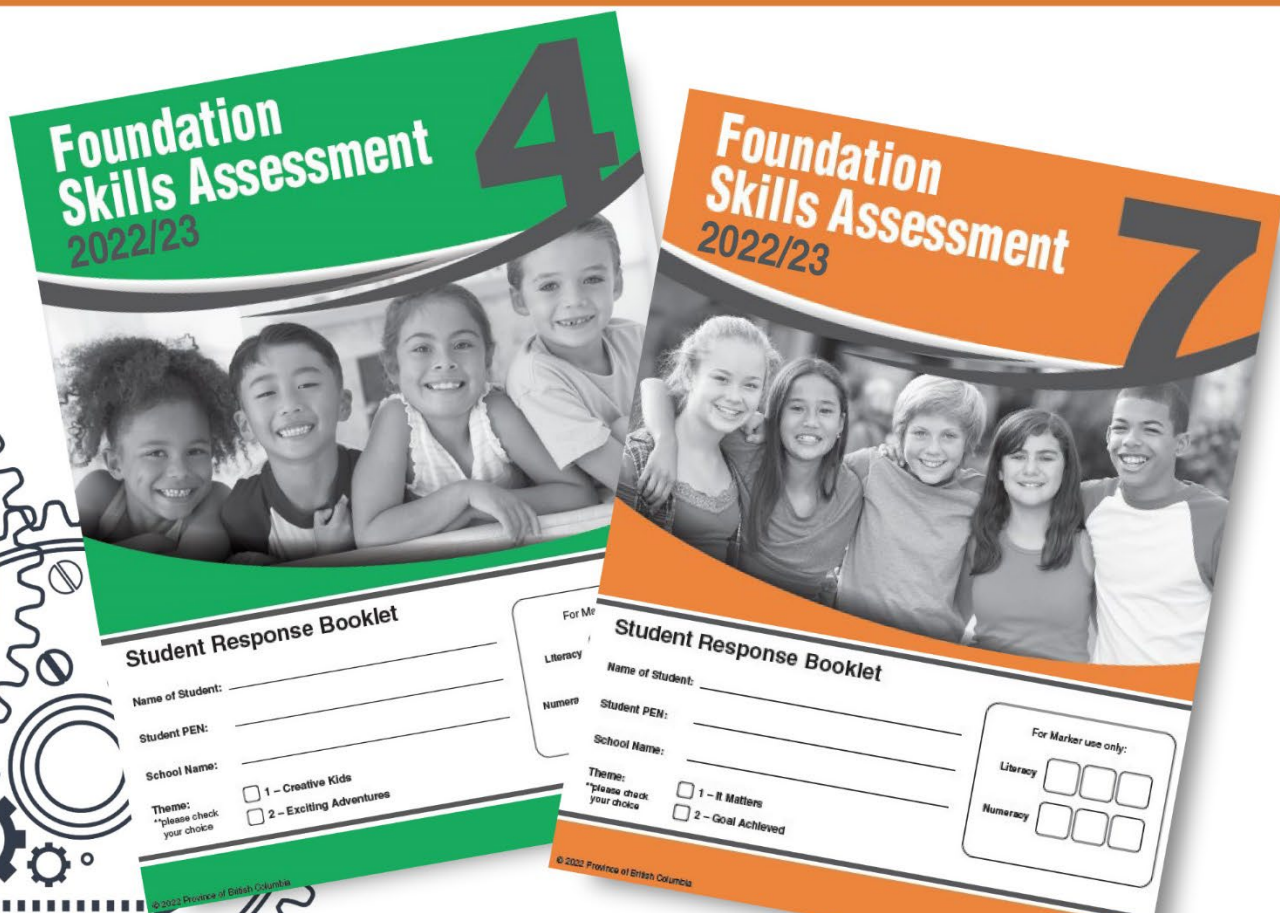




Foundation Skills Assessment

Provincial Marking Monitoring Report

2023



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Foundation Skills Assessment: Marking Monitoring

Large-scale assessments in British Columbia, like the Foundation Skills Assessment (FSA), are carefully developed and continuously evaluated based on evidence-based best practices as recommended by national and international assessment experts and psychometricians in the “Standards for Educational and Psychological Testing” (published collaboratively by the American Educational Research Association, American Psychological Association, and National Council of Measurement in Education (AERA, APA, & NCME, 2014)ⁱ. This document, referred to as the “Standards”, provides guidance on all aspects of the assessment process from development, administration, scoring and reporting. According to *Standard 10.2: Monitoring Accuracy and Reliability of Scoring*, test developers have a responsibility to “monitor and document the accuracy and reliability of scoring, and correct sources of scoring errors” (AERA et al., 2014; p. 118). In adherence to this standard, the B.C. Ministry of Education and Child Care monitors district and school-based scoring of the written-response sections of the FSA by re-scoring a sample of student response booklets from each district and a select number of independent schools.

The purpose of this report is to describe the degree of consistency between the score local or district markers assigned to their students' responses in district/school-based scoring sessions and scores assigned by the markers participating in the provincial monitoring session. The report also provides general comments regarding student performance based on the participants' observations during the monitoring session.

The scoring of the constructed-response questions for the FSA is based on scoring rubrics which were developed under guidance from *Standard 10.1: Developing Procedures for Human Scoring* (AERA et al., 2014), and adapted from the B.C. Performance Standards. Scoring rubrics and related scoring materials are available at www.bced.gov.bc.ca/assessment/fsa/training.htm.

Scorers

Fifty-three scorers from public and independent schools participated in a virtual marking monitoring session. (Appendix 1: Monitoring Session Scorer Demographics)

Scoring Process

Using the FSA Scoring Guide, scorers were familiarized with the FSA Scoring Rubrics and trained in holistic marking, including the scoring technique of “line of best fit”. The training they received is similar to the training markers should receive at their local marking sites.

Scorers used professional judgment, guided by the scoring materials, to give each student response a fair and reliable score. Differences of one scale point between the score assigned at the monitoring session and the score assigned at the district/school-based scoring session are considered to be reasonable. Based on advice from assessment experts an 80% or higher correlation (scores are within one scale point) between locally assigned scores and the scores assigned at the provincial monitoring session indicates that local scores are well aligned with the provincial scoring standards specific to each assessment.



Note: Percentage differences may not add up to 100% due to rounding.

Approximately 3,400 student response booklets from grades 4 and 7 were remarked during the monitoring session.

Scoring Feedback

During the scoring session, scorers' observations were compiled, based on student responses for each of the FSA items. A summary of observations for Literacy and Numeracy can be found at the end of each section of the report.

Scorers also provided general feedback on the marking support materials and the session.

Overall, the feedback was extremely positive – all participants enjoyed the session, agreed that it was a valuable professional development experience, and suggested they learned useful information to improve their local scoring activities.

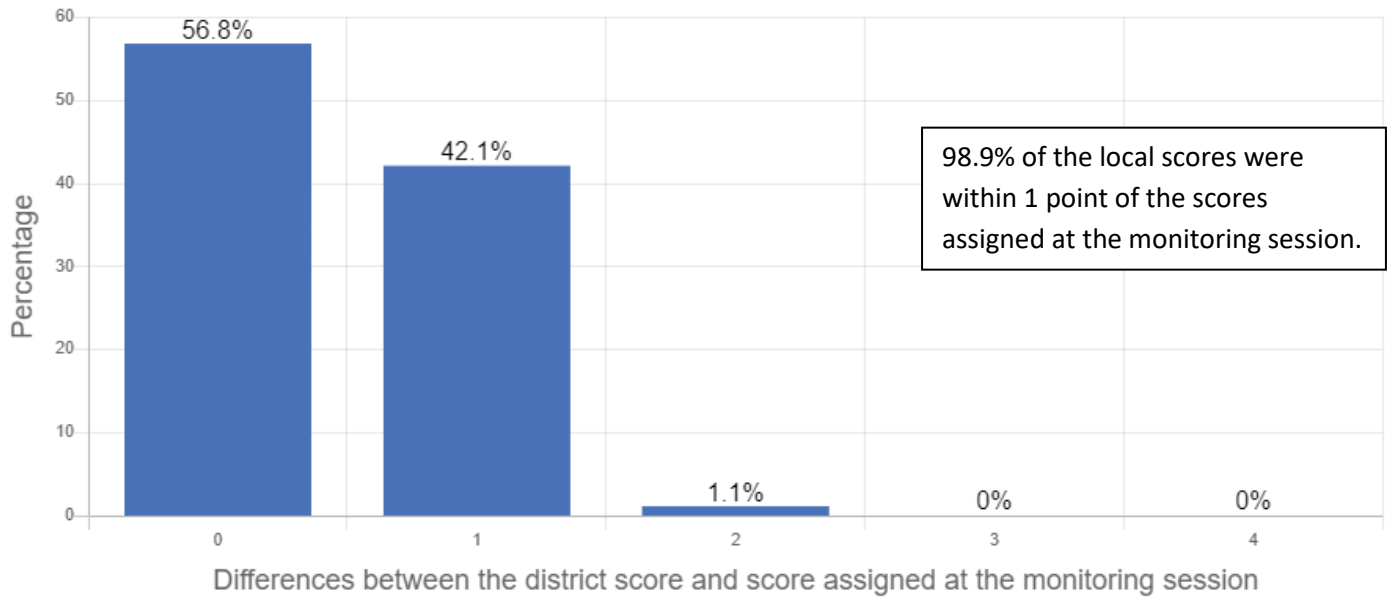
Information is summarized in Appendix 1.

