

Virginia Alternate Assessment Program (VAAP)

Mathematics & Reading Grades 3-8 & High School; Science 5, 8 & High School

Standard Setting Technical Report

Spring 2022

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Table of Contents

Table of Contents.....	2
Executive Summary.....	4
Chapter 1 – Overview of the Standard Setting Process.....	14
Goals of the Standard Setting Meeting.....	14
Performance Levels	14
Standard Setting Process	15
Chapter 2 – Preparations for the Standard Setting	16
Performance Level Descriptors (PLDs).....	16
Development of Panelist Materials	17
Development of Presentation Materials	17
Facilitator Training.....	18
Preparation for Data Analysis During the Meetings	19
Chapter 3 – Standard Setting Meetings	20
Purpose of the Standard Setting Meetings.....	20
Meeting Participants.....	20
Committee Panelist Composition.....	21
Standard Setting Meeting Facilitators and Staff	21
Meeting Data Analysts.....	22
VDOE Staff	22
Standard Setting Materials.....	22
Committee Panelist Folders	24
Computers.....	24
Standard Setting Procedure.....	24
Standard Setting Meeting Proceedings	25
Breakout Sessions.....	25
Recommended Cut Scores from Standard Setting Committees	31
Chapter 4 – Post-Standard Setting	33
Articulation.....	33
Meeting Process	33
Executive Summary and VDOE Approval	36
Chapter 5 – Evidence of Procedural Validity of the Standard Setting Process	37
Committee Representation	37
Committee Training	37
Perceived Validity of the Standard Setting	40

Process Standardization	42
References.....	44
Appendix A – Performance Level Descriptors.....	45
Appendix B – Committee Panelist Materials	85
Math Grade 8 Test Map	88
Appendix C – Committee Panelist Composition.....	93
Appendix D – Meeting Agenda.....	95
Standard Setting Meeting – Agenda (4 Day Meeting).....	95
Standard Setting Meeting – Agenda (5 Day Meeting).....	98
Appendix E – Presentation Slides	102
General Workshop Policies.....	102
Grade 3 Breakout Session – Day 1 – Day 4.....	103
Grade 8 Breakout Session – Day 1 – Day 5.....	104
Vertical Articulation	105
Appendix F – Examples of Feedback Data	106
Appendix G – Panelist Evaluation Results	111
Breakout Session Process Evaluation.....	111
Breakout Session Process Evaluation: Math	111
Breakout Session Process Evaluation: Reading	121
Breakout Session Process Evaluation: Science	123
Overall Process Evaluation Questions.....	125
Articulation Process Evaluation	138
Vertical Articulation Process Evaluation	138
Appendix H – Committee Recommended Cut Scores by Round.....	143
Appendix I – Committee Recommended Cut Scores Summary Statistics by Round.	149
Appendix J – Test-Level Panelist Judgment Agreement.....	158

Executive Summary

April 2022

This document describes the process to recommend performance level cut scores for the assessments associated with the Virginia Alternate Assessment Program (VAAP). A summary of the results is also provided.

Standard Setting Process and Results for the Virginia Alternate Assessment Program Assessments

The standard setting process involves several components and is designed to produce cut scores on a test that are used to classify students into performance levels. Performance Level Descriptors (PLDs) identify the specific knowledge and skills that students in each level should be able to demonstrate. The performance expectations defined by the PLDs are linked to the items on a test to determine cut scores that students must meet or exceed to be classified into each performance level.

The process used to obtain recommended performance level cut scores for the assessments is consistent with industry recognized standard setting best practices. An overview of the process and a summary of the results are presented in the following sections.

General Method

From Monday, April 11 through Friday, April 15, 2022, standard setting meetings were convened to recommend cut scores for the assessments associated with VAAP.

- Mathematics, Grades 3 – 8 and High School
- Reading, Grades 3 – 8 and High School
- Science, Grades 5, 8, and High School

The grade-level focused committees were composed of 7 to 9 panelists who were educators with relevant experience teaching students that are eligible to participate in VAAP. The standard setting committee participants were selected to provide content expertise and expertise in working with student from this special population during the meeting and to represent diverse state geographic regions, gender, ethnicity, educational experience, community size, and community socioeconomic status.

The Yes/No Angoff standard setting procedure was used. Participants were led through a standardized process in which they reviewed test items to consider how students in each performance level would answer each item. These judgments were used to obtain recommended cut scores for each performance level. The same standardized process was used by each grade-level committees to produce cut score recommendations for each assessment. Each committee used this process to recommend cut scores for all tests associated with the specific grade, starting with mathematics, followed by reading, and then, if needed, science.

The first part of each committee was an introduction to the purpose of the standard setting and process that would be used. They were told why new performance standards needed to be set and given an overview of the Yes/No Angoff procedure that would be used. The panelists then experienced the test, which allowed them to view the items as a student would and to consider the knowledge and skills needed to respond to each item. They reviewed the PLDs to gain a common understanding of the expectations for the performance levels and then narrowed the focus to key knowledge and skills at the borderlines separating the performance levels. They worked in small groups to create specific descriptions of the knowledge and skills expected of students who just barely enter a performance level.

After discussion and general agreement about the borderline descriptions, the participants were trained on the standard setting method and the judgment process to be applied during the remainder of the meeting. They reviewed each item and the borderline performance descriptions to answer the following question for each performance level: "Would a student performing at the borderline of the performance level likely get this item correct?" For the purposes of the standard setting, "likely" was defined as 2 out of 3 students at the borderline of the performance level correctly answering the item.

The panellists engaged in a practice judgment activity using sample items. They discussed the process and results to clarify their understanding of the judgment task. Then they completed three rounds of individual judgments. Following the first two rounds of judgments, the participants discussed their resulting individual cut score recommendations and the range of item judgments. The median of the group's cut scores was the recommended cut score for the group for each round of ratings.

The cut score data from the standard setting committees are summarized in Tables ES1-ES3. The final round 3 median cut score recommendations for each performance level are highlighted.

Table ES1. Mathematics Cut Score Recommendations Summary Statistics

Grade	Statistic	Performance Level					
		Proficient			Advanced		
		R1	R2	R3	R1	R2	R3
Grade 3	N	9	9	9	9	9	9
	Minimum	10	10	7	22	18	19
	Median	17	13	12	28	24	23
	Maximum	26	26	22	30	29	25
Grade 4	N	8	8	8	8	8	8
	Minimum	12	10	11	24	21	21
	Median	22	18	17	29	30	25
	Maximum	29	30	17	30	30	28
Grade 5	N	8	8	8	8	8	8
	Minimum	8	11	12	17	22	21
	Median	14	13	13	24	24	24
	Maximum	19	14	14	29	24	24
Grade 6	N	8	8	7	8	8	7
	Minimum	7	5	10	7	5	18
	Median	14	12	11	24	22	21
	Maximum	23	15	12	28	21	22
Grade 7	N	8	8	8	8	8	8
	Minimum	16	11	10	22	19	20
	Median	22	14	14	30	28	23
	Maximum	25	30	25	30	30	26
Grade 8	N	8	8	8	8	8	8
	Minimum	4	3	3	15	16	16
	Median	12	14	13	23	24	25
	Maximum	16	18	17	27	29	26
High School	N	7	7	7	7	7	7
	Minimum	13	9	9	22	22	20
	Median	15	12	12	24	23	22
	Maximum	26	20	16	30	30	23

Table ES2. Reading Cut Score Recommendations Summary Statistics

Grade	Statistic	Performance Level					
		Proficient			Advanced		
		R1	R2	R3	R1	R2	R3
Grade 3	N	9	9	9	9	9	9
	Minimum	5	5	6	17	18	20
	Median	9	10	10	21	22	22
	Maximum	14	12	12	30	25	23
Grade 4	N	7	8	8	7	8	8
	Minimum	8	8	9	19	19	20
	Median	8	9	10	22	21	20
	Maximum	11	11	12	29	24	24
Grade 5	N	8	8	8	8	8	8
	Minimum	12	11	12	23	21	21
	Median	15	12	12	25	23	23
	Maximum	23	16	14	29	24	24
Grade 6	N	8	8	8	8	8	8
	Minimum	7	10	9	15	16	16
	Median	10	12	12	19	19	20
	Maximum	15	19	13	25	22	23
Grade 7	N	8	8	8	8	8	8
	Minimum	5	5	5	16	15	15
	Median	8	10	10	22	21	20
	Maximum	13	13	12	28	25	23
Grade 8	N	8	8	8	8	8	8
	Minimum	7	7	7	15	17	17
	Median	13	14	14	22	23	23
	Maximum	22	18	18	30	25	25
High School	N	7	7	7	7	7	7
	Minimum	10	7	9	28	17	17
	Median	24	12	11	30	21	20
	Maximum	30	28	14	30	30	23

Table ES3. Science Cut Score Recommendations Summary Statistics

Grade	Statistic	Performance Level					
		Proficient			Advanced		
		R1	R2	R3	R1	R2	R3
Grade 5	N	8	8	8	8	8	8
	Minimum	11	11	12	21	20	22
	Median	14	13	13	23	23	23
	Maximum	16	14	14	26	25	24
Grade 8	N	8	8	8	8	8	8
	Minimum	13	4	5	22	22	23
	Median	16	16	16	25	25	26
	Maximum	22	20	20	30	28	28
High School	N	7	7	7	7	7	7
	Minimum	11	11	10	20	19	20
	Median	14	12	11	24	22	21
	Maximum	29	17	15	30	30	23

After Round 3 of ratings, the participants from each standard setting committee completed an evaluation of the standard setting process and their confidence in their recommended cut scores. Overall, all participants understood the standard setting process and were confident about their recommendations.

After the standard setting committee, on Saturday, May 14, 2022, an articulation committee, composed of members from each grade-level committee, collectively reviewed the Round 3 recommendations from the individual committees. The articulation committee was held after the standard setting meeting to ensure that the impact data presented during the meeting was based on all students that took the assessment. This meeting was held virtually to ensure that individuals from the original standard setting committee were able to participate. The committee completed the articulation process for each assessment, starting with mathematics, followed by science, and then science.

This articulation committee reviewed the PLDs from each grade-level, discussed the Round 3 recommendations from each subject area, and reviewed the estimated impact data for each assessment. Impact data are the percentages of students classified into each performance level if the recommended Round 3 cut scores were to be adopted. Figures ES1-ES3 show the estimated impact based on the Round 3 recommendations for each assessment.

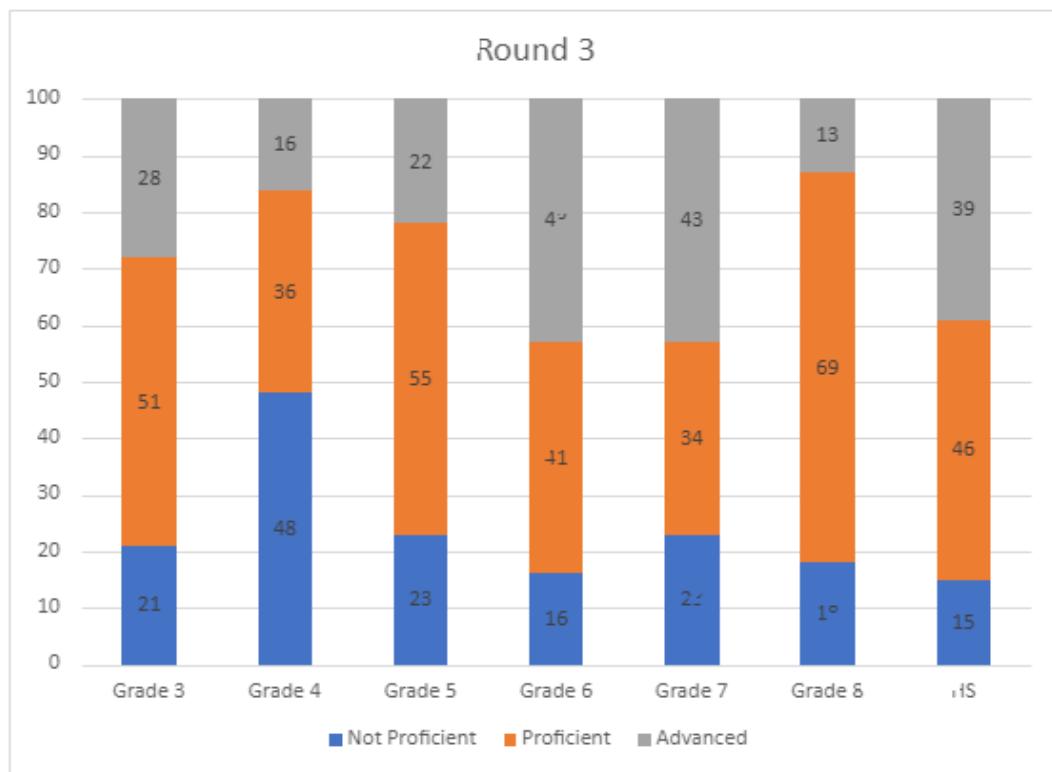


Figure ES1. Impact data from Round 3 for Mathematic by grade

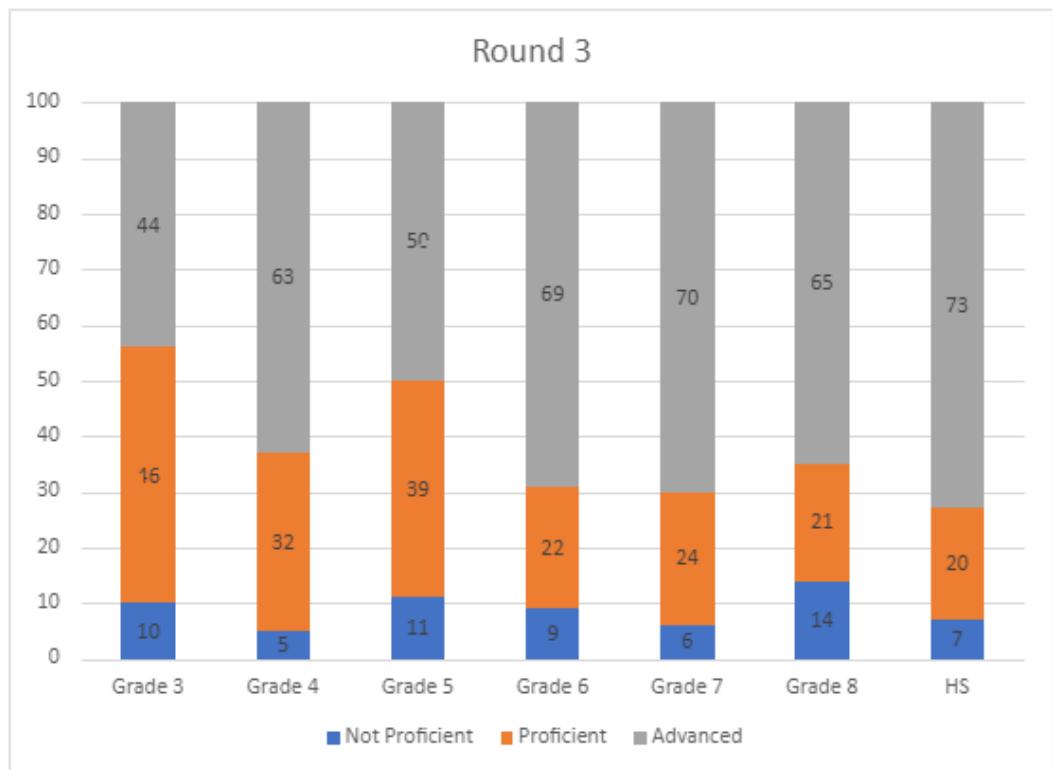


Figure ES2. Impact data from Round 3 for Reading by grade

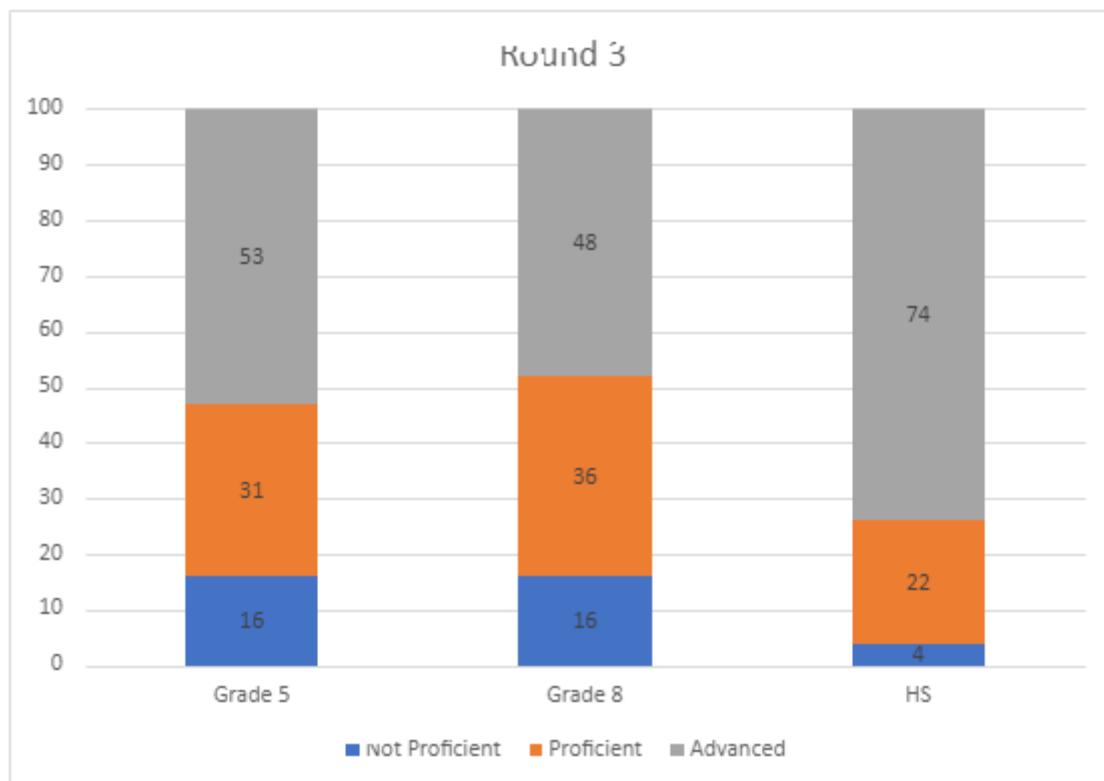


Figure ES3. Impact data from Round 3 for Science by grade

After reviewing the impact data associated with the Round 3 recommended cut scores, the articulation committee discussed whether any Round 3 recommended cut scores should be adjusted for consistency with expectations based on the scope and rigor of content covered across the assessments.

After group discussion, the articulation committee was permitted to ‘smooth’ the Round 3 results to align the recommendations with expectations and student performance across the grades. Each participant independently recommended cut scores for the “Proficient” and “Advanced” performance levels for each assessment informed by the group discussion and their expectations for student performance across grades. The panelist articulation judgment round was followed by a whole group discussion to determine the final recommended cut scores. Tables ES4-ES6 show the Round 3 raw score cuts and the articulation committee’s recommended cut scores from each round for each assessment.

Table ES4. Cut Score Recommendations from Articulation Committee for Mathematics

Grade	Performance Level					
	Proficient			Advanced		
	Round 3	Judgment Round	Final Judgment	Round 3	Judgment Round	Final Judgment
3	12	12	12	23	23	23
4	17	12	12	25	24	24
5	13	13	13	24	24	24
6	11	11	11	21	23	23
7	14	14	14	23	24	24
8	13	13	13	25	24	24
High School	12	12	12	22	22	22

Table ES5. Cut Score Recommendations from Articulation Committee for Reading

Grade	Performance Level					
	Proficient			Advanced		
	Round 3	Judgment Round	Final Judgment	Round 3	Judgment Round	Final Judgment
3	10	10	10	22	22	22
4	10	10	10	20	20	20
5	12	12	12	23	23	23
6	12	12	12	20	21	21
7	10	11	11	20	21	21
8	14	14	14	23	23	23
High School	11	11	11	20	21	21

Table ES6. Cut Score Recommendations from Articulation Committee for Science

Grade	Performance Level					
	Proficient			Advanced		
	Round 3	Judgment Round	Final Judgment	Round 3	Judgment Round	Final Judgment
5	13	13	13	23	23	23
8	16	16	16	26	26	26
High School	11	14	14	21	24	24

Culminating Recommendations

Figures ES4-ES6 show the estimated impact based on the Articulation Committee's final cut score recommendations.

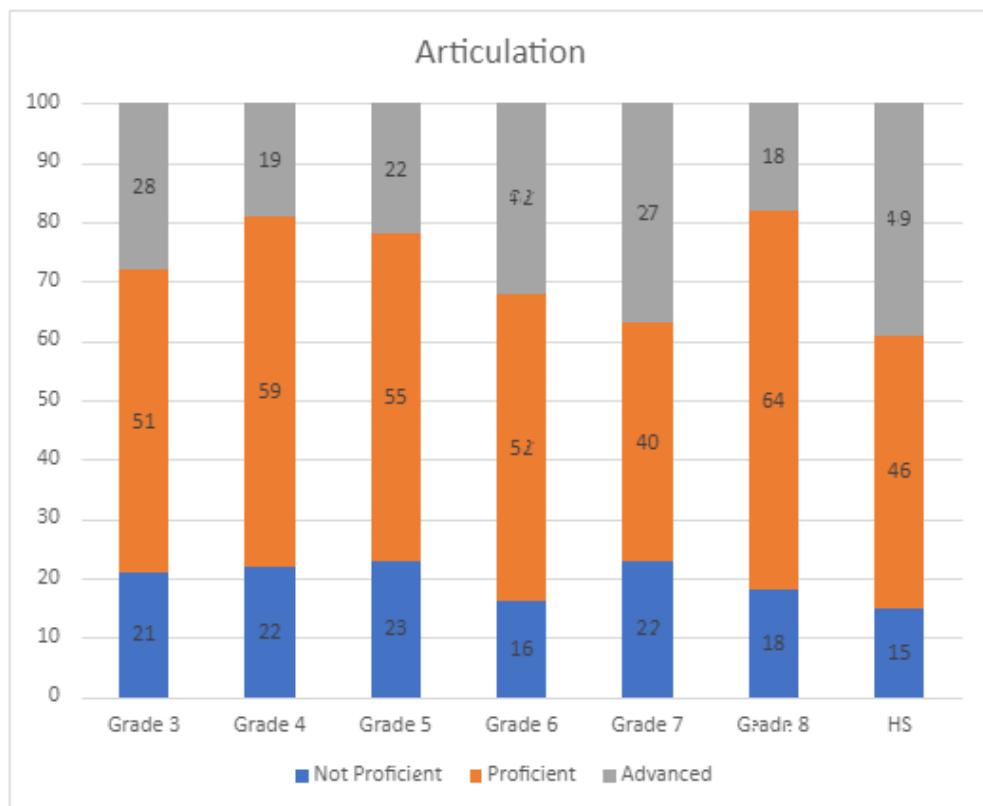


Figure ES4. Mathematics Impact Data by Assessment Following Articulation

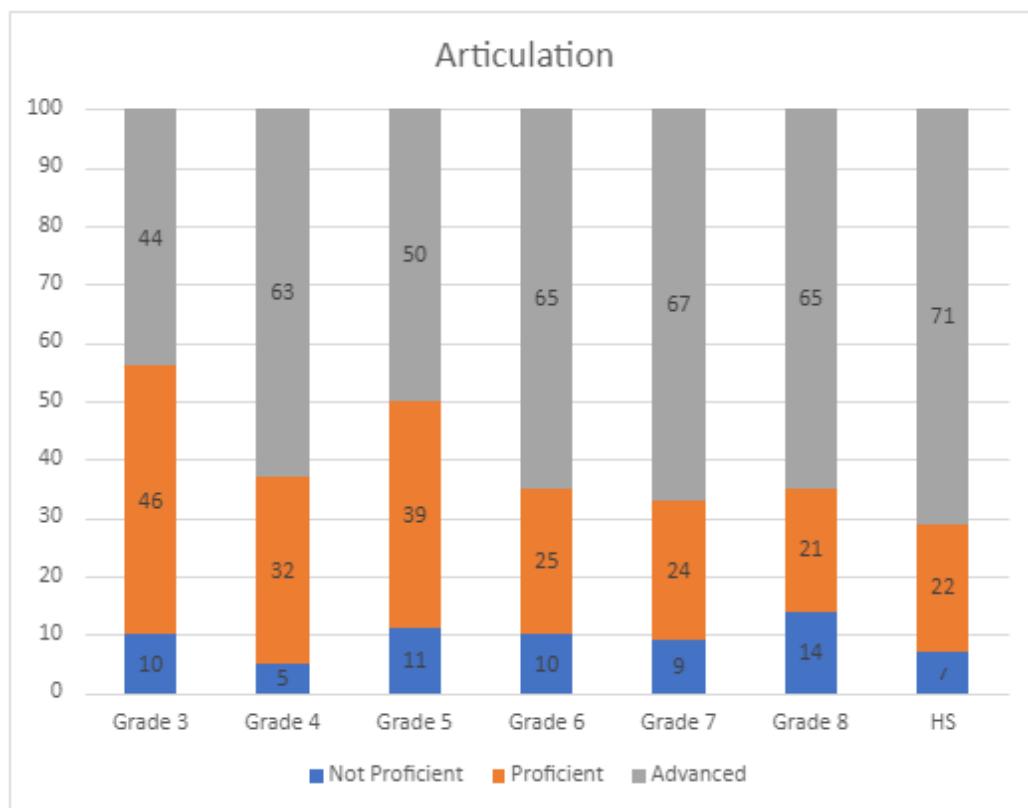


Figure ES5. Reading Impact Data by Assessment Following Articulation

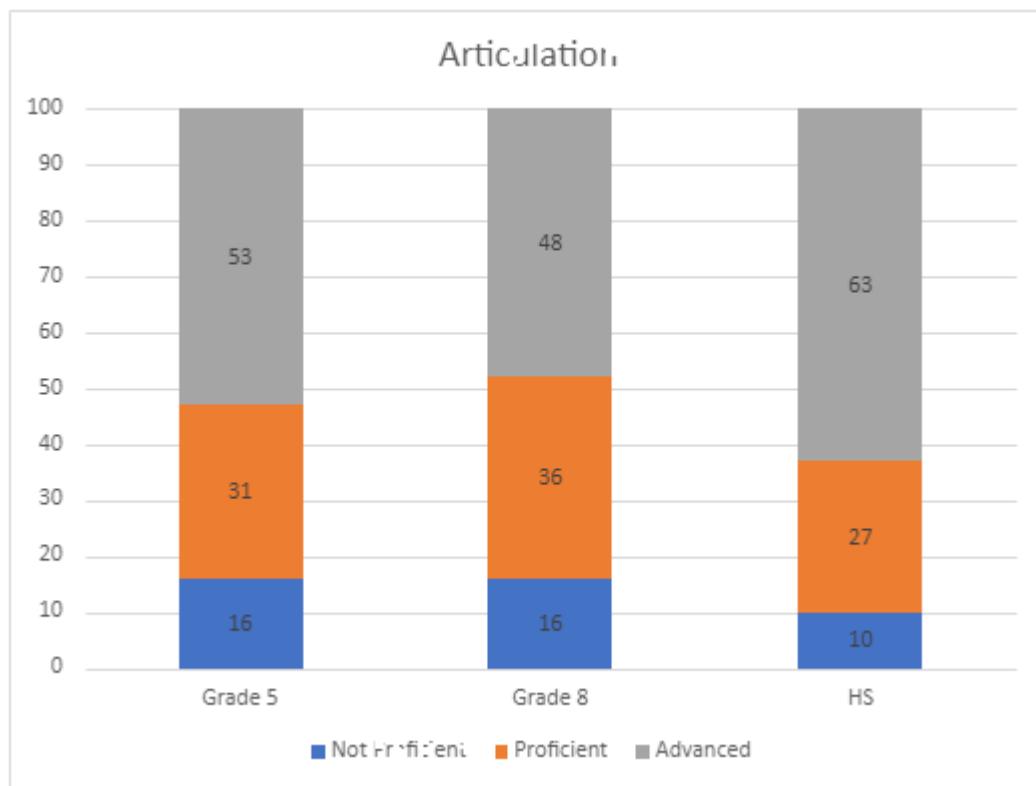


Figure ES6. Science Impact Data by Assessment Following Articulation

Chapter 1 – Overview of the Standard Setting Process

Chapter 1 provides an overview of the standard setting process used for the Virginia Alternate Assessment Program (VAAP) for Mathematics and Reading Grades 3-8 and High School and Science Grades 5, 8 and High School tests.

Goals of the Standard Setting Meeting

One of the most critical steps in developing an assessment program is the process of setting performance standards. After an assessment has been administered, various groups—including students, parents, educators, administrators, and policy makers—want to know how students performed and how performance should be interpreted. By establishing differential levels of student performance on an assessment, a frame of reference can be developed for interpreting test scores.

For a criterion standards-based assessment, such as the VAAP, performance is compared to a set of predefined content standards. The *Virginia Essentialized Standards of Learning* describe a set of performance expectations for what students should know and be able to do at the end of each grade and course. The cut scores established via the standard setting process represent the level of learning and achievement students are expected to demonstrate on the assessment to be classified into each performance level.

Performance Levels

Federal statute (ESSA, 2015) requires any statewide assessment used for accountability purposes to include at least three achievement or performance levels. The performance levels relate student achievement on the VAAP assessments directly to what students are expected to learn, based on the standards in the *Virginia Essentialized Standards of Learning*. Student achievement on all VAAP assessments is classified into three performance levels that delineate the knowledge and skills for which students are expected to demonstrate mastery:

- Not Proficient
- Proficient
- Advanced

Standard Setting Process

The cut score recommendations derived by the standard setting committees represent the level of achievement students are expected to demonstrate to be classified into each of the performance levels. To establish cut score recommendations for each assessment, the Yes/No Angoff method (Plake, Ferdous, Impara, & Buckendahl, 2005) was used to guide committee panelists. The Yes/No Angoff standard setting procedure is a systematic method for combining various considerations into the process of recommending cut scores for the different performance levels of an assessment, including content standards and educator judgments about what students should know and be able to demonstrate at each performance level, based on the reading standards found in the *Virginia Essentialized Standards of Learning* (VESOL).

The following steps were used in the standard setting process.

- Pre-meeting development – Various tasks were completed in advance of the standard setting meetings, including the development of materials for the panelists, preparation of the Pearson standard setting website for panelists and facilitators, composition of presentation materials for the facilitators, and development of data analysis sources and procedures.
- Standard setting meetings – Committees of panelists worked with assessment content and referenced borderline descriptions—unofficial documents created by each committee of the knowledge and skills expected of a student with performance at the borderline of a performance level—to make recommendations for cut scores that define the different performance levels for each assessment.
- Articulation meeting – The recommended cut scores for each assessment (Grades 3-8 and High School for Mathematics and Reading and Grade 5, 8, and High School for Science) were reviewed for reasonableness and alignment of performance level expectations across grades by members of the standard setting committees.

The remaining chapters of the technical report describe specific procedures and activities that occurred during each phase of the standard setting.

Chapter 2 – Preparations for the Standard Setting

Chapter 2 provides an overview of the work completed prior to the standard setting meetings for the VAAP tests, including:

- Performance Level Descriptors (PLDs)
- Development of panelist materials
- Development of presentation materials
- Facilitator training
- Preparation for data analysis during the meetings

Performance Level Descriptors (PLDs)

The PLDs present the major characteristics of each performance level in each subject area. The PLDs delineate what a typical student within a performance level should know and be able to demonstrate. They show a progression of reading knowledge and skills across performance levels within a subject. PLDs are a critical part of the process used to set assessment standards because they provide a common framework for understanding the reading skills needed to be classified into each performance level. Thus, the PLDs are an essential component of standard setting because they guide judgments about how students at different performance levels will perform on assessment items.

The PLDs are associated with the performance levels in the following way:

- *Performance levels* indicate a student's level of mastery of the reading standards defined in the VESOL through classification of their performance on a subject-area assessment as *Does Not Meet Proficiency*, *Proficient*, or *Advanced*.
- *PLDs* indicate the knowledge and skills students should be able to demonstrate at each grade level to be classified into a performance level.
- *Cut scores* partition the test scale and represent the minimum test score a student must earn on each grade-level assessment to be classified into a given performance level.

The PLDs for VAAP assessments can be found in [Appendix A](#).

Development of Panelist Materials

The standard setting required a large number of materials for use by panelists during the standard setting meetings. The Pearson standard setting team worked with the staff at VDOE to develop the materials used during the meeting and ensure all information provided to panelists communicated correct information. The following materials were developed for use by panelists during the meeting:

- Meeting agenda
- Non-disclosure agreement
- Grade-specific Reading test forms*
- Knowledge and Skills Notes Sheet
- Test form answer keys*
- Standard setting directions*
- Practice judgment forms and test maps
- Practice judgment round record form
- Judgment round record form
- Judgment round surveys* – Rounds 1, 2, and 3
- PLDs
- Process evaluations*

Because the meetings utilized the Pearson standard setting website as a tool for facilitation, documents indicated with an asterisk (*) were presented online through the standard setting website.

Using approved templates, documents were created for each specific committee meeting by the Pearson standard setting team. All documents developed for the website were reviewed and approved by VDOE staff before being finalized for publication for the meetings. A sample set of materials provided to committee panelists is presented in [Appendix B](#).

Development of Presentation Materials

PowerPoint presentations were developed to guide facilitators through the dissemination of information and materials throughout the standard setting meetings. The Pearson standard setting team created the initial PowerPoint presentations. Staff from VDOE then reviewed the presentations and suggested edits, which were resolved by the Pearson standard setting team. The following PowerPoint presentations were created for the standard setting meetings:

- Standard Setting General Session
- General Workshop Policies
- Standard Setting Reading Breakout Meeting – Day 1 – Day 4 (Gr. 3,4,6,7)
- Standard Setting Reading Breakout Meeting – Day 1 – Day 5 (Gr. 5, 8, HS)
- Articulation (repeated for Reading, Mathematics, Science) – Final Day

The PowerPoint presentations for the breakout meetings were customized to reflect specific information for the courses for each committee. Additionally, detailed information was added

to the notes section within each presentation to guide facilitators through the presentations.

Facilitator Training

The general and breakout sessions were facilitated by a psychometrician from Pearson with knowledge and experience facilitating standard setting meetings. The facilitator was responsible for ensuring appropriate processes were followed throughout all sections of the meeting and that panelists had a solid understanding of the tasks they were asked to complete.

All facilitators underwent an extensive program of training to prepare them for leading the set of standard setting meetings. The facilitator training included:

- Use of the Pearson standard setting website—Because the standard setting website was used as a facilitation tool during the meeting, facilitators needed to become familiar with the use of the platform. The website provided a framework for facilitating the standard setting process that each of the facilitators followed. Specific guidelines for modeling the website and providing access to the panelists were discussed.
- VAAP assessments—The facilitators were provided an overview of the VAAP, including the content areas assessed, different item types, scoring rules, performance levels, and scaling design.
- Standard setting process—The facilitators participated in a walkthrough of the standard setting meeting agenda, with a focus on specific issues, such as time management, the use of the online platform, and communicating feedback information.
- Presentation slides and script—As part of the walkthrough of the standard setting process, the facilitators also reviewed the standard setting training slides. The script provided along with the presentation slides offered facilitators guidance throughout the presentation, including when specific language was to be used during the panelist training and use of the standard setting website.

The facilitator training meetings were held for 60 minutes each on March 28 and April 6, 2022. At the end of each day during the standard setting meetings, a debriefing was held to discuss concerns, positives, and material planned for the next day.

Staff from VDOE were available online, as observers, to assist panelists with content and policy questions during the standard setting meetings. A staffing plan was provided to VDOE prior to the standard setting meetings to communicate the psychometric and support staff scheduled to attend.

Preparation for Data Analysis During the Meetings

Creation and testing of analysis programs and the calculation of impact data lookup tables were conducted prior to the standard setting meetings. To facilitate the analysis for each judgment round during the meeting, analysts independently completed the programming necessary to conduct all analysis using SAS statistical software. A trial was run with mock data generated through the standard setting website to ensure each independent analysis generated the same results.

In preparation of the standard setting meetings, several sets of analyses were performed using data from the Spring 2022 test administration. The analyses included item response theory (IRT) calibration of the items, which was used to determine the association between the recommended raw score cuts and estimated student ability, as well as classical item analysis.

Impact data are the percentage of students classified within each performance level, based on the recommended cut scores for a given judgment round. Analysis programs developed prior to the standard setting meetings used impact data lookup tables to create impact data during the meetings.

The impact data lookup tables were created using results from students who took the test form of each VAAP assessment during the Spring 2022 administration. A frequency distribution of student scale scores for the different test grades was created. The frequency distribution was used to determine the expected percentage of students classified into each performance level, based on panelists' judgments and cut score recommendations from the standard setting meetings.

In addition to the programming created to calculate impact data, Pearson analysts developed programs to generate all feedback handouts, plots, and tables needed during the standard setting meeting. For example, following a round of judgment, the analyst produced:

- Individual panelist feedback – a listing of the judgments made by a panelist to ensure they were recorded and analyzed accurately (given to all panelists).
- Committee-level feedback – a summary of judgments from all panelists, including frequency distributions of item judgments and the mean, median, and range of the committee's cut score recommendations by performance level (given to facilitators and VDOE; presented to panelists using tables and histograms in PowerPoint slides).
- Impact data – the projected percentage of students in each performance level, according to the recommended cut scores (all students, not disaggregated by demographic groups; impact data were calculated for use by the articulation committee panelists but were not presented to panelists for the individual tests).

Chapter 3 – Standard Setting Meetings

Chapter 3 provides details about the standard setting meeting process. The sections of this chapter include:

- Purpose of the standard setting meetings
- Meeting participants
- Committee panelist composition
- Standard setting meeting facilitators and staff
- Standard setting materials
- Standard setting procedure
- Standard setting meeting proceedings

Purpose of the Standard Setting Meetings

Standard setting is based, to a large degree, on the judgment of educators. Committees of educators make expert recommendations about the level of achievement expected for each performance level based on their experience with different groups of students and knowledge of the content assessed. A specific process, or standard setting method, is used to capture educators' judgments and to translate them into cut scores for the performance levels. The purpose of the standard setting meetings was to gather expert recommendations from groups of educators from across Virginia for the cut scores that define the different performance levels on the VAAP assessments.

Student performance on each of the VAAP assessments was classified into one of three performance levels. Each subject committee was asked to recommend two cut scores that defined the boundaries between the different performance levels. The committee's recommended cut scores represented the performance a student would need to meet or exceed to be classified into the specific performance level on each assessment.

Meeting Participants

Standard setting panelists for the meetings included three distinct groups of people:

- Meeting facilitators
- Committee members
- Observers

Figure 1 illustrates the room setup for the standard setting meeting. In the figure, the blue area indicates panelists' seating, the green area indicates observer seating, and the orange area represents facilitator workspace.

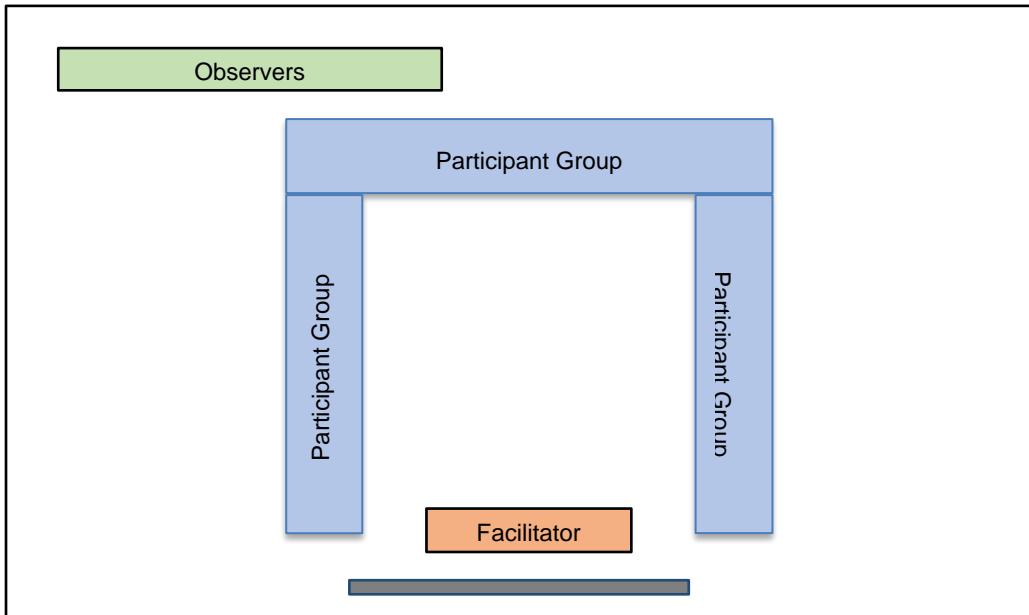


Figure 1. Physical setup for standard setting meeting

Committee Panelist Composition

All panelists for the standard setting committees were selected by VDOE to represent educators and key stakeholders from across the Commonwealth who had knowledge of and experience working with student groups within the populations administered the VAAP assessments. The process of choosing committee panelists involved selection of a sample of panelists as representative of the state as possible, including demographic variables (e.g., gender, race), geographic representation, and background (e.g., educational experience, education).

There was a total of 57 panelists at the standard setting meetings. The panelists were divided into seven breakout committees. Each committee focused on establishing cut score recommendations for one subject and one grade. The tables in [Appendix C](#) summarize the characteristics and experience of the panelists in each committee, including demographic information, current positions in education, years of experience working special populations, and the regional representation they represent.

Standard Setting Meeting Facilitators and Staff

Staff members from VDOE and Pearson collaborated to conduct the standard setting meeting. Both groups worked in facilitative and observational roles during the meetings and took special care not to influence the committee's cut score recommendations.

Meeting Facilitators

The standard setting leads for the meetings were Steve Fitzpatrick, Ph.D. and Eric L. Moyer, Ph.D. from Pearson. There was an assigned process facilitator for each of the seven breakout committees. The facilitators' names are displayed in Table 1. All process facilitators were members of the Pearson psychometric staff and had previous experience facilitating

standard setting meetings.

Table 1. Process Facilitators for Standard Setting Committees

Committee	Facilitator
Grade 3	Jenna Copella
Grade 4	Brad Ungurait
Grade 5	Ha Phan
Grade 6	Liam Duffy
Grade 7	Dipendra Subedi
Grade 8	David Shin
High School	Tim O'Neil

Meeting Data Analysts

Four data analysts performed all analyses for the seven committees during the standard setting meetings. The data analysts Miky Lee and Grant Smith, both of whom were members of the Statistical Analyst staff at Pearson, were onsite during the standard setting meeting to perform analysis and print feedback data for panelists. Edgar Vidriales and Brian Choi, also Pearson Statistical Analyst staff, completed verification of all analyses remotely. During the meetings, the analysts collected panelist judgment data from the standard setting website, performed independent analysis to verify results, and prepared panelist feedback reports.

VDOE Staff

VDOE staff members attended the standard setting meeting to observe the process as well as answer assessment, content, and policy questions. VDOE staff also monitored the cut score recommendations for each performance level throughout the standard setting meetings. VDOE staff did not participate in the standard setting process. Their purpose was to allow individuals an opportunity to experience the standard setting process and, in some cases, provide feedback. Whenever possible, observers were assigned to a single committee for the duration of the standard setting meeting. Specifically, the standard setting process was observed by VDOE staff in each grade level.

Standard Setting Materials

The following section describes the materials used by committee members during the standard setting breakout sessions. Separate materials were developed for each committee.

Pearson Standard Setting Website

The Pearson standard setting website served as the online platform during the standard setting meetings. The website provided panelists access to the standard setting meeting materials and tools used to collect panelist judgments (see Figure 2).

Step 4: Round 1 Judgments - Math Grade 8

Use the links below to complete round 1 of the judgment activity.



Standard Setting Directions

A written explanation of the standard setting directions is provided using this link.



Math Grade 8 - Student Items

This link provides access to the student online items.



Math Grade 8 - Examiner's Copy

The Examiner's Copy will provide access to the items and instructions provided to the assessment administrator.



Round 1 Judgment Readiness Quiz - Math

In the Round 1 Judgment Readiness Quiz, you will answer questions about your preparation to complete the Round 1 Judgment Task.



Round 1 Judgment Survey - Grade 8 Mathematics

Record your judgments for the items in the judgment set in the following survey.

Not available unless: The activity Round 1 Judgment Readiness Quiz - Math is complete and passed (hidden otherwise)

Figure 2. Example website interface with links to standard setting materials

The website was built using Moodle, an online, open-source collaboration and learning tool. Each panelist was given unique login credentials that allowed secure access to the website. Panelists' access was restricted to only sections of the website associated with the standard setting meeting, as defined by their assigned subject area. As the VAAP assessments are computer-delivered using TestNav 8, the standard setting website allowed panelists to view items as students did during the spring 2022 administration. (Note: There was an option to administer via a paper copy that included an examiner script for schools.)

The website also provided panelists access to materials and tools necessary for completing activities during the standard setting meeting. The standard setting materials and tools on the website included:

- Virginia Essentialized Standards of Learning (VESOL) 2021-2022
- Test blueprint
- Grade-specific PLDs
- Examiner's Copy
- Test item map and answer key
- Borderline Descriptions worksheet
- Standard setting directions
- Practice judgment activity items
- Practice judgment readiness survey
- Practice judgment survey

- Judgment items for Rounds 1, 2, and 3
- Judgment readiness survey for Rounds 1, 2 and 3
- Judgment survey for Rounds 1, 2, and 3
- Judgment feedback folders for Rounds 1 and 2
- Process evaluation surveys

A unique course site was created for each committee within the Pearson standard setting website. The meeting facilitator controlled panelist access to each section of the website. Website access was disabled at the end of each meeting day to prevent panelists from accessing secure materials outside of designated meeting times. Following the meetings, the online materials were also archived.

Committee Panelist Folders

In addition to the online resources provided through the website, panelists were given a meeting folder to organize a variety of hard copy materials they used throughout the meeting. The materials provided to committee panelists in their folders included:

- Meeting agenda
- Non-disclosure agreement
- ‘Experience the assessment’ activity response forms
- Knowledge and skills notes form (grades 3-8)
- Practice judgment record form
- Rounds 1, 2, and 3 judgment record forms
- PLDs

The panelist folders were prepared in advance of the standard setting meetings. Panelists were required to check-in at the start of each day and to return their folders and check-out at the end of each day of their meetings. Panelists were provided additional materials throughout the meeting, which they were instructed to insert into their folders.

Computers

Each panelist was provided a laptop computer in his or her meeting room to access online resources through the Pearson standard setting site. The laptops were Dell Latitudes with 15.6" screens, standard keyboards with a full-size number pad, and an external mouse. Panelists were not provided with external keyboards, numeric keypads, or monitors. Panelists were seated at tables and provided enough space to freely work with the computer and folder materials. Power supplies for the computers were centrally located at the base of each table. The panelists used Google Chrome to access the standard setting site. Each computer was programmed with a whitelist of websites that restricted use to work associated with the standard setting meeting.

Standard Setting Procedure

The method used to set standards was the Yes/No Angoff method (Plake et al., 2005). This standard setting procedure operates as both a content- and item-based method that leads panelists through a standardized process in which they consider student expectations, as

defined by PLDs, and the individual items administered to recommend cut scores for each performance level. The same standardized process was used by all committees and resulted in cut score recommendations.

Panelists completed three rounds of judgments. Between judgment rounds, panelists were presented feedback information regarding their individual and committee-level cut score recommendations, panelist agreement data, and item-level agreement. During Round 3, panelists were asked to only provide their test-level cut score recommendation for each performance level.

Standard Setting Meeting Proceedings

The standard setting meetings were conducted, April 11-15, 2022, in Richmond, Virginia. The complete agenda for the meetings is available in [Appendix D](#). A general overview of the schedule is provided in Table 2.

Table 2. General Overview Schedule for Standard Setting Meetings

Meeting Dates		
April 12-15 early AM	April 11-15 early AM	April 15 early AM-PM
Grades 3, 4, 6 & 7	Grades 5, 8 & High School	Articulation

The remaining sections of Chapter 3 will describe the steps used to guide panelists through the entire standard setting process.

Breakout Sessions

In each breakout session, panelists moved to their assigned grade-level breakout rooms for the remainder of the standard setting meeting. Each breakout committee was responsible for providing cut score recommendations for all performance levels associated with their grade-level tests. Table 3 provides an overview of the activities conducted in each breakout session.

Table 3. Overview of Activities During Breakout Sessions

Day 1 Activities	Day 2 Activities*
Introductions and process overview	Discussion of round 1 recommendations and feedback
‘Experience the Assessment’ activity Review of Examiner’s Copy	Round 2 recommendations
Review of grade-specific PLDs	Discussion of round 2 recommendations and feedback
Development of borderline descriptions	Round 3 recommendations

Practice judgment task and discussion	Closing remarks and evaluation
Round 1 recommendations	

*Please note, as the same panelists reviewed reading (and sometimes science) after the initial training on mathematics, the work for the successive subjects was completed in approximately a day and a half, so that all grade-level sessions completed their review of each assigned subject by mid-morning on Friday, April 15, 2022. The presentation slides for the breakout sessions are included in [Appendix E](#).

Introductions and Overview. To begin the breakout session, individuals in the room—facilitators, panelists, and observers—introduced themselves by sharing the following:

- Name
- Area of the state
- Experience in current field
- Role and any courses taught
- Experience with VAAP test committees

After introductions, the facilitator discussed the security and non-disclosure expectations for the meeting and a VDOE staff member delivered a statement regarding security protocol. The panelists then individually reviewed, agreed to, and signed the security and non-disclosure agreement, which was collected by the VDOE staff member. Panelists also completed an emergency contact form for the meeting.

The facilitator also distributed folders containing secure and essential materials for the meeting. The facilitator reviewed the documents and materials in the folder, on the standard setting website, and how the resources would be used during the standard setting process. The panelists were given an opportunity to ask questions before proceeding.

Preview the Standard Setting Form. Panelists were provided the opportunity to review the items on the standard setting form. The purpose of this activity was to allow panelists to interact with the test items and develop insight regarding the knowledge and skills required to correctly answer each item.

As part of this activity, participants were given information about how the assessment for their assigned grade-level is scored. A test map, or online answer key, on the standard setting website provided information about each item, including the unique item number, correct response for the item, reporting category, and associated learning standard (i.e., SOL). Panelists were given an opportunity to review the correct responses using the test map on the website.

‘Experience the Assessment Activity’. Panelists experienced the operational test forms administered to students during the Spring 2022 administration. Panelists viewed items in a similar manner as all students who took the VAAP. The ‘Experience the Assessment’ activity allowed panelists to interact with the test items and develop insight regarding the knowledge and skills required to correctly answer the test items. Panelists also had access to the Examiner’s Copy for each assessment.

Panelists recorded their responses to the ‘Experience the Assessment’ items on a separate

form, which was provided in their folder. After the panelists completed the activity, they were given information about how the assessment is scored. A test map, or online answer key, on the standard setting website provided information about each item, including the unique item number, correct response for the item, reporting category, and associated learning standard (i.e., VESOL). Panelists were given an opportunity to review the correct response and score their test using the test map on the website.

Borderline Descriptions. Development of borderline descriptions is an essential component to the standard setting process. The purpose of the borderline descriptions activity was for all panelists to develop a common understanding of student performance at the threshold, or borderline, of each performance level.

To help guide the borderline descriptions development activity, the facilitator reviewed the performance levels and PLDs with the committee. Panelists were informed that the PLDs provide a snapshot of the typical characteristics at each performance level, including the breadth and depth of the knowledge and skills expected to be demonstrated by students within each level.

The panelists were then introduced to the difference between a student with *typical* performance and a student with performance at the *borderline* of a performance level. A student with performance at the borderline was described as one who possessed “just barely” enough knowledge and skills to be classified into a specific performance level. Facilitators provided an example borderline description for the specific grade, to assist panelists in understanding the expectation in construction borderline descriptions.

Panelists were then split into small groups to review the PLDs for a specific reporting category within each performance level. The small group created draft borderline descriptions for the specific reporting category using a borderline descriptions worksheet accessed through the standard setting website. Borderline descriptions for the Proficient performance level were created and reviewed by panelists prior to creating and reviewing the borderline descriptions for the other performance levels. The borderline descriptions from each group were collected into a master document and reviewed/discussed together by the whole committee. Revisions to the master document were made during the whole-group discussion to create a common set of borderline descriptions. The final list of borderline descriptions was printed and provided to each panelist to place in his or her folder as a reference for subsequent activities.

Judgment Process Training. The process facilitator for each committee provided thorough training for panelists on the Yes/No Angoff standard setting method and how to use the website to record their individual judgments. The Yes/No method is “sensitive to both the questions on the test and to the knowledge, skills, and abilities of the examinees at each transition point” (Plake & Cizek, 2012, pg. 190). Panelists were instructed to review each item from the assessment, consider the knowledge and skills necessary to answer the question, and consult the borderline descriptions during the judgment process. Based on their review of the item and related materials, panelists answered the following question:

“Would a student performing at the borderline of the [specific] performance level likely get this item correct?”

Significant time was spent describing the thought process the panelists should go through using parts of the question.

- “Would...”
When considering expected student response to an item, the panelists were asked to consider how a student would respond. Where “should” is an aspirational expectation, “would” is a more realistic expectation of a student response to an item.
- “...a student performing at the borderline of the [specific] performance level...”
The panelists were reminded to reference the borderline descriptions for the specific performance level to determine how a student performing at the borderline of that performance level would be expected to respond.
- “...likely...”
In this context, likely was defined as 2 out of 3 times, or 67%. To make this concrete for panelists, facilitators asked them to think about 3 students at the borderline of a performance level. If a panelist believed 2 out of 3 students with performance at the borderline would correctly answer the item, they would respond “yes” to the question. If a panelist did not believe 2 out of 3 students with performance at the borderline would correctly answer the item, they would respond “no” to the question.
- “...get this item correct...”
Panelists recorded either “Yes” or “No” for an item, which represented whether a student with performance at the borderline would be expected to correctly answer the item.

Panelists were instructed to review each item and make a judgment for each performance level, for Grades 3-8, starting with *Basic* then proceeding to *Proficient* and *Advanced*, and for the EOC, starting with *Proficient* then proceeding to *Advanced*. Panelists were trained to check their judgments for expected patterns across performance levels, which included multiple examples with different judgment patterns. The judgments made by panelists were recorded in the judgment survey via the standard setting website. Figure 3 shows an example item from the judgment survey on the website.

Item 1:		
Passage Name:		
Key:		
SOL:	8.4EF	
Basic	<input type="radio"/>	<input checked="" type="radio"/>
Proficient	<input type="radio"/>	<input checked="" type="radio"/>
Advanced	<input type="radio"/>	<input checked="" type="radio"/>

Figure 3. Example item from the judgment survey in the website

Panelists also kept a record of their judgments on their paper Judgment Round Record Sheet, which was provided as part of the materials in their folder. The Judgment Round Record Sheet included the unique item number, correct response, reporting category, Virginia SOL, and item judgment. Panelists were shown how to use the unique item number

to ensure they referenced the correct item on both the paper and online versions of the judgment survey.

Practice Judgment Round. Panelists completed a practice judgment task prior to beginning the actual judgment rounds. The goals of this activity were to:

- Give panelists experience reviewing and making judgments about different types of items.
- Familiarize panelists with the judgment survey on the standard setting website.
- Build confidence in their understanding of the task to be completed.

Seven items were selected for the practice activity. The practice items were a subset of those panelists ultimately reviewed in the actual judgment rounds and included examples of different item types and difficulty. After all panelists completed their practice judgments, the facilitator presented item-level judgment results interactively through the standard setting website. Group discussion was initiated to review the judgment process and panelist responses, demonstrate how their judgments were used to determine a cut score recommendation, and answer any questions panelists had about the judgment process.

Judgment Rounds. After receiving training on the standard setting process and completing the practice judgment activity, the panelists worked through three rounds of judgments. Before starting each judgment round, the facilitator reviewed the judgment process, including explicit instructions on which materials were needed. Panelists were required to complete a readiness survey in the website prior to each round, indicating they understood the task and process used to complete the judgments. The panelists had to answer “yes” to all readiness survey questions before continuing with the judgment round. If a panelist responded “no” to any question, he/she was asked to notify a facilitator for additional assistance. The readiness survey included the following questions:

- Do you understand your task for the judgment activity? (Rounds 1, 2, and 3)
- Are you ready to begin the judgment activity? (Rounds 1, 2, and 3)
- Do you understand the panelist agreement data that was presented? (Rounds 2 and 3)

An example of the readiness survey panelists completed before starting the judgment task is presented in Figure 4.

Readiness Survey:

Before starting the activity, select a response for each of the following questions.

Do you understand your task for the Judgment activity?

Select one:

Yes

No

Figure 4. Example readiness survey before judgment task

After panelists finished the readiness survey, they were provided access to the judgment survey for the respective round.

During the first two judgment rounds, panelists made individual judgments for each item, based on the borderline descriptions and knowledge and skills required by the item. Panelists answered the question, "Would a student performing at the borderline of the [specific] performance level likely get this item correct?" Panelists completed judgments for all performance levels before moving onto the next item. For Round 3, panelists considered their individual Round 2 cut score recommendation for each performance level and made a raw score judgment by answering the question, "How many items would a student performing at the borderline of the specific performance level likely answer correctly if they answered all of the questions?" Judgments were recorded in the website using the Judgment Survey during Rounds 1 and 2. The judgment survey required panelists to provide judgments for all items before submitting the judgment survey. A test-level raw score judgment was entered by panelists for each performance level in the online Round 3 Judgment Survey.

Feedback and Discussion. The panelists were given feedback after each judgment round. The feedback was based on each individual's current cut score recommendations, the recommendations of others in their committee, and relevant information from actual student results on the assessment. Feedback data included the following:

- Information about panelists' cut scores for each performance level:
 - Individual cut scores: Judgments for each performance level were summed across items to obtain a cut score for each level. The panelists were provided individual paper handouts showing their item judgments and recommended cut score for each performance level.
 - Committee cut score recommendations and statistics: Committee-level recommendations were the median cut score across all panelists in the committee for each performance level. Panelists were provided the committee-level cut score recommendations and cut score statistics (minimum, maximum, median, mean, and interquartile range) for each performance level.
 - Panelist agreement data: Bar graphs showing the frequency of individual recommended cut scores for each performance level and across adjacent performance levels.
- Item-level judgment agreement across panelists: Distribution of panelist judgments for each item and performance level.

Some information was provided only after certain rounds. Table 4 presents the feedback information shared with panelists after each judgment round. [Appendix F](#) provides examples of feedback data provided to panelists.

Table 4. Feedback Data Provided to Panelists after Each Judgment Round

	Round 1	Round 2	Round 3
Individual Judgments	✓	✓	

Item-Level Feedback	Panelist Agreement Data	✓	✓	
Test-Level Feedback	Individual Cut Score	✓	✓	
	Committee Cut Score	✓	✓	
	Panelist Agreement Data	✓	✓	

Before the whole-group discussion of feedback data, panelists were given guidance regarding the independence of their judgments. That is, they should listen to other panelists and consider the rationales given for their judgments, but they should not feel pressured to reach consensus. Following Rounds 1 and 2, panelists shared the rationale for their judgments during whole-group discussion. Items with the highest level of disagreement amongst the committee were revisited for each performance level. Committee members discussed a range of topics, such as item difficulty, student strategies when responding to the items, their individual rationale for a judgment, and, importantly, the borderline descriptions the group crafted. The goal of discussion was to demonstrate to panelists how their judgments compared to the rest of the committee and to guide them toward a common and shared understanding of the borderline descriptions and judgment task.

Process Evaluation. The validity of standard setting outcomes relies on procedural validity. Evidence of procedural validity was gathered through an evaluation survey administered at the end of the standard setting meeting for each committee. The evaluations focused on the processes and procedures of the standard setting meeting, including the panelists' overall views of the standard-setting process, training, materials, meeting facilitation, and ultimately how they felt about the final results. The evaluations were kept anonymous. The results from the evaluations were aggregated and can be found in [Appendix G](#).

Recommended Cut Scores from Standard Setting Committees

The median cut score recommendation from a committee was used to establish a cut score for each performance level. The cut score recommendations resulting from the Round 3 judgments were considered the committee's final recommendations for the standard setting meeting. Table 5 displays the recommended cut scores for each performance level based on the Round 3 recommendations for each grade level.

Table 5. Round 3 Cut Score Recommendations from Standard Setting Committees

Reading Grade	Maximum Score	Performance Level Cut Score Recommendation		
		Fail/Basic	Pass/Proficient	Pass/Advanced
Grade 3	40	7	16	33
Grade 4	40	11	22	34
Grade 5	40	7	22	34
Grade 6	45	11	27	39
Grade 7	45	12	26	39
Grade 8	45	11	25	39
EOC	47		22	37

Figure 5 illustrates the estimated impact data after Round 3 judgments for each performance level and standard setting committee.

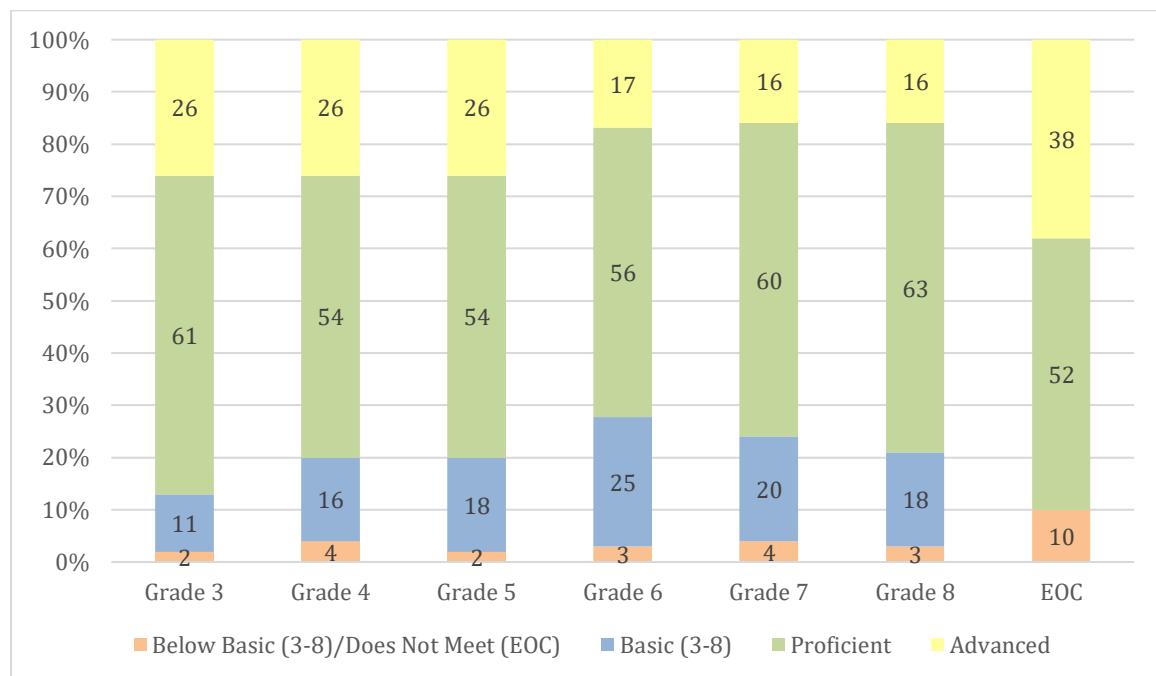


Figure 5. Impact Data from Round 3 Cut Score Recommendations

The recommended cut scores at the end of each judgment round for all performance levels are presented by standard setting committee in [Appendix H](#). Summary statistics for the recommended cut scores at the end of each judgment round are shown in [Appendix I](#). Panelist agreement data after each judgment round is shown by performance level and committee in [Appendix J](#).

Chapter 4 – Post-Standard Setting

Chapter 4 provides details about the work completed after the standard setting committee meetings. The sections of this chapter include:

- Articulation
- Executive Summary and VDOE Approval

Articulation

Three panelists from each standard setting committee convened in an articulation panel. The purpose of the articulation meeting was to review and evaluate the reasonableness of the cut score recommendations from the seven standard setting committees.

After an introduction to the purpose of articulation, the panelists were guided through a specific process where they considered the recommendations from the standard setting committees and, if necessary, made changes to the recommendations. Panelists reviewed the PLDs and recommended cut scores for all seven Reading Grades 3-8 and EOC assessments and compared the student impact for the different performance levels based on the committees' final recommendations. The result was a set of recommended cut scores from the articulation committee.

Panelists from the seven breakout sessions came together on the morning of Friday, December 6, 2019, to participate in the articulation meeting. The facilitator for the articulation was Steve Fitzpatrick, Ph.D.

Meeting Process

The process for the articulation meeting involved three steps:

- Review and discussion of the PLDs for each grade level.
- Review and discussion of the cross-grade impact data.
- Discuss adjustments to recommended cut scores.

At the beginning of the articulation, panelists were told that the purpose of the meeting was to review the cut score recommendations across the committees to determine whether they resulted in a cohesive assessment system. In the standard setting breakout sessions, panelists were focused primarily on the content relevant to their separate committees, whereas in the articulation meeting they reviewed the cut score recommendations from all the standard setting committees from an additional policy perspective.

The panelists were initially provided the PLDs for all seven grades in Reading. They were given time to review the seven sets of PLDs, taking note of any differences in expectations for classification into each performance level. This activity was completed to provide a content foundation for panelists' expectations regarding relationships within the impact data across subjects.

The panelists were presented impact data charts for each grade level that reflected the results of the Round 3 judgments from the seven standard setting committees (shown above in Figure 5). Based on their initial expectations of student impact from their review of the PLDs, the panelists were provided an opportunity to discuss the results and investigate changes to the recommended cut scores from Round 3 using an interactive spreadsheet. The interactive spreadsheet for the articulation meeting, which was accessed through the Pearson website, is presented in Figure 6. Additionally, participants were provided access to the panelist cut score agreement graphs and cut score summary statistics from the Round 3 recommendations from each committee.

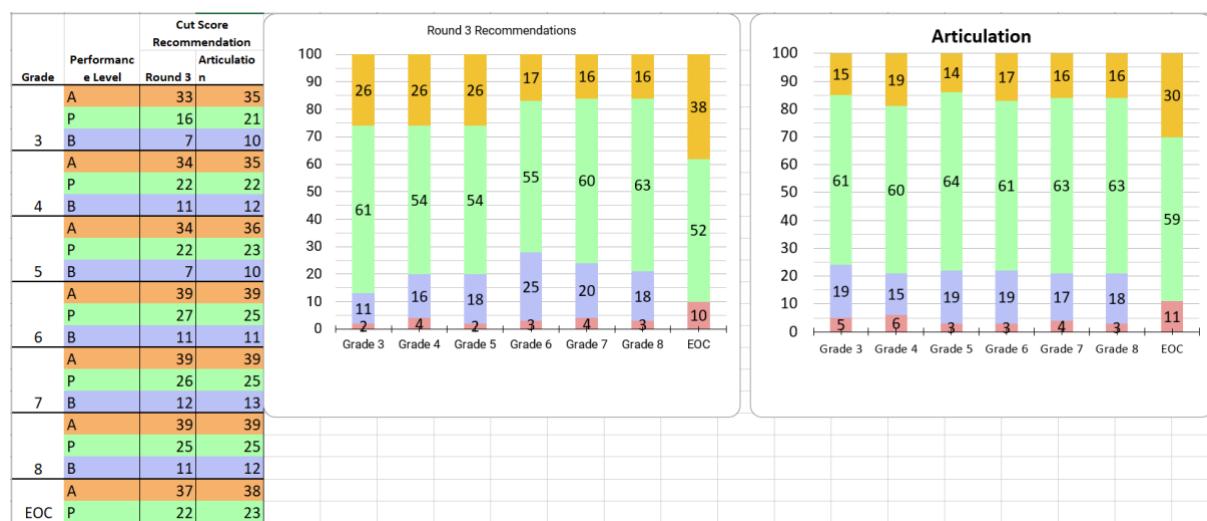


Figure 6. Interactive spreadsheet for Articulation meeting

The interactive spreadsheet allowed panelists to view how possible modifications to the current cut score recommendations resulted in changes to the impact. The panelists were given the opportunity to recommend changes to cut scores for the performance levels if they noticed a misalignment in the impact data. When a cut score change was recommended, the meeting facilitator input the changes into the interactive spreadsheet for the entire committee to review the resulting impact data.

The panelists completed an articulation judgment activity. During this activity, each participant provided a cut score recommendation for each performance level, *Fail/Basic*, *Pass/Proficient*, and *Pass/Advanced*, for each of the seven grade levels (and *Pass/Proficient* and *Pass/Advanced* for the EOC) based on their review of the PLDs and the group discussion about the impact data from the Round 3 recommendations. The cut score recommendations were entered into an online survey by panelists after they completed a readiness survey through the website.

After the articulation judgment activity, the panelists' results were collected by the data analyst and processed to determine articulation committee cut score recommendations. The median of the panelists' judgments was used as the committee recommendation for each performance level and grade. The articulation committee made changes to the Round 3 recommendations from the standard setting committees. The cut score recommendations from the articulation judgment results were then displayed to the panelists using the interactive spreadsheet.

Based on the discussion about the results, the panelists requested the opportunity to complete a second articulation judgment activity round, which was approved by the lead facilitator and VDOE. The second articulation judgment activity round was completed using the same process as the first round, with each panelist providing cut score recommendations for each performance level. After the panelists completed the second judgment round and the analysis was complete, the results were shared with the panelists using the interactive spreadsheet.

During the review of the impact data using the cut score recommendations from the second articulation judgment round, the participants provided additional cut score change recommendations. The lead facilitator entered the cut score change recommendations from the panelists into the interactive spreadsheet to display the effect on the impact data of making these changes to the performance level cut scores. Changes were made to the performance level cut scores until there was a general consensus amongst the panelists. Table 6 displays the recommended cut scores for each performance level based on the final articulation committee recommendations for each grade level.

Table 6. Articulation Cut Score Recommendations

Reading Grade	Maximum Score	Performance Level Cut Score Recommendation		
		Fail/Basic	Pass/Proficient	Pass/Advanced
Grade 3	40	10	21	35
Grade 4	40	12	22	35
Grade 5	40	10	23	36
Grade 6	45	11	25	39
Grade 7	45	13	25	39
Grade 8	45	12	25	39
EOC	47		23	38

Figure 6 illustrates the estimated impact data after articulation judgments for each performance level.

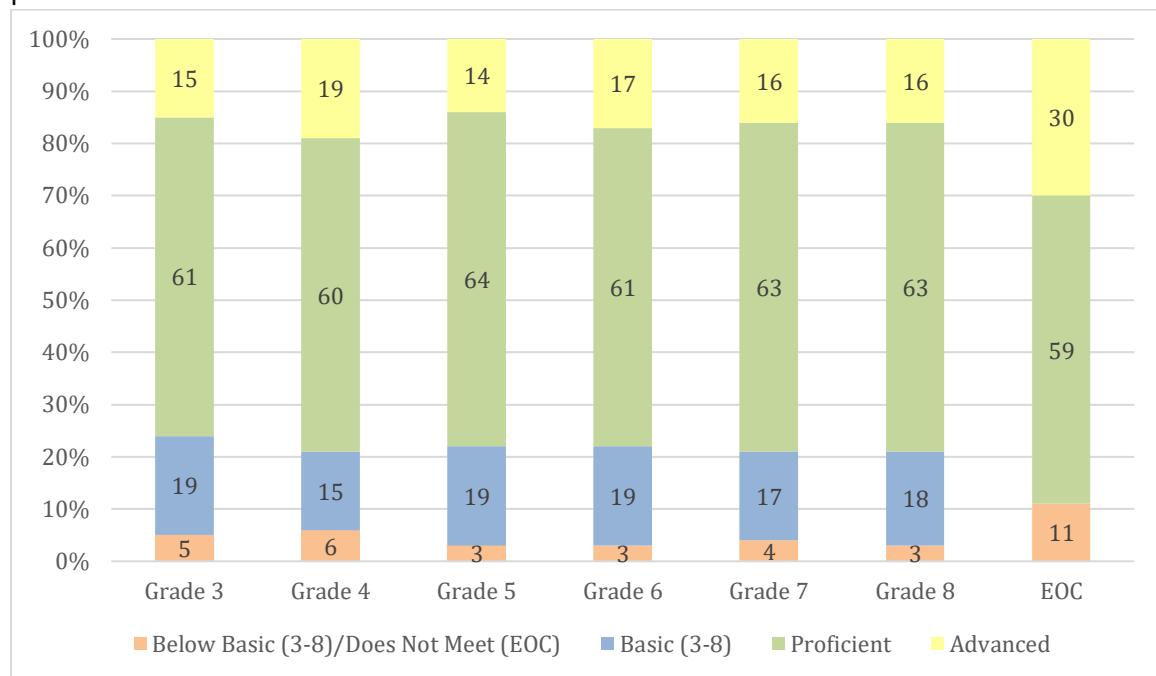


Figure 6. Impact Data from Articulation Cut Score Recommendations

At the end of the articulation meeting, panelists were reminded of the review and approval process before cut score implementation. Panelists also completed an evaluation of the articulation process and meeting on the standard setting website. All materials were submitted by the panelists before they were excused from the meeting.

Executive Summary and VDOE Approval

Following the standard setting meeting, an executive summary was provided to VDOE to facilitate a review of the cut score recommendations. The executive summary included a brief overview of the methodology and process used to obtain the cut score recommendations, the panelists' cut score recommendations for each performance level by grade, and the impact data associated with the recommended cut scores. The summary was provided to VDOE on Monday, December 9, 2019.

Chapter 5 – Evidence of Procedural Validity of the Standard Setting Process

Chapter 5 details evidence supporting the validity of the process used for the standard setting meetings. The sections in Chapter 5 include the following:

- Committee representation
- Committee training
- Perceived validity of the standard setting
- Process standardization

Committee Representation

As part of the recruitment process, VDOE collected demographic information about panelists' background relevant to the educational experience and representativeness of the teaching population in Virginia. The demographic information collected from panelists included their gender (Table C.1), race/ethnicity (Table C.2), current position (Table C.3), type of school district (Table C.4), region of Virginia (Table C.5), and experience with different student populations (Table C.6).

