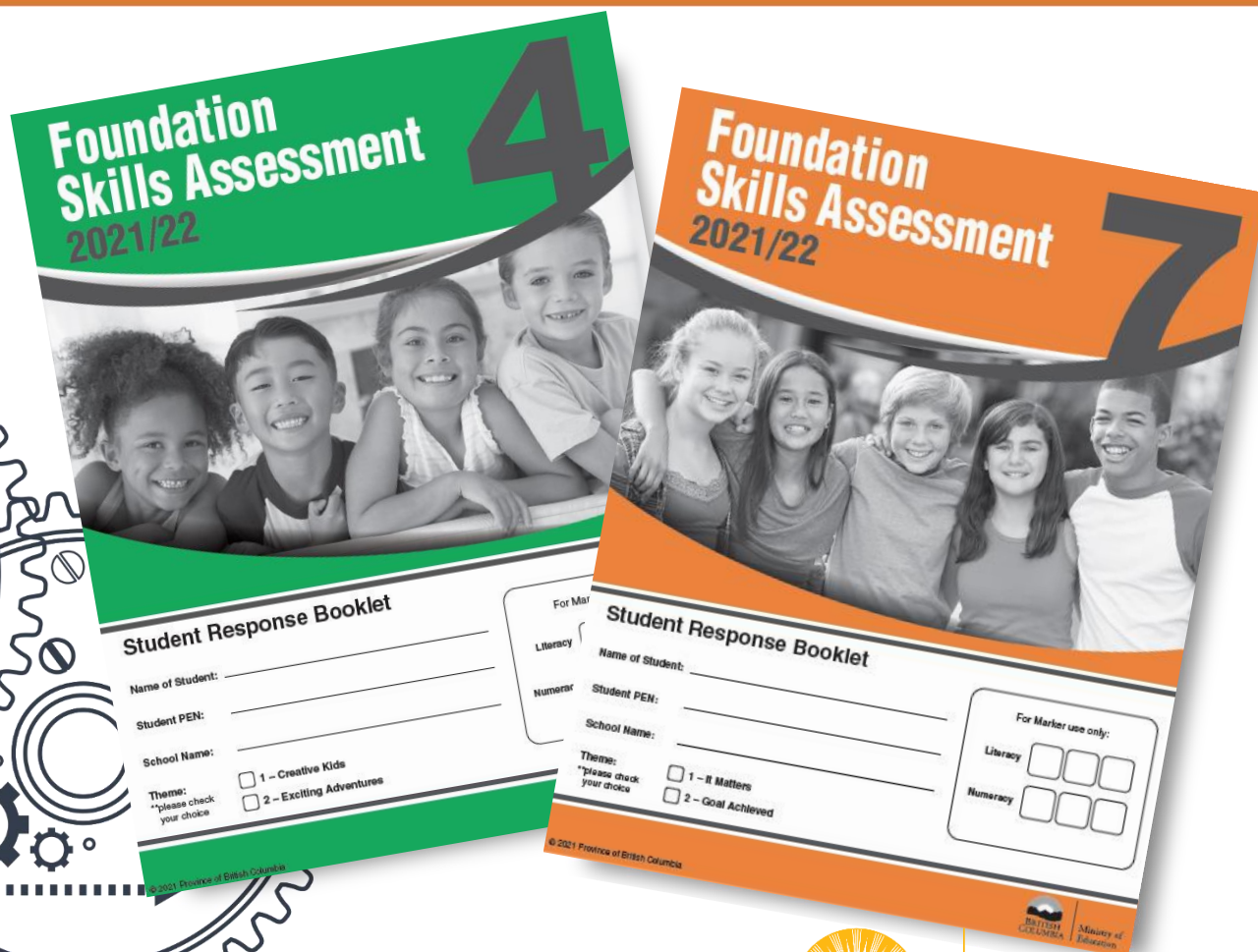




# Foundation Skills Assessment

## Provincial Marking Monitoring Report

# 2022



|   |    |
|---|----|
| Foundation Skills Assessment: Marking Monitoring..... | 3  |
| Scorers.....  | 3  |
| Scoring Process .....                                 | 3  |
| Scoring Feedback .....                                | 4  |
| Grade 4 Numeracy .....                                | 5  |
| Written Response Question 1.....                      | 5  |
| Written Response Question 2.....                      | 6  |
| Written Response Question 3.....                      | 7  |
| Monitoring Comments: Grade 4 Numeracy .....           | 8  |
| Grade 7 Numeracy .....                                | 9  |
| Written Response Question 1.....                      | 9  |
| Written Response Question 2.....                      | 10 |
| Written Response Question 3.....                      | 11 |
| Monitoring Comments: Grade 7 Numeracy .....           | 12 |
| Grade 4 Literacy.....                                 | 13 |
| Written Response: Theme 1, Question 1 .....           | 13 |
| Written Response: Theme 1 Question 2 .....            | 14 |
| Written Response: Theme 1 Question 3 .....            | 15 |
| Written Response: Theme 2 Question 1 .....            | 16 |
| Written Response: Theme 2 Question 2 .....            | 17 |
| Written Response: Theme 2 Question 3 .....            | 18 |
| Monitoring Comments: Grade 4 Literacy.....            | 19 |
| Grade 7 Literacy.....                                 | 20 |
| Written Response: Theme 1, Question 1 .....           | 20 |
| Written Response: Theme 1 Question 2 .....            | 21 |
| Written Response: Theme 1 Question 3 .....            | 22 |
| Written Response: Theme 2 Question 1 .....            | 23 |
| Written Response: Theme 2 Question 2 .....            | 24 |
| Written Response: Theme 2 Question 3 .....            | 25 |
| Monitoring Comments: Grade 7 Literacy.....            | 26 |
| Summary of Marking Reliability .....                  | 27 |

|  |    |
|--|----|
| Considerations for Marking.....                                | 28 |
| Some noteworthy comments from participants .....               | 29 |
| Appendix 1: Monitoring session Scorer demographics .....       | 30 |
| Summary of responses to Likert scale statements (sample) ..... | 30 |

## 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)<sup>i</sup>. 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 written-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](http://www.bced.gov.bc.ca/assessment/fsa/training.htm).

## Scorers

Fifty seven 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 3,800 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.

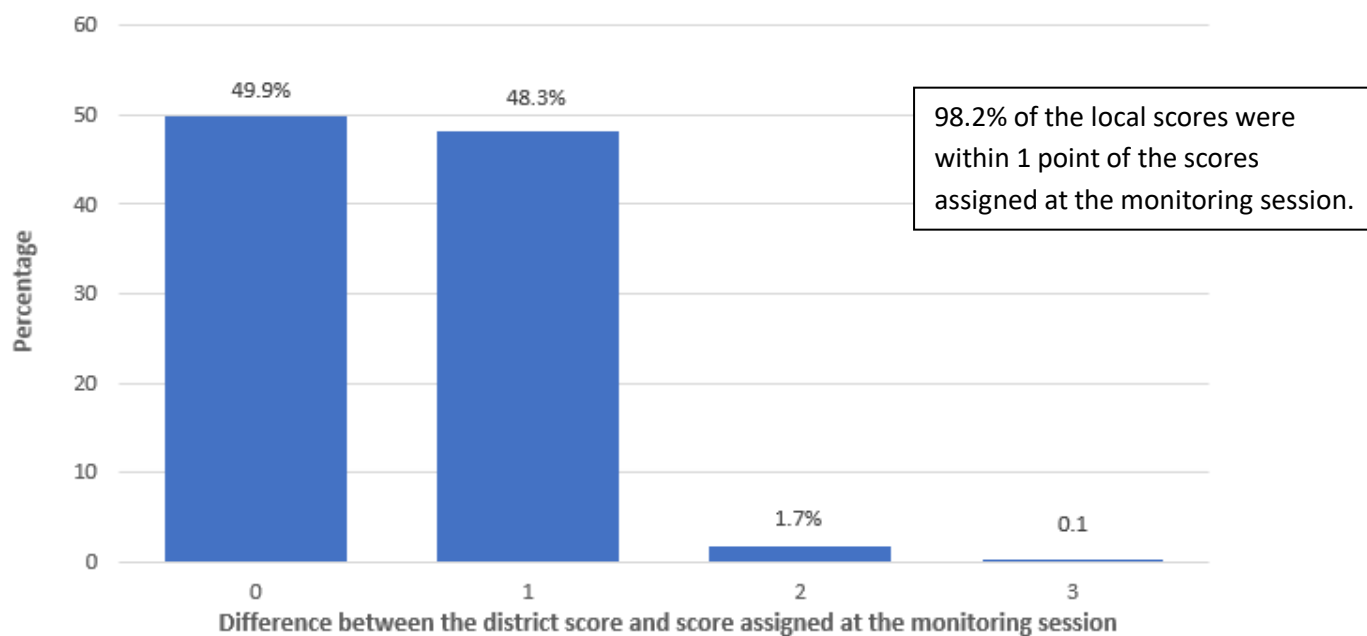
Information is summarized in Appendix 1.