Grade 4 Numeracy

Written Response Question 1

Curriculum Theme – Number and Computational Fluency

Score Discrepancies for Grade 4 Numeracy Question 1

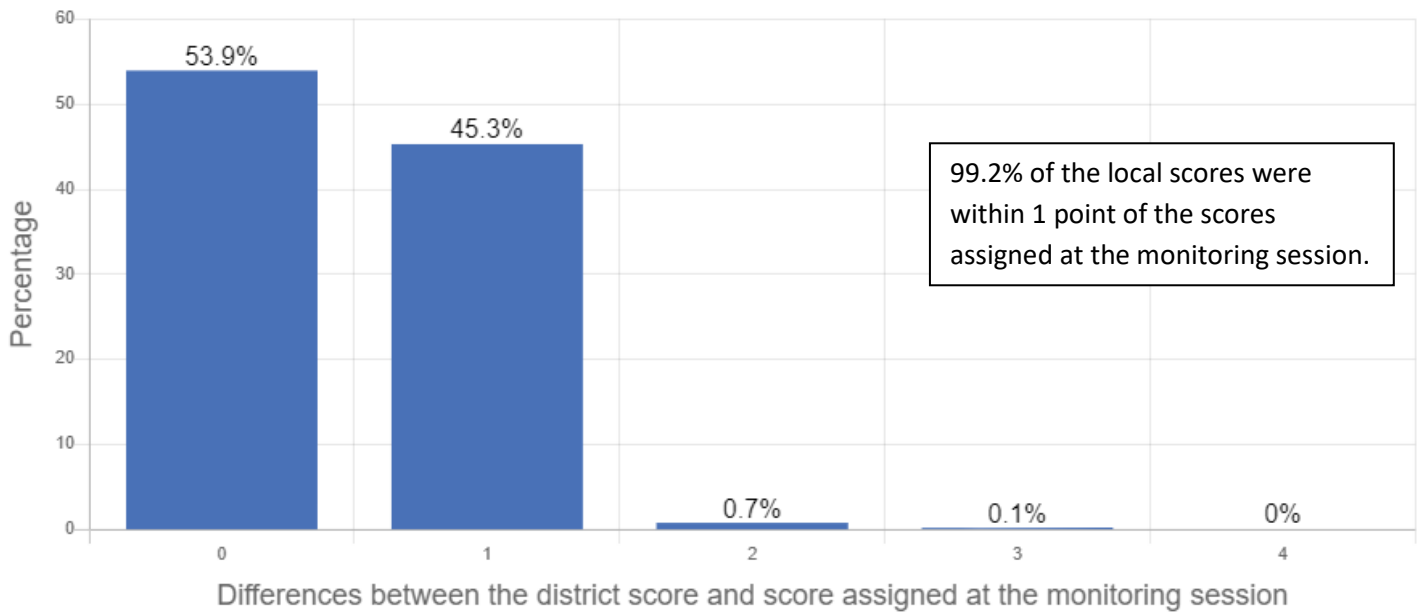


Grade 4 Numeracy (continued)

Written Response Question 2

Curriculum Theme – Number and Computational Fluency

Score Discrepancies for Grade 4 Numeracy Question 2

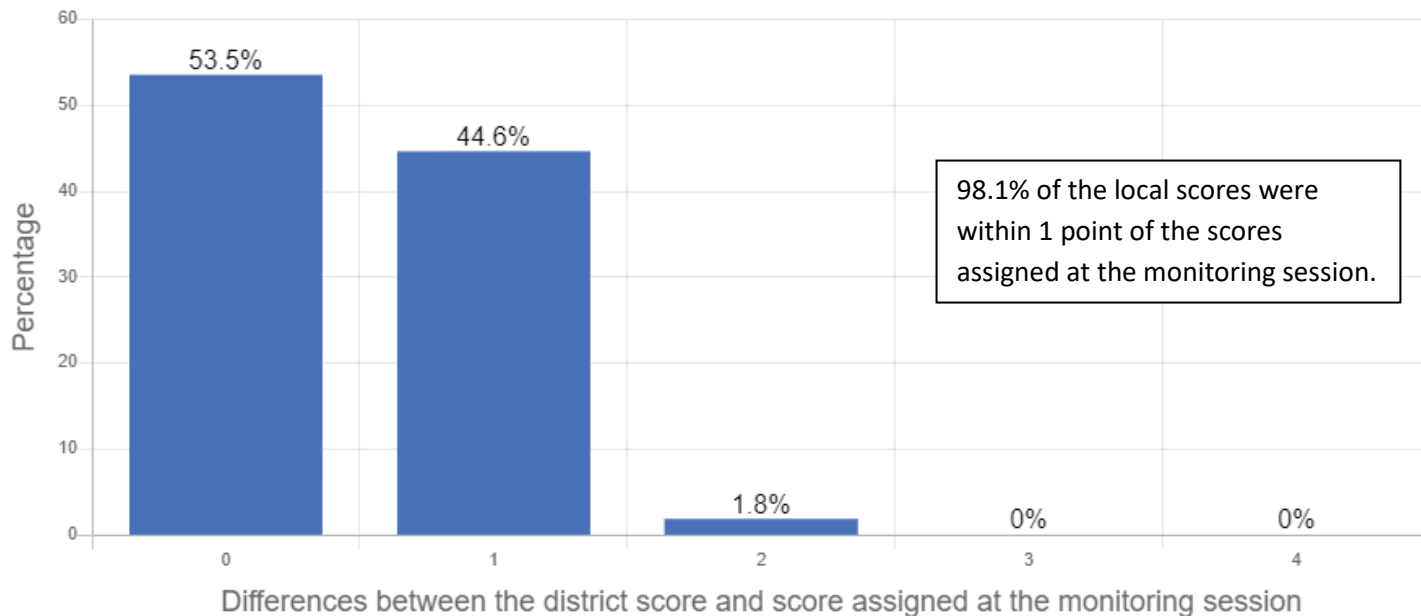


Grade 4 Numeracy (continued)

Written Response Question 3

Curriculum Theme – Geometry and Measurement and Number and Computational Fluency

Score Discrepancies for Grade 4 Numeracy Question 3



Monitoring Comments: Grade 4 Numeracy

General comments regarding student performance on numeracy constructed response questions, according to the participants of the July 2023 monitoring session:

Student Strengths

- Students used creative strategies to engage with the questions that showed their reasoning and problem-solving skills.
- Students displayed work in multiple ways using both drawing and writing.
- Most students were able to understand the question.
- Students were able to communicate their thought processes.
- Students demonstrated a good understanding of a variety of mathematical skills including counting, skip counting, adding, subtracting, multiplying and visual diagrams.
- Most students were able to engage with at least part of each question.

Areas Requiring Improvement

- Students need to practice their graphing skills.
- Students need to practice turning repeated addition into multiplication.
- Students need to practice organizing and structuring their thoughts.
- Students need to remember to show their work.
- Students need to practice reading questions carefully and determining what is being asked of them before trying to respond.

