & Discussion Process

1. Login to DIR: <http://bank.brtitemreview.com/>
2. Remain in main Zoom meeting with camera on and chat open during item review.
3. We will complete the first 3 items (in Math & Science), then reconvene to discuss — making sure we're on the same page and allowing time for Q & A.
4. When review restarts, we will monitor progress and may chat with you if we see you going down a rabbit hole, or if time is short and many test items are yet to review.
5. Use chat to ask questions directly of BRT/VDOE personnel – we can enter a private breakout rooms as needed.
6. During discussion, clarity around understanding feedback is the primary goal; consensus is desirable, although not required.
7. You might be asked to (informally) re-rate test items discussed.



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Agenda

Date	Task	Time	Personnel
F/5-7-21	Training	9:10-11:15am (EDT) 9am-11:15am (PDT)	BRT – Shawn, Joe, & JT; VDOE – Sharon & Lia
	Break	10:15am-10:20am (EDT); 7:15am-7:20am (PDT)	
	Independent Review + Lunch	10:20am-12pm (EDT); 7:20am-9:00am (PDT)	
	Discussion	12pm-1:15pm (EDT); 9am-10:15am (PDT)	
	Wrap-up & Survey	1:15pm-1:30pm (EDT); 10:15am-10:30am (PDT)	



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Q & A (5 minutes)

Do you have any questions or comments to share
before we move into Independent Review?



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Test Security Reminder

- During your independent review, please:
 - Keep your webcam on and stay connected in Zoom.
 - Others should not be in the same room with you.
 - Do not have your cell phone available or your email open during the meeting.
 - Do not save or take notes in any format about the VAAP test items.
 - If you need to take a break other than during scheduled breaks, please put a message in the chat that you will be away from your desk and log out of the Distributed Item Review (DIR) application.
- After our work today, please:
 - Do not discuss or share test content with others.
 - It is permissible to talk about the process you completed, but not the test content.



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Independent Review & Lunch (10:20am - 12pm)



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Wrap-up: Test Security Reminder**Thank you!! We enjoyed working with you today!**

- Remember the Virginia Alternate Assessment Program (VAAP) Non-Disclosure/Conflict of Interest Agreement.
- Do not discuss or share VAAP test content with others.
- It is permissible to talk about the process you completed – evaluating the accessibility of VAAP test items.
- It is not permissible to disclose, share, or recreate VAAP test content.

**Wrap-up: Next-Steps****Thank you!! We enjoyed working with you today!**

- Your ratings and feedback will be used to select/edit these and other items from the test item pool for ongoing VAAP test development.
- Your work is crucial to building an alternate assessment system that meets federal peer-review and works for all students—giving an opportunity to demonstrate proficiency toward grade-level academic content.
- May 13th follow-up w/ BRT and VDOE — presenting changes/ideas around items and accommodations for improving accessibility (3-5pm EDT)
- Do you have any questions or comments?



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Teacher Evaluation Survey

https://oregon.qualtrics.com/jfe/form/SV_bIQfVorHF6x9sQS

1. Please navigate to the evaluation survey using the link above.
2. The anonymous survey should ≤ 5 minutes to complete.
3. We will use your feedback to improve future studies.



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Appendix D
Item Alignment Review Guide

VAAP Item Alignment Review — March-April 2021

Purpose/Goal: Teachers will rate VAAP test items for alignment with Virginia Essentialized Standards of Learning (VESOL), with the goal of identifying problematic test items for ongoing test development.

Task: Teachers will rate the alignment of VAAP items from the content areas/grade-level assigned using the Distributed Item Review (DIR), a secure web-based system for presenting test items to experts across broad geographic regions for review of important dimensions of quality (see https://www.brtpreprojects.org/wp-content/uploads/2016/05/TechRpt1603_DIR_AdminUserGuide.pdf).

Process: For a successful review, please make note of the following details and pointers:

1. **Register for an account** in the DIR at: <https://bank.brtpreitemreview.com>.
2. These are secure test items, **please do not download or share** them with anyone else.
3. Rate the strength of alignment between the test item and the Virginia Essentialized Standard of Learning (VESOL). 3-pt scale: 0 = Not Aligned; 1 = Sufficiently Aligned; 2 = Strongly Aligned
4. For any test item rated as '1 = Sufficiently Aligned', please a recommendation for strengthening the alignment with the VESOL.
5. For any test item rated as '0 = Not Aligned', please provide a succinct/constructive rationale and recommendation for improving the alignment between the test item and VESOL.
6. Key considerations when gauging alignment:
 - a. Content and performance expectations are key consideration — Is the stuff in the test item the same stuff in the VESOL?
 - b. Keep SWSCD, and the cognitive diversity we observe at the population-level, at the forefront of your mind.
 - c. Test items will include prerequisite / fundamental skills — these are aligned with the VESOL if the content & performance expectations match.
 - i. Science — identifying plants and animals from among other objects is a prerequisite to identifying parts of plants and animals and their function/purpose;
 - ii. Math — counting unit squares is a prerequisite to calculating more complex surface area problems using the area formula ($A = l \times w$); and
 - iii. Reading — identifying a word in a sentence/paragraph is a prerequisite to being able to identify and understand the meaning of words.
7. Issues that you might see but are unrelated to alignment of test items & VESOL include:
 - a. Typos / mistakes in spelling or grammar
 - b. Incorrect or missing graphics
 - c. Incorrect answer keyed as correct
 - d. Whether you "like" the test item or VESOL
 - e. Whether the content has been taught or assessed in previous years
 - f. Whether you think a particular student can master the content
8. Do not be concerned about missing audio or scaling/size of graphics — programmers will use code to properly adjust these.
9. Review consistently & efficiently: 1-1.5 minutes per item, monitor progress, take breaks, stop-start your reviews as needed, avoid rabbit holes, over-harshness, and commentary beyond the purpose of the alignment review.
10. If you have any questions during your screening review, please use the Zoom chat to communicate with the BRT/VDOE personnel in your breakout. If your question pertains to a particular test item, please note the content area, grade, and item ID.

Appendix E

Item Accessibility Follow-up Discussion Guide

Accessibility VIB Committee Discussion Guide

May 13, 2021 at 3:00 to 5:00 PM (EST)

<https://uoregon.zoom.us/j/97258863602>

Meeting ID: 972 5886 3602

Meeting Goals:

1. To share and discuss study data (including specific revisions to items based on reviewer feedback) by content area.
2. To discuss use of invisible text, embedded supports, and accommodations beyond the SOL test for low vision VAAP test takers.
3. To share information on development of Braille forms and discuss experience of specialists with VAAP students who also use Braille.
4. To generate a list of allowable accommodations and embedded supports for blind students taking the VAAP using the SOL accommodations as the baseline.

Introduction:

1. Welcome to Part II of the Accessibility Study
2. Review Goals
3. Share one form/per content area/ grade level will be used on 2021-22 administration

Study Data, Show and Tell, & Discussion:

Science

All items in this content area include graphics so most comments were related to graphics.

No “0”, which means no committee member found items to be totally inaccessible.

One item received all “1”s — show this item and present possible replacements or revisions.

Show and discuss any other *Science* item that the committee made recommendations on that the graphic artist has already made changes.

Discussion Questions

- Would it help VI students to have expanded language in *Science* teacher materials (invisible text) to provide additional context?
 - Show examples of items in which more context might be helpful.
- Are there embedded supports that you would consider essential for VAAP test-takers who have low vision?
- Are there accommodations beyond those currently offered for the SOL test that you would consider essential for VAAP test-takers who have low vision?

Reading

One item received 3 “1s and a “0” — show this item and present possible replacements or revisions.

Show and discuss any other *Reading* item that received 3 “1s”.

Show and discuss any other *Reading* item that the committee made recommendations on that the graphic artist has already made changes.

Discussion Questions

- Would it help VI students to have expanded language in *Reading* teacher materials (invisible text) to provide additional context?
 - Show examples of items in which more context might be helpful.
- Are there embedded supports that you would consider essential for VAAP test-takers who have low vision?
- Are there accommodations beyond those currently offered for the SOL test that you would consider essential for VAAP test-takers who have low vision?

Math

One item received 1 “0” — show and discuss this item and present possible replacements or revisions.

Show and discuss any other *Math* item that the committee made recommendations on that the graphic artist has already completed.

Discussion Questions

- Would it help VI students to have expanded language in *Math* teacher materials (invisible text) to provide additional context?
 - Show examples of items in which more context might be helpful.
- Are there embedded supports that you would consider essential for VAAP test-takers who have low vision?
- Are there accommodations beyond those currently offered for the SOL test that you would consider essential for VAAP test-takers who have low vision?

Braille Form Development:

We anticipate the Braille form development to follow the same process as SOL Braille form development:

- Braille contractor will follow BANA and APH guidelines
- Confer with VDOE regarding item edits and revisions

Discussion questions

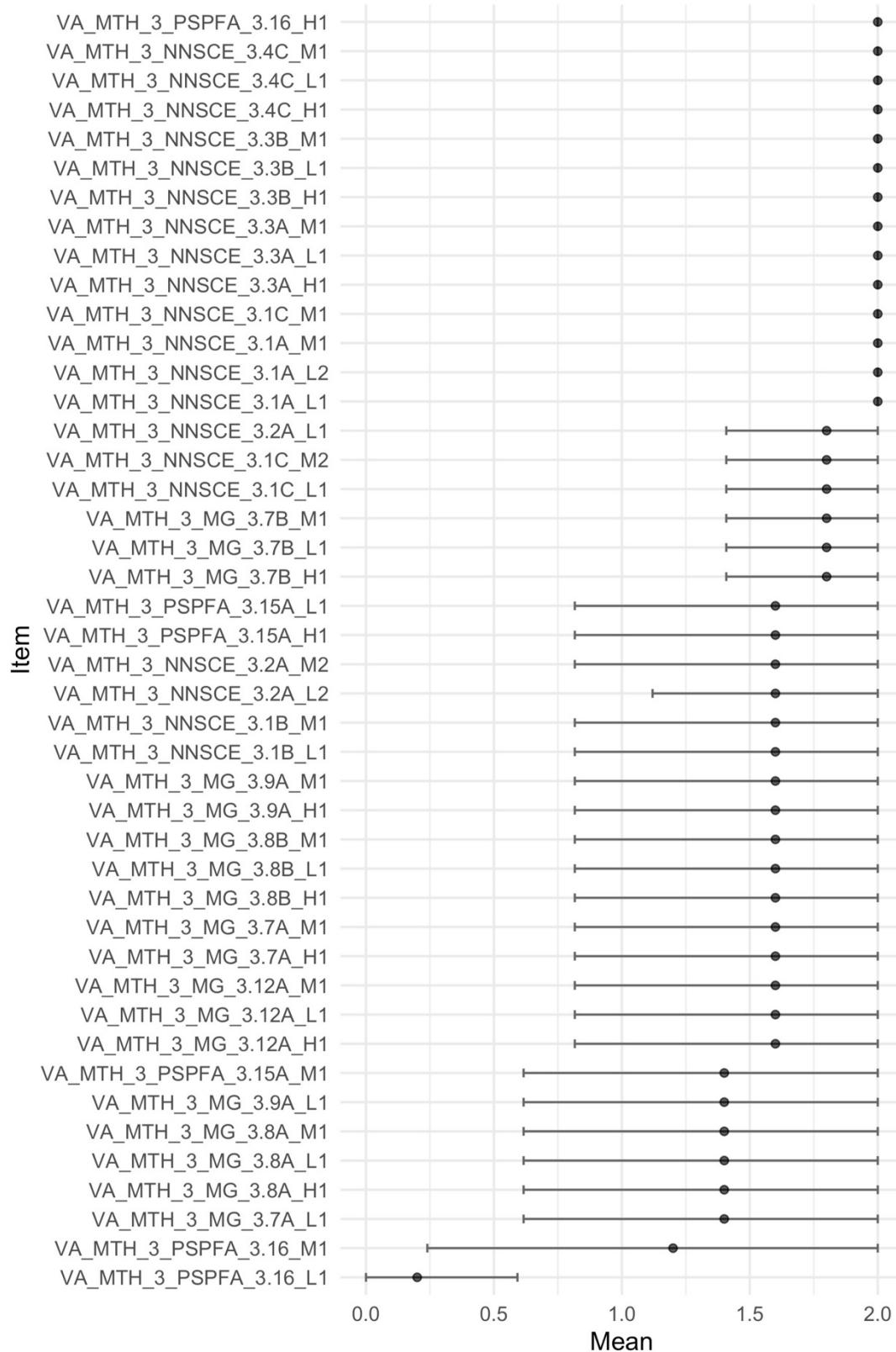
1. Do you have students that you currently serve who are VAAP participants and use Braille? If yes, how many?
2. Please describe how the Braille usage and overall Braille experience of these students differs from SOL test-takers.
3. Are there embedded accommodations/supports that you would consider essential for VAAP test-takers who are blind?
4. Are there accommodations beyond those currently offered for the SOL test that you would consider essential for VAAP test-takers who are blind?