## Grade 4 Numeracy

### Written Response Question 1

Curriculum Theme – Number and Computational Fluency

**Score discrepancies for Numeracy question 1**

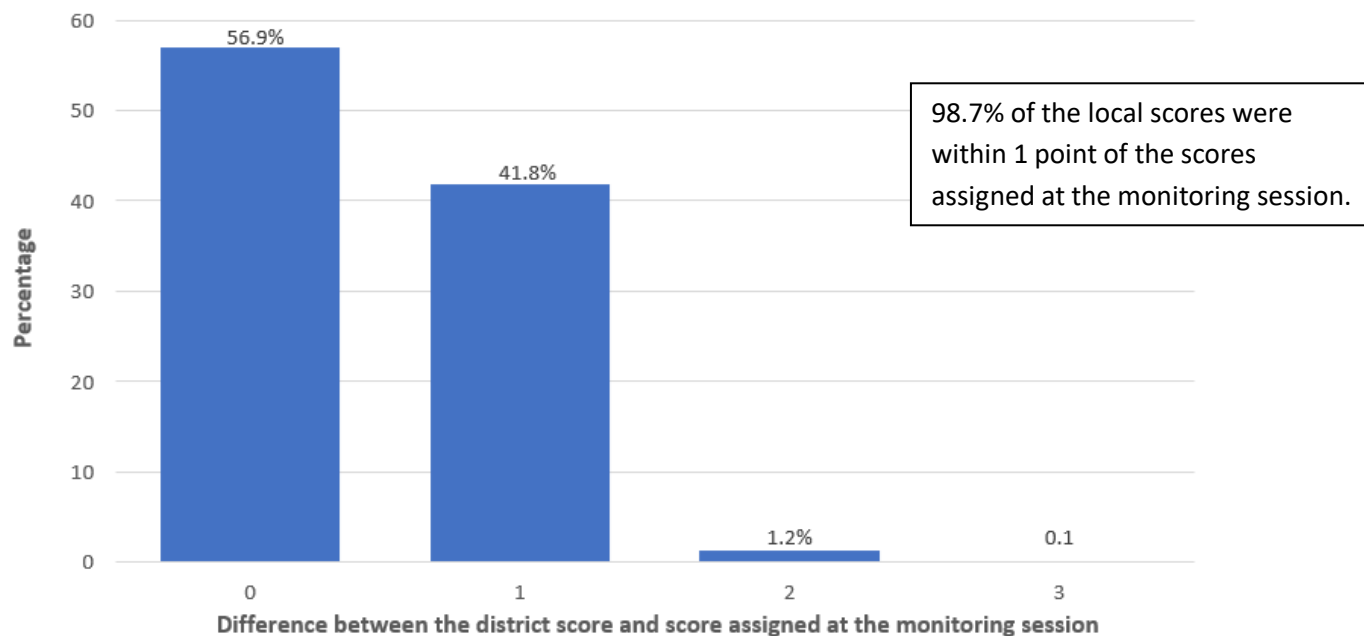


## Grade 4 Numeracy (continued)

### Written Response Question 2

Curriculum Theme – Geometry and Measurement

**Score discrepancies for Numeracy question 2**

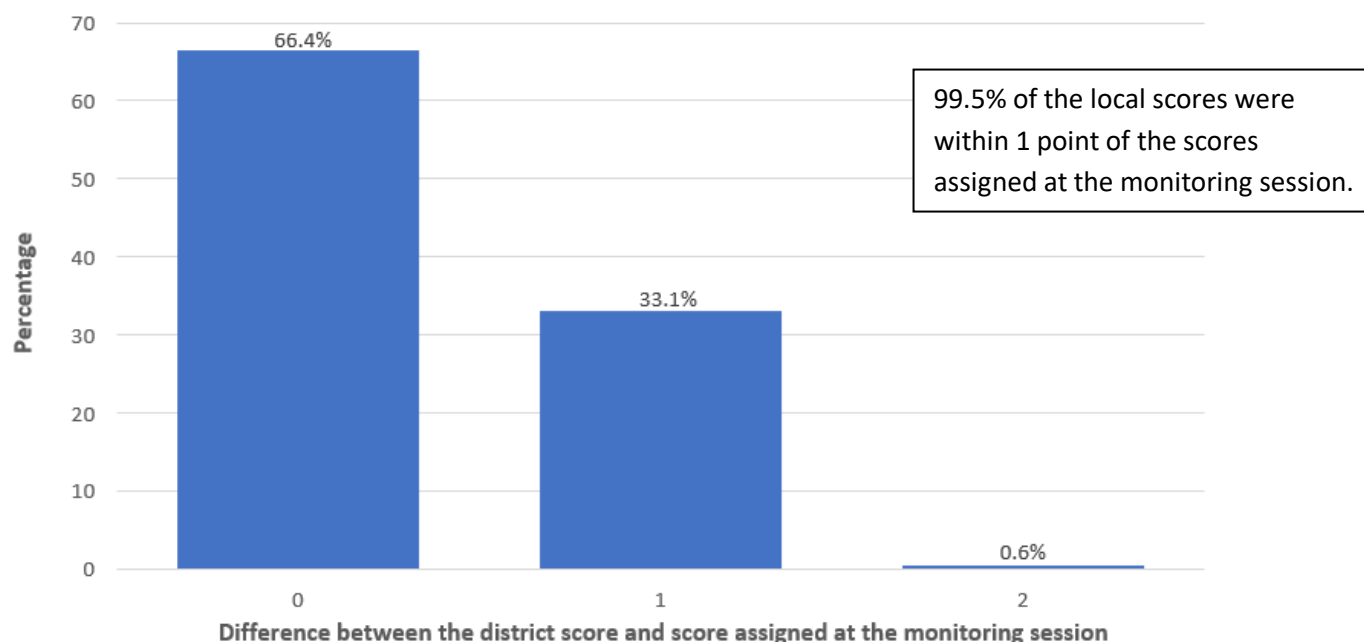


## Grade 4 Numeracy (continued)

### Written Response Question 3

Curriculum Theme – Geometry and Measurement

**Score discrepancies for Numeracy question 3**





## Monitoring Comments: Grade 4 Numeracy

General comments regarding student performance on numeracy written response questions, according to the participants of the July 2022 monitoring session:

### Student Strengths

- Students used a variety of approaches to solve problems creatively and successfully.
- Students were strong in drawing diagrams/visual representations to help them solve problems.
- Students demonstrated improved financial literacy.
- Students demonstrated a good understanding of perimeter.
- Students were able to read questions and respond to what was being asked.
- Most students were able to complete basic calculations and explain their reasoning.

### Areas Requiring Improvement

- Students need to practice using decimals in calculations.
- Students need to remember units of measure (length, money, etc.).
- Students need to fully show their mathematical thinking in an organized way.
- Students need to read questions carefully.
- Students need to learn how to create graphs correctly.

### Implications for Instruction

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

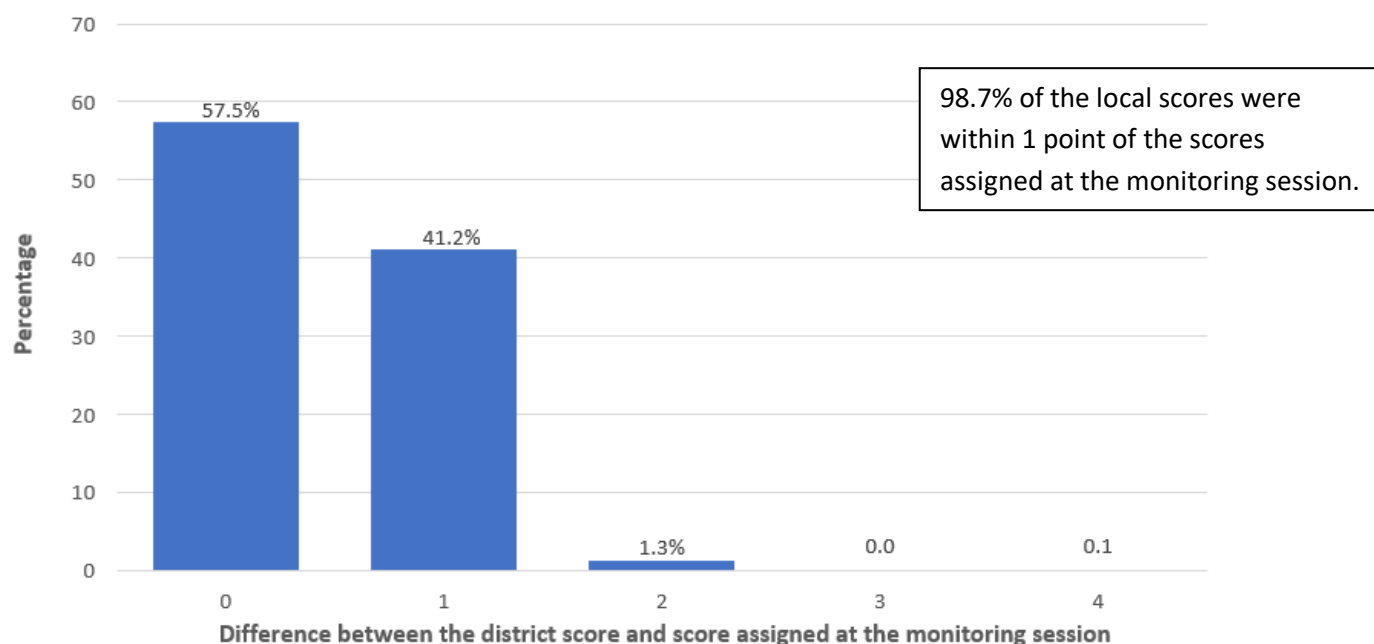
- Pictorial representation – developing skills for creating graphs.
- Different approaches to tackle problems.
- Help students understand what is meant by showing your thinking while solving problems.
- Practicing numeracy; not math daily.
- Reminding students to read questions carefully to fully understand them.