Implications for Instruction

The marking team suggests that teachers could focus on the following:

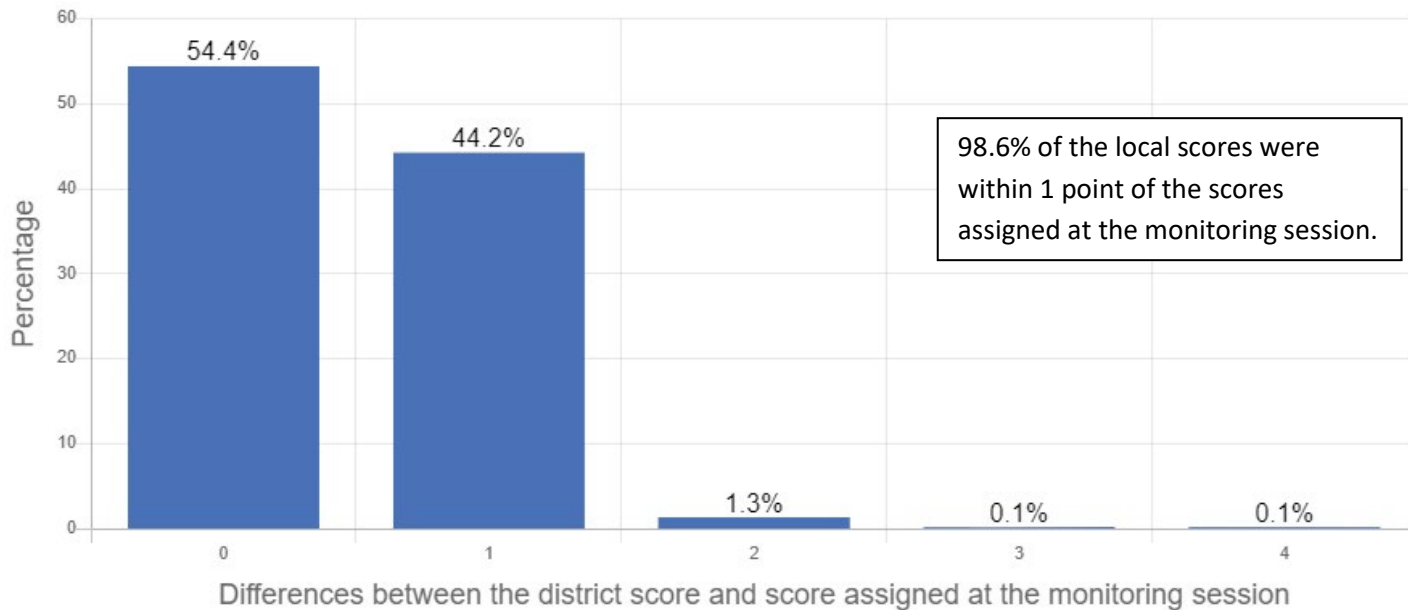
- Step by step process of creating a graph, labeling a graph, including scale, and understanding the value of communicating information through a graph.
- Developing strategies for organizing thoughts on paper to create a logically structured response.
- Help students understand the importance of showing their work and adding words to their responses to highlight their conclusions.
- Remind students to double check their work to avoid simple mathematical errors.

Grade 7 Numeracy

Written Response Question 1

Curriculum Theme – Geometry and Measurement

Score Discrepancies for Grade 7 Numeracy Question 1

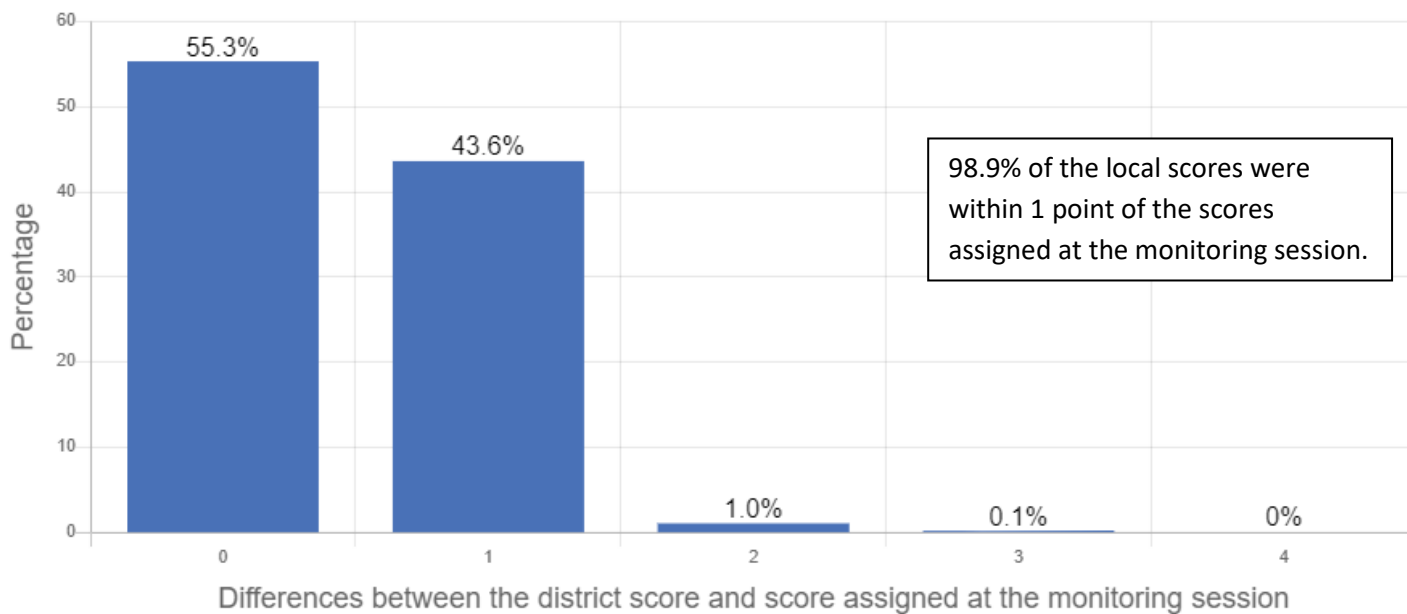


Grade 7 Numeracy (continued)

Written Response Question 2

Curriculum Theme – Geometry and Measurement

Score Discrepancies for Grade 7 Numeracy Question 2

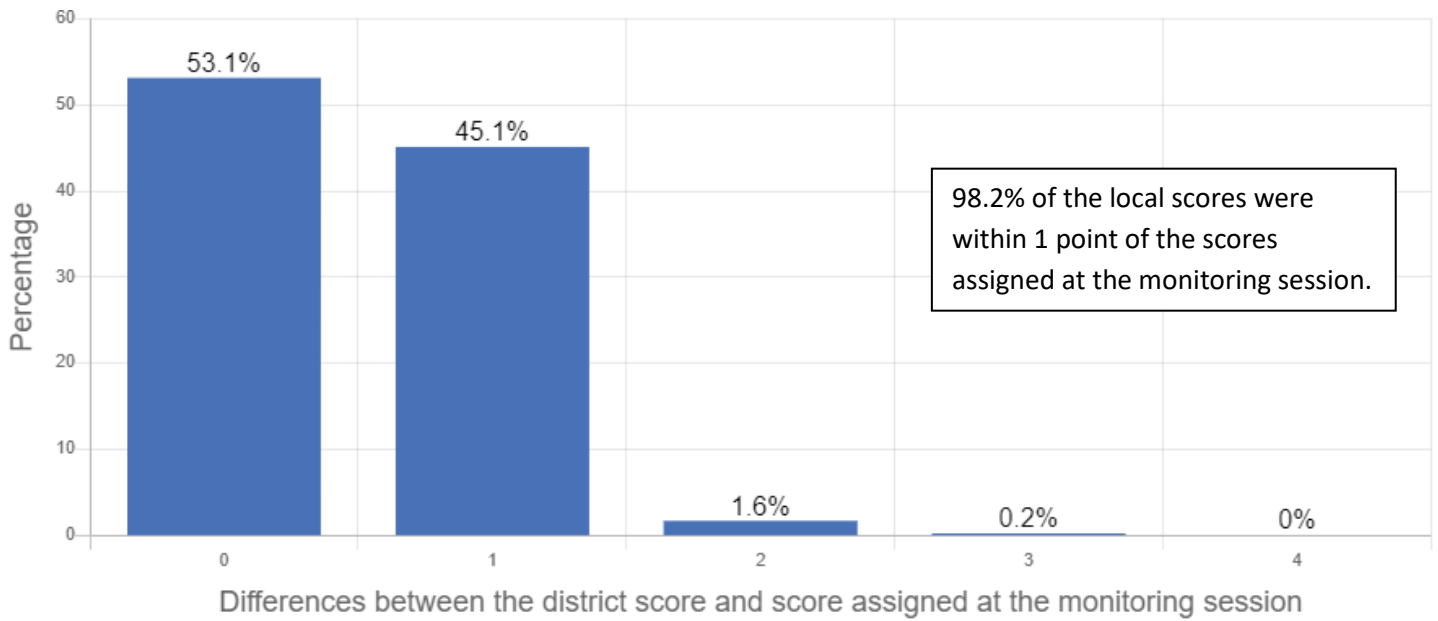


Grade 7 Numeracy (continued)

Written Response Question 3

Curriculum Theme – Number and Computational Fluency

Score Discrepancies for Grade 7 Numeracy Question 3



Monitoring Comments: Grade 7 Numeracy

General comments regarding student performance on numeracy written response questions, according to the participants of the July 2023 monitoring session:

Student Strengths

- Students showed varied and creative ways to engage with the questions.
- Students were making an effort to understand what was being asked of them.
- Students showed strong addition, subtraction, and multiplication skills.
- Many students provided good reasoning and logical responses.
- Students demonstrated financial literacy.
- Students understood unit conversion.
- Students showed ingenuity and creativity in their approaches to answering questions.

Areas Requiring Improvement

- Students need to ensure that they read questions thoroughly.
- Students need to consistently demonstrate units.
- Students need to better understand ratios.
- Students need to organize their work.
- Students need to show their work and clearly present their results.