Appendix F

Plots of Average Mean Alignment Ratings by Item by Subject Area and Grade

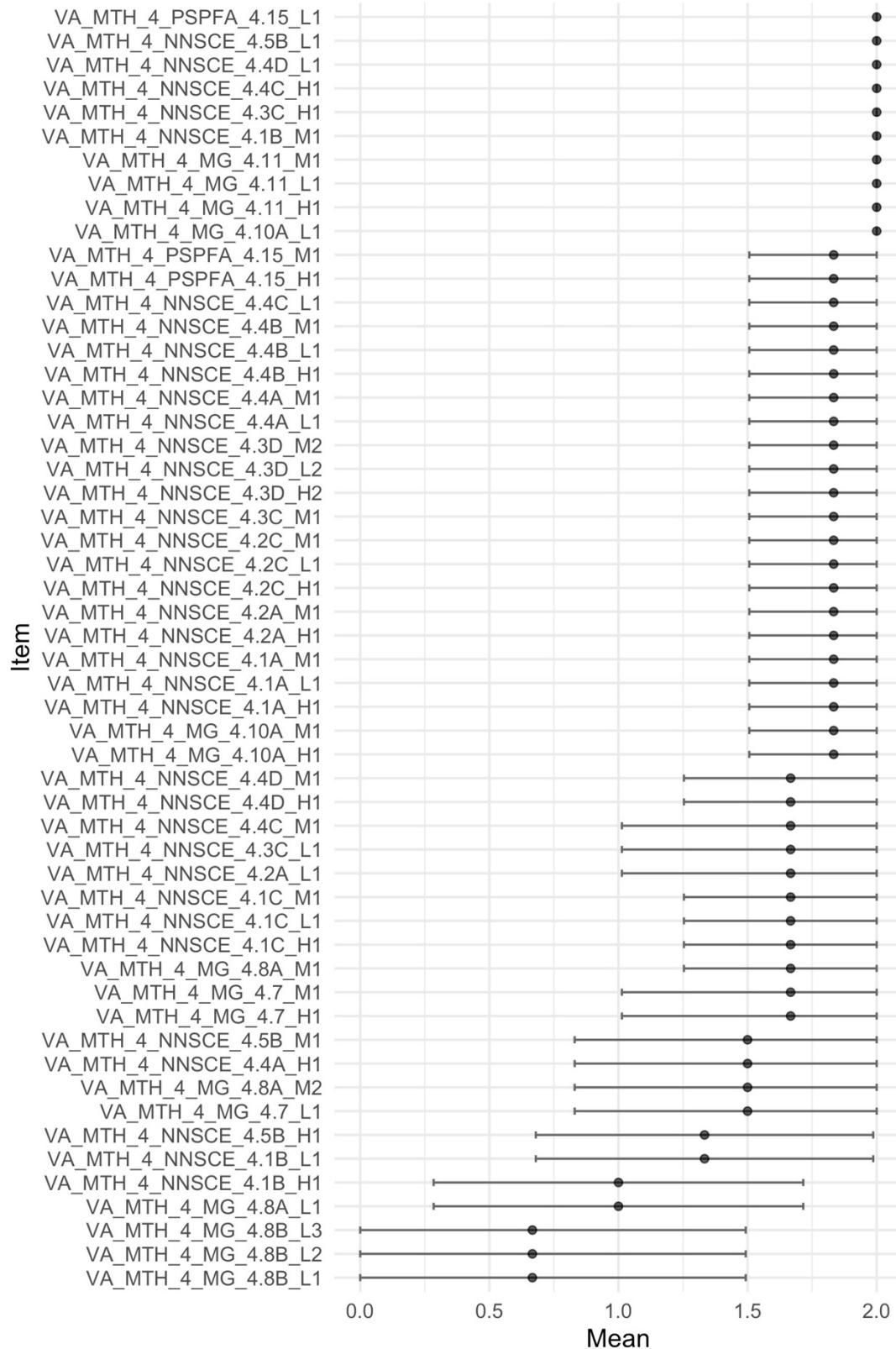
Math Grade 3

Gray bands represent 95% confidence intervals



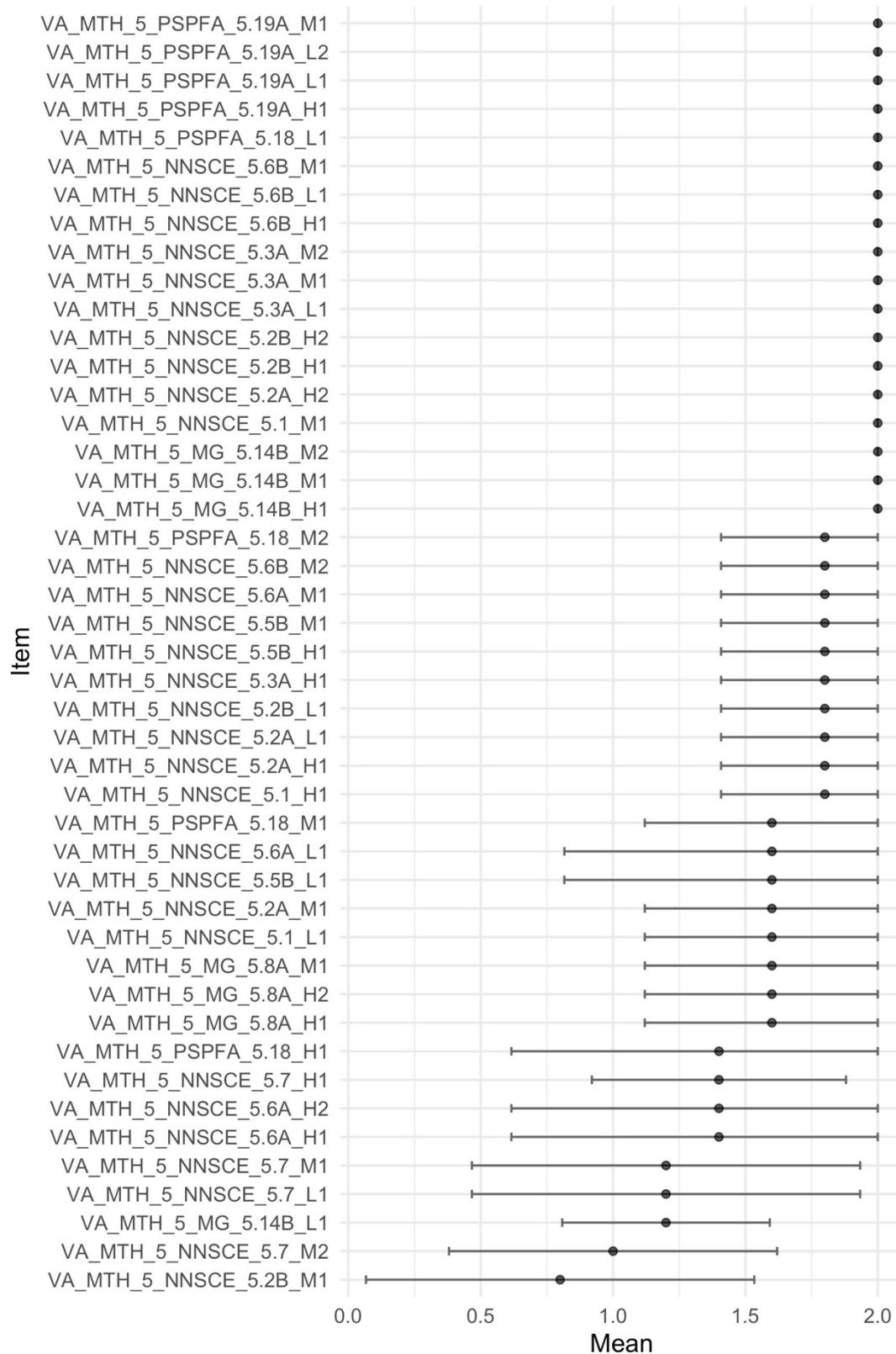
Math Grade 4

Gray bands represent 95% confidence intervals



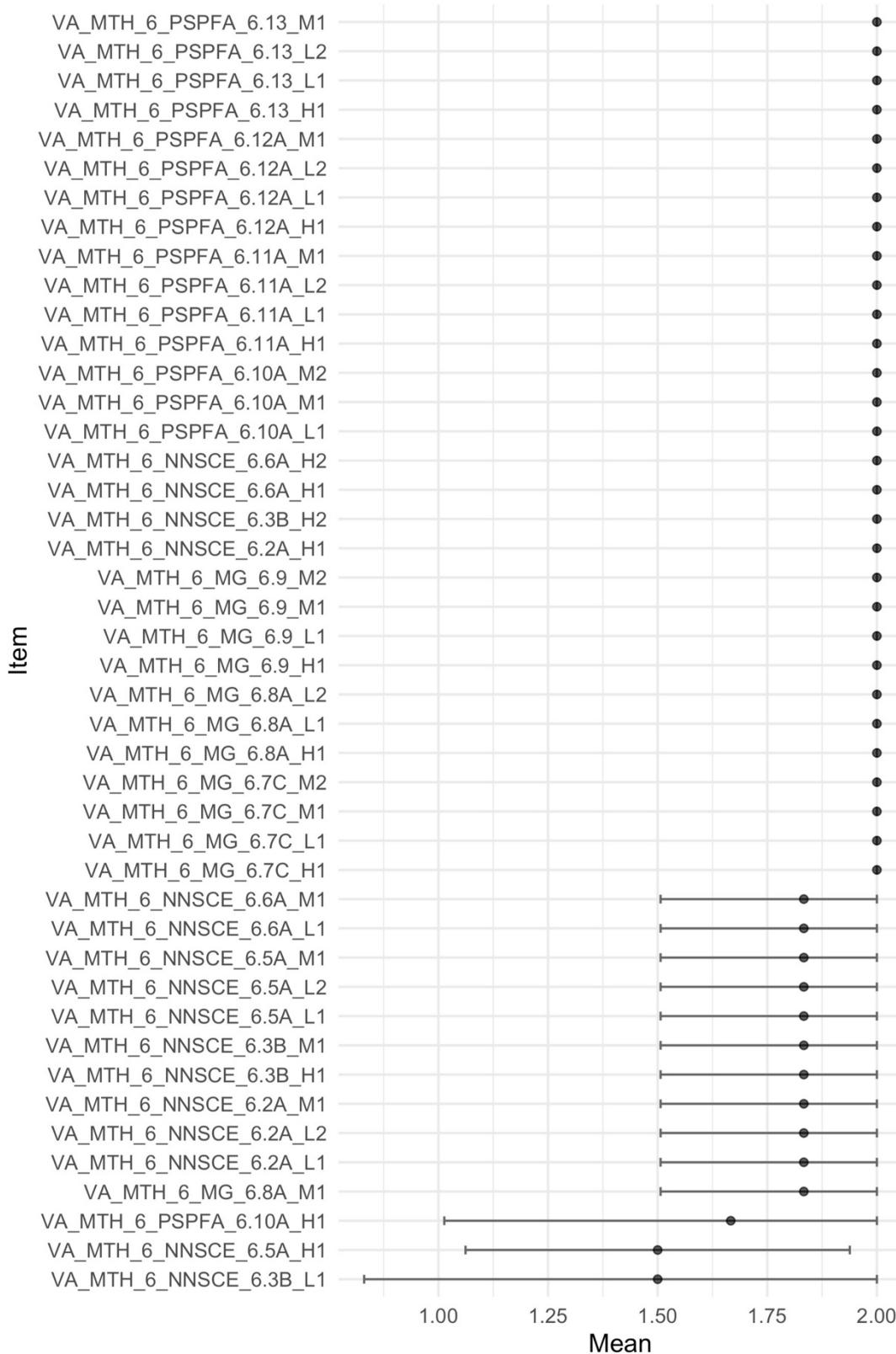
Math Grade 5

Gray bands represent 95% confidence intervals



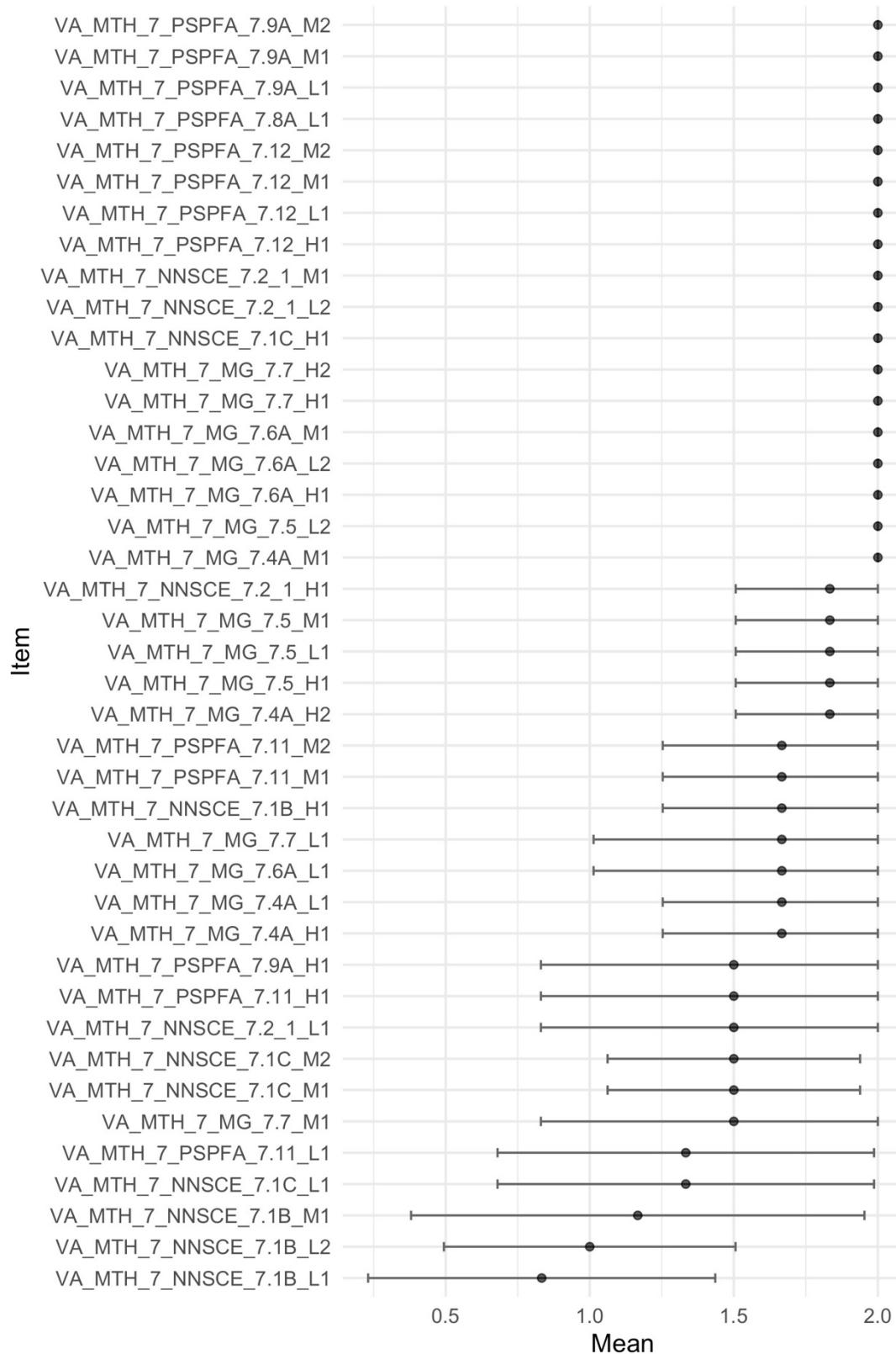