## Grade 7 Numeracy

### Written Response Question 1

Curriculum Theme – Number and Computational Fluency and Geometry and Measurement

**Score discrepancies for Numeracy question 1**

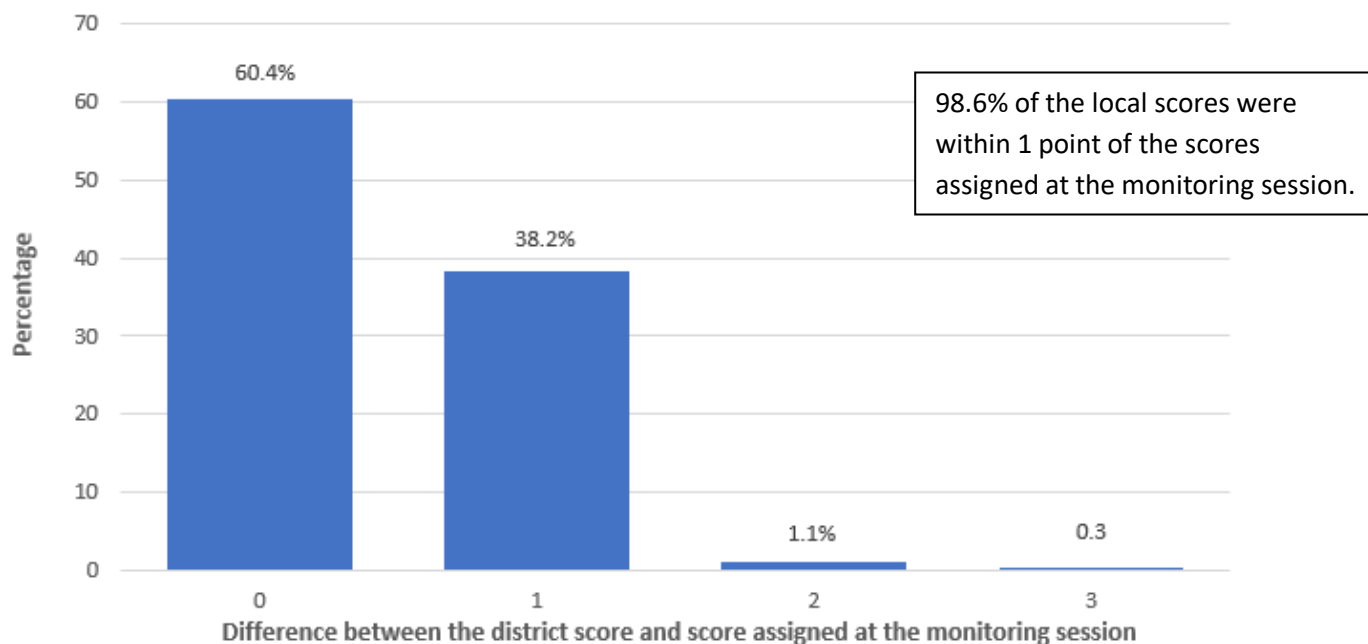


## Grade 7 Numeracy (continued)

### Written Response Question 2

Curriculum Theme – Patterns

**Score discrepancies for Numeracy question 2**

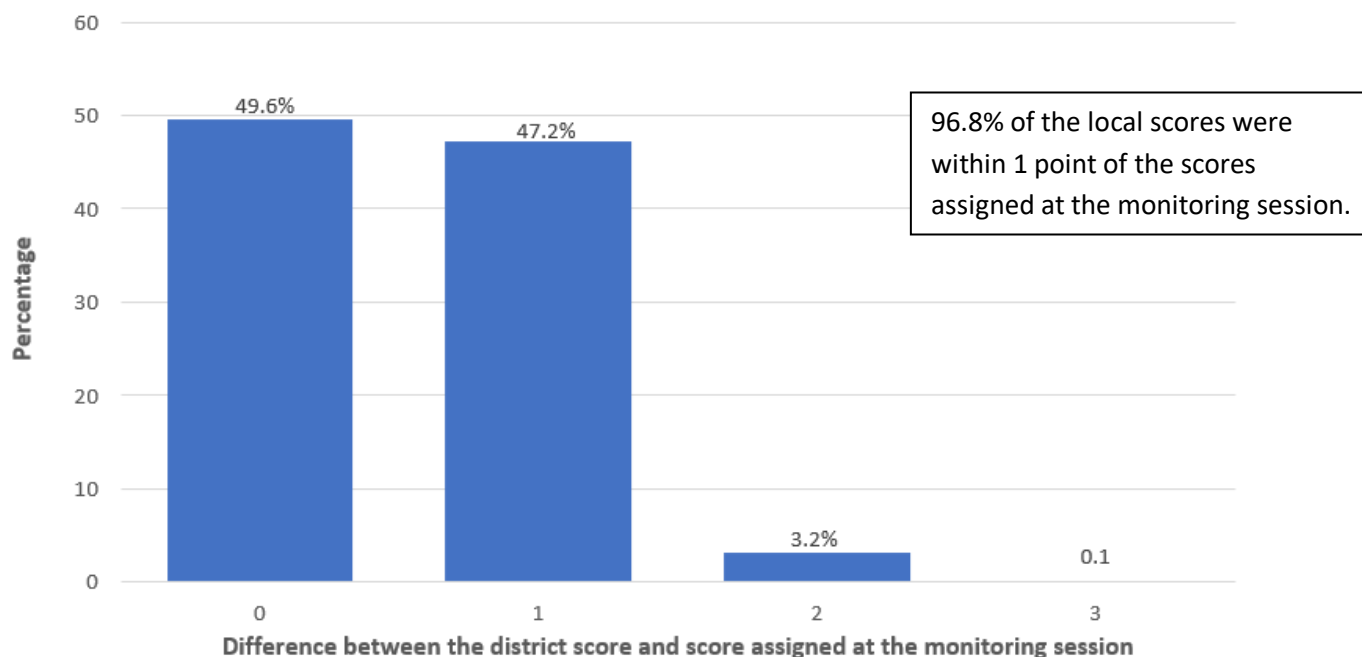


## Grade 7 Numeracy (continued)

### Written Response Question 3

Curriculum Theme – Number and Computational Fluency and Geometry and Measurement

**Score discrepancies for 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 2022 monitoring session:

### Student Strengths

- Students demonstrated awareness of having to use multi-step processes and applying logic and patterns to solve problems.
- Students were able to apply mathematical understanding in problem solving.
- Students made good use of visual diagrams to show their thinking.
- Students understood the rule of squaring a number.
- Students were able to recognize patterns involving multiplication facts.
- Many students provided good reasoning and logical responses.

### Areas Requiring Improvement

- Students need to organize their calculations and presentation of work.
- Students need to develop a better understanding of the numeracy concepts being taught.
- Students need to ensure they carefully read and fully understand the questions.
- Students need to further practice their approach to longer questions.