Implications for Instruction

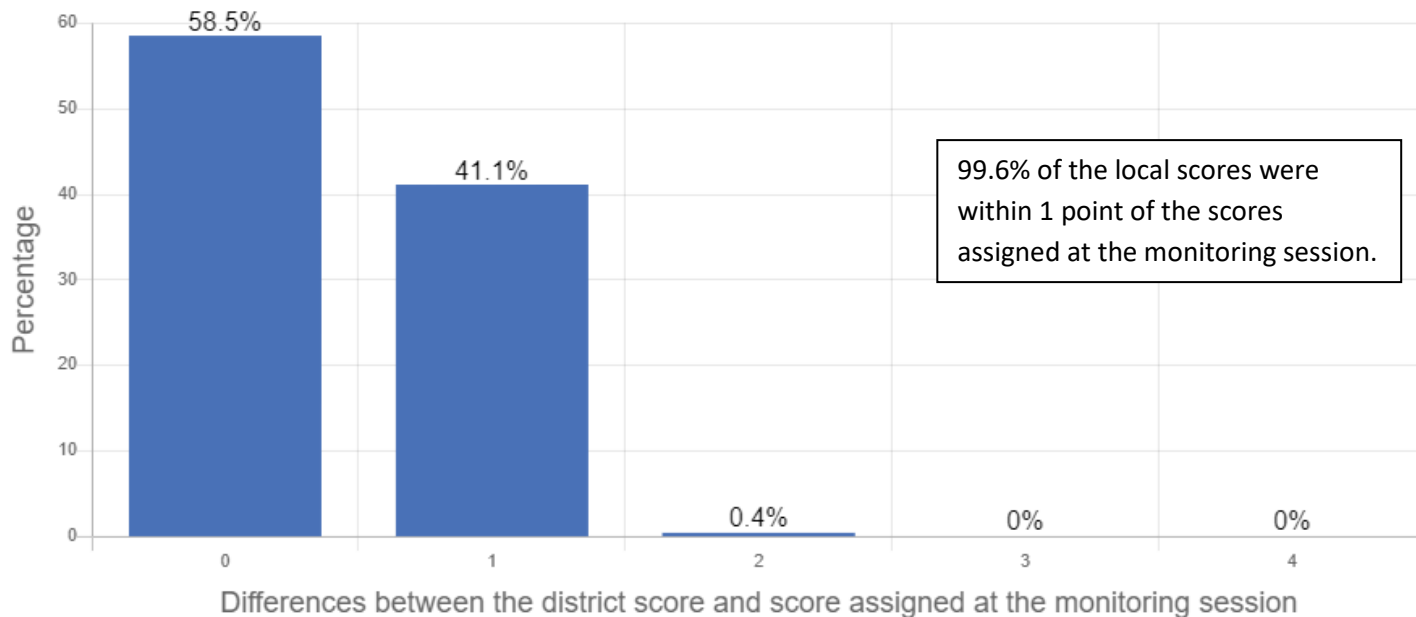
The marking team suggests that teachers could focus on the following:

- Reading for details in questions.
- Practicing area versus perimeter.
- Focus on problem solving skills generally.
- Practice ways to communicate numerical thinking.
- Working on students' ability to read and understand what questions were asking.
- Students need to be taught how to draw pictures to help them work through numeracy questions.

Grade 4 Literacy

Written Response: Theme 1, Question 1

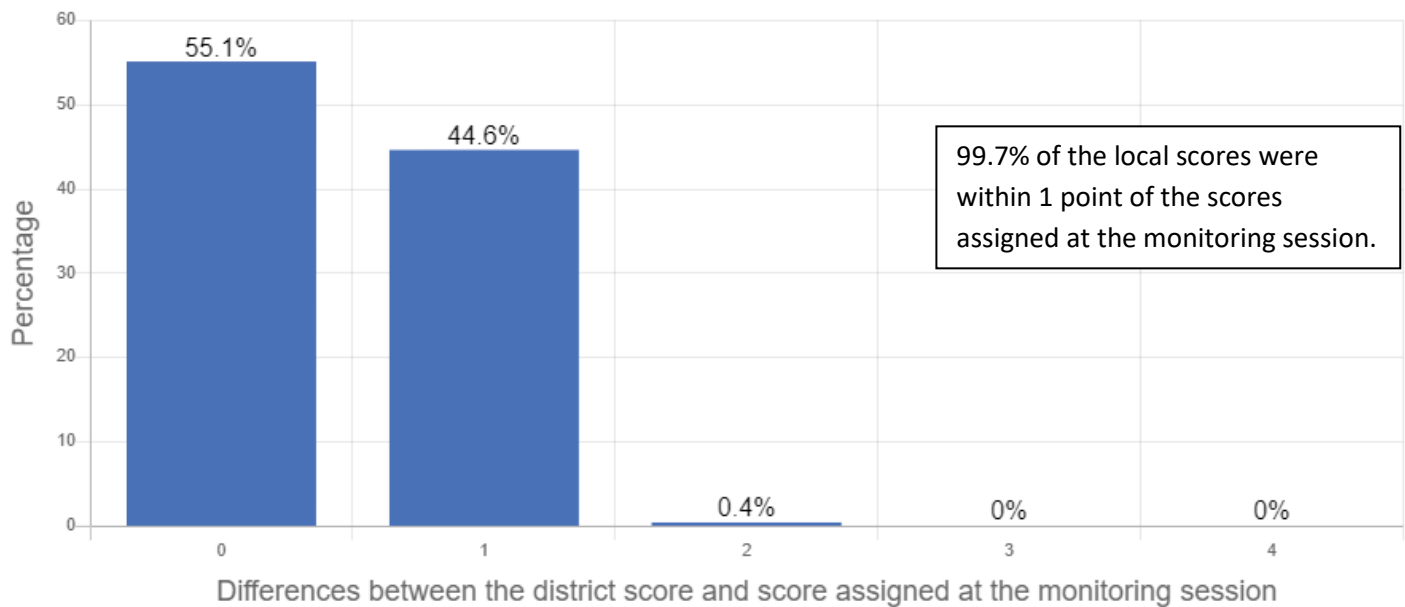
Score Discrepancies for Grade 4 Literacy Question 1
Theme 1



Grade 4 Literacy (continued)

Written Response: Theme 1 Question 2

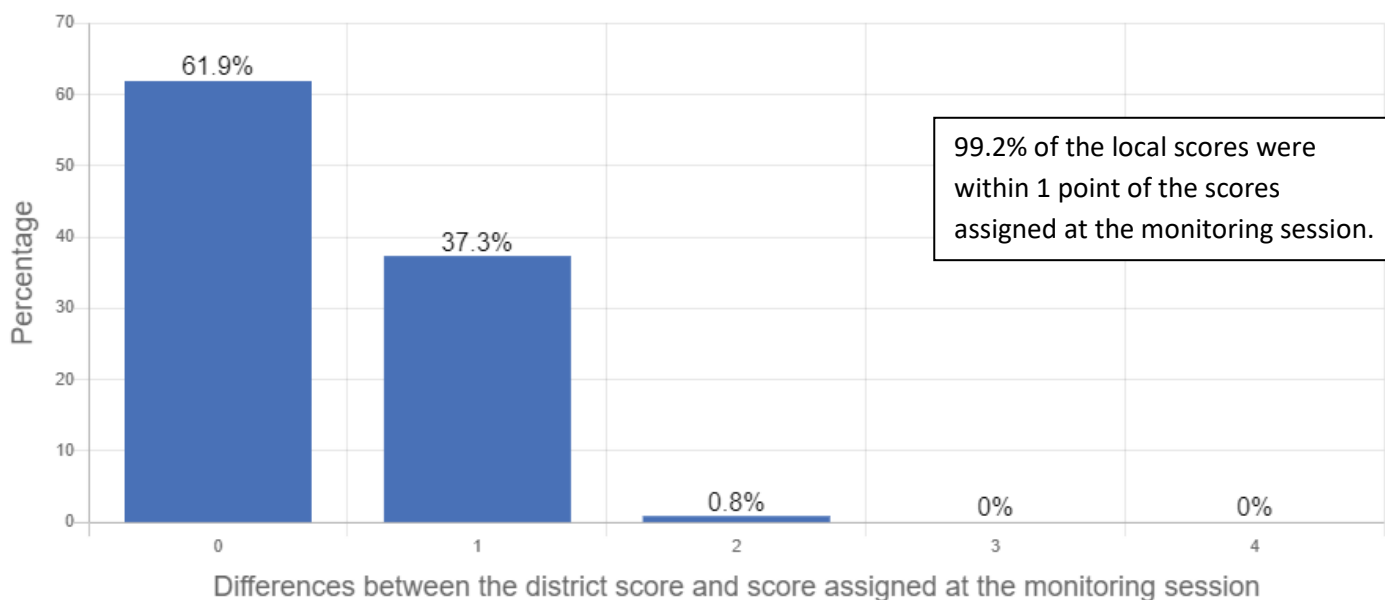
Score Discrepancies for Grade 4 Literacy Question 2
Theme 1