Math Grade 6

Gray bands represent 95% confidence intervals



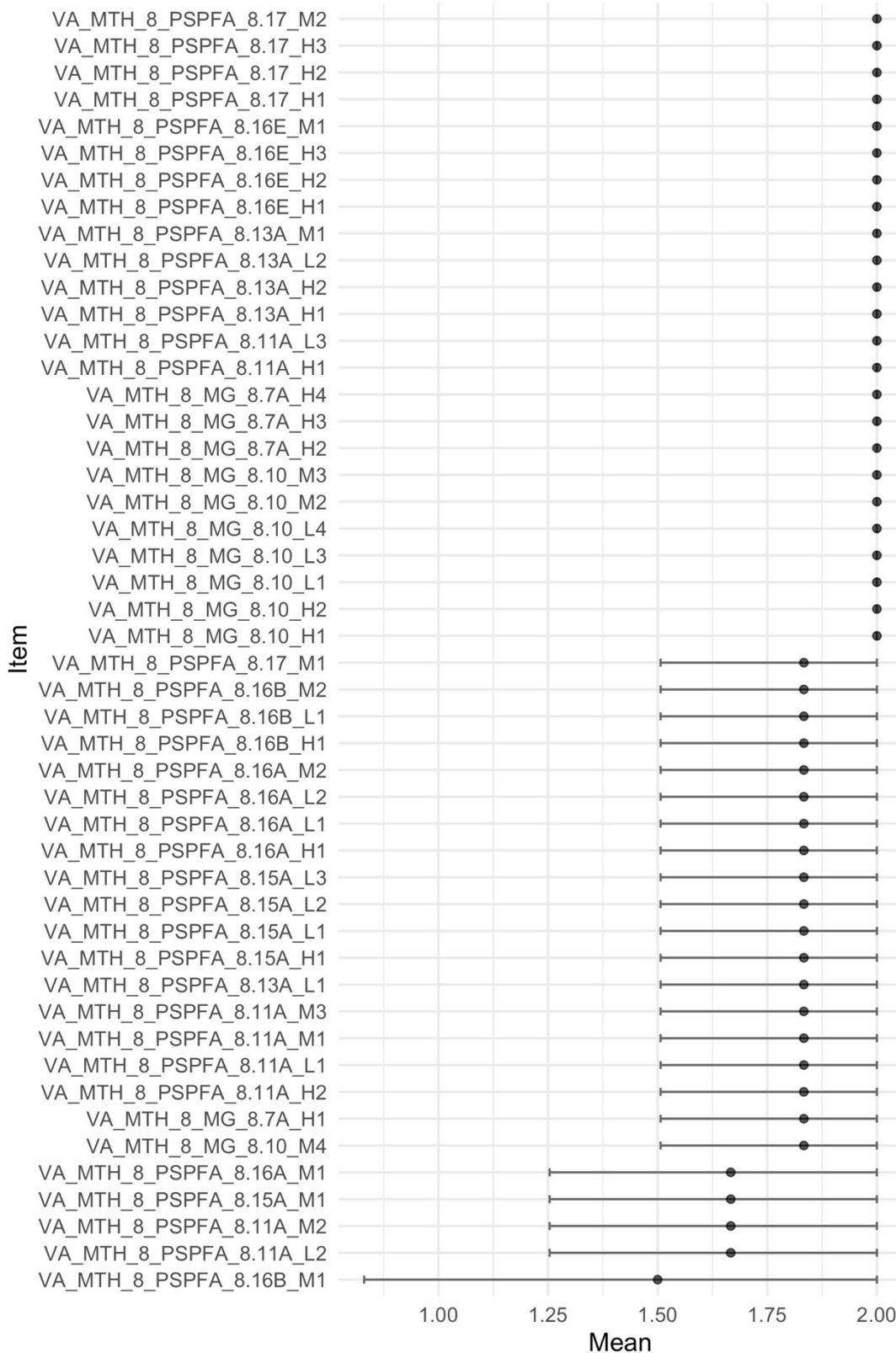
Math Grade 7

Gray bands represent 95% confidence intervals



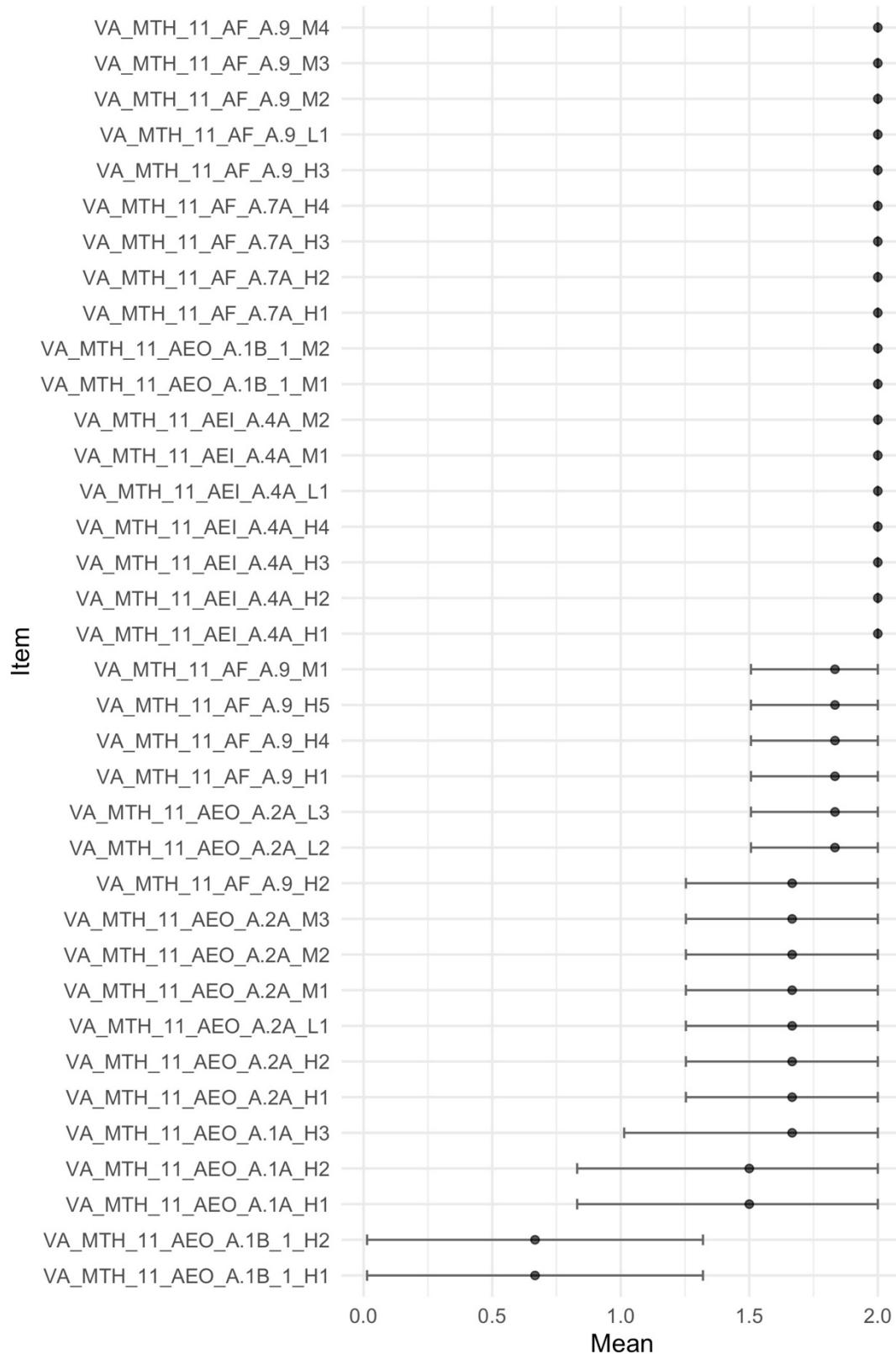
Math Grade 8

Gray bands represent 95% confidence intervals



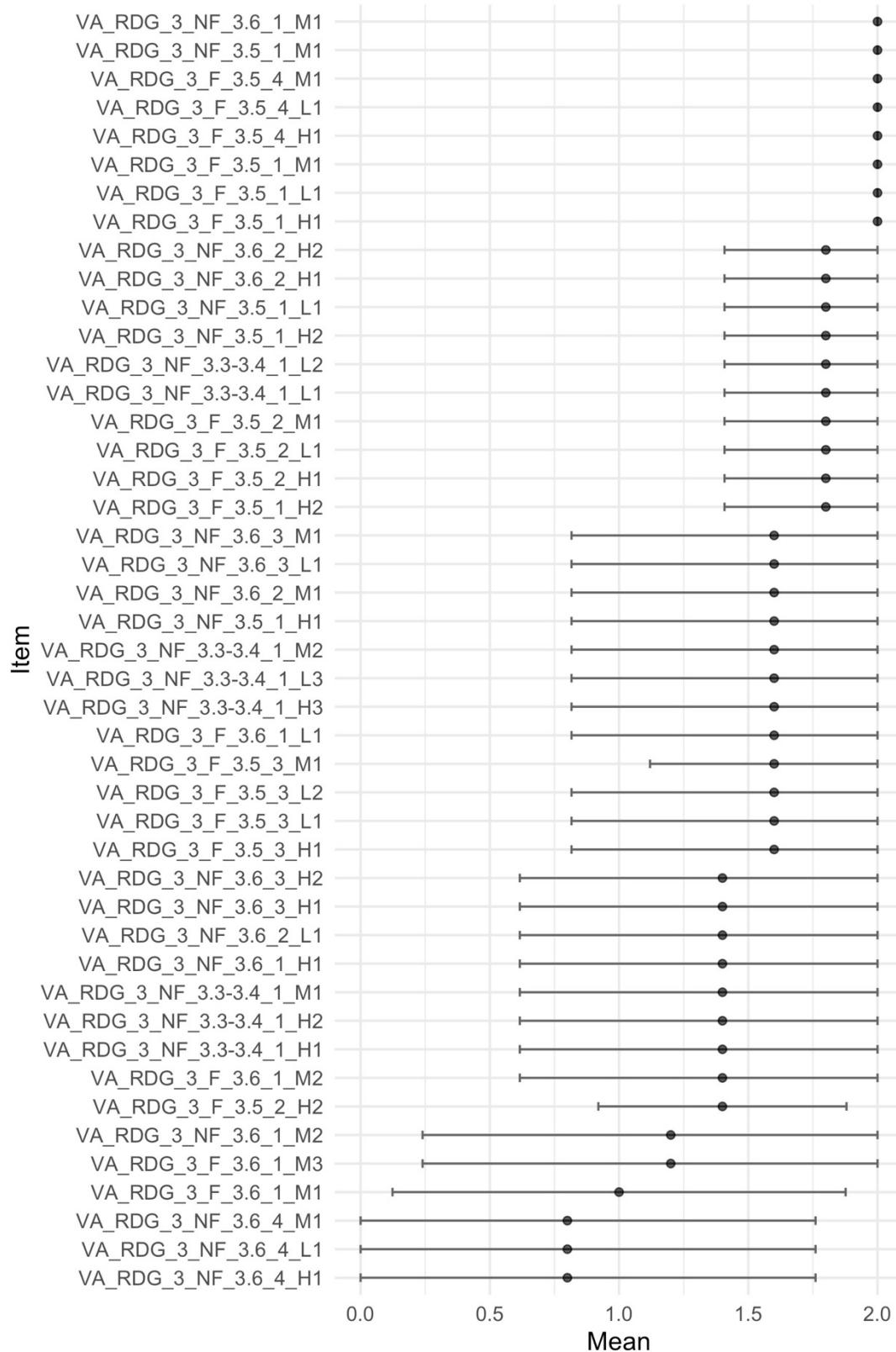
Math Grade 11

Gray bands represent 95% confidence intervals



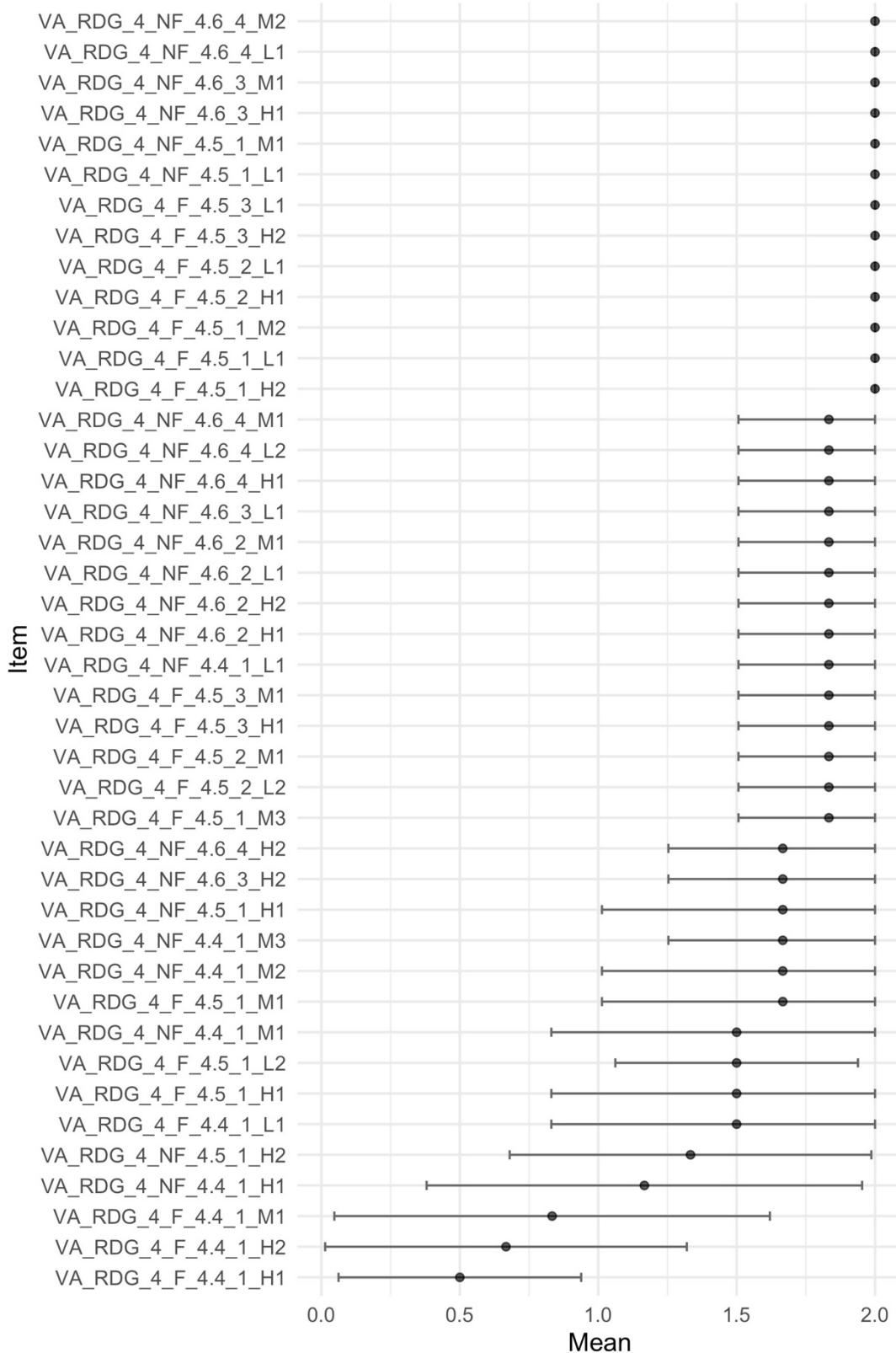
Reading Grade 3