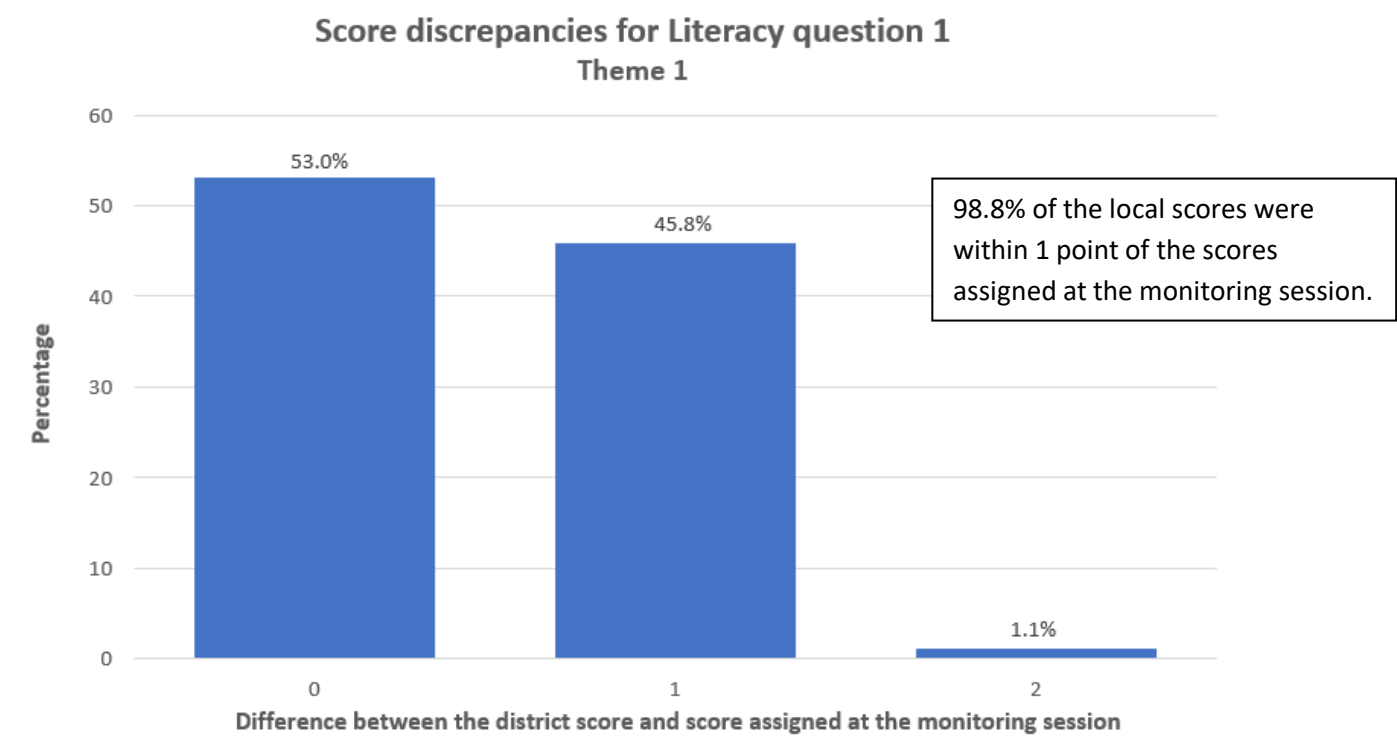
### Implications for Instruction

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

- More visualizing and drawing to determine if calculations are correct.
- Using systemic approaches to longer multi-part questions.
- Breaking down problems into different parts and understanding the components before tackling the whole question.
- Including both mathematical and written components in answers.
- Continuing to develop students' logic and reasoning with exploring, analyzing, and applying mathematical ideas when confronted with a story problem.
- Using problems where students have to apply their ability to calculate and apply their understanding of concepts with real life parameters.
- Further developing mathematical language (total, least and most, reasoning, value, compare).

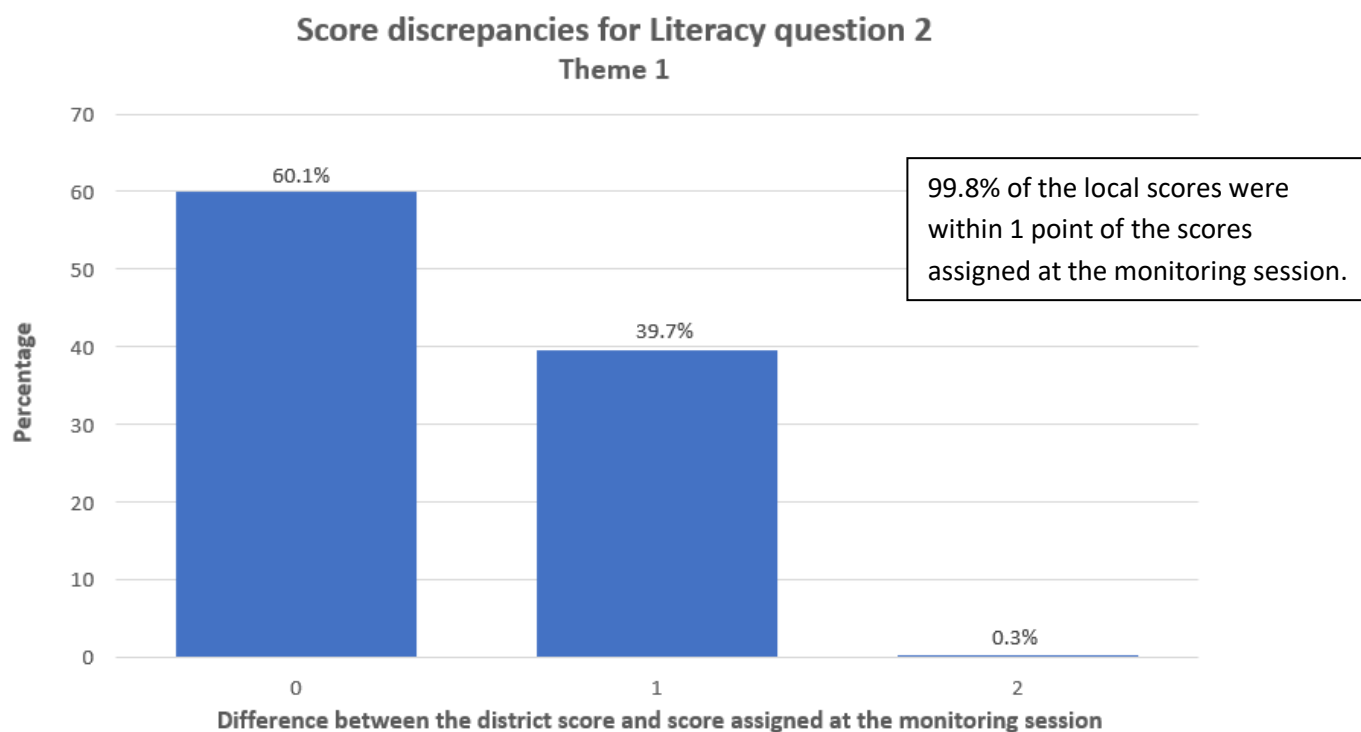
Grade 4 Literacy

Written Response: Theme 1, Question 1



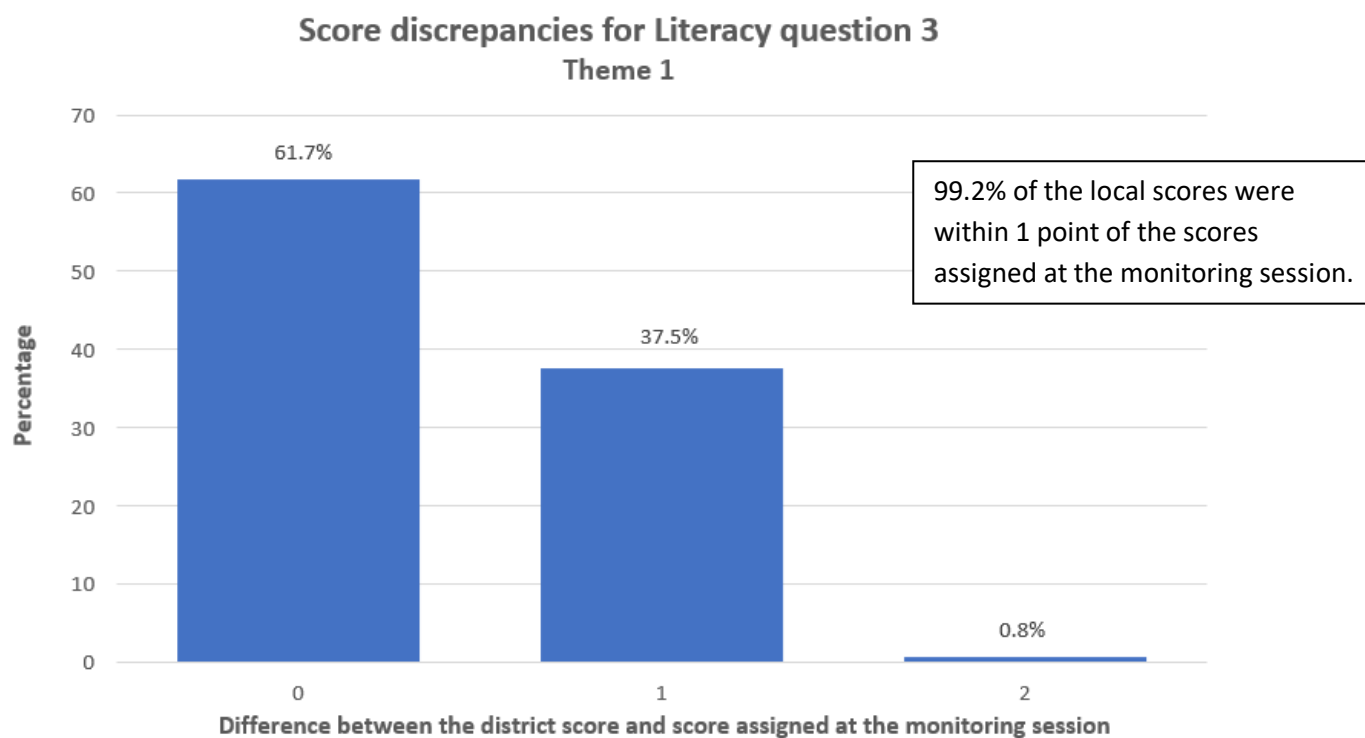
## Grade 4 Literacy (continued)