A majority of the panelists in each committee were either a classroom teacher, lead teacher, or curriculum specialist, as shown in Table C.3. The committee members had a diverse array of experience teaching different student populations, including general education, gifted students, Honors and advanced placement courses, and special education, as displayed in Table C.6. Many panelists had prior experience serving on a SOL item, test, or standard setting review committee.

The panelists were representative of the different regions of Virginia, as presented in Table C.5, and the different types of school divisions across the Commonwealth. The set of panelists who participated in the standard setting meetings well represented teachers across the Commonwealth. Full results of the demographic characteristics of the panelists are documented in [Appendix C](#).

Committee Training

It was essential that panelists understood how to make judgments as part of the Yes/No Angoff standard setting methodology. Training on the standard setting method was provided throughout the process, beginning in the general session and continuing during the breakout committees for each grade-level test. Training and implementation of the standard setting process was standardized across committees through the PowerPoint training slides, script, and materials used.

Panelists went through a practice judgment round as an opportunity to apply the standard

setting methodology without consequence. During the practice judgment round for Grades 3-8, the panelists reviewed a reduced set of items and provided judgments for three borderline performance levels, *Fail/Basic*, *Pass/Proficient*, *Pass/Advanced*. (For EOC, the top two performance levels, *Proficient* and *Advanced*, were reviewed.) After the practice round, a whole-group discussion was led by the process facilitator to identify and respond to any questions or issues panelists encountered while implementing the standard setting process. Before each judgment round, panelists responded to a readiness survey that confirmed they were prepared to make their judgments. Panelists were not permitted to begin the judgment survey unless they answered “Yes” to all questions on the readiness survey and were encouraged to ask the facilitator for clarification if they responded “No” to any question.

Panelists completed a process evaluation survey at the end of their breakout meeting to record their impressions of the effectiveness of the materials and methods employed throughout the process. A large majority of panelists in six of the seven committees *Completely Agreed* the purpose of the standard setting meeting was clearly explained to them, as shown in Figure 7. Three panelists in grade 8 *Disagreed* and one panelist in grade 3 *Totally Disagreed*.

Question 1: The purpose of the standard setting meeting was clearly explained.

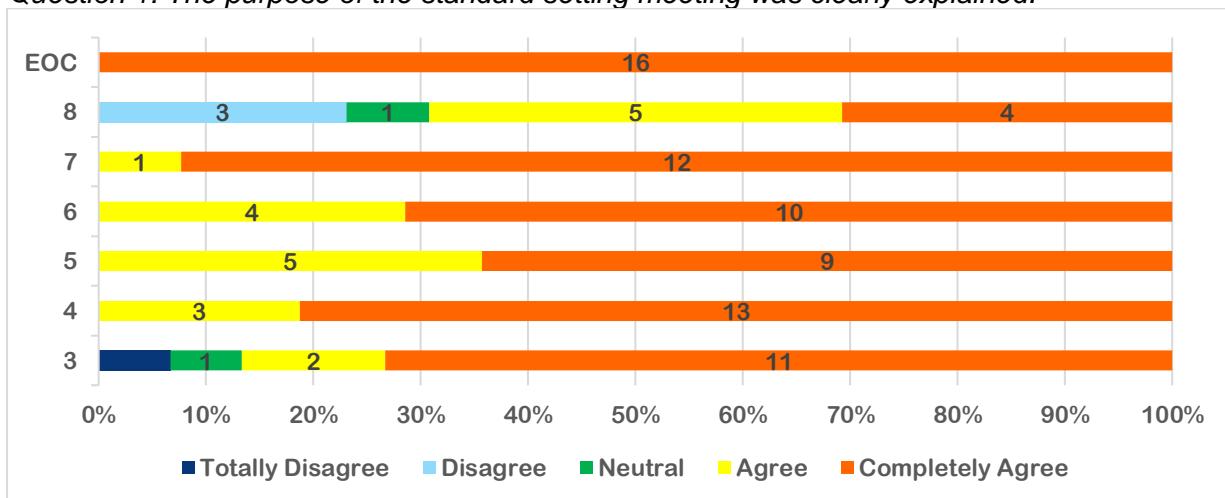


Figure 7. Process evaluation results regarding clear explanation for purpose of standard setting

Likewise, all but one panelist either *Agreed* or *Completely Agreed* the method (as “Yes” or “No”) for rating items was conceptually clear and the feedback and discussion following each round of judgments was useful. Results for both of those questions are presented in Figures 8 and 9.

Question 3: The method for rating items (as “Yes” or “No”) was conceptually clear.

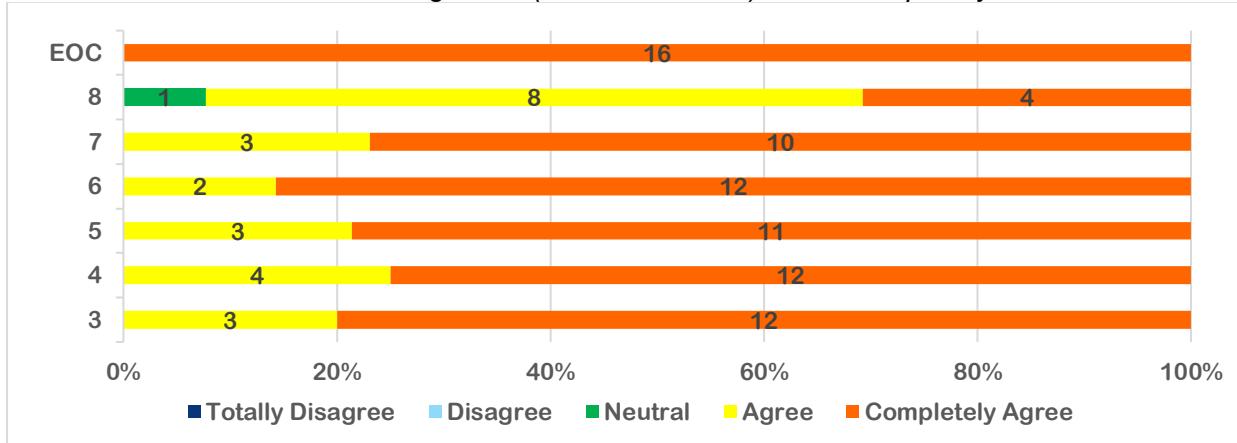


Figure 8. Process evaluation results regarding clarity of the standard setting method

Question 5: I found the feedback on the ratings of panelists compared to other panelists useful in the standard setting process.

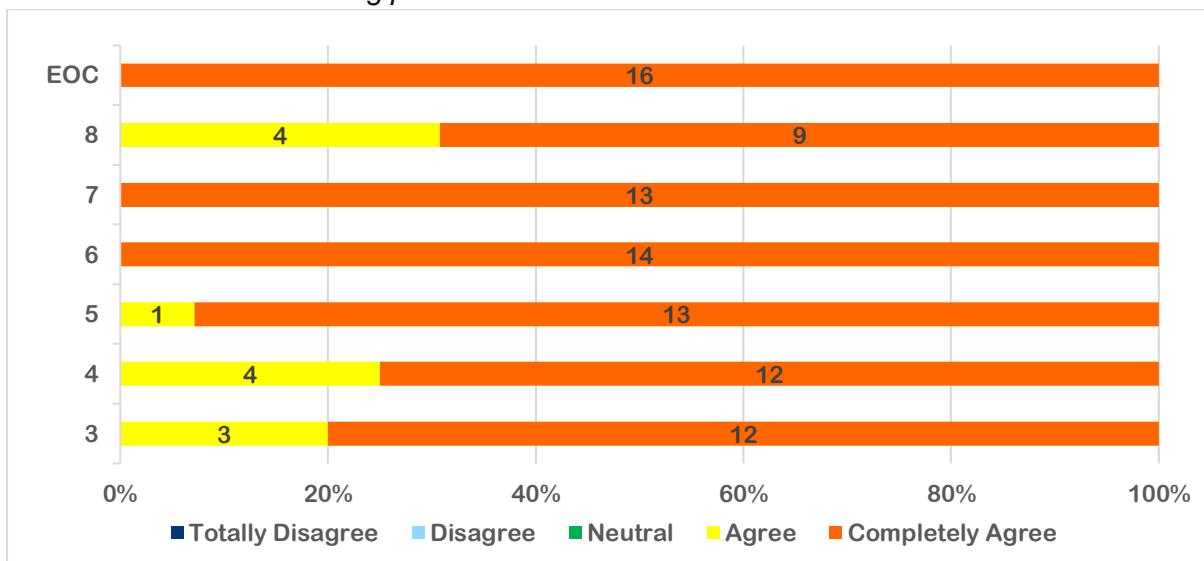


Figure 9. Process evaluation results regarding feedback discussion

Each committee had a high level of *Complete Agreement* that the Pearson facilitator kept the meeting focused and on task, was responsive to panelists questions and comments, and that VDOE staff was helpful during the standard setting process. Overall, responses to the process evaluation survey indicate panelists believed the training provided prepared them to implement the standard setting procedure. The following are examples of comments from some panelists communicating their comfort with the process.

“This was a wonderful experience and one that will has made me a more informed educator.” – Grade 3 reading panelist

“This was a challenging process but I think it will be beneficial to our students. Thank you for allowing my voice to be heard. The facilitator made us feel like we were in a safe place to voice concerns and thoughts. Very nice job.” – Grade 5 reading panelist

"I feel as though the process was smooth and efficient. We had a great representation from across the state. Everyone contributed thoughtfully. I think we had some great sessions." – Grade 6 reading panelist

"This has been an enlightening and enjoyable process. I very much appreciate that the state values teacher input in this process since so much emphasis is placed on these tests." – Grade 7 reading panelist

"I sat on the 2010 standard setting committee and I was thrilled to be a part of this process again. The discussion and learning from peers is priceless and the opportunity for teachers to have a voice in this process is so valuable. It was not an easy task, but one that I think as a committee we came together and did a good job." – Grade 8 reading panelist

Full results from the process evaluations for each breakout committee are presented in [Appendix G](#).

After the standard setting breakout meetings, the articulation committee reviewed the Round 3 cut score recommendations and recommended any adjustments, if deemed necessary. At the end of the articulation process, the panelists completed a process evaluation of the articulation meeting. Figure 10 shows a majority of panelists indicated they were *Extremely Comfortable* or *Mostly Comfortable* with the articulation judgment task. Full results from the process evaluation administered to the articulation committee are presented in [Appendix G](#).

Question 3: What was your level of comfort with the articulation judgment task?

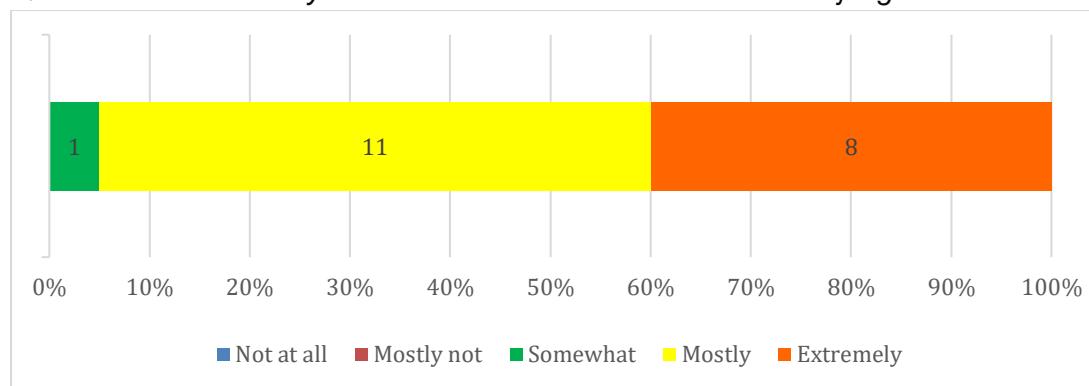


Figure 10. Process evaluation results regarding articulation task

Perceived Validity of the Standard Setting

Panelists communicated their perceived validity of the standard setting and the recommended cut scores as part of the process evaluation. Generally, the panelists were satisfied with their cut score recommendations and the standard setting process, as a whole. Results from the evaluation survey, displayed in Figures 11 and 12, indicated panelists had a high level of confidence in their respective committee's recommended cut score for all performance levels (this evaluation was completed prior to the articulation meeting). The EOC test did not have a *Fail/Basic* borderline.

Question 6: My final cut score recommendation reflects an appropriate level of student performance at the Fail/Basic borderline.

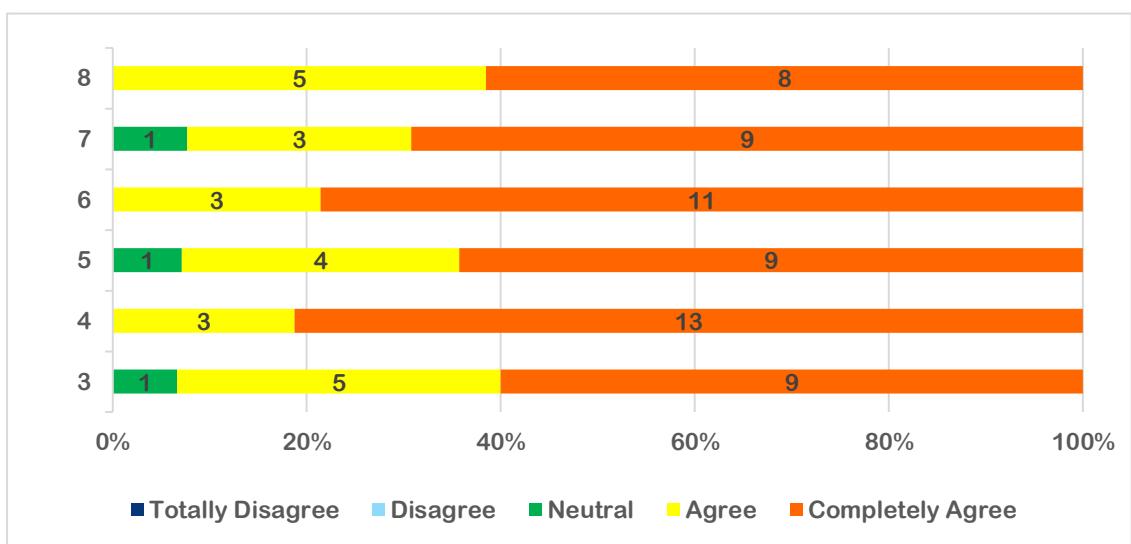


Figure 11. Process evaluation results for final recommended cut scores for Fail/Basic

Question 7: My final cut score recommendation reflects an appropriate level of student performance at the Pass/Proficient borderline.

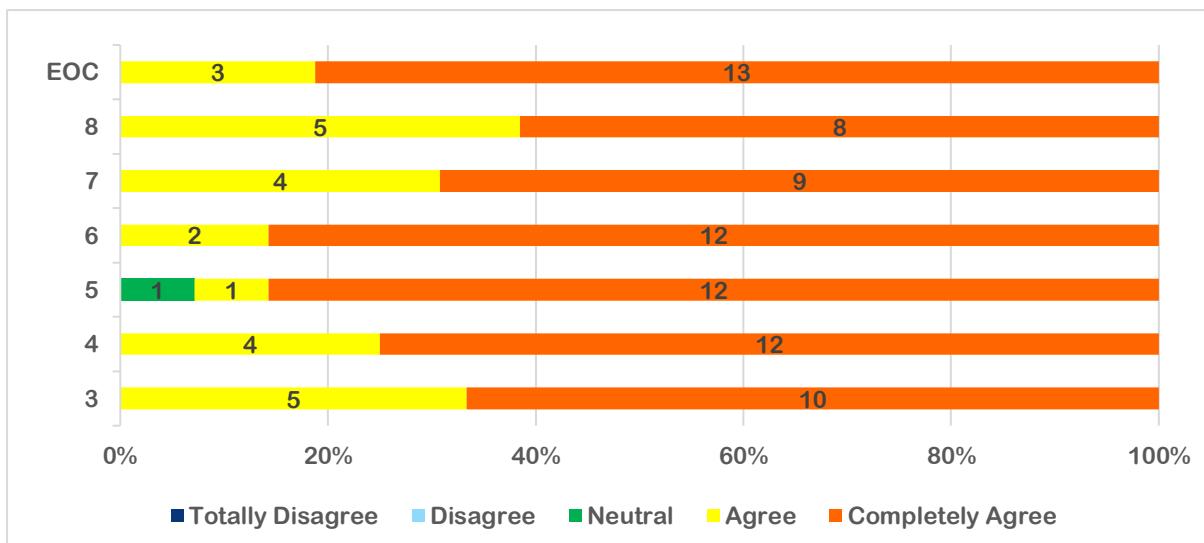


Figure 12. Process evaluation results for final recommended cut scores for Pass/Proficient

Question 8: My final cut score recommendation reflects an appropriate level of student performance at the Advanced borderline.

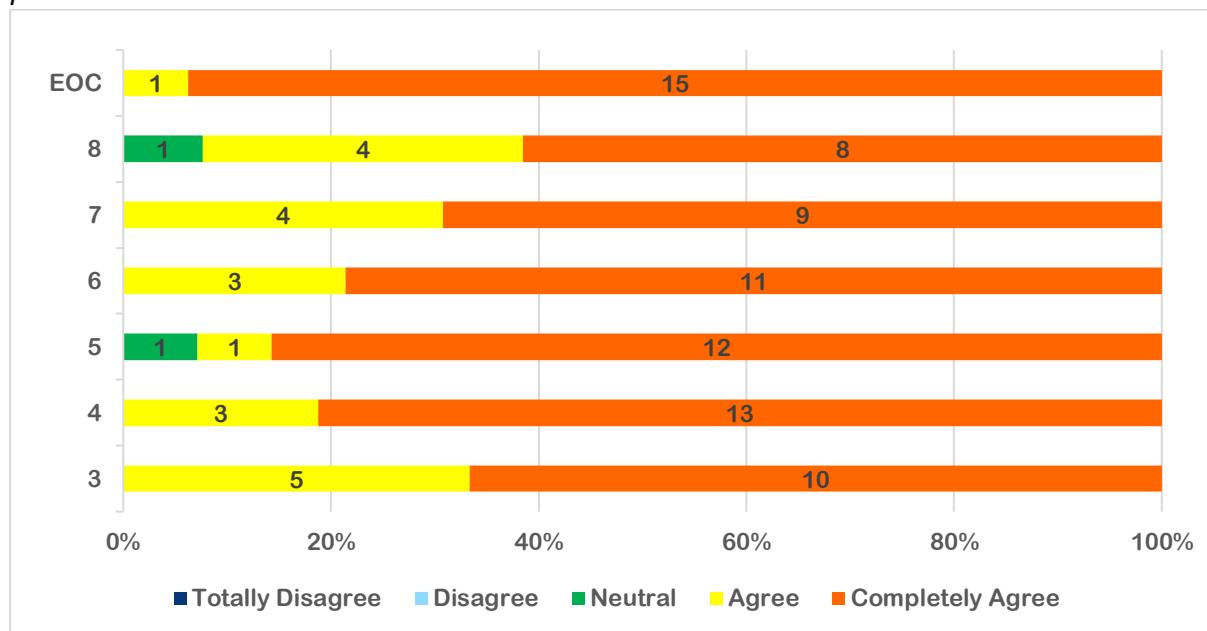


Figure 13. Process evaluation results for final recommended cut scores for Pass/Advanced

Panelists who participated in the articulation meeting were provided the opportunity to recommend adjustments to the cut scores for the performance levels. The participants went through multiple articulation judgment rounds, providing recommended changes to the performance levels for each grade. On the articulation process evaluation, a majority of participants indicated they were *Extremely Comfortable* with the final group-level impact recommendations for all seven committees, as shown in Figure 14.

Question 4: How comfortable are you with the final group-level impact recommendations?

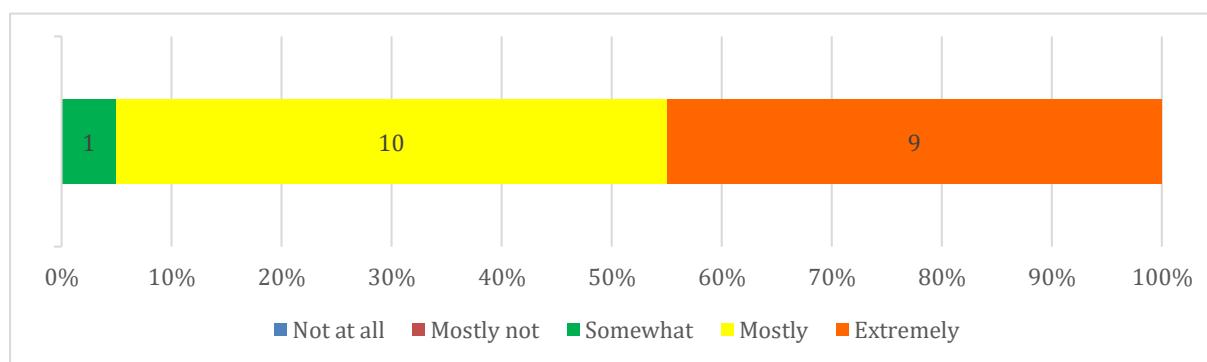


Figure 14. Process evaluation results regarding articulation impact recommendations

Process Standardization

An important part of standard-setting meetings is that standardized procedures are implemented by several facilitators working independently across subject-specific committees. During the standard-setting meetings, seven facilitators worked with seven committees—Reading Grades 3-8 and EOC—to determine cut scores for the performance levels for each assessment. The Grades 3-8 committees determined cut scores to delineate

four performance levels—*Fail/Below Basic*, *Fail/Basic*, *Pass/Proficient* and *Pass/Advanced*. The EOC committee determined cut scores to delineate three performance levels—*Fail/Below Basic*, *Pass/Proficient* and *Pass/Advanced*.

The organizers of the meeting paid careful attention to the selection and training of facilitators and the preparation of standard-setting meeting materials to ensure standardization of key aspects of the process. Although it is understood some variation will occur in a dynamic process that involves independent facilitators working for multiple days with panels of educators, the ultimate goal was to achieve an appropriate balance between standardization and flexibility. An appropriate balance of standard protocol and adaptability allows for individual differences in facilitators and panelists while also ensuring critical steps in the process that might impact panelists' ratings are implemented consistently across panels.

The training of facilitators provided consistent instruction of the process and procedures used throughout the standard setting. Two facilitator training meetings were held for 60 minutes each on November 18 and 22, 2019. Additionally, a final preparation meeting was convened one day prior to the standard setting and at the conclusion of each day during the meetings. The training was focused on the consistent use of the materials provided for facilitating the meeting.

Materials were used to facilitate each of the meetings and were prepared in advance to ensure consistency of the presentation and recording of the information. The materials included presentation slides that facilitators presented to panelists as a guide through the training process. Additionally, a script was included to remind facilitators at various points in the presentation of critical steps in the training process. The Pearson standard setting website was also an important resource used to distribute materials and collect panelist judgments.

The utilization of standardized materials and procedures ensured that critical steps in the process were implemented consistently across the different meetings. There were no reports of any deviations from the procedures that might have impacted the panelist ratings.

References

- ESSA (2015). *Every Student Succeeds Act of 2015, Pub. L. No. 114-95 § 114 Stat. 1177* (2015-2016).
- Plake, B.S., & Cizek, G. J. (2012). Variations on a theme. In G.J. Cizek (Ed.), *Setting performance standards* (2nd ed.). New York: Routledge.
- Plake, B. S., Ferdous, A. A., Impara, J. C., & Buckendahl, C. W. (2005). *Setting multiple performance standards using the yes/no method: An alternative item mapping method*. Meeting of the National Council on Measurement in Education. Montreal, Canada.

Appendix A – Performance Level Descriptors

The presentation of grade-level performance level descriptors begins on the next page.

Virginia Alternate Assessment Program (VAAP)
Performance Level Descriptors
Grade 3 Mathematics

Reporting Category	Does Not Meet Proficiency <i>A student performing at this level demonstrates knowledge and skills related to the Virginia Essentialized Standards of Learning that do not meet proficiency:</i>	Proficient <i>A student performing at this level demonstrates knowledge and skills related to the Virginia Essentialized Standards of Learning that meet proficiency:</i>	Advanced <i>A student performing at this level demonstrates knowledge and skills related to the Virginia Essentialized Standards of Learning that exceed proficiency:</i>
Number, Number Sense, Computation, and Estimation	Given whole numbers from 0 through 10, the student may be able to correctly: <ul style="list-style-type: none"> • match a name to a numeral, • identify the closest number above or below a given number, • compare two numbers using “smaller,” “larger,” or “same,” • match a representation of half for an even number, • add or subtract two whole numbers, or • solve a one-step word problem using addition or subtraction. 	Given whole numbers from 0 through 20, the student correctly: <ul style="list-style-type: none"> • matches some names to numerals, • identifies the closest number above or below a given number, • compares numbers using $<$, $=$, and $>$ or “smaller,” “larger,” or “same,” • identifies and matches some representations of half for even numbers, • adds and subtracts some whole numbers, and • solves some one-step word problems using addition and subtraction. 	Given whole numbers from 0 through 20, the student correctly: <ul style="list-style-type: none"> • matches most names to numerals, • identifies the closest number above or below a given number and rounds numbers to nearest ten, • compares numbers using $<$, $=$, and $>$ and “smaller,” “larger,” or “same,” • identifies and matches most representations of half for even numbers, • adds and subtracts most whole numbers, and • solves most one-step word problems using addition and subtraction.
	The student may be able to correctly identify a product of two whole numbers with solutions 1 through 5.	The student correctly identifies a product of two whole numbers with solutions 1 through 20.	The student correctly identifies products of two whole numbers with solutions 0 through 20.

Reporting Category	Does Not Meet Proficiency <i>A student performing at this level demonstrates knowledge and skills related to the Virginia Essentialized Standards of Learning that do not meet proficiency:</i>	Proficient <i>A student performing at this level demonstrates knowledge and skills related to the Virginia Essentialized Standards of Learning that meet proficiency:</i>	Advanced <i>A student performing at this level demonstrates knowledge and skills related to the Virginia Essentialized Standards of Learning that exceed proficiency:</i>
Measurement and Geometry	Given coins, the student may be able to match their value up through 25 cents.	Given coins, the student correctly matches and counts some values up through 25 cents.	Given coins, the student correctly matches and counts most values up through 25 cents.
	Given objects that are the same or different sizes, the student may be able to correctly: <ul style="list-style-type: none"> • compare the length of two objects using simple terms “shorter,” “longer,” or “same,” and • compare the volume of two objects using simple terms “larger,” “smaller,” or “same.” 	Given objects that are the same or different sizes, the student correctly: <ul style="list-style-type: none"> • compares the length of some objects using simple terms “shorter,” “longer,” or “same,” and • compares the volume of some objects using simple terms “larger,” “smaller,” “less,” “more,” or “same.” 	Given objects that are the same or different sizes, the student correctly: <ul style="list-style-type: none"> • compares the length of most objects using simple terms “shorter,” “longer,” or “same,” and • compares the volume of most objects using simple terms “larger”, “smaller”, “less,” “more,” or “same.”
	The student may be able to correctly determine the perimeter of an equilateral triangle or square.	The student correctly determines the perimeter of some equilateral triangles and squares.	The student correctly determines the perimeter of most equilateral triangles and squares.
	Given unit squares, the student may be able to correctly determine the area of a square or rectangle up to 4 square units.	Given unit squares, the student correctly determines the area of some squares and rectangles up to 16 square units.	Given unit squares, the student correctly determines the area of most squares and rectangles up to 16 square units.
	Given a digital clock and context, the student may be able to correctly tell time to the nearest whole hour.	Given a digital clock and context, the correctly tells time in whole hour increments some of the time.	Given a digital clock and context, the student correctly tells time in whole hour increments most of the time, including noon and midnight.
	Given attributes, the student may be able to correctly identify a circle, triangle, or square.	Given attributes, the student correctly identifies some circles, triangles, and squares.	Given attributes, the student correctly identifies most circles, triangles, and squares.
	Given circles, triangles, or squares the student may be able to correctly identify two figures that are the same size and shape.	Given circles, triangles, and squares, the student correctly identifies some figures that are the same size and shape.	Given circles, triangles, and squares, the student correctly identifies most figures that are the same size and shape, including those with a different orientation.

Reporting Category	Does Not Meet Proficiency <i>A student performing at this level demonstrates knowledge and skills related to the Virginia Essentialized Standards of Learning that do not meet proficiency:</i>	Proficient <i>A student performing at this level demonstrates knowledge and skills related to the Virginia Essentialized Standards of Learning that meet proficiency:</i>	Advanced <i>A student performing at this level demonstrates knowledge and skills related to the Virginia Essentialized Standards of Learning that exceed proficiency:</i>
Probability, Statistics, Patterns, Functions, and Algebra	The student may be able to correctly compare categories in a picture graph using the simple term “same.”	The student correctly compares categories in some picture graphs using simple terms “same,” “more,” and “less.”	The student correctly compares categories in most picture graphs using simple terms “same,” “more,” and “less.”
	Given whole numbers from 0 through 10, the student may be able to correctly perform a basic counting operation.	Given whole numbers from 0 through 20, the student correctly performs some basic counting operations including skip counting by twos or fives.	Given whole numbers from 0 through 20, the student correctly performs most basic counting operations including skip counting by twos and fives.

Virginia Alternate Assessment Program (VAAP)
Performance Level Descriptors
Grade 4 Mathematics

Reporting Category	Does Not Meet Proficiency <i>A student performing at this level demonstrates knowledge and skills related to the Virginia Essentialized Standards of Learning that do not meet proficiency:</i>	Proficient <i>A student performing at this level demonstrates knowledge and skills related to the Virginia Essentialized Standards of Learning that meet proficiency:</i>	Advanced <i>A student performing at this level demonstrates knowledge and skills related to the Virginia Essentialized Standards of Learning that exceed proficiency:</i>
Number, Number Sense, Computation, and Estimation	Given whole numbers from 0 through 20, the student may be able to correctly: <ul style="list-style-type: none"> • match a name to a numeral, • use place value to identify a multiple of 10 and a number in the ones place or tens place, • identify the closest number above or below a given number, • compare two whole numbers using “smaller,” “larger,” “same,” “less than”, “equal”, or “greater than”, • identify a whole number, • match an array to a whole number, • add or subtract two whole numbers, or • solve a one-step word problem using addition. 	Given numbers from 0 through 40, the student correctly: <ul style="list-style-type: none"> • matches some names to numerals, • uses place value to identify some numbers that are multiples of 10 and understands the difference between ones and tens place, • identifies the closest number above or below some numbers, • compares some whole numbers, fractions $\frac{1}{4}$ and $\frac{1}{2}$ and some decimals from 0.0 through 5.5 using “smaller,” “larger,” “same,” “less than”, “equal”, or “greater than”, or $<$, $=$, and $>$, • identifies some whole numbers and matches decimals 0.25 and 0.5 with $\frac{1}{4}$ and $\frac{1}{2}$, • matches some arrays to whole numbers, • adds and subtracts some whole numbers, and • solves some one-step word problems using addition, subtraction, or multiplication. 	Given numbers from 0 through 40, the student correctly: <ul style="list-style-type: none"> • matches most names to numerals, • uses place value to identify most numbers that are multiples of 10 and understands the difference between ones and tens place, • identifies the closest number above and below most numbers, • compares most whole numbers, fractions of $\frac{1}{4}$ and $\frac{1}{2}$, and most decimals from 0.0 through 5.5 using “smaller,” “larger,” “same,” less than”, “equal”, or “greater than” and $<$, $=$, and $>$, • identifies most whole numbers and matches decimals 0.25 and 0.5 with $\frac{1}{4}$ and $\frac{1}{2}$ • matches most arrays to whole numbers, • adds and subtracts most whole numbers, and • solves most one-step word problems using addition, subtraction, and multiplication.

Reporting Category	Does Not Meet Proficiency <i>A student performing at this level demonstrates knowledge and skills related to the Virginia Essentialized Standards of Learning that do not meet proficiency:</i>	Proficient <i>A student performing at this level demonstrates knowledge and skills related to the Virginia Essentialized Standards of Learning that meet proficiency:</i>	Advanced <i>A student performing at this level demonstrates knowledge and skills related to the Virginia Essentialized Standards of Learning that exceed proficiency:</i>
Number, Number Sense, Computation, and Estimation (continued)	Given a context and whole numbers 0 through 10, the student may be able to correctly: <ul style="list-style-type: none"> • add or subtract two wholes or halves, or • solve a one-step word problem using addition or subtraction of two wholes or halves. 	Given a context and whole numbers 0 through 20, the student correctly: <ul style="list-style-type: none"> • adds and subtracts some wholes, halves, and fourths, • solves some one-step word problems using addition and subtraction of wholes, halves, and fourths. 	Given a context and whole numbers 0 through 20, the student correctly: <ul style="list-style-type: none"> • adds and subtracts most wholes, halves, and fourths, • solves most one-step word problems using addition and subtraction of wholes, halves, and fourths.
	Given whole numbers from 0 through 5, the student may be able to correctly: <ul style="list-style-type: none"> • multiply two whole numbers, or • solve a division problem. 	Given whole numbers from 0 through 10, the student correctly: <ul style="list-style-type: none"> • multiplies some whole numbers, and • solves some division problems. 	Given whole numbers from 0 through 10, the student correctly: <ul style="list-style-type: none"> • multiplies most whole numbers, and • solves most division problems.
	The student may be able to identify a representation of a whole, half, or fourth.	The student correctly identifies some representations of wholes, halves, and fourths.	The student correctly identifies most representations of wholes, halves, and fourths.
	Given a set of the same coins, the student may be able to count their value up through 25 cents.	Given coins, the student correctly counts some values up through 50 cents.	Given coins, the student correctly counts most values up through 50 cents.

Reporting Category	Does Not Meet Proficiency <i>A student performing at this level demonstrates knowledge and skills related to the Virginia Essentialized Standards of Learning that do not meet proficiency:</i>	Proficient <i>A student performing at this level demonstrates knowledge and skills related to the Virginia Essentialized Standards of Learning that meet proficiency:</i>	Advanced <i>A student performing at this level demonstrates knowledge and skills related to the Virginia Essentialized Standards of Learning that exceed proficiency:</i>
Measurement and Geometry	The student may be able to correctly use unit squares to determine an area up to 10 square feet.	The student correctly uses unit squares to determine some areas up to 20 square feet.	The student correctly uses unit squares to determine most areas up to 20 square feet.
	The student may be able to correctly compare the length and weight of a set of items.	The student correctly measures the length (in inches and centimeters) and weight (in pounds) of some items.	The student correctly measures the length (in inches and centimeters) and weight (in pounds) of most items.
	Given a digital clock and context, the student may be able to correctly tell time to the nearest whole or half hour.	Given a digital clock and context, the student correctly tells time in whole and half hour increments some of the time.	Given a digital clock and context, the student correctly tells time in whole and half hour increments most of the time, including noon and midnight.
	The student may be able to correctly identify a point, line segment, or angle.	The student correctly identifies some points, line segments, and angles.	The student correctly identifies most points, line segments, and angles.
	The student may be able to correctly identify a circle, triangle, square, or rectangle.	The student correctly identifies some circles, triangles, squares, and rectangles.	The student correctly identifies most circles, triangles, squares, and rectangles.

Reporting Category	Does Not Meet Proficiency <i>A student performing at this level demonstrates knowledge and skills related to the Virginia Essentialized Standards of Learning that do not meet proficiency:</i>	Proficient <i>A student performing at this level demonstrates knowledge and skills related to the Virginia Essentialized Standards of Learning that meet proficiency:</i>	Advanced <i>A student performing at this level demonstrates knowledge and skills related to the Virginia Essentialized Standards of Learning that exceed proficiency:</i>
Measurement and Geometry	The student may be able to correctly use unit squares to determine an area up to 10 square feet.	The student correctly uses unit squares to determine some areas up to 20 square feet.	The student correctly uses unit squares to determine most areas up to 20 square feet.
	The student may be able to correctly compare the length and weight of a set of items.	The student correctly measures the length (in inches and centimeters) and weight (in pounds) of some items.	The student correctly measures the length (in inches and centimeters) and weight (in pounds) of most items.
	Given a digital clock and context, the student may be able to correctly tell time to the nearest whole or half hour.	Given a digital clock and context, the student correctly tells time in whole and half hour increments some of the time.	Given a digital clock and context, the student correctly tells time in whole and half hour increments most of the time, including noon and midnight.
	The student may be able to correctly identify a point, line segment, or angle.	The student correctly identifies some points, line segments, and angles.	The student correctly identifies most points, line segments, and angles.
	The student may be able to correctly identify a circle, triangle, square, or rectangle.	The student correctly identifies some circles, triangles, squares, and rectangles.	The student correctly identifies most circles, triangles, squares, and rectangles.

Virginia Alternate Assessment Program (VAAP)
Performance Level Descriptors
Grade 5 Mathematics

Reporting Category	Does Not Meet Proficiency <i>A student performing at this level demonstrates knowledge and skills related to the Virginia Essentialized Standards of Learning that do not meet proficiency:</i>	Proficient <i>A student performing at this level demonstrates knowledge and skills related to the Virginia Essentialized Standards of Learning that meet proficiency:</i>	Advanced <i>A student performing at this level demonstrates knowledge and skills related to the Virginia Essentialized Standards of Learning that exceed proficiency:</i>
Number, Number Sense, Computation and Estimation	Given a number line, the student may be able to correctly identify the location of a 0.5 decimal between two whole numbers for 0 through 5.	Given a number line, the student correctly identifies the location of some 0.5 decimals between two whole numbers and rounds some 0.5 decimals up to the nearest whole number for 0 through 10.	Given a number line, the student correctly identifies the location of most 0.5 decimals between two whole numbers and rounds most 0.5 decimals up to the nearest whole number for 0 through 10.
	Given numbers 0 through 40, the student may be able to correctly: <ul style="list-style-type: none"> • identify a whole number when given a verbal description, or • use place value to identify a multiple of 10 and a number in the ones place or tens place. 	Given numbers 0 through 60, the student correctly: <ul style="list-style-type: none"> • identifies some whole numbers and some decimals with 0.5 when given a verbal description, and • uses place value to identify some numbers that are multiples of 10 and understands the difference between ones and tens place. 	Given numbers 0 through 60, the student correctly: <ul style="list-style-type: none"> • identifies most whole numbers and decimals with 0.5 when given a verbal description, and • uses place value to identify most numbers that are multiples of 10 and understands the difference between ones and tens place.
	Given whole numbers 1 through 20, the student may be able to correctly determine whether a number is divisible by 2.	Given whole numbers 1 through 40, the student correctly determines whether some numbers are divisible by 2, 3, 5, or 10.	Given whole numbers 1 through 40, the student correctly determines whether most numbers are divisible by 2, 3, 5, or 10.
	Given whole numbers 1 through 10, the student may be correctly to: <ul style="list-style-type: none"> • identify an even or odd number, or • solve a division problem. 	Given whole numbers 1 through 20, the student: <ul style="list-style-type: none"> • identifies some even and odd numbers, and • solves some division problems. 	Given whole numbers 1 through 20, the student correctly: <ul style="list-style-type: none"> • identifies most even and odd numbers, and • solves most division problems.

Reporting Category	Does Not Meet Proficiency <i>A student performing at this level demonstrates knowledge and skills related to the Virginia Essentialized Standards of Learning that do not meet proficiency:</i>	Proficient <i>A student performing at this level demonstrates knowledge and skills related to the Virginia Essentialized Standards of Learning that meet proficiency:</i>	Advanced <i>A student performing at this level demonstrates knowledge and skills related to the Virginia Essentialized Standards of Learning that exceed proficiency:</i>
Number, Number Sense, Computation, and Estimation (continued)	Given numbers from 0 through 20, the student may be able to correctly solve a word problem involving: <ul style="list-style-type: none"> • addition of two whole numbers, or • addition of two mixed numbers ending in 1/2 that results in a whole number sum. 	Given numbers from 0 through 30, the student correctly solves some word problems involving: <ul style="list-style-type: none"> • addition and subtraction of whole numbers, • addition and subtraction of mixed numbers ending in 1/2 and 1/4, and • addition and subtraction of decimal numbers ending in 0.5. 	Given numbers from 0 through 30, the student correctly solves most word problems involving: <ul style="list-style-type: none"> • addition and subtraction of whole numbers, • addition and subtraction of mixed numbers ending in 1/2 and 1/4, and • addition and subtraction of decimal numbers ending in 0.5.
	The student may be able to correctly identify an equation that matches a verbal description involving the product of two whole numbers.	The student correctly identifies some equations that match a verbal description involving the product of two whole numbers, and fractions 1/2, 1/4, 1/3 and decimals ending in 0.5 with whole number solutions.	The student correctly identifies most equations that match a verbal description involving the product of two whole numbers, and fractions 1/2, 1/4, 1/3 and decimals ending in 0.5 with whole number solutions.
	Given a verbal or visual model, the student may be able to correctly simplify an expression involving addition or subtraction.	Given verbal or visual models, the student correctly simplifies some expressions that use parentheses and addition and subtraction.	Given verbal or visual models, the student correctly simplifies most expressions that use parentheses and addition and subtraction.
	Given a set of the same coins, the student may be able to correctly determine if it is enough to purchase an item up to \$1.00.	Given coins or currency, the student correctly determines if it is enough to make some purchases up to \$1.00.	Given coins or currency, the student correctly determines if it is enough to make most purchases up to \$1.00 and make change.

Reporting Category	Does Not Meet Proficiency <i>A student performing at this level demonstrates knowledge and skills related to the Virginia Essentialized Standards of Learning that do not meet proficiency:</i>	Proficient <i>A student performing at this level demonstrates knowledge and skills related to the Virginia Essentialized Standards of Learning that meet proficiency:</i>	Advanced <i>A student performing at this level demonstrates knowledge and skills related to the Virginia Essentialized Standards of Learning that exceed proficiency:</i>
Measurement and Geometry (MG)	The student may be able to correctly: <ul style="list-style-type: none"> • solve a $V = B \times h$ volume problem when provided a model that includes the area measure of the base (B), or • use addition to solve a real-world volume problem using unit cubic inches. 	The student correctly: <ul style="list-style-type: none"> • solves some $V = B \times h$ volume problems when provided a model that includes the area measure of the base (B), and • uses addition to solve some real-world volume problems using unit cubic inches. 	The student correctly: <ul style="list-style-type: none"> • solves most $V = B \times h$ volume problems when provided a model that includes the area measure of the base (B), and • uses addition to solve most real-world volume problems using unit cubic inches.
	Given a digital clock and context, the student may be able to correctly tell time to the nearest whole hour or half hour.	Given a digital clock and context, the student correctly tells time for some whole hour and half hour increments and measures elapsed time in whole hours.	Given a digital clock and context, the student correctly tells time for most whole hour and half hour increments and measures elapsed time.
	The student may be able to correctly identify the geometric shape of a given object involving a circle, triangle, square, or rectangle.	The student correctly identifies the geometric shape of some given objects involving circles, triangles, squares, rectangles, pentagons, hexagons, and octagons.	The student correctly identifies the geometric shape of most given objects involving circles, triangles, squares, rectangles, pentagons, hexagons, and octagons.

Reporting Category	Does Not Meet Proficiency <i>A student performing at this level demonstrates knowledge and skills related to the Virginia Essentialized Standards of Learning that do not meet proficiency:</i>	Proficient <i>A student performing at this level demonstrates knowledge and skills related to the Virginia Essentialized Standards of Learning that meet proficiency:</i>	Advanced <i>A student performing at this level demonstrates knowledge and skills related to the Virginia Essentialized Standards of Learning that exceed proficiency:</i>
Probability, Statistics, Patterns, Functions, and Algebra	Given a data set, the student may be able to correctly interpret information from a line plot with up to 3 data points.	Given a data set, the student correctly interprets some information from a line plot with up to 10 data points.	Given a data set, the student correctly interprets most information from a line plot with up to 10 data points.
	Given an addition rule of +1, the student may be able to correctly identify a missing number in a pattern.	Given addition rules of +1 to +10, the student correctly identifies a missing number in some patterns.	Given addition rules of +1 to +10, the student correctly identifies a missing number in most patterns.
	Given a verbal and/or graphic model, the student may be able to correctly identify a matching expression.	Given verbal and/or graphic models, the student correctly identifies some matching expressions.	Given verbal and/or graphic models, the student correctly identifies most matching expressions.

Virginia Alternate Assessment Program (VAAP)
Performance Level Descriptors
Grade 6 Mathematics

Reporting Category	Does Not Meet Proficiency <i>A student performing at this level demonstrates knowledge and skills related to the Virginia Essentialized Standards of Learning that do not meet proficiency:</i>	Proficient <i>A student performing at this level demonstrates knowledge and skills related to the Virginia Essentialized Standards of Learning that meet proficiency:</i>	Advanced <i>A student performing at this level demonstrates knowledge and skills related to the Virginia Essentialized Standards of Learning that exceed proficiency:</i>
Number, Number Sense, Computation, and Estimation	Given a number line, the student may be able to correctly: <ul style="list-style-type: none"> identify the location of a point representing one half (1/2 or 0.5) between two whole numbers, identify the distance of a positive or negative number from zero, or add, subtract, or multiply two positive integers with context. 	Given a number line, the student correctly: <ul style="list-style-type: none"> identifies the location of some points representing a fraction or decimal between two whole numbers, identifies the distance of some positive and negative numbers from zero, and adds, subtracts, and multiplies some positive integers with context. 	Given a number line, the student correctly: <ul style="list-style-type: none"> identifies the location of most points representing a fraction or decimal between two whole numbers, identifies the distance of most positive and negative numbers from zero, and adds, subtracts, and multiplies most positive integers with context
	Given whole numbers 0 through 20, the student may be able to correctly compare two numbers using “smaller,” “larger,” or “same.”	Given whole numbers 0 through 80, the student correctly compares some numbers using <, =, or > or “smaller,” “larger,” or “same.”	Given whole numbers 0 through 80, the student compares most numbers using <, =, or > and “smaller,” “larger,” or “same.”
	Given whole numbers, the student may be able to correctly solve a word problem using addition or subtraction.	Given whole numbers and fractions 1/2, 1/4, 1/3, or 1/8, the student correctly solves some word problems using addition and subtraction.	Given whole numbers and fractions 1/2, 1/4, 1/3, or 1/8, the student correctly solves most word problems using addition and subtraction.
	Given currency and context, the student may be able to correctly solve a problem involving \$2.00 or less.	Given currency and context, the student correctly solves some problems involving \$10.00 or less.	Given currency and context, the student correctly solves most problems involving \$10.00 or less.
	The student may be able to correctly solve a practical problem involving multiplication or division of two positive integers.	The student correctly solves some practical problems involving multiplication and division of positive integers.	The student correctly solves most practical problems involving multiplication and division of positive integers.

Reporting Category	Does Not Meet Proficiency <i>A student performing at this level demonstrates knowledge and skills related to the Virginia Essentialized Standards of Learning that do not meet proficiency:</i>	Proficient <i>A student performing at this level demonstrates knowledge and skills related to the Virginia Essentialized Standards of Learning that meet proficiency:</i>	Advanced <i>A student performing at this level demonstrates knowledge and skills related to the Virginia Essentialized Standards of Learning that exceed proficiency:</i>
Measurement and Geometry	Given an analog or digital clock and context, the student may be able to correctly tell time to the nearest half or quarter hour.	Given analog and digital clocks and context, the student correctly tells time and measures elapsed time in half and quarter hour increments some of the time.	Given analog and digital clocks and context, the student correctly tells time and measures elapsed time in half and quarter hour increments most of the time.
	The student may be able to correctly calculate the perimeter of a triangle or square.	The student correctly calculates the perimeter of some triangles, squares, rectangles, and pentagons.	The student correctly calculates the perimeter of most triangles, squares, rectangles, and pentagons.
	Given a coordinate plane, the student may be able to correctly identify a point graphed in the first quadrant.	Given a coordinate plane, the student correctly identifies some points graphed in the first quadrant.	Given a coordinate plane, the student correctly identifies most points graphed in the first quadrant.
	The student may be able to correctly identify a congruent shape.	The student correctly identifies some congruent shapes.	The student correctly identifies most congruent shapes.

Reporting Category	Does Not Meet Proficiency <i>A student performing at this level demonstrates knowledge and skills related to the Virginia Essentialized Standards of Learning that do not meet proficiency:</i>	Proficient <i>A student performing at this level demonstrates knowledge and skills related to the Virginia Essentialized Standards of Learning that meet proficiency:</i>	Advanced <i>A student performing at this level demonstrates knowledge and skills related to the Virginia Essentialized Standards of Learning that exceed proficiency:</i>
Probability, Statistics, Patterns, Functions, and Algebra	Given a picture or bar graph, the student may be able to correctly interpret data to identify a value.	Given picture and bar graphs and line plots, the student correctly interprets data to identify some values.	Given picture and bar graphs and line plots, the student correctly interprets data to identify most values.
	Given a data set, the student may be able to correctly calculate the whole number average.	Given data sets, the student correctly calculates some whole number averages.	Given data sets, the student correctly calculates most whole number averages.
	Given an input-output table that has a proportional relationship between x and y, the student may be able to correctly identify a missing value for unit rates of 1 or 2.	Given input-output tables that have a proportional relationship between x and y, the student correctly identifies some missing values for unit rates up to 10.	Given input-output tables that have a proportional relationship between x and y, the student correctly identifies most missing values for unit rates up to 10.
	The student may be able to correctly identify an equivalent expression or equation with one variable.	The student correctly identifies some equivalent expressions and equations with one variable.	The student correctly identifies most equivalent expressions and equations with one variable.
	The student may be able to correctly match a practical situation to an inequality.	The student correctly matches some practical situations to inequalities.	The student correctly matches most practical situations to inequalities.

Virginia Alternate Assessment Program (VAAP)
Performance Level Descriptors
Grade 7 Mathematics

Reporting Category	Does Not Meet Proficiency <i>A student performing at this level demonstrates knowledge and skills related to the Virginia Essentialized Standards of Learning that do not meet proficiency:</i>	Proficient <i>A student performing at this level demonstrates knowledge and skills related to the Virginia Essentialized Standards of Learning that meet proficiency:</i>	Advanced <i>A student performing at this level demonstrates knowledge and skills related to the Virginia Essentialized Standards of Learning that exceed proficiency:</i>
Number, Number Sense, Computation, and Estimation	Given real world applications, the student may be able to correctly compare whole numbers from 0 through 20.	Given real world applications, the student correctly compares some whole numbers from 0 through 50.	Given real world applications, the student correctly compares most whole numbers from 0 through 50.
	The student may be able to correctly match a fraction and the corresponding decimal.	The student correctly matches some fractions and corresponding decimals.	The student correctly matches most fractions and corresponding decimals.
	The student may be able to correctly perform a math operation with rational numbers in real world applications.	The student correctly performs some math operations with rational numbers in real world applications.	The student correctly performs most math operations with rational numbers in real world applications.
	Given currency, the student may be able to correctly solve a problem involving \$5.00 or less.	Given currency, the student correctly solves some problems involving \$20.00 or less.	Given currency, the student correctly solves most problems involving \$20.00 or less.

Reporting Category	Does Not Meet Proficiency <i>A student performing at this level demonstrates knowledge and skills related to the Virginia Essentialized Standards of Learning that do not meet proficiency:</i>	Proficient <i>A student performing at this level demonstrates knowledge and skills related to the Virginia Essentialized Standards of Learning that meet proficiency:</i>	Advanced <i>A student performing at this level demonstrates knowledge and skills related to the Virginia Essentialized Standards of Learning that exceed proficiency:</i>
Measurement and Geometry	Given an analog or digital clock and context, the student may be able to correctly tell time to the nearest quarter hour or five-minutes.	Given analog and digital clocks and context, the student correctly tells time and measures elapsed time in quarter hour and five-minute increments some of the time.	Given analog and digital clocks and context, the student correctly tells time and measures elapsed time in quarter hour and five-minute increments most of the time.
	Given a figure and a formula ($V = l \times w \times h$ or $V = B \times h$), the student may be able to correctly find the volume.	Given a figure and a formula ($V = l \times w \times h$ or $V = B \times h$), the student correctly finds some volumes.	Given figure and a formula ($V = l \times w \times h$ or $V = B \times h$), the student correctly finds most volumes.
	The student may be able to correctly identify a similar triangle.	The student correctly identifies some similar triangles.	The student correctly identifies most similar triangles.
	The student may be able to correctly identify a two-dimensional shape based on its characteristics.	The student correctly identifies some two-dimensional shapes based on their characteristics.	The student correctly identifies most two-dimensional shapes based on their characteristics.
	Given a coordinate plane, the student may be able to correctly identify a point graphed in the first or second quadrants.	Given a coordinate plane, the student correctly identifies some points graphed in the first and second quadrants.	Given a coordinate plane, the student correctly identifies most points graphed in the first and second quadrants.

Reporting Category	Does Not Meet Proficiency <i>A student performing at this level demonstrates knowledge and skills related to the Virginia Essentialized Standards of Learning that do not meet proficiency:</i>	Proficient <i>A student performing at this level demonstrates knowledge and skills related to the Virginia Essentialized Standards of Learning that meet proficiency:</i>	Advanced <i>A student performing at this level demonstrates knowledge and skills related to the Virginia Essentialized Standards of Learning that exceed proficiency:</i>
Probability, Statistics, Patterns, Functions, and Algebra	Given real world applications, the student may be able to correctly identify a probability.	Given real world applications, the student correctly identifies some probabilities.	Given real world applications, the student correctly identifies most probabilities.
	Given a picture or bar graph, the student may be able to correctly interpret data to identify a value.	Given picture and bar graphs and line plots, the student correctly interprets data to identify some values.	Given picture and bar graphs and line plots, the student correctly interprets data to identify most values.
	Given a real-world application, including with money, the student may be able to correctly evaluate an expression with one variable using addition.	Given real-world applications including with money, the student correctly evaluates some expressions with one variable using addition and subtraction.	Given real-world applications including with money, the student correctly evaluates most expressions with one variable using addition and subtraction.
	Given real world applications, the student may be able to correctly solve a one-step word problem involving integers and addition or subtraction.	Given real world applications, the student correctly solves some one-step word problems involving integers.	Given real world applications, the student solves most one-step word problems involving integers.
	Given real world applications, the student may be able to correctly determine a possible solution to an inequality involving one variable using addition.	Given real world applications, the student correctly determines possible solutions to some inequalities involving one variable using addition and subtraction.	Given real world applications, the student correctly determines possible solutions to most inequalities involving one variable using addition and subtraction.

Virginia Alternate Assessment Program (VAAP)
Performance Level Descriptors
Grade 8 Mathematics

Reporting Category	Does Not Meet Proficiency <i>A student performing at this level demonstrates knowledge and skills related to the Virginia Essentialized Standards of Learning that do not meet proficiency:</i>	Proficient <i>A student performing at this level demonstrates knowledge and skills related to the Virginia Essentialized Standards of Learning that meet proficiency:</i>	Advanced <i>A student performing at this level demonstrates knowledge and skills related to the Virginia Essentialized Standards of Learning that exceed proficiency:</i>
Number, Number Sense, Computation, and Estimation	Given a number line, the student may be able to correctly compare positive integers.	Given a number line, the student correctly compares some positive and negative integers.	Given a number line, the student correctly compares most positive and negative integers.
	Given currency, the student may be able to correctly solve a problem involving \$10.00 or less.	Given currency, the student correctly solves some problems involving \$50.00 or less.	Given currency, the student correctly solves most problems involving \$50.00 or less.
Measurement and Geometry	Given an analog or digital clock and context, the student may be able to correctly tell time to the nearest five-minutes or minute.	Given analog and digital clocks and context, the student correctly tells time and measures elapsed time in minutes some of the time.	Given analog and digital clocks and context, the student correctly tells time and measures elapsed time in minutes most of the time.
	Given a coordinate plane, the student may be able to correctly identify the coordinates of a missing point for a geometric figure in the first quadrant.	Given a coordinate plane, the student correctly identifies the coordinates of a missing point for some geometric figures.	Given a coordinate plane, the student correctly identifies the coordinates of a missing point for most geometric figures.
	Given a complex geometric figure, the student may be able to correctly add the areas of unit squares to determine the total area in square units.	Given a complex geometric figure, the student correctly adds the areas of squares and rectangles to determine the total area in square units for some figures.	Given a complex geometric figure, the student correctly adds the areas of squares and rectangles to determine the total area in square units for most figures.

Reporting Category	Does Not Meet Proficiency <i>A student performing at this level demonstrates knowledge and skills related to the Virginia Essentialized Standards of Learning that do not meet proficiency:</i>	Proficient <i>A student performing at this level demonstrates knowledge and skills related to the Virginia Essentialized Standards of Learning that meet proficiency:</i>	Advanced <i>A student performing at this level demonstrates knowledge and skills related to the Virginia Essentialized Standards of Learning that exceed proficiency:</i>
Probability, Statistics, Patterns, Functions, and Algebra	Given two different objects being selected for an event, the student may be able to correctly compare their relative probability.	Given two different objects being selected for an event, the student correctly compares some relative probabilities.	Given two different objects being selected for an event, the student correctly compares most relative probabilities.
	Given a scatter plot of two variables with a linear relationship, the student may be able to correctly identify a line of best fit.	Given scatter plots of two variables with a linear relationship, the student correctly identifies some lines of best fit.	Given scatter plots of two variables with a linear relationship, the student correctly identifies most lines of best fit.
	Given a real-world application, including with money, the student may be able to correctly evaluate an expression with one variable using addition or subtraction.	Given a real-world application, including with money, the student correctly evaluates some expressions with one variable.	Given a real-world application, including with money, the student correctly evaluates most expressions with one variable.
	Given a function and input-output table, the student may be able to correctly identify a missing value.	Given functions and input-output tables, the student correctly identifies some missing values.	Given functions and input-output tables, the student correctly identifies most missing values.
	Given an input-output table, the student may be able to correctly identify a graph that matches.	Given input-output tables, the student correctly identifies some matching graphs.	Given input-output tables, the student correctly identifies most matching graphs.
	Given a description and a line plotted on a coordinate plane, the student may be able to correctly identify a slope as positive, negative, zero, or undefined.	Given a description and a line plotted on a coordinate plane, the student correctly identifies some slopes as positive, negative, zero, or undefined.	Given a description and a line plotted on a coordinate plane, the student correctly identifies most slopes as positive, negative, zero, or undefined.
	Given a linear graph, the student may be able to correctly determine the slope of a line.	Given a linear graph, the student correctly determines the slope of some lines.	Given a linear graph, the student correctly determines the slope of most lines.
	The student may be able to correctly solve a one-step linear equation with one variable involving addition or subtraction and solutions 0 through 20.	The student correctly solves some one- and two-step linear equations with one variable and solutions 0 through 20.	The student correctly solves most one- and two-step linear equations with one variable and solutions 0 through 20.
	The student may be able to correctly identify a solution that would make an inequality true using symbols $<$, $>$, \leq , or \geq .	The student correctly identifies solutions that would make some inequalities true using symbols $<$, $>$, \leq , or \geq .	The student correctly identifies solutions that would make most inequalities true using symbols $<$, $>$, \leq , or \geq .

Virginia Alternate Assessment Program (VAAP)
Performance Level Descriptors
High School Mathematics

Reporting Category	Does Not Meet Proficiency <i>A student performing at this level demonstrates knowledge and skills related to the Virginia Essentialized Standards of Learning that do not meet proficiency:</i>	Proficient <i>A student performing at this level demonstrates knowledge and skills related to the Virginia Essentialized Standards of Learning that meet proficiency:</i>	Advanced <i>A student performing at this level demonstrates knowledge and skills related to the Virginia Essentialized Standards of Learning that exceed proficiency:</i>
Algebra - Expressions and Operations	The student may be able to correctly identify an equation when provided a verbal description in real world applications involving addition or subtraction.	The student correctly identifies some equations when provided a verbal description in real world applications.	The student correctly identifies most equations when provided a verbal description in real world applications.
	Given an analog or digital clock and context, the student may be able to correctly tell time in minutes.	Given analog and digital clocks and context, the student correctly tells time in minutes and measures elapsed time to the minute, including over multiple days, some of the time.	Given analog and digital clocks and context, the student correctly tells time in minutes and measures elapsed time to the minute, including over multiple days, most of the time.
	Given a real-world application, including with money, the student may be able to correctly evaluate an expression with one variable using addition or subtraction.	Given a real-world application, including with money, the student correctly evaluates some expressions with one variable.	Given a real-world application, including with money, the student correctly evaluates most expressions with one variable.
	Given currency, the student may be able to correctly solve a problem involving \$20.00 or less.	Given currency, the student correctly solves some problems involving \$100.00 or less.	Given currency, the student correctly solves most problems involving \$100.00 or less.
	The student may be able to correctly identify an equivalent expression or evaluate an expression to the first power.	The student correctly identifies some equivalent expressions and evaluates some expressions using powers 1-3.	The student correctly identifies most equivalent expressions and evaluates most expressions using powers 1-3.

Reporting Category	Does Not Meet Proficiency <i>A student performing at this level demonstrates knowledge and skills related to the Virginia Essentialized Standards of Learning that do not meet proficiency:</i>	Proficient <i>A student performing at this level demonstrates knowledge and skills related to the Virginia Essentialized Standards of Learning that meet proficiency:</i>	Advanced <i>A student performing at this level demonstrates knowledge and skills related to the Virginia Essentialized Standards of Learning that exceed proficiency:</i>
Algebra - Equations and Inequalities	The student may be able to correctly solve a one-step linear equation with one variable involving addition or subtraction and solutions 0 through 40.	The student correctly solves some one- and two-step linear equations with one variable and solutions 0 through 40.	The student correctly solves most one- and two-step linear equations with one variable and solutions 0 through 40.
	The student may be able to correctly find the total cost for a purchase given the cost of an item and sales tax.	The student correctly finds the sales tax and total cost for some purchases.	The student correctly finds the sales tax and total cost for most purchases.
	The student may be able to correctly match a number line with an inequality.	The student correctly matches some number lines with inequalities.	The student correctly matches most number lines with inequalities.
Algebra - Functions	Given a function and input-output table, the student may be able to correctly identify a missing value.	Given functions and input-output tables, the student correctly identifies some missing values.	Given functions and input-output tables, the student correctly identifies most missing values.
	Given a linear graph, the student may be able to correctly interpret the trend in data, including in real world applications.	Given linear graphs, the student correctly interprets trends in some data, including in real world applications.	Given linear graphs, the student correctly interprets trends in most data, including in real world applications.

Reporting Category	Does Not Meet Proficiency <i>A student performing at this level demonstrates knowledge and skills related to the Virginia Essentialized Standards of Learning that do not meet proficiency:</i>	Proficient <i>A student performing at this level demonstrates knowledge and skills related to the Virginia Essentialized Standards of Learning that meet proficiency:</i>	Advanced <i>A student performing at this level demonstrates knowledge and skills related to the Virginia Essentialized Standards of Learning that exceed proficiency:</i>
Algebra - Functions	Given a function and input-output table, the student may be able to correctly identify a missing value.	Given functions and input-output tables, the student correctly identifies some missing values.	Given functions and input-output tables, the student correctly identifies most missing values.
	Given a linear graph, the student may be able to correctly interpret the trend in data, including in real world applications.	Given linear graphs, the student correctly interprets trends in some data, including in real world applications.	Given linear graphs, the student correctly interprets trends in most data, including in real world applications.

Virginia Alternate Assessment Program (VAAP)
Performance Level Descriptors
Grade 3 Reading

Reporting Category	Does Not Meet Proficiency <i>A student performing at this level demonstrates knowledge and skills related to the Virginia Essentialized Standards of Learning that do not meet proficiency:</i>	Proficient <i>A student performing at this level demonstrates knowledge and skills related to the Virginia Essentialized Standards of Learning that meet proficiency:</i>	Advanced <i>A student performing at this level demonstrates knowledge and skills related to the Virginia Essentialized Standards of Learning that exceed proficiency:</i>
Demonstrate comprehension of fictional texts and use word analysis strategies	Given sentences read to the student or that the student reads, the student may be able to correctly: <ul style="list-style-type: none"> • identify a letter name, letter sound, word, or the meaning of a word, • answer a comprehension question, • identify an element such as an event, idea, or step, • identify a character, or • identify a setting. 	Given sentences read to the student or that the student reads, the student correctly: <ul style="list-style-type: none"> • identifies and understands the meaning of some words, • answers some comprehension questions, • identifies some elements such as events, ideas, or steps, • identifies some characters, and • identifies some settings. 	Given sentences read to the student or that the student reads, the student correctly: <ul style="list-style-type: none"> • identifies and understands the meaning of most words, • answers most comprehension questions, • identifies most elements such as events, ideas, or steps, • identifies most characters, and • identifies most settings.
Demonstrate comprehension of nonfiction texts and use word analysis strategies	Given sentences read to the student or that the student reads, the student may be able to correctly: <ul style="list-style-type: none"> • identify a letter name, letter sound, word, or the meaning of a word, • answer a comprehension question, • answer a question about the main idea, or • identify the beginning or end of the text. 	Given sentences read to the student or that the student reads, the student correctly: <ul style="list-style-type: none"> • identifies and understands the meaning of some words, • answers some comprehension questions, • answers some questions about the main idea, and • identifies the beginning, middle, or end of the text. 	Given sentences read to the student or that the student reads, the student correctly: <ul style="list-style-type: none"> • identifies and understands the meaning of most words, • answers most comprehension questions, • answers most questions about the main idea, and • identifies the beginning, middle, and end of the text.

Virginia Alternate Assessment Program (VAAP)
Performance Level Descriptors
Grade 4 Reading

Reporting Category	Does Not Meet Proficiency <i>A student performing at this level demonstrates knowledge and skills related to the Virginia Essentialized Standards of Learning that do not meet proficiency:</i>	Proficient <i>A student performing at this level demonstrates knowledge and skills related to the Virginia Essentialized Standards of Learning that meet proficiency:</i>	Advanced <i>A student performing at this level demonstrates knowledge and skills related to the Virginia Essentialized Standards of Learning that exceed proficiency:</i>
Demonstrate comprehension of fictional texts and use word analysis strategies	Given sentences read to the student or that the student reads, the student may be able to correctly: <ul style="list-style-type: none"> • identify a letter name, letter sound, word, or the meaning of a word, • answer a comprehension question, • identify an element such as a character, setting, or event, or • identify a narrator or a character. 	Given sentences read to the student or that the student reads, the student correctly: <ul style="list-style-type: none"> • identifies and understands the meaning of some words, • answers some comprehension questions, • identifies some elements such as characters, settings, or events, and • identifies some narrators or characters. 	Given sentences read to the student or that the student reads, the student correctly: <ul style="list-style-type: none"> • identifies and understands the meaning of most words, • answers most comprehension questions, • identifies most elements such as characters, settings, or events, and • identifies most narrators or characters.
Demonstrate comprehension of nonfiction texts and use word analysis strategies	Given sentences read to the student or that the student reads, the student may be able to correctly: <ul style="list-style-type: none"> • identify a letter name, letter sound, word, or the meaning of a word, • answer a comprehension question, • answer a question about the main idea, or • identify a detail such as an event, idea, or information. 	Given sentences read to the student or that the student reads, the student correctly: <ul style="list-style-type: none"> • identifies and understands the meaning of some words, • answers some comprehension questions, • answers some questions about the main idea, and • identifies some details such as events, ideas, or information. 	Given sentences read to the student or that the student reads, the student correctly: <ul style="list-style-type: none"> • identifies and understands the meaning of most words, • answers most comprehension questions, • answers most questions about the main idea, and • identifies most details such as events, ideas, or information.

Virginia Alternate Assessment Program (VAAP)
Performance Level Descriptors
Grade 5 Reading

Reporting Category	Does Not Meet Proficiency <i>A student performing at this level demonstrates knowledge and skills related to the Virginia Essentialized Standards of Learning that do not meet proficiency:</i>	Proficient <i>A student performing at this level demonstrates knowledge and skills related to the Virginia Essentialized Standards of Learning that meet proficiency:</i>	Advanced <i>A student performing at this level demonstrates knowledge and skills related to the Virginia Essentialized Standards of Learning that exceed proficiency:</i>
Demonstrate comprehension of <i>fictional</i> texts and use word analysis strategies	Given sentences read to the student or that the student reads, the student may be able to correctly: <ul style="list-style-type: none"> • identify a letter name, letter sound, word, or the meaning of a word, • answer a comprehension question, or • identify an element such as a character, setting, or event. 	Given sentences read to the student or that the student reads, the student correctly: <ul style="list-style-type: none"> • identifies and understands the meaning of some words, • answers some comprehension questions, and • identifies some elements such as characters, settings, or events. 	Given a short paragraph read to the student or that the student reads, the student correctly: <ul style="list-style-type: none"> • identifies and understands the meaning of most words, • answers most comprehension questions, and • identifies most elements such as characters, settings, or events.
Demonstrate comprehension of <i>nonfiction</i> texts and use word analysis strategies	Given sentences read to the student or that the student reads, the student may be able to correctly: <ul style="list-style-type: none"> • identify a letter name, letter sound, word, or the meaning of a word, • answer a comprehension question, • answer a question about the main idea, or • identify a detail such as an event, idea, or information. 	Given sentences read to the student or that the student reads, the student correctly: <ul style="list-style-type: none"> • identifies and understands the meaning of some words, • answers some comprehension questions, • answers some questions about the main idea, and • identifies some details such as events, ideas, or information. 	Given a short paragraph read to the student or that the student reads, the student correctly: <ul style="list-style-type: none"> • identifies and understands the meaning of most words, • answers most comprehension questions, • answers most questions about the main idea, and • identifies most details such as events, ideas, or information.

Virginia Alternate Assessment Program (VAAP)
Performance Level Descriptors
Grade 6 Reading

Reporting Category	Does Not Meet Proficiency <i>A student performing at this level demonstrates knowledge and skills related to the Virginia Essentialized Standards of Learning that do not meet proficiency:</i>	Proficient <i>A student performing at this level demonstrates knowledge and skills related to the Virginia Essentialized Standards of Learning that meet proficiency:</i>	Advanced <i>A student performing at this level demonstrates knowledge and skills related to the Virginia Essentialized Standards of Learning that exceed proficiency:</i>
Demonstrate comprehension of fictional texts and use word analysis strategies	Given sentences read to the student or that the student reads, the student may be able to correctly: <ul style="list-style-type: none"> • identify a letter name, letter sound, word, or the meaning of a word, • answer a comprehension question, • identify the meaning of a figurative language phrase, or • identify an element such as an individual (character), event, or idea. 	Given sentences read to the student or that the student reads, the student correctly: <ul style="list-style-type: none"> • identifies and understands the meaning of some words, • answers some comprehension questions, • identifies the meaning of some figurative language phrases, and • identifies some elements such as individuals (characters), events, or ideas. 	Given a paragraph read to the student or that the student reads, the student correctly: <ul style="list-style-type: none"> • identifies and understands the meaning of most words, • answers most comprehension questions, • identifies the meaning of most figurative language phrases, and • identifies most elements such as individuals (characters), events, or ideas.
Demonstrate comprehension of nonfiction texts and use word analysis strategies	Given sentences read to the student or that the student reads, the student may be able to correctly: <ul style="list-style-type: none"> • identify a letter name, letter sound, word, or the meaning of a word, • answer a comprehension question, • answer a question about the main idea, or • identify a detail such as an event, idea, or information. 	Given sentences read to the student or that the student reads, the student correctly: <ul style="list-style-type: none"> • identifies and understands the meaning of some words, • answers some comprehension questions, • answers some questions about the main idea, and • identifies some details such as events, ideas, or information. 	Given a paragraph read to the student or that the student reads, the student correctly: <ul style="list-style-type: none"> • identifies and understands the meaning of most words, • answers most comprehension questions, • answers most questions about the main idea, and • identifies most details such as events, ideas, or information.

Virginia Alternate Assessment Program (VAAP)
Performance Level Descriptors
Grade 7 Reading

Reporting Category	Does Not Meet Proficiency <i>A student performing at this level demonstrates knowledge and skills related to the Virginia Essentialized Standards of Learning that do not meet proficiency:</i>	Proficient <i>A student performing at this level demonstrates knowledge and skills related to the Virginia Essentialized Standards of Learning that meet proficiency:</i>	Advanced <i>A student performing at this level demonstrates knowledge and skills related to the Virginia Essentialized Standards of Learning that exceed proficiency:</i>
Demonstrate comprehension of fictional texts and use word analysis strategies	Given sentences read to the student or that the student reads, the student may be able to correctly: <ul style="list-style-type: none"> • identify a letter name, letter sound, word, or the meaning of a word, • answer a comprehension question, • identify the meaning of a figurative language phrase, • identify an element such as a character, setting, or event, or • identify an idea or piece of information. 	Given sentences read to the student or that the student reads, the student correctly: <ul style="list-style-type: none"> • identifies and understands the meaning of some words, • answers some comprehension questions, • identifies the meaning of some figurative language phrases, • identifies some elements such as characters, settings, or events, and • identifies some ideas or information. 	Given a paragraph read to the student or that the student reads, the student correctly: <ul style="list-style-type: none"> • identifies and understands the meaning of most words, • answers most comprehension questions, • identifies the meaning of most figurative language phrases, • identifies most elements such as characters, settings, or events, and • identifies most ideas or information.
Demonstrate comprehension of nonfiction texts and use word analysis strategies	Given sentences read to the student or that the student reads, the student may be able to correctly: <ul style="list-style-type: none"> • identify a letter name, letter sound, word, or the meaning of a word, • answer a comprehension question, • answer a question about the main idea, or • identify a detail such as an individual, event, or idea. 	Given sentences read to the student or that the student reads, the student correctly: <ul style="list-style-type: none"> • identifies and understands the meaning of some words, • answers some comprehension questions, • answers some questions about the main idea, and • identifies some details such as individuals, events, or ideas. 	Given a paragraph read to the student or that the student reads, the student correctly: <ul style="list-style-type: none"> • identifies and understands the meaning of most words, • answers most comprehension questions, • answers most questions about the main idea, and • identifies most details such as individuals, events, or ideas.