Gray bands represent 95% confidence intervals



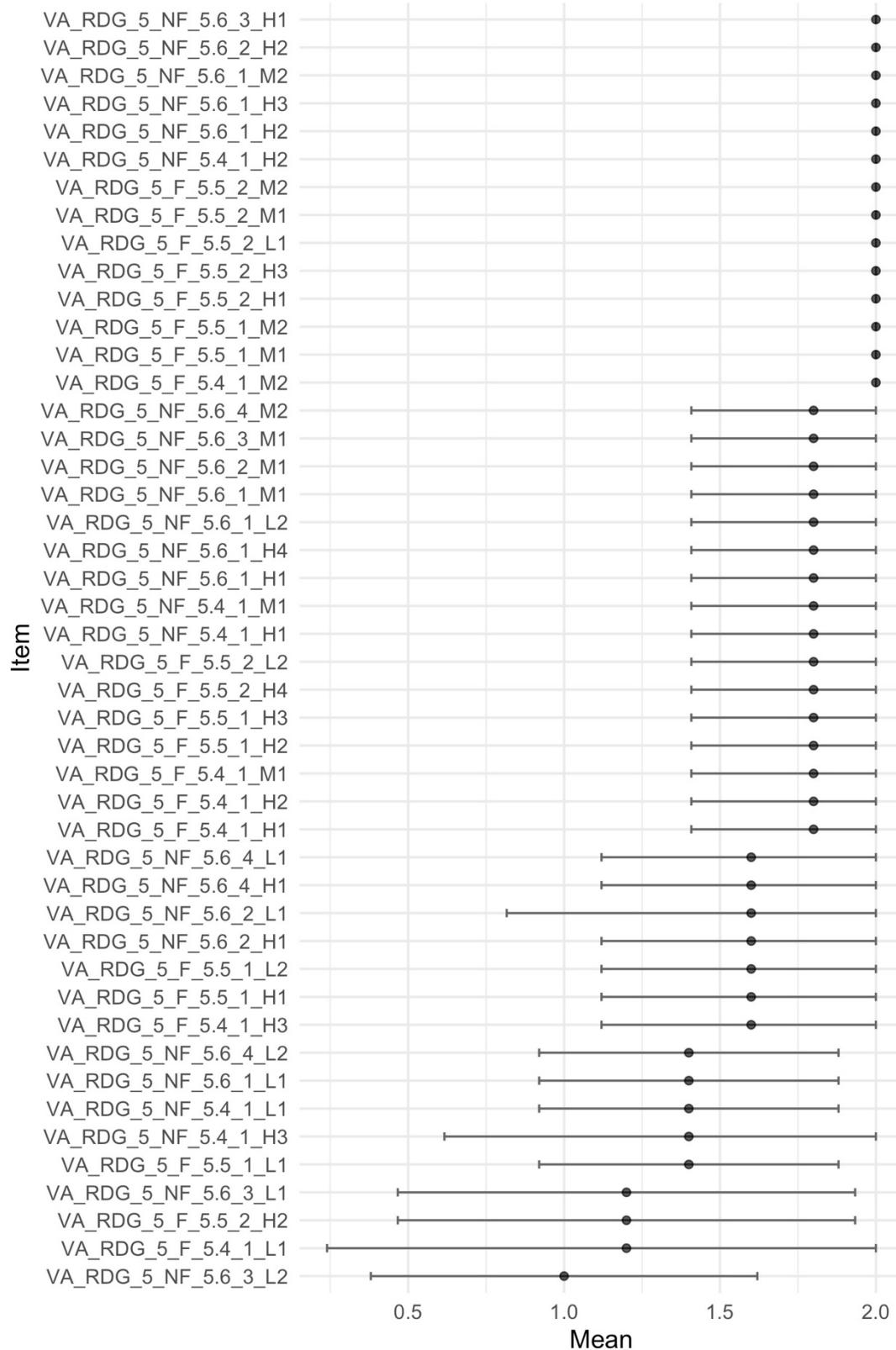
Reading Grade 4

Gray bands represent 95% confidence intervals



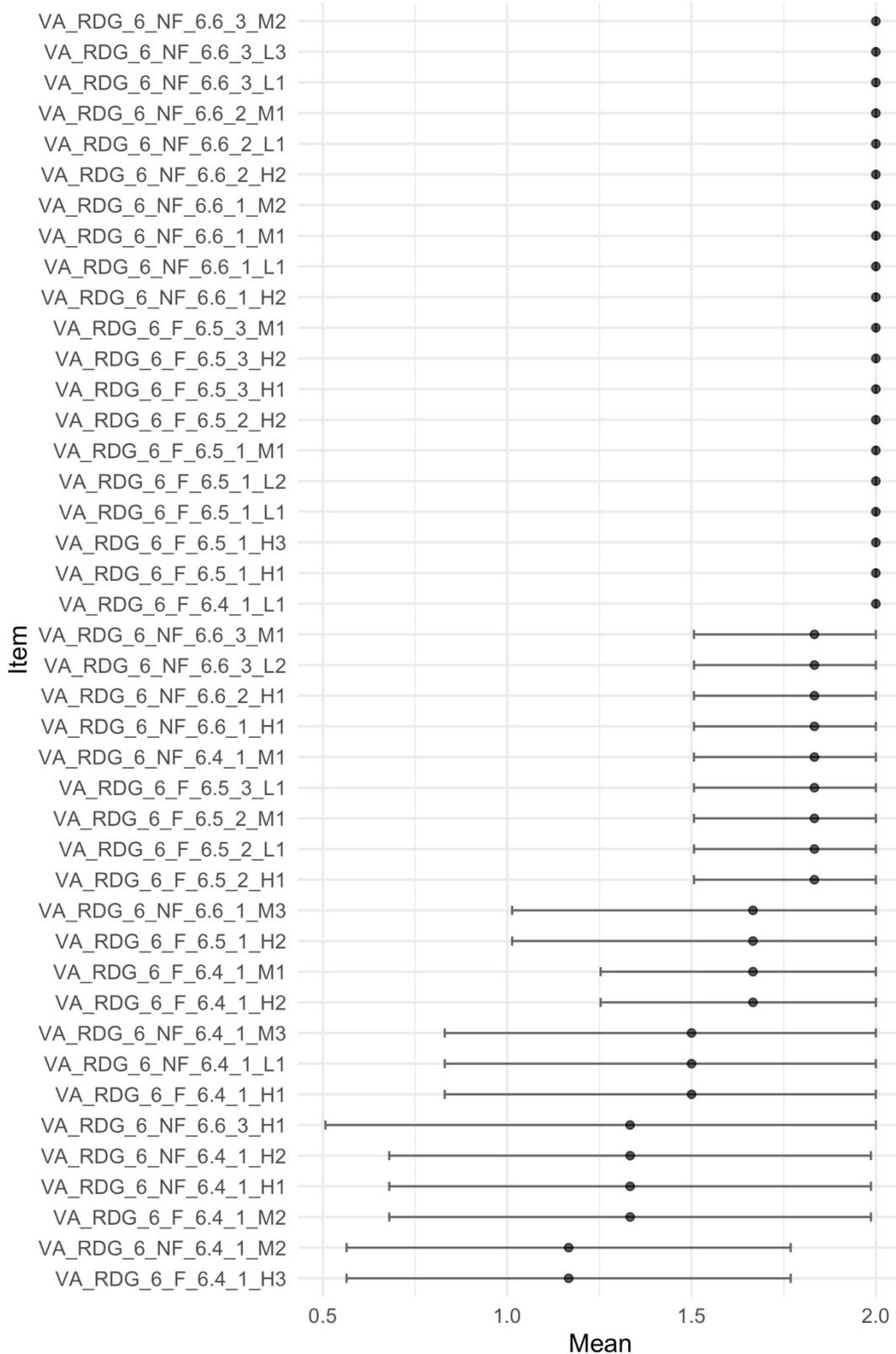
Reading Grade 5

Gray bands represent 95% confidence intervals



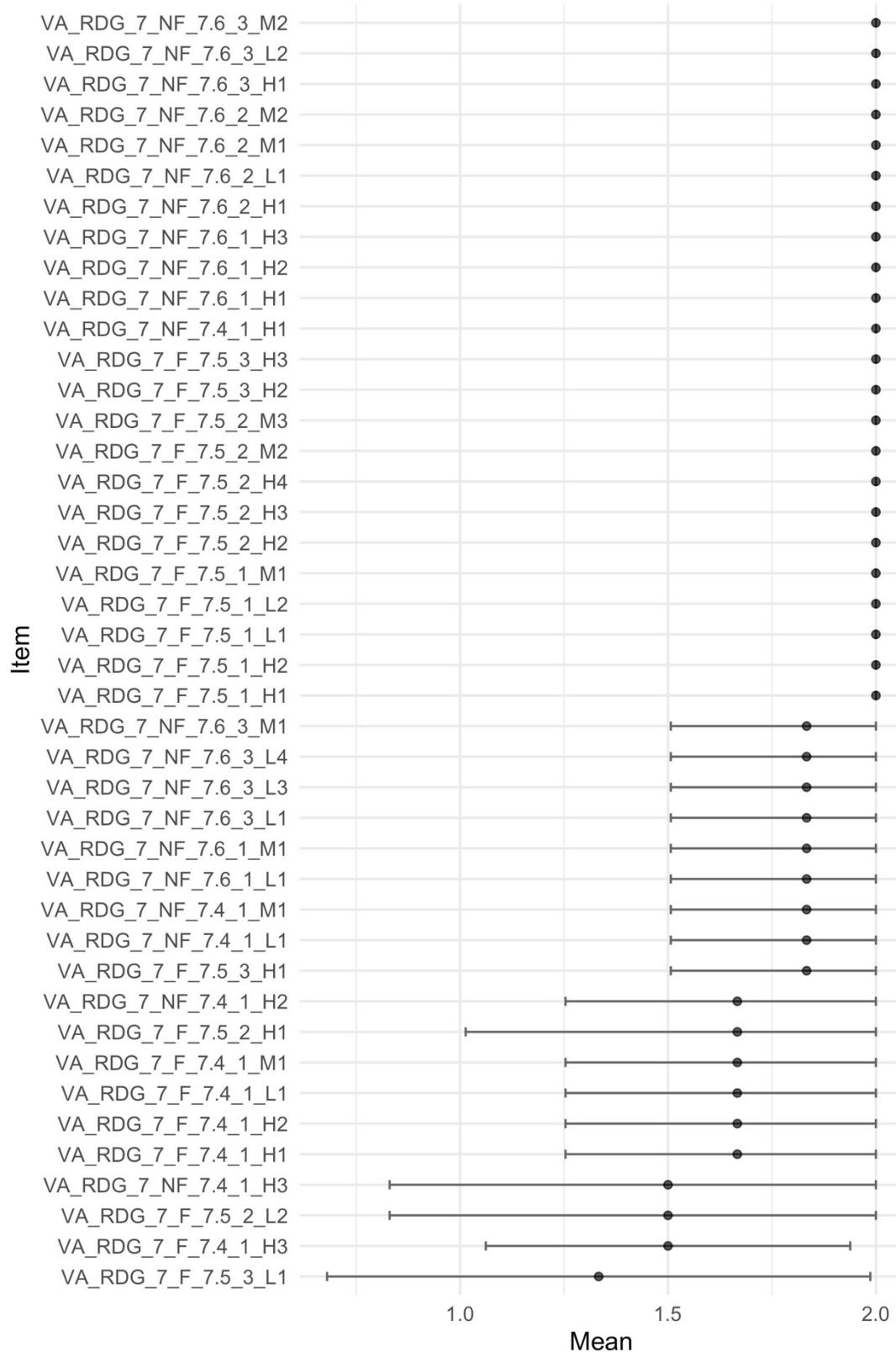
Reading Grade 6

Gray bands represent 95% confidence intervals



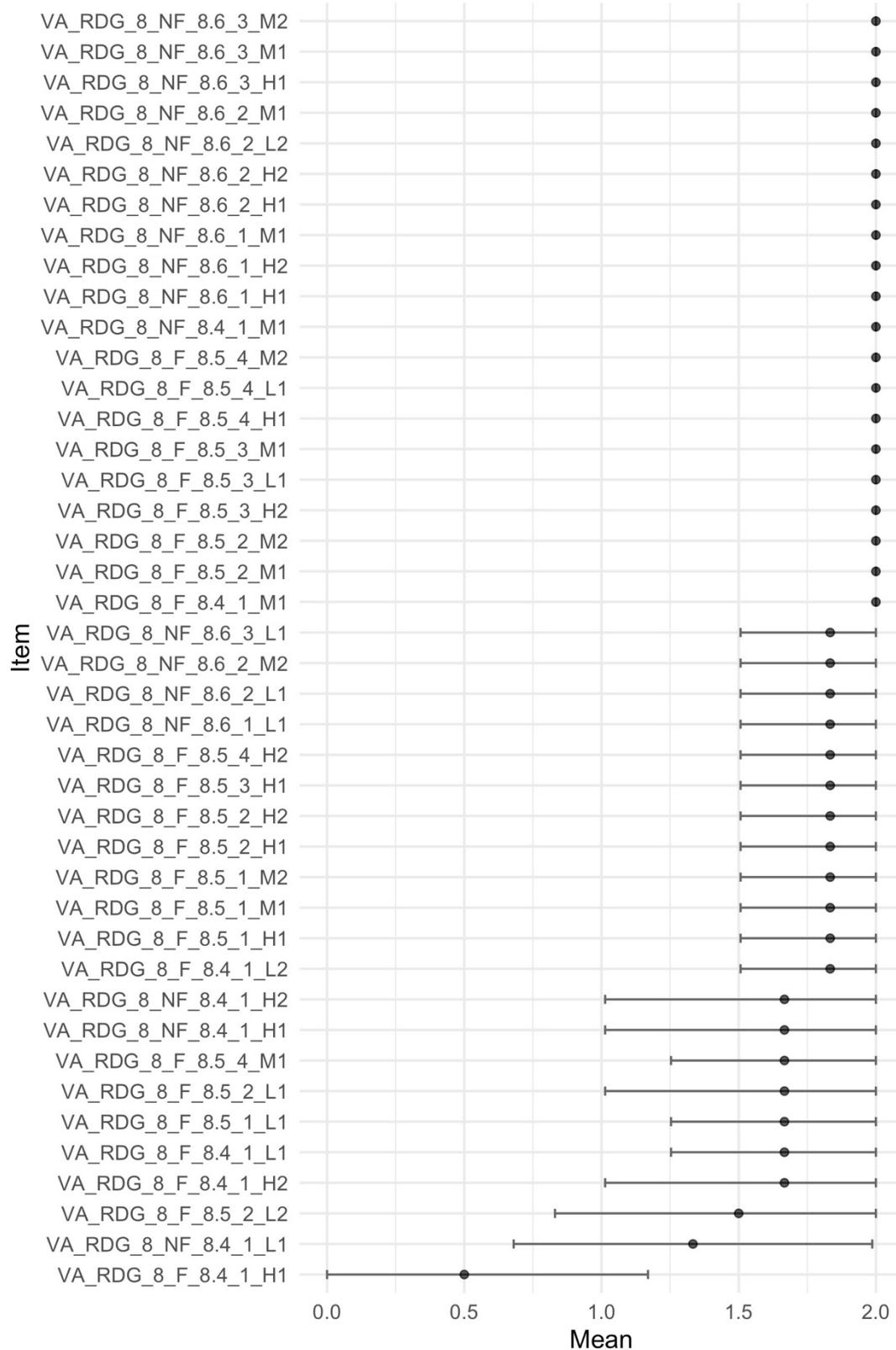
Reading Grade 7