### Written Response: Theme 1 Question 2



## Grade 4 Literacy (continued)

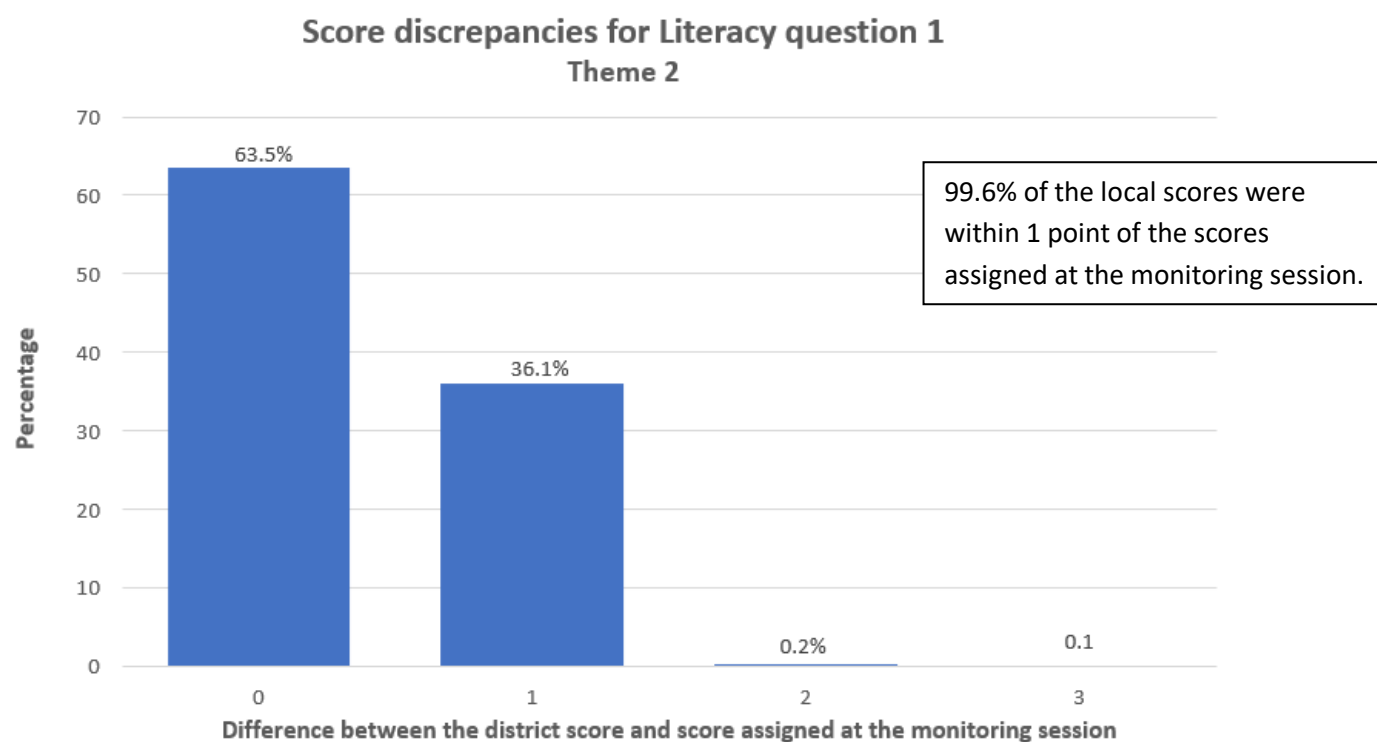
### Written Response: Theme 1 Question 3





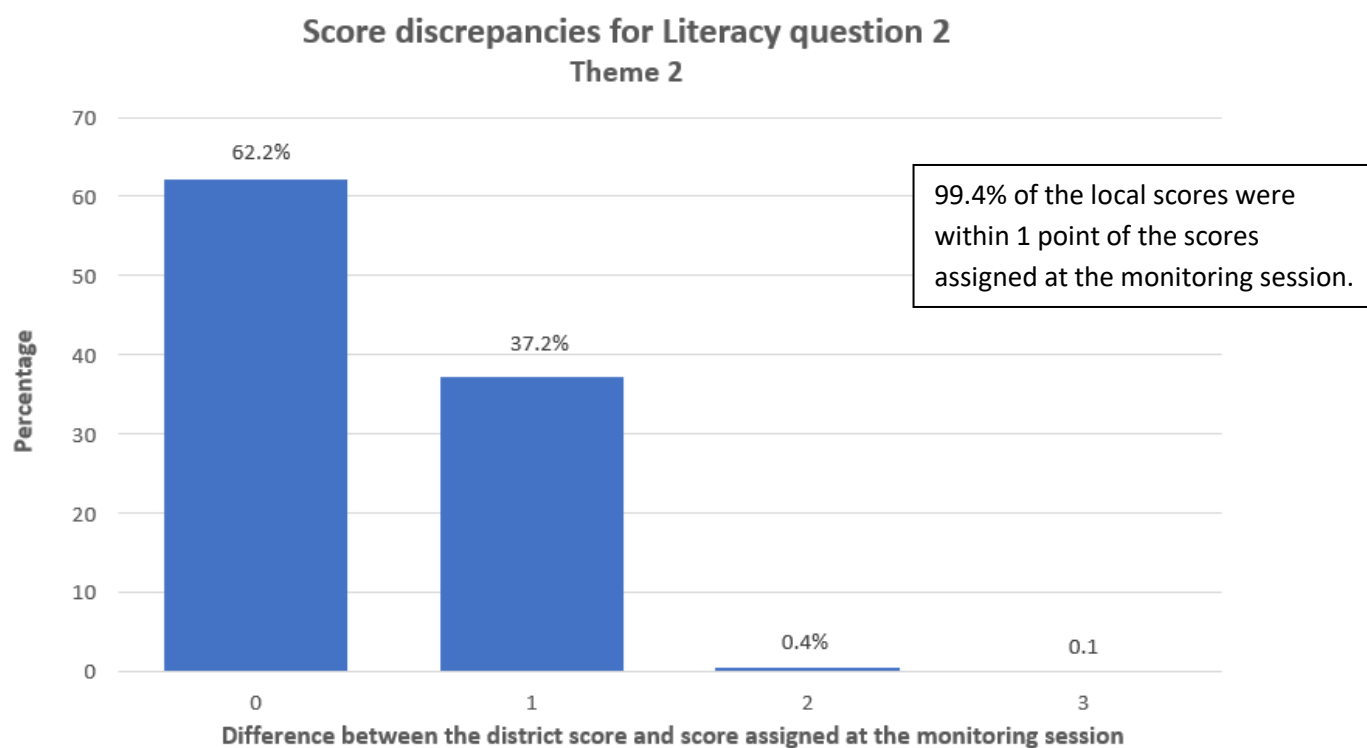
## Grade 4 Literacy (continued)

### Written Response: Theme 2 Question 1



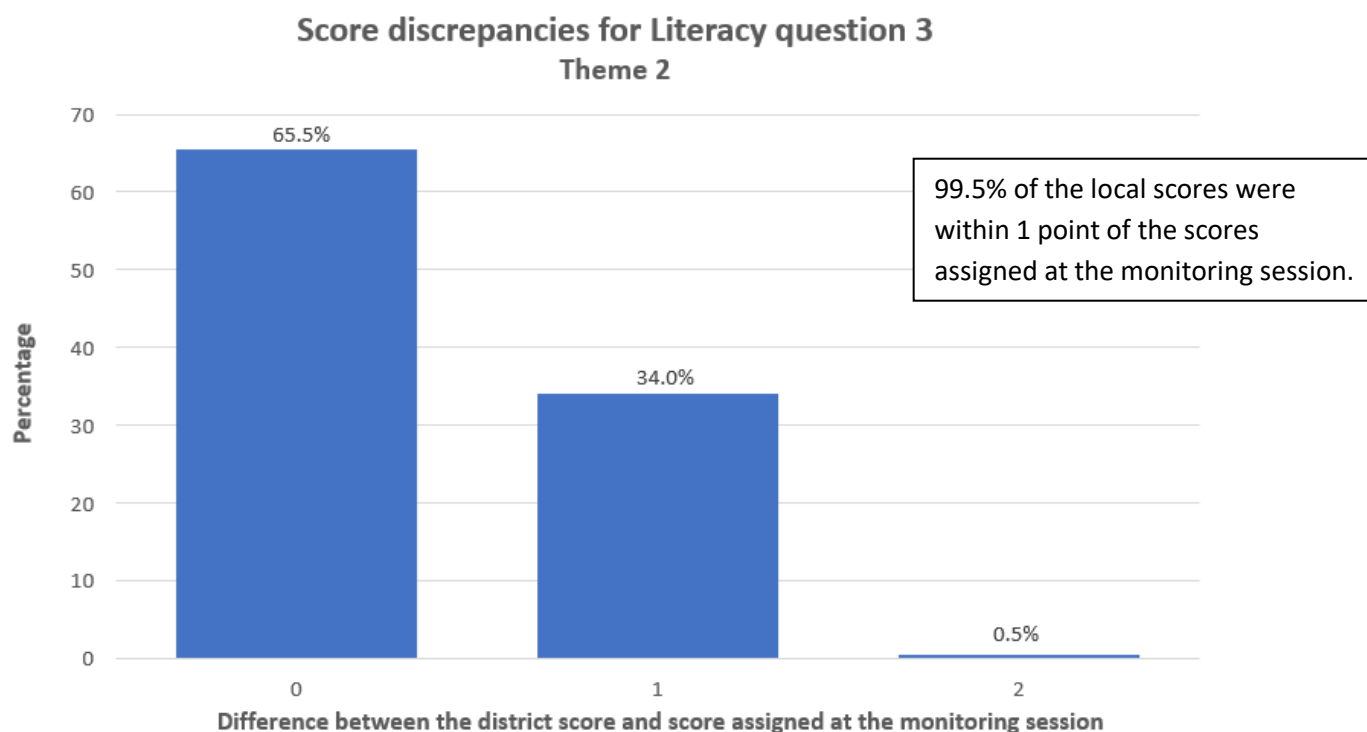
## Grade 4 Literacy (continued)

### Written Response: Theme 2 Question 2



## Grade 4 Literacy (continued)

### Written Response: Theme 2 Question 3



## Monitoring Comments: Grade 4 Literacy

General comments regarding student performance on literacy written response questions, according to the participants of the July 2022 monitoring session:

### Student Strengths

- Evidence of core competencies are reflected in student writing.
- Students demonstrated a positive tone; they have more confidence and could connect to the text.
- Students understood and learned from the stories.
- Reading comprehension was good overall.
- Many students were able to make personal connections.
- Almost all students were able to engage and answer the questions.