Virginia Alternate Assessment Program (VAAP)
Performance Level Descriptors
Grade 7 Reading

Reporting Category	Does Not Meet Proficiency <i>A student performing at this level demonstrates knowledge and skills related to the Virginia Essentialized Standards of Learning that do not meet proficiency:</i>	Proficient <i>A student performing at this level demonstrates knowledge and skills related to the Virginia Essentialized Standards of Learning that meet proficiency:</i>	Advanced <i>A student performing at this level demonstrates knowledge and skills related to the Virginia Essentialized Standards of Learning that exceed proficiency:</i>
Demonstrate comprehension of fictional texts and use word analysis strategies	Given sentences read to the student or that the student reads, the student may be able to correctly: <ul style="list-style-type: none"> • identify a letter name, letter sound, word, or the meaning of a word, • answer a comprehension question, • identify the meaning of a figurative language phrase, • identify an element such as a character, setting, or event, or • identify an idea or piece of information. 	Given sentences read to the student or that the student reads, the student correctly: <ul style="list-style-type: none"> • identifies and understands the meaning of some words, • answers some comprehension questions, • identifies the meaning of some figurative language phrases, • identifies some elements such as characters, settings, or events, and • identifies some ideas or information. 	Given a paragraph read to the student or that the student reads, the student correctly: <ul style="list-style-type: none"> • identifies and understands the meaning of most words, • answers most comprehension questions, • identifies the meaning of most figurative language phrases, • identifies most elements such as characters, settings, or events, and • identifies most ideas or information.
Demonstrate comprehension of nonfiction texts and use word analysis strategies	Given sentences read to the student or that the student reads, the student may be able to correctly: <ul style="list-style-type: none"> • identify a letter name, letter sound, word, or the meaning of a word, • answer a comprehension question, • answer a question about the main idea, or • identify a detail such as an individual, event, or idea. 	Given sentences read to the student or that the student reads, the student correctly: <ul style="list-style-type: none"> • identifies and understands the meaning of some words, • answers some comprehension questions, • answers some questions about the main idea, and • identifies some details such as individuals, events, or ideas. 	Given a paragraph read to the student or that the student reads, the student correctly: <ul style="list-style-type: none"> • identifies and understands the meaning of most words, • answers most comprehension questions, • answers most questions about the main idea, and • identifies most details such as individuals, events, or ideas.

Virginia Alternate Assessment Program (VAAP)
Performance Level Descriptors
Grade 8 Reading

Reporting Category	Does Not Meet Proficiency <i>A student performing at this level demonstrates knowledge and skills related to the Virginia Essentialized Standards of Learning that do not meet proficiency:</i>	Proficient <i>A student performing at this level demonstrates knowledge and skills related to the Virginia Essentialized Standards of Learning that meet proficiency:</i>	Advanced <i>A student performing at this level demonstrates knowledge and skills related to the Virginia Essentialized Standards of Learning that exceed proficiency:</i>
Demonstrate comprehension of fictional texts and use word analysis strategies	Given sentences read to the student or that the student reads, the student may be able to correctly: <ul style="list-style-type: none"> • identify a letter name, letter sound, or word, • answer a comprehension question, • identify the meaning of a figurative language phrase, • identify an element such as an individual (character), event, or idea, or • identify an idea or piece of information. 	Given a paragraph read to the student or that the student reads, the student correctly: <ul style="list-style-type: none"> • identifies and understands the meaning of some words, • answers some comprehension questions, • identifies the meaning of some figurative language phrases, • identifies some elements such as individuals (characters), events, or ideas, and • identifies some ideas or information. 	Given a paragraph read to the student or that the student reads, the student correctly: <ul style="list-style-type: none"> • identifies and understands the meaning of most words, • answers most comprehension questions, • identifies the meaning of most figurative language phrases, • identifies most elements such as individuals (characters), events, or ideas, and • identifies most ideas or information.
Demonstrate comprehension of nonfiction texts and use word analysis strategies	Given sentences read to the student or that the student reads, the student may be able to correctly: <ul style="list-style-type: none"> • identify a letter name, letter sound, or word, • answer a comprehension question, • answer a question about the main idea, or • identify an idea or piece of information. 	Given a paragraph read to the student or that the student reads, the student correctly: <ul style="list-style-type: none"> • identifies and understands the meaning of some words, • answers some comprehension questions, • answers some questions about the main idea, and • identifies some ideas or information. 	Given a paragraph read to the student or that the student reads, the student correctly: <ul style="list-style-type: none"> • identifies and understands the meaning of most words, • answers most comprehension questions, • answers most questions about the main idea, and • identifies most ideas or information.

Virginia Alternate Assessment Program (VAAP)
Performance Level Descriptors
High School Reading

Reporting Category	Does Not Meet Proficiency <i>A student performing at this level demonstrates knowledge and skills related to the Virginia Essentialized Standards of Learning that do not meet proficiency:</i>	Proficient <i>A student performing at this level demonstrates knowledge and skills related to the Virginia Essentialized Standards of Learning that meet proficiency:</i>	Advanced <i>A student performing at this level demonstrates knowledge and skills related to the Virginia Essentialized Standards of Learning that exceed proficiency:</i>
Demonstrate comprehension of fictional texts and use word analysis strategies	Given sentences read to the student or that the student reads, the student may be able to correctly: <ul style="list-style-type: none"> • identify a letter name, letter sound, or word, • answer a comprehension question, • identify an element such as a character, setting, or event, • identify a theme or topic, or • identify an idea or piece of information. 	Given a paragraph read to the student or that the student reads, the student correctly: <ul style="list-style-type: none"> • identifies and understands the meaning of some words, • answers some comprehension questions, • identifies some elements such as characters, settings, or events, • identifies some themes or topics, and • identifies some ideas or information. 	Given paragraphs read to the student or that the student reads, the student correctly: <ul style="list-style-type: none"> • identifies and understands the meaning of most words, • answers most comprehension questions, • identifies most elements such as characters, settings, or events, • identifies most themes or topics, and • identifies most ideas or information.
Demonstrate comprehension of nonfiction texts and use word analysis strategies	Given sentences read to the student or that the student reads, the student may be able to correctly: <ul style="list-style-type: none"> • identify a letter name, letter sound, or word, • answer a comprehension question, • answer a question about the main idea, or • identify an idea or piece of information. 	Given a paragraph read to the student or that the student reads, the student correctly: <ul style="list-style-type: none"> • identifies and understands the meaning of some words, • answers some comprehension questions, • answers some questions about the main idea, and • identifies some ideas or information. 	Given paragraphs read to the student or that the student reads, the student correctly: <ul style="list-style-type: none"> • identifies and understands the meaning of most words, • answers most comprehension questions, • answers most questions about the main idea, and • identifies most ideas or information.

Virginia Alternate Assessment Program (VAAP)
Performance Level Descriptors
Grade 5 Science

Reporting Category	Does Not Meet Proficiency <i>A student performing at this level demonstrates knowledge and skills related to the Virginia Essentialized Standards of Learning that do not meet proficiency:</i>	Proficient <i>A student performing at this level demonstrates knowledge and skills related to the Virginia Essentialized Standards of Learning that meet proficiency:</i>	Advanced <i>A student performing at this level demonstrates knowledge and skills related to the Virginia Essentialized Standards of Learning that exceed proficiency:</i>
Living Systems and Ecosystem Interactions	The student may be able to correctly recognize: <ul style="list-style-type: none"> • a plant, • an animal, or • something that a plant or animal needs to survive. 	The student correctly recognizes: <ul style="list-style-type: none"> • plants need light, air, and water to grow and survive, • animals need food, air, and water to grow and survive, and • plants and animals have unique structures that help them obtain what they need to grow and survive. 	The student correctly: <ul style="list-style-type: none"> • compares the growth of plants when given different amounts of light, air, and water, and • identifies and connects the unique parts and structures of plants and animals to ways in which they help them grow and survive.
	The student may be able to correctly recognize a living and/or non-living part of an ecosystem.	The student correctly recognizes some ways in which living organisms interact with other living organisms and non-living parts of an ecosystem.	The student correctly recognizes many ways in which living organisms interact with other living organisms and non-living parts of an ecosystem.
	The student may be able to correctly recognize an ocean.	The student correctly recognizes oceans and identifies some of the organisms that live in them.	The student correctly recognizes oceans and identifies many of the organisms that live in them.

Reporting Category	Does Not Meet Proficiency <i>A student performing at this level demonstrates knowledge and skills related to the Virginia Essentialized Standards of Learning that do not meet proficiency:</i>	Proficient <i>A student performing at this level demonstrates knowledge and skills related to the Virginia Essentialized Standards of Learning that meet proficiency:</i>	Advanced <i>A student performing at this level demonstrates knowledge and skills related to the Virginia Essentialized Standards of Learning that exceed proficiency:</i>
Earth/Space Systems and Earth Resources	The student may be able to correctly recognize a simple weather condition.	The student correctly recognizes some weather conditions and their characteristics.	The student correctly recognizes many complex weather conditions and their characteristics.
	The student may be able to correctly recognize the sun and/or Earth.	The student correctly recognizes some astronomical objects in the solar system and compares their features (e.g., sun, planets, moons).	The student correctly recognizes many astronomical objects in the solar system and compares their features (e.g., sun, planets, moons).
	The student may be able to correctly recognize the moon in different phases.	The student correctly recognizes some relationships among Earth, the moon, and the sun.	The student correctly recognizes many relationships among Earth, the moon, and the sun, including the concepts of orbit and revolution.
	The student may be able to correctly recognize day and/or night.	The student correctly recognizes that the sun provides Earth with light and heat energy.	The student correctly recognizes that the sun's light and heat energy influence Earth's organisms and the four major seasons.
	The student may be able to correctly recognize a natural resource used in everyday life.	The student correctly recognizes some natural resources in Virginia and their common uses and origins.	The student correctly recognizes many natural resources in Virginia and their common uses and origins.
	The student may be able to correctly recognize a common non-living Earth feature (e.g., lakes, rivers, streams, and oceans; rocks, mountains, volcanoes, and canyons; air and clouds).	The student correctly recognizes some common living and non-living Earth features and simple interactions (e.g., clouds provide rain to rivers; rivers provide water to organisms).	The student correctly recognizes many common living and non-living Earth features, simple interactions, and processes that shape Earth.
	The student may be able to correctly recognize an activity that harms Earth.	The student correctly recognizes some ways in which people and communities protect/conserve Earth's environment and natural resources.	The student correctly recognizes many ways in which people and communities protect/conserve Earth's environment and natural resources.

Reporting Category	Does Not Meet Proficiency <i>A student performing at this level demonstrates knowledge and skills related to the Virginia Essentialized Standards of Learning that do not meet proficiency:</i>	Proficient <i>A student performing at this level demonstrates knowledge and skills related to the Virginia Essentialized Standards of Learning that meet proficiency:</i>	Advanced <i>A student performing at this level demonstrates knowledge and skills related to the Virginia Essentialized Standards of Learning that exceed proficiency:</i>
Force, Motion, Energy, and Matter	The student may be able to correctly recognize a common object at rest and/or in motion.	The student correctly recognizes some objects in motion and changes in motion due to force.	The student correctly identifies many objects in motion and changes in motion due to force.
	The student may be able to correctly recognize a common object that: <ul style="list-style-type: none"> • uses electricity, • makes noise or sound, or • makes light. 	The student correctly recognizes the following forms of energy and some of their everyday uses, applications, and sources: <ul style="list-style-type: none"> • electricity, • sound, and • light. 	The student correctly recognizes the following forms of energy and many of their everyday uses, applications, and sources: <ul style="list-style-type: none"> • electricity, • sound, and • light.
	The student may be able to correctly recognize a smaller part of a common object, animal, and/or plant.	The student correctly recognizes that objects, animals, and plants are made of smaller parts and identifies some parts visible to the naked eye.	The student correctly recognizes that objects, animals, and plants are made of smaller parts and identifies many parts visible to the naked eye.
	The student may be able to correctly recognize when two common solids are mixed.	The student correctly recognizes when some substances are mixed.	The student correctly recognizes when many substances are mixed, including some mixtures that may form new substances.
	The student may be able to correctly recognize physical properties (i.e., size and shape) of common objects.	The student correctly recognizes and compares some physical properties (e.g., size, shape, hardness/softness, weight/mass, volume) of matter in different phases.	The student correctly recognizes and compares many physical properties of matter in different phases.

Virginia Alternate Assessment Program (VAAP)
Performance Level Descriptors
Grade 8 Science

Reporting Category	Does Not Meet Proficiency <i>A student performing at this level demonstrates knowledge and skills related to the Virginia Essentialized Standards of Learning that do not meet proficiency:</i>	Proficient <i>A student performing at this level demonstrates knowledge and skills related to the Virginia Essentialized Standards of Learning that meet proficiency:</i>	Advanced <i>A student performing at this level demonstrates knowledge and skills related to the Virginia Essentialized Standards of Learning that exceed proficiency:</i>
Living Systems and Ecosystem Interactions	The student may be able to correctly recognize plants and animals.	The student correctly recognizes some characteristics of animals and plants (parts and behaviors), related to their different functions, which can be used to tell organisms apart.	The student correctly recognizes many characteristics of animals and plants (parts and behaviors), including identifying their different functions, which can be used to tell organisms apart.
	The student may be able to correctly recognize that plants need light, air, and/or water to grow and survive.	The student correctly recognizes that plants need light, air, and water to grow, including some conditions that may help/harm growth.	The student correctly recognizes that plants need light, air, and water to grow through a process called photosynthesis, and compares growth and survival based on differing conditions.
	The student may be able to correctly recognize that living organisms (animals and humans) need food.	The student correctly recognizes that living organisms need food to obtain energy and grow.	The student correctly recognizes that the amount of energy or expected growth for a living organism can change based on the amount, type, or quality of food.
	The student may be able to correctly recognize living and non-living parts of an ecosystem.	The student correctly recognizes some ways in which living organisms interact with other living and non-living parts of an ecosystem (e.g., habitat, shelter, water).	The student correctly recognizes many ways in which living organisms interact with other living and non-living parts of an ecosystem, including in simple food chains/webs.
	The student may be able to correctly recognize a trait that helps a living organism (animal) adapt and survive.	The student correctly recognizes some traits that help living organisms adapt and survive.	The student correctly recognizes many traits that help living organisms adapt and survive, including identifying the function of helpful traits.
	The student may be able to correctly recognize an individual living organism and/or groups of living organisms (animal/s).	The student correctly recognizes living organisms in an ecosystem and some resources they need to grow and sustain their population.	The student correctly recognizes living organisms in an ecosystem and how changes in resources, including those due to human activity, might affect an individual living organism or groups of living organisms.

Reporting Category	Does Not Meet Proficiency <i>A student performing at this level demonstrates knowledge and skills related to the Virginia Essentialized Standards of Learning that do not meet proficiency:</i>	Proficient <i>A student performing at this level demonstrates knowledge and skills related to the Virginia Essentialized Standards of Learning that meet proficiency:</i>	Advanced <i>A student performing at this level demonstrates knowledge and skills related to the Virginia Essentialized Standards of Learning that exceed proficiency:</i>
Living Systems and Ecosystem Interactions (continued)	The student may be able to correctly recognize an offspring of a living organism with identical traits (plant, animal, and/or human) compared to the offspring of a different species.	The student correctly recognizes that reproduction produces offspring with similar though varied traits compared to offspring from a different species (e.g., a species has offspring of the same species that may have a different color or spot pattern).	The student correctly recognizes that reproduction produces offspring with similar though varied traits compared to offspring of the same species (e.g., a species has offspring of the same species but with variations on the same traits).
	The student may be able to correctly recognize highly similar animals based on simple physical characteristics.	The student correctly recognizes some anatomically similar organisms.	The student correctly recognizes many anatomically similar organisms, including that fossils of common extinct organisms are like organisms living today.
	The student may be able to correctly recognize a common feature found in Virginia watersheds (e.g., river, stream, lake, reservoir).	The student correctly recognizes some common features of watersheds in connection with their function and why they are important in Virginia.	The student correctly recognizes many common features of watersheds and identifies simple steps to improve the health of watersheds and keep water clean in Virginia.

Reporting Category	Does Not Meet Proficiency <i>A student performing at this level demonstrates knowledge and skills related to the Virginia Essentialized Standards of Learning that do not meet proficiency:</i>	Proficient <i>A student performing at this level demonstrates knowledge and skills related to the Virginia Essentialized Standards of Learning that meet proficiency:</i>	Advanced <i>A student performing at this level demonstrates knowledge and skills related to the Virginia Essentialized Standards of Learning that exceed proficiency:</i>
Earth/Space Systems and Earth Resources	The student may be able to correctly recognize simple weather conditions.	The student correctly recognizes some weather conditions and their characteristics, including the connection between changes in weather conditions and everyday decisions and activities.	The student correctly recognizes many weather conditions and their characteristics, including the connection to the atmosphere (e.g., cloudy or clear, windy or calm) and common weather tools and information (e.g., thermometer, forecast).
	The student may be able to correctly recognize the sun, Earth, and the moon.	The student correctly recognizes and compares some astronomical objects in the solar system and their features (e.g., size, shape, position, composition).	The student correctly recognizes and compares many astronomical objects in the solar system and their features.
	The student may be able to correctly recognize the direction that a common object will fall due to gravity on Earth.	The student correctly recognizes that gravity influences movement of objects on Earth and in space, including the movement of Earth around the sun and the moon around Earth.	The student correctly recognizes that gravity influences movement of objects on Earth and in space, including the movement of planets around the sun, moons around planets, and comets/asteroids around the sun.
	The student may be able to correctly recognize day and night.	The student correctly recognizes that the sun provides Earth and its organisms with light and heat energy.	The student correctly recognizes the connection between Earth's rotation and day/night and Earth's tilt and the four major seasons.
	The student may be able to correctly recognize some common objects or materials that come from Earth's natural resources.	The student correctly recognizes some natural resources and the materials humans commonly use that come from Earth's natural resources.	The student correctly recognizes many natural resources and the materials humans commonly use that come from Earth's renewable and nonrenewable resources.
	The student may be able to correctly recognize activities that harm Earth.	The student correctly recognizes some ways in which people and communities use and impact Earth's environment and resources, including some simple ways to protect the environment or conserve natural resources.	The student correctly recognizes many ways in which people and communities use and impact Earth's environment and resources, including many simple ways to protect the environment or conserve natural resources compared to activities that pollute or harm Earth's environment.

Reporting Category	Does Not Meet Proficiency <i>A student performing at this level demonstrates knowledge and skills related to the Virginia Essentialized Standards of Learning that do not meet proficiency:</i>	Proficient <i>A student performing at this level demonstrates knowledge and skills related to the Virginia Essentialized Standards of Learning that meet proficiency:</i>	Advanced <i>A student performing at this level demonstrates knowledge and skills related to the Virginia Essentialized Standards of Learning that exceed proficiency:</i>
Force, Motion, Energy, and Matter	The student may be able to correctly recognize hot and/or cold temperatures in common everyday contexts.	The student correctly recognizes temperature as a measure of how hot or cold matter is and that thermal energy is transferable.	The student correctly recognizes common examples of heat transfer and simple ways it can be minimized (e.g., coat to stay warm) or maximized (e.g., fan to get cool).
	The student may be able to correctly recognize the three phases of water – solid, liquid, and/or gas.	The student correctly recognizes water phases, including at some common points of experience through the water cycle.	The student correctly recognizes water phases and how water changes phase, including at many common points of experience through the water cycle.
	The student may be able to correctly recognize a basic form of energy (i.e., electrical, sound, thermal, and/or light energy).	The student correctly recognizes some basic forms of energy based on a common use or source and that energy is transferred and transformed.	The student correctly recognizes many basic forms of energy based on a common use or source and that energy is transferred and transformed to help meet needs (e.g., electrical energy lights lamps and heats stoves).
	The student may be able to correctly recognize common objects at rest and in motion.	The student correctly recognizes some objects in motion involving simple actions and reactions.	The student correctly recognizes many objects in motion involving simple actions and reactions.
	The student may be able to correctly recognize common objects in relation to descriptions of their weight and mass.	The student correctly recognizes that the force, mass, and motion of objects are related and comparable in common everyday situations.	The student correctly recognizes that the force, mass, and any changes in the motion of objects are related and comparable in common everyday situations.
	The student may be able to correctly recognize some smaller parts of common objects, animals, and plants.	The student correctly recognizes that common objects, animals, and plants are made of smaller parts and identifies some seen and unseen parts.	The student correctly recognizes that common objects, animals, and plants are made of smaller parts, identifies many seen and unseen parts, and recognizes that technology (e.g., magnifying glass, microscope) helps us see very small parts.
	The student may be able to correctly recognize and compare physical properties (i.e., size and shape) of common objects.	The student correctly recognizes and measures some physical and chemical properties (e.g., size, shape, hardness/softness, weight/mass, volume, density) of matter including before or after a physical or chemical change occurs.	The student correctly recognizes and measures many physical and chemical properties of matter including identifying changes in properties that result from common activities (e.g., cooking an egg, boiling water, burning wood).

Virginia Alternate Assessment Program (VAAP)
Performance Level Descriptors
High School Science

Reporting Category	Does Not Meet Proficiency <i>A student performing at this level demonstrates knowledge and skills related to the Virginia Essentialized Standards of Learning that do not meet proficiency:</i>	Proficient <i>A student performing at this level demonstrates knowledge and skills related to the Virginia Essentialized Standards of Learning that meet proficiency:</i>	Advanced <i>A student performing at this level demonstrates knowledge and skills related to the Virginia Essentialized Standards of Learning that exceed proficiency:</i>
Life at the Molecular / Cellular and Systems / Organisms Levels	The student may be able to correctly recognize: <ul style="list-style-type: none"> light, air/oxygen, water, and food, or that living organisms (plant, animal, and/or human) need these to survive. 	The student correctly recognizes: <ul style="list-style-type: none"> humans and animals need oxygen to breathe, water to drink, and food to eat to grow and obtain energy, and plants need light, air, and water to grow and create energy through photosynthesis. 	The student correctly recognizes: <ul style="list-style-type: none"> growth and energy may change based on the type, amount, or availability of light, air/oxygen, water, and food to organisms, and plants have parts associated with the basic inputs (i.e., water, sunlight, carbon dioxide) and outputs (i.e., oxygen, sugar) of photosynthesis (e.g., roots take in water, leaves take in sunlight, leaves release oxygen).
	The student may be able to recognize simple everyday steps that people can take to support their health (e.g., washing hands, brushing teeth, washing and eating healthy food, and getting regular sleep).	The student correctly recognizes that bacteria and viruses impact human health, and some simple steps people can take to support health and wellness.	The student correctly recognizes that bacteria and viruses are too small to be seen with the naked eye and can cause illness or sickness if simple steps are not taken to support health and wellness.
	The student may be able to correctly recognize an offspring of a living organism (plant, animal, and/or human) with identical or highly similar traits.	The student correctly recognizes that reproduction produces offspring with similar, though varied, traits.	The student correctly recognizes that offspring may not be identical, may have variations of the same or similar traits, and may develop a helpful trait.
	The student may be able to correctly recognize a plant and animal and how they are different.	The student correctly recognizes and compares some plants and animals and ways in which their unique structures and behaviors are connected to their functions.	The student correctly recognizes and compares many plants and animals and ways in which their unique structures and behaviors are connected to their functions.

Reporting Category	Does Not Meet Proficiency <i>A student performing at this level demonstrates knowledge and skills related to the Virginia Essentialized Standards of Learning that do not meet proficiency:</i>	Proficient <i>A student performing at this level demonstrates knowledge and skills related to the Virginia Essentialized Standards of Learning that meet proficiency:</i>	Advanced <i>A student performing at this level demonstrates knowledge and skills related to the Virginia Essentialized Standards of Learning that exceed proficiency:</i>
Interactions of Life Forms and Ecosystem Dynamics	The student may be able to correctly recognize: <ul style="list-style-type: none"> • a simple trait of a living organism or a group of living organisms (plant, animal, and human) that help them survive, or • a simple resource or environmental factor that a living organism or group of living organisms needs to survive. 	The student correctly recognizes: <ul style="list-style-type: none"> • the function of simple traits of living organisms or groups of living organisms, • living organisms' survival is related to having helpful traits, and • how a living organism or group of living organisms might be affected by beneficial or challenging changes in resources or environmental factors. 	The student correctly recognizes: <ul style="list-style-type: none"> • simple traits based on their function, • survival of living organisms is related to helpful variations of a given trait, and • how the variety/diversity of life on Earth might be affected based on beneficial or challenging changes in resources or environmental factors.
	The student may be able to correctly recognize a way in which a living organism interacts with another living or non-living part of an ecosystem.	The student correctly recognizes some ways in which living organisms interact with other living and non-living parts of an ecosystem, including in simple food chains.	The student correctly recognizes many ways in which living organisms interact with other living and non-living parts of an ecosystem and how interactions might change under different conditions, including in simple food chains and food webs.

Appendix B – Committee Panelist Materials

The materials developed for the VAAP standard setting committees are provided as an example of what was shared with the panelists. Because the materials provided to panelists contained secure information, not all documents will be presented in Appendix B. Specifically, the following materials will not be available in the appendix.

- Test form – A set of available items for the spring 2022 administration were selected to set standards and were presented to panelists through the Pearson standard setting website.
- Practice judgment items – The practice items were presented to panelists through the Pearson standard setting website.



Virginia Alternate Assessment Program (VAAP) Standard Setting Meeting

April 2022

Panelist Agenda

Grades 5, 8, and High School

Day 1 – Monday, April 11, 2022

Welcome, Introduction, and Orientation
Standard Setting Overview
Mathematics Assessment
Review of Mathematics Test
Performance Level Descriptors Discussion
Borderline Descriptions Training
Borderline Descriptions
 Small Group Discussion
Lunch
Borderline Descriptions
 Whole Group Discussion
Standard Setting Training
Practice Judgment Activity
Round 1 Judgments – Mathematics

Day 2 – Tuesday, April 12, 2022

Round 1 Judgment Feedback and Discussion
Round 2 Judgments – Mathematics
Round 2 Judgment Feedback and Discussion
Lunch
Round 2 Judgment Feedback and Discussion (cont.)
Round 3 Judgments – Mathematics
Reading Assessment
Review of Reading Test
Performance Level Descriptors Discussion
Borderline Descriptions
 Small Group Discussion

Day 3 – Wednesday, April 13, 2022

Borderline Descriptions

 Large Group Discussion

Round 1 Judgments - Reading

Round 1 Judgment Feedback and Discussion

Lunch

Round 2 Judgments – Reading

Round 2 Judgment Feedback and Discussion

Round 3 Judgments - Reading

Day 4 – Thursday, April 14, 2022

Science Assessment

Review of Science Test

Performance Level Descriptors Discussion

Borderline Descriptions

 Small Group Discussion

Borderline Descriptions

 Large Group Discussion

Lunch

Round 1 Judgments - Science

Round 1 Judgment Feedback and Discussion

Round 2 Judgments – Reading

Day 5 – Friday, April 15, 2022

Round 2 Judgment Feedback and Discussion

Round 3 Judgments – Reading

Process Evaluations and Next Steps

Math Grade 8 Test Map

Seq	UIN	Key*	Public <u>YESOL</u> ID	Reporting Category
1	VAAP08M21001_TTS		M-8 2	010
2	VAAP08M21002_TTS		M-8 2	010
3	VAAP08M21003_TTS		M-8 1	010
4	VAAP08M21004_TTS		M-8 5	011
5	VAAP08M21005_TTS		M-8 9	012
6	VAAP08M21007_TTS		M-8 6	012
7	VAAP08M21008_TTS		M-8 9	012
8	VAAP08M21009_TTS		M-8 5	011
9	VAAP08M21011_TTS		M-8 6	012
10	VAAP08M21012_TTS		M-8 1	010
11	VAAP08M21013_TTS		M-8 2	010
12	VAAP08M21015_TTS		M-8 1	010
13	VAAP08M21016_TTS		M-8 4	011
14	VAAP08M21017_TTS		M-8 10	012
15	VAAP08M21019_TTS		M-8 7	012
16	VAAP08M21020_TTS		M-8 1	010
17	VAAP08M21021_TTS		M-8 2	010
18	VAAP08M21023_TTS		M-8 13	012
19	VAAP08M21024_TTS		M-8 11	012
20	VAAP08M21025_TTS		M-8 7	012
21	VAAP08M21026_TTS		M-8 4	011
22	VAAP08M21027_TTS		M-8 5	011
23	VAAP08M21028_TTS		M-8 10	012
24	VAAP08M21029_TTS		M-8 11	012
25	VAAP08M21030_TTS		M-8 5	011
26	VAAP08M21031_TTS		M-8 4	011
27	VAAP08M21032_TTS		M-8 12	012
28	VAAP08M21033_TTS		M-8 4	011
29	VAAP08M21034_TTS		M-8 13	012
30	VAAP08M21035_TTS		M-8 12	012

Note: * Key redacted

Standard Setting Test Map

Grade 8 Test Map

Sequence	UIN	Passage Title	SOL	KEY
1			8.4EF	
2			8.5A	
3			8.5A	
4			8.5B	Image*
5			8.5C	
6			8.4AF	
7			8.5A	
8			8.4AN	
9			8.6E	
10			8.6F	
11			8.6D	
12			8.6H	
13			8.6G	

Note: Only a portion of the rows in the test map are presented as an example. The item UINs, Passage Titles and answer keys have been removed for security purposes.

*Technology enhanced item answers appeared in an image launched for the panelist via hypertext.

Judgment Rounds
Record Sheet – Rounds 1 and 2
Math Grade 8

"Would a student performing at the borderline of the performance level likely get this item correct?"

Seq.	Notes	Judgment Round			
		1		2	
		Proficient	Advanced	Proficient	Advanced
1		No	Yes	No	Yes
2		No	Yes	No	Yes
3		No	Yes	No	Yes
4		No	Yes	No	Yes
5		No	Yes	No	Yes
6		No	Yes	No	Yes
7		No	Yes	No	Yes
8		No	Yes	No	Yes
9		No	Yes	No	Yes
10		No	Yes	No	Yes
11		No	Yes	No	Yes
12		No	Yes	No	Yes
13		No	Yes	No	Yes
14		No	Yes	No	Yes
15		No	Yes	No	Yes
16		No	Yes	No	Yes
17		No	Yes	No	Yes
18		No	Yes	No	Yes
19		No	Yes	No	Yes
20		No	Yes	No	Yes
21		No	Yes	No	Yes
22		No	Yes	No	Yes
23		No	Yes	No	Yes
24		No	Yes	No	Yes
25		No	Yes	No	Yes
26		No	Yes	No	Yes
27		No	Yes	No	Yes
28		No	Yes	No	Yes
29		No	Yes	No	Yes
30		No	Yes	No	Yes

Judgment Rounds
Record Sheet – Round 3
Math Grade 8

“How many items would a student performing at the borderline of the performance level likely answer correctly if they answered all of the questions?”

	Recommended Cut Score
Write your recommended cut score for the PROFICIENT Performance Level in the box.	
Write your recommended cut score for the ADVANCED Performance Level in the box.	

Round 1 Judgment Survey

Page 1

Virginia Standards of Learning Standard Setting Meeting

Math Grade 8

Round 1 Judgment Survey

You are now ready to begin!

Directions: For each borderline performance level:

- Review each item in the online system.
- Review the information provided with each item below and on the printed judgment form.
- Review the PLDs and borderline performance descriptions.
- Answer the following question for each performance level:

"Would a student performing at the borderline of the performance level likely get this item correct?"

- Record your response to the question for the performance level for the specific item on the judgment record sheet and in the online survey.
- Continue reviewing the items until you have provided judgments for each performance level for all of the items.

You will now start the Judgment Process for the items.

Page 2

For each of the items, answer the following question:

"Would a student performing at the borderline of the [specific performance] level likely get this item correct?"

* Item 1:

Key:

Reporting Category: 010

VESOL: M-8.2

Proficient
Advanced

	No	Yes
<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>

* Item 2:

Key:

Reporting Category: 010

VESOL: M-8.2

Proficient
Advanced

	No	Yes
<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>

Note: Only two items are displayed as an example. The item UINs and answer keys have been removed for security purposes.

Appendix C – Committee Panelist Composition

Table C.1: Demographic: Gender

	VAAP						
	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	HS
Female	9	9	8	8	8	7	7
Male	0	0	0	0	0	1	0

Table C.2: Demographic: Race/Ethnicity

	VAAP						
	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	HS
White (Not of Hispanic origin)	7	8	7	8	7	5	3
Black (Not of Hispanic origin)	2	1			1	3	2
Hispanic							
American Indian or Alaskan Native							1
Race/Ethnicity not provided			1				1

Table C.3: Position/Title

	VAAP						
	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	HS
Gen Ed Teacher		1				1	
Special Education Teacher	7	6	6	7	4	5	6
Administrator	1						1
Other	1	2	2	1	4	2	

Table C.4: Demographic: Regions of Virginia

	VAAP						
	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	HS
Region I - East Central	2	2	3	1	2	2	2
Region II – Tidewater and Eastern Shore	1	2	2	3	1	1	2
Region III – Northern Neck of the Chesapeake Bay	1	2		1	1	1	
Region IV – Northern			1		1	1	1
Region V – North Central	1			1	1		
Region VI – West Central							
Region VII – Western		2			1		
Region VIII – South Central	2	2	2	1		1	2
n/a	2	1		1	1	2	

Table C.5: Years of Experience Teaching Special Education Student Populations

	VAAP						
	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	HS
0-9 Years	2	3	2	2	2	6	3
10-19 Years	5	4	2	4	4	2	3
20+ Years	2	1	3	2	2	0	1
None stated (Administrator/Other)		1	1				

Appendix D – Meeting Agenda

Agenda for 4-Day (Grades 3, 4, 6, 7) and 5-Day meetings (Grades 5, 8, HS) are included below.

Please note the Articulation training did commence on Friday, April 15, 2022, as planned in the agenda. However, because of insufficient data to determine the impact of the cut scores (as the assessment window for VAAP had not closed), the articulation panelists were reconvened online on May 14, 2022, to review the impact data for the Round 3 cuts for each grade and subject, to decide whether to revise those cuts, and then to complete evaluations on the entire articulation process.

Standard Setting Meeting – Agenda (4 Day Meeting)

Day 1 (Tuesday)

Start time	End time	Activity
8:00 am	8:20 am	Welcome introductions, materials orientation, and security
8:20 am	9:00 am	Standard setting overview

Mathematics Assessment

9:00 am	9:45 am	Review of the mathematics administration form
9:45 am	10:00 am	Break
10:00 am	10:30 am	Review and discuss Performance Level Descriptors (PLDs)
10:30 am	10:45 am	Overview of Borderline Descriptions and Borderline Description training
10:45 am	11:45 am	Borderline Description development – Mathematics Small group development
11:45 am	12:30 pm	Lunch
12:30 pm	1:30 pm	Borderline Description development – Mathematics Whole group discussion
1:30 pm	2:00 pm	Standard setting training
2:00 pm	2:15 pm	Break
2:15 pm	3:00 pm	Practice judgment activity and discussion
3:00 pm	4:30 pm	Round 1 judgments – Mathematics Round 1 readiness form Independent panelist round 1 judgments

Day 2 (Wednesday)

Start time	End time	Activity
8:00 am	9:15 am	Round 1 judgment feedback – Mathematics Overview of feedback data Group discussion of feedback data
9:15 am	9:30 am	Break
9:30 am	10:30 am	Round 2 judgments – Mathematics Round 2 readiness form Independent panelist round 2 judgments
10:30 am	11:00 am	Break (Data Analysis)
11:00 am	11:45	Round 2 judgment feedback – Mathematics Group discussion of feedback data
11:45 am	12:30 pm	Lunch
12:30 pm	1:00 pm	Round 2 judgment feedback – Mathematics (cont) Group discussion of feedback data
1:00 pm	1:15 pm	Break
1:15 pm	2:00 pm	Round 3 judgments – Mathematics Round 3 readiness form Independent panelists round 3 judgments
2:00 pm	2:15 pm	Break (Data Analysis)
Reading Assessment		
2:15 pm	3:30 pm	Review of the Reading administration form
3:30 pm	4:30	Review and discussion of PLDs - Reading

Day 3 (Thursday)

Start time	End time	Activity
8:00 am	9:30 am	Borderline Description development – Reading Small group development
9:30 am	9:45 am	Break
9:45 am	11:30 am	Borderline Description development – Reading Whole group discussion
11:30 am	12:15 pm	Lunch
12:15 pm	1:45 pm	Round 1 judgments – Reading Round 1 readiness form Independent panelists round 1 judgments
1:45 pm	2:15 pm	Break (Data Analysis)
2:15 pm	3:30 pm	Round 1 judgment feedback Group discussion of feedback data

3:30 pm	4:30 pm	Round 2 judgments – Reading Round 2 readiness form Independent panelists round 2 judgments
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Day 4 (Friday)

Start time	End time	Activity
8:00 am	9:00am	Round 2 judgment feedback – Reading Group discussion of feedback data
9:00 am	9:30 am	Round 3 judgments – Reading Round 3 readiness form Independent panelists round 3 judgments
9:30 am	10:00 am	Process evaluations and next steps
10:00 am	10:30 am	Break
<i>Vertical Articulation</i>		
10:30 am	11:15 am	Introductions, purpose and orientation to articulation process
11:15 am	12:00 am	Cross-grade review of PLDs - Mathematics
12:00 am	12:45 pm	Lunch
12:45 pm	1:15 pm	Individual articulation judgments - Mathematics Training on articulation judgments Individual articulation judgments
1:15 pm	1:45 pm	Articulation judgment feedback and discussion - Mathematics
1:45 pm	2:15 pm	Cross-grade review of PLDs - Reading
2:15 pm	2:30 pm	Break
2:30 pm	2:45 pm	Individual articulation judgments - Reading Individual articulation judgments
2:45 pm	3:15 pm	Articulation judgment feedback and discussion - Reading
3:15 pm	3:45 pm	Cross-grade review of PLDs - Science
3:45 pm	4:00 pm	Individual articulation judgments - Science Individual articulation judgments
4:00 pm	4:30 pm	Articulation judgment feedback and discussion - Science

Standard Setting Meeting – Agenda (5 Day Meeting)

Day 1 (Monday)

Start time	End time	Activity
8:00 am	8:20 am	Welcome introductions, materials orientation, and security
8:20 am	9:00 am	Standard setting overview

Mathematics Assessment

9:00 am	9:45 am	Review of the Mathematics administration form
9:45 am	10:00 am	Break
10:00 am	10:30 am	Review and discuss Performance Level Descriptors (PLDs)
10:30 am	10:45 am	Overview of Borderline Descriptions and Borderline Description training
10:45 am	11:45 am	Borderline Description development – Mathematics Proficient
11:45 am	12:30 pm	Lunch
12:30 pm	1:30 pm	Borderline Description development – Mathematics Advanced
1:30 pm	2:00 pm	Standard setting training
2:00 pm	2:15 pm	Break
2:15 pm	3:00 pm	Practice judgment activity and discussion
3:00 pm	4:30 pm	Round 1 judgments – Mathematics Round 1 readiness form Independent panelist round 1 judgments

Day 2 (Tuesday)

Start time	End time	Activity
8:00 am	9:15 am	Round 1 judgment feedback – Mathematics Overview of feedback data Group discussion of feedback data
9:15 am	9:30 am	Break
9:30am	10:30 am	Round 2 judgments – Mathematics Round 2 readiness form Independent panelist round 2 judgments
10:30 am	11:00 am	Break (Data Analysis)
11:00 am	11:45 am	Round 2 judgment feedback – Mathematics Group discussion of feedback data
11:45 am	12:30 pm	Lunch

12:30 pm	1:15 pm	Round 2 judgment feedback – Mathematics (cont.) Group discussion of feedback data
1:15 pm	1:45 pm	Round 3 judgments – Mathematics Round 3 readiness form Independent panelists round 3 judgments
1:45 pm	2:00 pm	Break
<i>Reading Assessment</i>		
2:00 pm	2:45 pm	Review of the Reading administration form
2:45 pm	3:30 pm	Review and discussion of PLDs - Reading
3:30 pm	4:30 pm	Borderline Description development – Reading Proficient

Day 3 (Wednesday)

Start time	End time	Activity
8:00 am	9:00 am	Borderline Description development – Reading Advanced
9:00 am	9:15 am	Break
9:15 am	10:30 am	Round 1 judgments – Reading Round 1 readiness form Independent panelists round 1 judgments
10:30 am	11:00 am	Break (Data Analysis)
11:00 am	11:45 am	Round 1 judgment feedback – Reading Group discussion of feedback data
11:45 am	12:30 pm	Lunch
12:30 pm	1:00 pm	Round 1 judgment feedback – Reading (cont.) Group discussion of feedback data
1:00 pm	2:00 pm	Round 2 judgments – Reading Round 2 readiness form Independent panelists round 2 judgments
2:00 pm	2:30 pm	Break (Data Analysis)
2:30 pm	3:30 pm	Round 2 judgment feedback Group discussion of feedback data
3:30 pm	4:00 pm	Round 3 judgments – Reading Round 3 readiness form Independent panelists round 3 judgments

Day 4 (Thursday)

Start time	End time	Activity
<i>Science Assessments</i>		
8:00 am	8:30 am	Review of the science administration form
8:30 am	9:15 am	Review and discuss PLDs - Science
9:15 am	10:15 am	Borderline Description development – Science Proficient
10:15 am	10:30 am	Break
10:30 am	11:30 am	Borderline Description development – Science Advanced
11:30 am	12:15 pm	Lunch
12:15 pm	1:30 pm	Round 1 judgments – Science Round 1 readiness form Independent panelists round 1 judgments
1:30 pm	2:00 pm	Break (Data Analysis)
2:00 pm	3:00 pm	Round 1 judgment feedback – Science Group discussion of feedback data
3:00 pm	4:00 pm	Round 2 judgments – Science Round 2 readiness form Independent panelists round 2 judgments

Day 5 (Friday)

Start time	End time	Activity
8:00 am	9:00am	Round 2 judgment feedback – Science Group discussion of feedback data
9:00 am	9:30 am	Round 3 judgments – Science Round 3 readiness form Independent panelists round 3 judgments
9:30 am	10:00 am	Process evaluations and next steps
10:00 am	10:30 am	Break

Vertical Articulation

10:30 am	11:15 am	Introductions, purpose and orientation to articulation process
11:15 am	12:00 am	Cross-grade review of PLDs - Mathematics
12:00 am	12:45 pm	Lunch

12:45 pm	1:15 pm	Individual articulation judgments - Mathematics Training on articulation judgments Individual articulation judgments
1:15 pm	1:45 pm	Articulation judgment feedback and discussion - Mathematics
1:45 pm	2:15 pm	Cross-grade review of PLDs - Reading
2:15 pm	2:30 pm	Break
2:30 pm	2:45 pm	Individual articulation judgments - Reading Individual articulation judgments
2:45 pm	3:15 pm	Articulation judgment feedback and discussion - Reading
3:15 pm	3:45 pm	Cross-grade review of PLDs - Science
3:45 pm	4:00 pm	Individual articulation judgments - Science Individual articulation judgments
4:00 pm	4:30 pm	Articulation judgment feedback and discussion - Science

Appendix E – Presentation Slides

The presentations for the general workshop policies, the 4-Day sessions (Grades 3,4,6,7), the 5-Day sessions (Grades 5, 8, HS), and the vertical articulation session of the standard setting are embedded in Appendix E. Double-click the cover slide to view the full presentation.

General Workshop Policies

General Workshop Policies

During the workshop you should:

- Be in a private location, with minimal interruptions.
- Keep your webcam on during the meeting; this helps with engagement during the meeting.
- Keep the microphone muted when not speaking.
- Be on time for each of the different activities (trainings, discussions, judgments) during the workshop.
- Chat the moderator to assist with any issues.



1

Grade 3 Breakout Session – Day 1 – Day 4

Virginia Alternate
Assessment Program
(VAAP)
Grade 3
Standard Setting

Day 1



Grade 8 Breakout Session – Day 1 – Day 5

Virginia Alternate
Assessment Program
(VAAP)
Grade 8
Standard Setting

Day 1



Vertical Articulation

Virginia Alternate
Assessment
Program
(VAAP)

Vertical Articulation
Reading



Appendix F – Examples of Feedback Data

Feedback data was provided to panelists after each judgment round. The following are examples of feedback data provided to panelists. Item identification numbers have been removed from the examples.

Individual Item-level Judgments

The graphic below shows an example of the item-level judgments recorded in the Judgment Survey during Rounds 1 and 2. The individual item-level judgments were provided to panelists so they could verify the system accurately recorded their judgments.

UIN	P	A
	Yes	Yes
	No	No
	No	Yes

The UIN has been removed for

Individual Test-level Cut Score Recommendations

Each panelist was provided their test-level cut score recommendations, which was the sum of their item judgments for the Proficient (P) and Advanced (A) performance levels.

P Raw Score	A Raw Score
16	24

Committee Test-level Cut Score Recommendations

Panelists were provided with the committee's aggregate test-level cut score recommendations, including the number of participants, the mean, median, minimum, and maximum cut score recommendations, and the first and third quartiles for each performance level.

	N	Mean	Median	Min	Max	Q1	Q3
P Raw Score	8	11.38	12.00	4.00	16.00	9.00	15.00
A Raw Score	8	22.25	23.00	15.00	27.00	20.50	25.00

Item-level Judgment Agreement

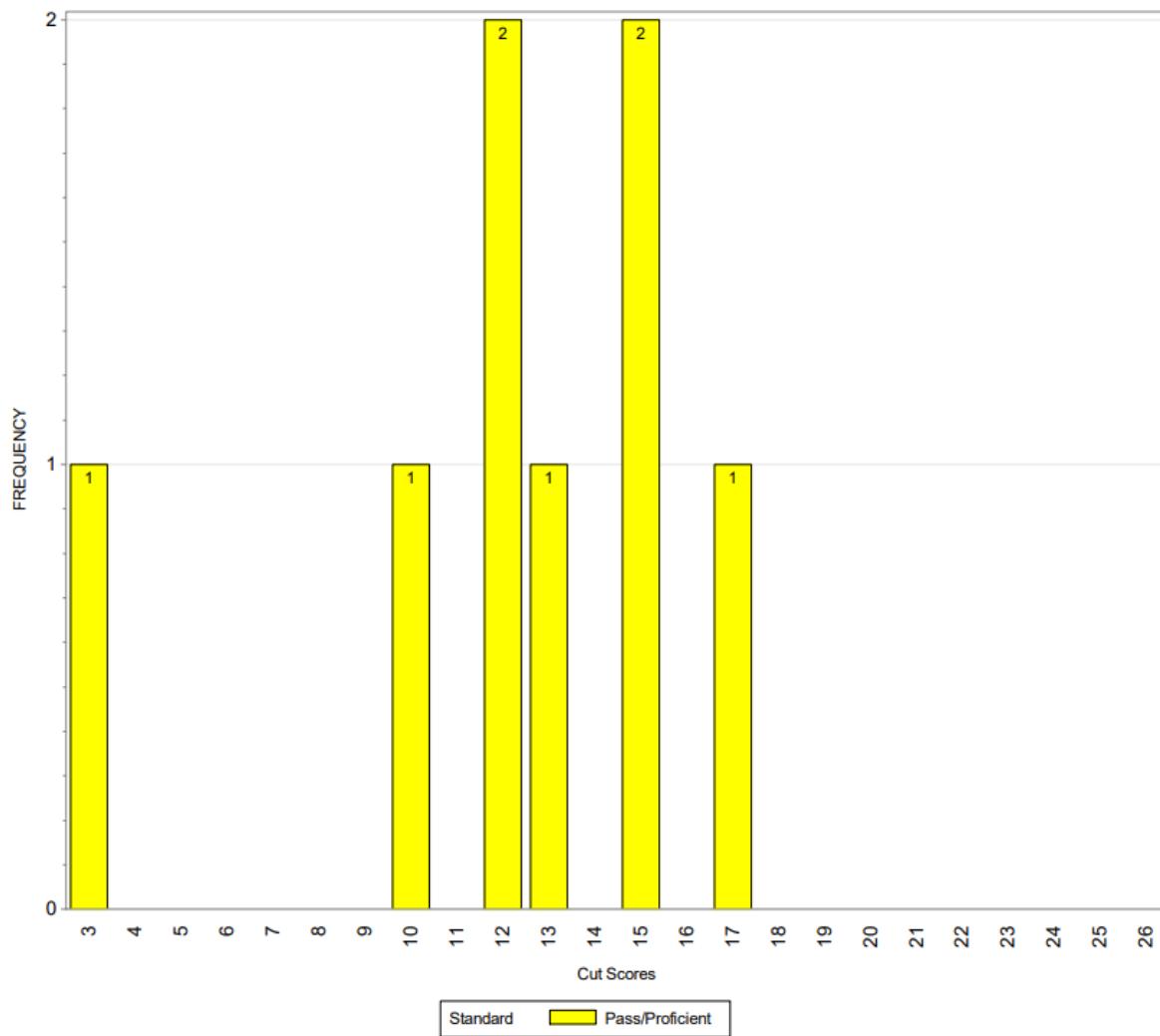
Item-level judgment distributions for the committee were provided to panelists for each item and performance level judgment. Additionally, for each performance level, the items with the greatest level of judgment disagreement were identified and discussed as a committee.

UIN	Max Points	No	Yes
	1	50%	50%
	1	50%	50%
	1	50%	50%
	1	50%	50%
	1	63%	38%
	1	63%	38%
	1	63%	38%
	1	38%	63%

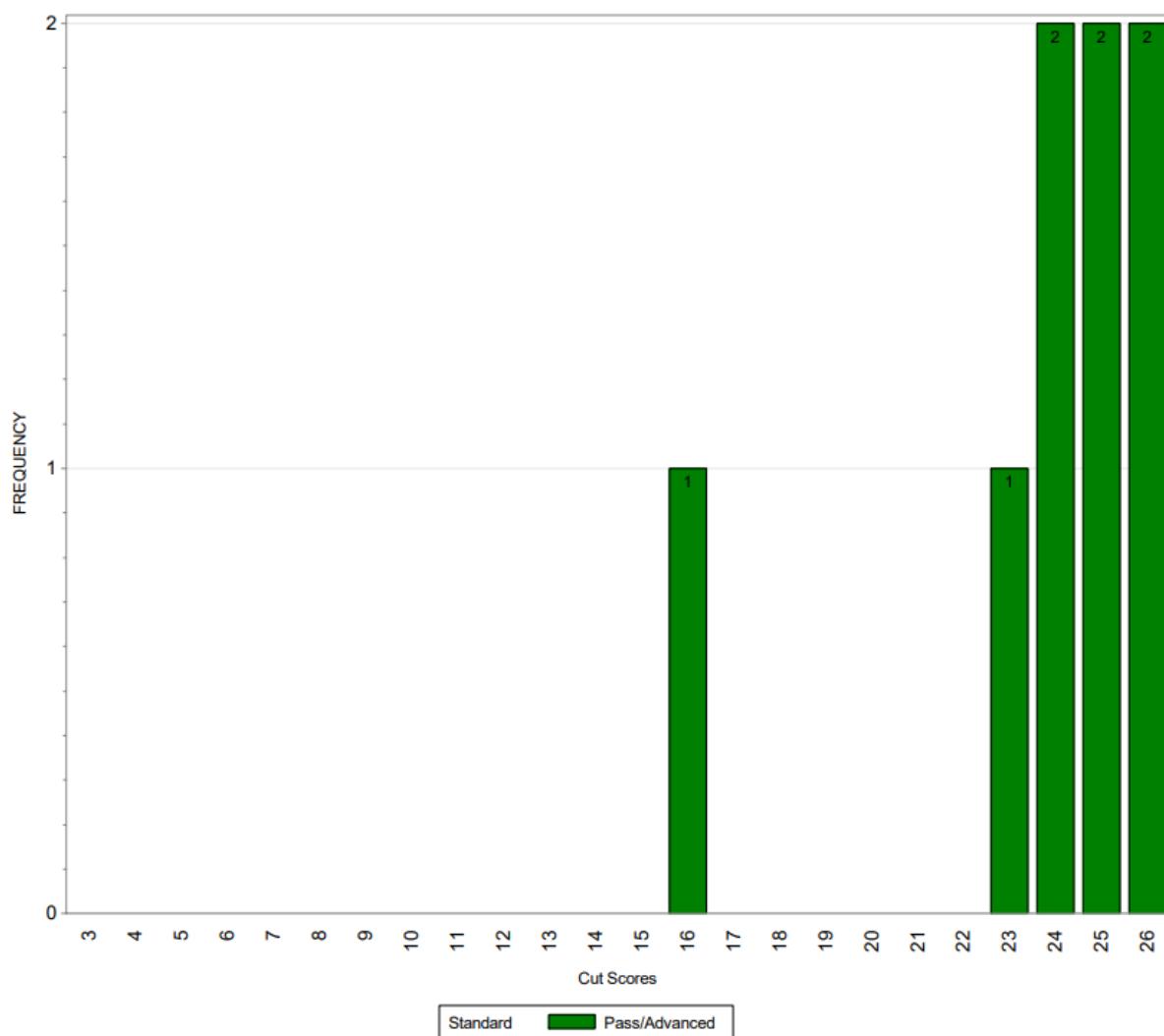
Test-Level Cut Score Recommendations Agreement

The facilitator presented bar graphs to the panelists that displayed the distribution of cut score recommendations, by raw score, for each performance level: Proficient (P) and Advanced (A). A graph with all performance levels on the scale was also presented.

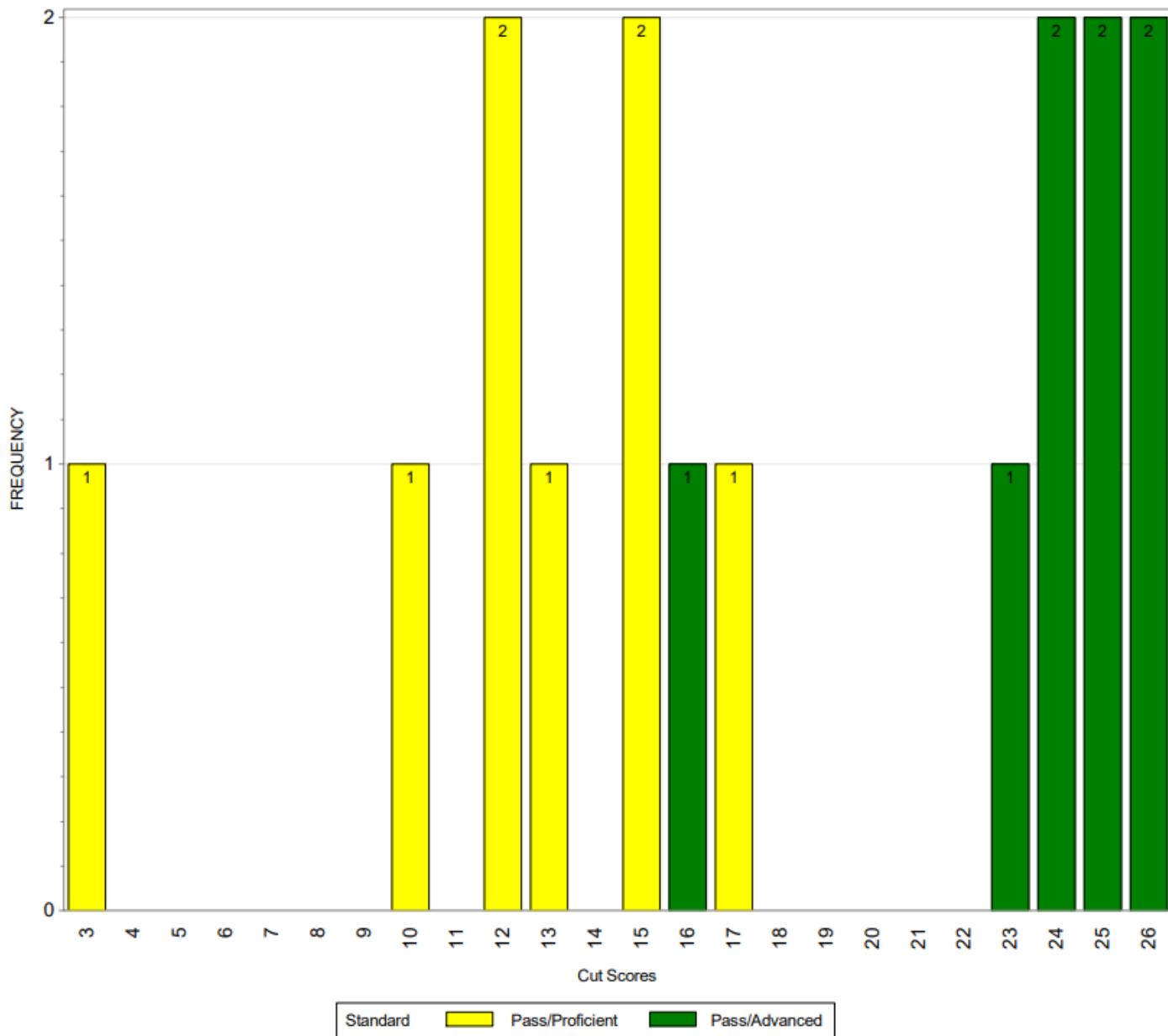
Mathematics Grade 8 Panelist Agreement Data - Round 3



Mathematics Grade 8 Panelist Agreement Data - Round 3



Mathematics Grade 8 Panelist Agreement Data - Round 3



Appendix G – Panelist Evaluation Results

Breakout Session Process Evaluation

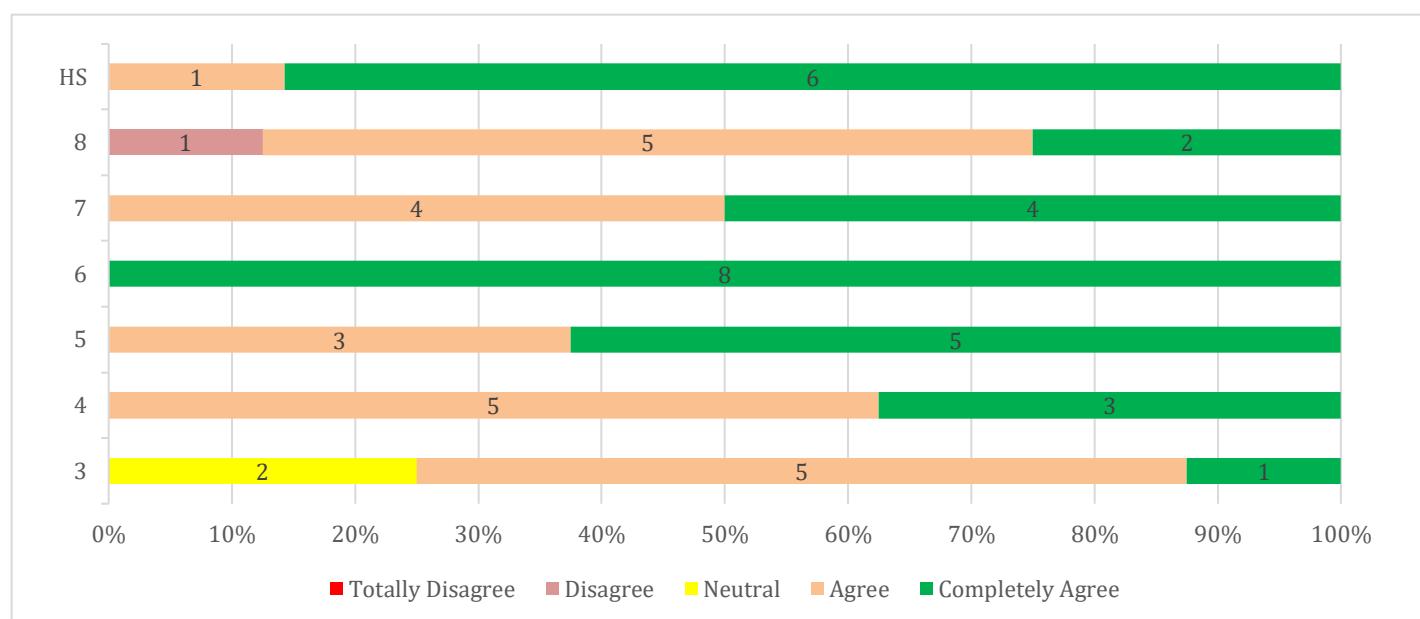
The panelists for each grade set cut scores for all the subjects assessed at that grade level—for Grades 3, 4, 6, and 7 (first, Mathematics and then Reading) for Grades 5, 8, and High School (first, Mathematics, then Reading, and, lastly, Science). For that reason, questions associated with the overall standard setting process we asked at the end of Evaluation Survey #2 for Grades 3, 4, 6, and 7; whereas, those same questions were asked at the end of Evaluation Survey #3 for Grade 5, 8, and High School.

For sake of clarity, the evaluation results will be presented for Mathematics, Reading, Science, and then for the overall standard setting process.

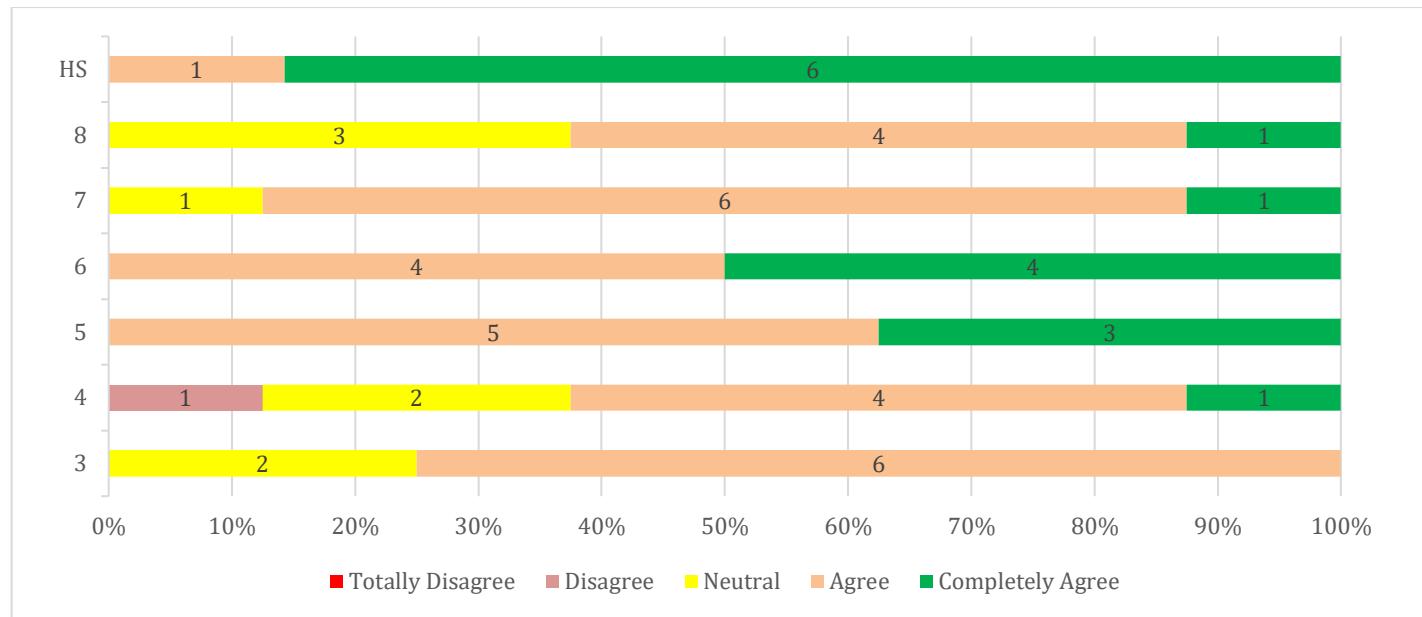
Breakout Session Process Evaluation: Math

Please rate your level of agreement for each of the following statements about the standard setting process.

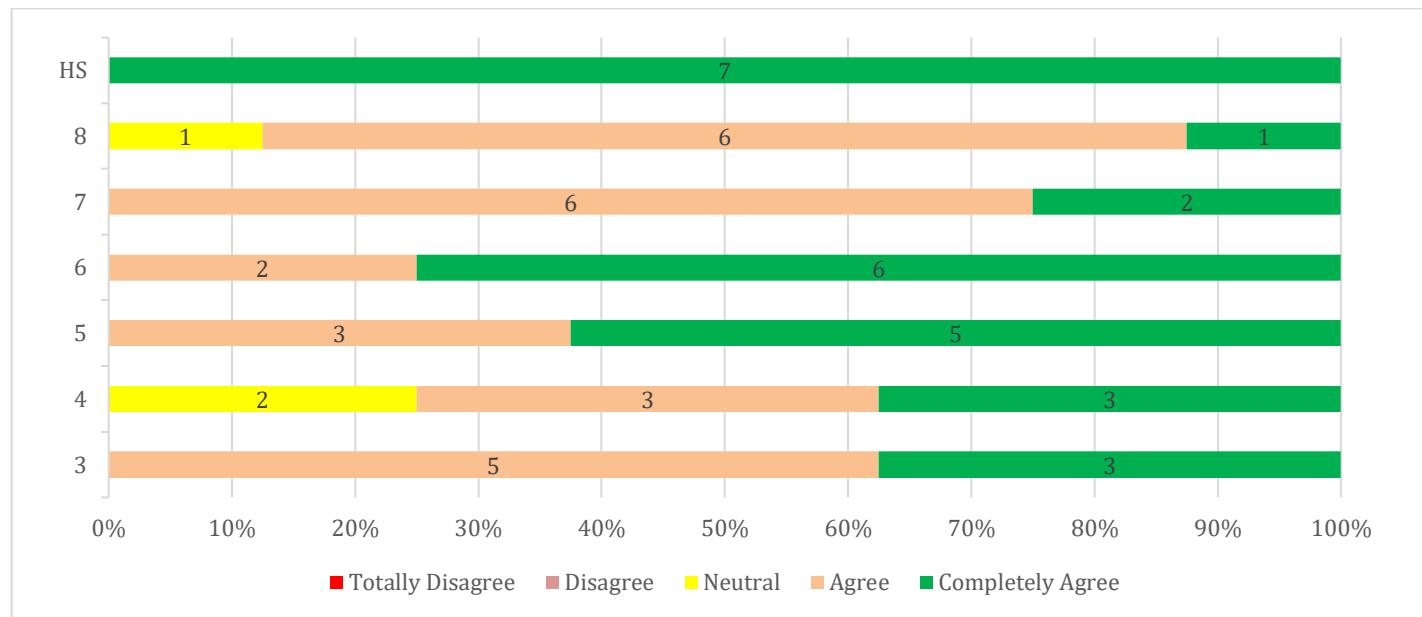
Question 1: The purpose of the standard setting meeting was clearly explained.



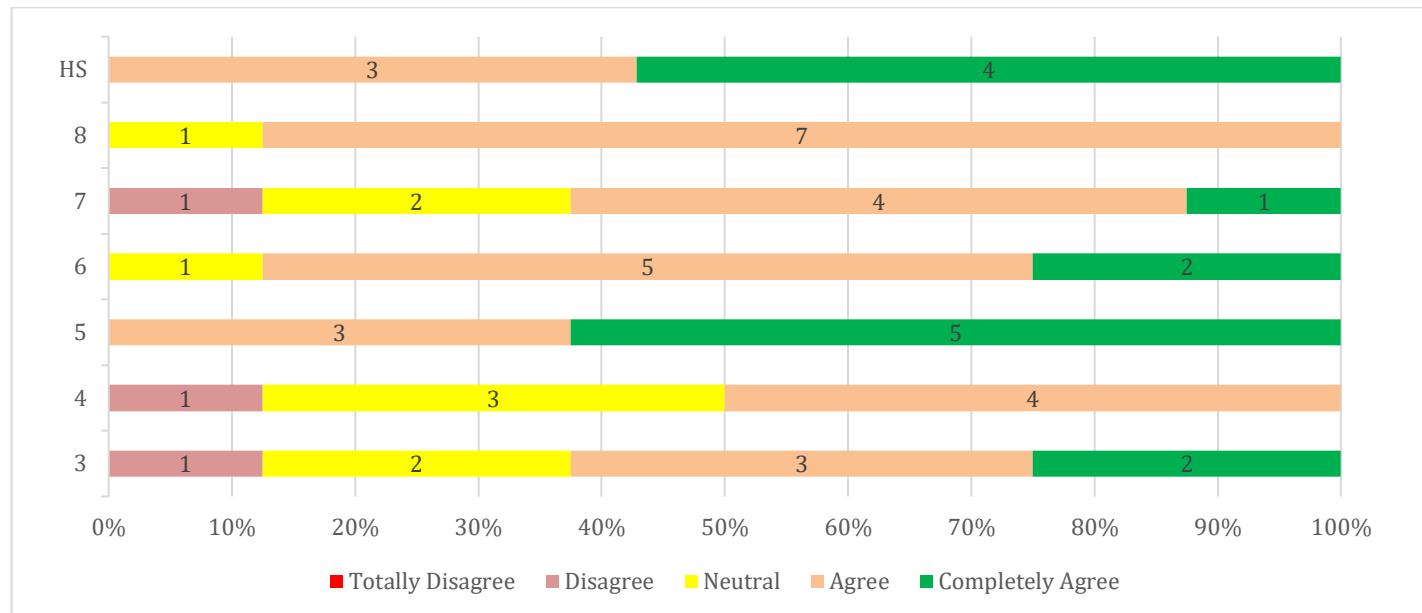
Question 2: After the discussion of the PLDs and Borderline Descriptions for math, I could clearly distinguish between students who meet expectations and those that don't.



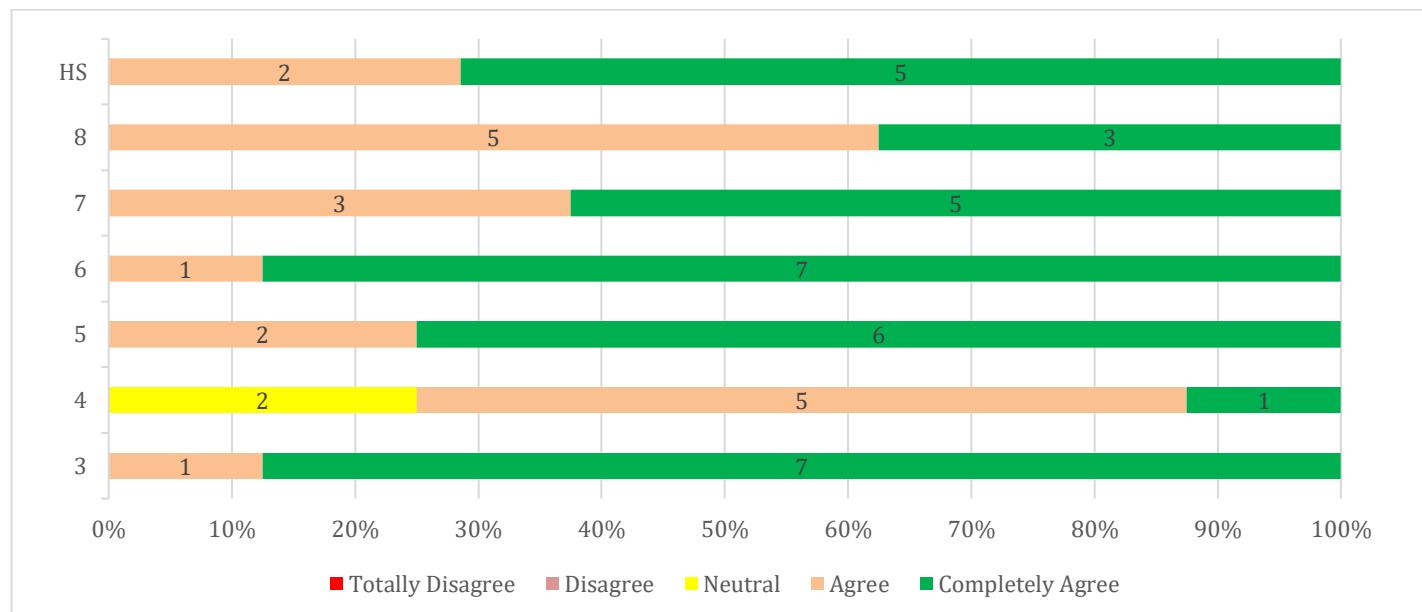
Question 3: The method for rating items (as “Yes” or “No”) was conceptually clear.



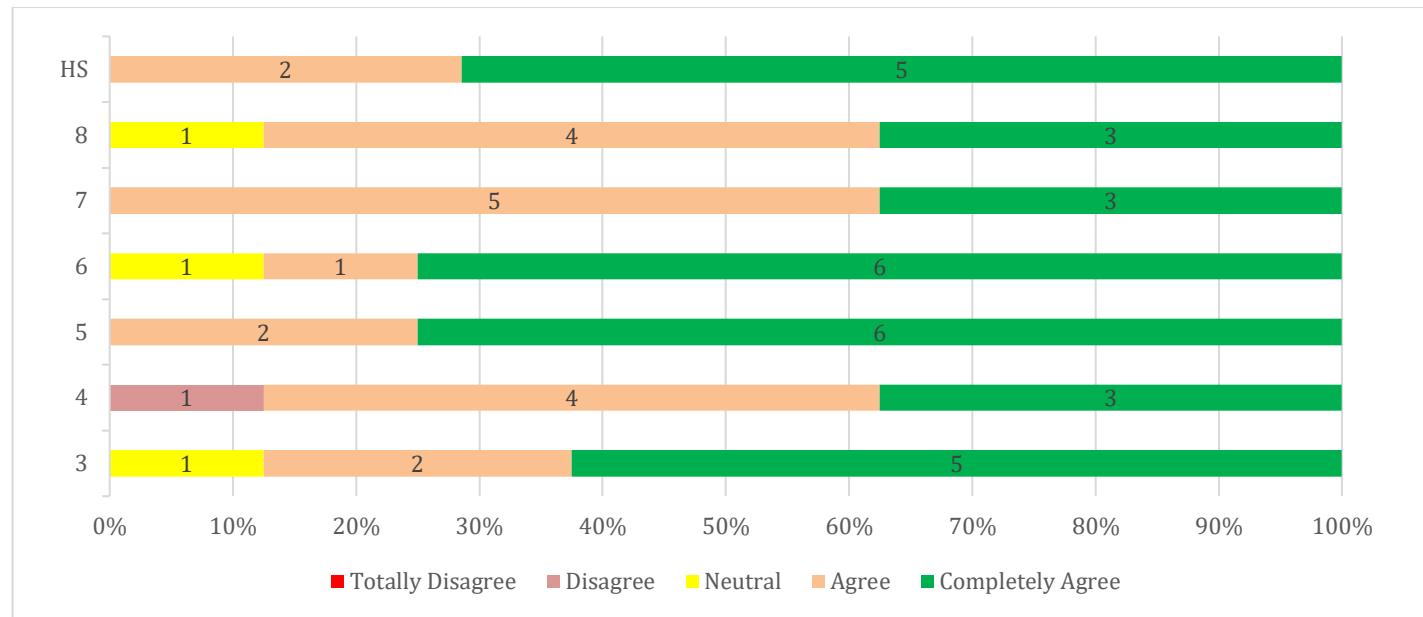
Question 4: After the first round of ratings, I felt comfortable with the standard setting procedure.