Grade 4 Literacy (continued)

Written Response: Theme 1 Question 3

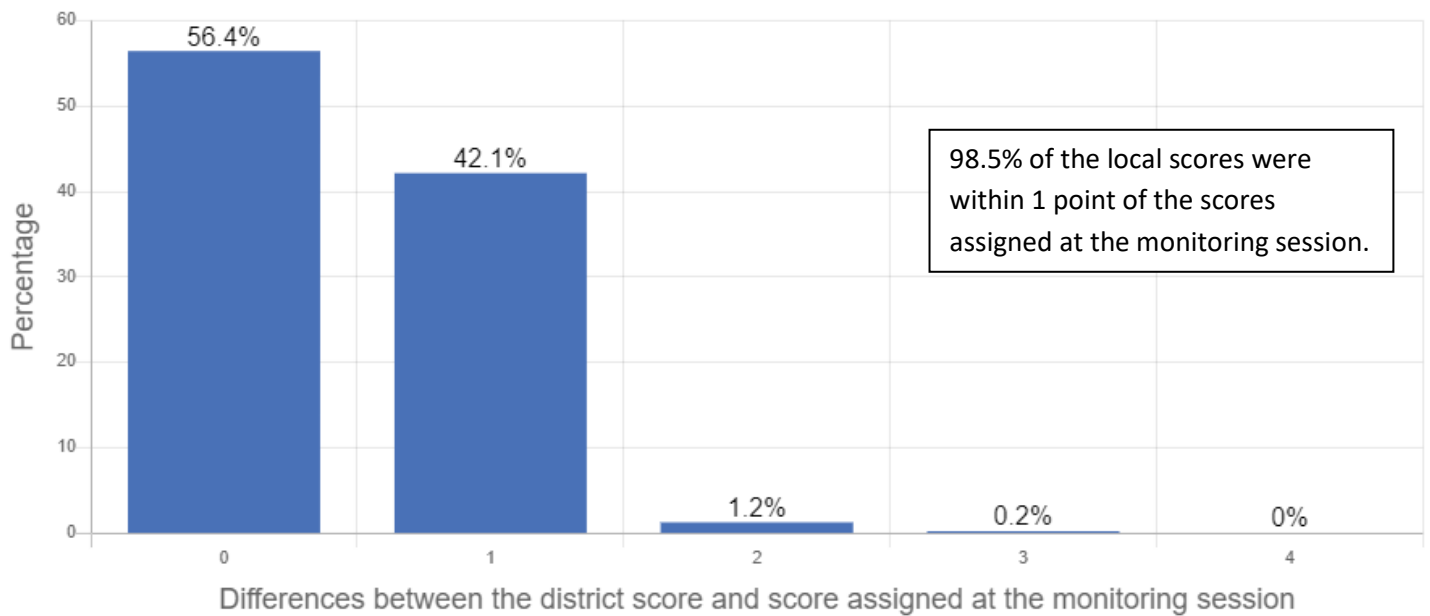
Score Discrepancies for Grade 4 Literacy Question 3
Theme 1



Grade 4 Literacy (continued)

Written Response: Theme 2 Question 1

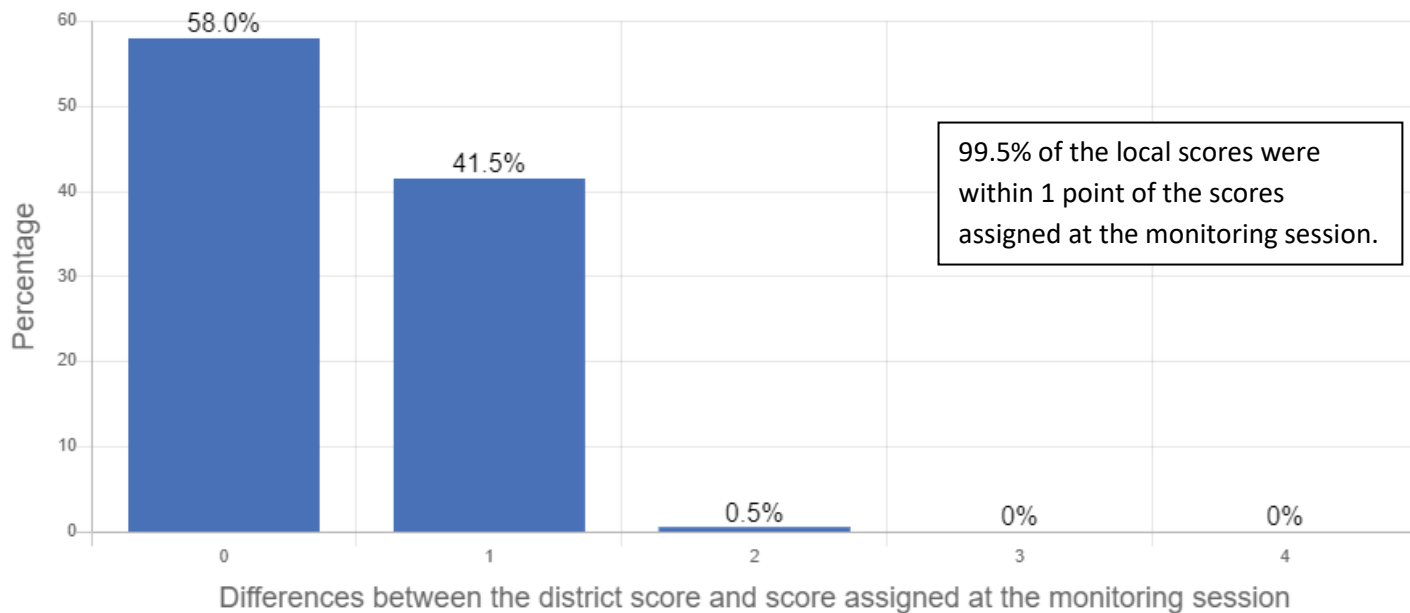
Score Discrepancies for Grade 4 Literacy Question 1
Theme 2



Grade 4 Literacy (continued)

Written Response: Theme 2 Question 2

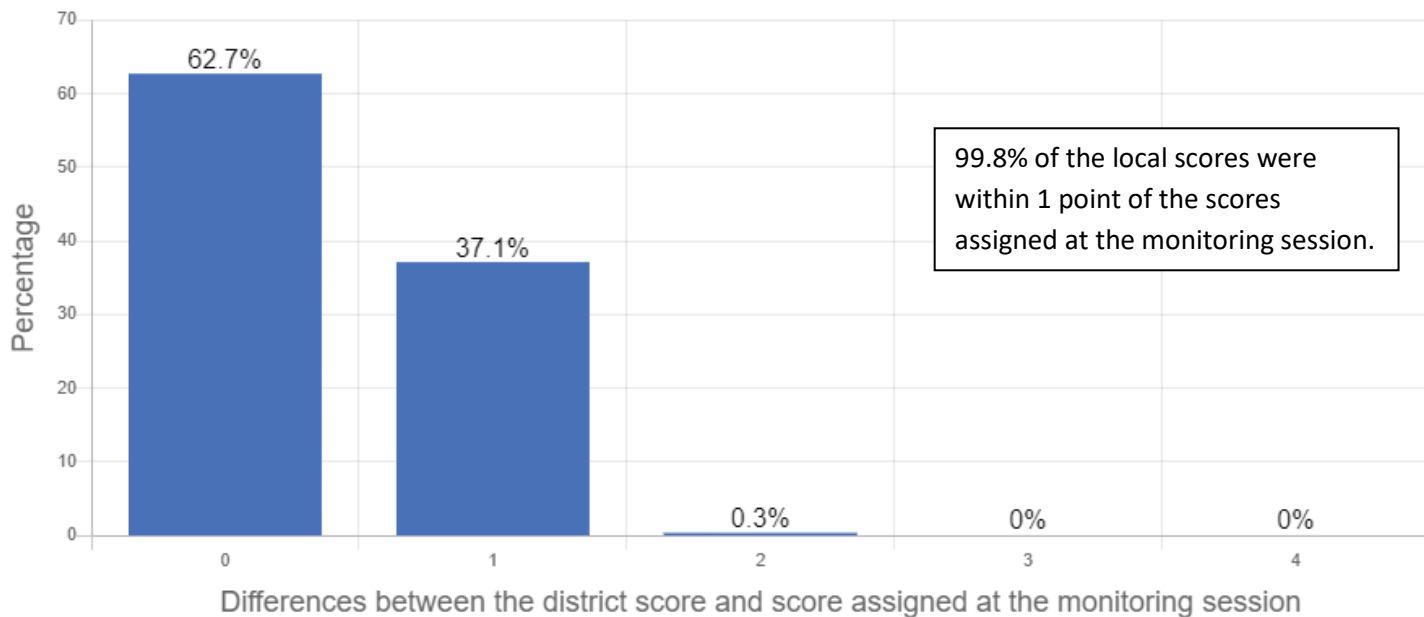
Score Discrepancies for Grade 4 Literacy Question 2
Theme 2



Grade 4 Literacy (continued)

Written Response: Theme 2 Question 3

Score Discrepancies for Grade 4 Literacy Question 3
Theme 2



Monitoring Comments: Grade 4 Literacy

General comments regarding student performance on literacy written response questions, according to the participants of the July 2023 monitoring session:

Student Strengths

- Students demonstrated a good ability to summarize the text and pull details from it.
- Students showed that they were thinking about what they had read.
- Students were able to make personal connections with the texts.
- Students were able to identify what the questions were asking.
- Some students are beginning to use voice.