Gray bands represent 95% confidence intervals



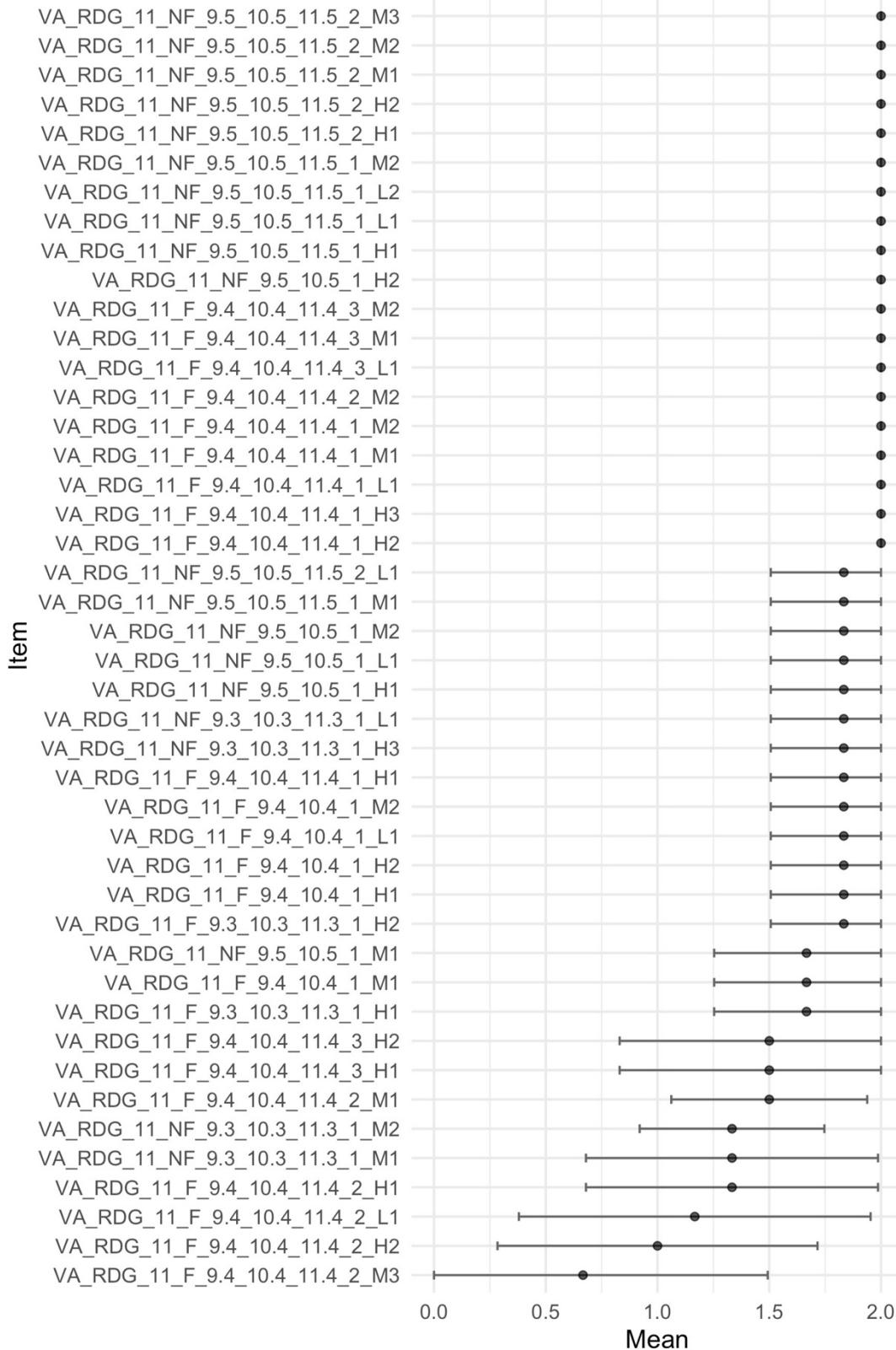
Reading Grade 8

Gray bands represent 95% confidence intervals



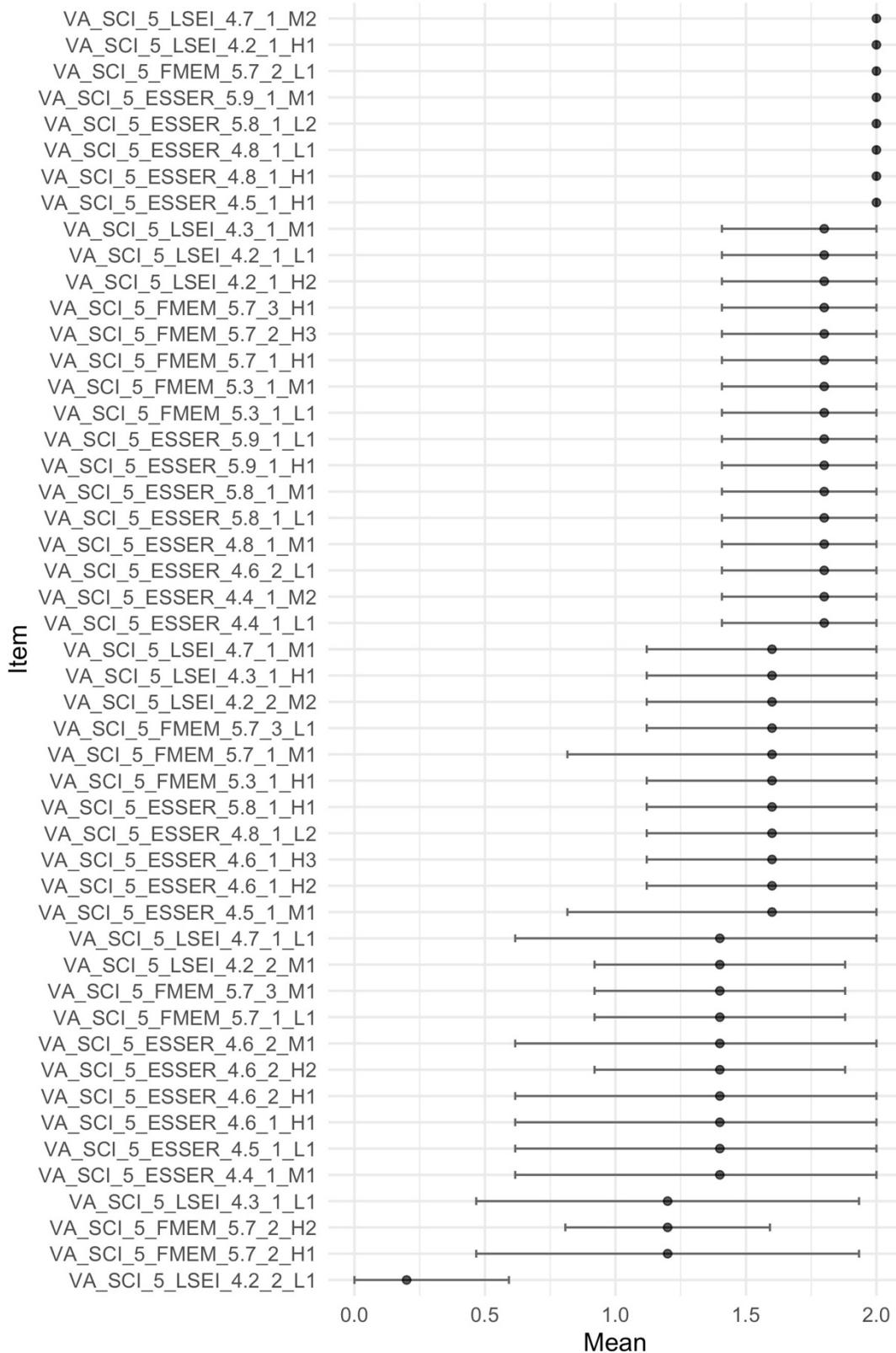
Reading Grade 11

Gray bands represent 95% confidence intervals



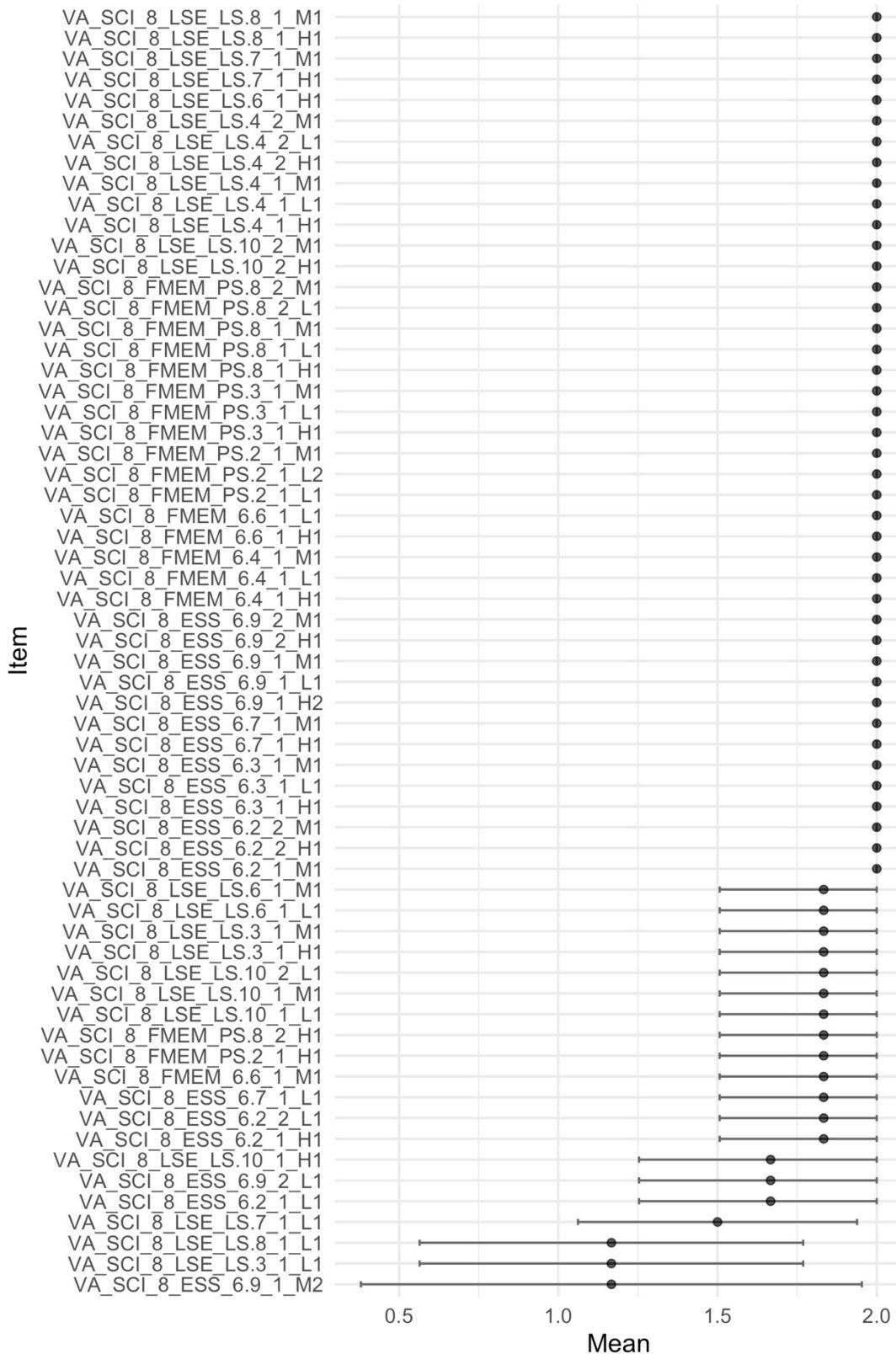
Science Grade 5

Gray bands represent 95% confidence intervals



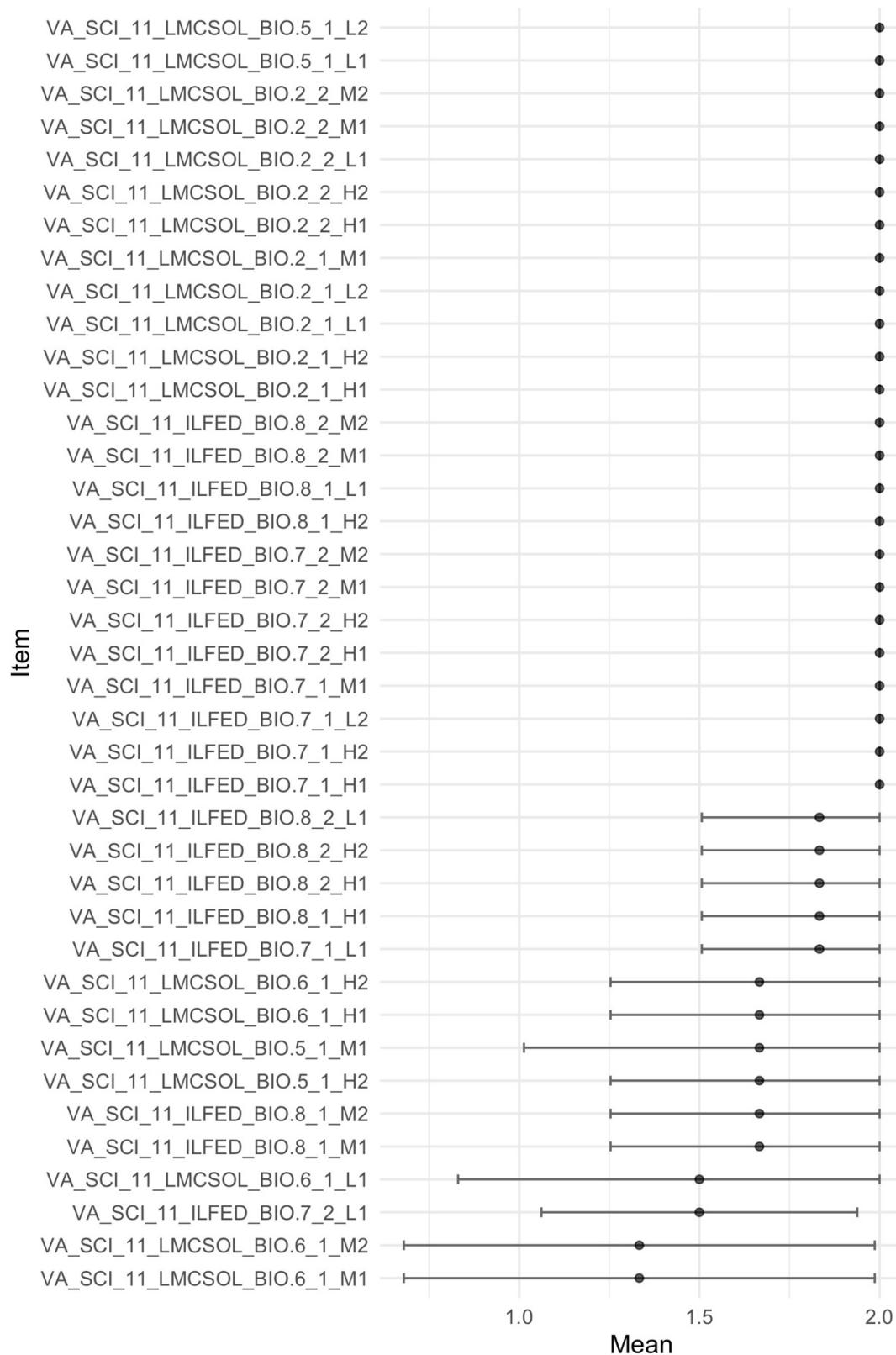
Science Grade 8