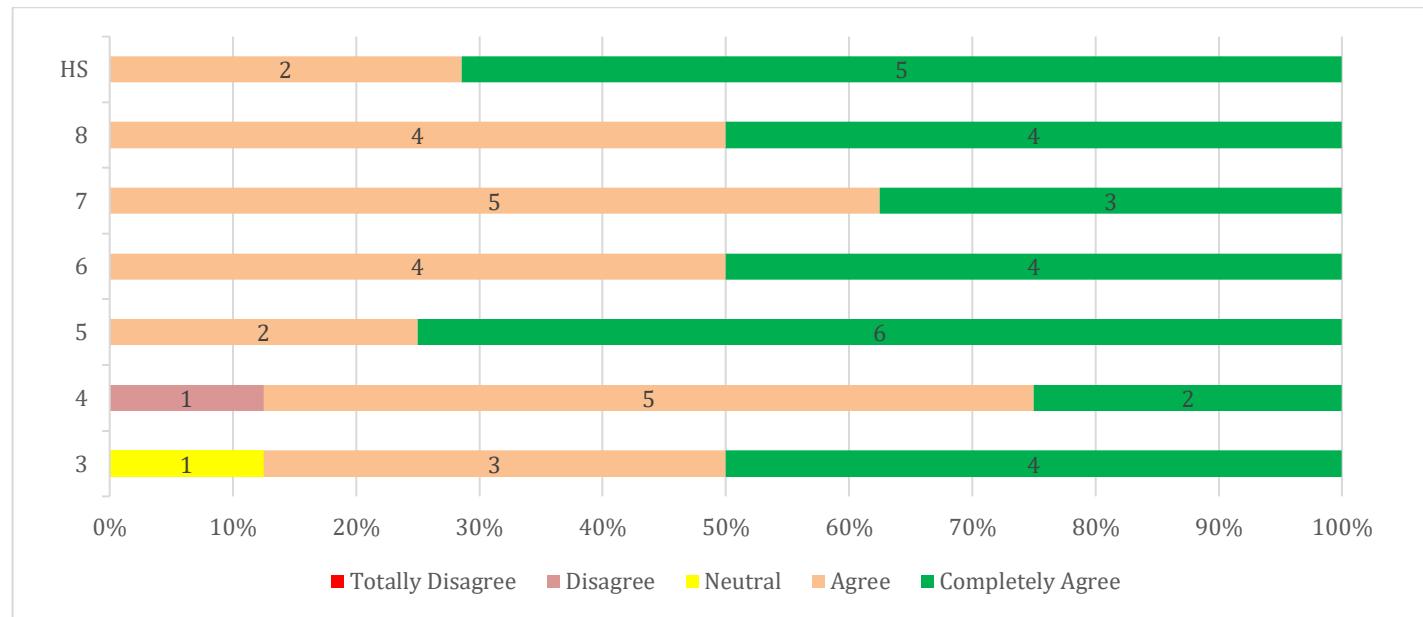
Question 5: I found the feedback on the ratings of panelists compared to other panelists useful in the standard setting process.



Question 6: My final cut score recommendation for math reflects an appropriate level of performance for students at the borderline of the Proficient level.



Question 7: My final cut score recommendation for math reflects an appropriate level of performance for students at the borderline of the Advanced level.



Question 8: Please add any additional comment or observations on the judgment study process, facilitators, discussion, facilities, etc.

GRADE	COMMENTS
3	I have found this process to be very informative and it has provided me with better insight on the testing process and how the testing data is decided. My facilitator has been wonderful. She is patient, positive, and does well with getting the group on track. I appreciate her! I do have concerns about students taking the current VAAP that have severe or profound cognitive delays. I understand why the standards are what they are, but these students are taught using an adapted curriculum that needs to be at their current learning level. These students do not have a chance to be successful in the way that the assessment is now presented and that is heartbreaking for me as a teacher. These are students who may not know how to make a choice or they do not have the ability to make a consistent choice. Some of these students are medically fragile and it is borderline abusive to expect them to be put in front of multiple 35 questions tests when they cannot even demonstrate the ability to give an intentional answer. I do not feel like they should have to take this assessment as is. They should be offered an additional alternative or not take it at all without impact on the teacher/school. I fully support teacher accountability and for students to have the right to be assessed, but it needs to be equitable for all students. I appreciate the discussion with my teammates in this process and have really enjoyed working through this process so far. I am honored to have been chosen to represent my county and my students. The facilities are beautiful and I appreciate that meals, drive time, and lodging has been provided.
3	This process was a bit confusing to be honest. Our group has been phenomenal as far as being open and collaborative and we are having great discussions about each question and concept, however, we keep coming back to the idea that this assessment is for the 1% of our students. One other thing is, it didn't seem like anyone else really understood our purpose going into this meeting and as we understood it, our work has shifted. If we could have started with a clearer picture, we have been able to work more functionally from the start. I am really enjoying and appreciating the discourse but we are all on the same page in this room, and Ha Phan is great but she can only speak to her expertise. It would be great to have some open dialogue with vdoe/pearson about things :) This is not a criticism of the assessment, just discussion about how things look from the ground!
3	The ability to discuss the test items with my peers was helpful in making a determination. Although we did not all agree listening to the perspectives of others helped me to further digest process set before me. It was a wonderful experience to view the overall VAAP process, and I value the experience. Although we had a great facilitator(very patient and friendly) it may have been helpful to provide a summary of the task before hand,to better prepare us for the task at hand. Valuable session !!!

GRADE	COMMENTS
3	<p>One of my frustrations with the entire VESOL process is the fact that this was basically dumped in our laps at the last moment. In participating with this committee, I have noticed there is a difference between the vocabulary within the PLDs and Borderline descriptions, than what showed up on the test. As with SOL testing, we should have been provided a year to learn the content to teach it instead of having the expectation that the scores for this year will be accurate. We are also in desperate need of a Curriculum Framework so that all teachers teaching these students who participate in VAAP are getting the appropriate instruction. Our perceptions during the committee conversations indicated to me that not all teachers will be on the same page and if we are not explicit in what needs to be taught, this will cause an even further disservice to this 1% of students. There also should have been more resources provided to help teachers teach the content. With SOLS there is sample activities online, and this should have been provided also considering the fact that we had very little time to prepare for this. Whomever creates the test needs to ensure that the vocabulary being used is accurate. If you put more, less, or same, if you do not indicate MOST within the PLDs or Borderline descriptions, this is not consistent with what the teachers may have been teaching. I am also upset at the fact that the process of actually testing students is going to become more difficult. Many schools do not have extra staff to help support when you take the teacher and a proctor out of their normal environment. If a class has 6-8 kids that have to test, that could take well over a month or longer depending on how well the students do with the number of questions. It's also ridiculous to believe that students taking VAAP should be scored on their ability to take a multiple choice test because most of these students have NEVER been assessed using this format and part of us teaching the content is teaching these students how to test. I would have hoped that based on the barriers this population of student faces, that there would have been more forethought in how this was going to be rolled out and to give us more time. When new SOLs roll out, teachers have a year to learn and teach the content to the general education population. I'm not sure why students with more barriers were not afforded this allowance of teaching time to get used to the form.</p>
3	<p>I think the overall process was great. The first day was overwhelming, but once we got into judgement it was fine. I think this process was very beneficial and I have some clear understanding on how things within my classroom should be taught, based on the discussions. I would recommend having yearly conferences for teachers with students that have significant cognitive impairments because this last 2 days were amazing. The building itself is beautiful and spacious. I would recommend using this location again. I think my facilitator was very helpful and understanding.</p>
3	<p>I found that at the beginning/first part of the activities, it was difficult to determine if I was completing the judgments correctly. Discussion with peers/other panelists was most helpful in coming up with the determination - potentially even completing a round with a partner or small group would be helpful (rather than talking through after).</p>
3	<p>I feel that a more clearly outlined description of the process as part of the agenda review would be beneficial. It would have elevated a lot of confusion as we moved through the steps of this process. Additionally, I have enjoyed this process and appreciate the opportunity to participate in this process.</p>
5	<p>Well organized, engaging, and helped us to fully understand what was expected through this process.</p>

GRADE	COMMENTS
5	1. As a group, we discussed that it would be beneficial to teachers, students, and parents if there was a score report that could be given to teachers that was broken down by reporting category. 2. For multi-digit addition and subtraction problems, it should be considered that many students with significant cognitive disabilities have difficulties transposing numbers onto another working surface such as loose leaf paper, or are unable to write due to deficits in motor skills. I would request that all problems like these be written in a vertical format instead of horizontal to aid students in showing their skills in math versus their skills in writing a problem correctly on a work surface. 3. In standard M-5 12 and 13 about volume, it does not state that $V=LxWxH$ will be assessed. It states that $V=Bxh$ is taught and addition to find volume is assessed. There are 2 problems in the test and 1 in the practice problems that use $V=LxWxH$ so it should be included in the standards, or not included in the assessment.
5	Jenna is doing a great job of facilitating our discussions and helping us to look at questions from multiple perspectives. I do wish teachers had direct access to the Performance Level Descriptors to help guide their day to day instruction - they should be readily available right along side the VESOLs. I am hopeful that the score reports that are provided to teachers when VAAP is completed are detailed, robust and have data that can also help guide instructional decisions moving forward. There were some questions on the exam that were very wordy and could have been rewritten to be more clear.
5	It seemed unclear on the first day that we were setting the standards and cut scores to be used this testing year. I feel that if this committee was brought together earlier in the year, VDOE could have received much more helpful information and feedback from teachers and professionals who are currently in the classroom with students who will sit these exams. There was also some discrepancy with the standards and what was required of students on the assessments. For example, some volume equations were not listed in the standards but on the assessment. There was also a lot of questions about the same things (number patterns, multiples, volume, etc.) while there were no questions about other standards (i.e. clocks/time, odd/even numbers, money, etc.) Earlier educator input would have been extremely helpful in these areas. Overall I liked the process and the discussions with peers was insightful and helpful in decision making.
5	Feedback for the VAAP Math Assessment: The addition and subtraction problems need to be presented vertically, as this is how it is taught in the classroom Volume is not relevant to the standards. VESOL states that students must add and the questions were asking them to complete two step multiplication. Not all standards were represented on the assessment, so it is difficult to get an overall synopsis of the student's knowledge.
5	The conversation that was held between participants was very enlightening at times. The facilitator did an excellent job leading the conversation and asking some probing questions. During the conversation and the scoring, I had a concern with the horizontal math problems. Whereas I understand the purpose, I feel that if the ultimate goal is to see if the student can do addition or subtraction versus can they transcribe the problem so that they can complete it, then it would be better for the problem to be vertical. Secondly, a large majority of the students taking the VAAP do not have the ability to transcribe the problem from horizontal to vertical and therefore will not be able to answer unless they guess. It would be a better judge of the student's skills to have the math problem horizontal.
5	All participants answers were taken into consideration and acknowledged respectfully by the facilitator.

GRADE	COMMENTS
5	There are many standards on this assessment in which students on the general education track will be assessed on in grade 5. Algebraic expressions and volume are two items on the assessment that are general education level material, given to a student who may have not mastered number or letter recognition. Because this assessment is for students with severe cognitive disabilities, along with adaptive functional disabilities, I feel that the test should reflect academics that can also be used frequently in daily living skills. Time and money are two functional skills that align with an adaptive 5th grade curriculum, however, these items were not seen on the assessment at all and volume (which has very little functional importance in daily living skills) was seen on the assessment multiple times.
6	The overall experience was wonderful. There are many things in regards to the test format that could use updating to assist all students. Visuals for answers with congruent shapes, only showing one quadrant versus all four for the quadrant questions. Simplifying Fractions was not part of the VESOL yet students were asked to do so.
6	Liam is well organized and an excellent time manager! He has kept discussions focused on tasks to be completed and has done an excellent job of facilitating the committee's discussions.
6	This process has been a valuable experience to allow discussion from those who work with this population of students the ability to dig into what is being assessed. It has made me a more critical thinker in how I see what questions are asking, and to identify what may make a question weak. Overall, the facilitator did a great job keeping the purpose of the task on track.
6	I received a wealth of knowledge as to the expectations for students who would score as proficient and those that would score as advanced. Overall, great experience to learn from other educators about concepts, implementation, and thought processes about the new assessment.
6	Our group of panelists have a very diverse background in experiences which I feel is incredibly helpful and even vital for the accuracy of this process. I have enjoyed the process and though I have found it extremely heavy and exhausting, I have also found it incredibly helpful and feel as though this is the best way to execute this process effectively. The facilities, staff, meeting leaders, I.T. personnel and all other people involved in this program have been incredibly helpful and positive in this process.
6	Since the test is in its infancy and the questions have just been developed it is hard to rate possible student performance as compared to implementation of the VESOLs. The impact of COVID has further muddled our thinking, but our team worked hard to push past those influences. This population, though a small % of the general population, has highly unique individuals and it is hard to fit them into a multiple choice test. We appeared to agree that the implementation of this test is not an option of the state, but a requirement, but it did not prevent numerous discussions of frustrations. We certainly hope that careful studies will be done to look at the effectiveness of questions. Also, concepts were repetitive and we would hope to see more variety of concepts on future test forms. The facilitator was exceptional and managed a high passionate group well. The group dynamics have been incredible as we are able to express highly different opinions in a safe environment. As we worked together we appeared to come closer together in understanding and agreement for the best decisions possible. The discussion, apart from the study, has been valuable and very much appreciated. This facility is always a favorite and they take excellent care of everyone.

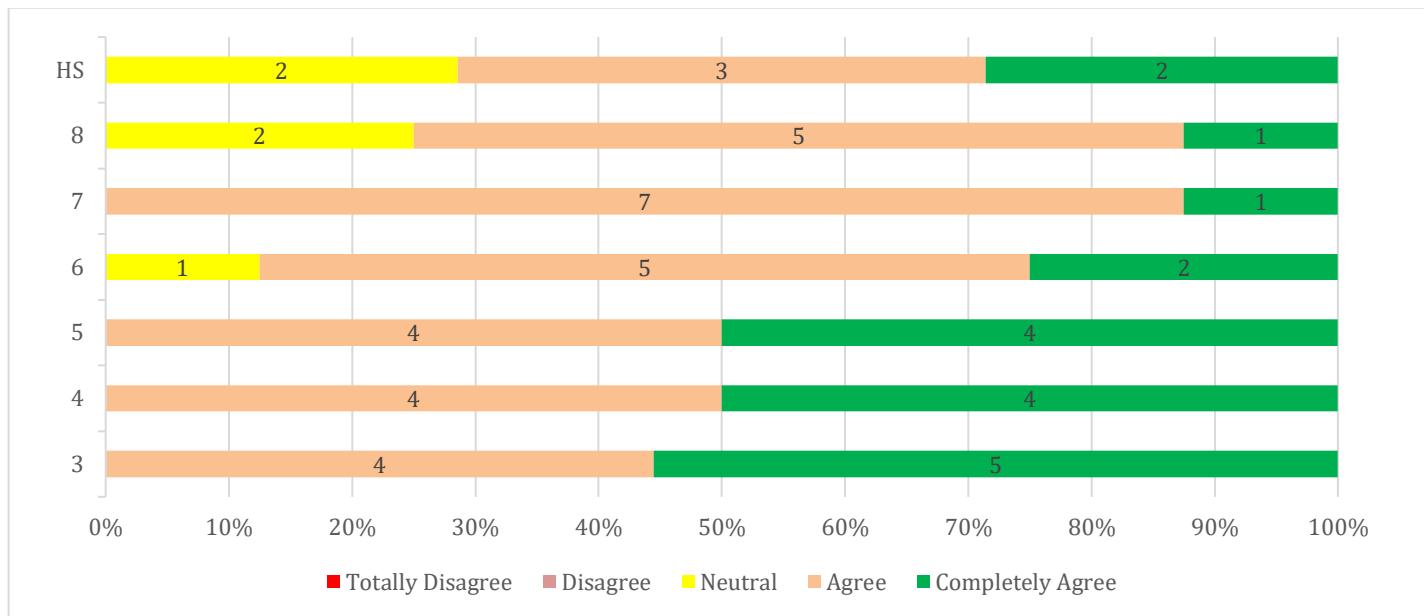
GRADE	COMMENTS
6	Math question 2 - Students have to match shapes to letters and pick letter answers, should be visual answer choices. Way too many repeating letters for answer choices and actual answer options (A.B.C). Solution - visual options or allow students to click or circle correct shapes. Question 5 - Same as 2 Question 6 and 28 - money in questions do not have decimals while answer choices do - confusing Question 15 and 22 - all expressions in this assessment were EXTREMELY hard and challenging. Need to use smaller numbers for initial easier questions. Question 16 - Examiner reads the fraction as 1/4 but the pizza visual shows 2/8. What are we assessing? Student's ability to add fractions or reduce. It requires reducing or comparing different fractions as equal. Question 23 and 24 - rules are multiplication and doesn't provide enough numbers for students to actually see a pattern. Question 29 - first quadrant is too small. Need to enlarge to just the first quadrant so that students with visual or tracking difficulties are able to see and solve the problem. This process was very enlightening and informative. Teachers need more sample problems, preferably a sample of each VESOL and each level on the continuum so that we know how to instruct students. While students actually have the skill, the different format does not always allow them to show their skills.
7	I found this to be a very informative conference that will help prepare me for any future VAAP students at my school. The facilitator was very kind, patient and understanding. The group of people on my committee made discussions very easy and comfortable. Overall, I found this opportunity to be very educational and helpful.
7	I have concerns that this process did not consider the accessibility features of the online or paper versions of the test, the fact that tests are adapted by individuals who may or may not have experience with creating accessible, equitable tactful materials. The overlay on the online assessment is not visually appropriate -- the magnifier is too small, the contrast only effects a portion of the screen, and the overlay is not accessible with a screen reader. A student who is blind, vision impaired, or deafblind does not have equitable access to the VAAP. Thus, I do not believe this process would be indicative of what a student who has significant disabilities may or may not be able to do.
7	This was a very interesting experience for me. It was helpful to hear other teachers talk about their students and the capabilities of their students. The facilitators and the discussions were helpful.
7	I appreciated the rich conversation among the panelists, particularly related to the borderline descriptions, especially after Round 1 judgments. It greatly helped with the judgment process for Round 2. I was grateful for the wide variety of experiences and expertise represented in the room.
7	I found the task at hand to be challenging in the beginning. I enjoyed hearing what the other professionals had to offer in terms of the standard settings. The presenter was friendly and patient. The facilities were appropriate for our meeting purpose.
7	The discussions that took place during this process were invaluable to the success of our mission. The participants were all very kind and respectful. The facilitators were also very knowledgeable and skilled at conveying the information and guidance to us. I enjoyed this process immensely and am grateful for the experience.

GRADE	COMMENTS
8	The visuals for the graphs were difficult to decipher; there was a lot of information put into a small visual with many irrelevant and distracting information surrounding it. It would be beneficial to our students to have number lines that go both in the positive and negative directions. Even if additional visual support (.i.e. arrows from one number to the next) are not present, being able to visualize the whole number line would be extremely helpful. When asking questions regarding money, the students would be able to display their knowledge and understanding if visuals were provided. So much of the content taught on and around money uses visual support, however, not all of the questions provided the visual support they need. In the attempt to make this assessment as functional for our students as possible, it was disappointing to see that there were no questions in regards to time. This is one the most functional life skills for our students (and one most teachers focus on) so being able to showcase that skill set would have been ideal.
8	This experience was amazing, however, called to mind a million questions. One of the most prominent questions is about whether counties are truly looking at the VDOE guidance document criteria in determining which students actually qualify to participate in the VAAP assessment. During our group discussions, it seemed that there was quite a wide range of ability levels which surprised me, since we are talking about the true 1% students. I think this was very challenging to do because while our borderline descriptors were good, it was hard to know whether 2/3 of that group of students would be able to answer the question. I think some group members forgot about that part and just answered based purely on our descriptors. Lastly, I don't feel great that my recommended cut score for borderline proficient was so low. I don't truly believe that answering only 1/3 of the questions correctly means you are proficient, but because I only thought 10 questions could correctly be answered by this group of students, that is how my cut scores ended up. GREAT experience and am looking forward to becoming stronger at this as we shift content areas.
8	The presentation of the questions can impact the student's ability to demonstrate mastery of a standard, which impacted the borderline performance level.
8	No additional information to add at this time.
8	The questions for the test seem too long for students.
8	Be mindful of wording, visuals, complexity, etc. for test questions.
8	I feel adding pictures to support math questions for example; $\$50 - \$40 =$ would help a lot of student with solving the actual problem.
HS	This has been a very positive experience thus far. The instructor has been patient and kind with his explanations and the team has worked together in a positive and understanding capacity.
HS	I would like for the Judgement Rounds Record Sheet to be separate sheets for Rounds 1, 2, and 3. I felt like I would be potentially swayed by being able to see my previous answers. I would also like a typed copy of the VESOL's to refer to, as having to click back and forth between windows is a touch cumbersome.

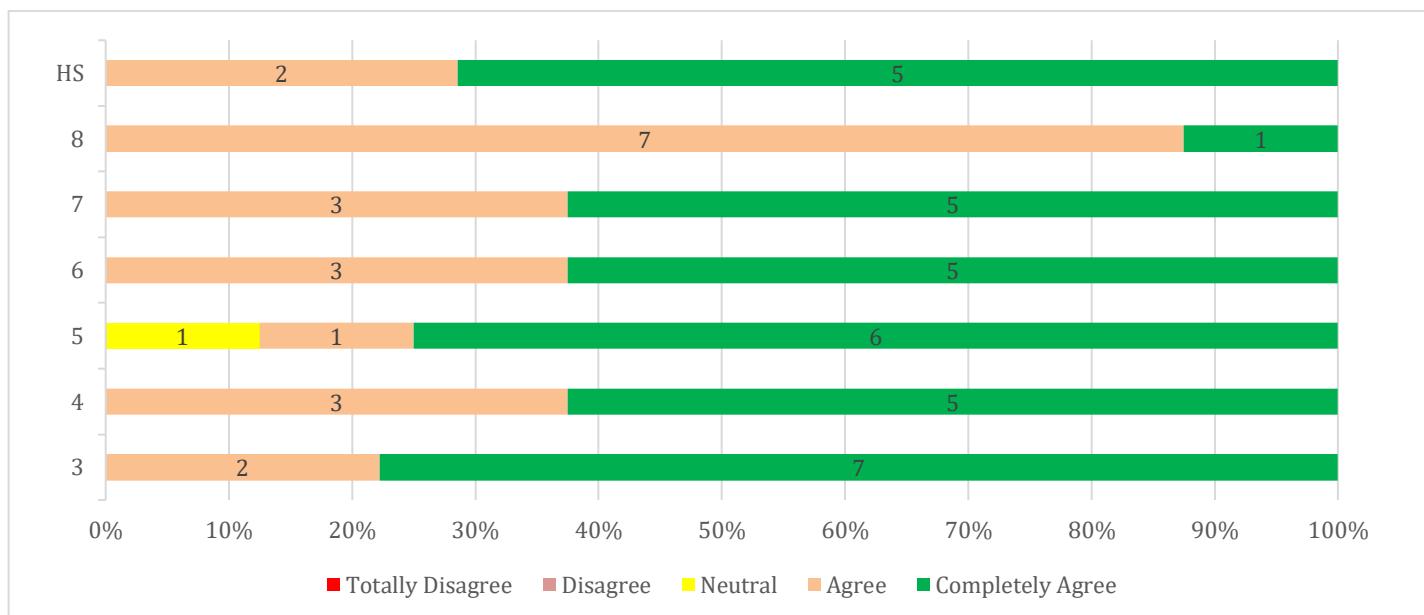
Breakout Session Process Evaluation: Reading

Please rate your level of agreement for each of the following statements about the standard setting process.

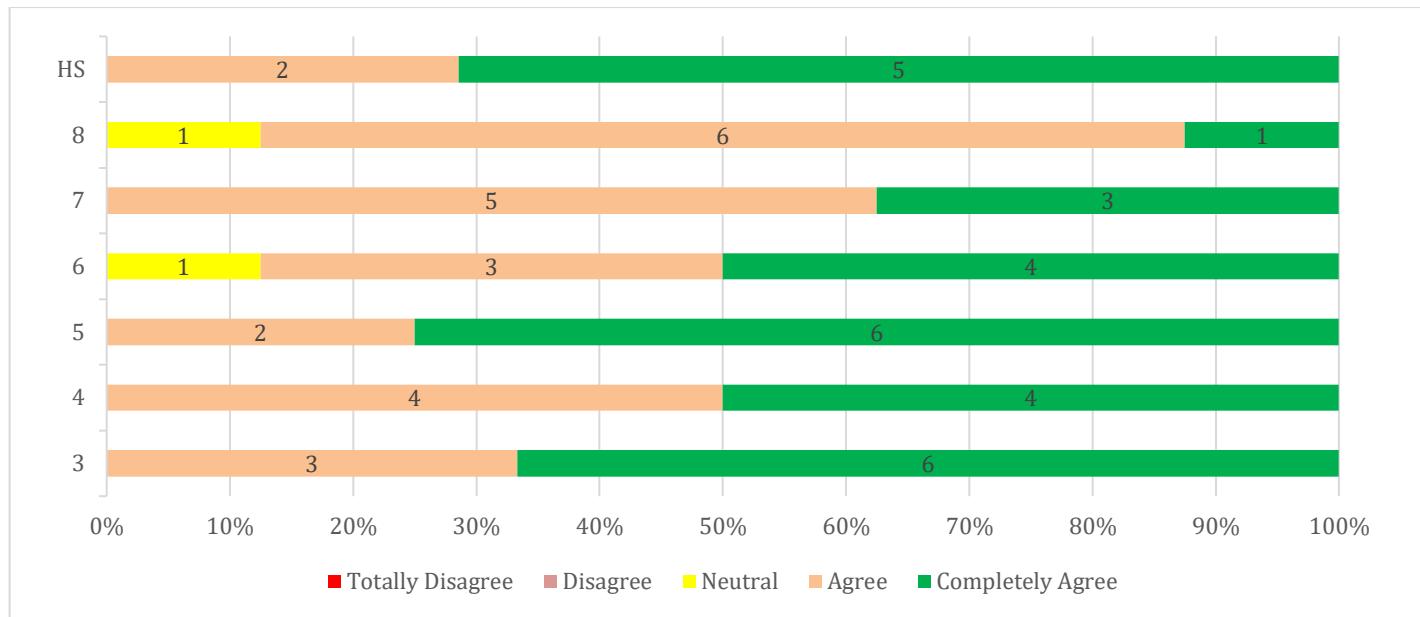
Question 1: After the discussion of the PLDs and Borderline Descriptions for reading, I could clearly distinguish between students who meet expectations and those that don't.



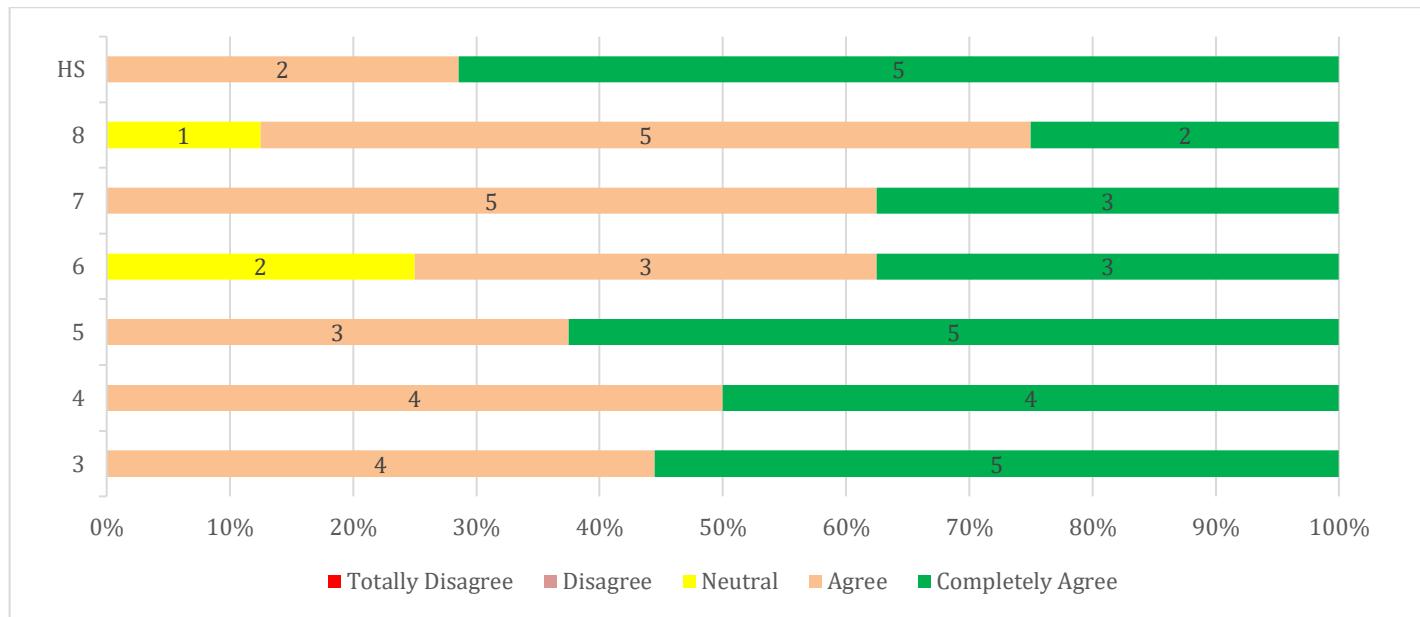
Question 2: I found the feedback on the ratings of panelists compared to other panelists useful in the standard setting process.



Question 3: My final cut score recommendation for reading reflects an appropriate level of performance for students at the borderline of the Proficient level.



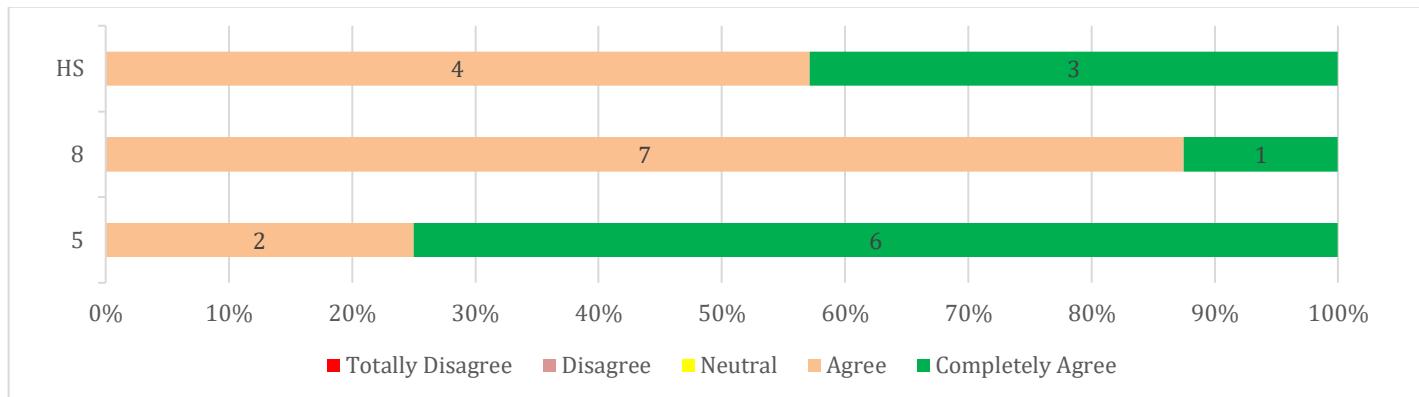
Question 4: My final cut score recommendation for reading reflects an appropriate level of performance for students at the borderline of the Advanced level.



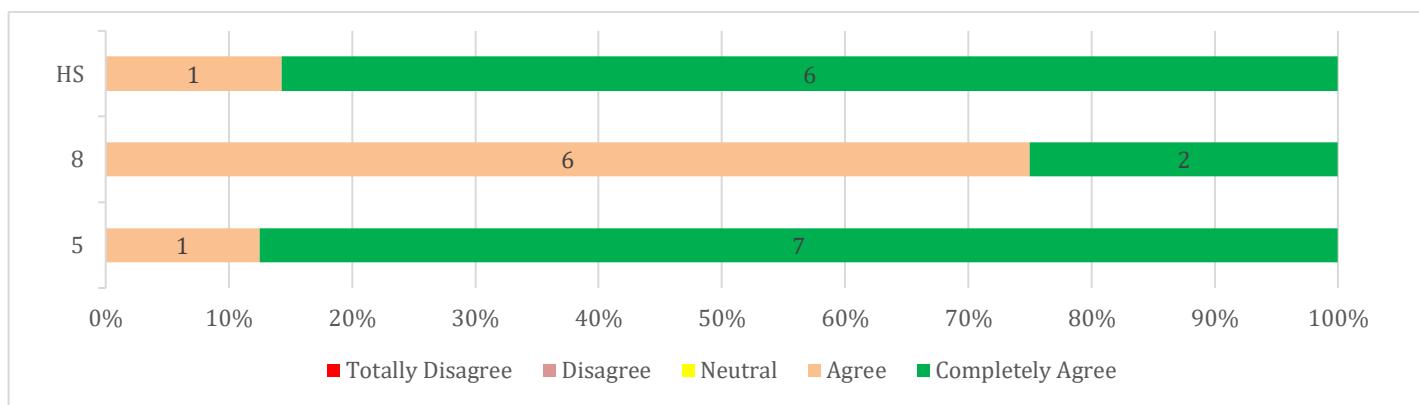
Breakout Session Process Evaluation: Science

Please rate your level of agreement for each of the following statements about the standard setting process.

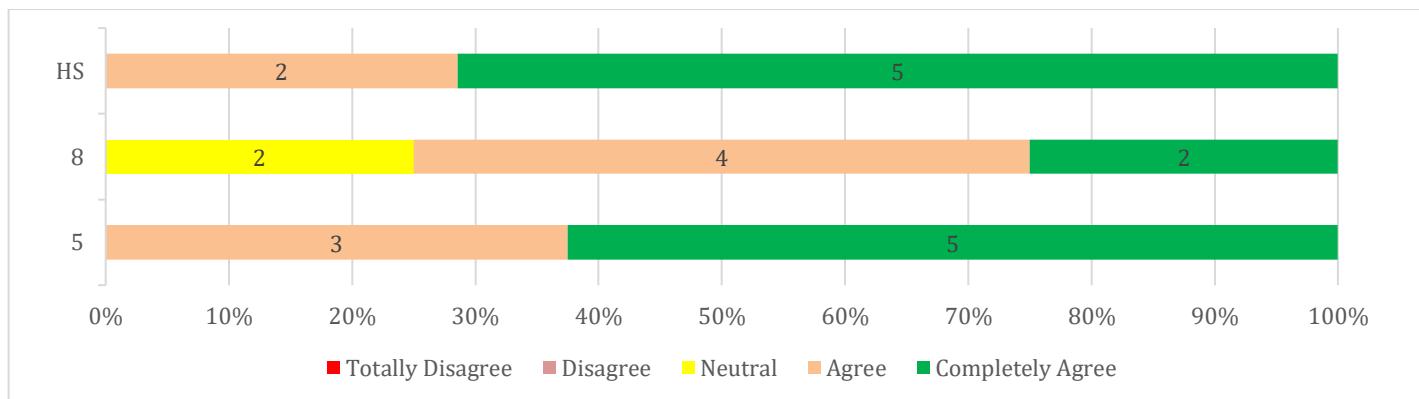
Question 1: After the discussion of the PLDs and Borderline Descriptions for science, I could clearly distinguish between students who meet expectations and those that don't.



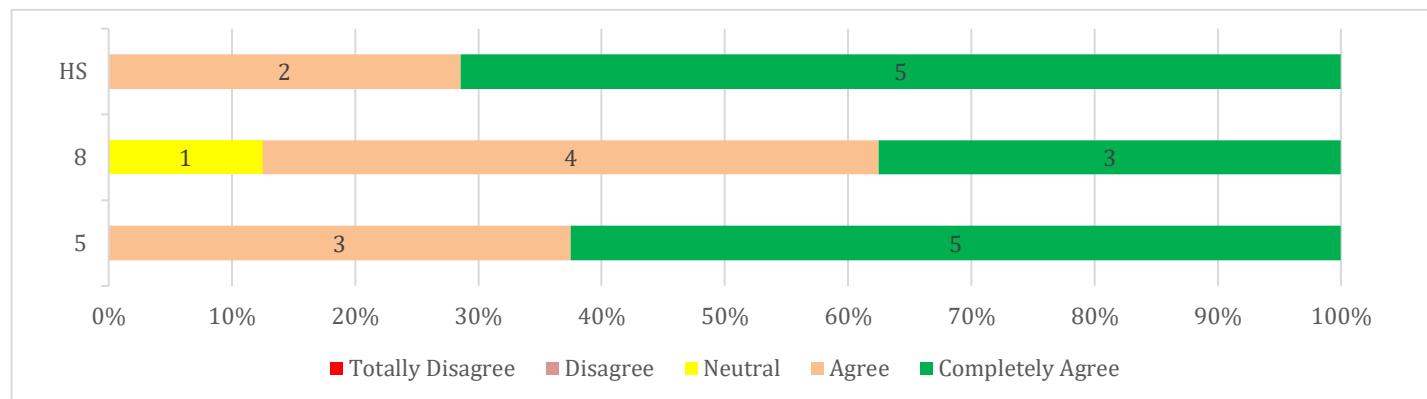
Question 2: I found the feedback on the ratings of panelists compared to other panelists useful in the standard setting process.



Question 3: My final cut score recommendation for science reflects an appropriate level of performance for students at the borderline of the Proficient level.



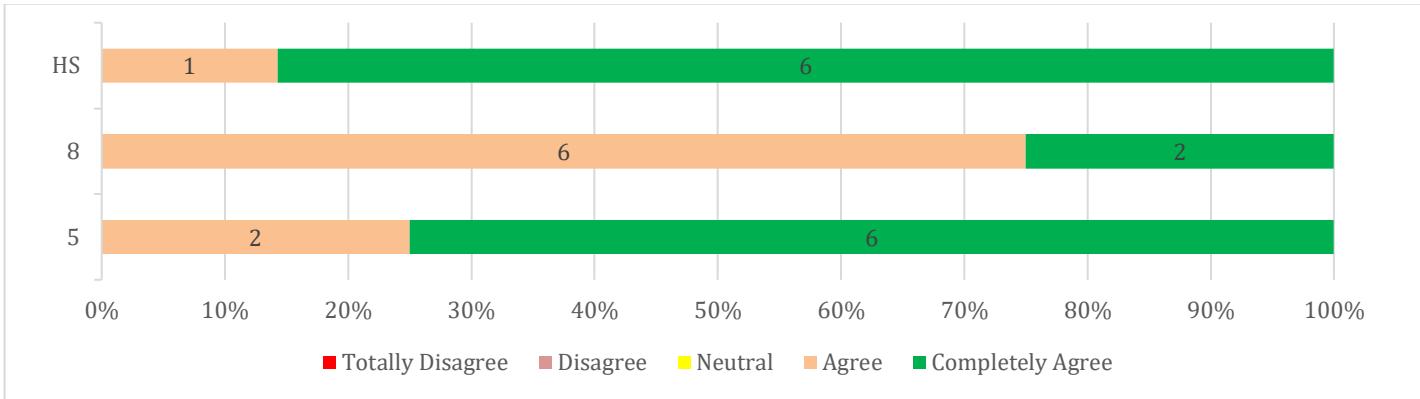
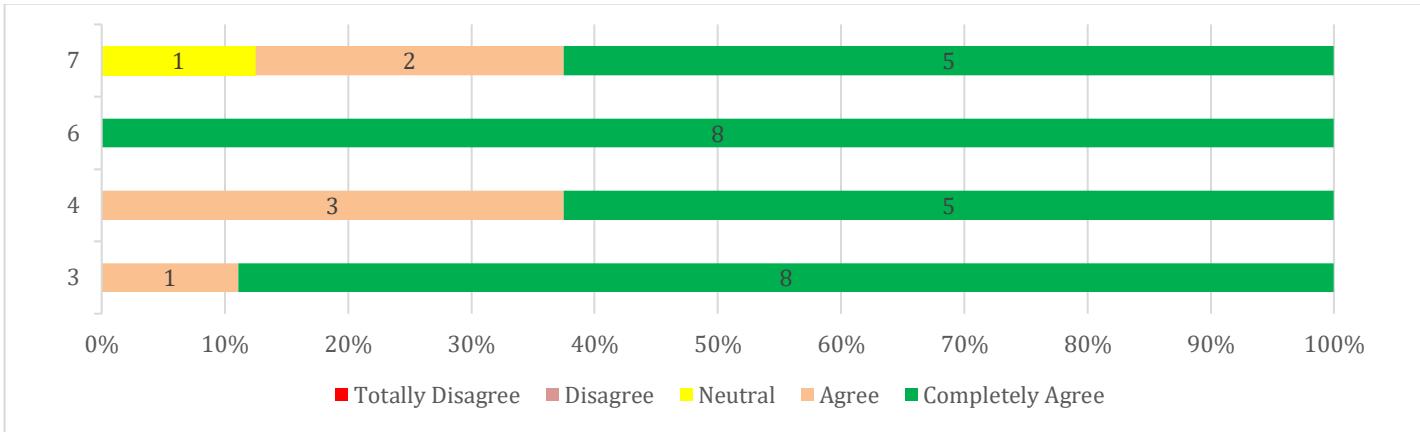
Question 4: My final cut score recommendation for science reflects an appropriate level of performance for students at the borderline of the Advanced level.



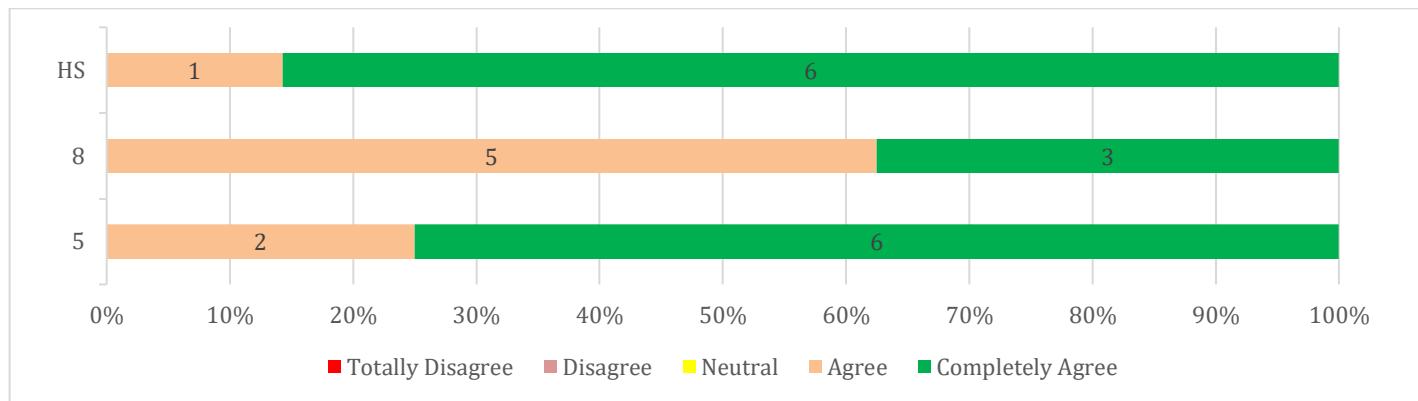
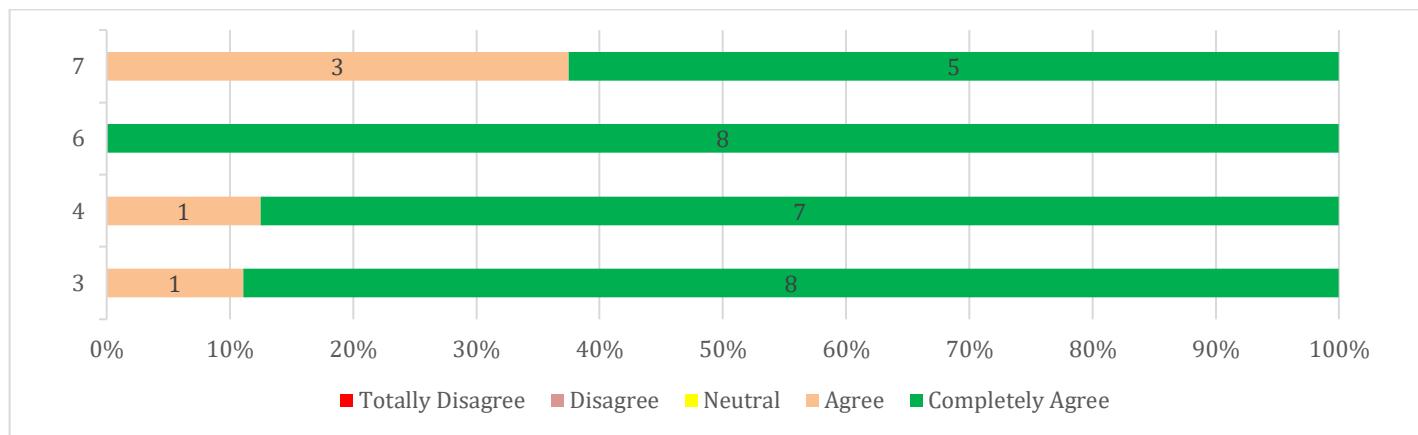
Overall Process Evaluation Questions

These questions were embedded at the end of the Reading session for Grades 3, 4, 6, and 7 and at the end of the Science session for Grades 5, 8, and High School.

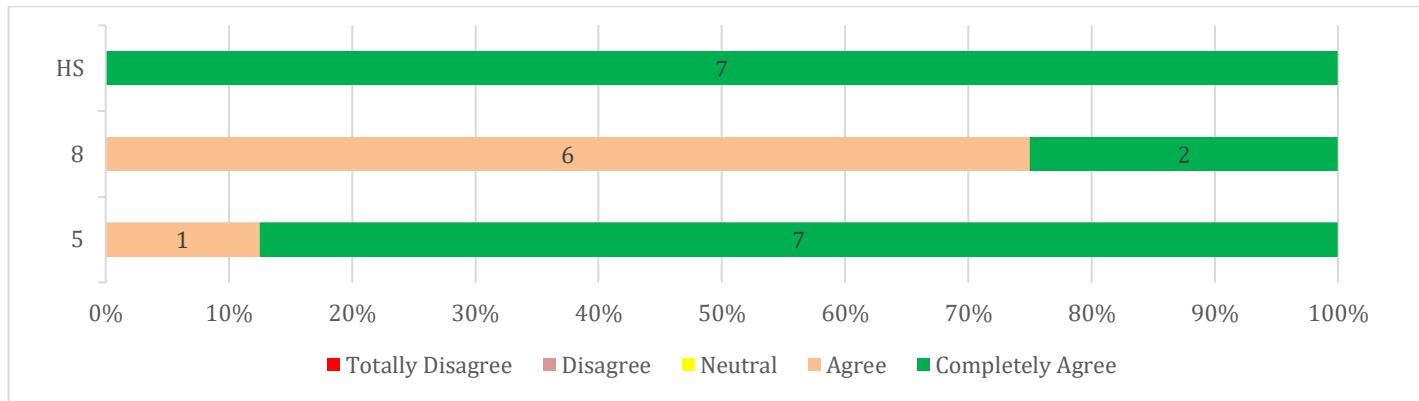
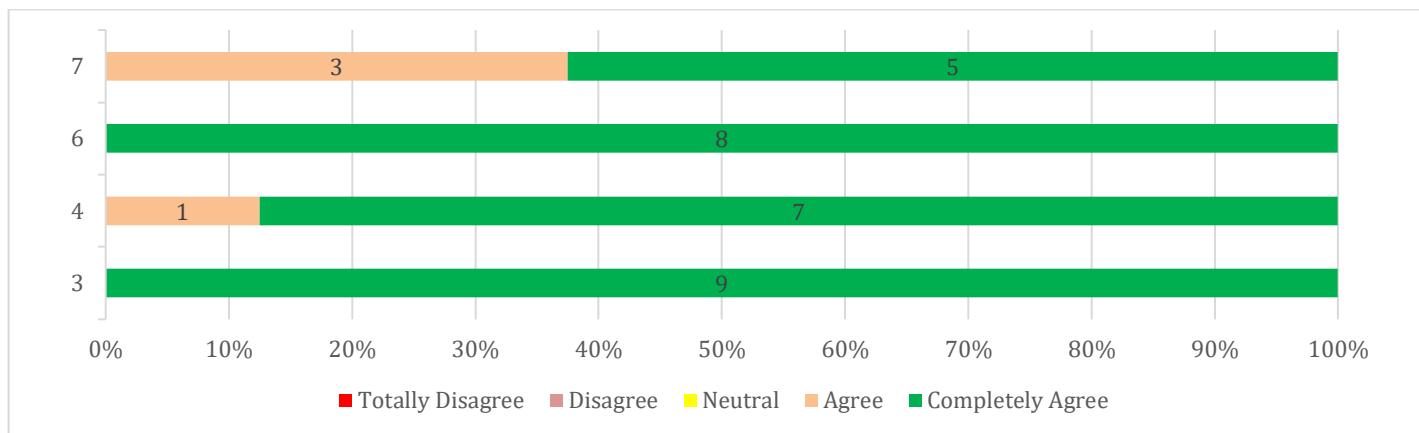
Question 5: The standard setting process was facilitated efficiently.



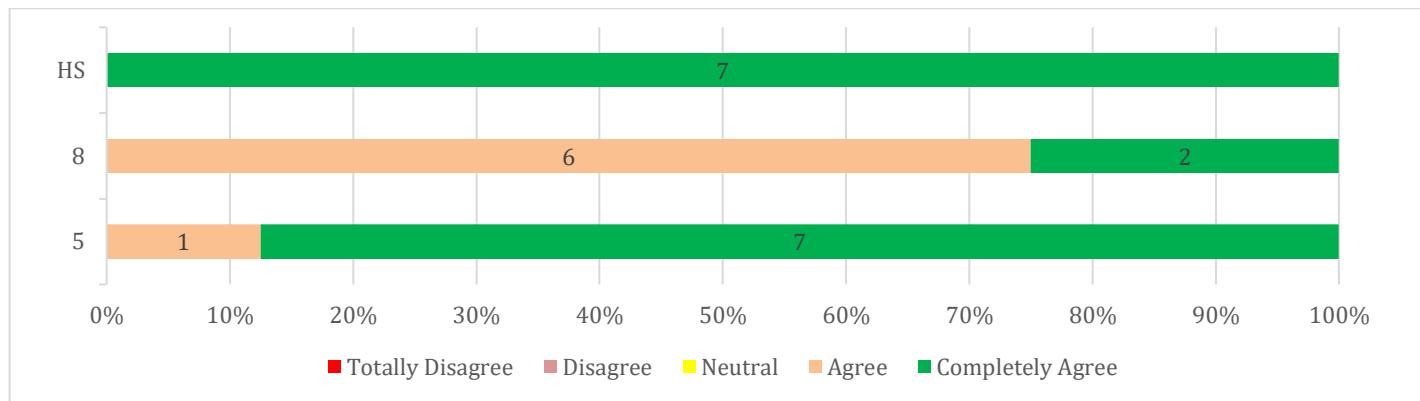
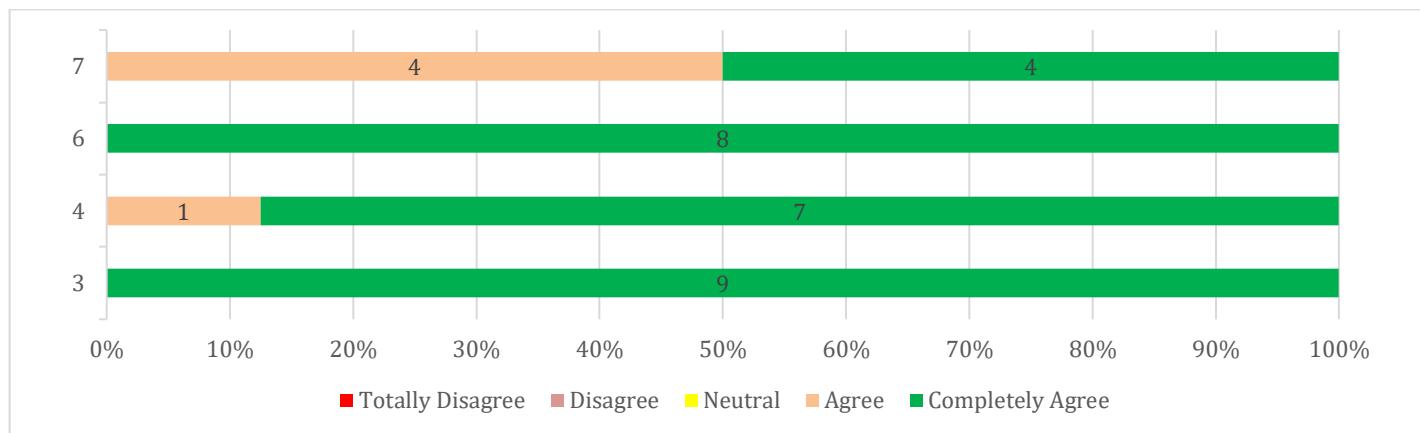
Question 6: All committee members were encouraged to participate in discussions.



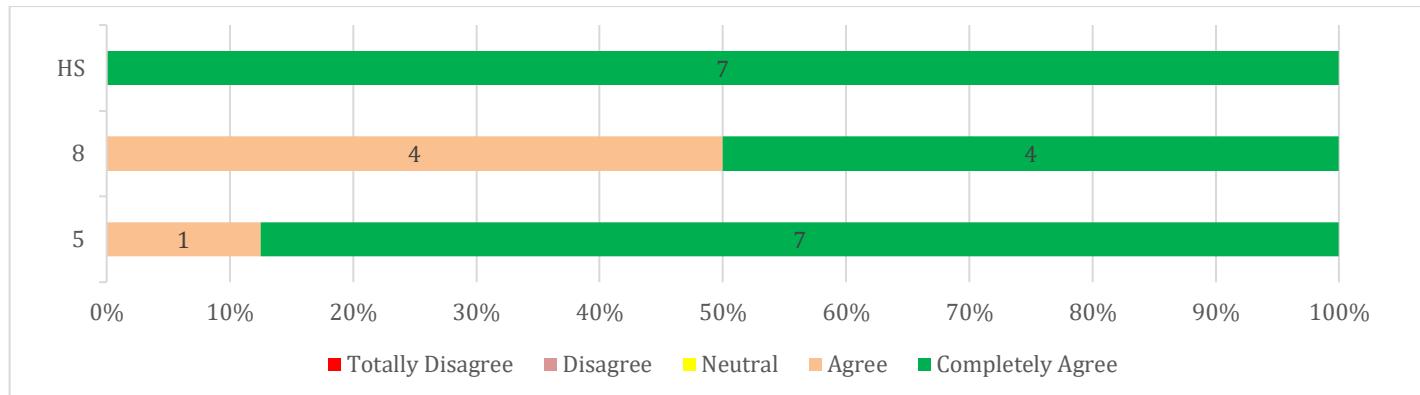
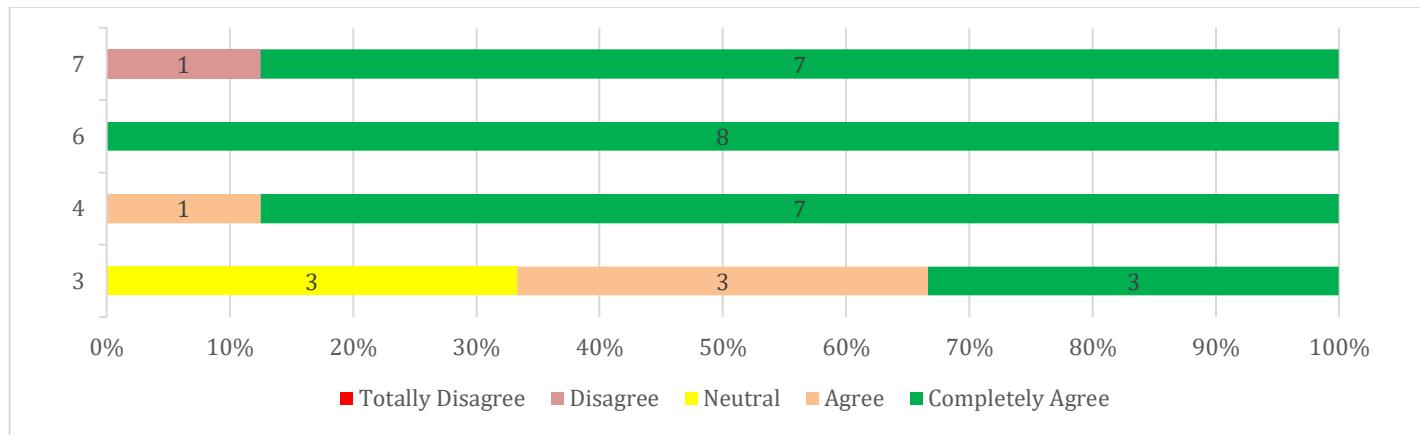
Question 7: The Pearson Facilitator was responsive to panelist questions and comments.



Question 8: The Pearson facilitator kept the committee meeting focused and on task.



Question 9: When needed, the Department of Education staff was helpful during the standard setting process.



Question 10: Please add any additional comment or observations on the judgment study process, facilitators, discussion, facilities, etc.

GRADE	COMMENTS
3	I have found so much value in this process and am honored to have been a part of this amazing team! Ha was a wonderful facilitator. She did an amazing job guiding us, but also became so invested in us and our population of students. The discussion was so rich and I was so grateful to have this. It is so rare for teachers who teach this population of students to come to each other and grow together. We need this! The facilities were gorgeous and the meals were delicious. I hope the VDOE will truly look at the feedback of us who teach the 1% and look at ways to provide us with more support and resources so that our kids are successful. They are not a statistic or a test score. They need access to leveled assessments within the VAAP.
3	Ha Phan was fantastic! She was the just right amount of letting us say what we needed to say, and reigniting us in. She helped our group gel and that lead to phenomenal teamwork and great and easy decisions! I also really appreciated the Pearson folks coming in and sitting down with us to provide the opportunity for open dialogue and open forum! It was a great chance for questions and discussion! Overall, the process was a little confusing at first, but our team and facilitator made it go smoothly!
3	Wonderful collaboration from grade 3 panelists - excited to be included in the process - great facilitator !
3	I was disappointed that there were so many inconsistencies with the reading test. It will be extremely confusing for students if you refer to animals in a story as who and what. Without a curriculum framework to teach that specific vocabulary, students will not have the appropriate skills to be able to differentiate between those two wh questions as wh questions are difficult for this group of students anyways. There were further inconsistencies including 2 questions that included first and middle, but the VESOL that was related had vocabulary of beginning, middle, end. The sentences wanted to know what words were first and in the middle. That's not a sequencing skill which is what the VESOLs describe. That seems to be a mismatch between standard and context in the actual test. This test is also not culturally relevant to many students. Again, teachers of these students need a framework of content from which to teach from. Many general education students don't know what swiss cheese is so I'm not sure how that's functional for the 1% of students. There were also questions involving eating meals at the table, and that's not necessarily true at home or in schools so more care needs to be taken when developing questions to ensure that teachers are teaching the correct content and students have been provided specific instruction with the possible topics questions will be pulled from. I will say again, Pacing guides and a curriculum framework is needed to help determine content for these students. As Self-contained teachers teaching adapted curriculum even if we use the UNIQUE program, we still have to modify and pull content from everywhere. We don't have planning time and we are constantly having to modify and create materials so a curriculum framework would help support us in knowing exactly what we need to focus on to make sure our students are successful. I would be happy to help in the development of these resources.

GRADE	COMMENTS
3	The process was great and very informative. I feel that we should have an opportunity to collaborate at least once a year. We should have a professional development opportunity where we collaborate about pacing guides and VAAP prep with other sped teachers. In person events are very beneficial for us because we need that interaction. The assessment itself needs some modifications, but this is the first year and we as teachers know where we need to work more on. The facilities were beautiful and had everything we needed. Thank you for the this amazing opportunity and hope to do it again for years to come. I really felt that I am no longer alone on an island, but have found others who are on this island with me and we just need the tools to survive and thrive. Thanks again.
3	This was a very great experience to connect with other teachers and discuss the assessment and requirements for performing in each performance category level.
3	I appreciate the opportunity to be a part of this panel. This has been so informative and a wonderful opportunity to interact with others who have similar situations with students and work through ideas and strategies as to how to administer the test. It would be hard to provide a manual that encompasses the complexities of the wide range of students who will be taking this assessment. I now have more ideas of manipulatives and materials that could be used. As this is the first year for the assessment, I think that it will be most eye opening when the scores come in to see how we can adapt instruction, curriculum, etc.
4	The process was a well-oiled machine and driven by data (formative process). The structure encourage group discussions and joint agreement/disagreements were accepted in a professional manner. Assessment changes to consider numbering of items available similar to the SOLs with the item number located on the top right side. This is necessary as students with the accommodations of breaks during assessment (after 5 test items) can be followed with fidelity. Removal of the square outside boxes around the answer choice in the mathematics assessment. The page was entirely too busy for students with visual discrimination challenges. Geometry format the same a well (to follow the format of the SOL)
4	This process was very interesting. Brad and Tyler were very supportive and helpful throughout our sessions. I truly appreciate the opportunity to discuss our questions and concerns with VDOE.
4	The facilitator did well keeping the group focused and engaged throughout the week. The facilities were clean and ready for us each day. The entire hotel staff (food services, housekeeping, registration) were all so friendly and helpful.
4	This was all very informative and I am thankful that I got to have this experience. Both Pearson and VDOE facilitators were great! This hotel was also very nice and accommodating.
4	Very informative process. Enjoyed discussions with educators and facilitators.
4	Facilitator and VDOE representative were very knowledgeable in the standard setting process and provide positive feedback as well as thoughts for discussion to help the process. The panelists were all very knowledgeable and showed respect for everyone's view points. The collaboration between all parties was positive, respected, and encouraged. Knowing what our outcome for the process was stressful, but the process itself made sense and validated the outcome. It was difficult to just think about 2/3 of the population because the population that is taking the VAAP is very individualized and diverse.
6	I really enjoyed this whole entire process.

GRADE	COMMENTS
6	I am concerned that students with severe disabilities do not fit the ""one size fits all"" testing model. I do not feel that their present level of performance is considered when being tested on the VESOLS. It appears that this type of online/paper & pencil test is somewhat discriminatory and does not adequately measure the students' academic/functional skill level. Also, for students with blindness, visual impairment and Deaf-Blindness, there appears to be accessibility issues related to test format and presentation of test items. On a more positive note, I was very impressed by the professionalism and dedication of the teachers representing the Grade 6 Committee. I greatly appreciated the depth of knowledge shared in the Grade 6 Math and Reading VESOLS.
6	Overall, the reading portion of the conference was very helpful in taking questions apart to see what they are asking. It helped to hear the thoughts and insight of others from the panel. This has helped me tremendously in being more critical of how children may think about the answers to a question. Our facilitator did a great job with keeping everyone on track to meet the goal of the conference. The DOE representative was very informative and worked to retrieve answers when they were unknown. I do think that the VAAP process is more appropriate for students who are at the high end of a cognitive disability and can handle relating to work that is more like what is taught in the general education setting. I feel that true ""life skills"" students who are on the lower end of the cognitive spectrum need a more simplistic test that targets real life goals that they may possibly use when they are older. The current test DOES NOT prepare this group of kids for this. Teachers of students who truly are of a life skills level waste so much time teaching concepts that are in the current VAAP for very little purpose. Something needs to change with this! These kids need just the basics that are based on SURVIVAL SKILLS, not academic skills.
6	This was a very informative session and great experience. I was pleased with the process and appreciative to be given this opportunity.
6	I felt that the Reading process was much more difficult due to a variety of reasons, however, I felt that our Pearson facilitator and VDOE representative did a great job guiding us through the process, keeping it on track, reminding us of factors that we may not have been thinking of or had forgotten, and doing everything they could to provide support and guidance. There were specific questions on this test that I felt were unfair due to wording, presentation, biases, background knowledge, etc. Question 5 asked another word for 'house', with 2 of the answer choices being 'home' and 'car' both with pictures. While I feel like most students would get this, I have had homeless students and students that live in cars. While this may seem minor or trivial, it is a factor to keep in mind for many students. I am very happy with this process and what we have done this week in this conference, as well as how it was facilitated and executed. I felt heard in my thoughts and concerns, and I felt like everyone went above and beyond to help in this process, including having additional VDOE representatives come in to answer questions that we had in order to help in our decision making as panelists. The only suggestion that I would potentially have is to create a video for panelists to watch before the first day that outlines how the process works and what they would be doing. While my Pearson facilitator did a great job of explaining it, it was a lot of information and was a lot to process. I feel like being able to have some idea ahead of time would make the process easier to understand, especially on that first day.

GRADE	COMMENTS
6	Concluding this process has truly opened my eyes to the perspective and experiences of other special education teachers throughout the state. It is difficult to connect with other support staff not only at my building site but also my county as our experiences differ so vastly. I felt so connected to ALL members of the panel here and felt my opinions were not only heard but also valued. It is reassuring knowing that I am not alone in my own endeavors and experience while trying to navigate the choppy waters of special education. I feel as though I have grown professionally and personally this week. I felt well informed during this process and enjoyed listening to the thoughts and reasons of my fellow panelists. The presenter and representative from VDOE were very informative and did a great job at 'redirecting' us to the purpose and task at hand. Thank you for this opportunity and allowing my opinions and experience take part in this process.
6	The process for reading was far more challenging than the process for Math. The standards and PLD are more vague and provided less guidance to help the committee establish borderline descriptions. I felt my decision making process was less confident. The facilitator continued to be highly effective and proficient during the process. He was very good at reading the room and ensuring that all had adequate time to talk, ask questions, and build confidence. After reviewing the questions, there is a significant concern about the cultural bias that could be present in the test. VA has a significant population of transient, refugee, and homeless families. Many of these families come to VA due to compassionate needs for children with disabilities, many of those disabilities severe. I cannot assume that life experiences and background knowledge are what one might expect and questions should be written in a way that does not require a student to come from a ""traditional"" home environment with exposure to the VA, southern dialect. Please continue to make significant efforts to recruit teachers to be part of the review committees for all assessment processes, particularly those related to highly specialized populations. While those of us with extensive backgrounds that have led us to higher positions are always happy to help in these reviews, we do not have the current classroom view on a daily basis. Since the educational environment is ever changing, the teacher perspective is critical. Information is sent to the highest level of administration in the division through secure emails. Please know that distribution of the recruitment information can get delayed or may not be prioritized so teachers may not always be aware of opportunities. Thank you for the opportunity to support this new assessment.
6	This process is very informative. I am very glad that I had the opportunity to participate and work with some amazing peers across the state. I learned a lot from them, as well as about the process on recommending cut scores. The process really required us to think and discuss the borderline students and evaluate the questions. The whole conference was very organized and I felt informed about what to expect from lodging, meals and where to go. I would like to see a lot more sample questions, particularly one from each VESOL and level of continuum, so that we have a better idea of the test format, and how to prepare our students (math particularly!). I think more teacher involvement in the process of writing or reviewing the test questions is important. We had many discussions about the presentation, wording, question about the skill being evaluated. As those who work directly with this population daily, we would bring these questions and points to the writing committees. While I think testing coordinators and other higher administrative positions have valuable input, some have never worked directly with this population or it has been many years since they have. Listening to the current teachers would possibly help reduce some of the presentation/wording problems that we found as we reviewed the tests and made cut score recommendations. After being in a room with these amazing teachers for 4 days, I have learned so much from them, their teaching styles, perspectives and thoughts as well as found other teachers who are in the same situations. Since we work with such a small population, we often feel alone and isolated. This has been a great process to be a part of.

GRADE	COMMENTS
7	This was a very informative and educational experience. I feel better prepared to administer or assist with VAAP testing in my district. The process was overwhelming at first, but after more experience through multiple judgments, it was less overwhelming. The facilitators, both Pearson and VDOE, were helpful, understanding and patient during this process. The committee panelists were diverse and able to bring multiple view points to the discussion. Overall, I feel that this was a very beneficial experience.
7	The lack of a truly accessible test makes standard setting extremely difficult for the simple fact that NOT all students have equitable access to the test. Students who need tactile or real object accommodations/modifications to the test do not have access to standardized adaptations, which could impact their performance -- performance that would not be an accurate measure of skills, but is more accurate for determining the adult's ability to adapt the test. See below for specifics: 1 - The overlay for the is not accessible. Look at WCAG guidelines for online accessibility. 2 - The pictures are black line drawings and many students in the 1% cannot access black line drawing -- use real pictures. 3 - The text to speech is absolutely terrible. 4 - Some questions are not accessible for students who are deaf-blind because they require access to real objects to feel and understand in their near field prior to answering questions -- we cant bring a real saw to school. 5 - The VDOE person said a vision teacher could use puff paint to make something accessible. That goes far beyond best practice for adapting materials. I would encourage Pearson and VDOE to look at Best Practice in the blindness field and WCAG for VAAP AND SOL tests.
7	This was a very interesting experience for me. I
7	This process was very eye opening. Coming into this process, I was quite skeptical as to what I would be doing and the process. After going through the standard setting process, I feel like I have a better understanding of the state testing process as well as the score setting process. The panelists discussions were amazing and were very informative in helping the process.
7	I greatly appreciated the training for the standard setting process. I also really appreciated the allotted time given to the panelists to have rich, engaging conversation about each test item, as well as editing and revising the borderline descriptions. This entire process really helped me better appreciate the monumental task of creating a standardized assessment and just how very complicated it can be. Our Pearson facilitator (Dipendra Subedi) was patient with our committee and he was helpful in keeping us focused on the ""bigger picture"" of our task. Our VDOE representative (Donna Meeks) did a phenomenal job of offering assistance when we needed it, answering our questions throughout the process, and encouraging our efforts. I am grateful to have been a part of this process as I do believe it will better help me when offering support or guidance to our teachers in the district.
7	I really enjoyed being part of this committee. It was nice to meet other educators that were also passionate about advocating for their students. The open discussion with Donna was amazing. For the first time I feel that someone from the VDOE not only heard, but listened to our concerns and recommendations. Our facilitator, Dipendra Subedi, was great at answering questions and was very kind and patient.
7	I have completely enjoyed my experience here and look forward to involvement in other similar events. Donna was very knowledgeable and kind. Dipendra was amazing at explaining the statistics and breakdown of the whole process. I will remember this time spent fondly. I also made several new friends.

Question 10: Please add any additional comment or observations on the judgment study process, facilitators, discussion, facilities, etc.

GRADE	COMMENTS
5	This opportunity was great for teachers. The wealth of knowledge presented by the facilitators, VDOE, and other Pearson staff was great. This was very worth while to partner with the other divisions as well as those involved with the presentations and speakers.
5	1. Jenna was a WONDERFUL facilitator! 2. The increased number of standards for our students with significant cognitive disabilities has grown so much in the past year, I would hope that in coming years, the test will include more of the standards so that students can rely on their whole knowledge base, not just the few that happen to have questions on the test that given year. 3. The size of the relative size of pictures should be taken into account when creating future test questions so that students who rely on those visuals can use them to the greatest extent that they need. 4. The vocabulary used should also be taken into account. Words like gravity that are not in the standard should not be used when the question does not rely on those to assess student understanding.
5	Jenna did a great job facilitating our discussions. She helped us to think deeper about our decisions while also keeping us on track. It never felt stressful or overwhelming - it was a group discussion where all of our input was respected and valued. I understand that we are trying to increase the amount of content our students are getting and I very much appreciate that push to hold our students to high expectations, but we need to make sure that the requirement matches what is actually possible in the classroom. A K-5 classroom was what I considered an impossible ask prior to these new VESOLs, but now with the increased push to cover ALL the content it becomes even more of a daunting task for our teachers. That is 6 grade levels of curriculum to manage - on top of behavior, communication, life skills and inclusion time across all those levels which our teachers are also expected to handle. Please consider requiring programs to be K-2 OR 3-5 so that our teachers can truly master teaching the content to those grade levels and not be spread so thin.
5	On the science assessment we reviewed, there were some pictures that were misleading, confusing or different. Number 14, the flowers were leaning different ways in the examiners manual vs. the student manual/and online testing page. These pictures should be consistent. In number 24, the bush of berries was extremely confusing it did not look like a bush or berries. The students in this population rely heavily on visual supports and need clear and recognizable pictures. In number 23, the word ""gravity"" is unnecessary to the question, understanding, and is not found in the standards. All pictures involving movement/force should include directional arrows. The movement lines are confusing and sometimes difficult for this population to understand. Some items are very stimulating to our students and may be topics or items of fixation that could sway their answers. Some examples that should be omitted for this reason include pizza and trains (unless directly relating to the question, content, or answer choices). As an educator, I would benefit from receiving a break down of categories in the report sent to me after my students assessments were graded. This information will help me understand what areas I can do better in when planning and teaching next year. Our Pearson facilitator, Jenna, was wonderful to work with. She did an excellent job facilitating discussion, ensuring we stayed on track, and offering an open and relaxed environment that helped all committee members feel open to share. Our VDOE rep, Sharon, was also helpful in answering any content or test specific questions.