### Areas Requiring Improvement

- Comprehension was good; the challenge was taking it to the “next step”.
- A lot less voice and personality were present in the writing pieces.
- Students need to work on the beginning, middle, and end of their written responses.
- Students need to include more supporting details in the answers.
- Students need to focus on quality over quantity.

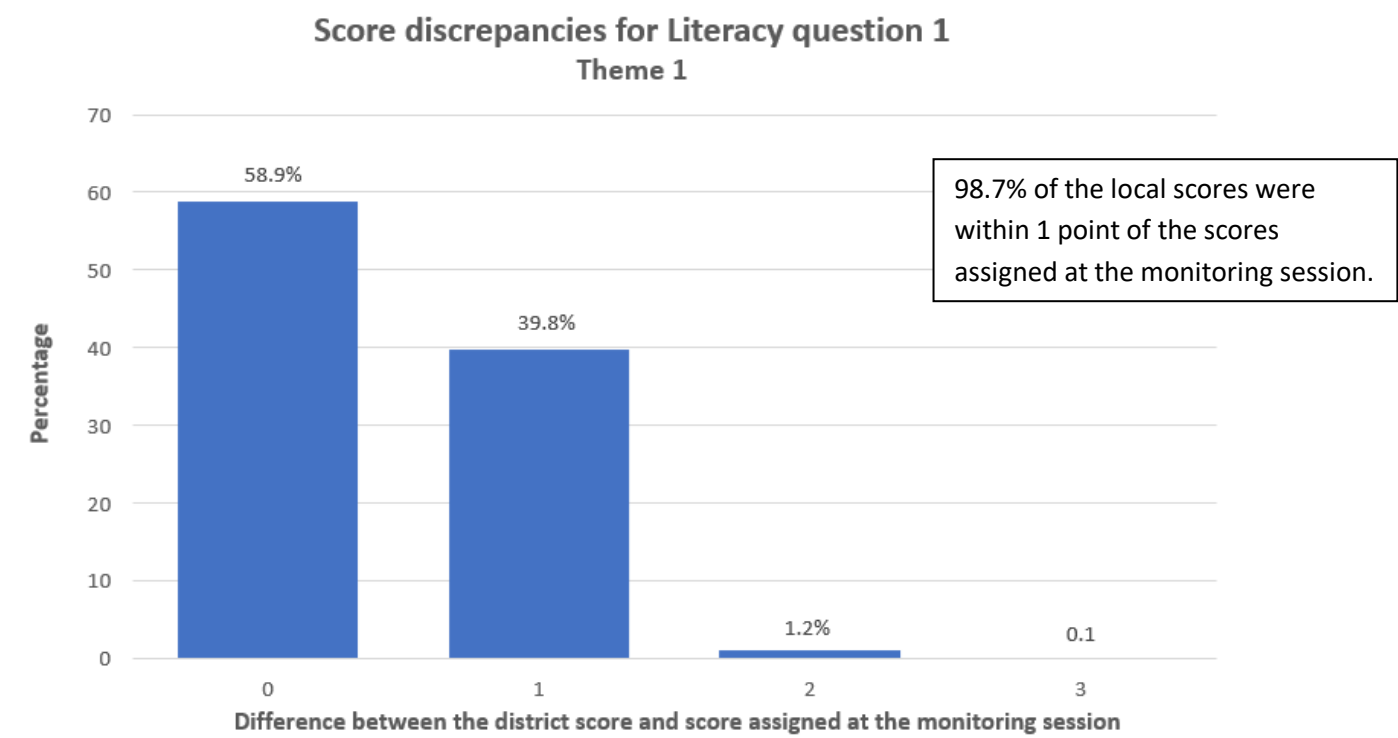
### Implications for Instruction

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

- Clarifying the balance of details that should be included – how far to go in personal sharing.
- Instructing students to think categorically.
- Practicing how to back up opinion with details from the text or more personal reflections.
- Encouraging students to include a reaction or connection in their writing as several responses were list-like.