Gray bands represent 95% confidence intervals



Science Grade 11

Gray bands represent 95% confidence intervals

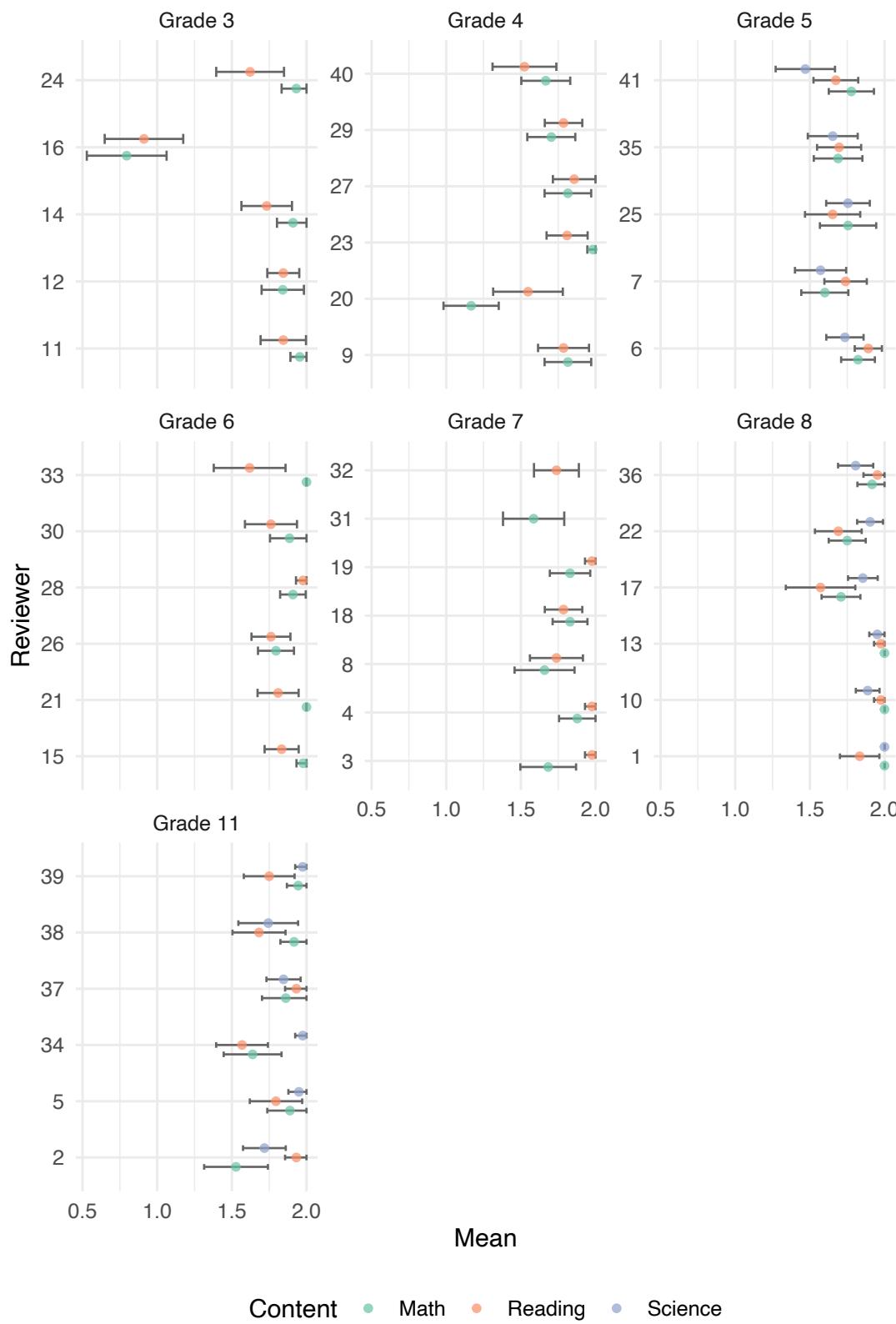


Appendix G

Plots of Average Mean Alignment Ratings by Reviewer by Subject Area and Grade

Means by reviewer

Gray bands represent 95% confidence intervals

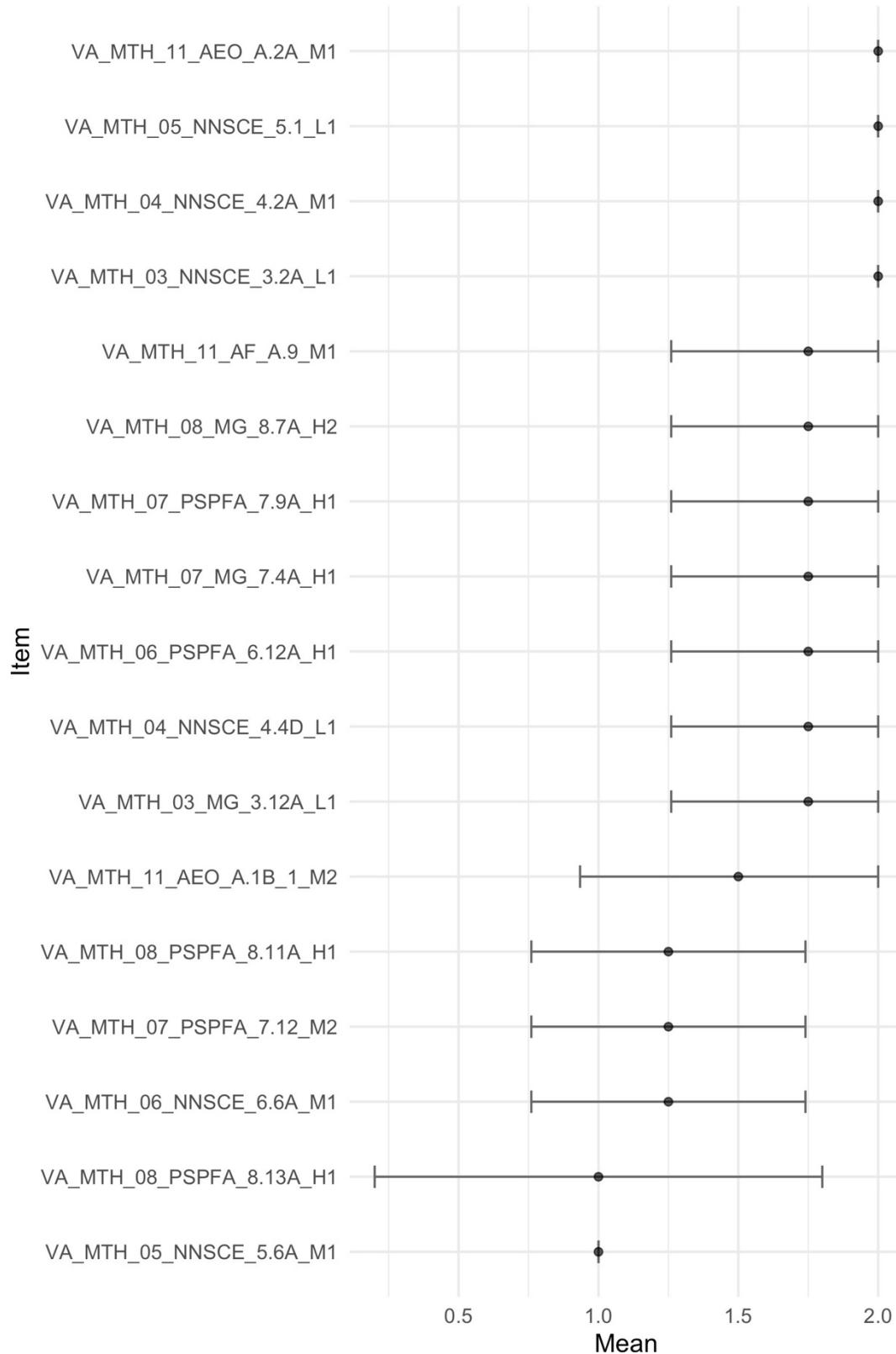


Appendix H

Plots of Average Mean Accessibility for VIB Ratings by Item by Subject Area and Grade