GRADE	COMMENTS
5	Overall, the science assessment was well thought out. I would like to point out that not all of the subject strands are represented on the assessment and others are represented numerous times. Also, question #14's images differ from the student items book and the online version of the assessment.
5	Please take into consideration the language that is typically used to teach a number of these skills. For example, the predator and prey. The question defines what a predator is by stating that it eats another thing. The question would be better stated as to which one eats the mouse. Overall, this test was the clearest of the three.
5	The only comment that I have regarding the test items is that some of the pictures were not specific to the question. For example, question #19 in science. The picture ""disappear"" is not clear enough for the description. Also, the terminology in some questions are ""advanced"" for kiddos who may be in the advanced area.
5	This has been a wonderful experience and I loved every minute of being a part in it. My two recommendations would be to make sure the vocabulary of the test is very simple and only use more difficult and complex vocabulary that is addressed by the standards; My second recommendation would be to make sure there are questions presented for every standard in the VESOLs so that the test does not have multiple questions on one standard that a student may have found difficult.
8	David was a wonderful facilitator and encouraged our group to have honest and meaningful conversations. This group of special educators was phenomenal. Everyone shared valuable feedback which fostered a productive conversation. Moving forward with this type of assessment, I hope the department of education continues to gain and use information from teachers to make decisions.
8	This process was extremely helpful in helping me to better understand the importance of the assessment and VDOE's process in developing cut scores. While I enjoyed my time here and would LOVE to come back in the future, I do ultimately still feel that this assessment is inaccessible for many of our students (those who are nonverbal, have visual impairments, and are lower level learners). I hope that the feedback given to our VDOE representative is considered and that there is a possibility of the assessment being altered to become more accessible.
8	I really appreciate the Board's interest in teacher's perspective and expertise when looking at this assessment. Thank you!
8	Overall I feel that it was great to have individuals in the room that could answer the questions that we had which assisted us with creating the borderline descriptions and eventual cut score recommendations.
8	The wording on some questions compared to the wording in the descriptions was different. Maybe look at using same language for questions.
8	Focus on wording with questions for this population. Be mindful of cognitive level and intellect.
HS	I appreciated this being a place where I could freely speak and give my input. I felt that when the committee started to get off track our facilitator brought us back to remind us exactly what we needed to do.

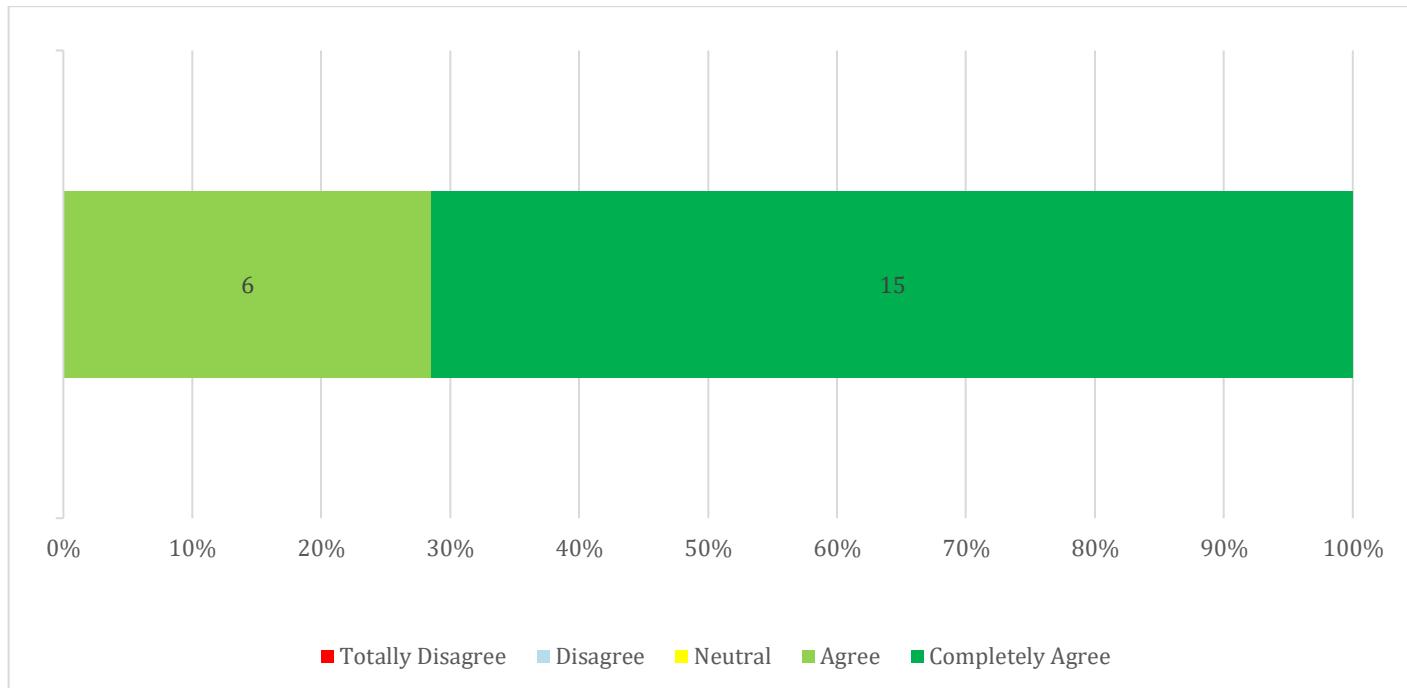
GRADE	COMMENTS
HS	This was a very pleasant and enjoyable experience. Everyone was knowledgeable, respectful, kind, and helpful. I was very pleased with this task and the instructors were very kind and helpful and worked in every way they could to help us understand and make the most educated decisions possible. Thank you for allowing me to be a part of this experience.
HS	Same feedback as the last 2 subjects - print off of the VESOL's and rounds for judgement sheets on individual sheets, please. Otherwise, Tim and Joe were excellent and helped us throughout the entire process. They did a great job of providing information as needed and withholding information in an effort for the panelists to dig deeper and figure it out ourselves.
HS	I really enjoyed being part of this process. I appreciate the opportunity to let our voices be heard. Thank you.
HS	I found that the science was easier to determine the borderlines between the not proficient and the proficient and the proficient and advanced.

Articulation Process Evaluation

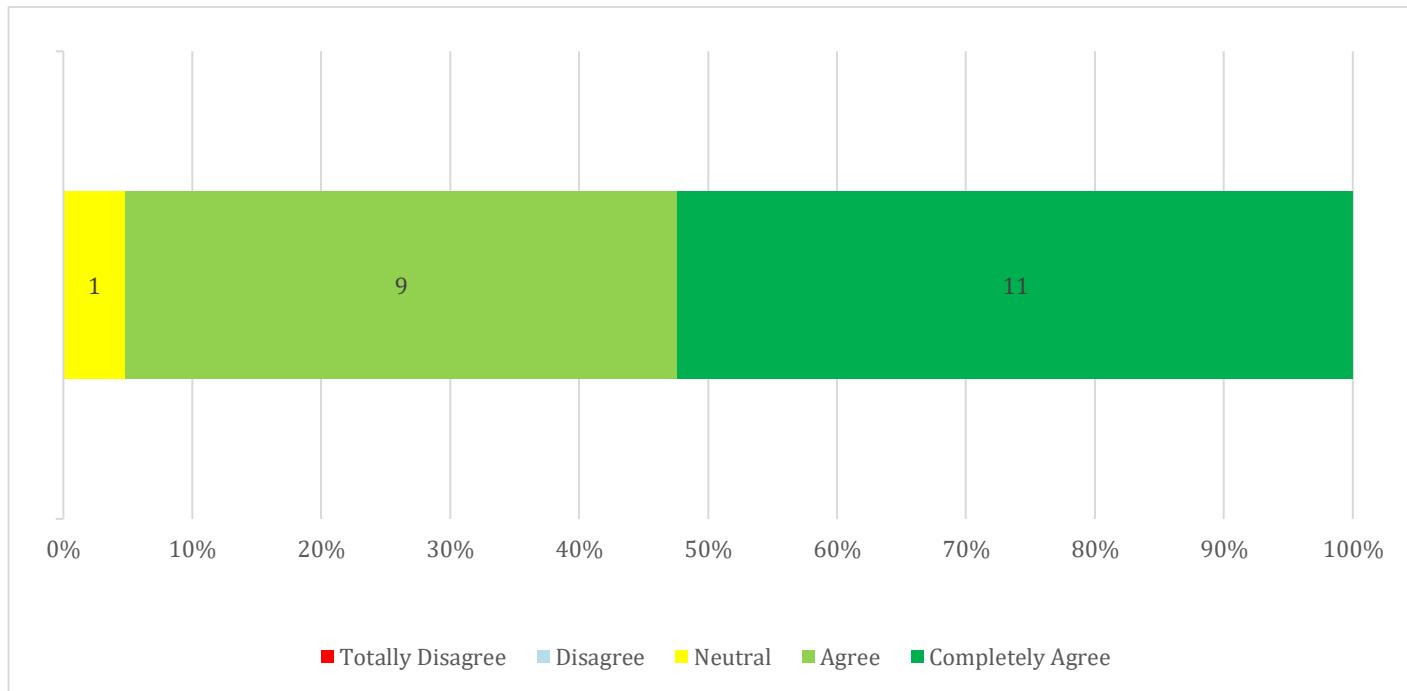
Vertical Articulation Process Evaluation

Please rate your level of agreement for each of the following statements about the standard setting process.

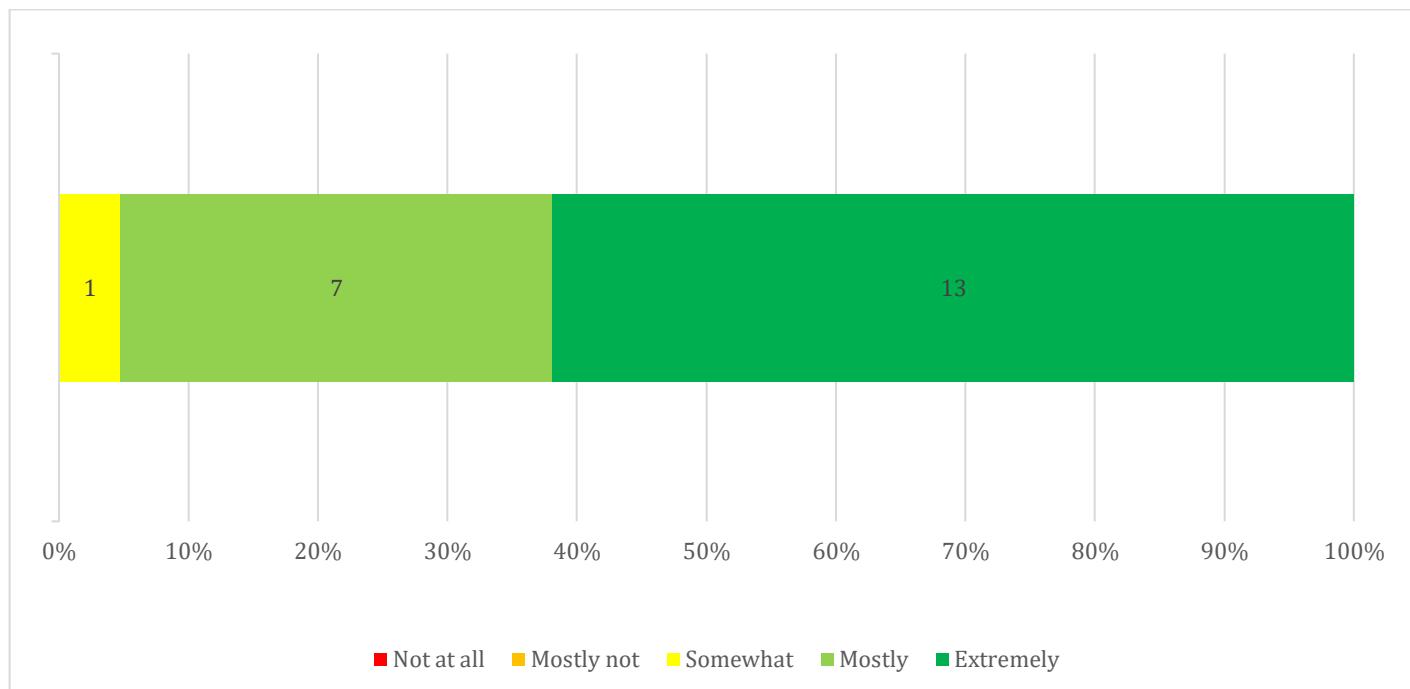
Question 1: The purpose of the vertical articulation meeting was clearly explained.



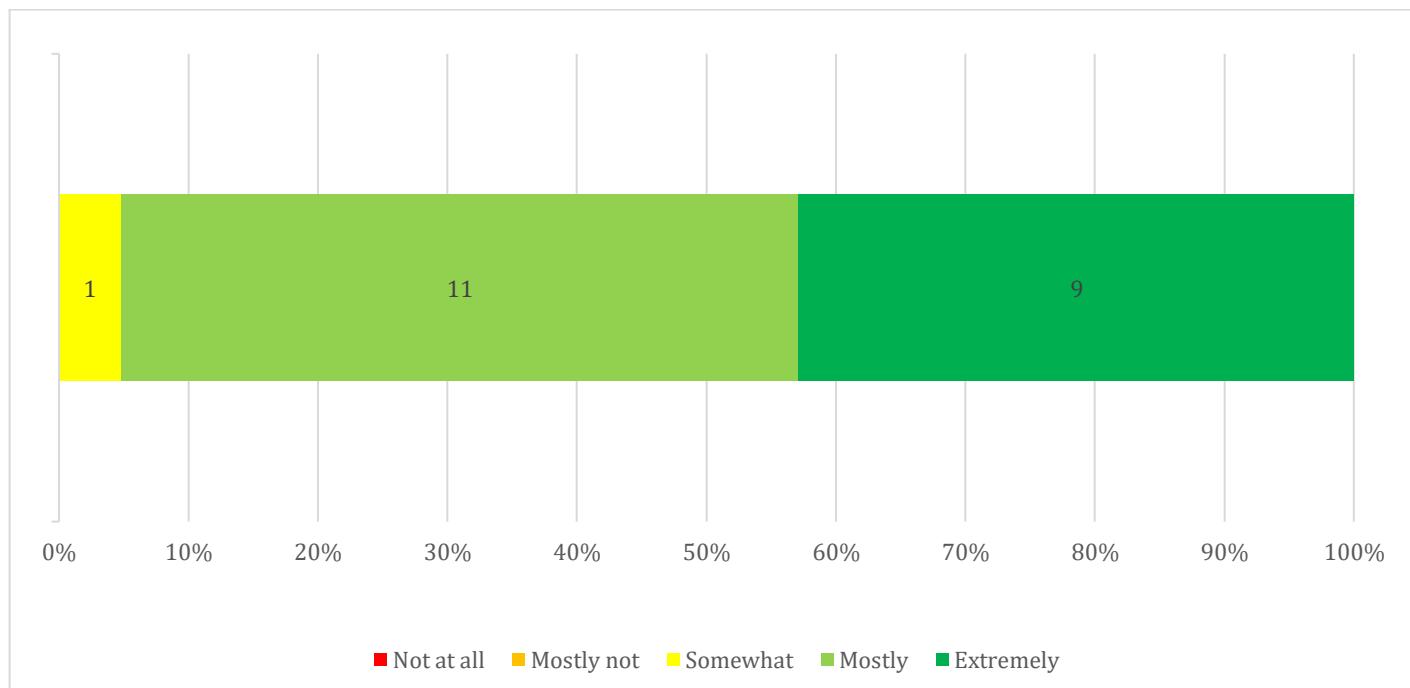
Question 2: The length of this meeting was appropriate for completing the vertical articulation.



Question 3: What was your level of comfort with the articulation judgment task?

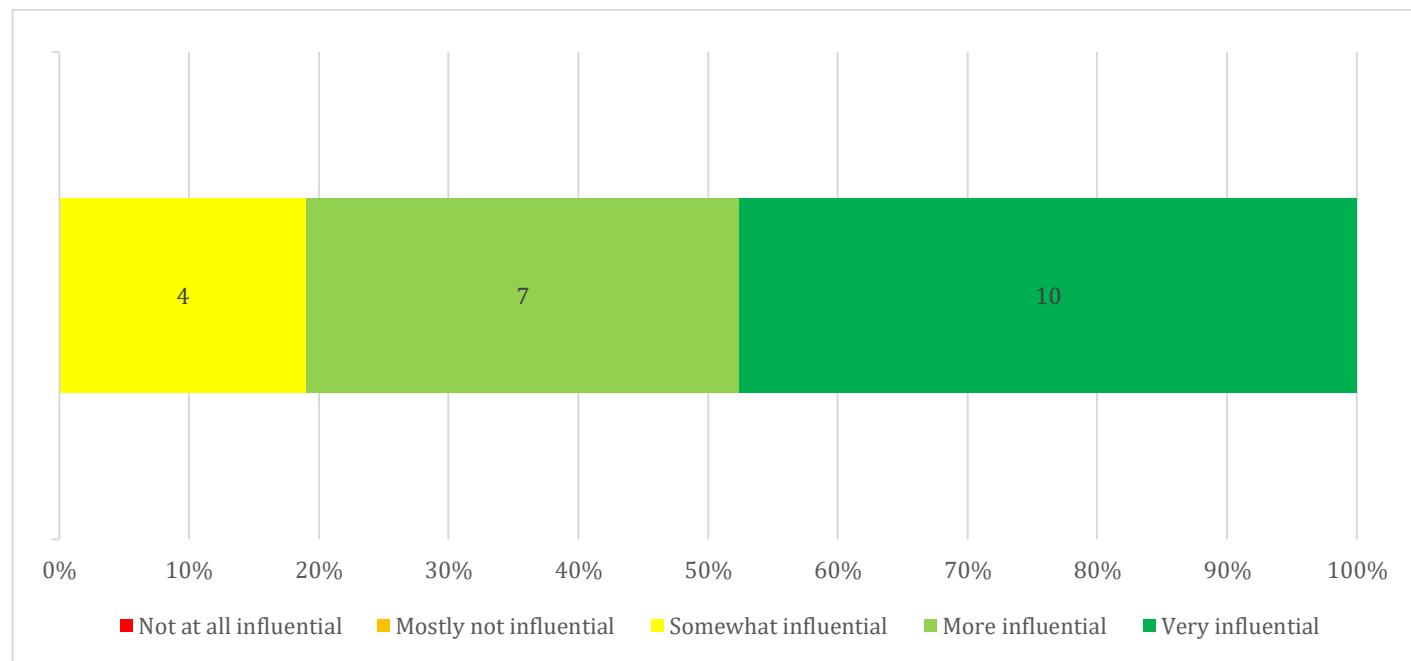


Question 4: How comfortable are you with the final group-level recommendations?

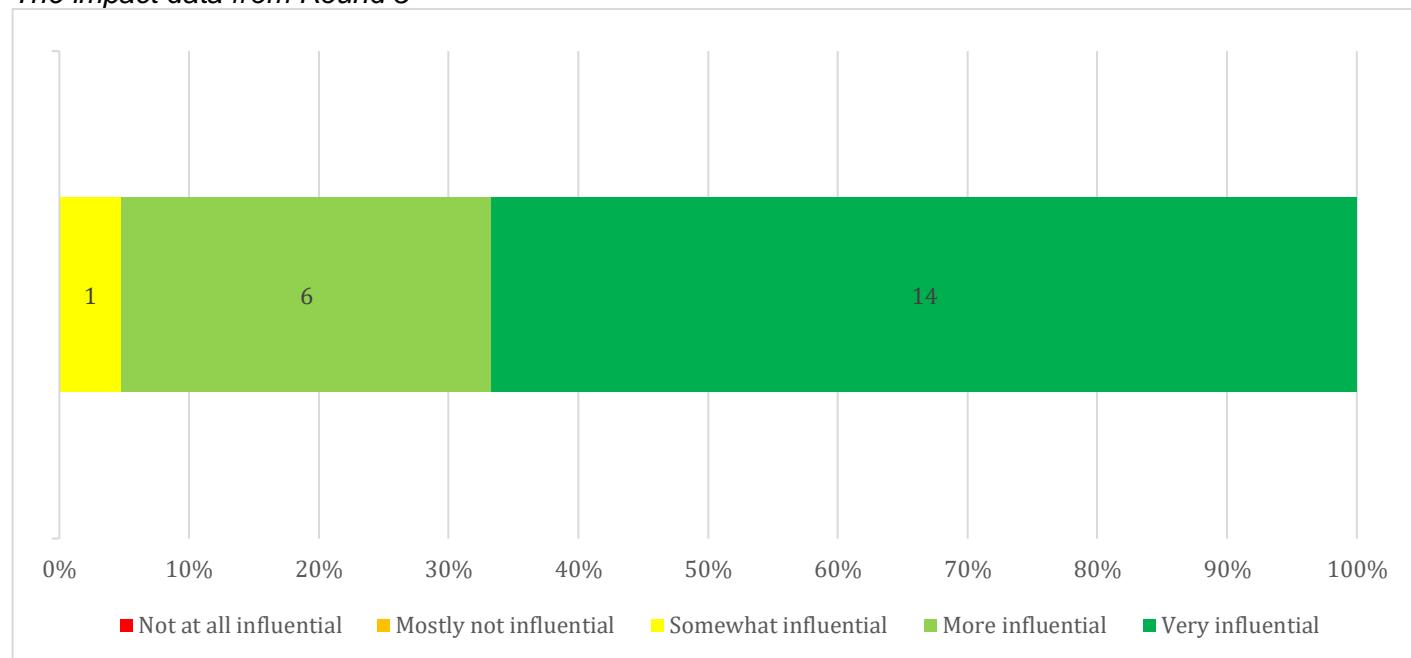


Question 5: How influential were the following factors in determining your recommendations during this articulation meeting?

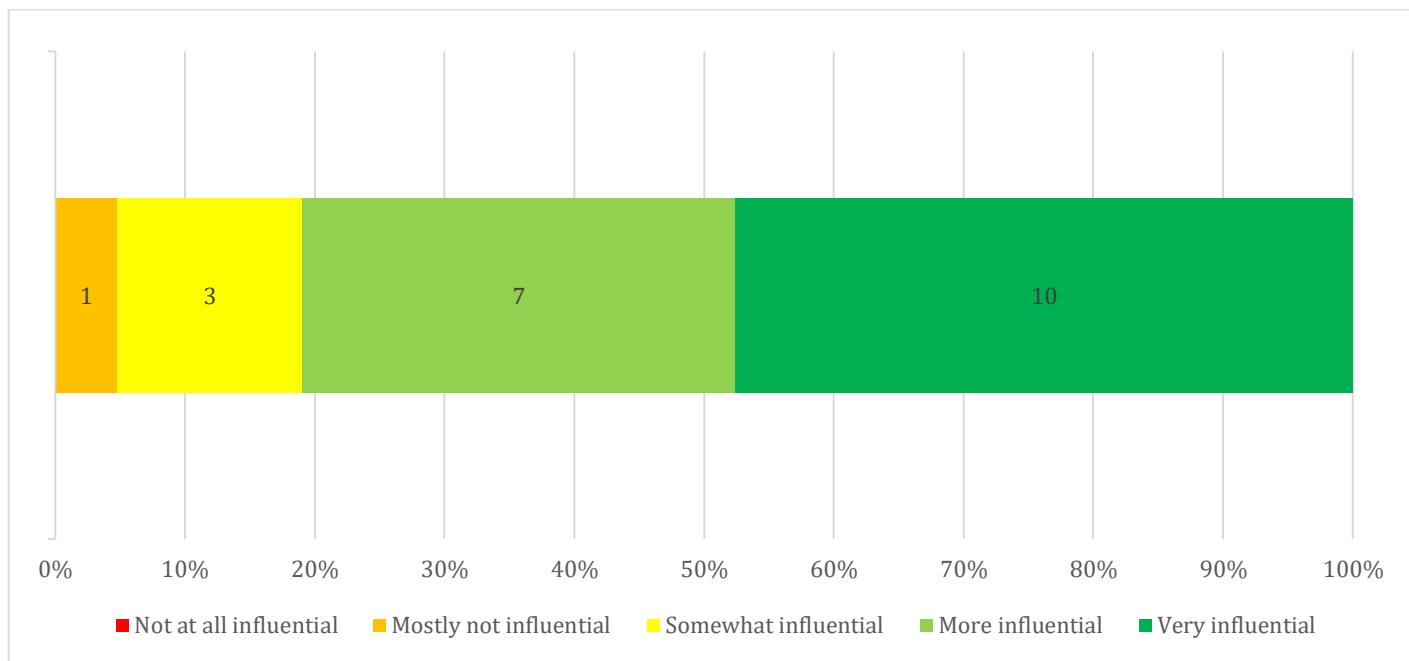
The committee results from Round 3



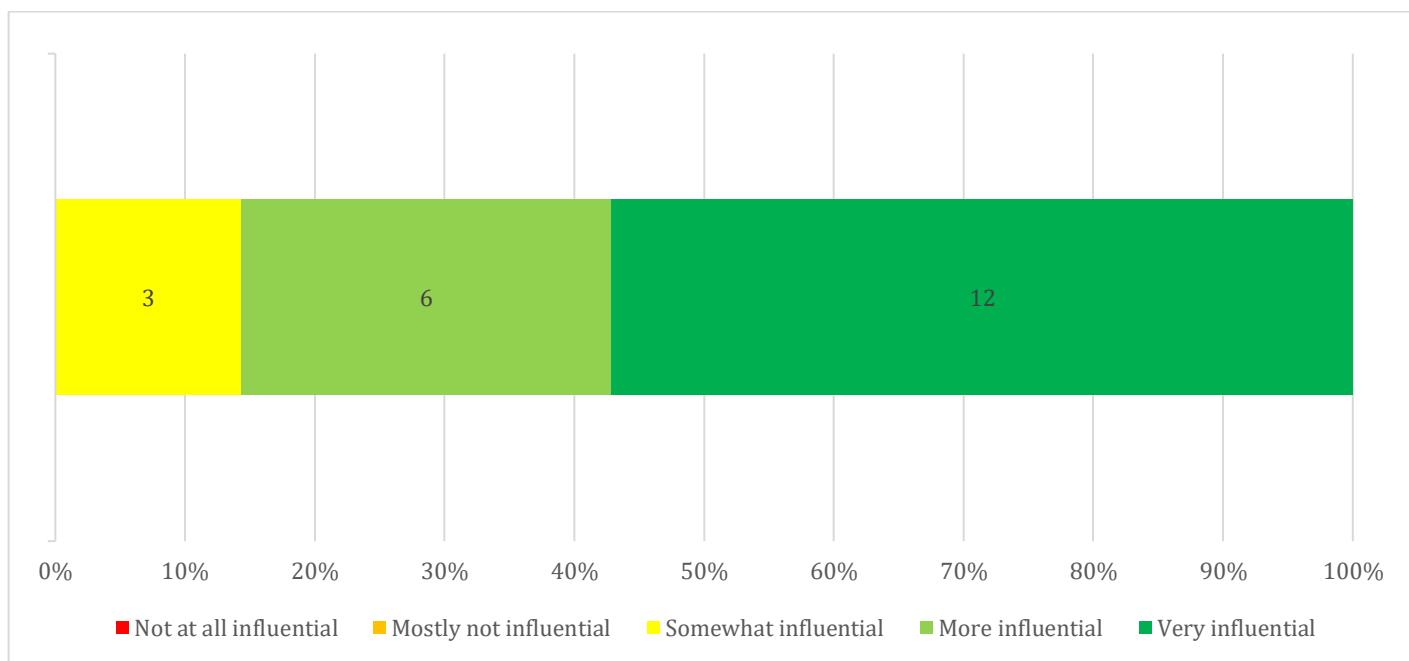
The impact data from Round 3



Group discussion



Your professional experience



Question 6: Please add any additional comment or observations on the judgment study process, facilitators, discussion, facilities, etc.

COMMENTS
It is a very thorough process and I am glad that I was able to be a part of it.
Overall this was a very informative and educational experience that I was honored to be part of as this new assessment is implemented.
Thank you for allowing us to participate in this process.
This was very challenging to do virtually. I appreciate not wanting to drag us all together in person, but I feel that I got much better input and a better flow of discussion in person.
Thank you for the opportunity to participate.
Thank you very much for allowing me to be part of this process. I thoroughly enjoyed working with everyone.
I appreciate the opportunity to do this virtually, but it may have been more interactive in person.
I appreciate the group of teachers that worked to determine the cut score recommendations. I feel there was a wealth of discussion and points of view that make the decisions made applicable to the whole 1% who participate in VAAP.
Enjoyed this process and learned a lot. Thank you!
Thank you for the opportunity to participate in this experience. The only suggestion that I would have would be to not have the opening take as much time. All participants should already know how to use the zoom controls and not ""practice"" raising and lowering of hands. This took up quite a bit of time.
I feel like breaking up into smaller group and/or meeting in person would have helped with the discussion. I also would have liked for Pearson to explain their thoughts about what we presented and if what we presented varied significantly across other states or populations of students.
Thank you for allowing us as teachers to participate! I'm appreciative!
This whole process has been fascinating. I have really enjoyed being a part of it.
The opportunity to participate in this process was greatly appreciated Thank you for letting educators be part of this process.
I'm still concerned with the high percentage of student earning Advanced in Reading and Science. Other than that, I am in agreement with the results. Thanks for the opportunity and thanks for listening to teachers!
No additional comments to add.
I felt that this process was thorough and everyone respected and valued the thoughts and opinions of others. I enjoyed participating.
I think the group represented the 1% of the population very well in recommending the cut scores for the VAAP assessment. I feel confident that the ""cut scores"" were represented fairly. Thank you!
Overall I felt it followed the same routine as our committee meetings which made the vertical articulation easy to understand and participate in. The graphs and data were extremely helpful in understanding the numbers/others points of view. I really enjoyed the discussions in-person but I did feel they were a lit

Appendix H – Committee Recommended Cut Scores by Round

Table H.1: Mathematics Grade 3

Performance Level	Maximum Score	Rounds		
		1	2	3
Pass/Proficient		17	13	12
	30			
Pass/Advanced		28	24	23

Table H.2: Mathematics Grade 4

Performance Level	Maximum Score	Rounds		
		1	2	3
Pass/Proficient		22	18	17
	30			
Pass/Advanced		29	30	25

Table H.3: Mathematics Grade 5

Performance Level	Maximum Score	Rounds		
		1	2	3
Pass/Proficient		14	13	13
	30			
Pass/Advanced		24	24	24

Table H.4: Mathematics Grade 6

Performance Level	Maximum Score	Rounds		
		1	2	3
Pass/Proficient		14	12	11
	30			
Pass/Advanced		24	21	21

Table H.5: Mathematics Grade 7

Performance Level	Maximum Score	Rounds		
		1	2	3
Pass/Proficient		22	14	14
	30			
Pass/Advanced		30	28	23

Table H.6: Mathematics Grade 8

Performance Level	Maximum Score	Rounds		
		1	2	3
Pass/Proficient		12	14	13
	30			
Pass/Advanced		23	24	25

Table H.7: Mathematics HS

Performance Level	Maximum Score	Rounds		
		1	2	3
Pass/Proficient		15	12	12
	30			

Pass/Advanced

24 23 22

Table H.8: Reading Grade 3

Performance Level	Maximum Score	Rounds		
		1	2	3
Pass/Proficient		9	10	10
	30			

Pass/Advanced

21 22 22

Table H.9: Reading Grade 4

Performance Level	Maximum Score	Rounds		
		1	2	3
Pass/Proficient		8	9	10
	30			

Pass/Advanced

22 21 20

Table H.10: Reading Grade 5

Performance Level	Maximum Score	Rounds		
		1	2	3
Pass/Proficient		15	12	12
	30			

Pass/Advanced

25 23 23

Table H.11: Reading Grade 6

Performance Level	Maximum Score	Rounds		
		1	2	3
Pass/Proficient		10	12	12
	30			

Pass/Advanced

19 19 20

Table H.12: Reading Grade 7

Performance Level	Maximum Score	Rounds		
		1	2	3
Pass/Proficient		8	10	10
	30			

Pass/Advanced

22 21 20

Table H.13: Reading Grade 8

Performance Level	Maximum Score	Rounds		
		1	2	3
Pass/Proficient		13	14	14
	30			
Pass/Advanced		22	23	23

Table H.14: Reading HS

Performance Level	Maximum Score	Rounds		
		1	2	3
Pass/Proficient		24	12	11
	30			
Pass/Advanced		30	21	20

Table H.15: Science Grade 5

Performance Level	Maximum Score	Rounds		
		1	2	3
Pass/Proficient		14	13	13
	30			
Pass/Advanced		23	23	23

Table H.16: Science Grade 8

Performance Level	Maximum Score	Counts		
		1	2	3
Pass/Proficient		16	16	16
	30			
Pass/Advanced		25	25	26

Table H.17: Science HS

Performance Level	Maximum Score	Counts		
		1	2	3
Pass/Proficient		14	12	11
	30			
Pass/Advanced		24	22	21

Appendix I – Committee Recommended Cut Scores Summary Statistics by Round

Table I.1: Mathematics Grade 3

Round	Statistic	Pass/Proficient	Pass/Advanced
1	Mean	17.78	26.56
	Minimum	10	22
	Q1	14	24
	Median	17	28
	Q3	22	29
	Maximum	26	30
2	Mean	14.56	23.56
	Minimum	10	18
	Q1	12	23
	Median	13	24
	Q3	16	25
	Maximum	26	29
3	Mean	12.4	23
	Minimum	7	19
	Q1	10	23
	Median	12	23
	Q3	13	24
	Maximum	22	25

Table I.2: Mathematics Grade 4

Round	Statistic	Pass/Proficient	Pass/Advanced
1	Mean	21.38	27.88
	Minimum	12	24
	Q1	17	26
	Median	22	29
	Q3	26.5	30
	Maximum	29	30
2	Mean	19.13	28.25
	Minimum	10	21
	Q1	16.5	28
	Median	18	30
	Q3	22	30
	Maximum	30	30
3	Mean	15.3	24.4
	Minimum	11	21
	Q1	14	23
	Median	17	25
	Q3	17	26
	Maximum	17	28

Table I.3: Mathematics Grade 5

Round	Statistic	Pass/Proficient	Pass/Advanced
1	Mean	14.13	23.38
	Minimum	8	17
	Q1	11.5	21.5
	Median	14	24
	Q3	17.5	25.5
	Maximum	19	29
2	Mean	12.75	23.38
	Minimum	11	22
	Q1	12	23
	Median	13	24
	Q3	13.5	24
	Maximum	14	24
3	Mean	12.8	23.4
	Minimum	12	21
	Q1	12	23
	Median	13	24
	Q3	13	24
	Maximum	14	24

Table I.4: Mathematics Grade 6

Round	Statistic	Pass/Proficient	Pass/Advanced
1	Mean	14.25	21.75
	Minimum	7	7
	Q1	11	20.5
	Median	14	24
	Q3	17	25.5
	Maximum	23	28
2	Mean	11.38	18.75
	Minimum	5	5
	Q1	10.5	20
	Median	12	21
	Q3	13.5	21
	Maximum	15	22
3	Mean	11.3	20.1
	Minimum	10	18
	Q1	11	19
	Median	11	21
	Q3	12	21
	Maximum	12	22

Table I.5: Mathematics Grade 7

Round	Statistic	Pass/Proficient	Pass/Advanced
1	Mean	21	28
	Minimum	16	22
	Q1	19	26.5
	Median	22	30
	Q3	23	30
	Maximum	25	30
2	Mean	16.5	26.5
	Minimum	11	19
	Q1	12.5	24.5
	Median	14	28
	Q3	19	29
	Maximum	30	30
3	Mean	14.8	22.5
	Minimum	10	20
	Q1	12	22
	Median	14	23
	Q3	16	23
	Maximum	25	26

Table I.6: Mathematics Grade 8

Round	Statistic	Pass/Proficient	Pass/Advanced
1	Mean	11.38	22.25
	Minimum	4	15
	Q1	9	20.5
	Median	12	23
	Q3	15	25
	Maximum	16	27
2	Mean	12.88	23.75
	Minimum	3	16
	Q1	11.5	22
	Median	14	24
	Q3	16	26.5
	Maximum	18	29
3	Mean	12.1	23.6
	Minimum	3	16
	Q1	11	24
	Median	13	25
	Q3	15	26
	Maximum	17	26

Table I.7: Mathematics HS

Round	Statistic	Pass/Proficient	Pass/Advanced
1	Mean	17	25.43
	Minimum	13	22
	Q1	14	23
	Median	15	24
	Q3	21	30
	Maximum	26	30
2	Mean	12.57	24.14
	Minimum	9	22
	Q1	10	22
	Median	12	23
	Q3	14	25
	Maximum	20	30
3	Mean	11.7	22
	Minimum	9	20
	Q1	9	21
	Median	12	22
	Q3	12	23
	Maximum	16	23

Table I.8: Reading Grade 3

Round	Statistic	Pass/Proficient	Pass/Advanced
1	Mean	9	21.33
	Minimum	5	17
	Q1	8	19
	Median	9	21
	Q3	10	22
	Maximum	14	30
2	Mean	9.56	22.22
	Minimum	5	18
	Q1	8	22
	Median	10	22
	Q3	11	23
	Maximum	12	25
3	Mean	10.1	22
	Minimum	6	20
	Q1	10	22
	Median	10	22
	Q3	11	22
	Maximum	12	23

Table I.9: Reading Grade 4

Round	Statistic	Pass/Proficient	Pass/Advanced
1	Mean	8.71	22.71
	Minimum	8	19
	Q1	8	20
	Median	8	22
	Q3	9	26
	Maximum	11	29
2	Mean	8.75	20.88
	Minimum	8	19
	Q1	8	20
	Median	9	21
	Q3	9	21.5
	Maximum	11	24
3	Mean	10.3	20.6
	Minimum	9	20
	Q1	10	20
	Median	10	20
	Q3	11	21
	Maximum	12	24

Table I.10: Reading Grade 5

Round	Statistic	Pass/Proficient	Pass/Advanced
1	Mean	15.5	24.88
	Minimum	12	23
	Q1	13	23.5
	Median	15	25
	Q3	16.5	25.5
	Maximum	23	29
2	Mean	12.63	22.88
	Minimum	11	21
	Q1	11.5	22.5
	Median	12	23
	Q3	13.5	23.5
	Maximum	16	24
3	Mean	12.4	22.8
	Minimum	12	21
	Q1	12	22
	Median	12	23
	Q3	13	24
	Maximum	14	24

Table I.11: Reading Grade 6

Round	Statistic	Pass/Proficient	Pass/Advanced
1	Mean	10	19.25
	Minimum	7	15
	Q1	9	16.5
	Median	10	19
	Q3	10.5	21.5
	Maximum	15	25
2	Mean	12.13	19.13
	Minimum	10	16
	Q1	10	18.5
	Median	12	19
	Q3	12.5	20
	Maximum	19	22
3	Mean	11.3	19.6
	Minimum	9	16
	Q1	11	19
	Median	12	20
	Q3	12	21
	Maximum	13	23

Table I.12: Reading Grade 7

Round	Statistic	Pass/Proficient	Pass/Advanced
1	Mean	8.13	22.25
	Minimum	5	16
	Q1	6.5	20.5
	Median	8	22
	Q3	9.5	24.5
	Maximum	13	28
2	Mean	9.5	20.63
	Minimum	5	15
	Q1	8	18.50
	Median	10	21
	Q3	11	23
	Maximum	13	25
3	Mean	9.3	19.4
	Minimum	5	15
	Q1	8	18
	Median	10	20
	Q3	11	22
	Maximum	12	23

Table I.13: Reading Grade 8

Round	Statistic	Pass/Proficient	Pass/Advanced
1	Mean	14.13	21.63
	Minimum	7	15
	Q1	10	19.5
	Median	13	22
	Q3	19.5	24.5
	Maximum	22	30
2	Mean	13.25	21.88
	Minimum	7	17
	Q1	11	20.5
	Median	14	23
	Q3	16	23.5
	Maximum	18	25
3	Mean	12.8	22.1
	Minimum	7	17
	Q1	11	21
	Median	14	23
	Q3	14	24
	Maximum	18	25

Table I.14: Reading HS

Round	Statistic	Pass/Proficient	Pass/Advanced
1	Mean	20.57	29.57
	Minimum	10	28
	Q1	13	29
	Median	24	30
	Q3	28	30
	Maximum	30	30
2	Mean	15	22.71
	Minimum	7	17
	Q1	8	20
	Median	12	21
	Q3	27	28
	Maximum	28	30
3	Mean	10.9	20.1
	Minimum	9	17
	Q1	9	19
	Median	11	20
	Q3	12	21
	Maximum	14	23

Table I.15: Science Grade 5

Round	Statistic	Pass/Proficient	Pass/Advanced
1	Mean	13.5	23.5
	Minimum	11	21
	Q1	12.5	22
	Median	14	23
	Q3	14.5	25.5
	Maximum	16	26
2	Mean	12.75	22.75
	Minimum	11	20
	Q1	12	22
	Median	13	23
	Q3	14	24
	Maximum	14	25
3	Mean	12.8	22.6
	Minimum	12	22
	Q1	12	22
	Median	13	23
	Q3	13	23
	Maximum	14	24

Table I.16: Science Grade 8

Round	Statistic	Pass/Proficient	Pass/Advanced
1	Mean	16.75	25.38
	Minimum	13	22
	Q1	14	24
	Median	16	25
	Q3	19.50	27
	Maximum	22	30
2	Mean	14.75	25.13
	Minimum	4	22
	Q1	14	25
	Median	16	25
	Q3	17.50	25.50
	Maximum	20	28
3	Mean	15.3	25.5
	Minimum	5	23
	Q1	14	25
	Median	16	26
	Q3	19	26
	Maximum	20	28

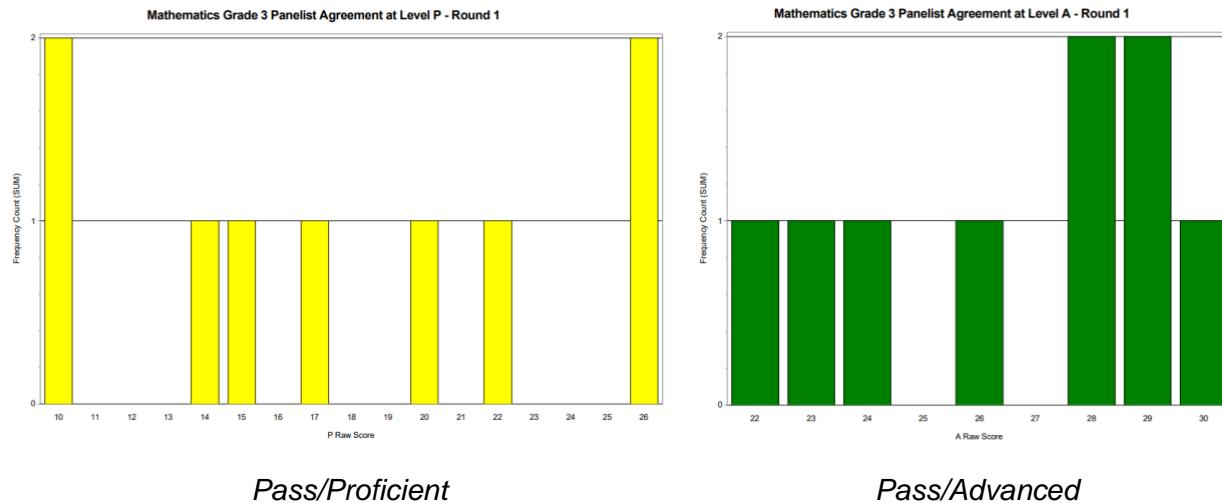
Table I.17: Science HS

Round	Statistic	Pass/Proficient	Pass/Advanced
1	Mean	16	24.71
	Minimum	11	20
	Q1	12	20
	Median	14	24
	Q3	17	30
	Maximum	29	30
2	Mean	13	23.29
	Minimum	11	19
	Q1	11	21
	Median	12	22
	Q3	15	25
	Maximum	17	30
3	Mean	11.7	21.3
	Minimum	10	20
	Q1	11	21
	Median	11	21
	Q3	12	22
	Maximum	15	23

Appendix J – Test-Level Panelist Judgment Agreement

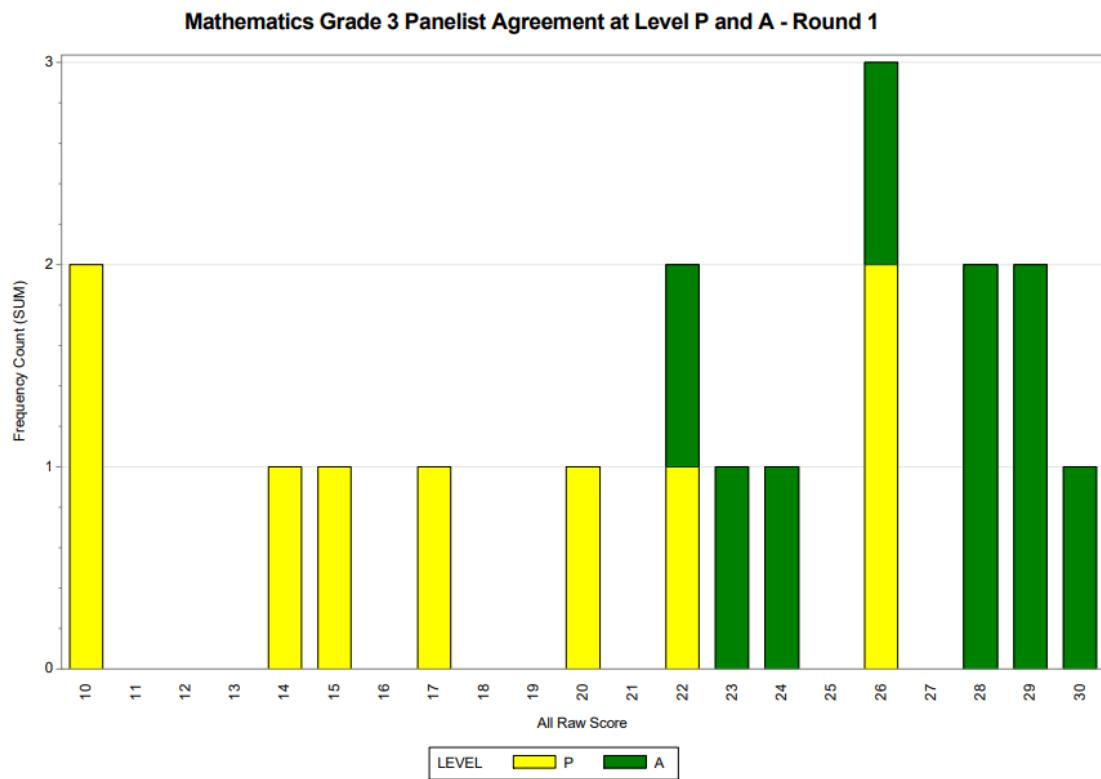
Mathematics Grade 3

Round 1:



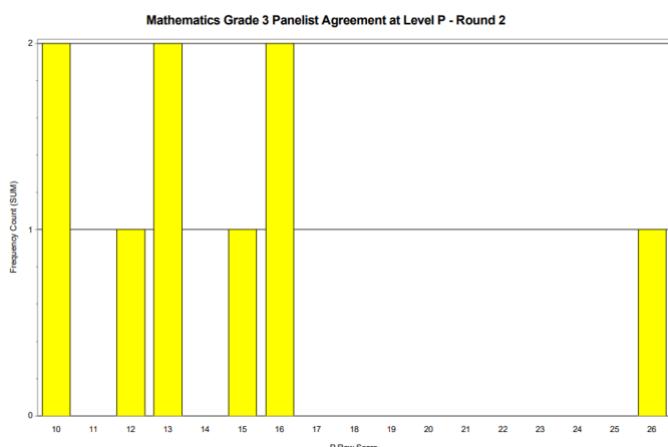
Pass/Proficient

Pass/Advanced

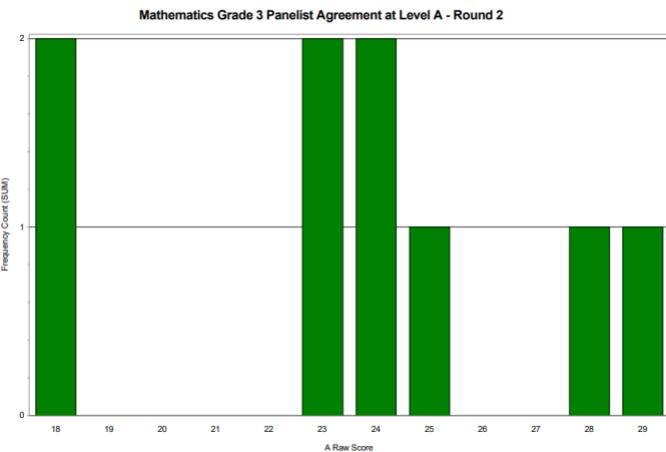


All Performance Levels Concurrently

Round 2:

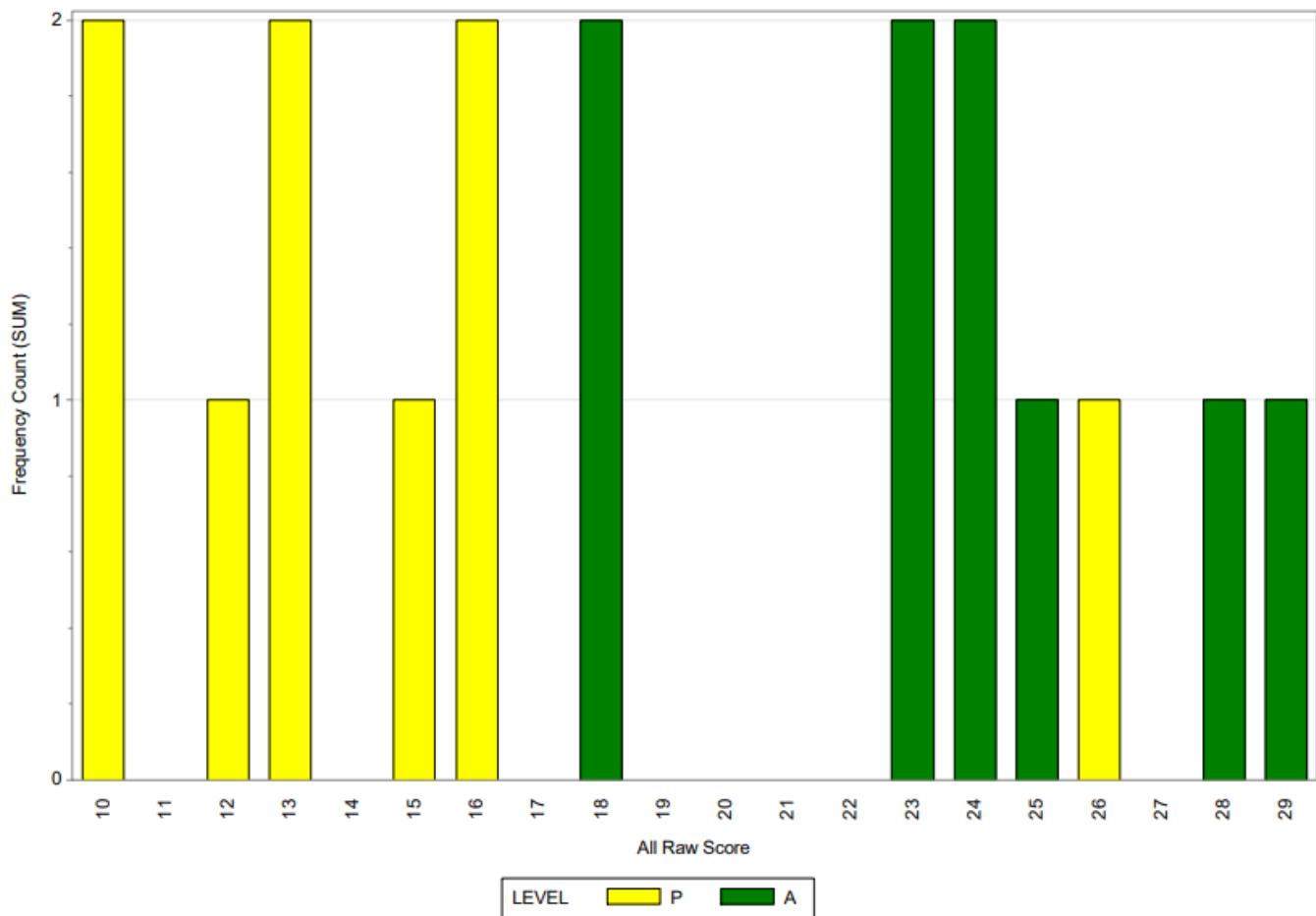


Pass/Proficient



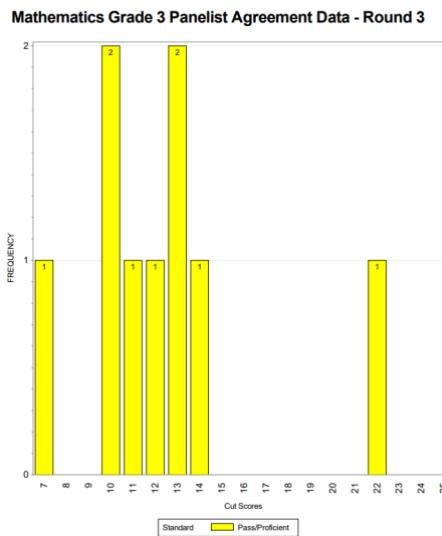
Pass/Advanced

Mathematics Grade 3 Panelist Agreement at Level P and A - Round 2

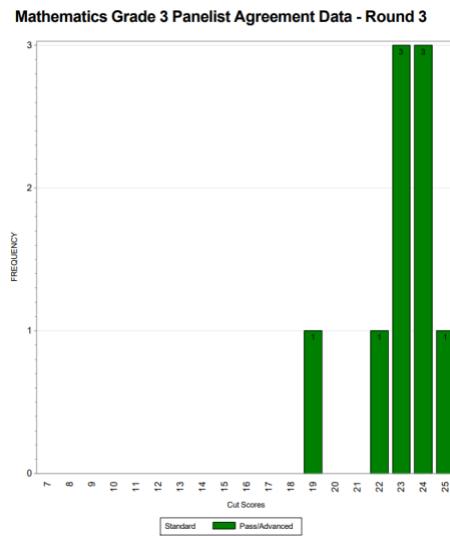


All Performance Levels Concurrently

Round 3:



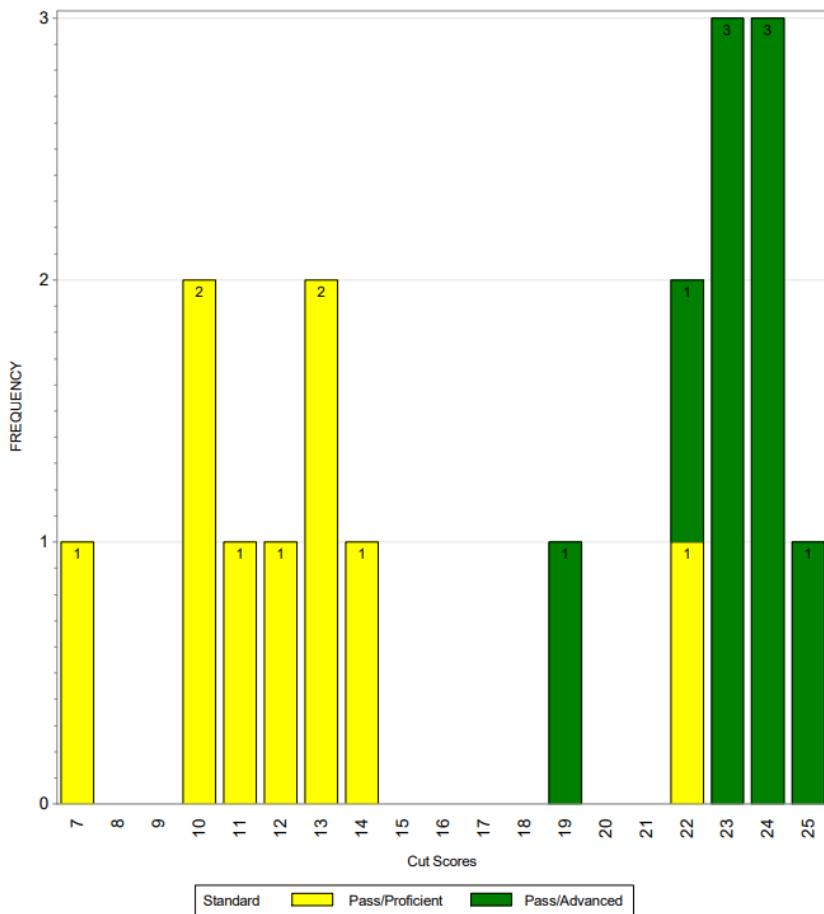
Pass/Proficient



Pass/Advanced

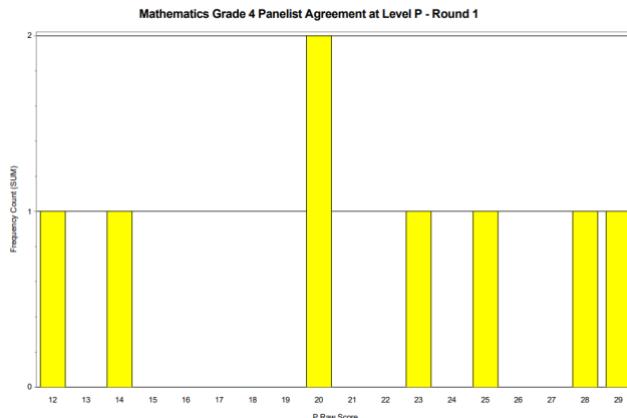
All Performance Levels Concurrently

Mathematics Grade 3 Panelist Agreement Data - Round 3

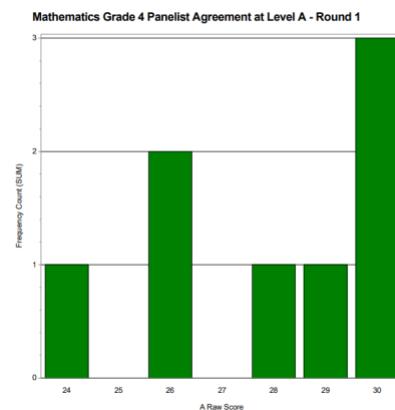


Mathematics Grade 4

Round 1:

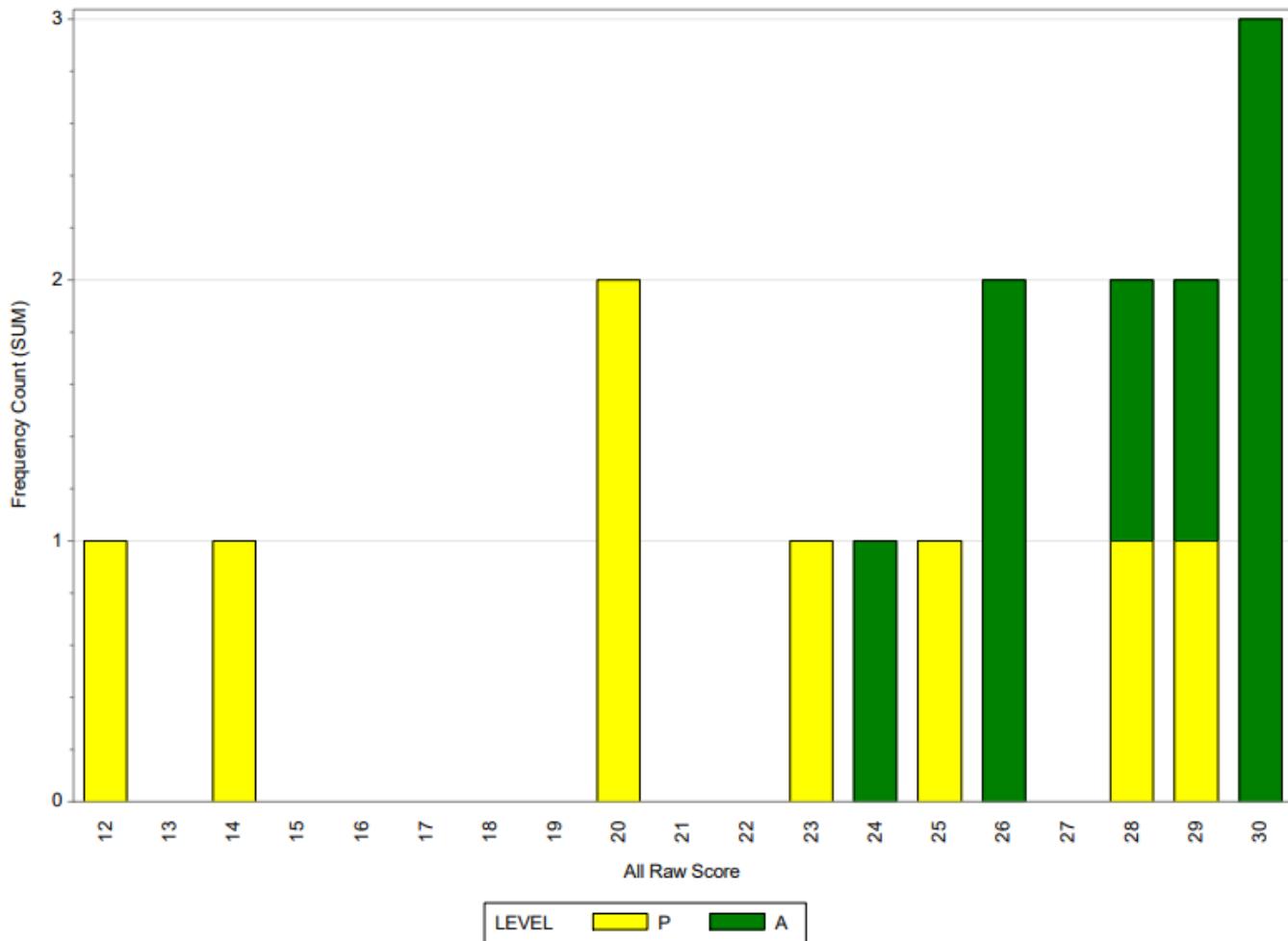


Pass/Proficient



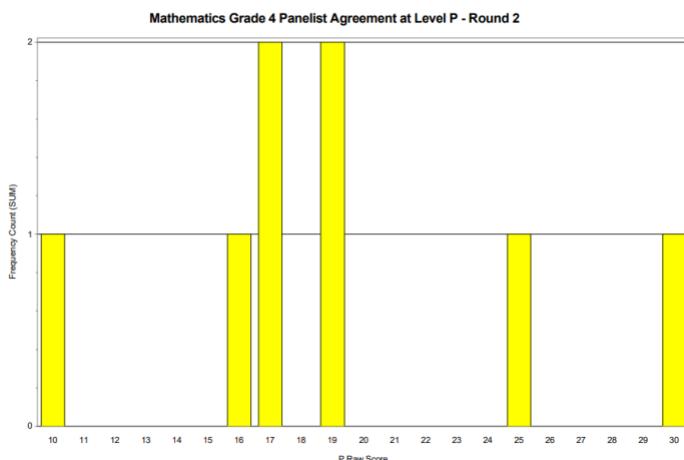
Pass/Advanced

Mathematics Grade 4 Panelist Agreement at Level P and A - Round 1

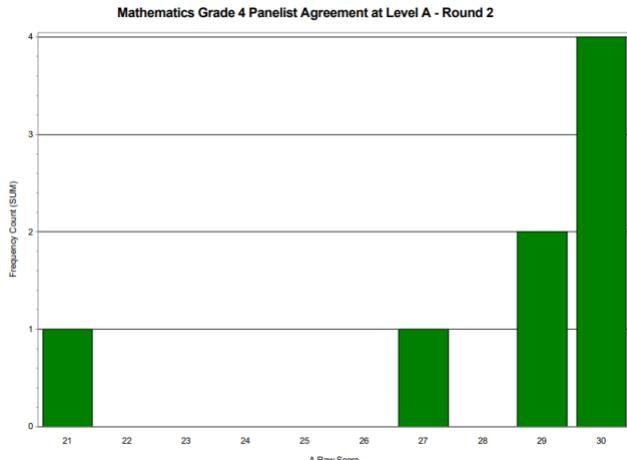


All Performance Levels Concurrently

Round 2:

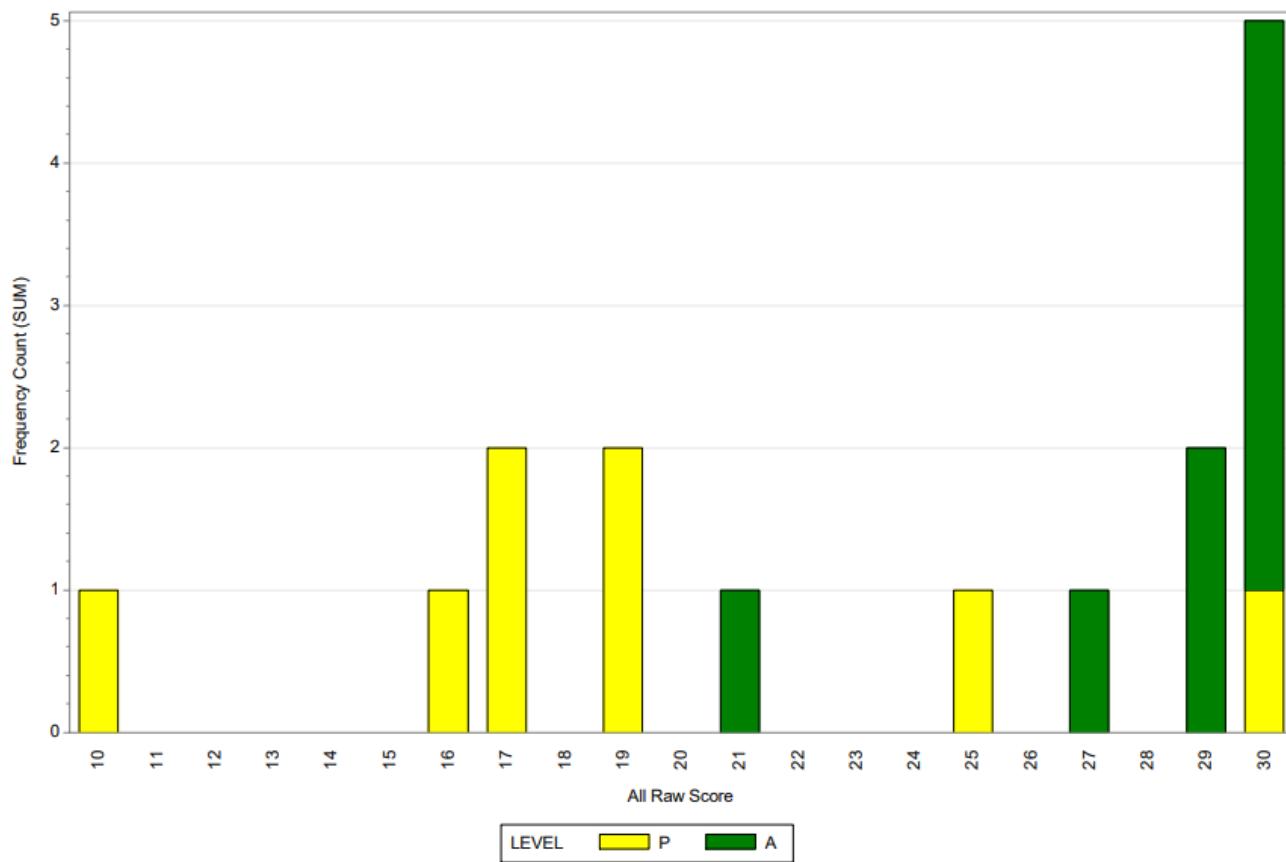


Pass/Proficient



Pass/Advanced

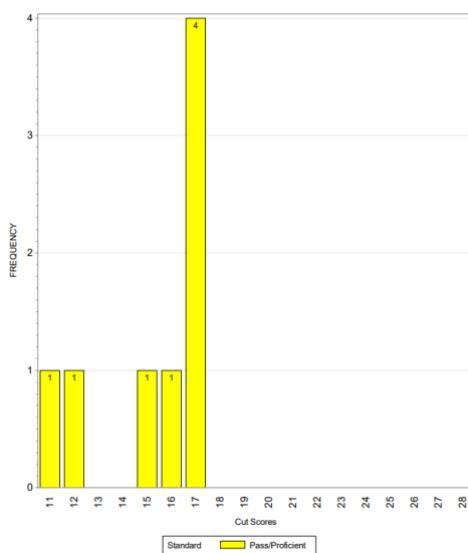
Mathematics Grade 4 Panelist Agreement at Level P and A - Round 2



All Performance Levels Concurrently

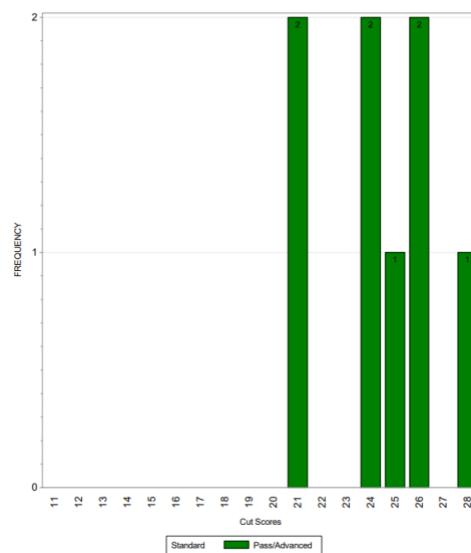
Round 3:

Mathematics Grade 4 Panelist Agreement Data - Round 3



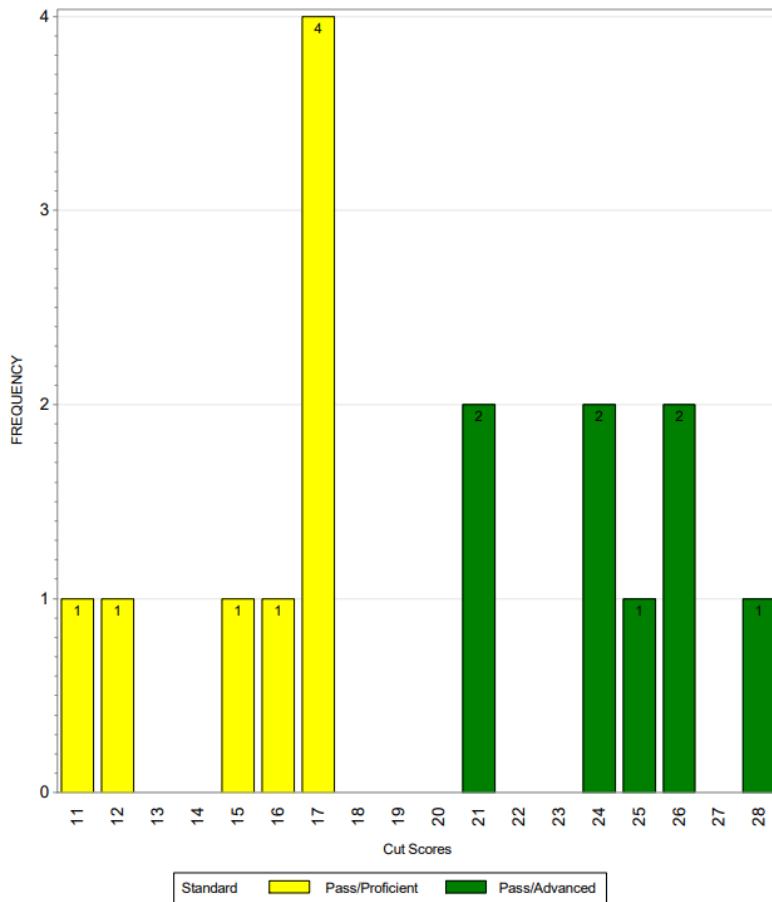
Pass/Proficient

Mathematics Grade 4 Panelist Agreement Data - Round 3



Pass/Advanced

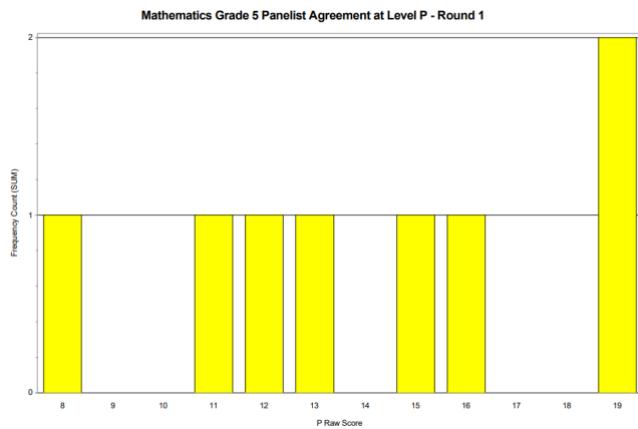
Mathematics Grade 4 Panelist Agreement Data - Round 3



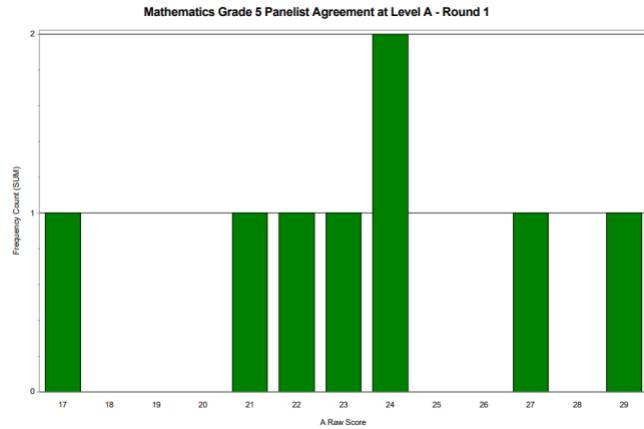
All Performance Levels Concurrently

Mathematics Grade 5

Round 1:

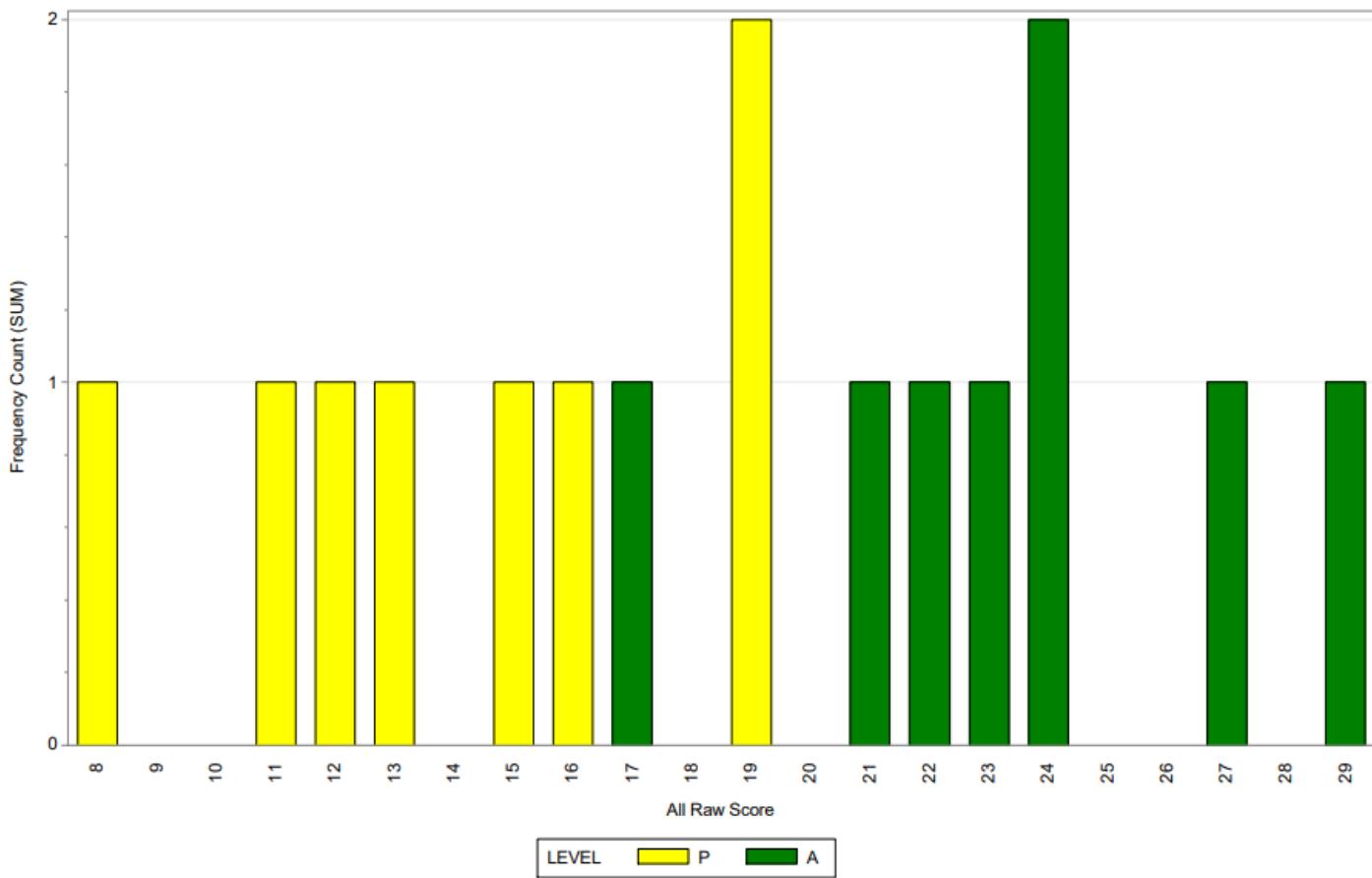


Pass/Proficient



Pass/Advanced

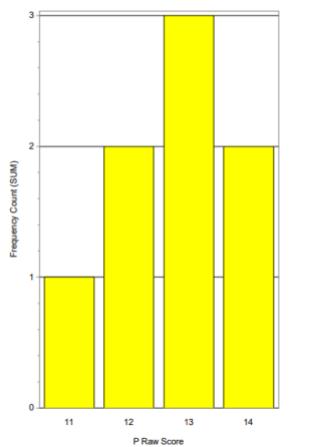
Mathematics Grade 5 Panelist Agreement at Level P and A - Round 1



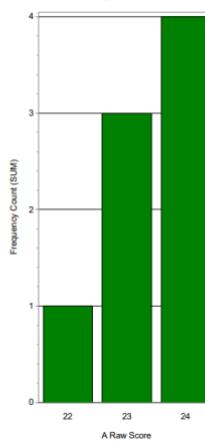
All Performance Levels Concurrently

Round 2:

Mathematics Grade 5 Panelist Agreement at Level P - Round 2 Mathematics Grade 5 Panelist Agreement at Level A - Round 2

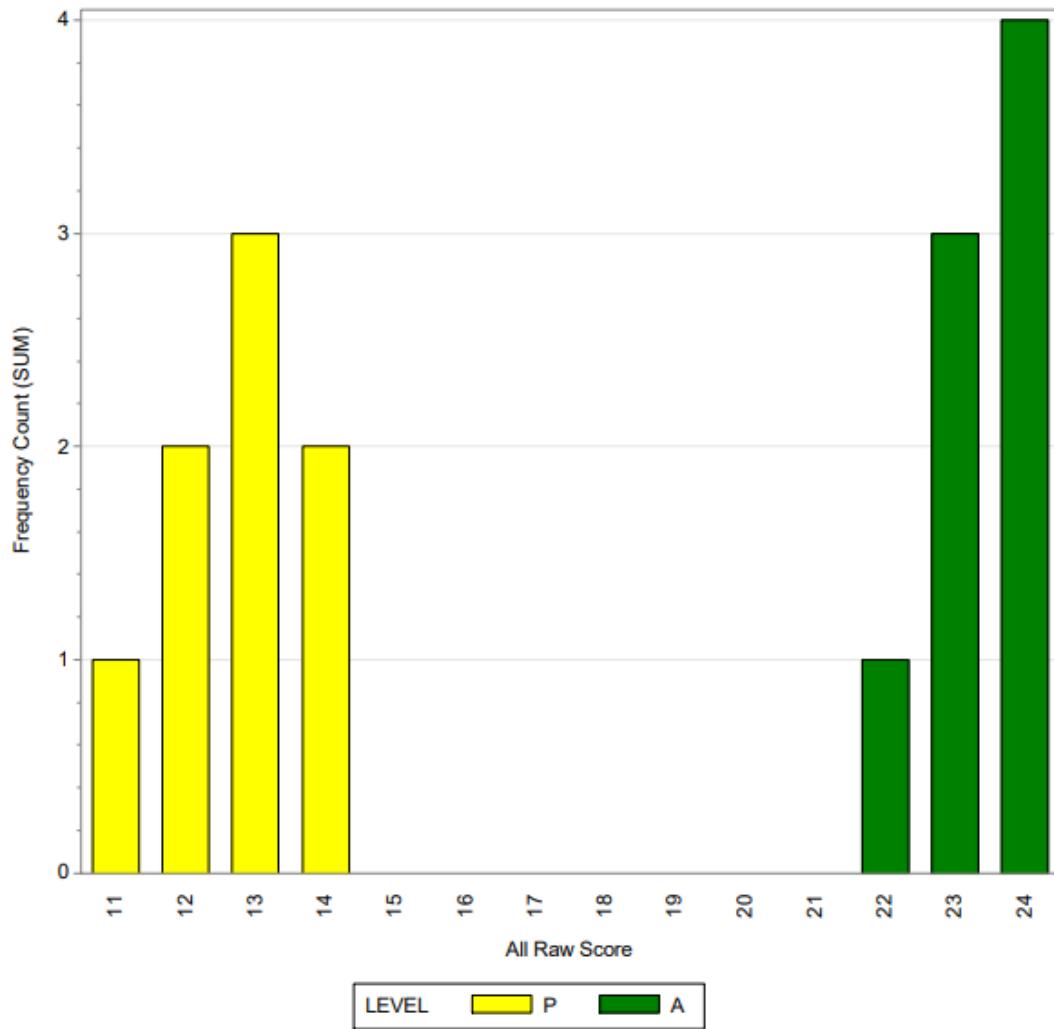


Pass/Proficient



Pass/Advanced

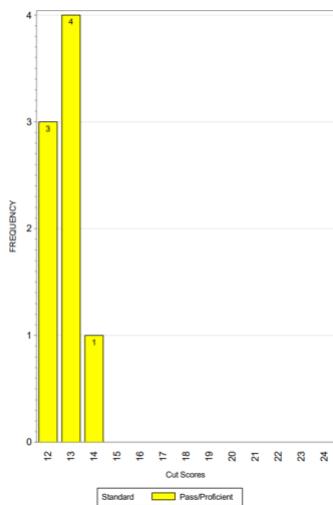
Mathematics Grade 5 Panelist Agreement at Level P and A - Round 2



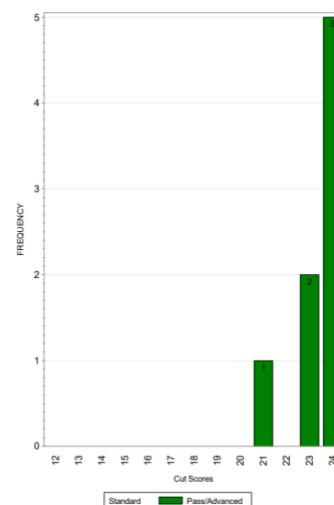
All Performance Levels Concurrently

Round 3:

Mathematics Grade 5 Panelist Agreement Data - Round 3 Mathematics Grade 5 Panelist Agreement Data - Round 3

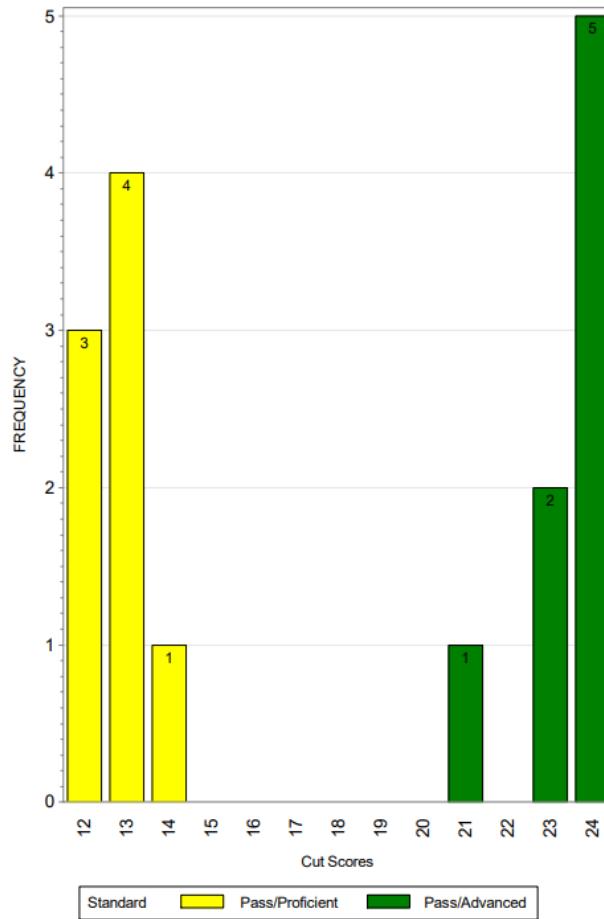


Pass/Proficient



Pass/Advanced

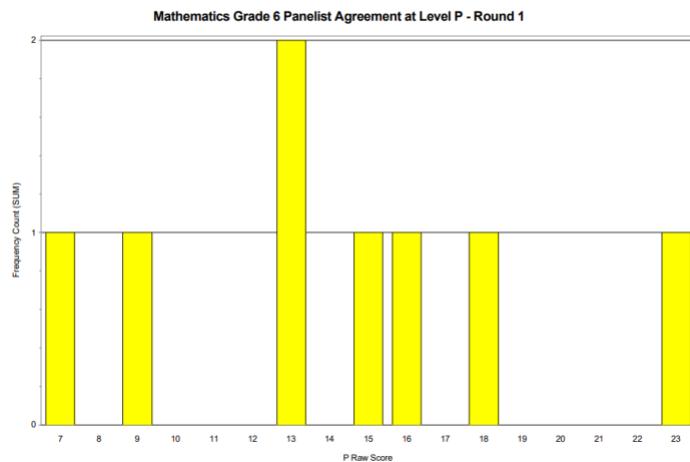
Mathematics Grade 5 Panelist Agreement Data - Round 3



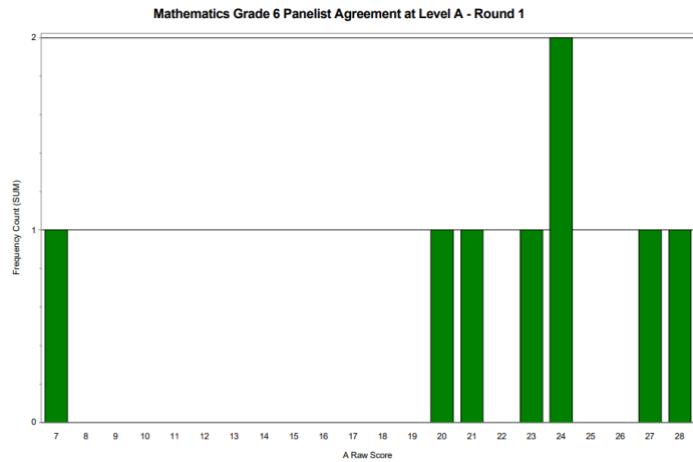
All Performance Levels Concurrently

Mathematics Grade 6

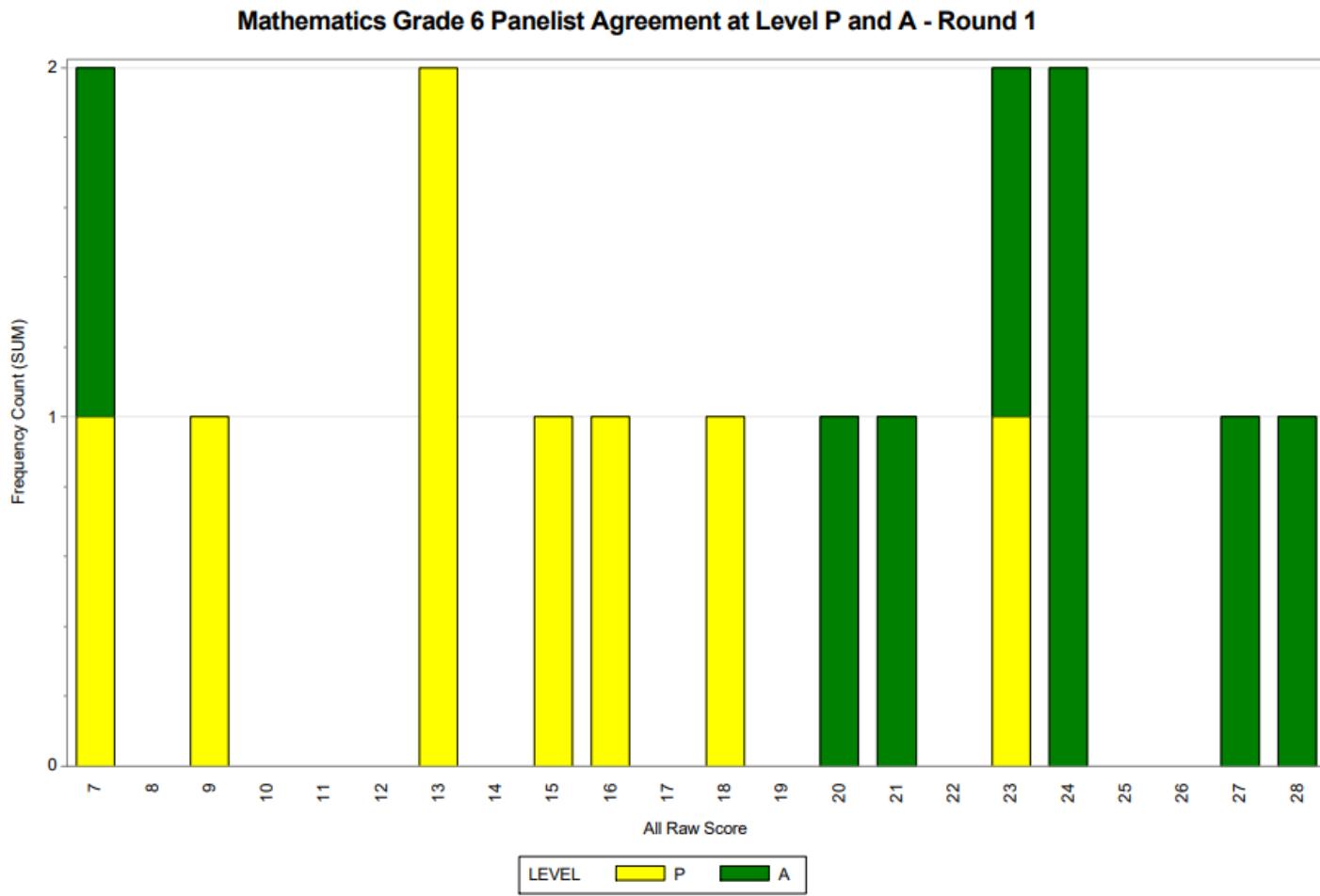
Round 1:



Pass/Proficient

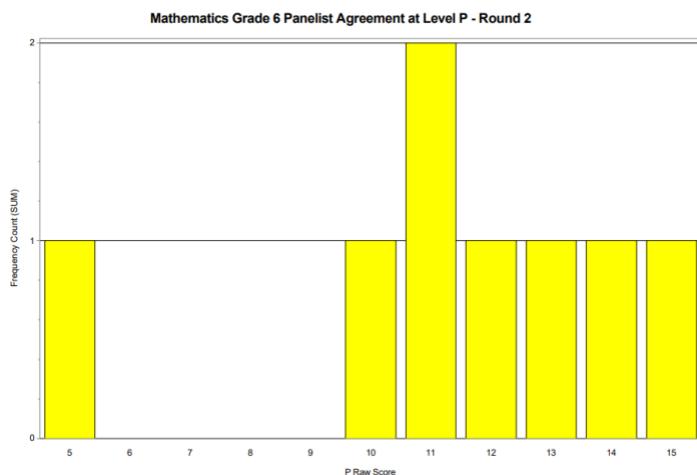


Pass/Advanced

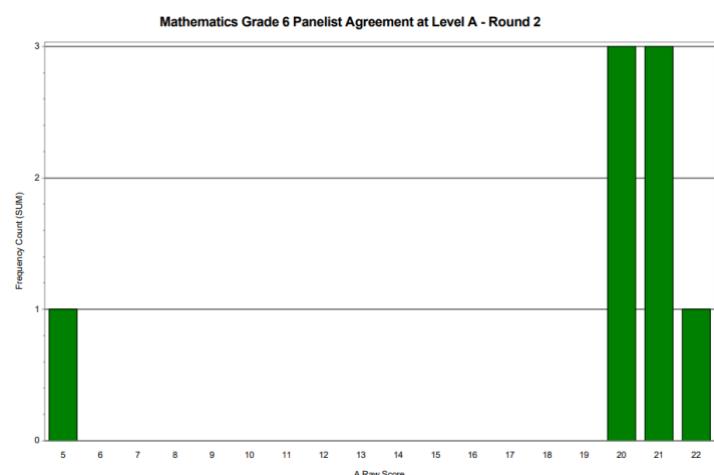


All Performance Levels Concurrently

Round 2:

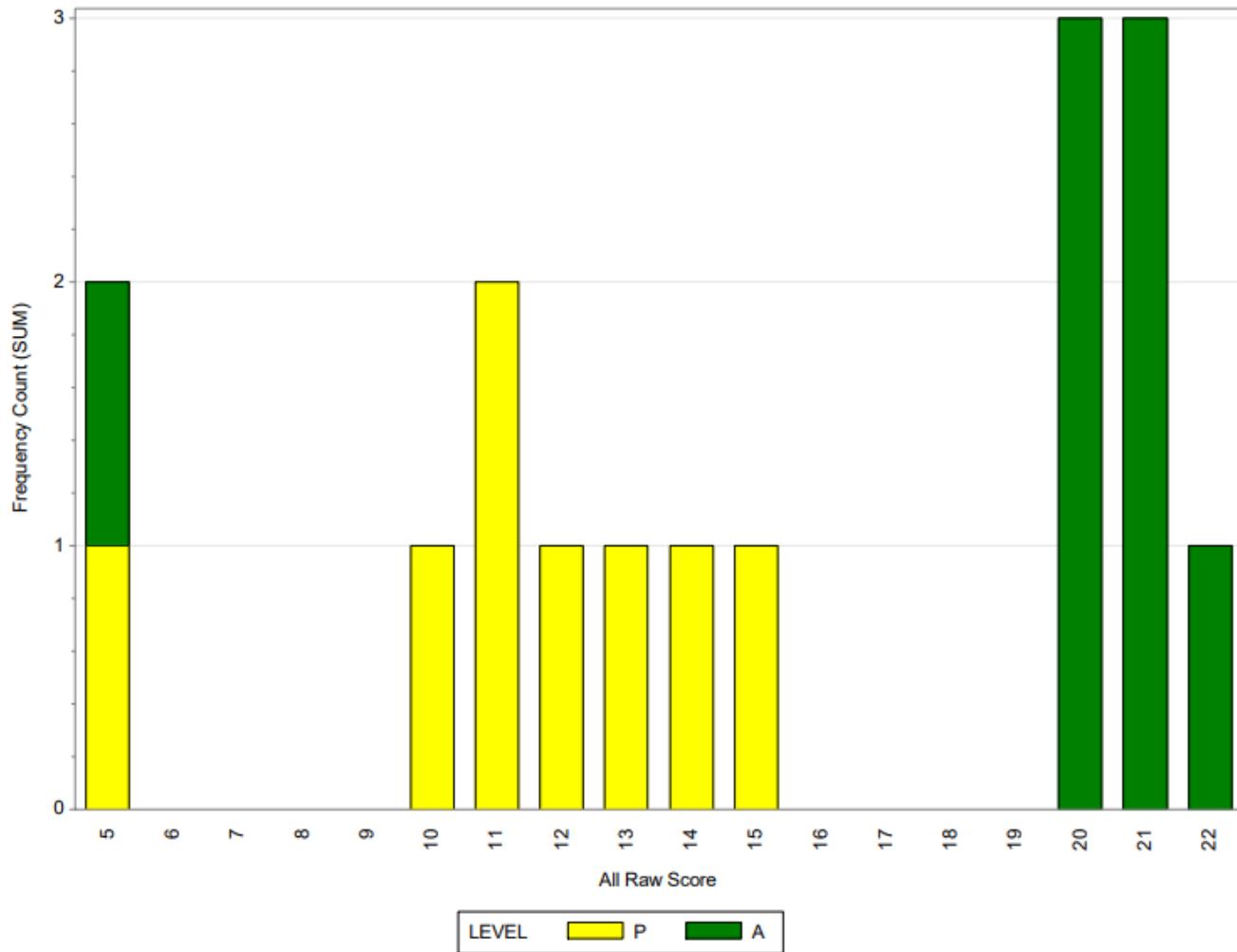


Pass/Proficient



Pass/Advanced

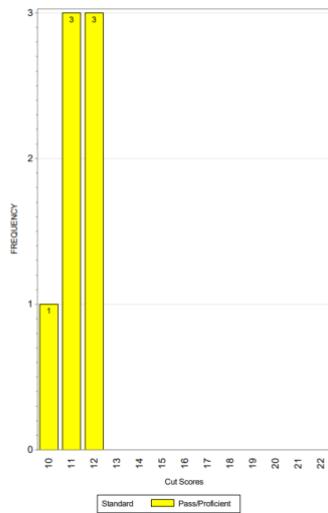
Mathematics Grade 6 Panelist Agreement at Level P and A - Round 2



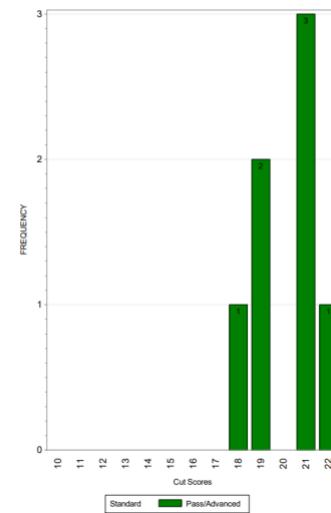
All Performance Levels Concurrently

Round 3:

Mathematics Grade 6 Panelist Agreement Data - Round 3 Mathematics Grade 6 Panelist Agreement Data - Round 3

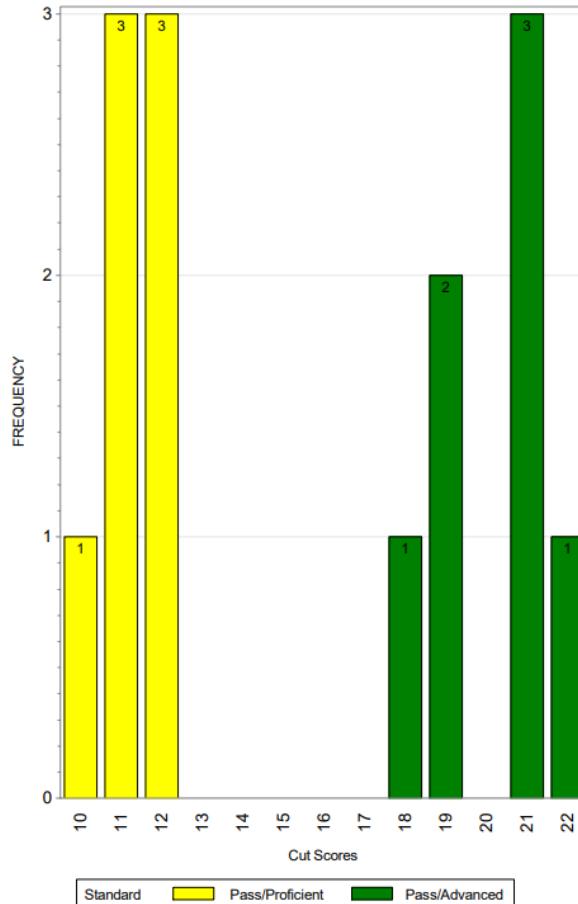


Pass/Proficient



Pass/Advanced

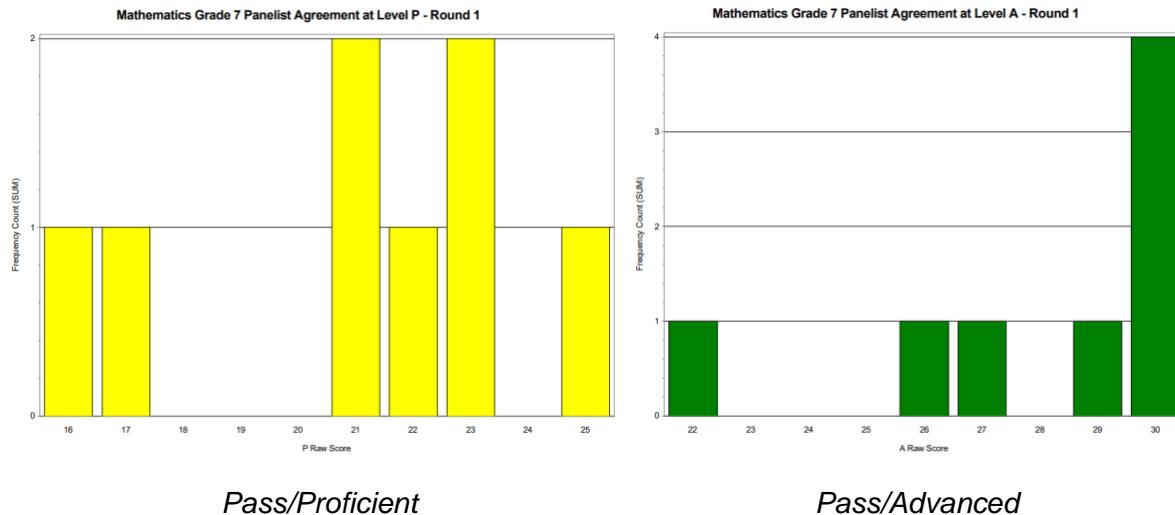
Mathematics Grade 6 Panelist Agreement Data - Round 3



All Performance Levels Concurrently

Mathematics Grade 7

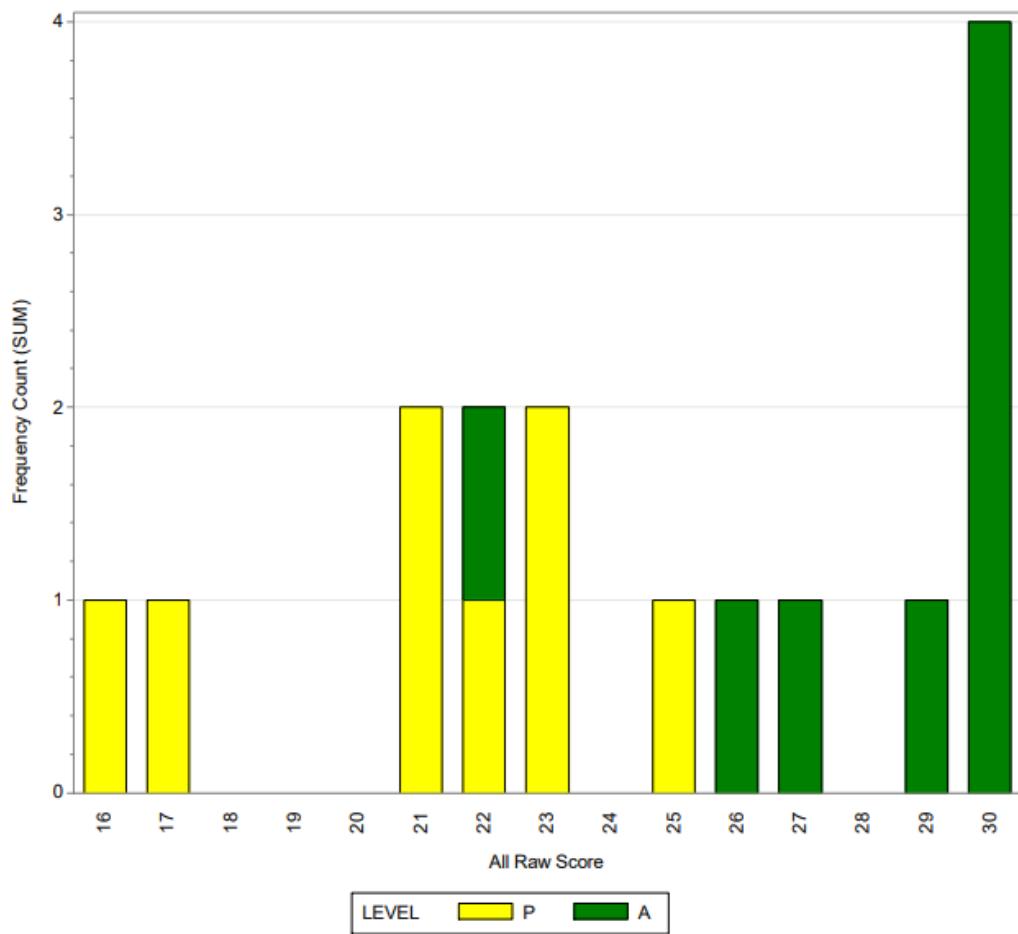
Round 1:



Pass/Proficient

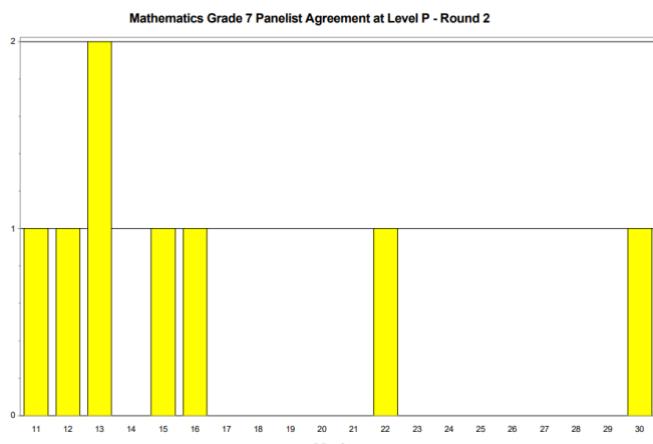
Pass/Advanced

Mathematics Grade 7 Panelist Agreement at Level P and A - Round 1

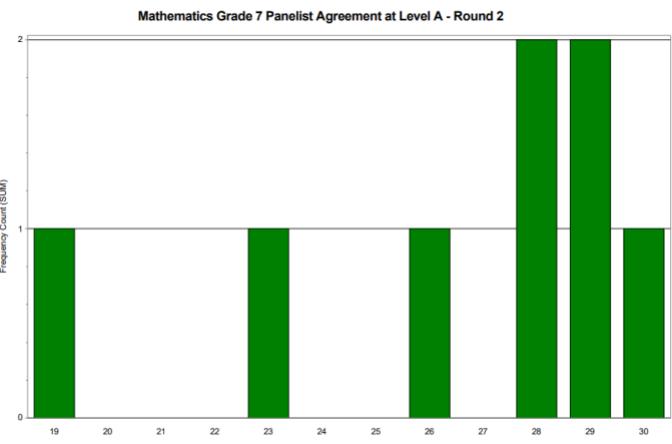


All Performance Levels Concurrently

Round 2:

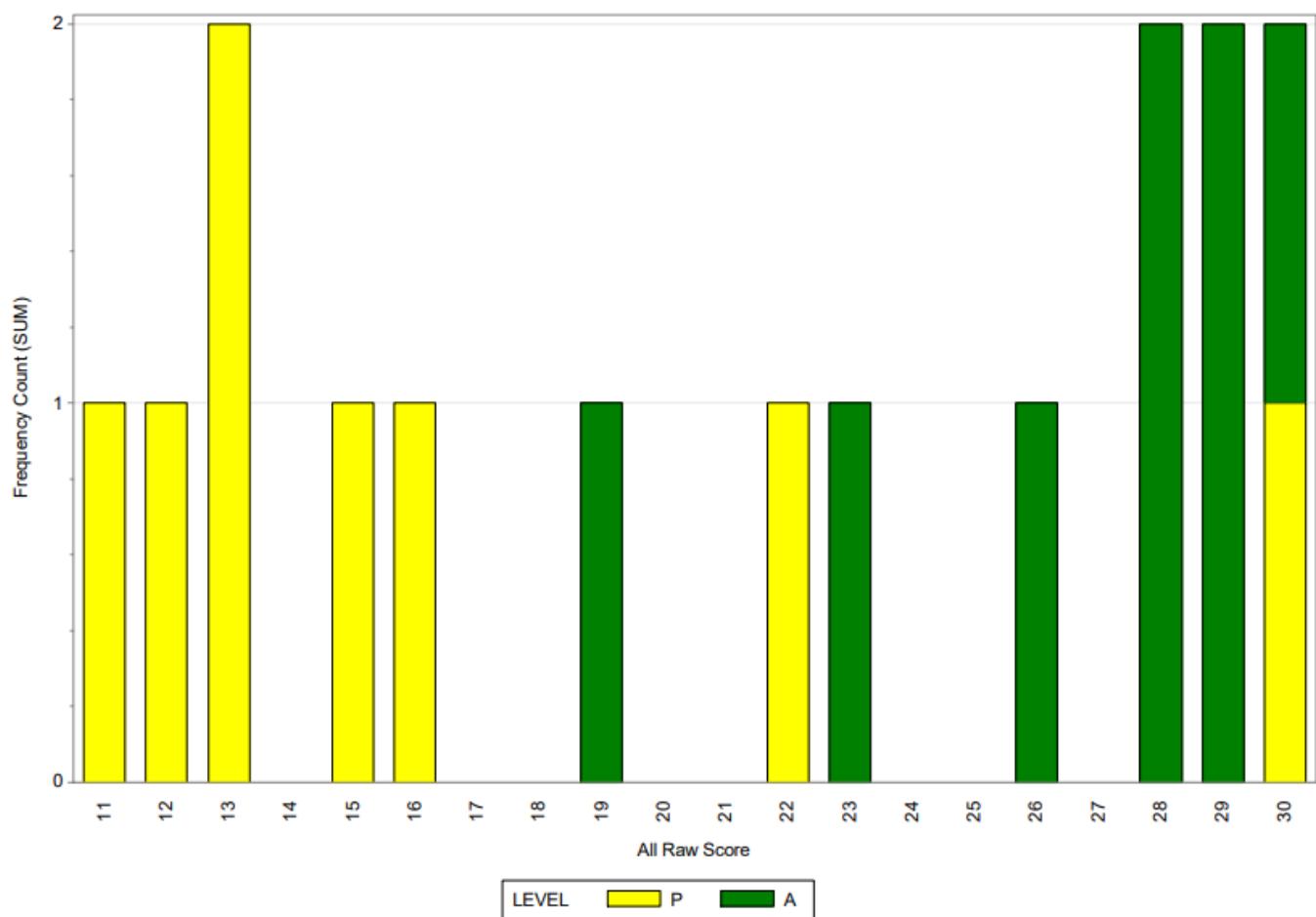


Pass/Proficient



Pass/Advanced

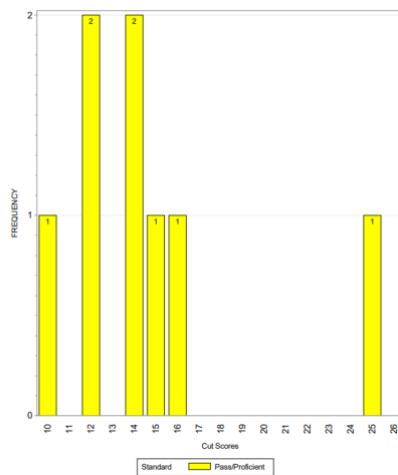
Mathematics Grade 7 Panelist Agreement at Level P and A - Round 2



All Performance Levels Concurrently

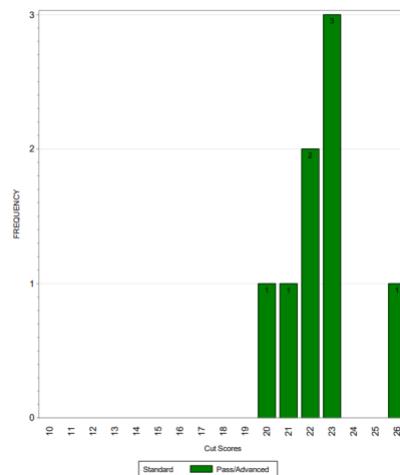
Round 3:

Mathematics Grade 7 Panelist Agreement Data - Round 3



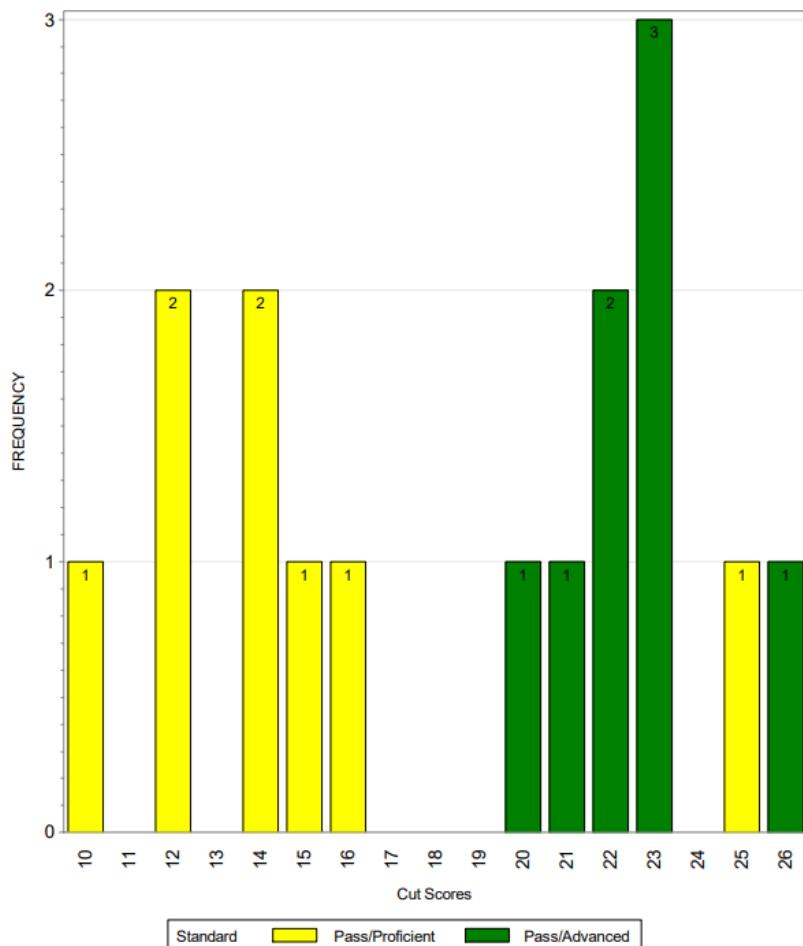
Pass/Proficient

Mathematics Grade 7 Panelist Agreement Data - Round 3



Pass/Advanced

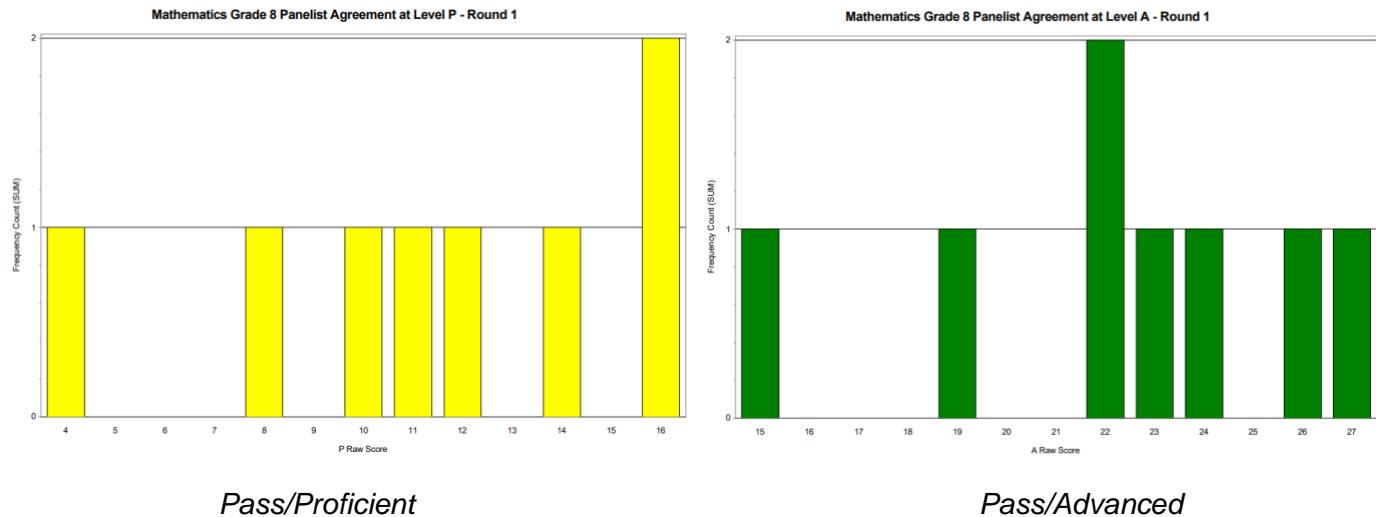
Mathematics Grade 7 Panelist Agreement Data - Round 3



All Performance Levels Concurrently

Mathematics Grade 8

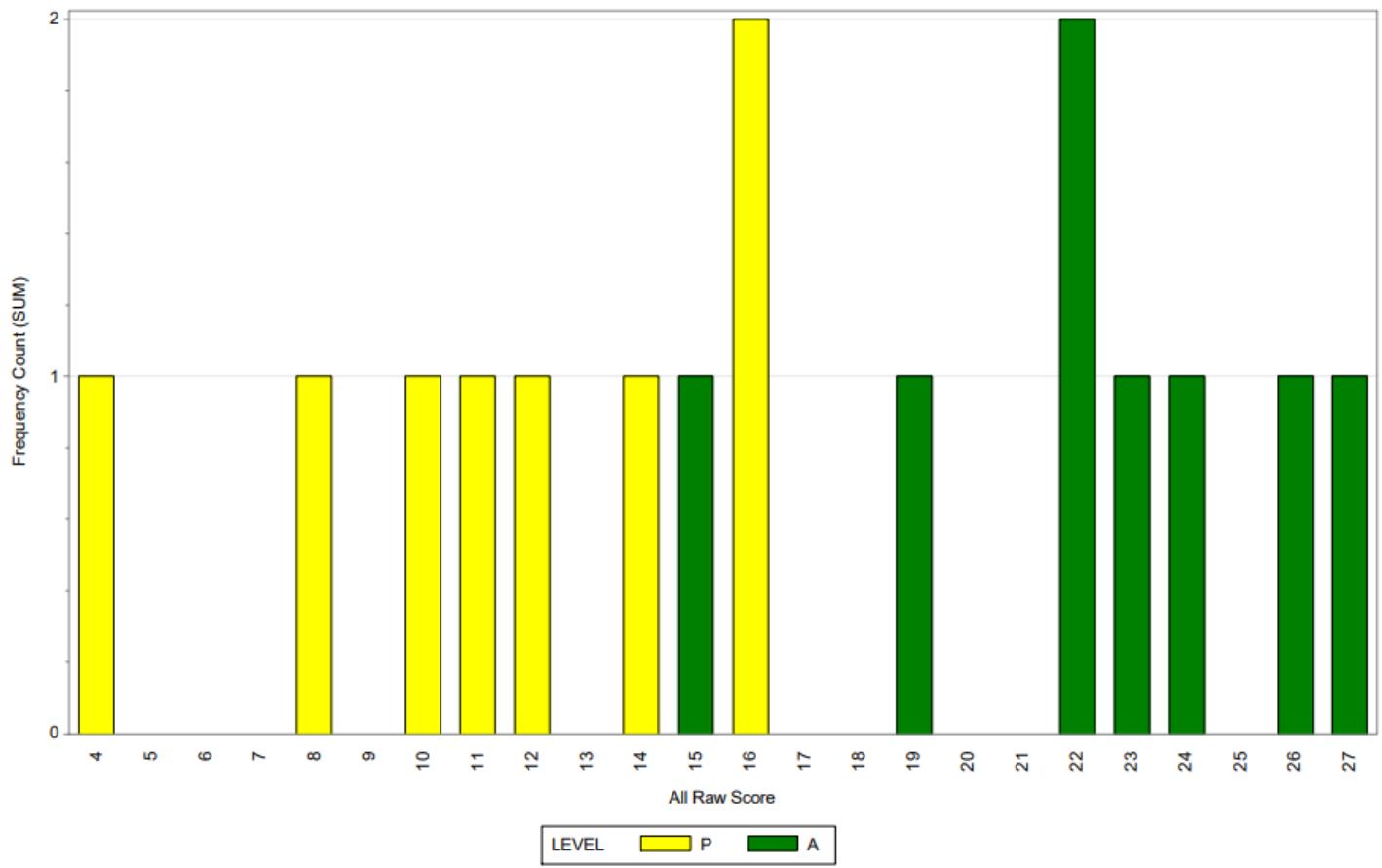
Round 1:



Pass/Proficient

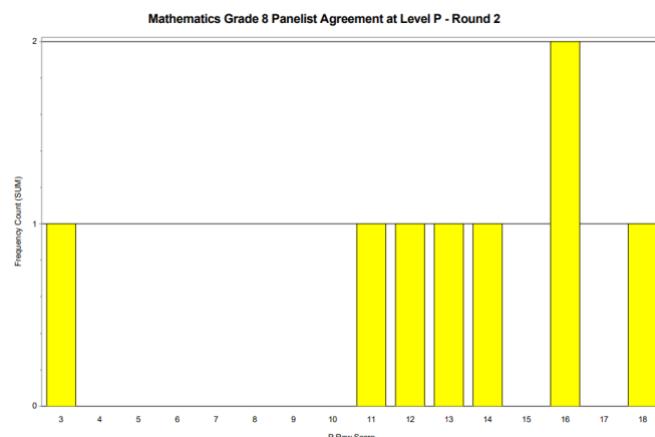
Pass/Advanced

Mathematics Grade 8 Panelist Agreement at Level P and A - Round 1

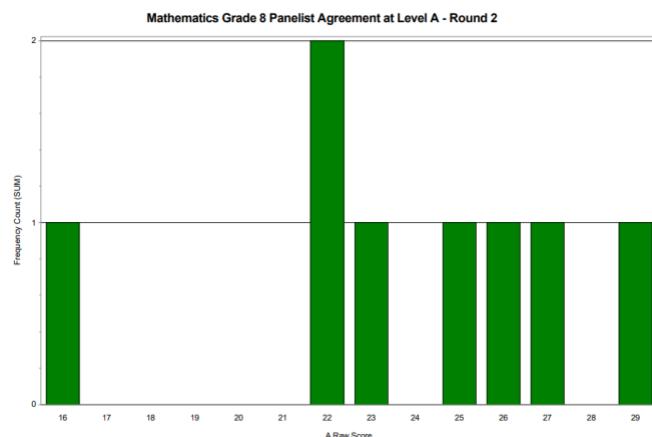


All Performance Levels Concurrently

Round 2:

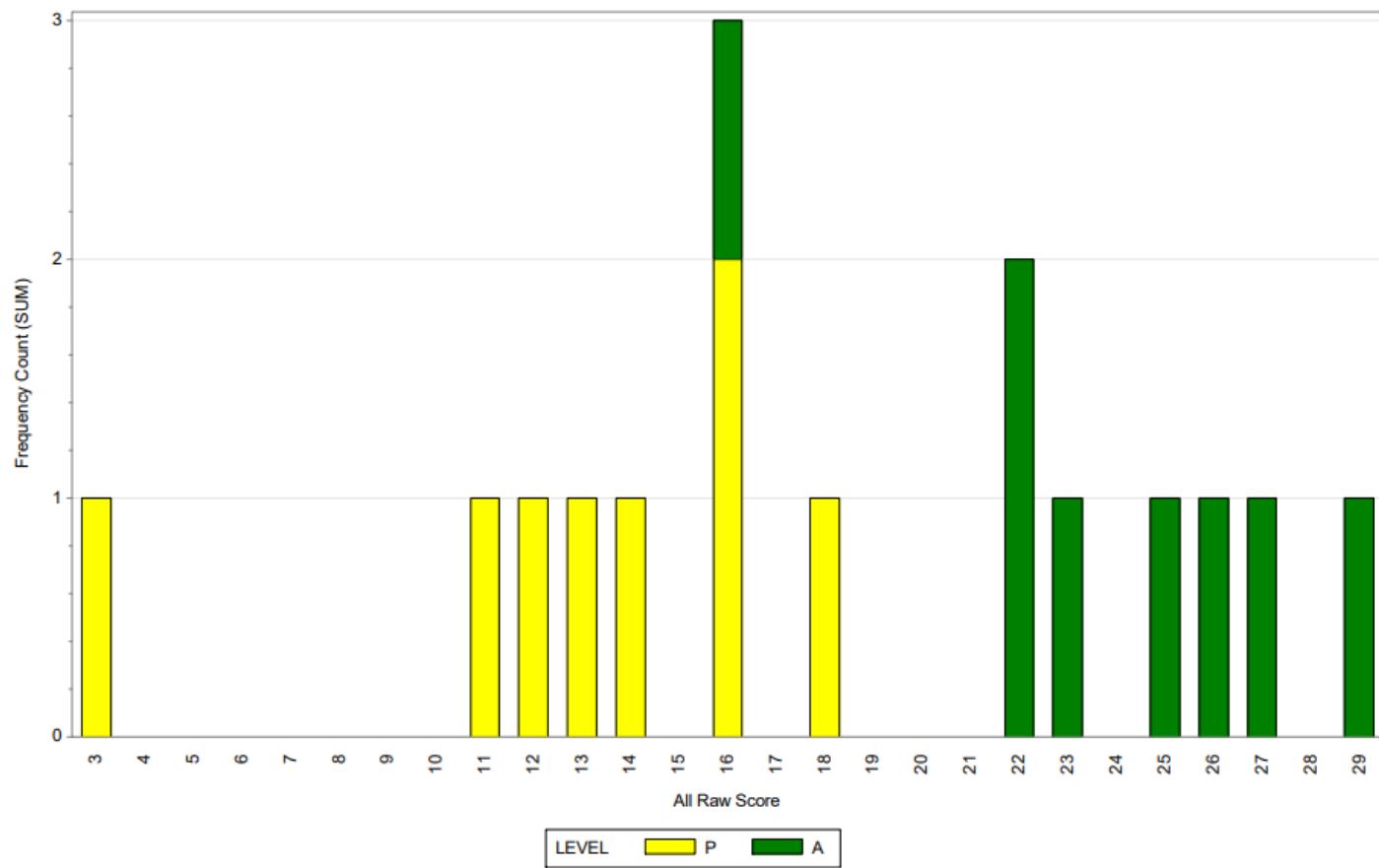


Pass/Proficient

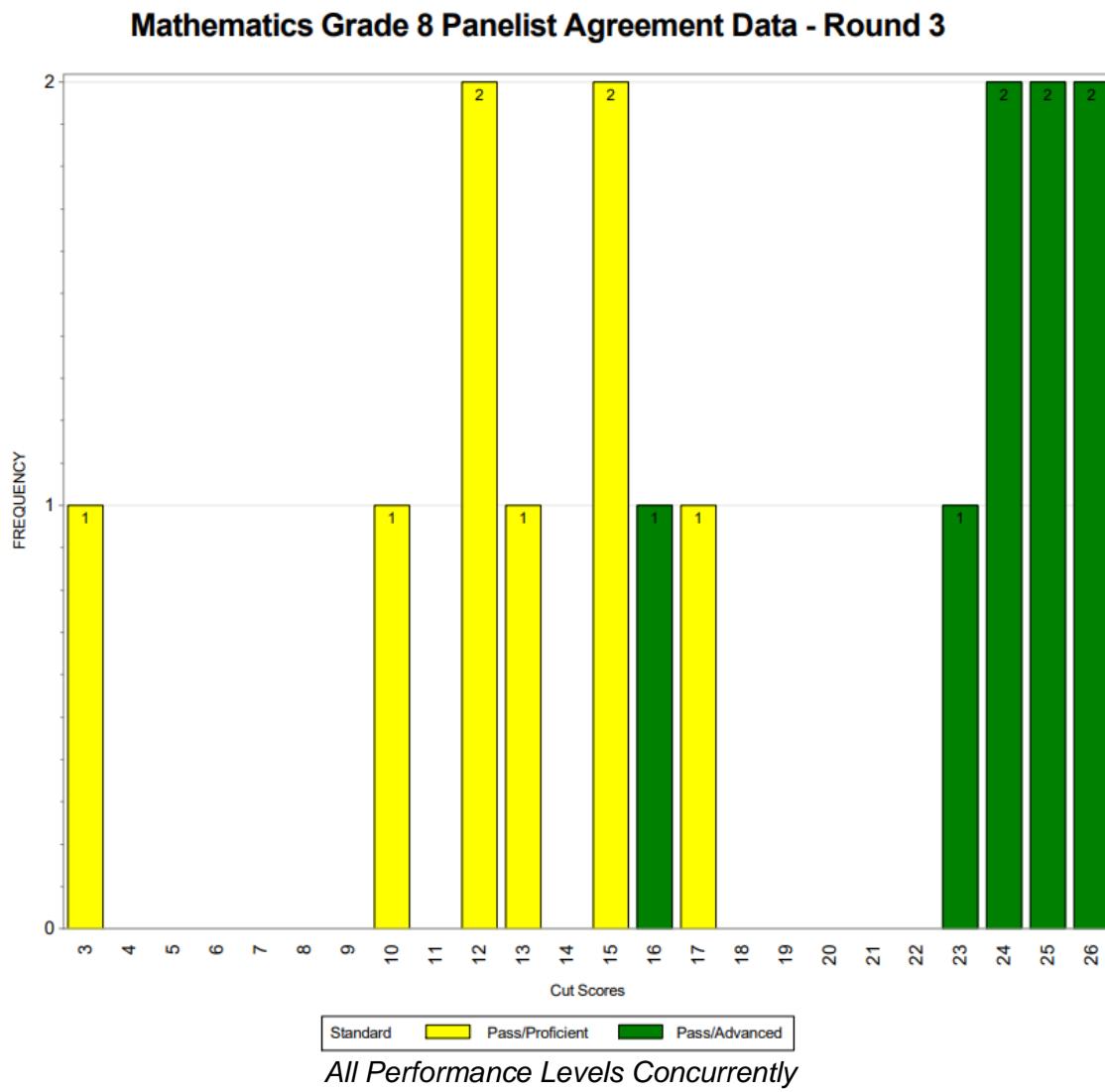
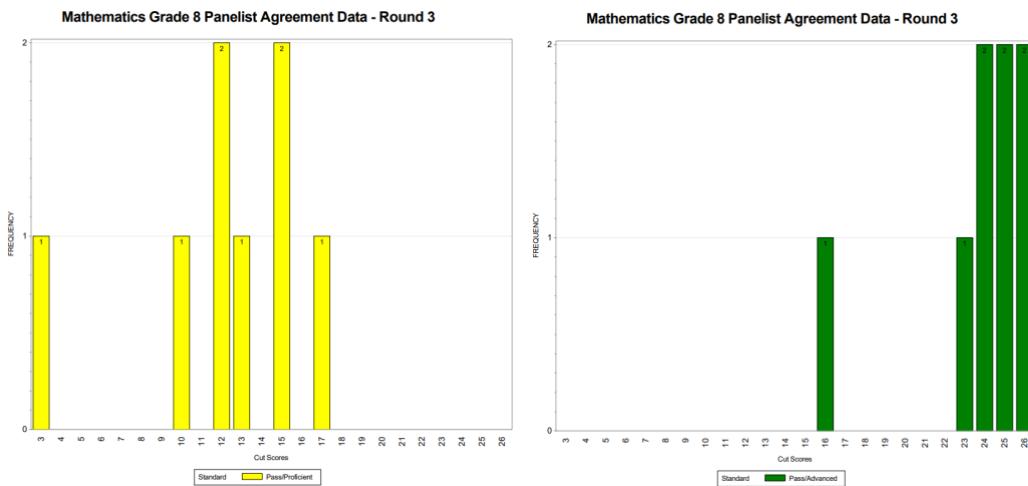


Pass/Advanced

Mathematics Grade 8 Panelist Agreement at Level P and A - Round 2

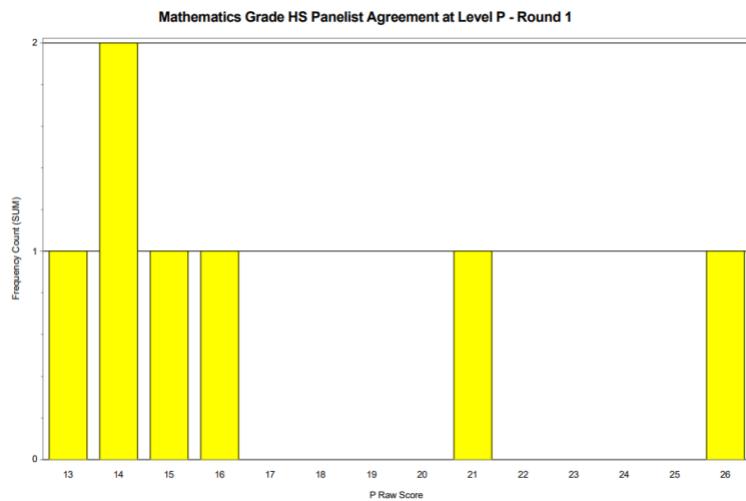


Round 3:

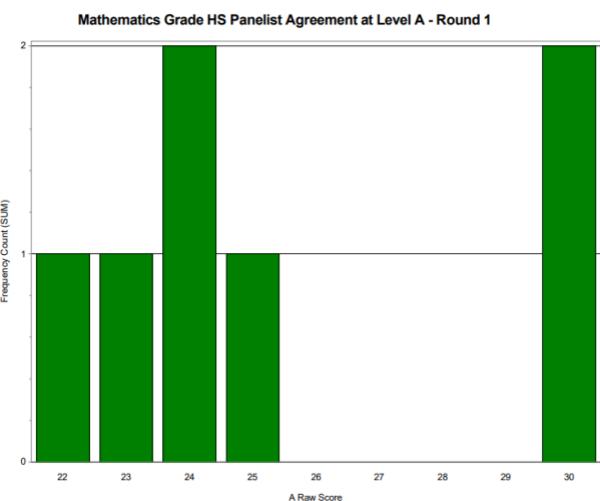


Mathematics Grade HS

Round 1:

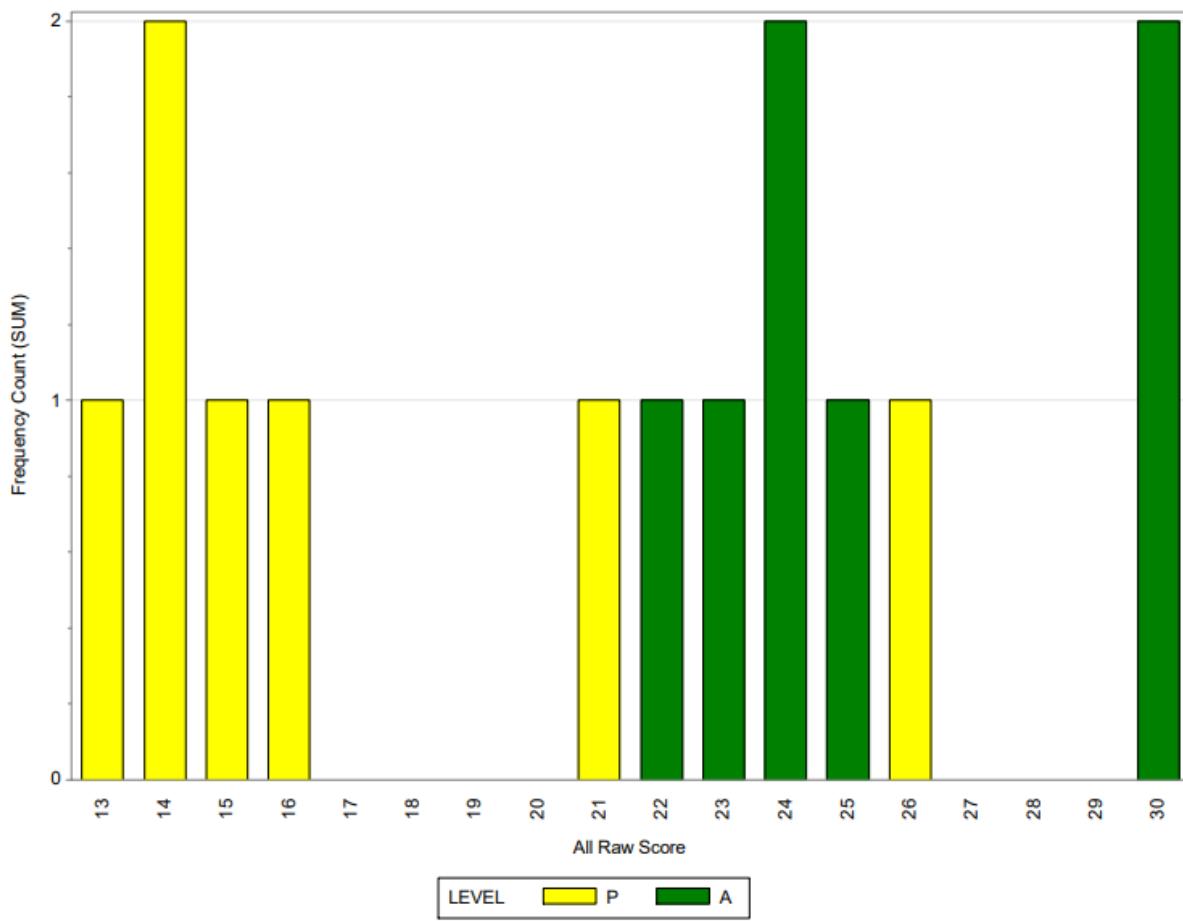


Pass/Proficient

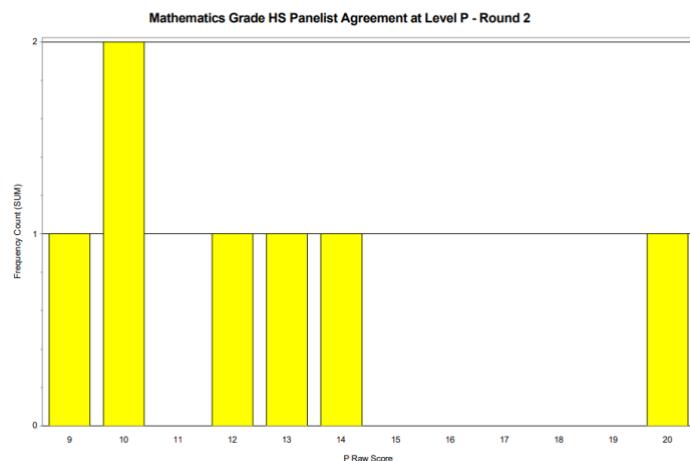


Pass/Advanced

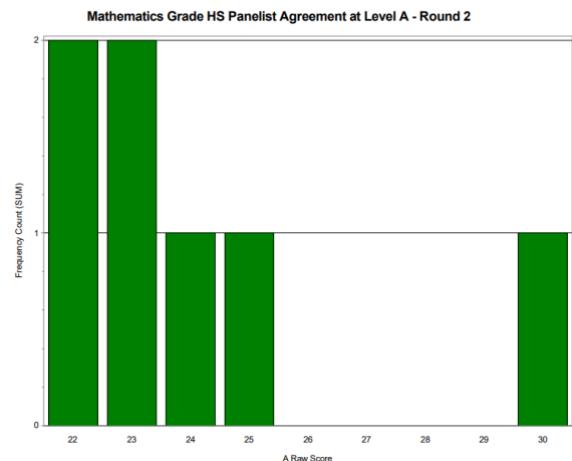
Mathematics Grade HS Panelist Agreement at Level P and A - Round 1



Round 2:

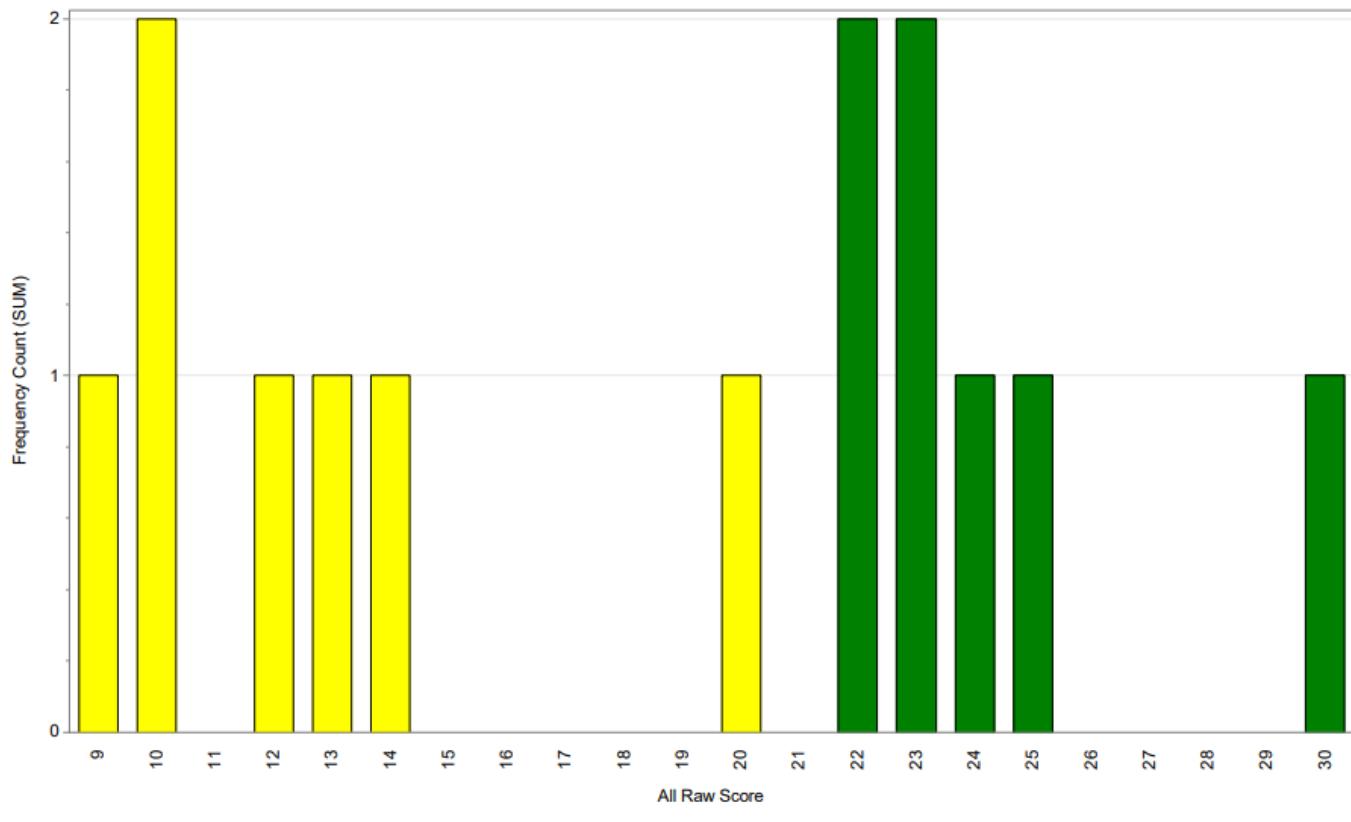


Pass/Proficient



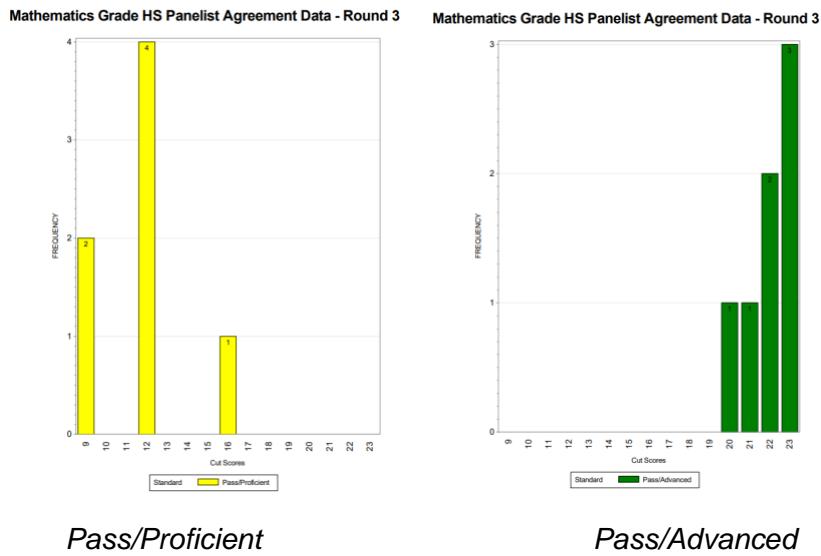
Pass/Advanced

Mathematics Grade HS Panelist Agreement at Level P and A - Round 2

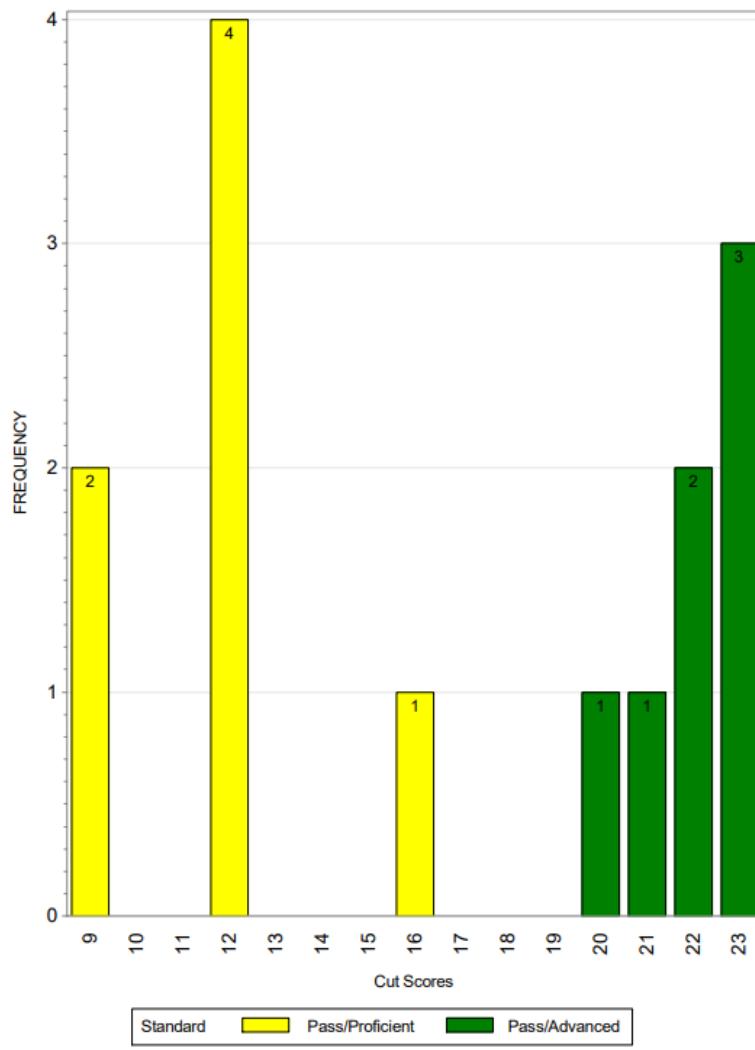


All Performance Levels Concurrently

Round 3:

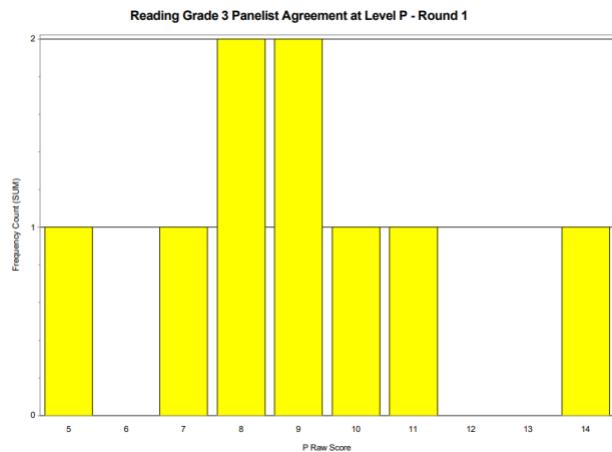


Mathematics Grade HS Panelist Agreement Data - Round 3

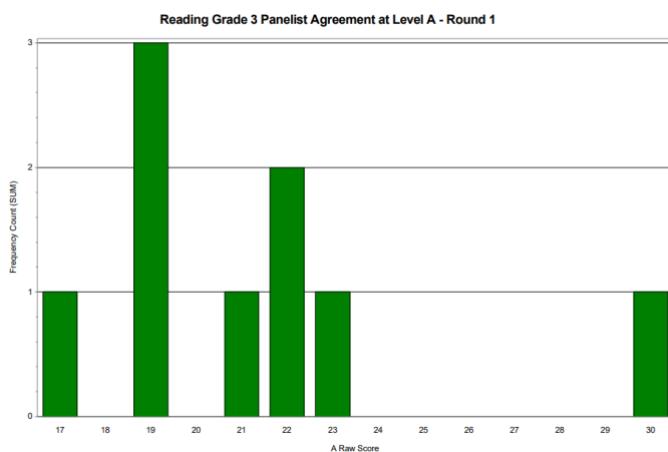


Reading Grade 3

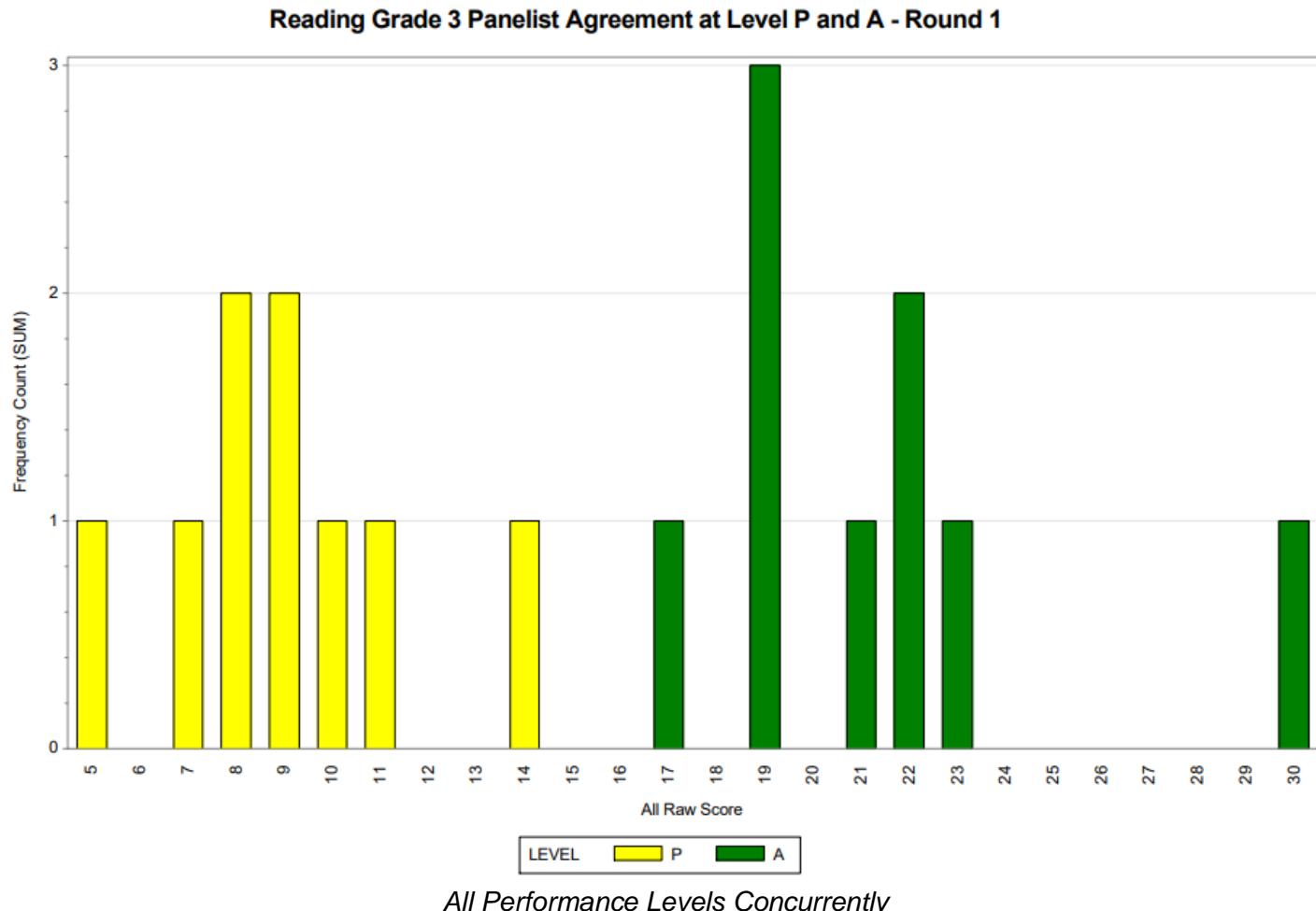
Round 1:



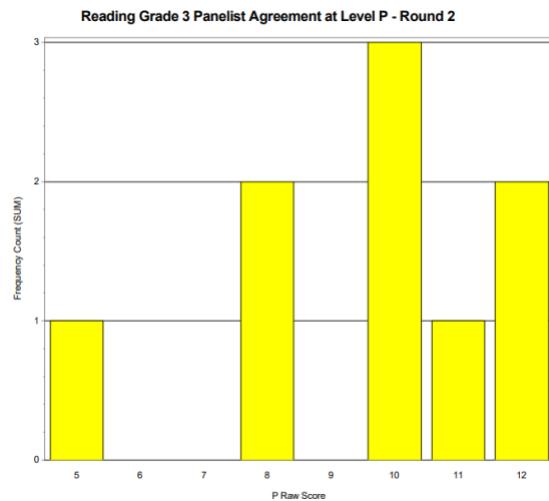
Pass/Proficient



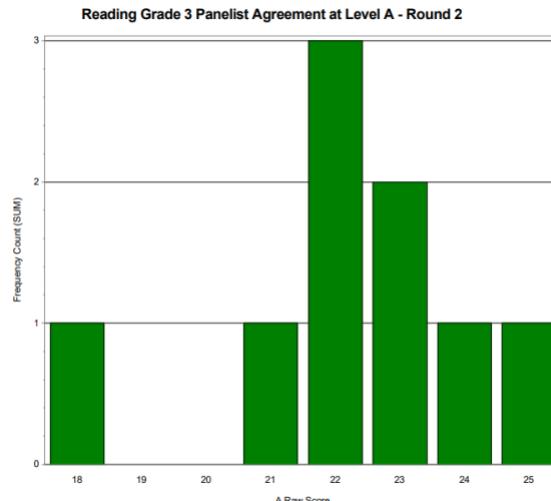
Pass/Advanced



Round 2:

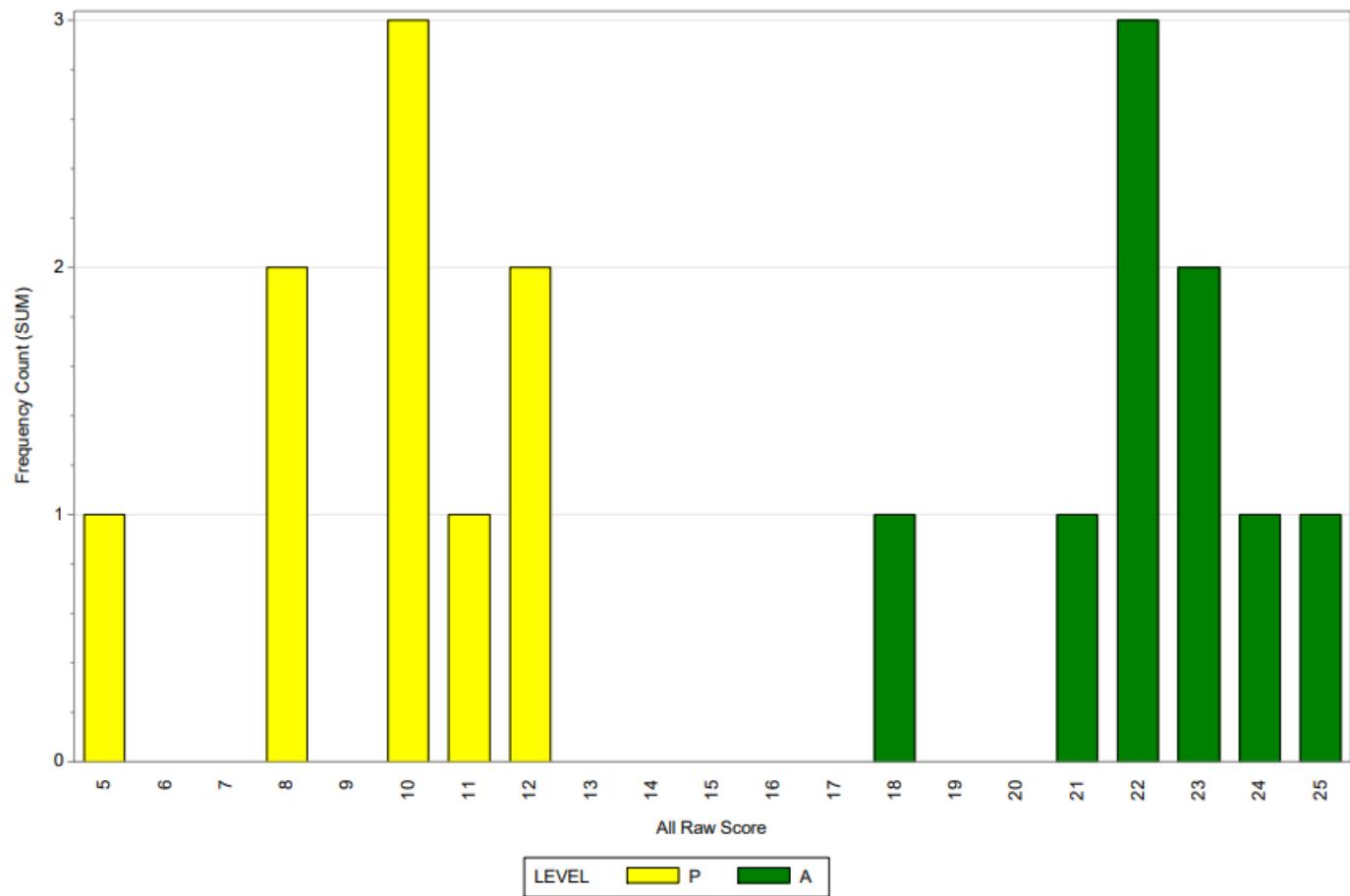


Pass/Proficient



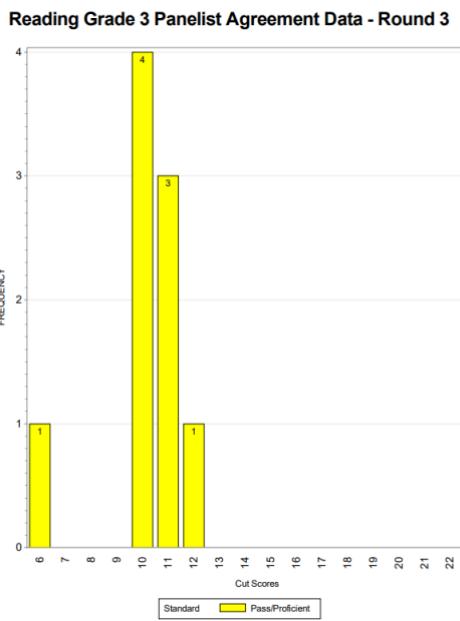
Pass/Advanced

Reading Grade 3 Panelist Agreement at Level P and A - Round 2

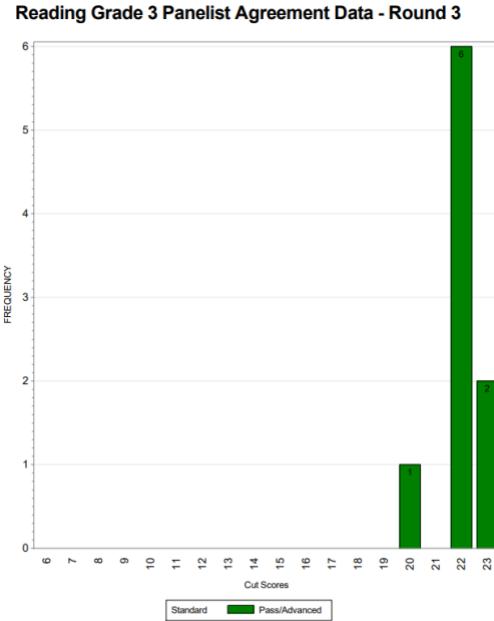


All Performance Levels Concurrently

Round 3:

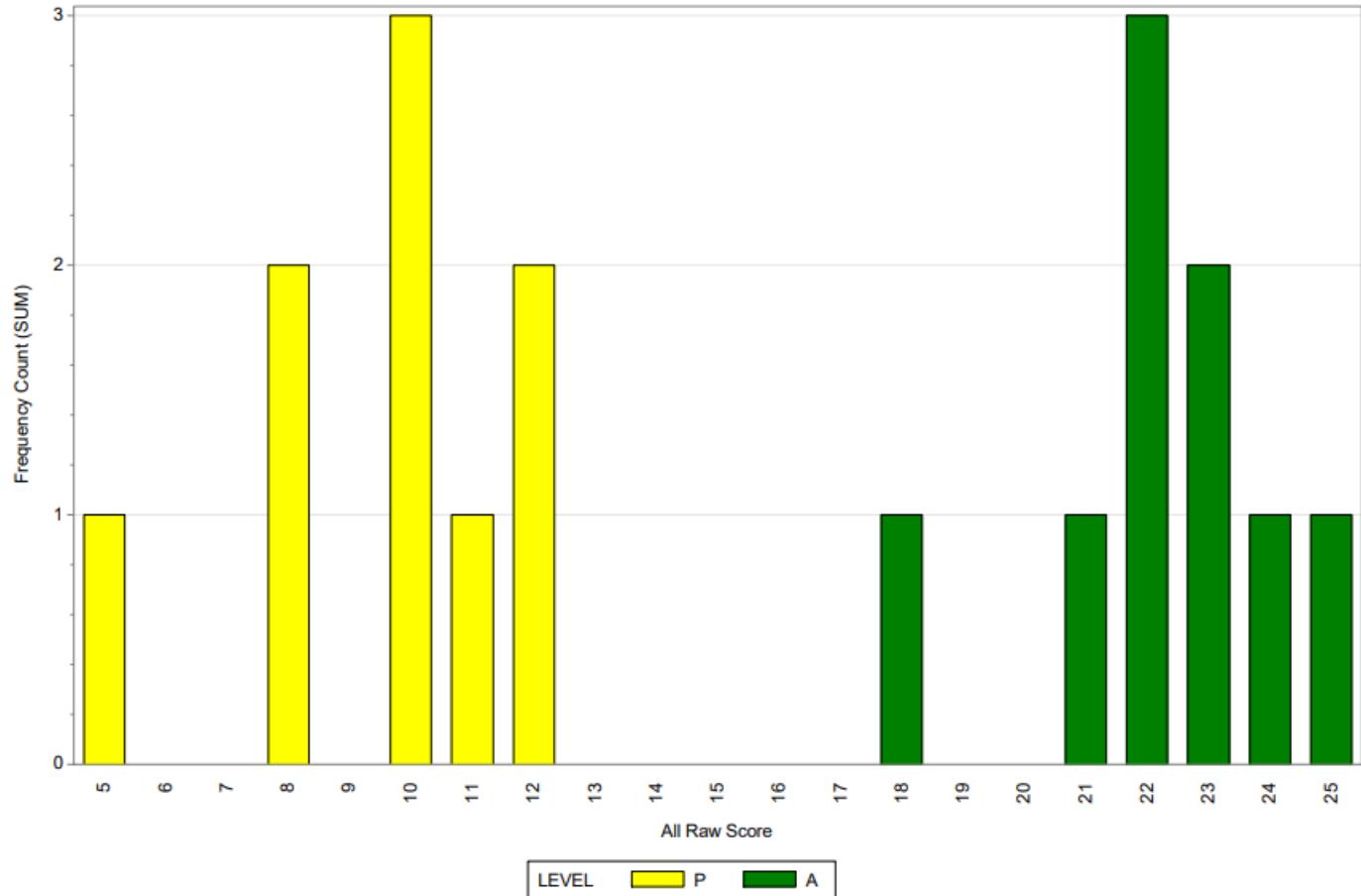


Pass/Proficient



Pass/Advanced

Reading Grade 3 Panelist Agreement at Level P and A - Round 2

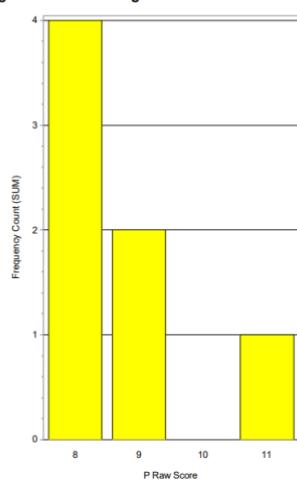


All Performance Levels Concurrently

Reading Grade 4

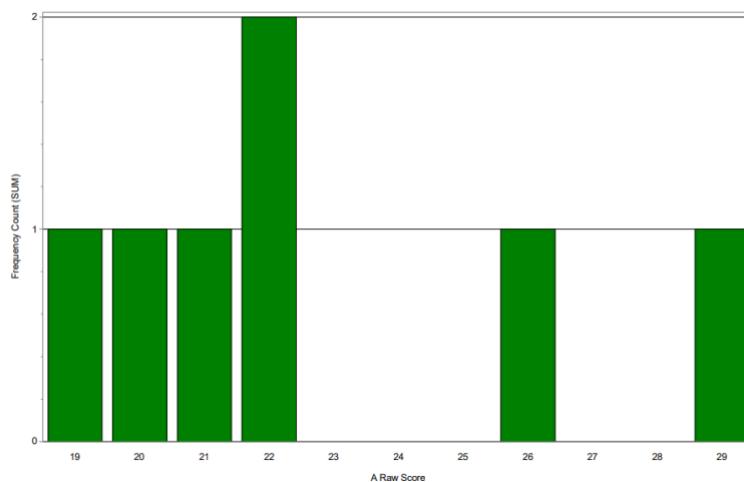
Round 1:

Reading Grade 4 Panelist Agreement at Level P - Round 1



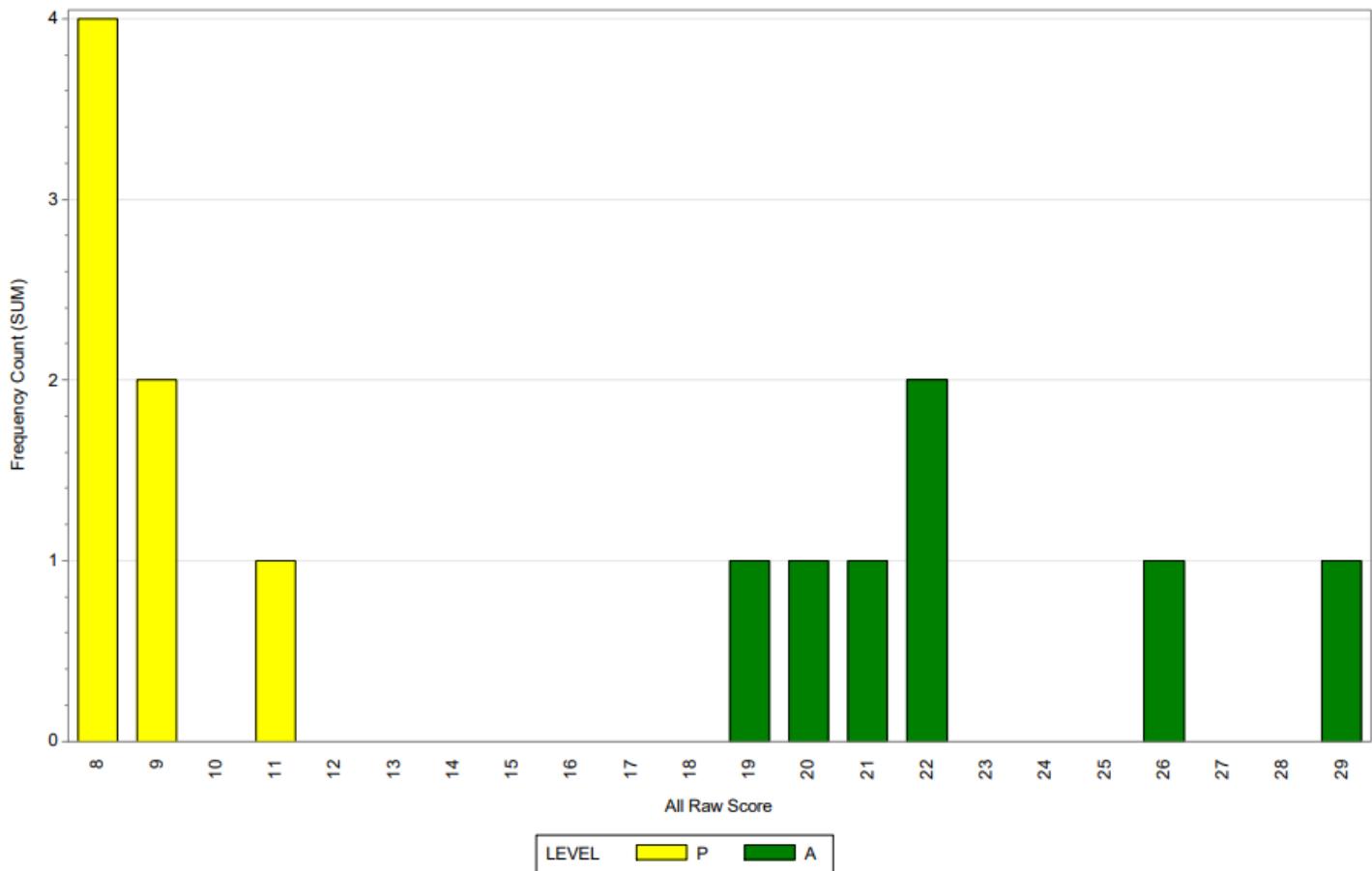
Pass/Proficient

Reading Grade 4 Panelist Agreement at Level A - Round 1



Pass/Advanced

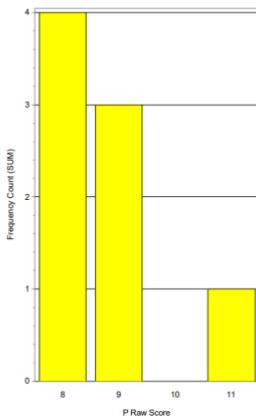
Reading Grade 4 Panelist Agreement at Level P and A - Round 1



All Performance Levels Concurrently

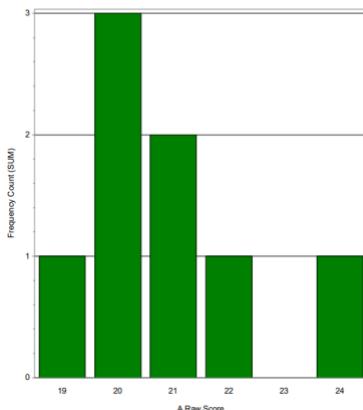
Round 2:

Reading Grade 4 Panelist Agreement at Level P - Round 2



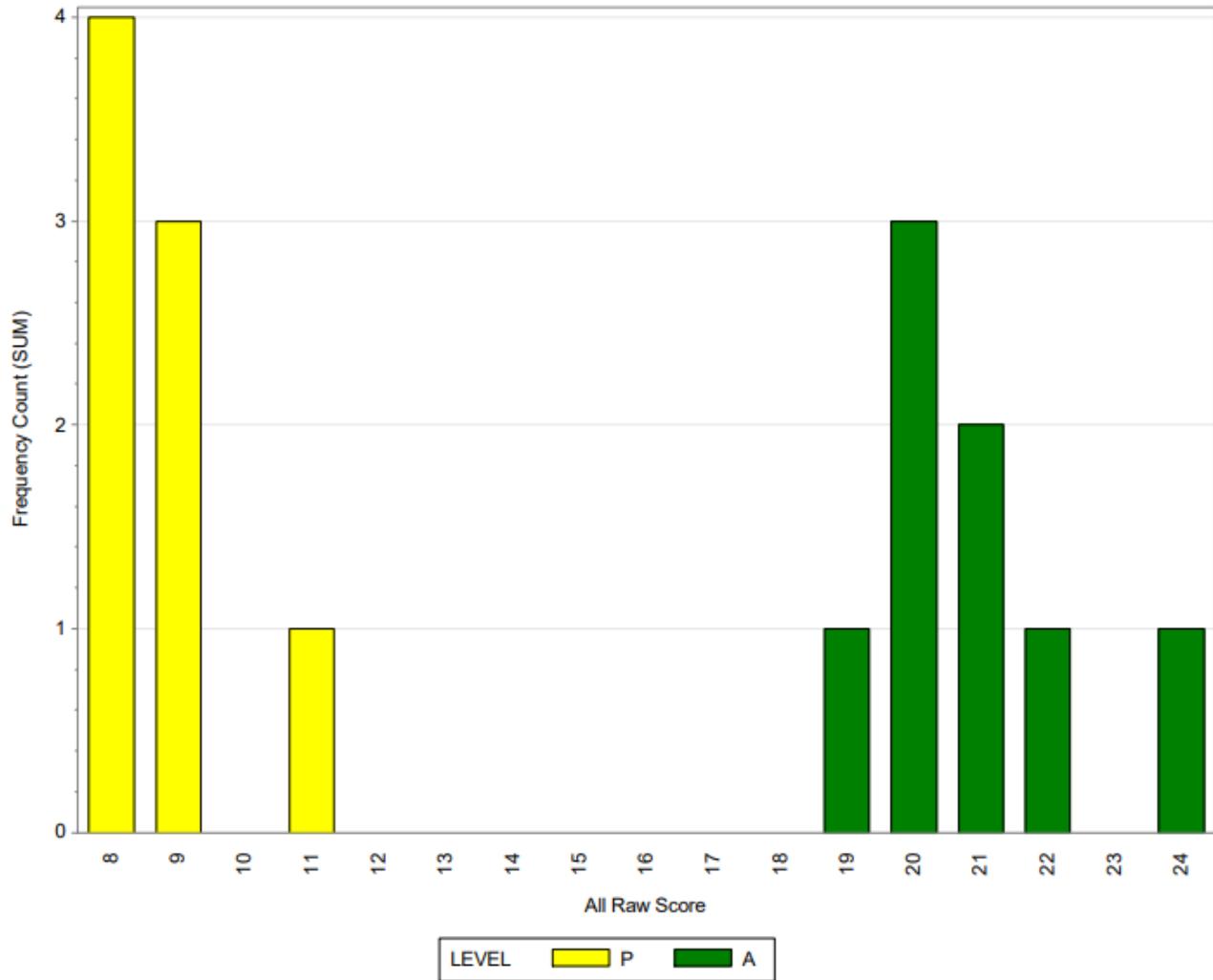
Pass/Proficient

Reading Grade 4 Panelist Agreement at Level A - Round 2



Pass/Advanced

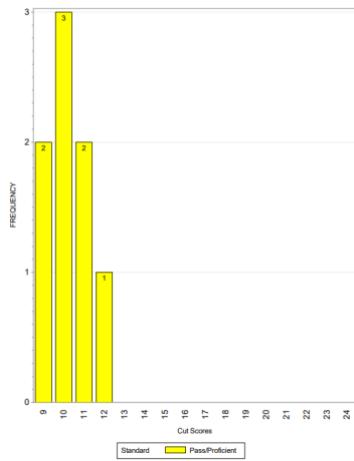
Reading Grade 4 Panelist Agreement at Level P and A - Round 2



All Performance Levels Concurrently

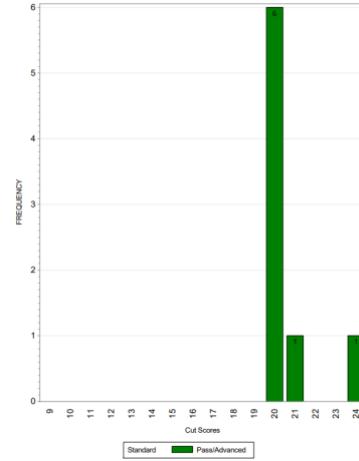
Round 3:

Reading Grade 4 Panelist Agreement Data - Round 3



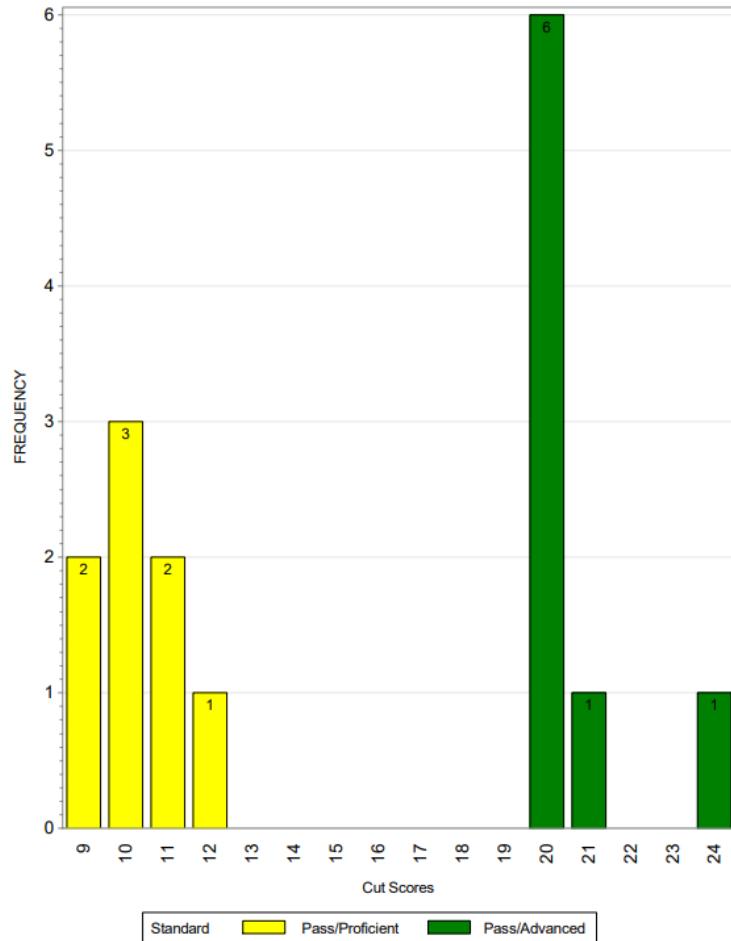
Pass/Proficient

Reading Grade 4 Panelist Agreement Data - Round 3



Pass/Advanced

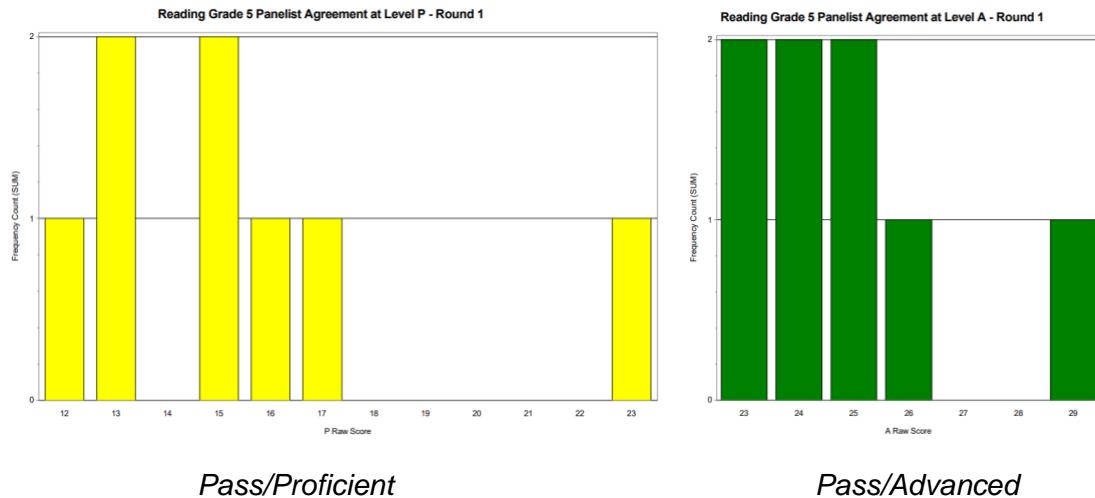
Reading Grade 4 Panelist Agreement Data - Round 3



All Performance Levels Concurrently

Reading Grade 5

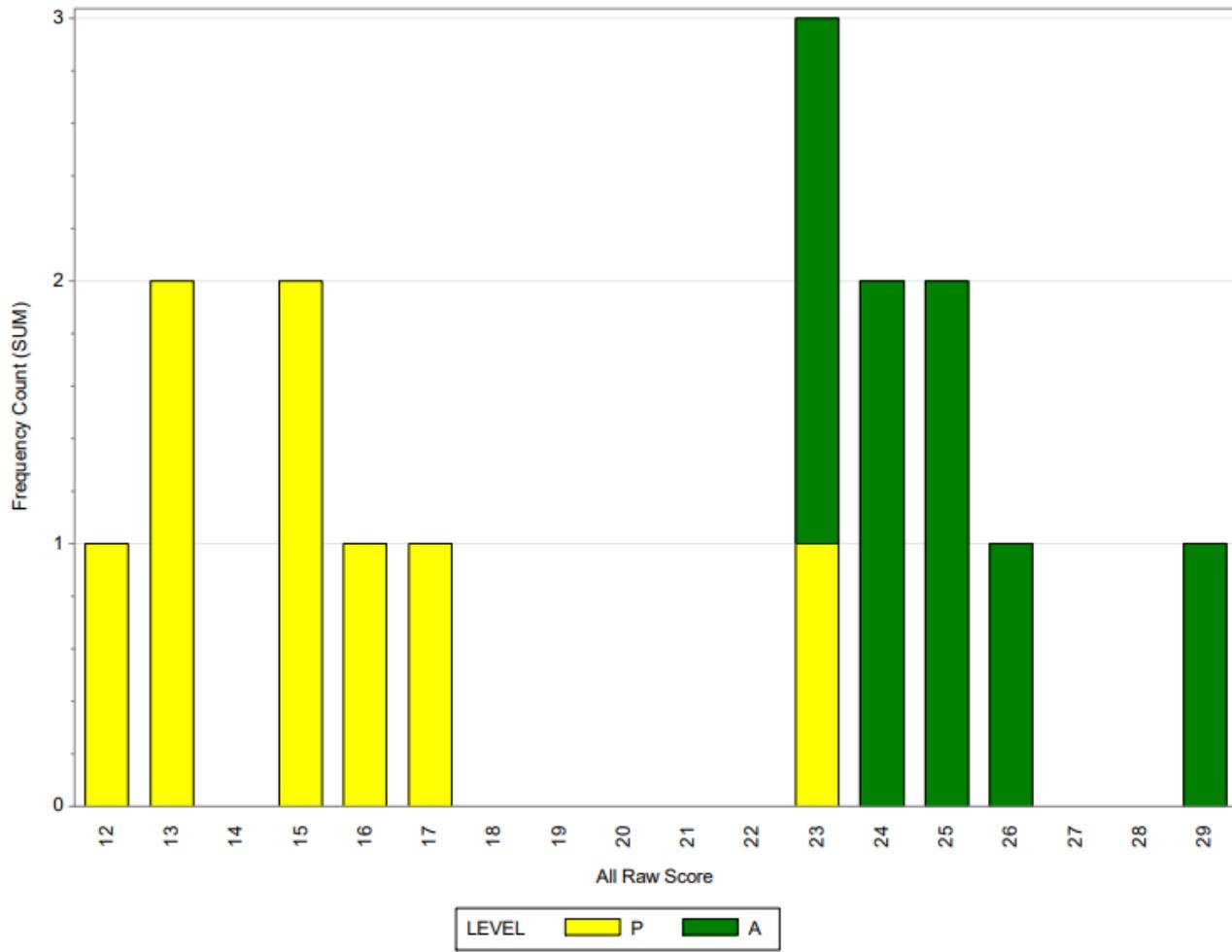
Round 1:



Pass/Proficient

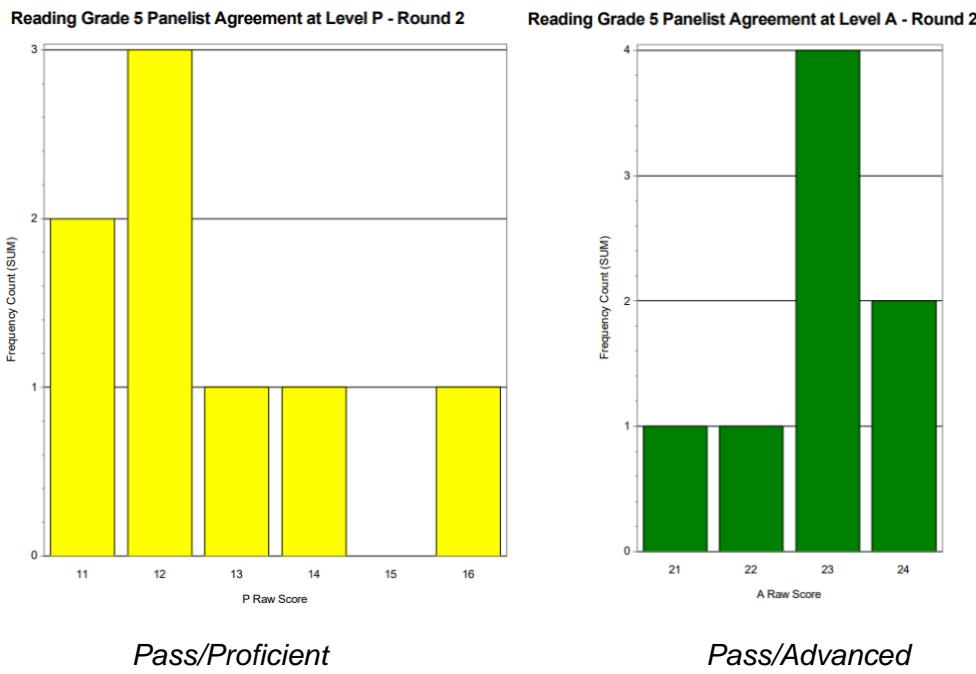
Pass/Advanced

Reading Grade 5 Panelist Agreement at Level P and A - Round 1

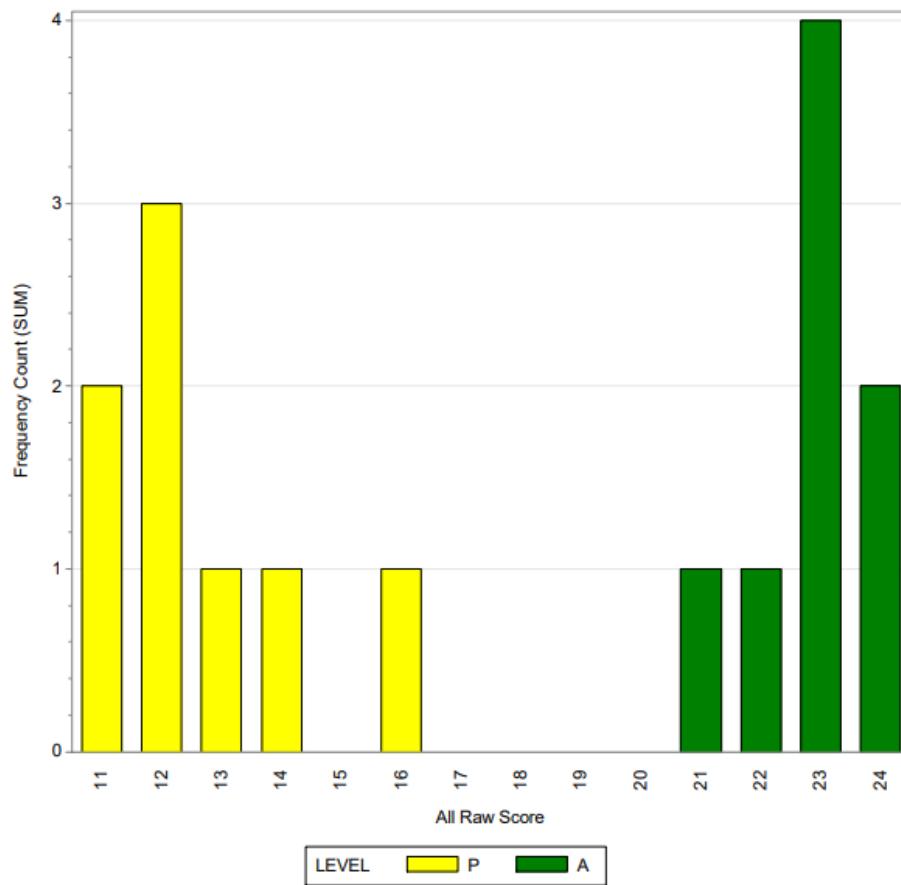


All Performance Levels Concurrently

Round 2:

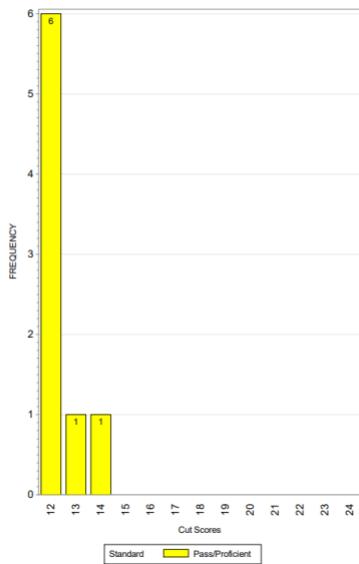


Reading Grade 5 Panelist Agreement at Level P and A - Round 2

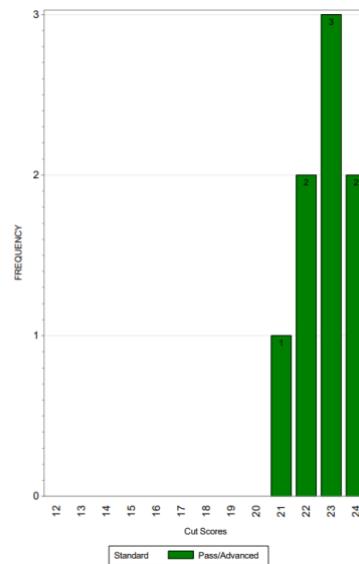


Round 3:

Reading Grade 5 Panelist Agreement Data - Round 3 Reading Grade 5 Panelist Agreement Data - Round 3

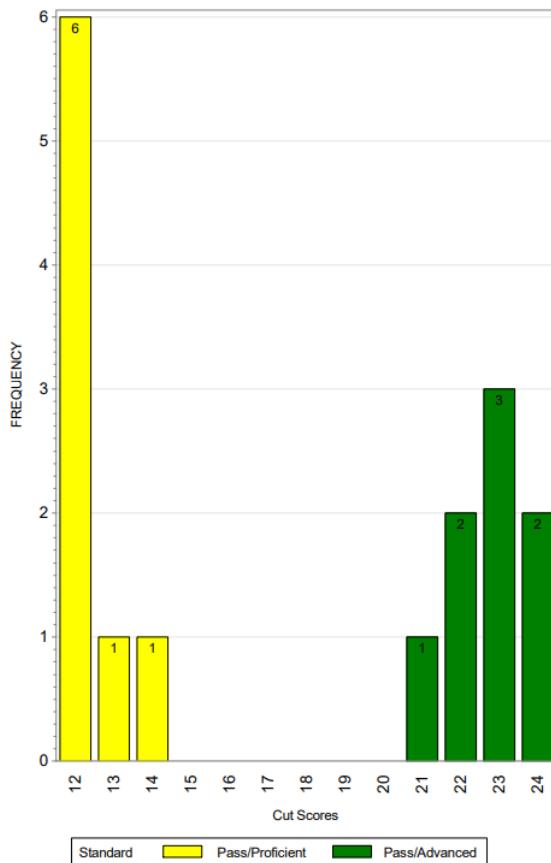


Pass/Proficient



Pass/Advanced

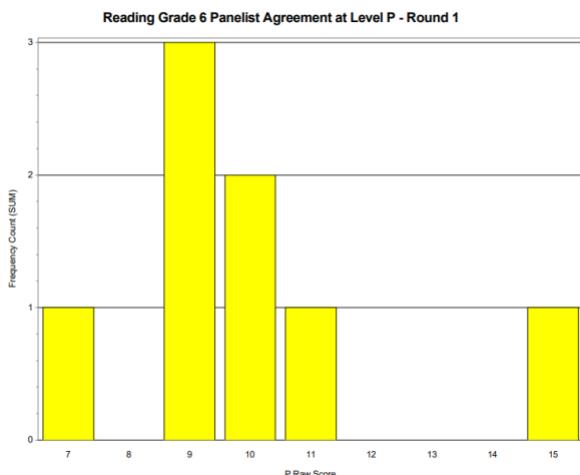
Reading Grade 5 Panelist Agreement Data - Round 3



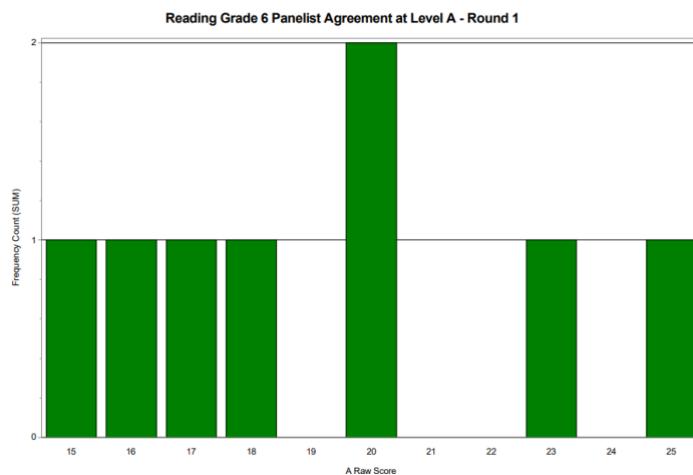
All Performance Levels Concurrently

Reading Grade 6

Round 1:

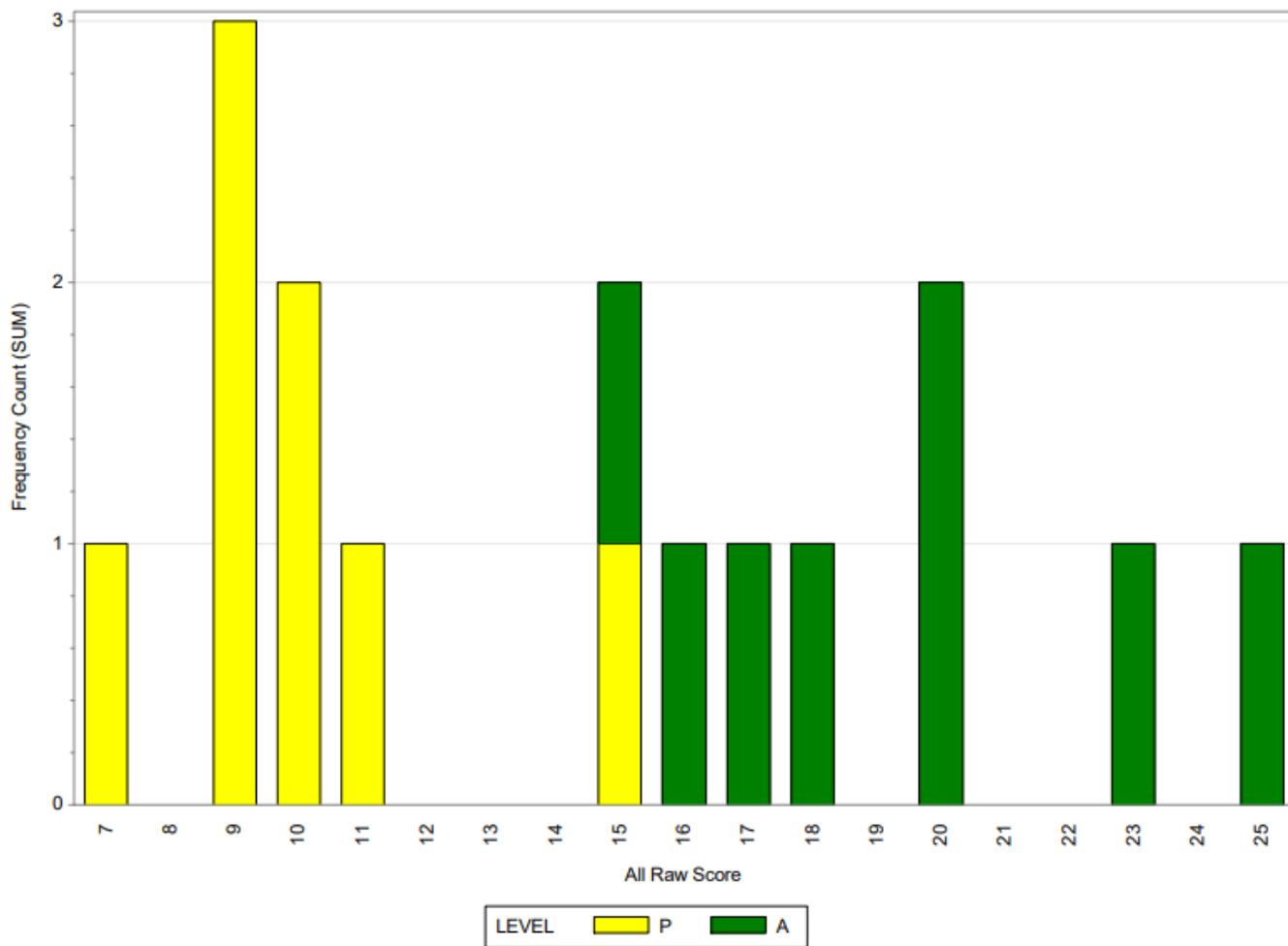


Pass/Proficient



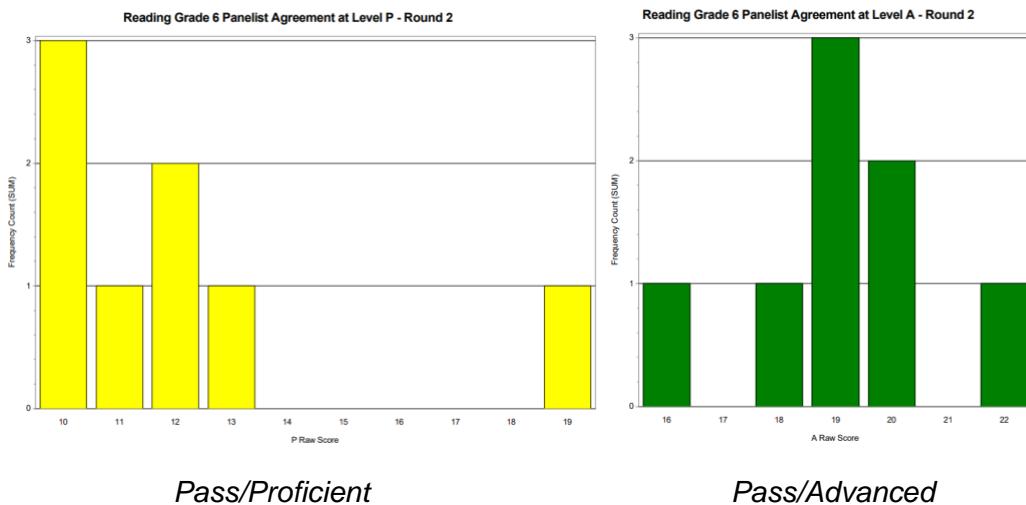
Pass/Advanced

Reading Grade 6 Panelist Agreement at Level P and A - Round 1



All Performance Levels Concurrently

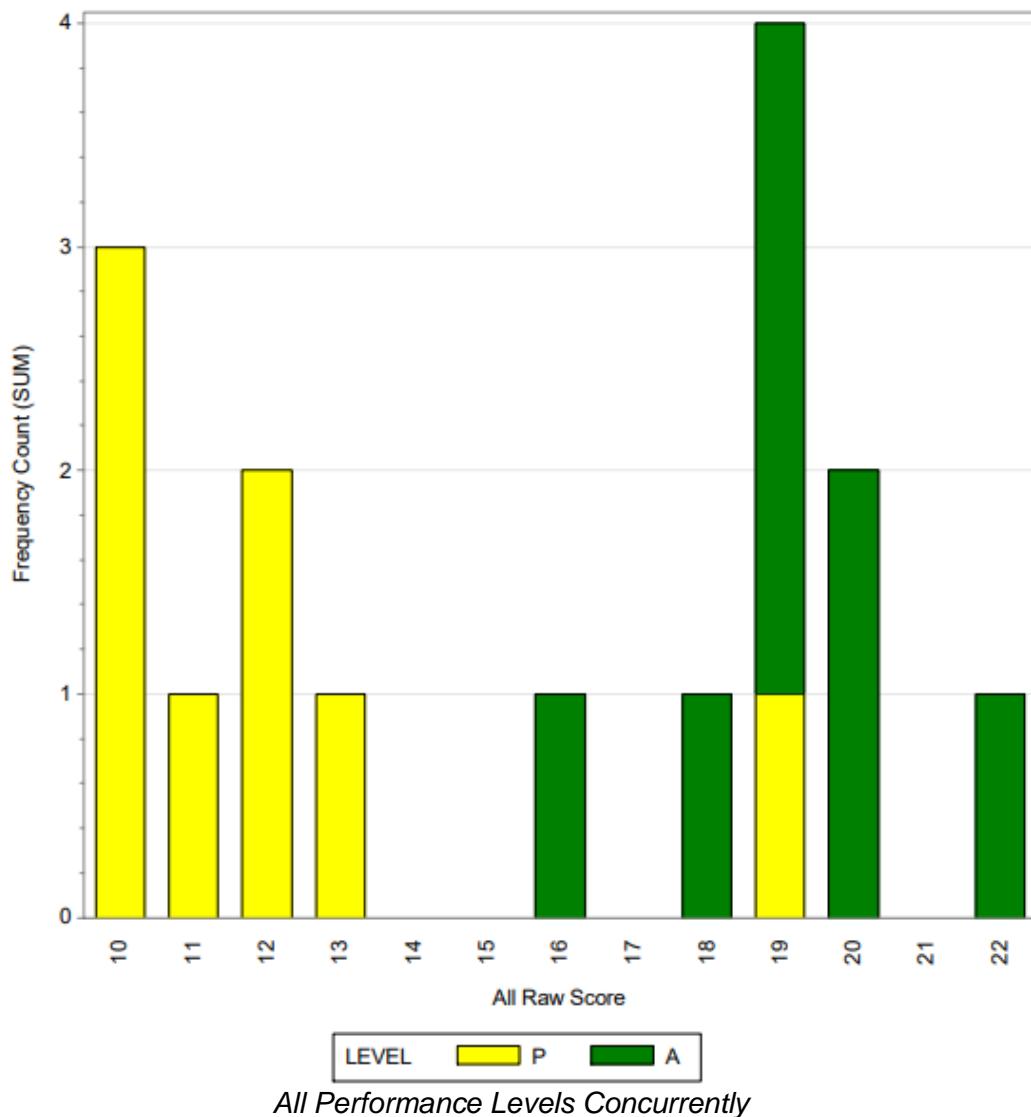
Round 2:



Pass/Proficient

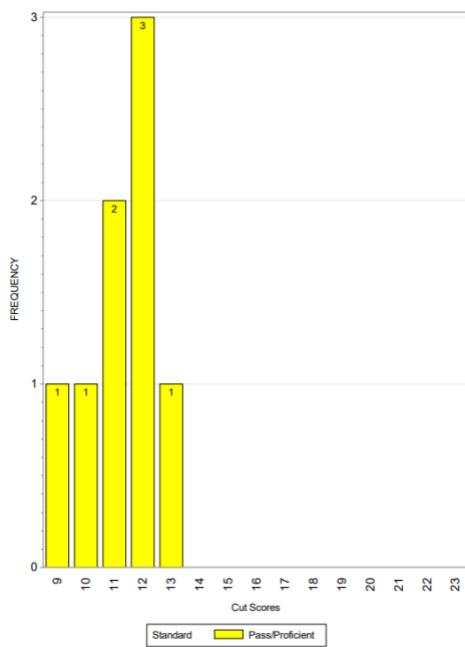
Pass/Advanced

Reading Grade 6 Panelist Agreement at Level P and A - Round 2



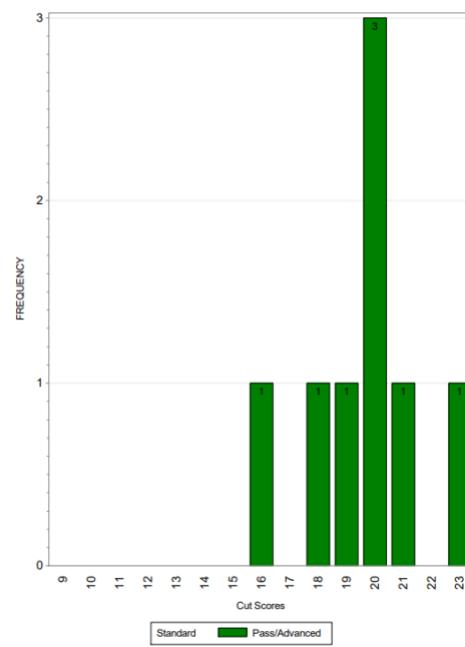
Round 3:

Reading Grade 6 Panelist Agreement Data - Round 3



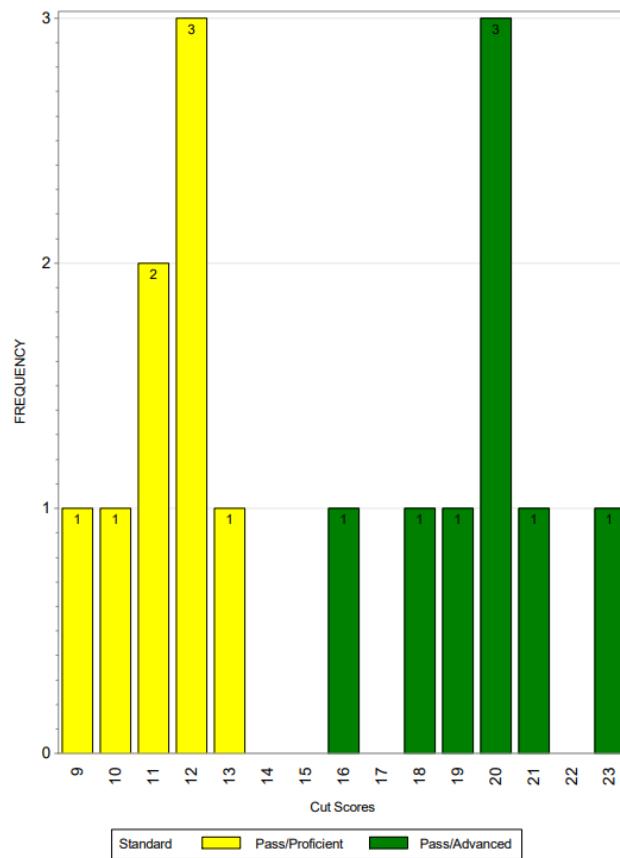
Pass/Proficient

Reading Grade 6 Panelist Agreement Data - Round 3



Pass/Advanced

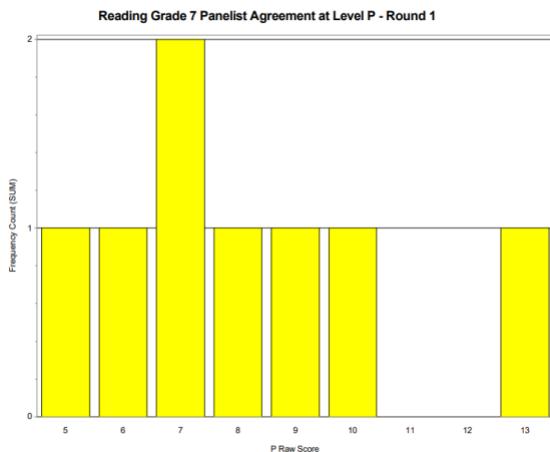
Reading Grade 6 Panelist Agreement Data - Round 3



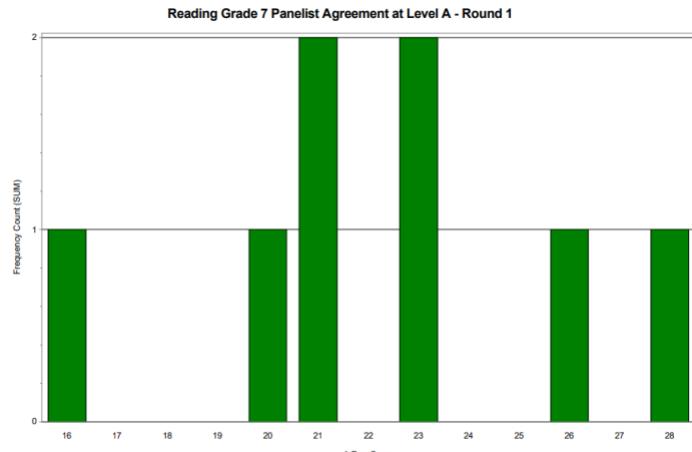
All Performance Levels Concurrently

Reading Grade 7

Round 1:

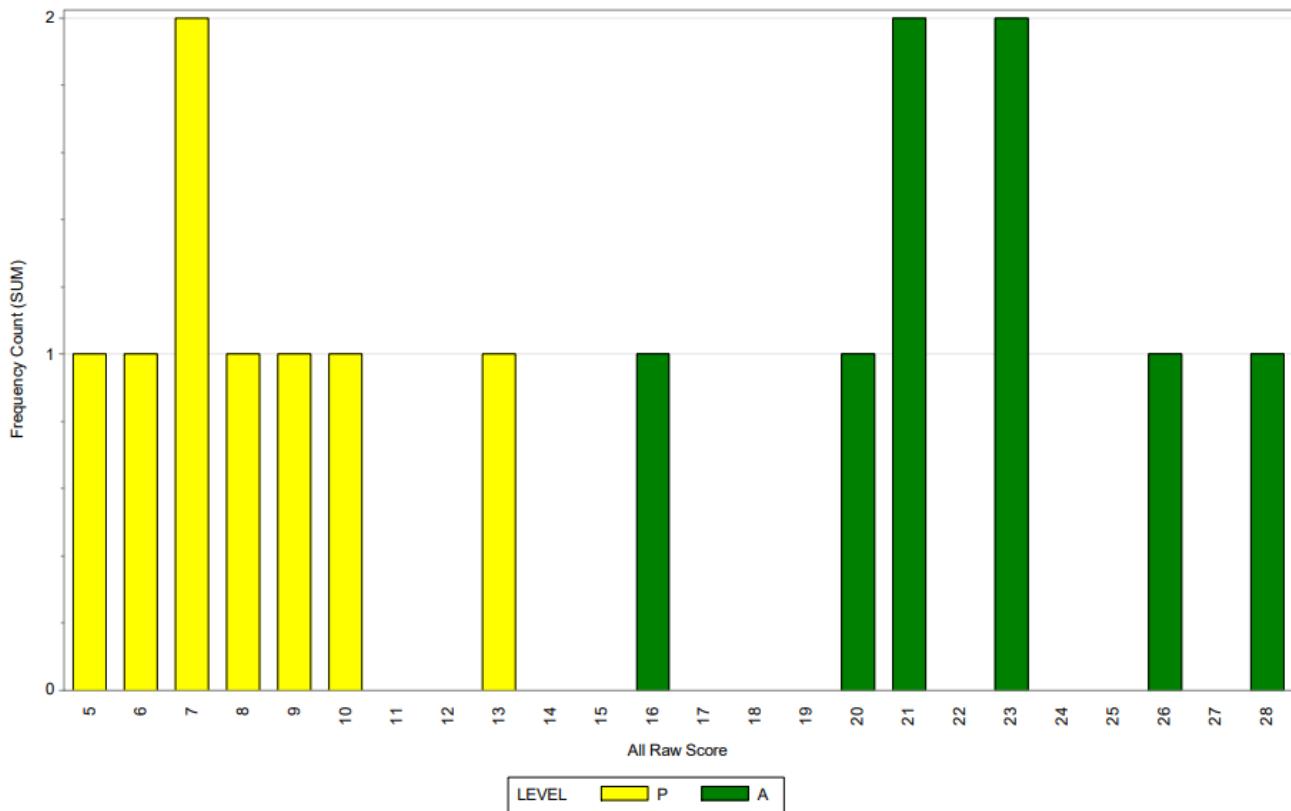


Pass/Proficient



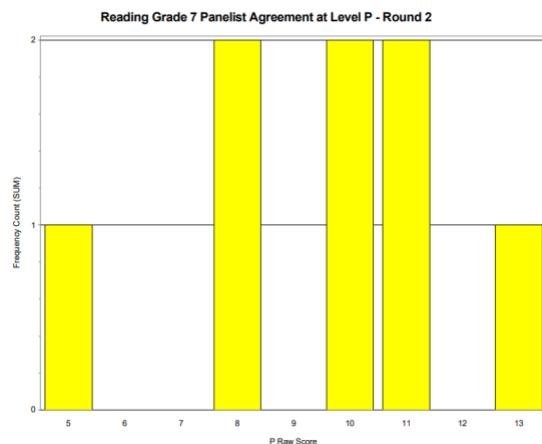
Pass/Advanced

Reading Grade 7 Panelist Agreement at Level P and A - Round 1

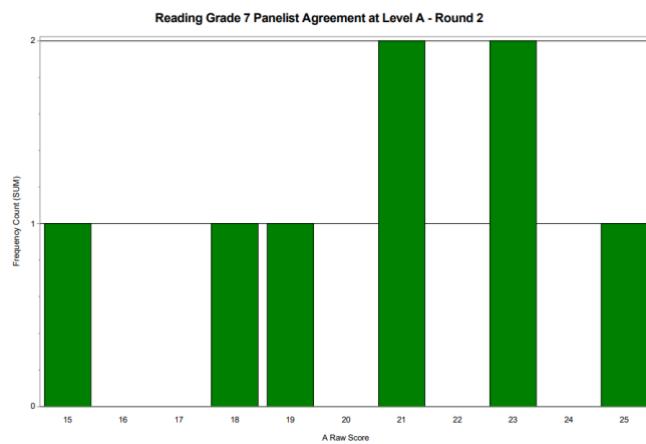


All Performance Levels Concurrently

Round 2:

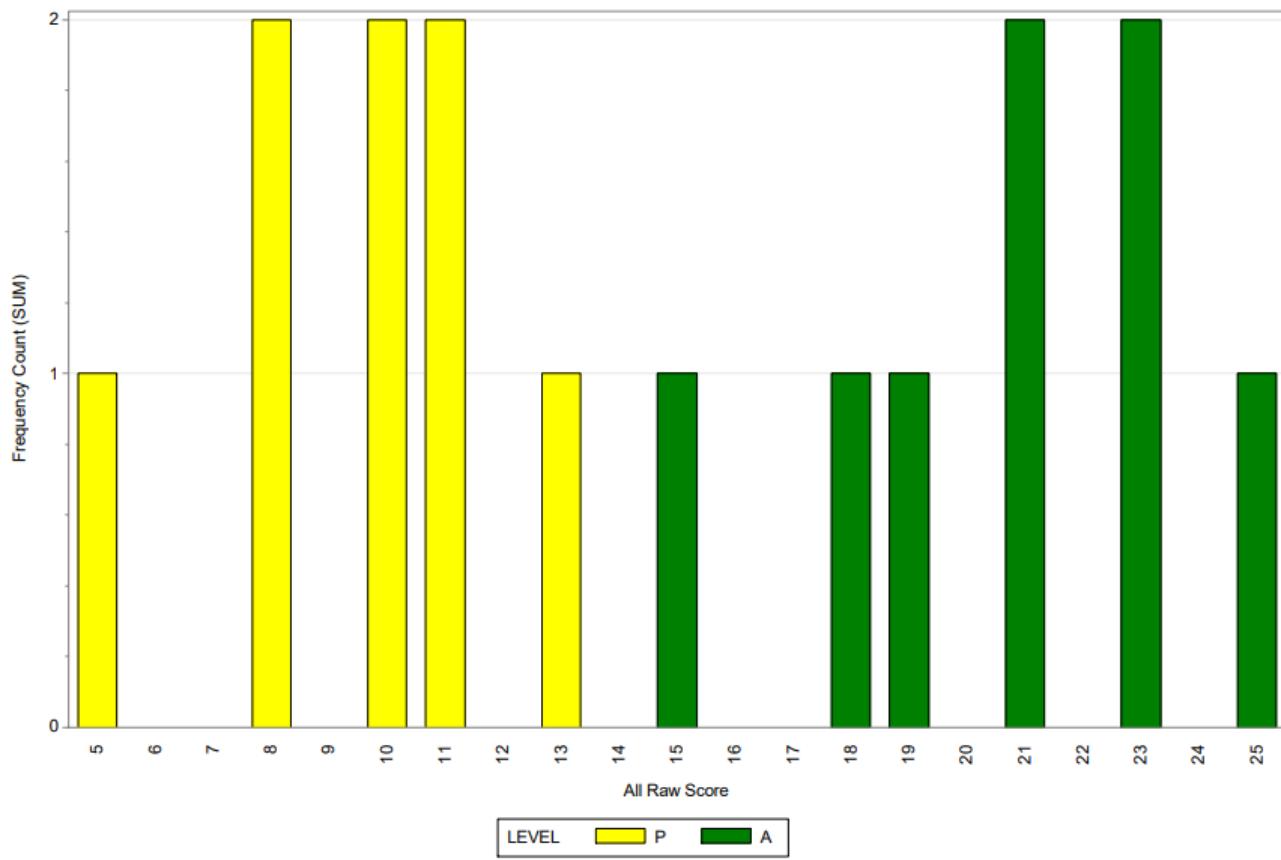


Pass/Proficient



Pass/Advanced

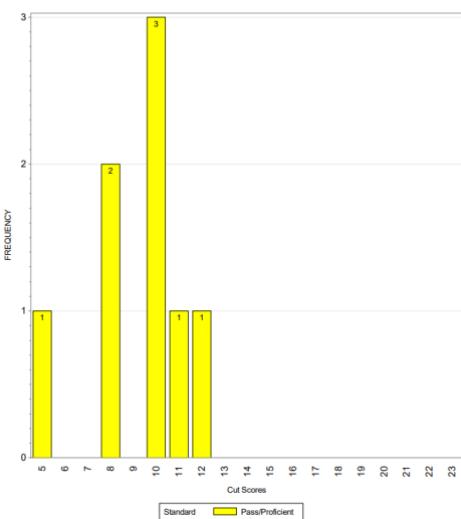
Reading Grade 7 Panelist Agreement at Level P and A - Round 2



All Performance Levels Concurrently

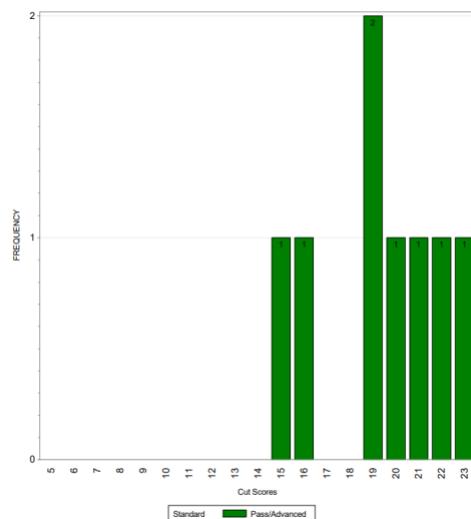
Round 3:

Reading Grade 7 Panelist Agreement Data - Round 3



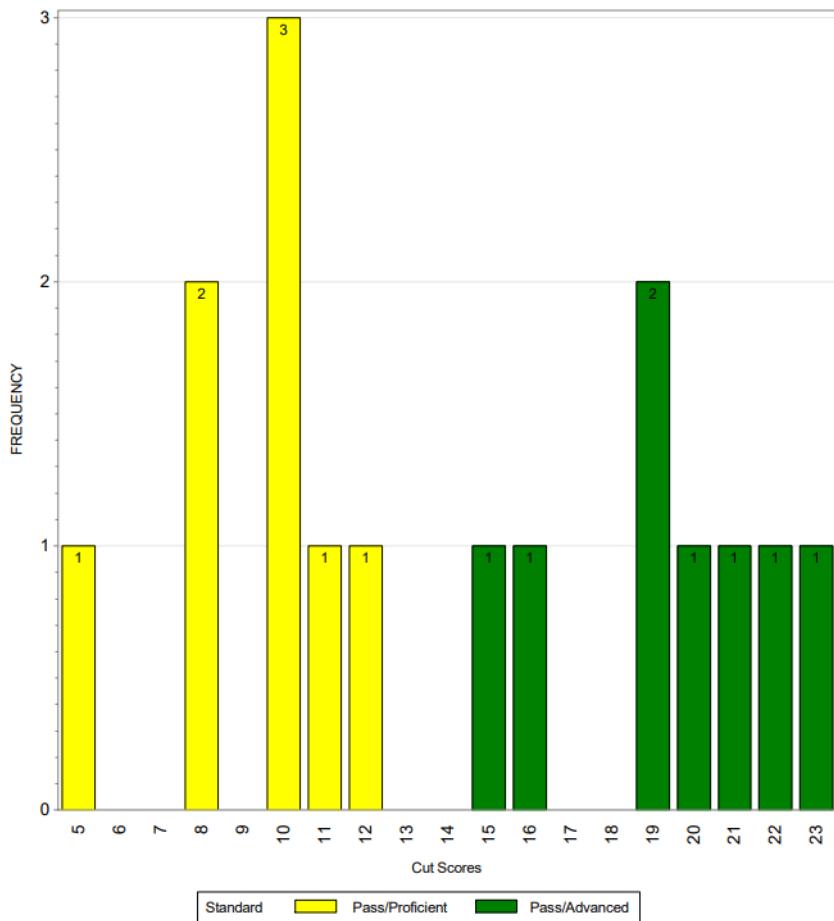
Pass/Proficient

Reading Grade 7 Panelist Agreement Data - Round 3



Pass/Advanced

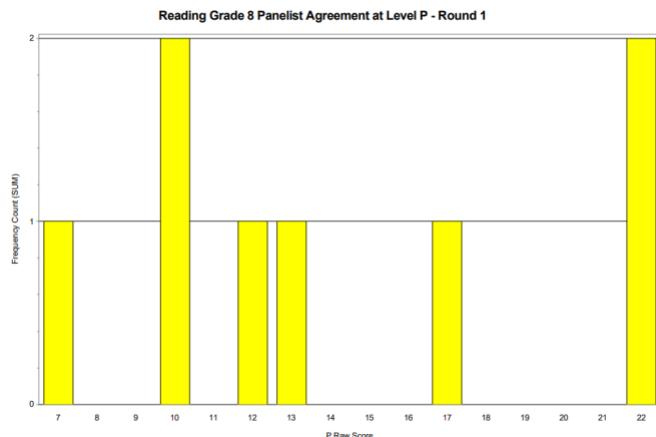
Reading Grade 7 Panelist Agreement Data - Round 3