Areas Requiring Improvement

- Students need to work on clear writing including introductions and conclusions.
- Students need to show their ideas with evidence from the text.
- Students need to fully explain their ideas.
- Students need to be clear on what their point is.

Implications for Instruction

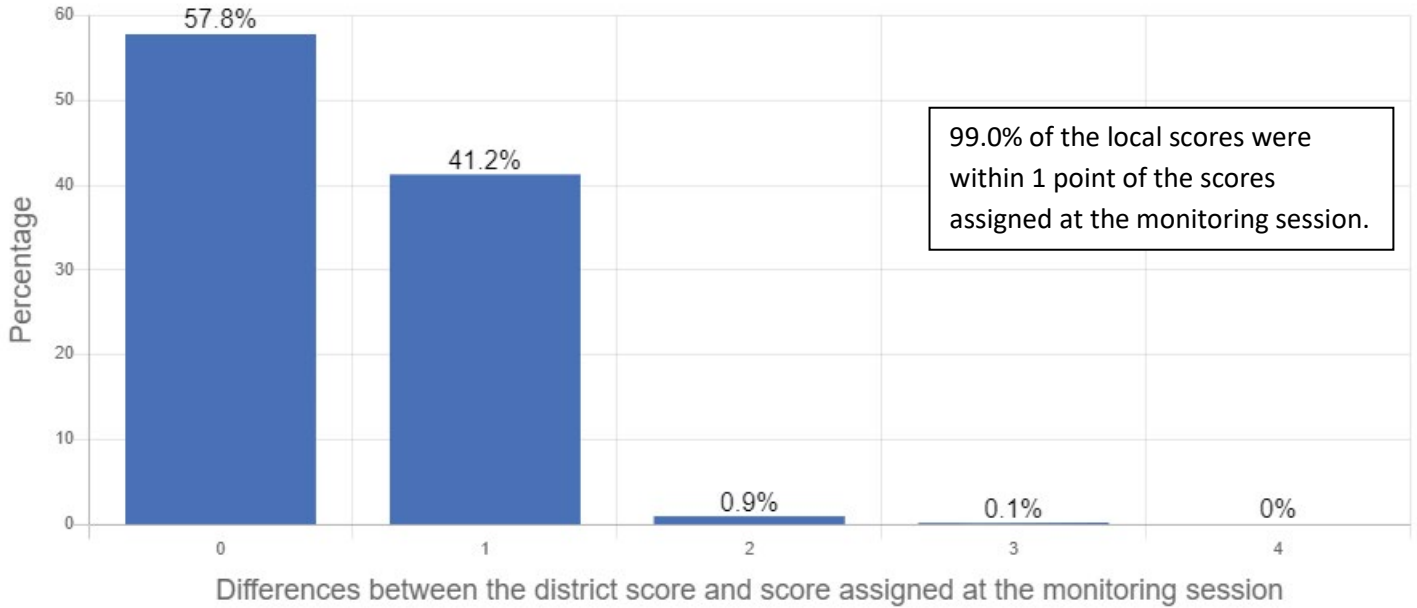
The marking team suggests that teachers could focus on the following:

- Ensuring students practice keeping the question in mind when constructing the response.
- Working with students on how to structure a response to include hook, details, and closing, as many responses were simply lists.
- Practicing how to elaborate on their ideas.
- Practicing providing support for their opinions using examples from the text.
- Practicing identifying the main idea of a text. Practice highlighting, circling and underlining ideas in the text when reading it.
- Development of critical thinking.

Grade 7 Literacy

Written Response: Theme 1, Question 1

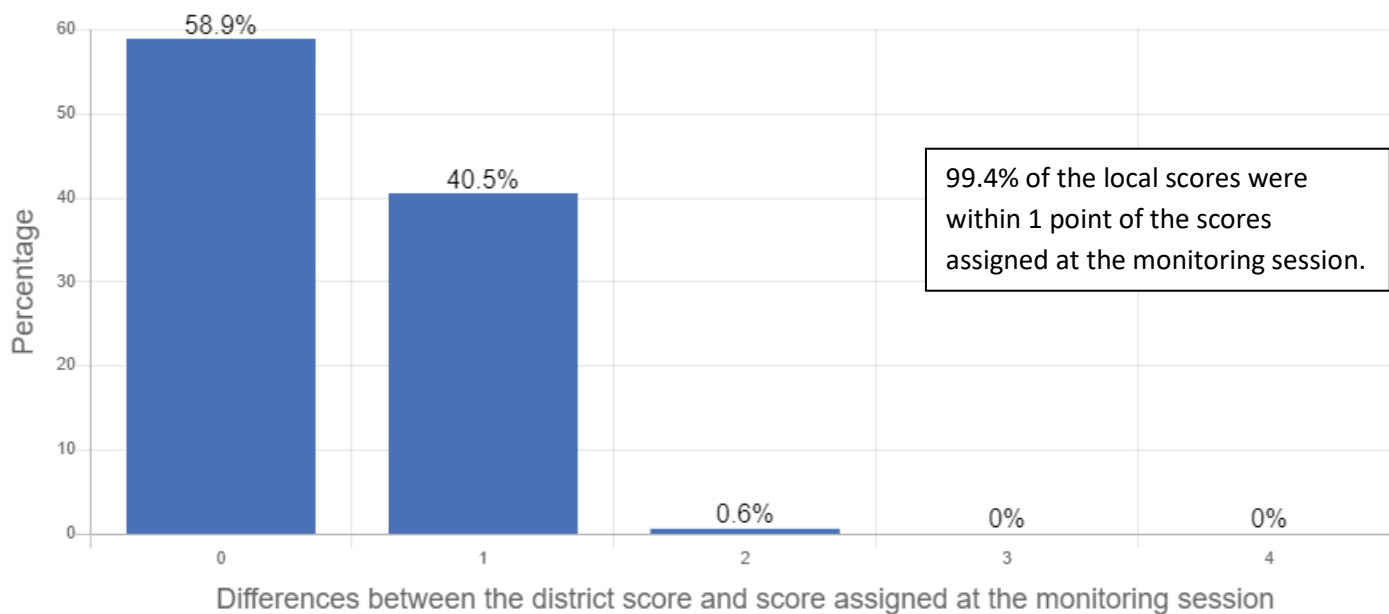
Score Discrepancies for Grade 7 Literacy Question 1
Theme 1



Grade 7 Literacy (continued)

Written Response: Theme 1 Question 2

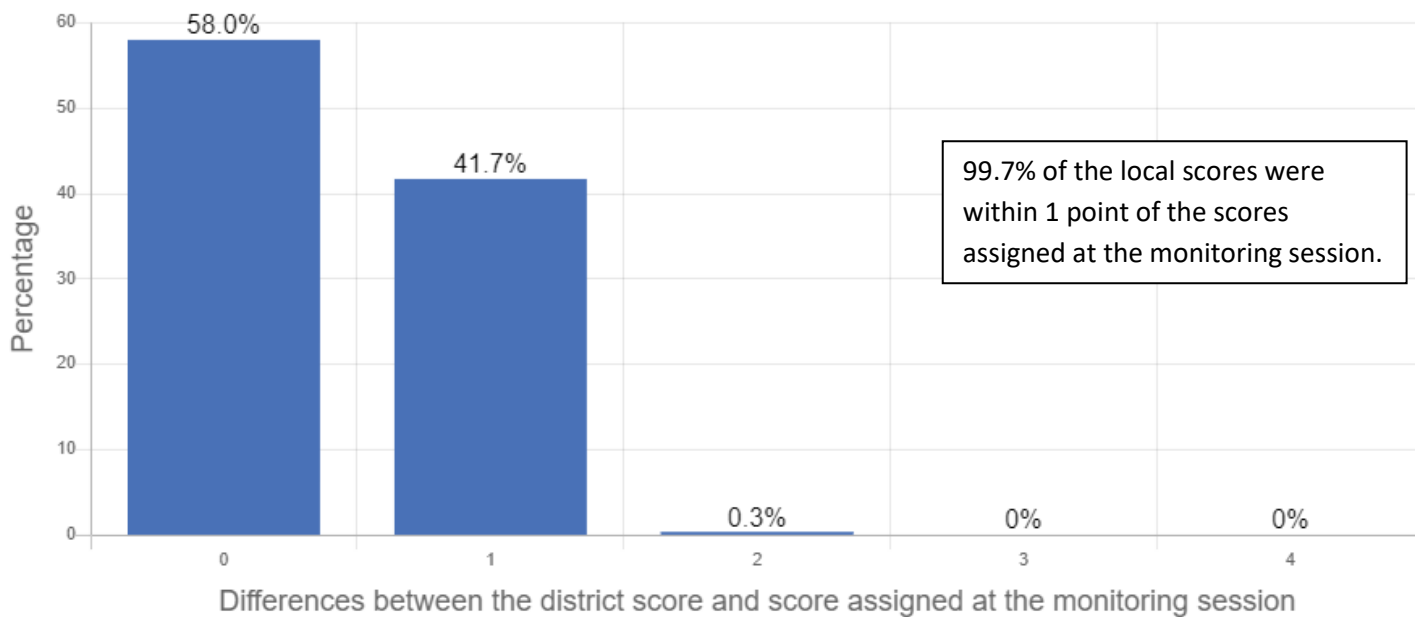
Score Discrepancies for Grade 7 Literacy Question 2
Theme 1