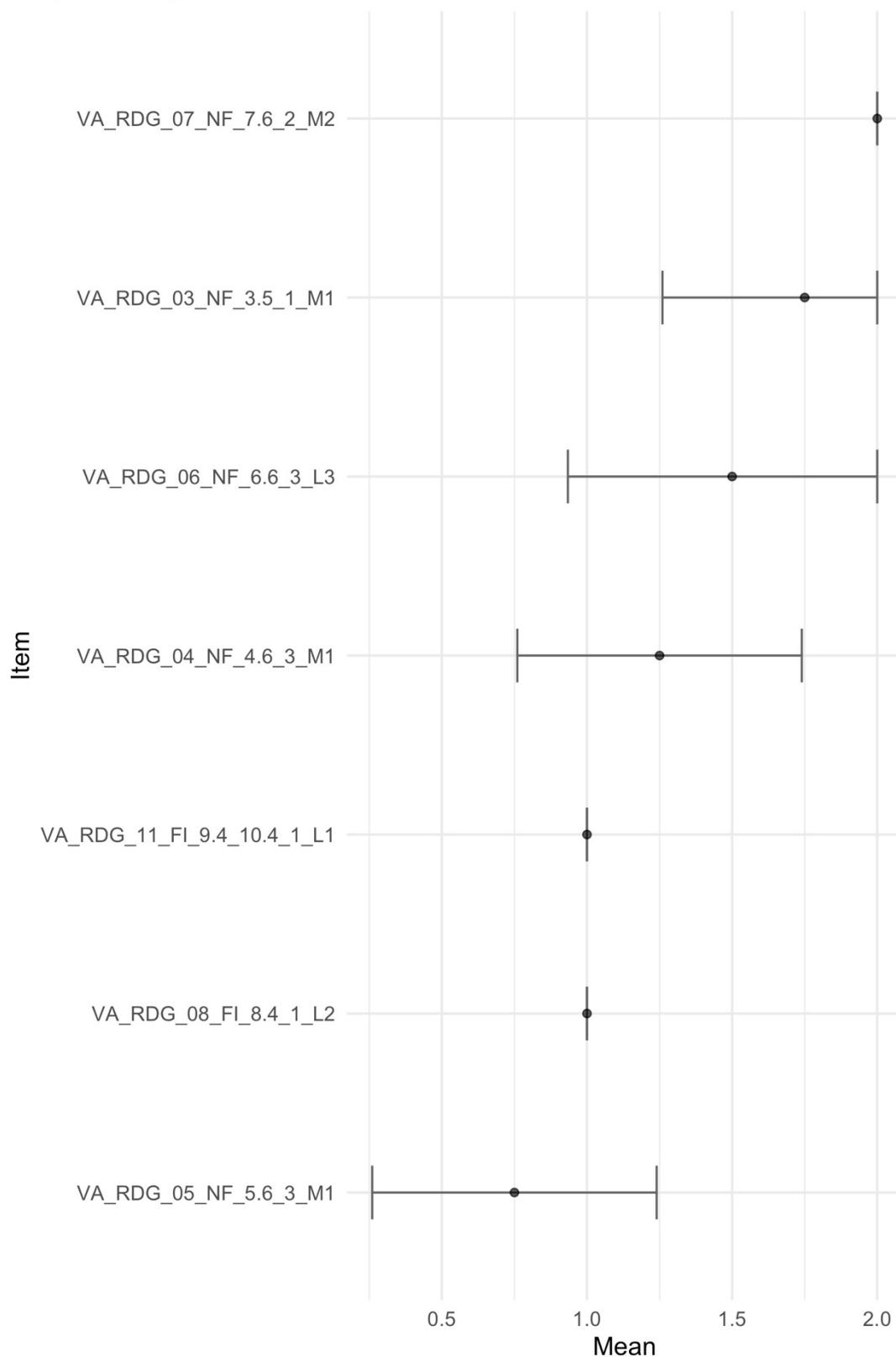
Math

Gray bands represent 95% confidence intervals



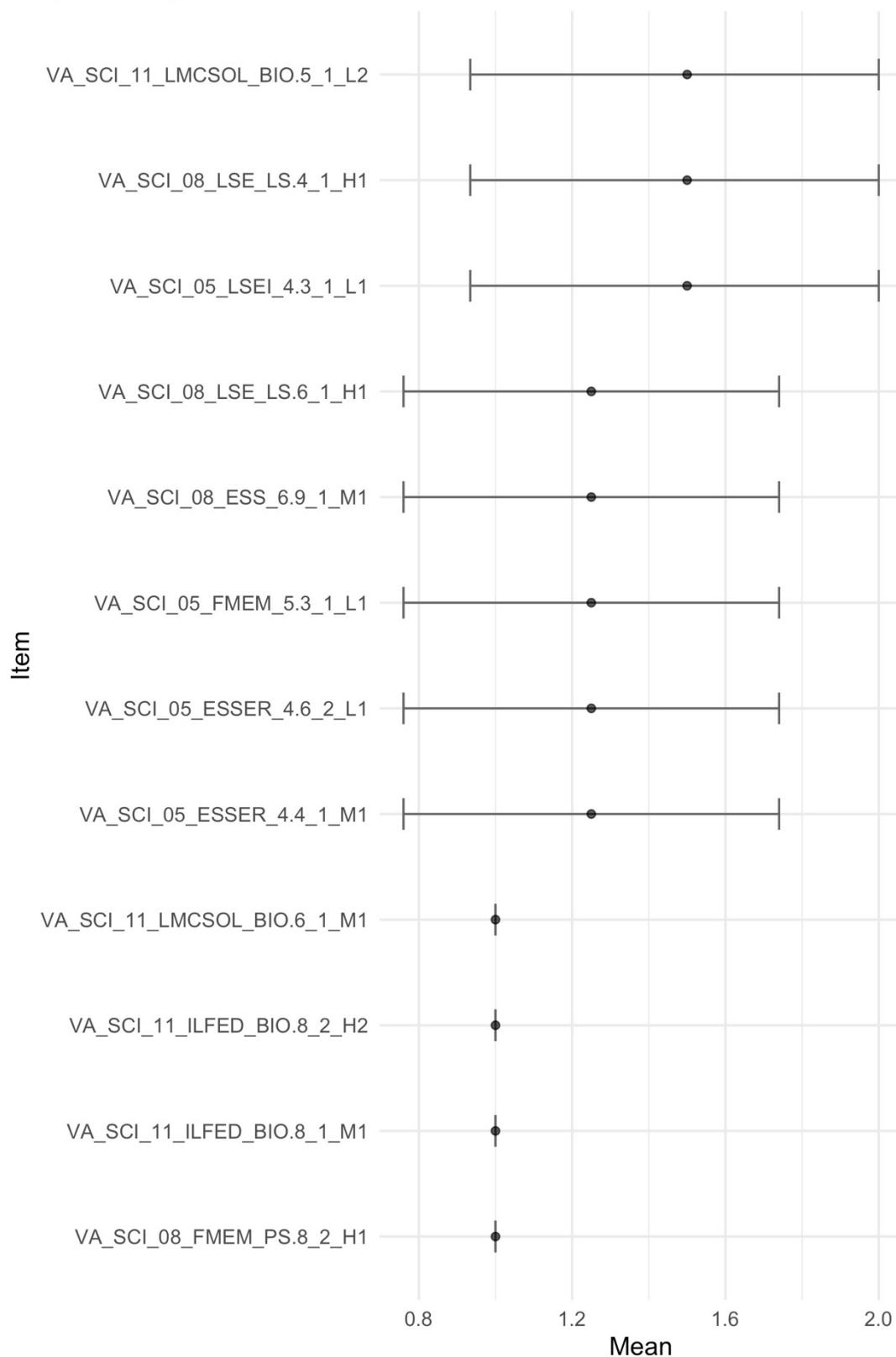
Reading

Gray bands represent 95% confidence intervals



Science

Gray bands represent 95% confidence intervals

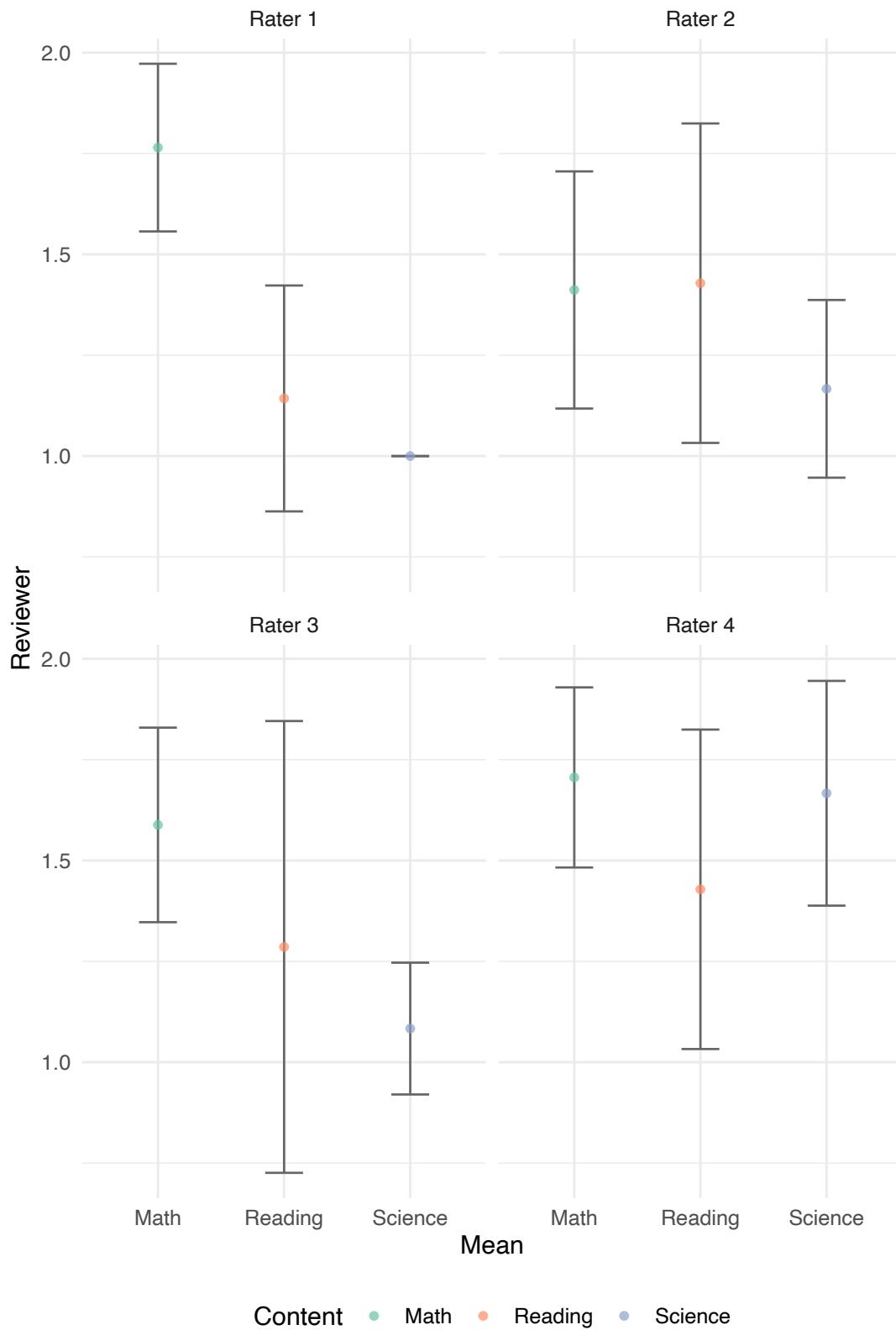


Appendix I

Plots of Average Mean Accessibility for VIB Ratings by Reviewer by Subject Area and Grade