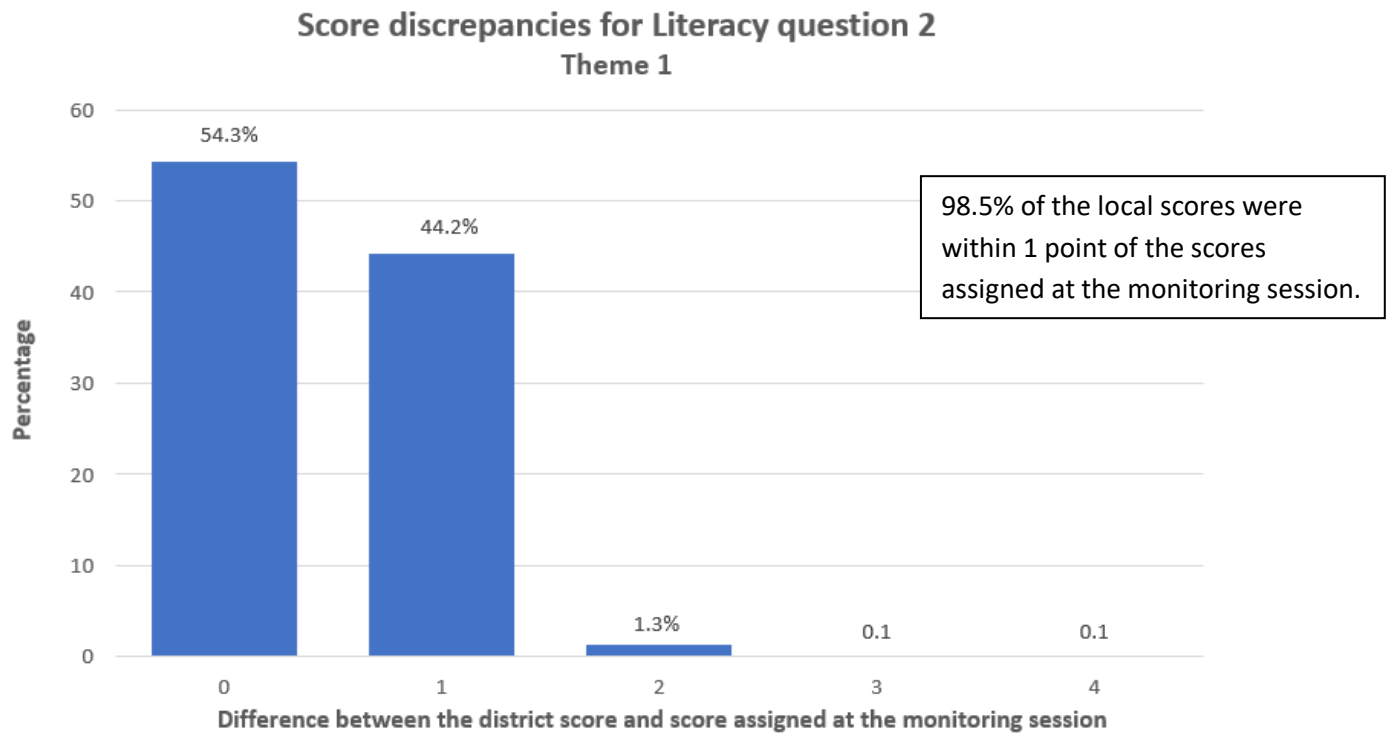
Grade 7 Literacy

Written Response: Theme 1, Question 1



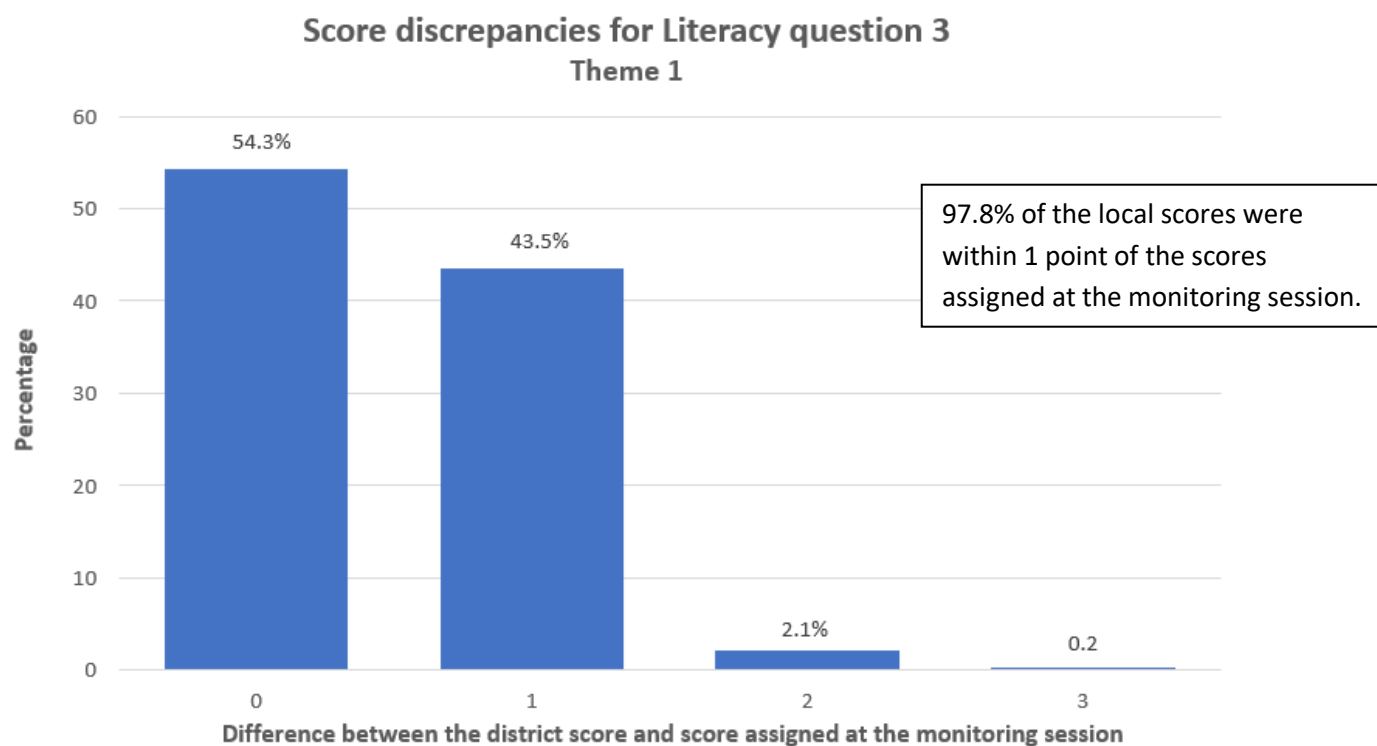
## Grade 7 Literacy (continued)

### Written Response: Theme 1 Question 2



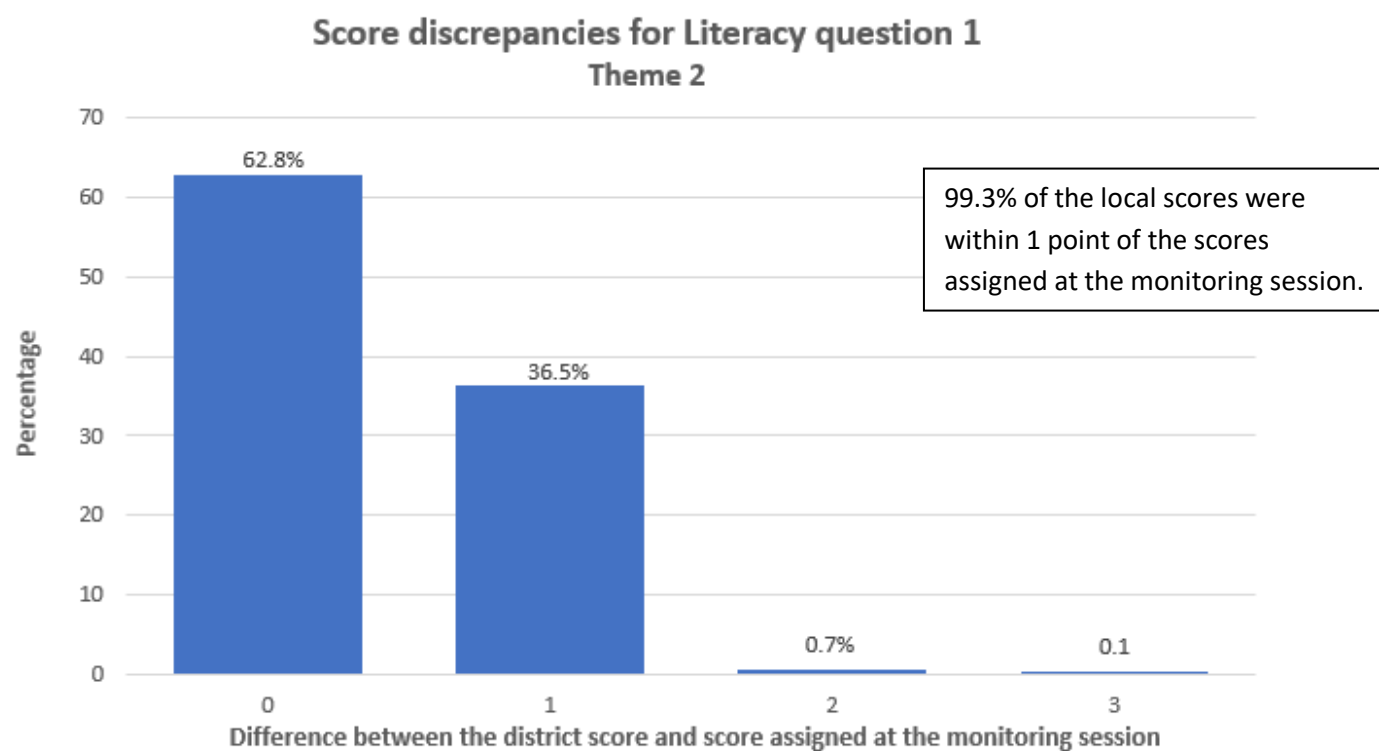
## Grade 7 Literacy (continued)

### Written Response: Theme 1 Question 3



## Grade 7 Literacy (continued)

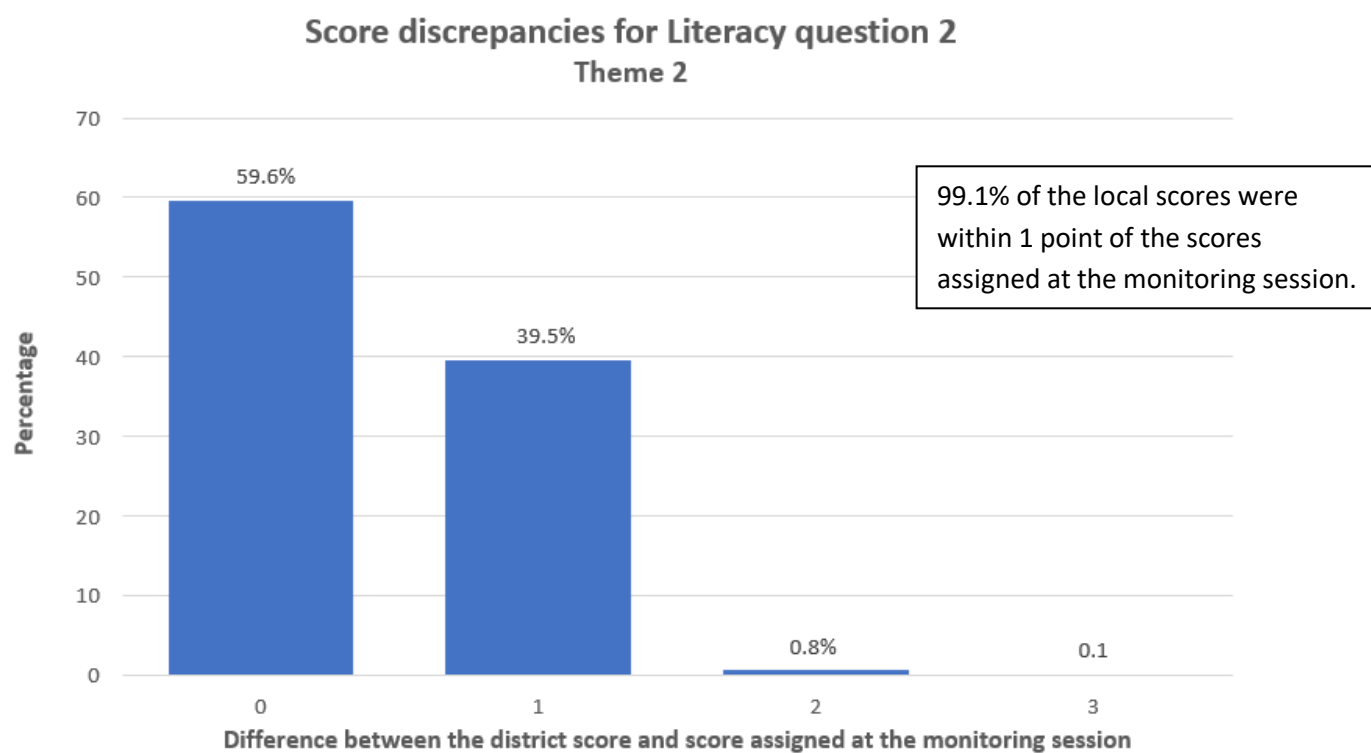
### Written Response: Theme 2 Question 1