Grade 7 Literacy (continued)

Written Response: Theme 1 Question 3

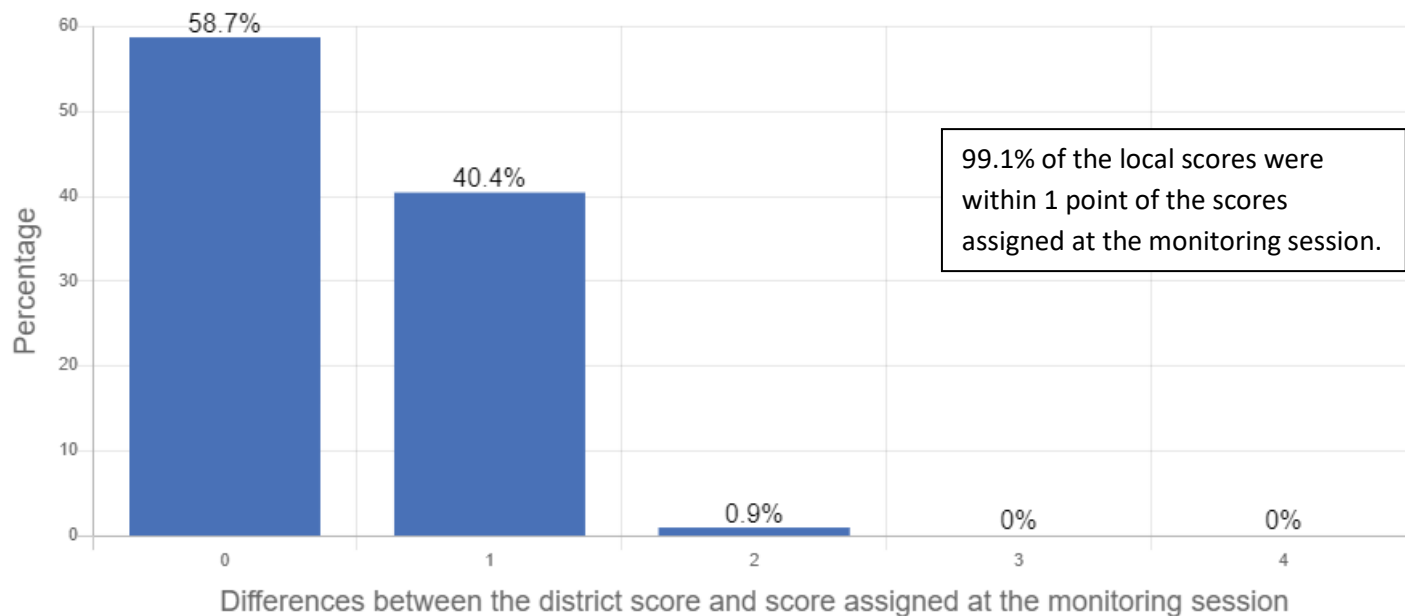
Score Discrepancies for Grade 7 Literacy Question 3
Theme 1



Grade 7 Literacy (continued)

Written Response: Theme 2 Question 1

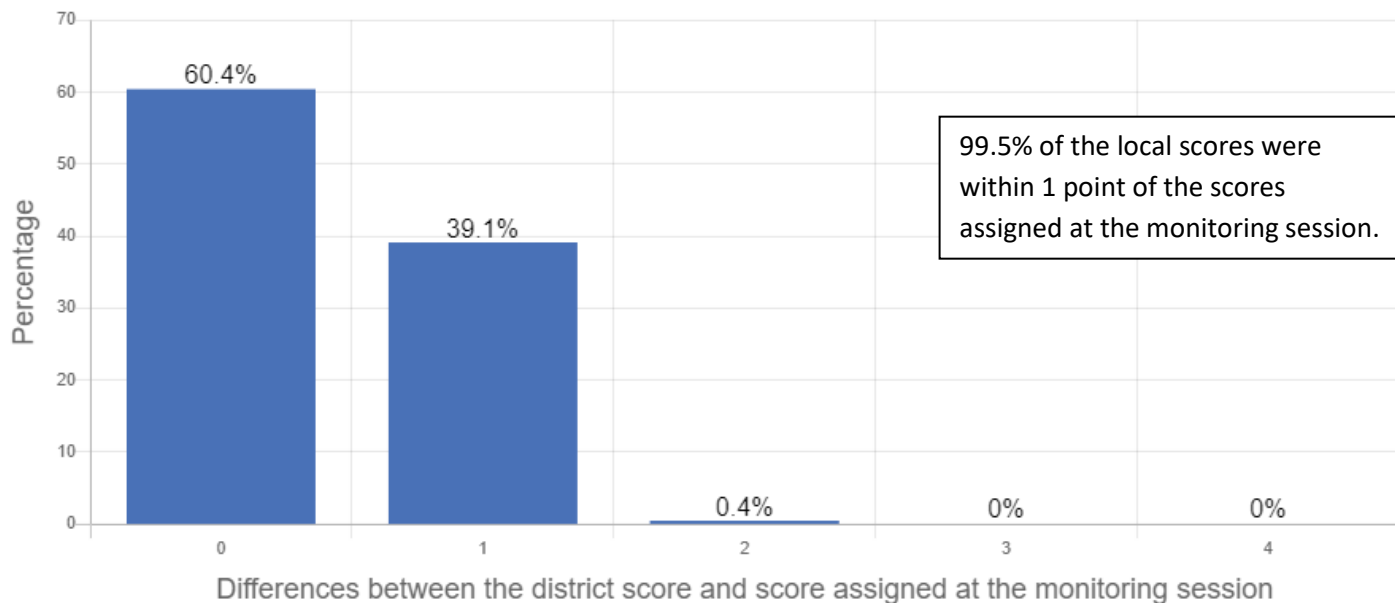
Score Discrepancies for Grade 7 Literacy Question 1
Theme 2



Grade 7 Literacy (continued)

Written Response: Theme 2 Question 2

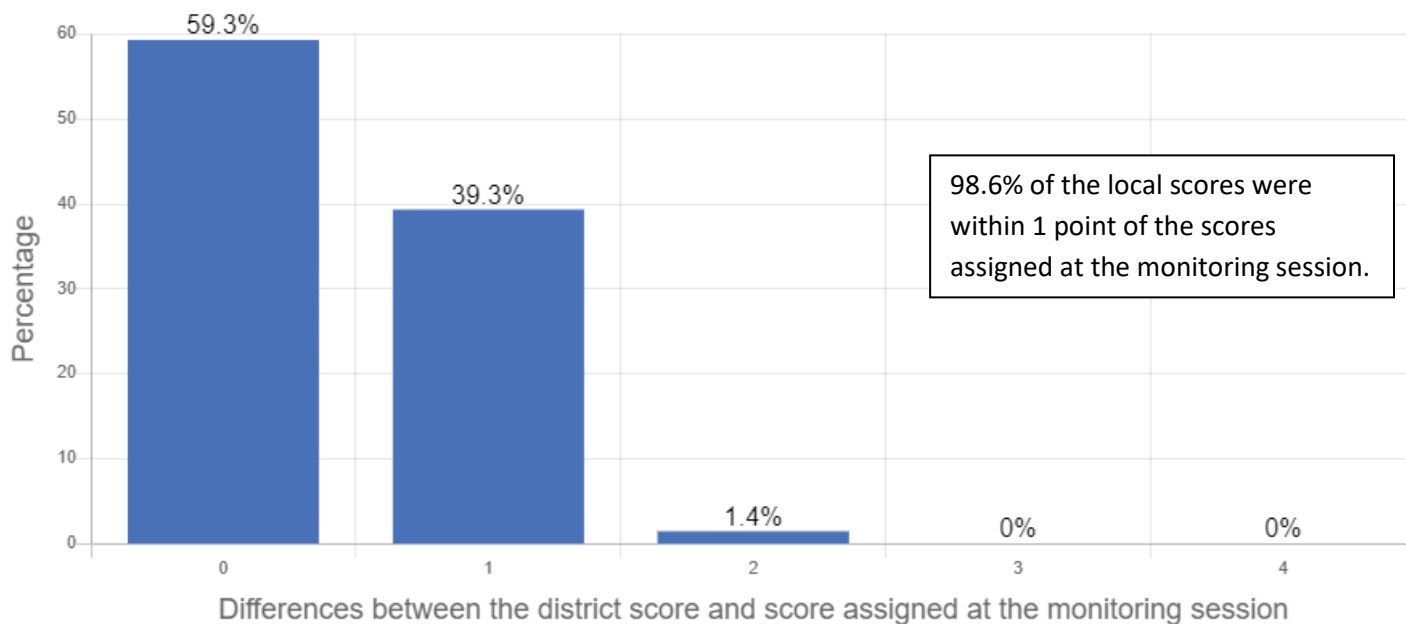
Score Discrepancies for Grade 7 Literacy Question 2
Theme 2