Means by reviewer

Gray bands represent 95% confidence intervals



Appendix J

Accessibility for VIB Ratings Rationale and Recommendation Comments by Reviewer

reviewer	content	item	q2_comm	q3_comm
3	Math	VA_MTH_04_N NSCE_4.4D_XX	If a student is fully blind, they would need graphics to represent the apples, and an accommodation other than 'pointing'	NA
3	Math	VA_MTH_06_N NSCE_6.6A_XX	For fully blind students, a tactile graphic for the number line (would remove the tiny dollar bills from that)	NA
3	Math	VA_MTH_05_N NSCE_5.6A_XX	remove the people from the graphic - only representations for the cupcakes are needed	NA
3	Math	VA_MTH_07_P SPFA_7.12_XX	Just a note that the fish could just be tactile dots (not necessarily need to be in the shape of the fish)	NA
3	Math	VA_MTH_08_P SPFA_8.11A_XX	Eliminate the graphic of the gumball machine - the teacher information could begin with "If you put money in a gumball machine..."	NA
3	Math	VA_MTH_08_P SPFA_8.13A_XX	reduce the amount of points	NA
3	Math	VA_MTH_11_A EO_A.1B_1_XX	may remove the graphics of the nickels from the answer choices	NA
4	Math	VA_MTH_06_N NSCE_6.6A_XX	Dollar bills are not necessary. Considered added visual fluff. Pig not needed	NA
4	Math	VA_MTH_03_M G_3.12A_XX	remove green and pick boxes around the answers. i would also suggest the drawings to be thicker lines for our low vision kids.	NA
4	Math	VA_MTH_05_N NSCE_5.6A_XX	remove art	NA
4	Math	VA_MTH_06_P SPFA_6.12A_XX	Not sure about the word corresponding? Could it be "what is the missing value"?	NA
4	Math	VA_MTH_08_P SPFA_8.13A_XX	as suggested before, remove some unneeded data points	NA

2	Math	VA_MTH_06_N NSCE_6.6A_XX	Graphic is complicated for some students. APH tactile number line might be helpful.	Would it be possible for the administrator to "hide" the money pictures if necessary.
2	Math	VA_MTH_07_P SPFA_7.9A_XX	The graphic is complicated for many of my students.	Could we offer a simplified graphic?
2	Math	VA_MTH_05_N NSCE_5.6A_XX	simplify the art. Use cupcakes only for first number and cupcakes on a plate for second.	NA
2	Math	VA_MTH_07_M G_7.4A_XX	If the student is not using a real 3 D object, try shading one of the layers. My students have difficulty with 2 D representations of 3 D objects. It might help to label the numbers on the picture for some students.	NA
2	Math	VA_MTH_07_P SPFA_7.12_XX	Simplify the fish drawing. Make bold.	NA
2	Math	VA_MTH_08_M G_8.7A_XX	This would be very difficult to describe to students who access using auditory only.	NA
2	Math	VA_MTH_08_P SPFA_8.11A_XX	remove the excess art	NA
2	Math	VA_MTH_08_P SPFA_8.13A_XX	NA	very difficult to provide auditory descriptions to students who are auditory learners only
2	Math	VA_MTH_11_A F_A.9_XX	simplify the graph	NA
1	Math	VA_MTH_05_N NSCE_5.6A_XX	ok for lp, remove art for braille, just use symbols for cupcakes and add key	NA
1	Math	VA_MTH_07_M G_7.4A_XX	this would be a challenge for braille student but can accessible,	NA
1	Math	VA_MTH_07_P SPFA_7.12_XX	ok for lp, use symbols for fish and add key	NA
1	Math	VA_MTH_08_M G_8.7A_XX	challenging but accessible	NA

1	Math	VA_MTH_08_P SPFA_8.11A_XX	ok for lp, use symbols for braille and add key, (for both), skip art for braille	NA
1	Math	VA_MTH_08_P SPFA_8.13A_XX	ha tough one for braille but accessible, others will argue this, probably	NA
1	Math	VA_MTH_11_A F_A.9_XX	should be fine as long as kids have been exposed to something similar	NA
1	Math	VA_MTH_11_A EO_A.1B_1_XX	ok for lp, remove art, use symbols (braille) for coins and add key	NA
3	Reading	VA_RDG_04_N F_4.6_3_XX	add description of the cow in the teacher words 'Here is a picture of an animal, it has horns, 4 legs, a tail, udders, (etc.) What animal is it?'	NA
3	Reading	VA_RDG_05_N F_5.6_3_XX	NA	would have to provide a description or more information in the question
3	Reading	VA_RDG_08_FI _8.4_1_XX	Not sure that any graphics are needed for this one - would just say 'here are three words...'	NA
3	Reading	VA_RDG_11_FI _9.4_10.4_1_XX	omit graphics	NA
4	Reading	VA_RDG_04_N F_4.6_3_XX	add a picture description to the braille tactile: this animal has fur, a mouth, nose, 2 eyes, 2 ears, 2 horns, 4 legs, a long tail, and utters.	NA
4	Reading	VA_RDG_05_N F_5.6_3_XX	in braille, could the logs sticking out on the sides be misinterpreted for steps? maybe the picture could just be of a house	NA
4	Reading	VA_RDG_08_FI _8.4_1_XX	i don't think the pictures are necessary in braille	NA
4	Reading	VA_RDG_11_FI _9.4_10.4_1_XX	in braille, i don't think the pictures are necessary	NA

2	Reading	VA_RDG_05_N F_5.6_3_XX	log cabin and steps up could be tricky for some students. consider replacing steps up with another answer. Simplify the graphic by removing the lines on the roof, panes from the window.	NA
2	Reading	VA_RDG_06_N F_6.6_3_XX	Students with ASD and a vision impairment may argue that a bird is a hunter also. simplify pictures by removing detail. Photographs work best with many students with CVI.	NA
2	Reading	VA_RDG_08_FI _8.4_1_XX	simplify or remove graphics for tactile learners	NA
2	Reading	VA_RDG_11_FI _9.4_10.4_1_XX	simplify graphics. many classrooms use boardmaker type symbols. some students will need photographs.	NA
1	Reading	VA_RDG_03_N F_3.5_1_XX	should be ok with manipulatives	NA
1	Reading	VA_RDG_04_N F_4.6_3_XX	everything must be labeled , art does not help braille, makes it much more complicated, ok for lp, possible omission for braille, description will give away answer	NA
1	Reading	VA_RDG_05_N F_5.6_3_XX	everything must be labeled , art does not help braille, makes it much more complicated, ok for lp, possible omission for braille, description will give away answer	NA
1	Reading	VA_RDG_06_N F_6.6_3_XX	everything must be labeled , art does not help braille, makes it much more complicated, ok for lp, possible omission for braille, description will give away answer	NA
1	Reading	VA_RDG_08_FI _8.4_1_XX	everything must be labeled , art does not help braille, makes it much more complicated, ok for lp, possible omission for braille, description will give away answer	NA

1	Reading	VA_RDG_11_FI _9.4_10.4_1_XX	everything must be labeled , art does not help braille, makes it much more complicated, ok for lp, possible omission for braille, description will give away answer	NA
3	Science	VA_SCI_05_LSE I_4.3_1_XX	would make sure there is something representing the sand in the graphic, also a description would be needed in the teacher comments (i.e., this is a desert, here is a cactus, here are rocks, here is sand)	NA
3	Science	VA_SCI_05_ESS ER_4.4_1_XX	remove the person from the images	NA
3	Science	VA_SCI_08_LSE _LS.6_1_XX	a description of the images/graphics will be necessary for this one, may be hard for low vision to tell what the animals are (particularly in choice A) and for a tactile graphic to represent these accurately (so that a blind student would be able to know what they are)	NA
3	Science	VA_SCI_05_ESS ER_4.6_2_XX	may be confusing having 'clouds' in the question and 'rain' in the answers	NA
3	Science	VA_SCI_05_FM EM_5.3_1_XX	may need to remove some of the lines in choice 'c', may be difficult to tactually determine what is happening in that picture, remove the stars from the ball - possibly just have a circle as the ball	NA

3	Science	VA_SCI_08_ESS_6.9_1_XX	teacher wording to be more like a picture description - i.e. 'Here are three activities. The first picture shows a person throwing trash on the ground, the second shows a person on a skateboard, and the third shows a person throwing trash into a bin. Which shows someone protecting the planet...' NA	
3	Science	VA_SCI_08_FM_EM_PS.8_2_XX	Take out the graphic of the person, just have a circle/ball then the three lines NA	
3	Science	VA_SCI_11_LM_CSOL_BIO.5_1_XX	may be difficult to get tactile graphics so that a student would know what they are, the elephants and tigers being so close together in the answer choices may be very difficult to distinguish for low vision NA	
3	Science	VA_SCI_11_LM_CSOL_BIO.6_1_XX	would need to make sure that the student was properly oriented to the fish in order to distinguish its parts NA	
3	Science	VA_SCI_11_ILF_ED_BIO.8_1_XX	graphics may be confusing - wolves hard to see for low vision, hard to distinguish in a tactile graphic NA	
3	Science	VA_SCI_11_ILF_ED_BIO.8_2_XX	would take out the swirly circles, fish may be hard to see for low vision NA	
4	Science	VA_SCI_08_FM_EM_PS.8_2_XX	A = 5 feet B = 10 feet C = 15 feet in braille, have three lines of different textures to distinguish three different lines. a solid line, a broken line, a dotted line NA	

4	Science	VA_SCI_11_LM CSOL_BIO.6_1_XX	in braille, have a picture of the entire fish in each answer choice as shown in the question. Choice A would have a line drawn to the mouth, B would have a line drawn to the fin, C a line would be drawn to the eye	NA
4	Science	VA_SCI_11_ILF ED_BIO.8_1_XX	in braille in the question, have three or four separate trees and the dogs could be symbolized as a dot. So, for three dogs, there would be three dots	NA
4	Science	VA_SCI_11_ILF ED_BIO.8_2_XX	no art in the answer choices	NA
2	Science	VA_SCI_05_ESS ER_4.4_1_XX	remove the person, use the simple boardmaker style pictures which are used in many classrooms	NA
2	Science	VA_SCI_08_LSE LS.6_1_XX	use pictures with less complexity. make sure administrator has access to picture descriptions.	NA
2	Science	VA_SCI_05_ESS ER_4.6_2_XX	use less complex pictures for answer choices. simplify the continents on the earth.	NA
2	Science	VA_SCI_05_FM EM_5.3_1_XX	simplify the ball, stars aren't necessary	NA
2	Science	VA_SCI_08_ESS _6.9_1_XX	simplify the pictures, the litter is very difficult to see and to read tactually.	NA
2	Science	VA_SCI_08_LSE LS.4_1_XX	reduce the number of arrows and make them solid. Fix the grammar (verb tense)	NA
2	Science	VA_SCI_08_FM EM_PS.8_2_XX	reduce complexity by using a picture of a ball rather than a player.	NA
2	Science	VA_SCI_11_LM CSOL_BIO.6_1_XX	reduce complexity by removing some of the details. Use a picture of the whole fish in the answers with the part circled.	NA
2	Science	VA_SCI_11_ILF ED_BIO.8_1_XX	Remove or simplify and bold the graphics	NA

2	Science	VA_SCI_11_ILF ED_BIO.8_2_XX	reduce complexity, by removing extra detail, use a simple fish graphic, answer choices - remove spirals and water and focus on the answer (use fewer fish for die off, big fish for grow bigger, etc.)	NA
1	Science	VA_SCI_05_LSE I_4.3_1_XX	everything must be labeled , art does not help braille, makes it it much more complicated, ok for lp, possible omission for braille	NA
1	Science	VA_SCI_05_ESS ER_4.4_1_XX	everything must be labeled , art does not help braille, makes it it much more complicated, ok for lp, possible omission for braille	NA
1	Science	VA_SCI_08_LSE LS.6_1_XX	everything must be labeled , art does not help braille, makes it it much more complicated, ok for lp, possible omission for braille	NA
1	Science	VA_SCI_05_ESS ER_4.6_2_XX	everything must be labeled , art does not help braille, makes it it much more complicated, ok for lp, possible omission for braille	NA
1	Science	VA_SCI_05_FM EM_5.3_1_XX	everything must be labeled , art does not help braille, makes it it much more complicated, ok for lp, possible omission for braille, problem is that description of pic will give away answer	NA
1	Science	VA_SCI_08_ESS _6.9_1_XX	everything must be labeled , art does not help braille, makes it it much more complicated, ok for lp, possible omission for braille, description will give away answer	NA
1	Science	VA_SCI_08_LSE _LS.4_1_XX	everything must be labeled , art does not help braille, makes it it much more complicated, ok for lp, possible omission for braille, lot clutter in braille, may be ok if student has "seen" before	NA

1	Science	VA_SCI_08_FM EM_PS.8_2_XX	everything must be labeled , art does not help braille, makes it it much more complicated, ok for lp, possible omission for braille	NA
1	Science	VA_SCI_11_LM CSOL_BIO.5_1_XX	everything must be labeled , art does not help braille, makes it it much more complicated, ok for lp, possible omission for braille, description will give away answer, probably	NA
1	Science	VA_SCI_11_LM CSOL_BIO.6_1_XX	everything must be labeled , art does not help braille, makes it it much more complicated, ok for lp, possible omission for braille	NA
1	Science	VA_SCI_11_ILF ED_BIO.8_1_XX	everything must be labeled , art does not help braille, makes it it much more complicated, ok for lp, possible omission for braille	NA
1	Science	VA_SCI_11_ILF ED_BIO.8_2_XX	everything must be labeled , art does not help braille, makes it it much more complicated, ok for lp, possible omission for braille	NA