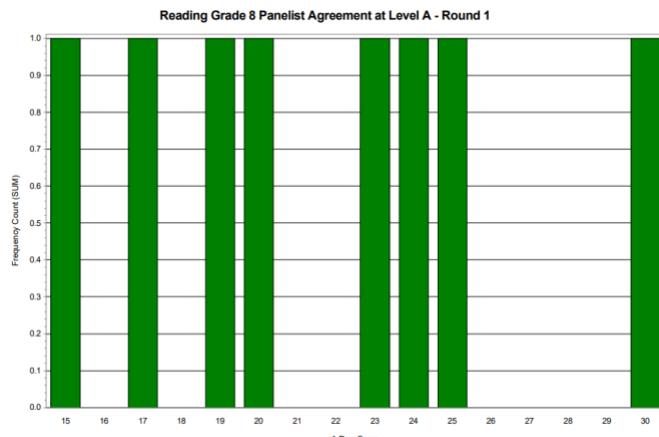
All Performance Levels Concurrently

Reading Grade 8

Round 1:

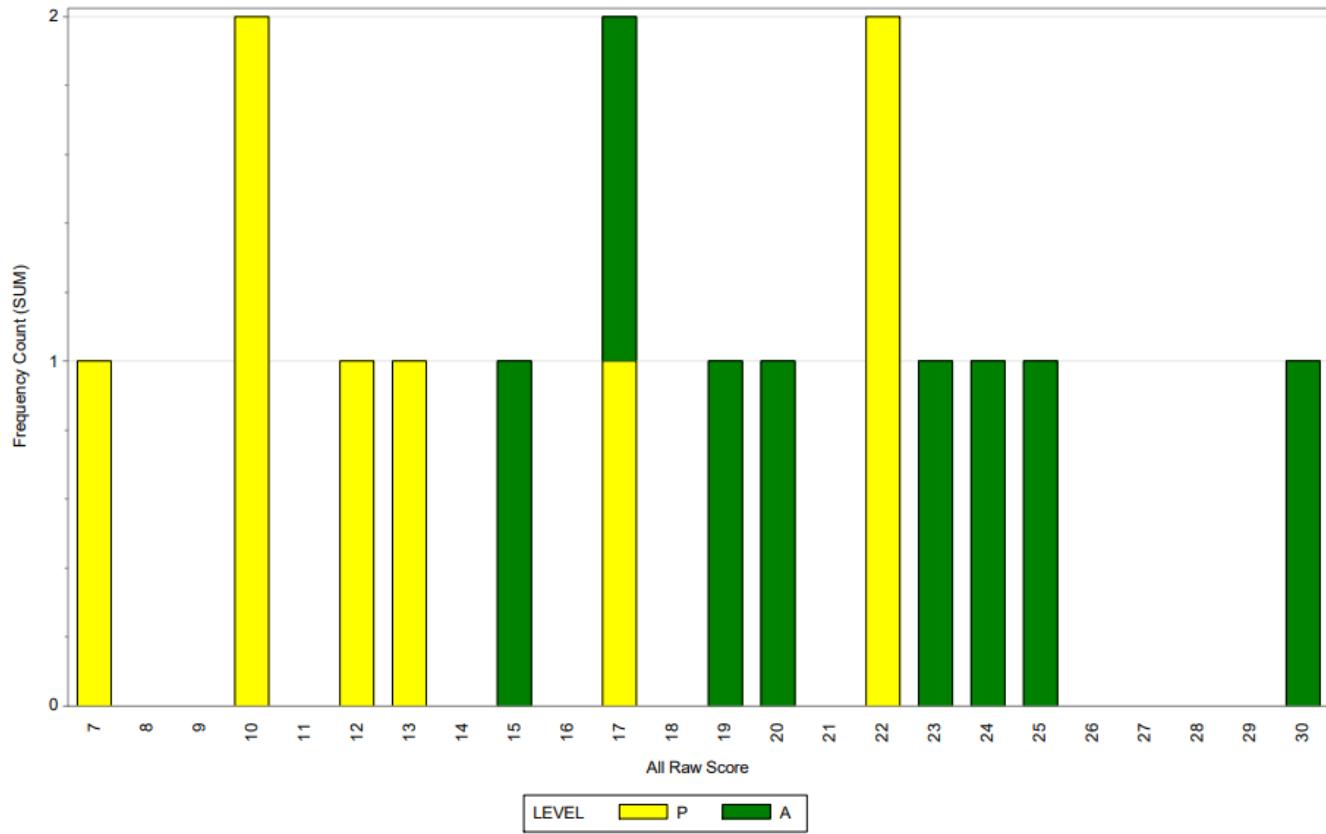


Pass/Proficient



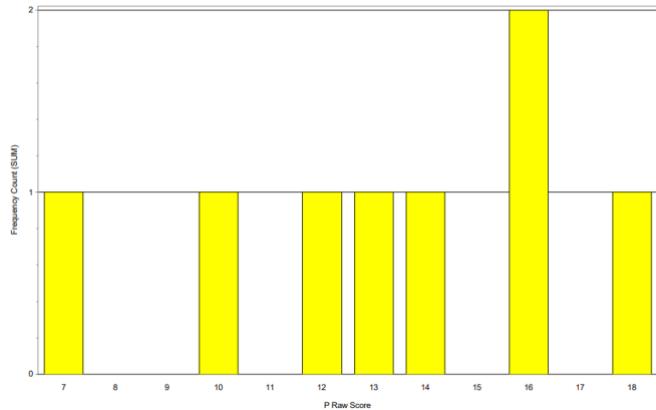
Pass/Advanced

Reading Grade 8 Panelist Agreement at Level P and A - Round 1



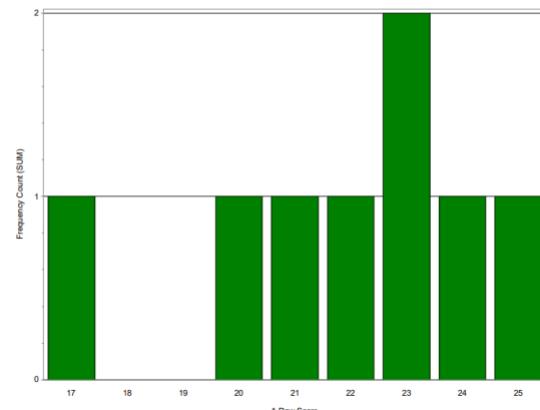
Round 2:

Reading Grade 8 Panelist Agreement at Level P - Round 2



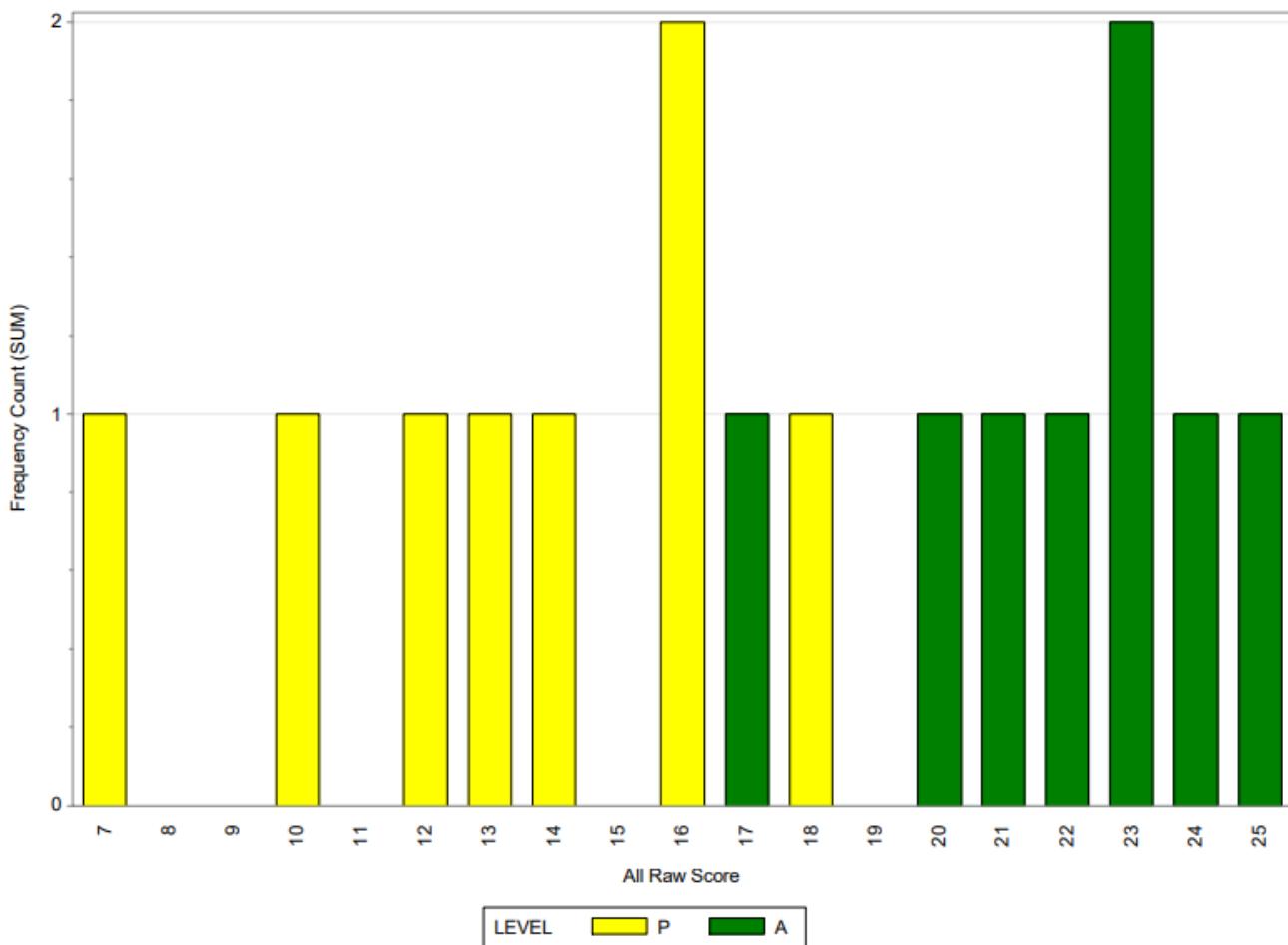
Pass/Proficient

Reading Grade 8 Panelist Agreement at Level A - Round 2



Pass/Advanced

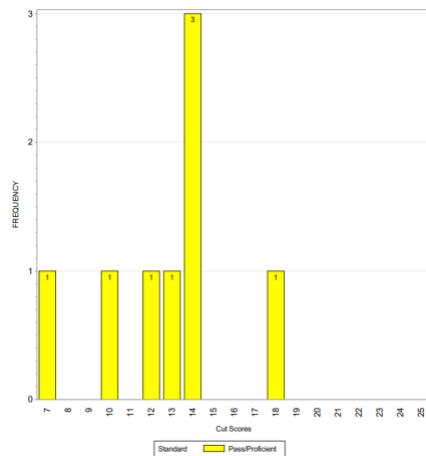
Reading Grade 8 Panelist Agreement at Level P and A - Round 2



All Performance Levels Concurrently

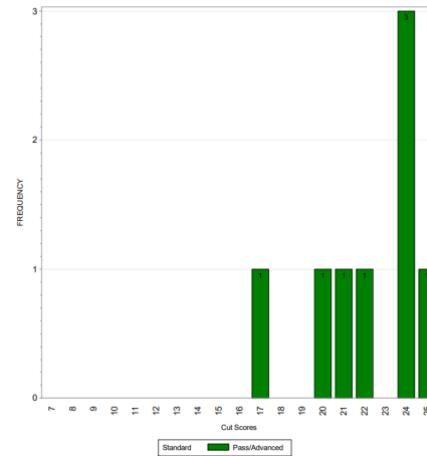
Round 3:

Reading Grade 8 Panelist Agreement Data - Round 3



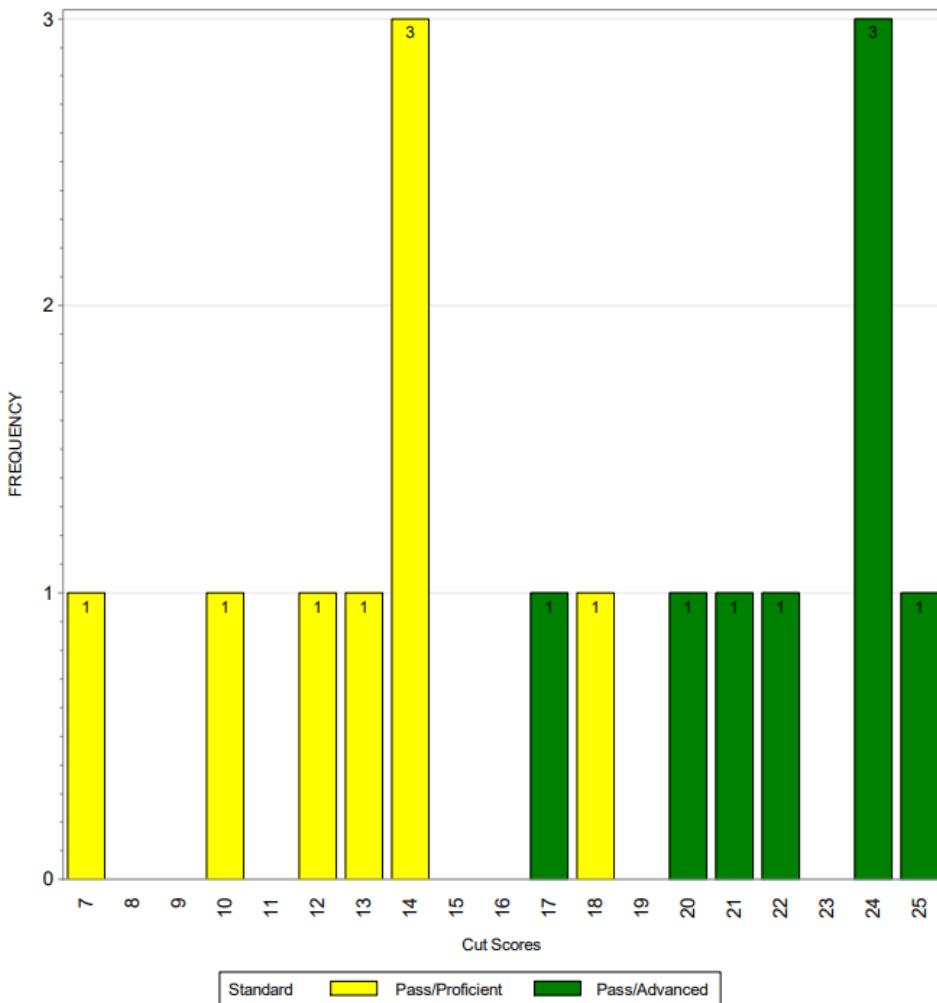
Pass/Proficient

Reading Grade 8 Panelist Agreement Data - Round 3



Pass/Advanced

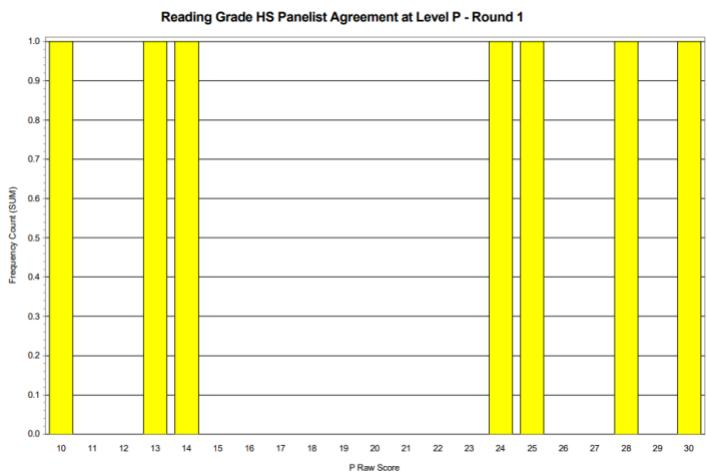
Reading Grade 8 Panelist Agreement Data - Round 3



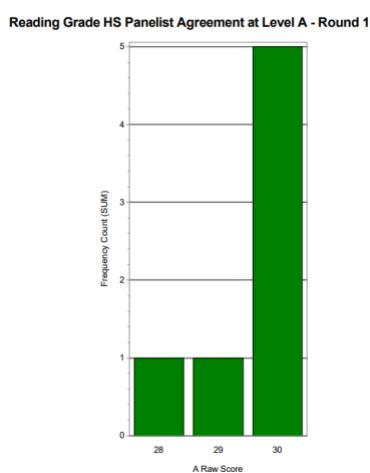
All Performance Levels Concurrently

Reading Grade HS

Round 1:

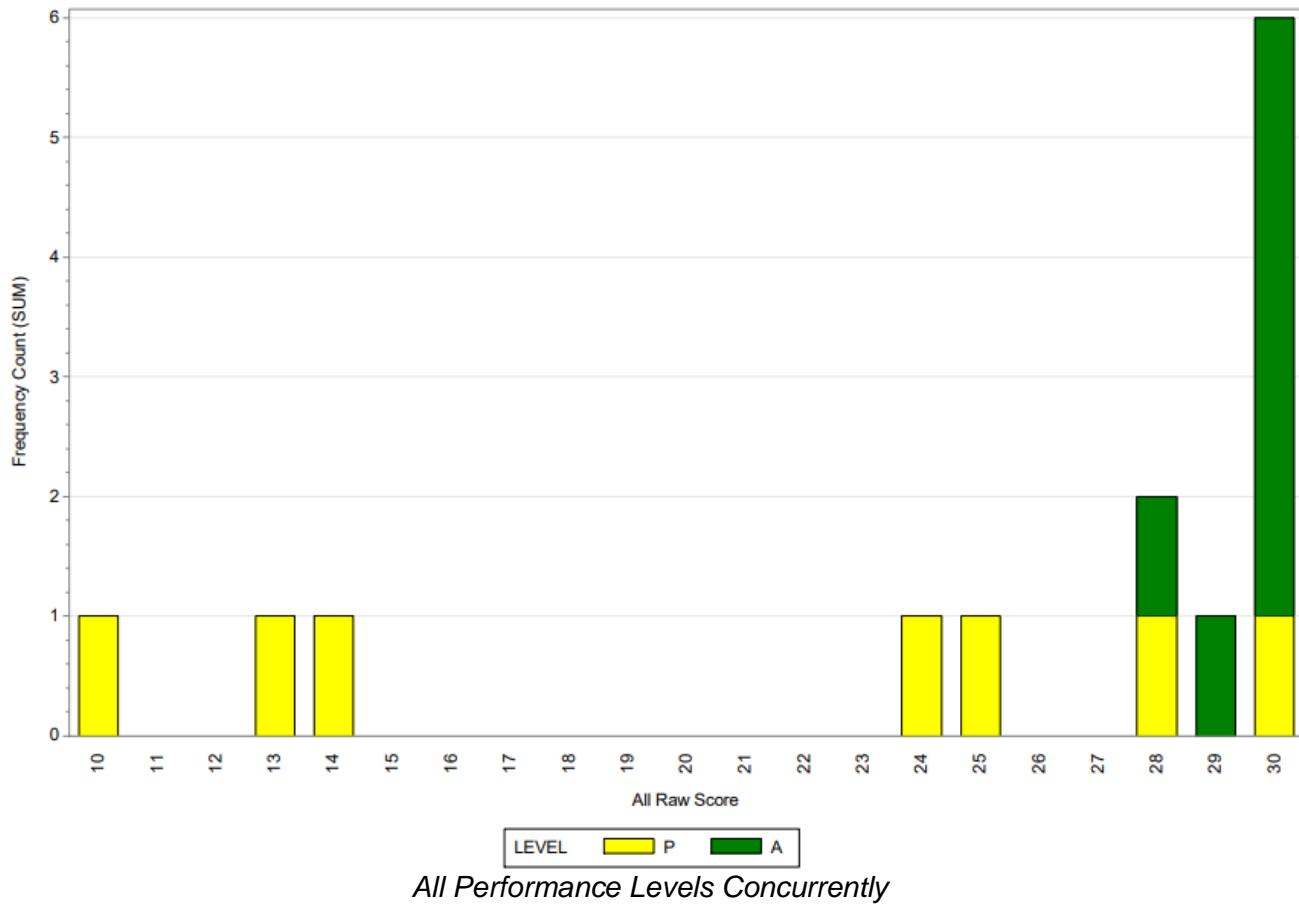


Pass/Proficient

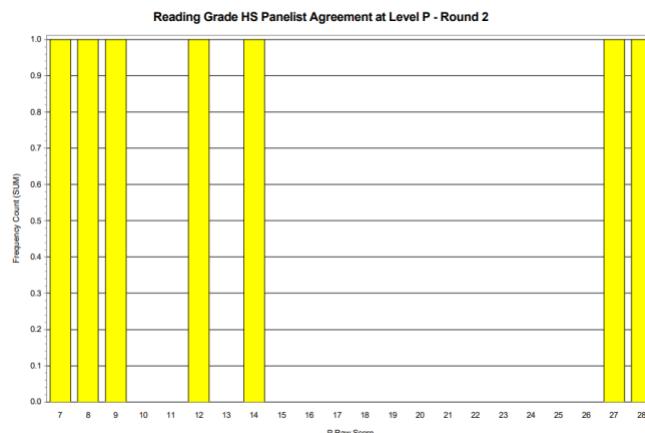


Pass/Advanced

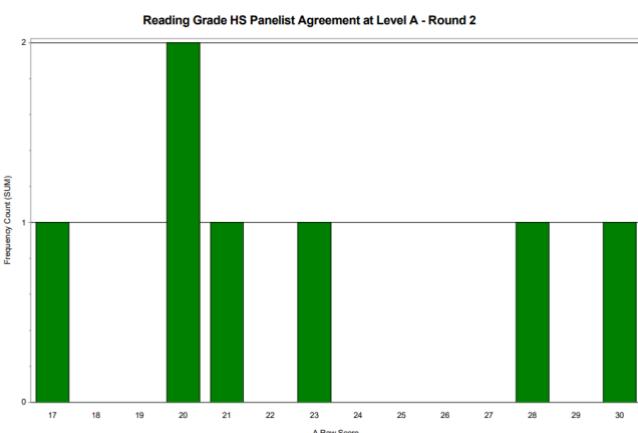
Reading Grade HS Panelist Agreement at Level P and A - Round 1



Round 2:

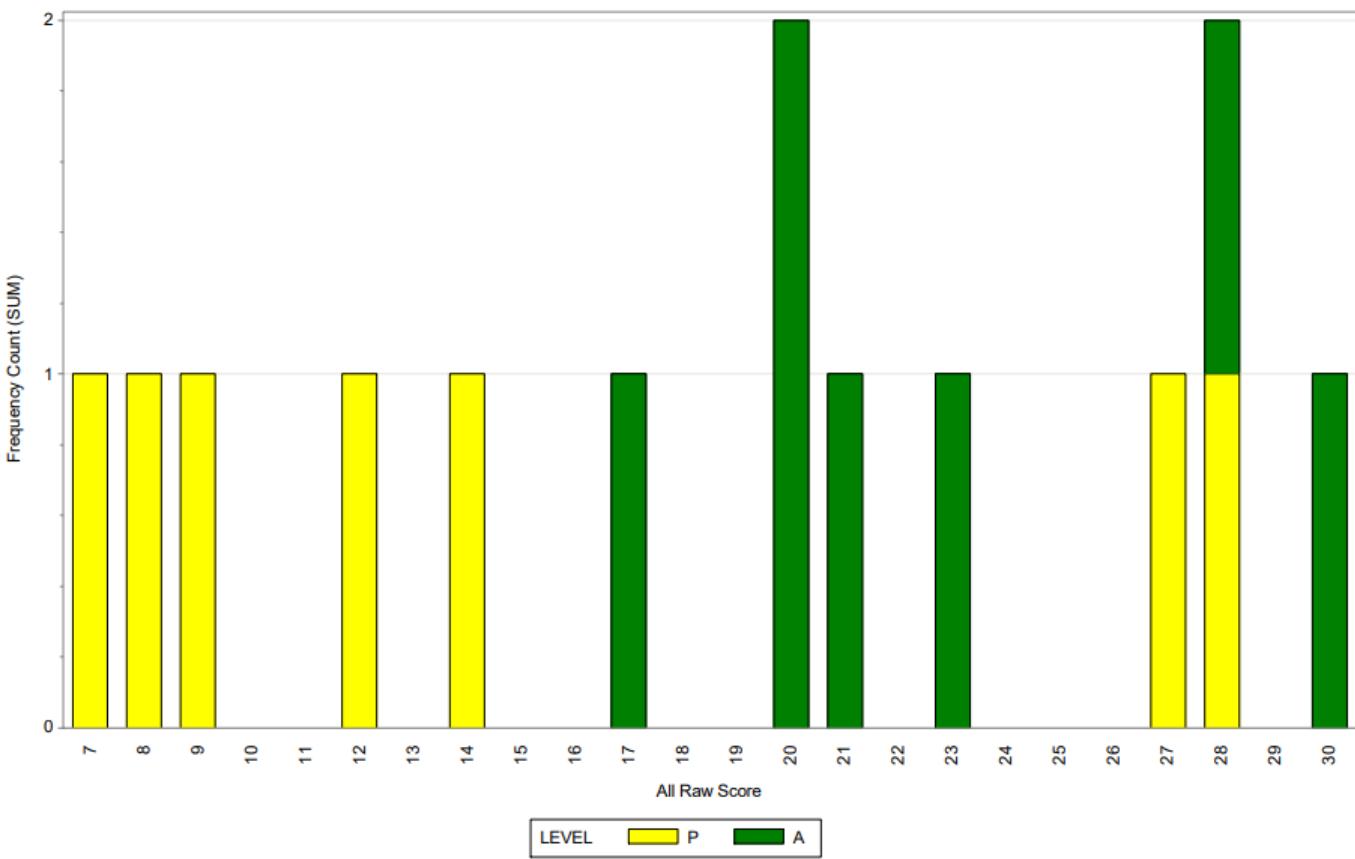


Pass/Proficient



Pass/Advanced

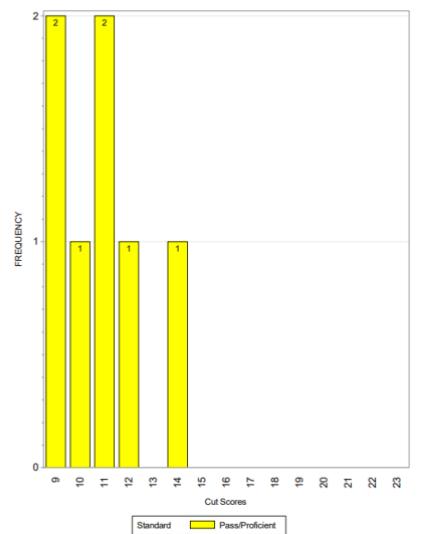
Reading Grade HS Panelist Agreement at Level P and A - Round 2



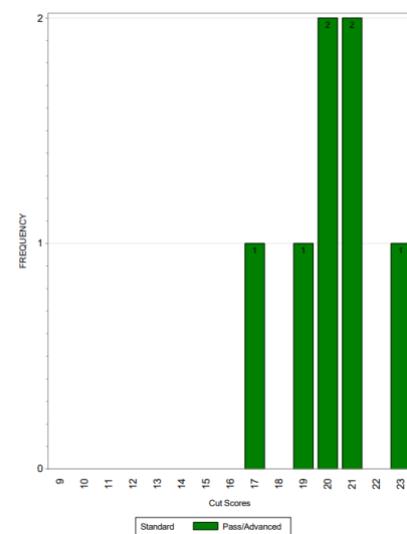
All Performance Levels Concurrently

Round 3:

Reading Grade HS Panelist Agreement Data - Round 3 Reading Grade HS Panelist Agreement Data - Round 3

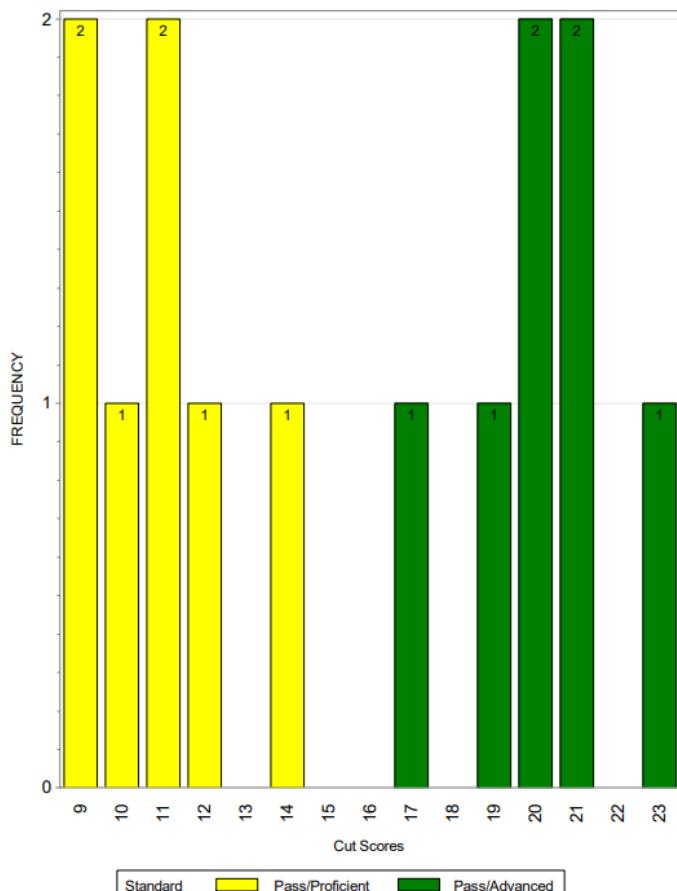


Pass/Proficient



Pass/Advanced

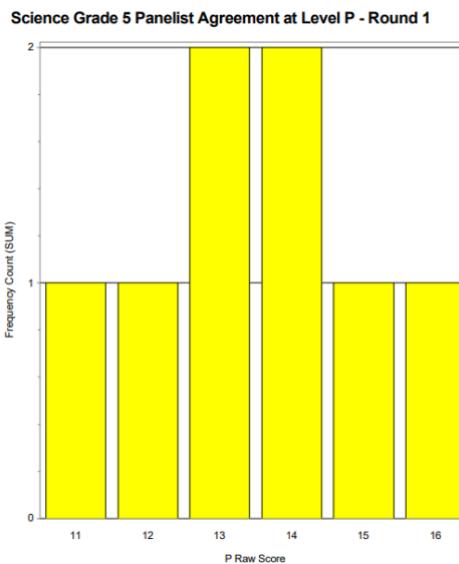
Reading Grade HS Panelist Agreement Data - Round 3



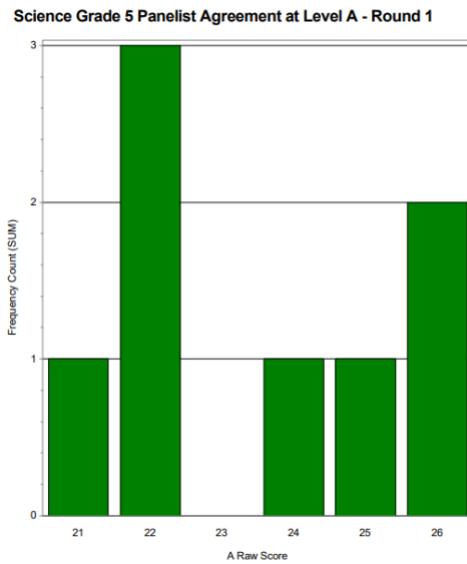
All Performance Levels Concurrently

Science Grade 5

Round 1:

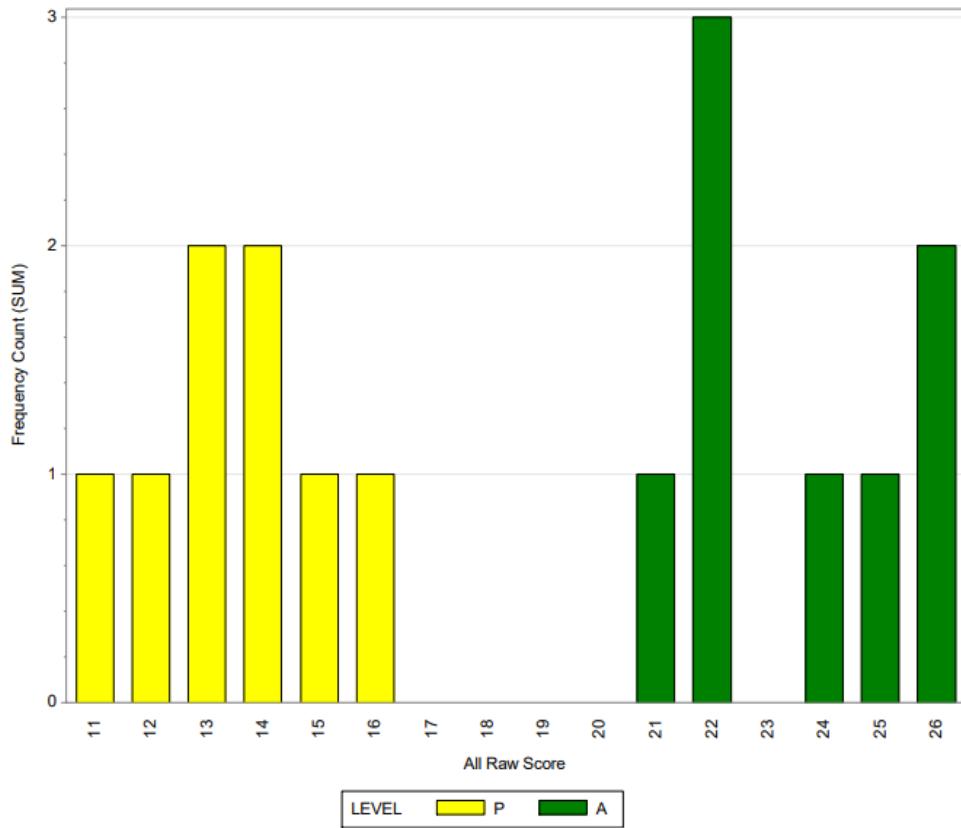


Pass/Proficient



Pass/Advanced

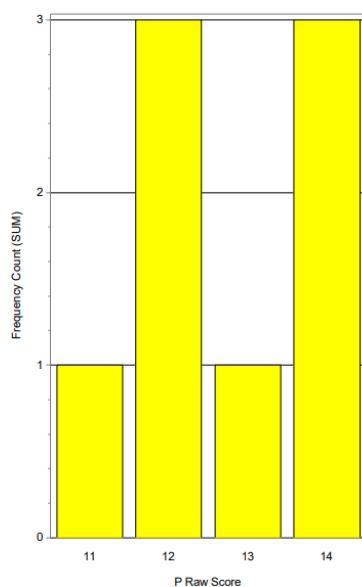
Science Grade 5 Panelist Agreement at Level P and A - Round 1



All Performance Levels Concurrently

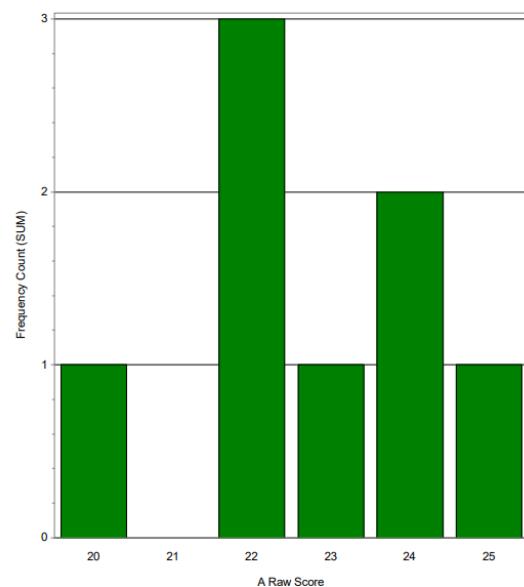
Round 2:

Science Grade 5 Panelist Agreement at Level P - Round 2



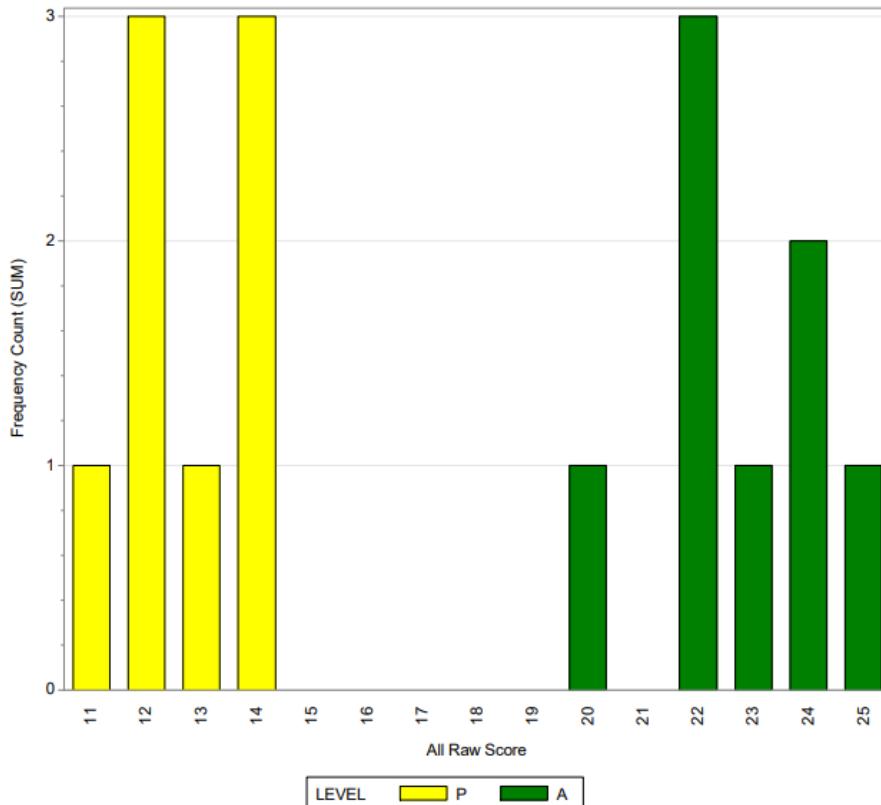
Pass/Proficient

Science Grade 5 Panelist Agreement at Level A - Round 2



Pass/Advanced

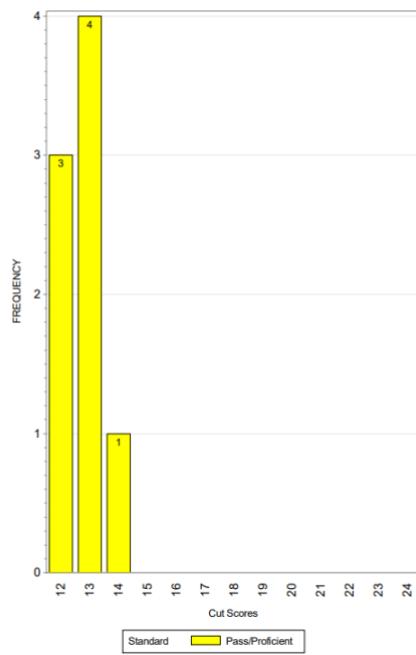
Science Grade 5 Panelist Agreement at Level P and A - Round 2



All Performance Levels Concurrently

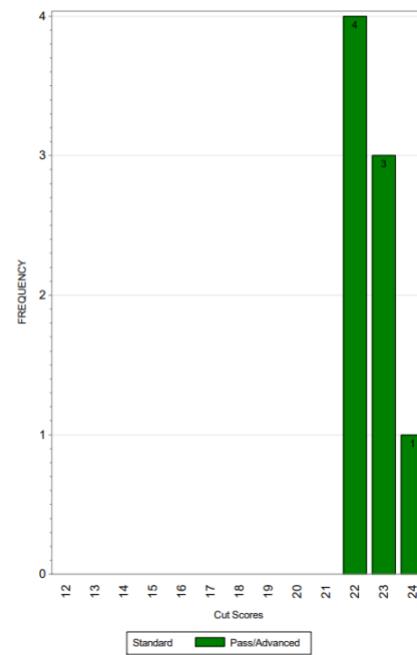
Round 3:

Science Grade 5 Panelist Agreement Data - Round 3



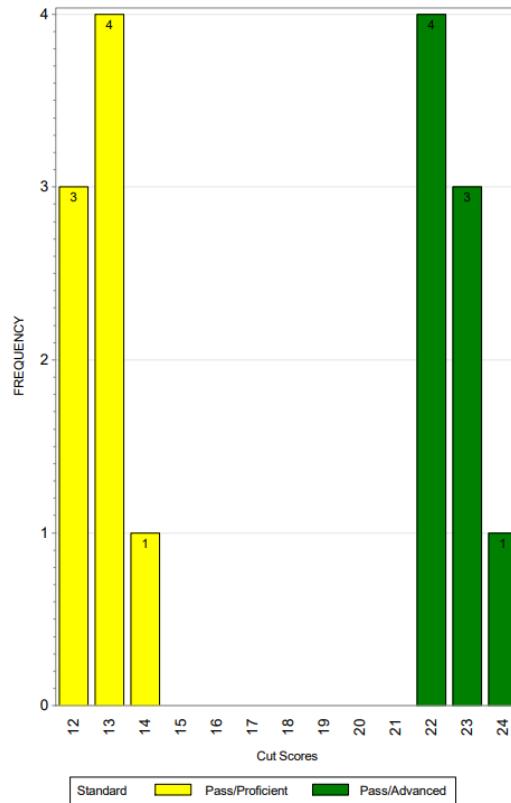
Pass/Proficient

Science Grade 5 Panelist Agreement Data - Round 3



Pass/Advanced

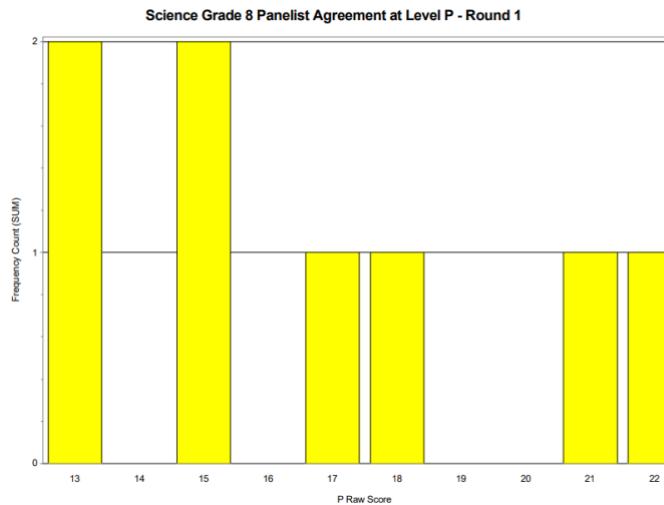
Science Grade 5 Panelist Agreement Data - Round 3



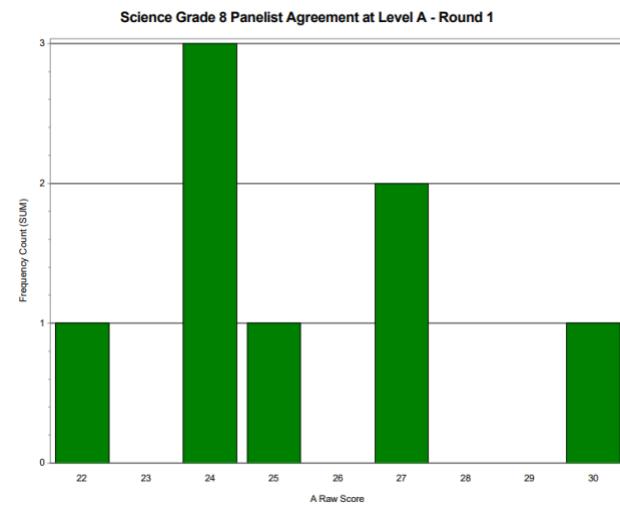
All Performance Levels Concurrently

Science Grade 8

Round 1:

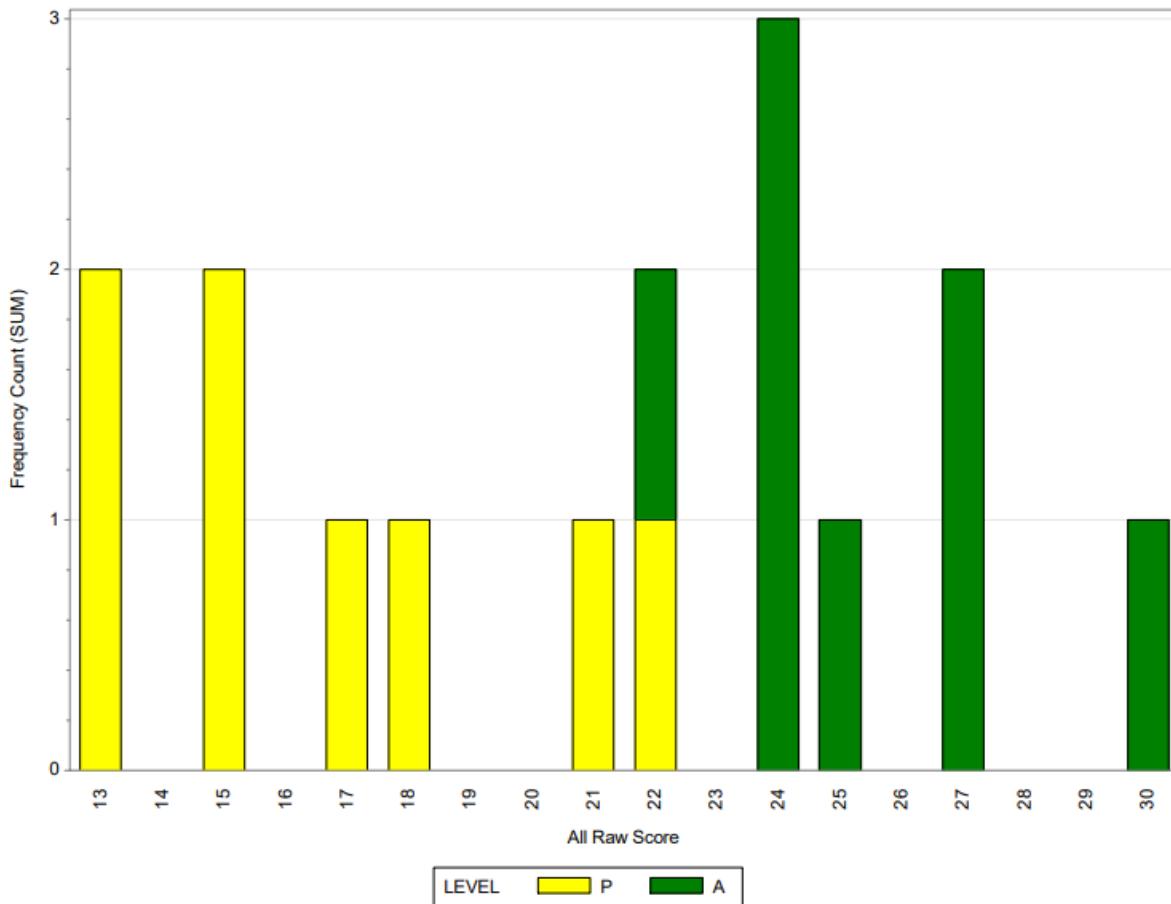


Pass/Proficient



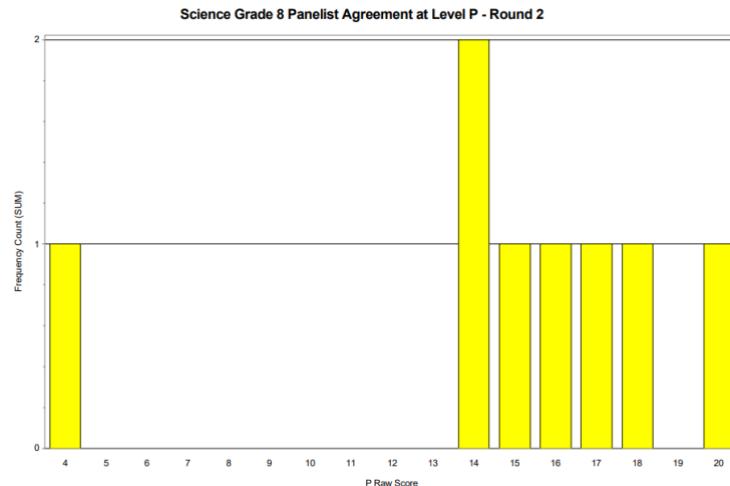
Pass/Advanced

Science Grade 8 Panelist Agreement at Level P and A - Round 1

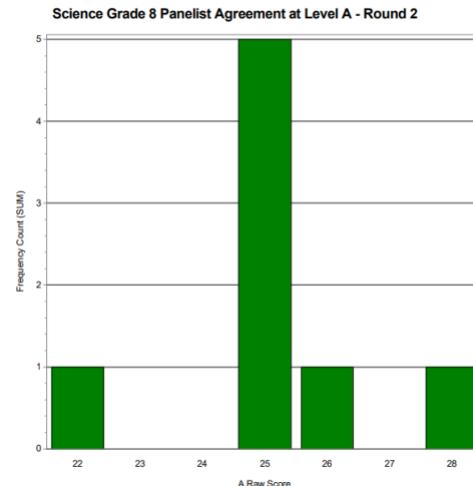


All Performance Levels Concurrently

Round 2:

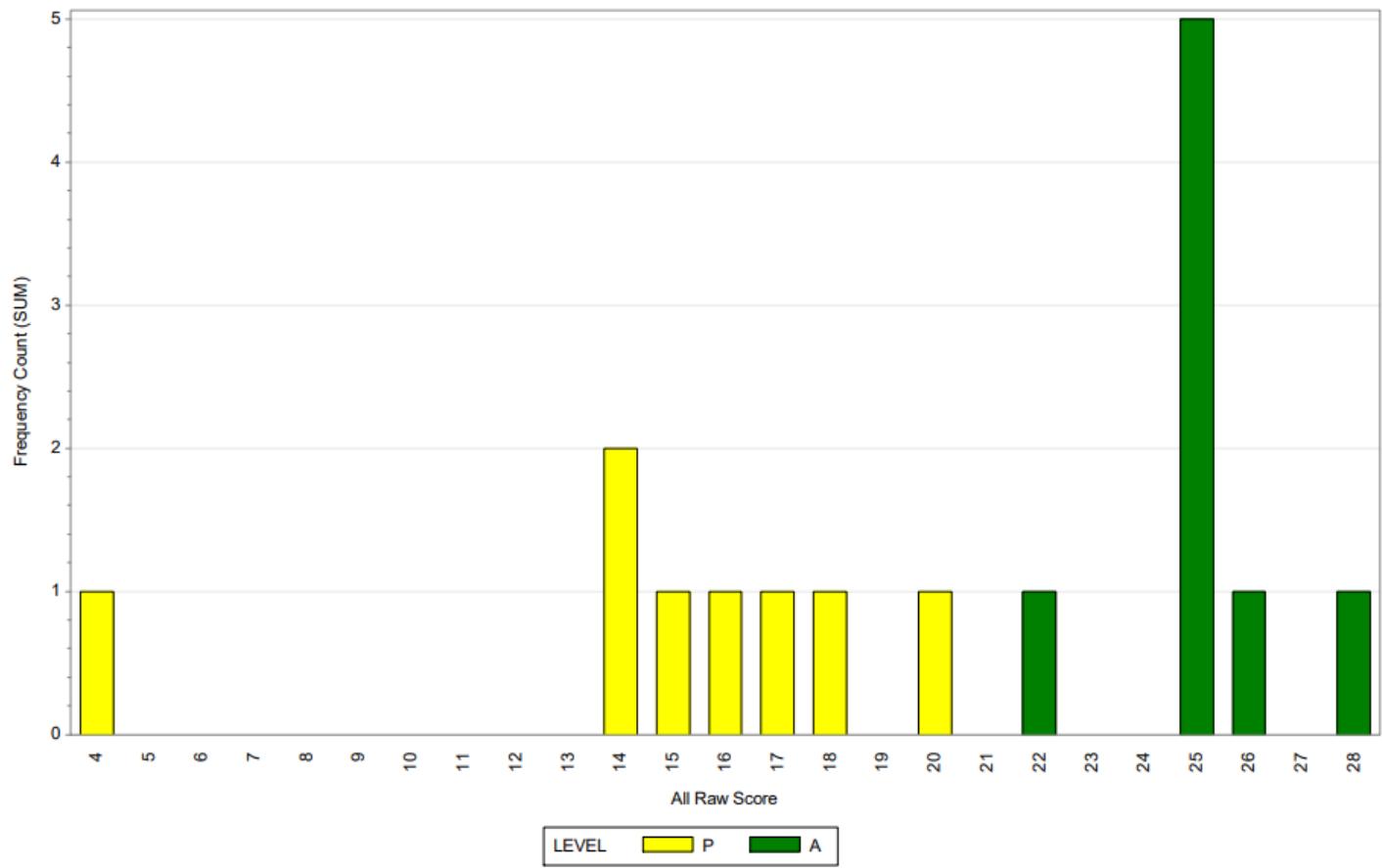


Pass/Proficient



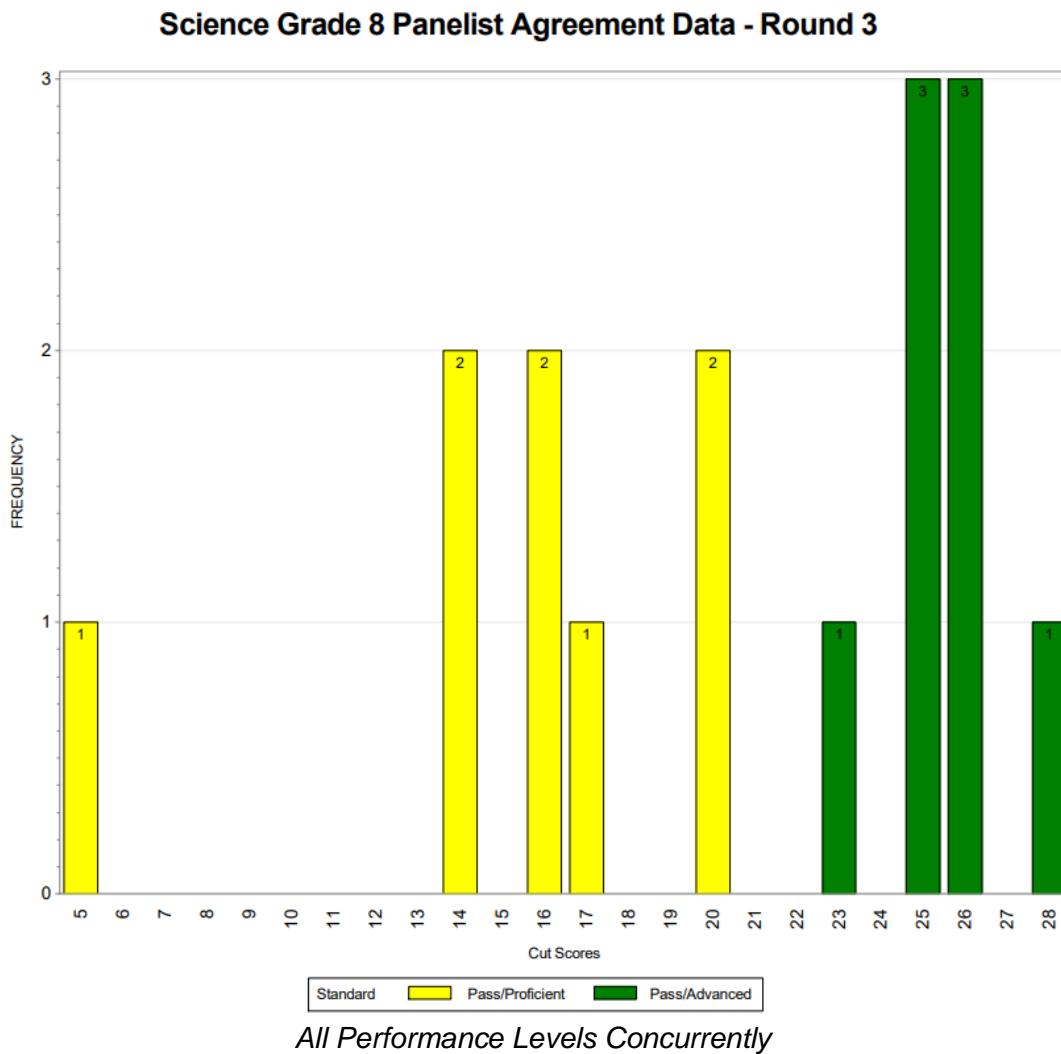
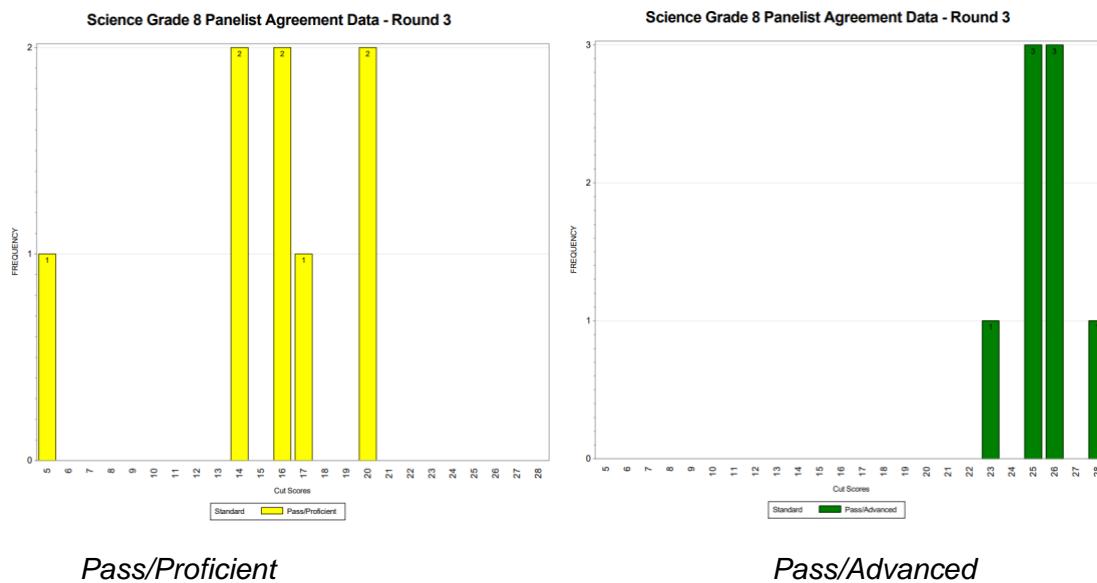
Pass/Advanced

Science Grade 8 Panelist Agreement at Level P and A - Round 2



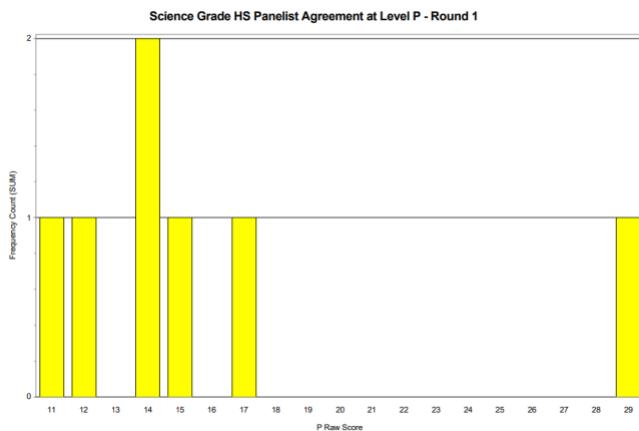
All Performance Levels Concurrently

Round 3:

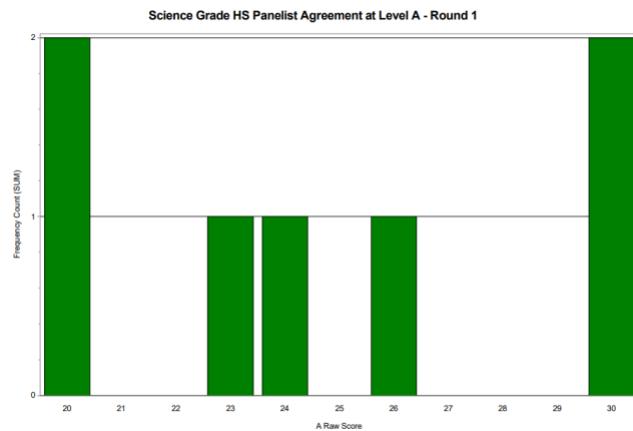


Science Grade HS

Round 1:

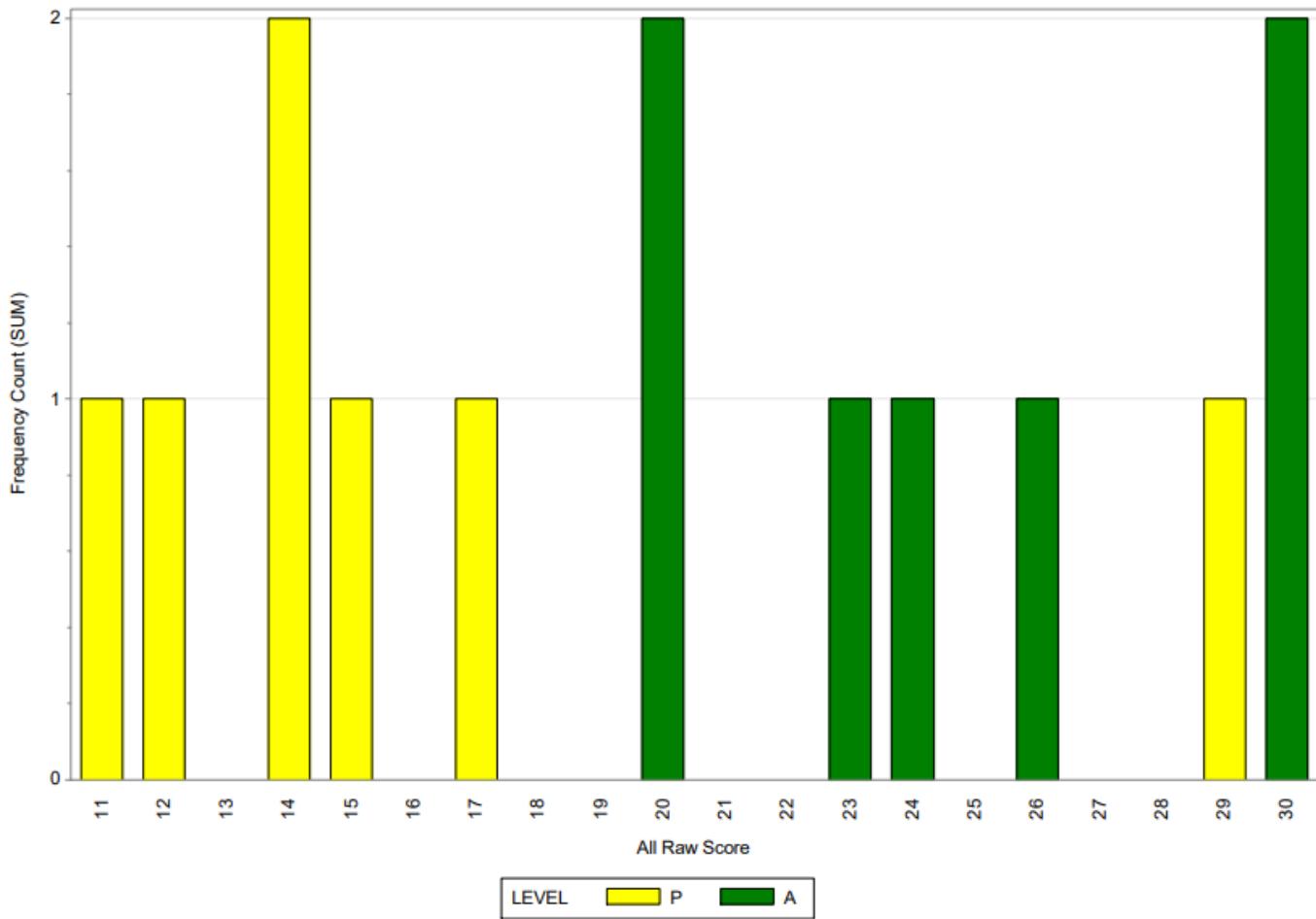


Pass/Proficient



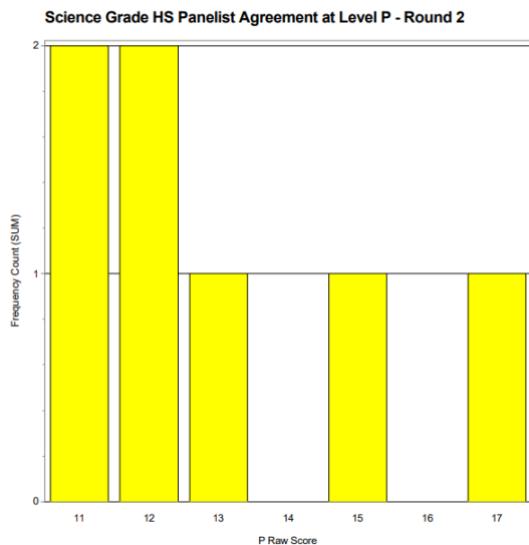
Pass/Advanced

Science Grade HS Panelist Agreement at Level P and A - Round 1

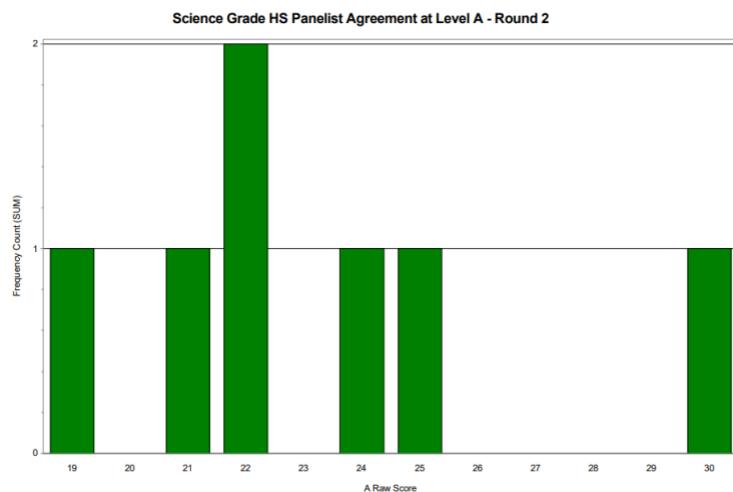


All Performance Levels Concurrently

Round 2:

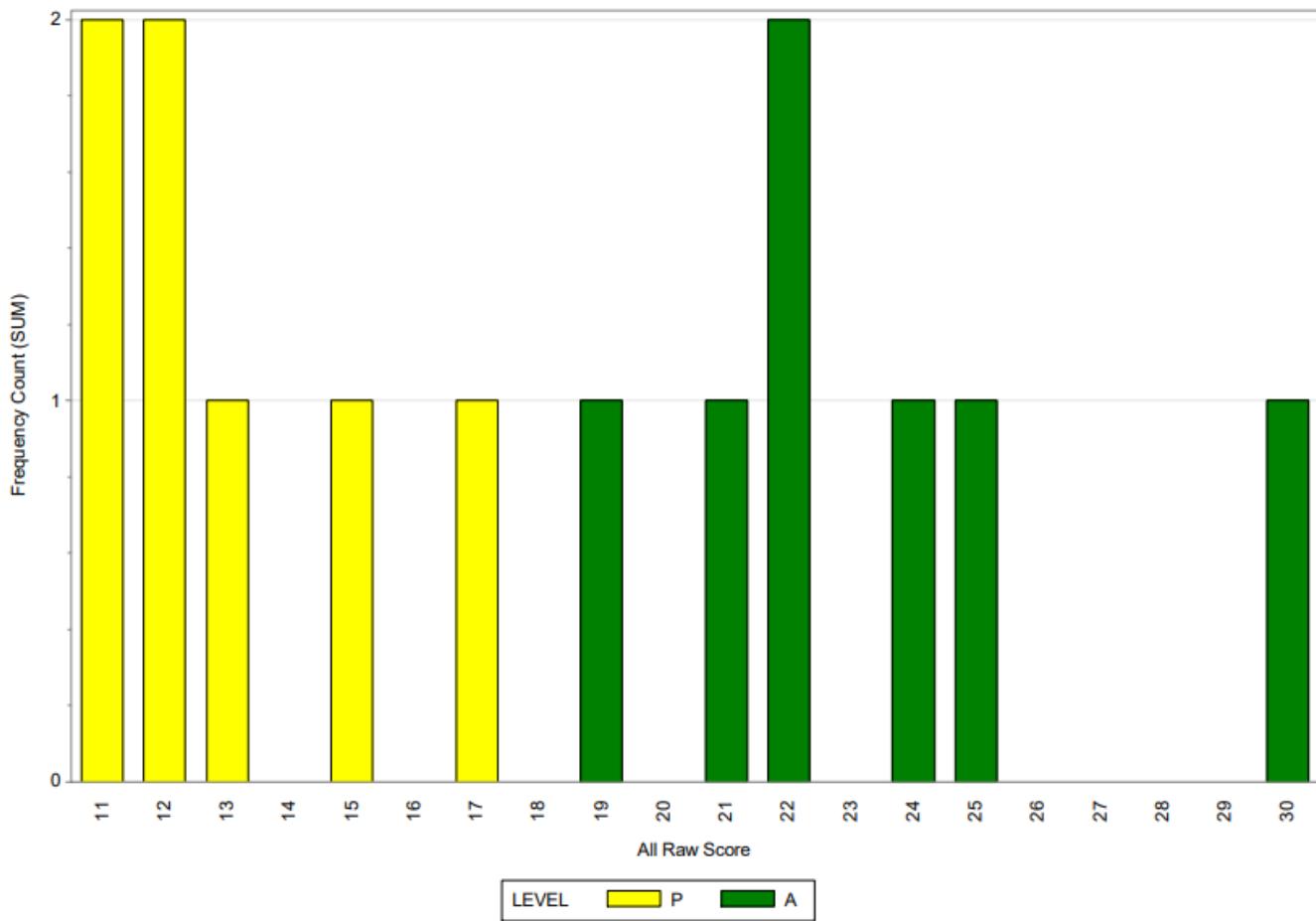


Pass/Proficient



Pass/Advanced

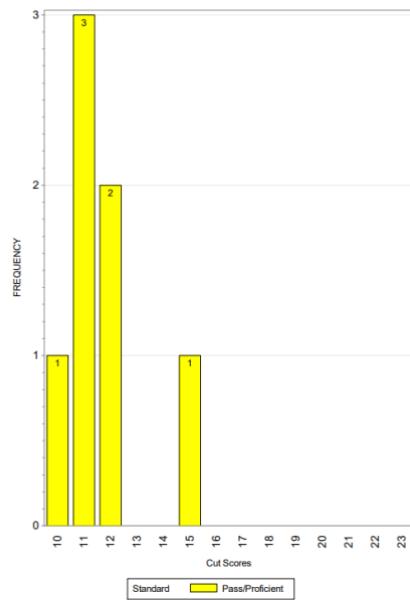
Science Grade HS Panelist Agreement at Level P and A - Round 2



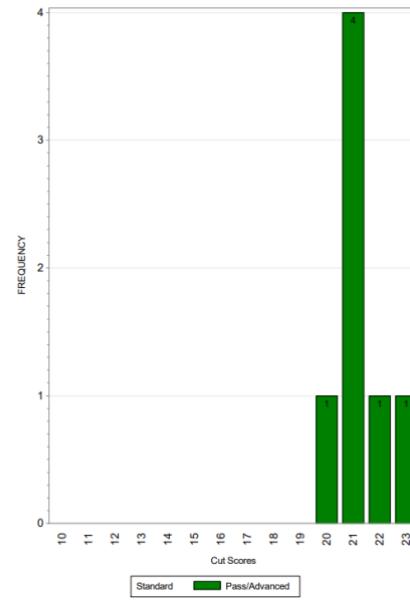
All Performance Levels Concurrently

Round 3:

Science Grade HS Panelist Agreement Data - Round 3 Science Grade HS Panelist Agreement Data - Round 3

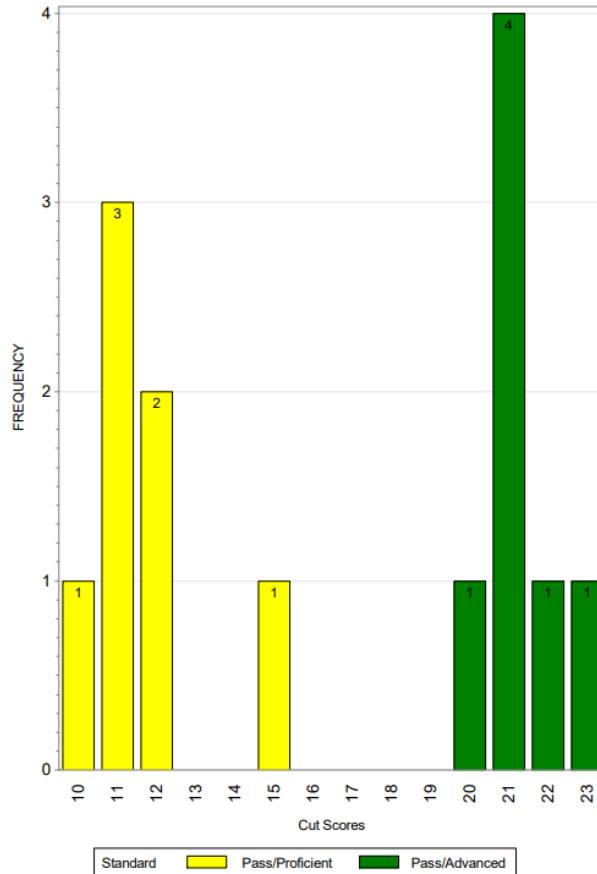


Pass/Proficient



Pass/Advanced

Science Grade HS Panelist Agreement Data - Round 3



All Performance Levels Concurrently