Grade 7 Literacy (continued)

Written Response: Theme 2 Question 3

Score Discrepancies for Grade 7 Literacy Question 3
Theme 2



Monitoring Comments: Grade 7 Literacy

General comments regarding student performance on literacy constructed response questions, according to the participants of the July 2023 monitoring session:

Student Strengths

- Students understood the text and knew that they needed to refer to it.
- Students demonstrated creativity in their responses.
- Some students brought their own experiences into their answers.
- Some students have a good sense of voice.

Areas Requiring Improvement

- Students need to explore their ideas and elaborate their thoughts.
- Students need to use the text to support their ideas.
- Students need to think about the question and its purpose before responding.
- Students need to work on structuring their responses.
- Students need to have an introduction, a body, and a conclusion.
- Students need to reread their responses.

Implications for Instruction

The marking team suggests that teachers could focus on the following:

- Vocabulary Development.
- Paragraph structure, development for multi-paragraph writing, sequencing, and transition.
- Brainstorming/planning before writing.
- Practice how to compare and contrast.
- Encouraging students to reread their work.
- Staying focused and on topic for the entire response.
- Adding supporting details and examples from the text.

Summary of Marking Reliability

Maintaining consistent FSA marking standards across the province helps to ensure that no matter where a student takes the FSA, his or her responses will be marked in a consistent manner. The purpose of the FSA marking monitoring session was to gather evidence for the reliability, validity, and fairness of the FSA marking process in accordance to the

Standards¹. Overall results show a high level of consistency; between 96.8 – 99.8% of the scores assigned at the monitoring session were within 1 point of the local or district scores. No significant difference in scoring consistency was found between the grades.

The results from the FSA marking monitoring session provide evidence for the reliability, validity, and fairness of the FSA marking process at the provincial level. Specifically, the results allow the Ministry to assess the reliability of the marks assigned at district levels, provide useful information to markers about the FSA marking process in terms of how to effectively use the assessment rubric and knowing what to look for when marking student responses, etc. To provide feedback on how well local scorers performed, all districts are provided with summary reports unique to their own district. An overall independent school-level summary report is also provided to the Executive Director of Independent Schools. It is expected that such reports will highlight the importance of ensuring high scoring standards are followed so that the scoring process is reliable, valid, and fair.

Considerations for Marking

Score holistically. Holistic scoring gives an overall score for the student response. When scoring holistically, the focus is on what the student CAN do, and the strengths demonstrated in the student’s work. No one aspect of the student’s work carries more importance or weight than another when scoring holistically.

Give the student response a complete and careful read for a general impression. Use professional experience, and based on the rubric, give each student paper a fair score. Be aware of personal biases when scoring and refer to the rubric and exemplars, especially when in doubt.

Based on the balance of strengths and weaknesses according to the rubric, arrive at an overall score for the response.

Refer to the rubrics regularly to stay focused. The scoring rubrics form the basis for assessment; refer to them often, especially if unsure what score to give the student’s work. Markers should review the rubrics at the beginning of each scoring session, and continue to refer to them during scoring, adding notes and highlighting aspects of importance.

Score for the ‘best line of fit’. Markers should give an overall score for the student response, based on the score of the rubric where most of their response falls. Often students will score across two or three score points on the rubric. The final score should reflect where most of a student’s response lies.

FSA Numeracy Scoring Rubric

| | 1 | 2 | 3 | 4 |
|----------------------|--|---|--|---|
| Strategic | Student demonstrates inability to view the situation mathematically. Approach or representation is ineffective. Reasoning or evidence is absent. | Student demonstrates some ability to view the situation mathematically. Approach or representation is flawed or lacks. Reasoning or evidence is lacking in some degree. | Student demonstrates sufficient ability to view the situation mathematically. Approach or representation is credible and generally can be followed. Reasoning or evidence contains some inconsistencies. | Student demonstrates advanced ability to view the situation mathematically. Approach or representation is effective and is easily followed. Reasoning and evidence is clear and well presented. |
| Response | No response (other page is blank) | Sets simply respond from question. Figures, work or solutions unrelated to problem. Incorrect evidence with no work shown. Inappropriate response which contains profanity, inappropriate diagrams or language. Everything mixed. | | |
| Reasoning | Reasoning to solve the problem is not explained. | Reasoning to solve the problem is implied. | Reasoning to solve the problem is partially explained. | Reasoning to solve the problem is explained in detail and is logical. |
| Understanding | Sufficient understanding of mathematical concepts and skills to solve problem. | Emerging understanding of mathematical concepts and skills, although insufficient to solve problem. | Sufficient understanding of mathematical concepts and skills to solve problem. | Clear understanding of mathematical concepts and skills to solve problem. |
| Communication | Response does not communicate a solution to problem. | Response communicates a solution to problem, although may be unorganized. | Response communicates a solution to problem, with simple explanations that make sense, contains minor errors. | Response communicates a functional solution to problem, supported with explanation. |
| Communication | Limited representation using mathematical organizers, language, units. | Inconsistent representation of mathematical organizers, language, units. | Consistent representation of mathematical organizers, language, units, with minor omissions. | Clear and concise representation of mathematical organizers, language, units. |

When being scored, this student’s work received the greatest number of checkmarks for descriptors in Score 4, therefore, ‘best line of fit’ would be a score of 4 (even though there is a calculation error in this numeracy example).

Some noteworthy comments from participants

- *I found the whole process very efficient and user friendly.*
- *It was a great experience - it gives you a sense of relief that you are marking these according to provincial expectations and I found this a very valuable experience. Those leading the marking did a great job explaining.*
- *I enjoyed the layout of the session.*
- *I find these days really interesting and always appreciate being able to take feedback back to my school. Thank you!*
- *I continue to enjoy these marking sessions and feel it is good professional learning. The organization and the leadership team was excellent. More teachers should participate in this!*
- *I always appreciated learning through marking and gained insights on goals that can be developed to focus students learning and develop more skills in different areas.*
- *Great session this year! Going over the question, answers and examples is great for me to make sure my understanding of the question was clear, and that my own marking was aligned with the ministry.*
- *Thank you for the sessions. I felt well supported with the tech, and the collective look at samples together. I felt I learned a lot, and the perspective of how others view the assessments using the rubrics was great pro d.*
- *The platform and format was excellent, fluid, and very clear. The grounding/training sessions were very well coordinated and most helpful in establishing criteria for marking.*

Appendix 1: Monitoring session Scorer demographics

Who were they?

- 35% classroom educators
- 59% administrators
- 6% other

Years of experience:

- 12% had 15 years or less experience
- 88% had 16 years or more experience

Where did they teach?

- 89% taught at English language schools
- 2% taught at French immersion schools
- 9% taught at Other (e.g., both, trilingual school, university)

Experience with the FSA:

- 60% had participated in previous marking monitoring sessions
- 13% had experience with FSA standard setting
- 89% had participated in the FSA district-level marking

Summary of responses to Likert scale statements (sample)

- 100% agreed or strongly agreed that the training provided an opportunity to develop a common understanding of the scoring criteria.
- 100% agreed or strongly agreed that the exemplar papers were useful in explaining and supporting score allocation.
- 100% agreed or strongly agreed that the marking leaders were effective in guiding and coordinating the monitored marking process.
- 94% agreed or strongly agreed that the monitored marking process was efficient and well-coordinated.
- 96% agreed or strongly agreed that marking was a valuable professional development experience.

ⁱ American Educational Research Association., American Psychological Association., & National Council on Measurement in Education. (2014). *Standards for educational and psychological testing*. Washington, DC: American Psychological Association.