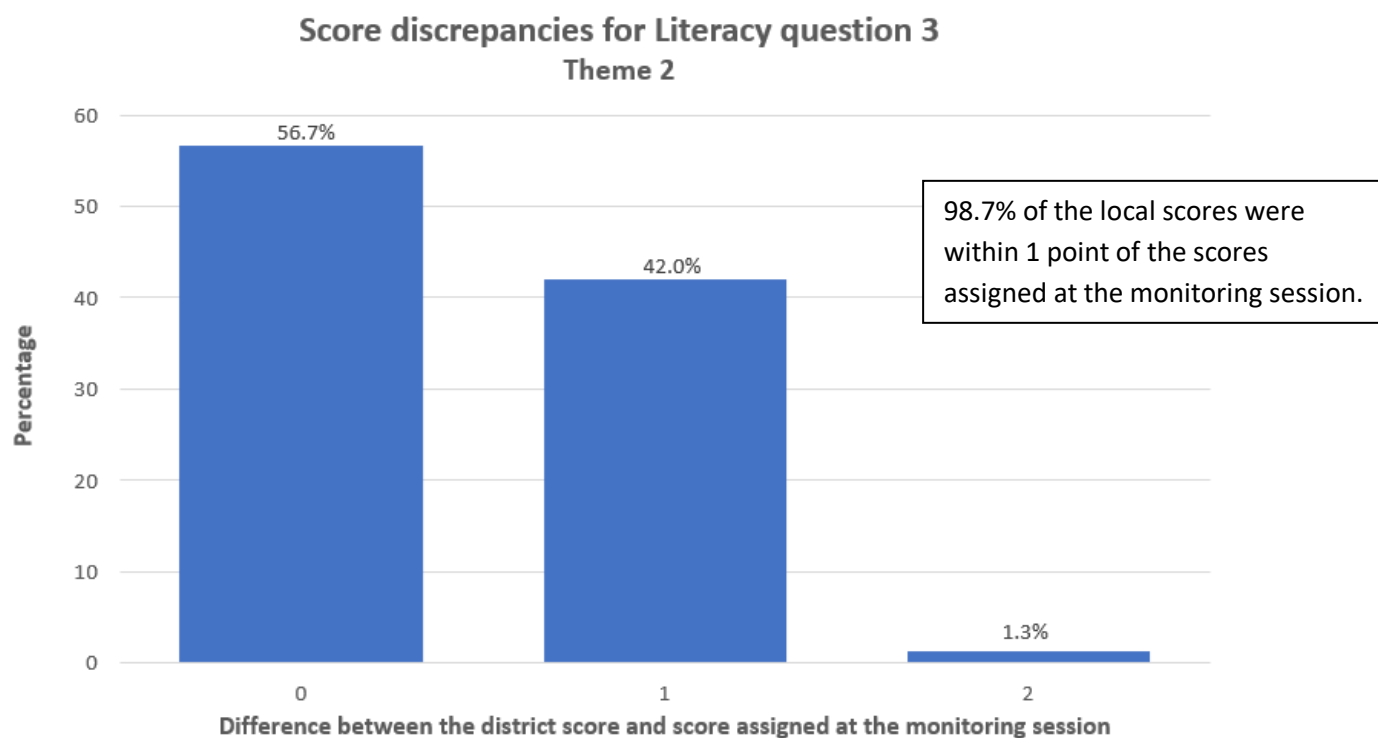
## Grade 7 Literacy (continued)

### Written Response: Theme 2 Question 2



## Grade 7 Literacy (continued)

### Written Response: Theme 2 Question 3



## Monitoring Comments: Grade 7 Literacy

General comments regarding student performance on literacy written response questions, according to the participants of the July 2022 monitoring session:

### Student Strengths

- Students demonstrated a good understanding of the text and were able to extract the necessary information.
- Students were able to make strong personal connections and relate those connections to their experiences.
- Many students demonstrated a good use of voice, which provided a better sense of personality.
- Good connecting/bridging between paragraphs for those who wrote multiple paragraphs in a response.
- Core competencies were reflected in many responses.
- Many students were able to express themselves simplistically.
- Some responses displayed interesting thinking processes as students were thinking outside of the box and relating the subjects to their personal lives.

### Areas Requiring Improvement

- While students made good personal connections, they did not explore all aspects of the texts thoroughly.
- Students need to work on organizing their writing, along with putting the details into categories at a higher level of hierarchical thinking in order to make their thinking/writing less list-like.
- Many students did not include an ending to their writing, they just stopped writing.
- Students need to make better use of paragraphs.
- Students need to refrain from using sentence fragments in their writing.
- Students need to read and understand the questions fully before answering them.

### Implications for Instruction

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

- Working on the structure of writing (including a topic sentence/concluding sentence).
- Providing direct instruction on essay writing strategies, such as drafting and outlining.
- Improving transitions – discussing one main idea and then starting a new paragraph for a new idea.
- Continue developing quote integration – text-to-self connections and evidence to support claims.
- Reminding students not to "settle" for one response; and to go back and look for other pieces of information and other connections before finishing responses.
- Encouraging students to use more complex and interesting vocabulary.
- Instructing students on how to use varied language and transition words.
- Providing more direct teaching of language skills.

## 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 Standards<sup>1</sup>. 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

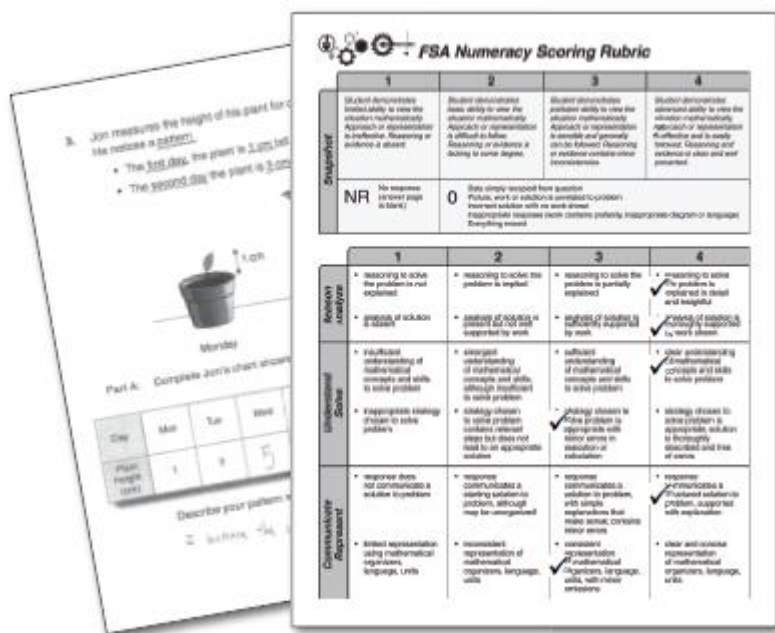
**Score holistically.** Holistic scoring gives an overall score for the student response. When scoring holistically, the focus is on what the student CAN do and the strengths demonstrated in the student's work. No one aspect of the student's work carries more importance or weight than another when scoring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



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 really enjoyed this opportunity to be a marker for this round of FSA assessment. It was a powerful professional development experience and gave me great insight to facilitating these more effectively in my classroom. It also gave me valuable feedback for core foundational numeracy skills and how we can work to improve these in the everyday classroom. The online marking system was extremely user friendly, well designed, easy to use, and was a great way to collect the information. I would absolutely love to do this again! Very impactful in so many ways!*
- *Everything was well organized, well taught, and thorough. There was help available all the time. It was good to know what we did was monitored. There was no pressure but there was accountability. I learned a great deal and know it will influence my marking and teaching. Thank you.*
- *I have been participating for years in the FSA marking session. I really love it. I think part of the reason is feeling connected with the rest of the province and getting some province wide training. I think it helps me when we do our district marking to share what I have learned.*
- *I really liked the training sessions as they were helpful in gaining confidence in my scoring. Prior to starting the sessions, I was very curious how this could be done remotely, and was so impressed by how it was done! I can't imagine it would be easy to coordinate that many moving parts, well done leaders and Ministry team! Great format and style of facilitation. Thanks for letting me join!*
- *I loved the platform and the layout of the sessions. I was a little nervous about the technology piece, but it was so well done that I was comfortable with it right away.*
- *I found the training portion of the sessions engaging, interesting, and informative. It was important to hear the 'why' for each exemplar for the hidden tips that don't appear on the marking rubric. I would like to also say that the leaders were fantastic at keeping us on track.*
- *The staff should be congratulated on their friendliness and professionalism. I have marked this for years and the FSA has come a long way.*
- *Thanks for the opportunity to mark the FSA assessments. It was helpful to go through the rubrics and see the explanations for the scorings of the exemplars.*
- *This was my first time marking and I found the sessions extremely informative, engaging, and a I learned a great deal. It was excellent professional development and I look forward to participating again next year.*
- *I was quite nervous about marking Grade 7 Literacy and Numeracy but the training was great. It also answered questions we often have when marking at the district level.*

## Appendix 1: Monitoring session Scorer demographics

### Who were they?

- 31% classroom educators
- 65% administrators
- 4% other

### Years of experience:

- 20% had 15 years or less experience
- 80% had 16 years or more experience

### Where did they teach?

- 80% taught at English language schools
- 2% taught at French immersion schools
- 18% taught at Other (e.g., both, trilingual school, university)

### Experience with the FSA:

- 44% had participated in previous marking monitoring sessions
- 4% had experience with FSA standard setting
- 87% 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.
- 97% agreed or strongly agreed that the monitored marking process was efficient and well-coordinated.
- 97% agreed or strongly agreed that marking was a valuable professional development experience.

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<sup>i</sup> 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.