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## ANALYSIS OF NUMERACY SKILLS IN GRADE VI ELEMENTARY SCHOOL STUDENTS IN SOLVING MINIMUM COMPETENCY ASSESSMENT QUESTIONS

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### ABSTRACT

This piece of writing is inspired by the inadequate numeracy skills of students, leading to their confusion when creating visual representations and comprehending the analysis related to the problems they are tasked with. This study employed a qualitative approach to examine students' skills in solving MCA questions in 6th-grade students in an Elementary School in South Tangerang, Indonesia. Data collection methods encompassed observation, numeracy minimum competency assessment tests, interviews, documentation, and data triangulation. Based on the results and discussion, students' numeracy skills consist of three categories: high numeracy skill, medium numeracy skill, and low numeracy skill. Students with high numeracy skills understand numbers, symbols, and real-life problems, are competent in analyzing information presented in various formats, and show accountability for their problem-solving outcomes. Students with medium numeracy skills understand and use various numbers and related symbols to solve real-life problems. However, there were still mistakes in the solution process, resulting in incorrect answers when performing counting operations on decimal numbers. Students with low numeracy skills can understand and use numbers but can analyze the information displayed as a graph to calculate operations on integers.

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### ARTICLE INFORMATION

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#### Keywords

Numeracy Skills  
Minimum Competency Assessment  
Elementary School

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#### Article History

Submitted Oct 19, 2023  
Revised May 9, 2024  
Accepted May 13, 2024

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#### How to Cite

Astriani, L., & Akyuni, N.I. (2024). Analysis of Numeracy Skills in Grade VI Elementary School Students in Solving Minimum Competency Assessment Questions. *Kalamatika: Jurnal Pendidikan Matematika*, 9(1), 15-30.

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<https://doi.org/10.22236/KALAMATIKA.vol9no1.2024pp15-30>



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## INTRODUCTION

Improving students' knowledge, skills, and attitudes is education's goal. Education plays a profound role in shaping the development and self-fulfillment of individuals, with far-reaching consequences for the progress of nations and countries (Elvira, 2021). Mathematics education is paramount in life as it is the foundational knowledge for various other scientific disciplines. Mathematics is also an exact science with valid formulas; mathematical knowledge can train brain development to reason and analyze a problem. It requires a careful, critical character, the ability to use logic, and creativity so that students can solve challenges in learning mathematics at school.

One of the student abilities needed in the 21st century is numeracy. Numeracy skills are the ability to understand and apply number concepts and arithmetic operation skills in everyday life, interpret quantitative information found around, and analyze and understand mathematically expressed information, such as graphs, charts, diagrams, and tables (Pangesti, 2018). Numeracy skills gauge a person's ability to measure the extent of understanding using mathematical concepts, procedures, facts, and tools, analyzing information systematically in various forms, and interpreting data in various contexts to solve problems in everyday life.

Numeracy skills are the main focus in the Minimum Competency Assessment (MCA) assessment. The National Assessment Policy is one of the crucial decisions taken by the Minister of Education, Culture, Research, and Technology of the Republic of Indonesia in 2020. National assessments are conducted to assess the inputs, processes, and overall quality of teaching and learning in classrooms, all aimed at enhancing the quality of education in Indonesia (Rokhim et al., 2021). Following the government's target of preparing students' skills as a young generation in facing the 21st century with various challenges that must be achieved, the government established the MCA as an assessment of the fundamental competencies needed by all students (Anggraini & Setianingsih, 2022). The Computer-Based National Assessment evaluates three key components: The Minimum Competency Assessment, Character Survey, and Learning Environment Survey. The Minimum Competency Assessment (MCA) serves a vital purpose in advancing the nation's educational progress, with the hope that its existence can enhance the quality of education in Indonesia by providing a wealth of accurate information on educational challenges (Herman et al., 2022).

Minimum Competency Assessment (MCA) measures the core abilities needed by all

students to grow as human beings and contribute meaningfully to society (Julianti & Damaianti, 2022). Reading literacy and numeracy are two critical competencies assessed by the MCA. MCA is designed to generate information that triggers improvements in the quality of teaching and learning in schools, which can improve student learning outcomes. The reporting of MCA results is designed to provide information on students' competency levels (Fauziah et al., 2021). MCA is an assessment tool to see students' success in mastering numeracy and literacy skills.

According to Atsila & Setyawan (2021) Students' proficiency in solving Minimum Competency Assessment (MCA) questions remains comparatively low, particularly in mathematical areas that involve various types of numbers, such as integers, whole numbers, fractions, percentages, and decimals. This is primarily due to many students not actively applying numeracy skills in their daily lives, resulting in difficulty visualizing problems and comprehending the initial analysis related to the questions presented. Another contributing factor is that some students lack proficiency in basic multiplication and division within the context of numerical material. However, understanding and solving MCA problems often necessitate applying advanced techniques that build upon fundamental mathematical concepts.

The ability to count, as a basic concept of mathematics, may be mastered by students. However, their ability to use these concepts in real-life conditions or when solving unstructured problems is often overlooked. Consequently, students' numeracy skills remain relatively low. Applying mathematical concepts enables students to understand the basic principles of mathematical objects. In line with Astriani's (2017) I believe that conceptual understanding is the ability to grasp abstract ideas or basic principles of mathematical objects and apply them to solve mathematical problems.

Based on several points mentioned by researchers, there is an interest in conducting a study titled "Analysis of Numeracy Skills in Grade VI Elementary School Students in Solving Minimum Competency Assessment Questions." Therefore, this research aims to analyze students' skills in solving minimum competency assessment questions to determine the extent of their numeracy skills in addressing problems using mathematical concepts, especially in the topic of number operations.

## **METHOD**

The research method used in this study is descriptive qualitative research with a case study approach. This method involves gathering detailed insights from various sources, typically informants and is often conducted within a natural and real-world setting (Walidin et al., 2015). The study focused on 30 Grade VI students from Pondok Cabe Ilir 01 State Elementary School who participated in the Computer-Based National Assessment in 2022. The analysis was based on numeracy skill indicators aligned with the Minimum Competency Assessment (MCA) test questions. The following are the numeracy skill indicators utilized in this research.

Table 1. Numeracy Skill Indicator

Indicator
1. Proficiency in comprehending and using various types of numbers and associated symbols to address real-life problems.
2. Competence in analyzing information presented in various formats, including graphs, tables, charts, diagrams, and more.
3. Capability to interpret the outcomes of such analyses to make predictions and informed decisions.

Source: Baharuddin (2021) and Han (2017)

Data collection involved the utilization of test question instruments and interviews. The test questions and interviews had undergone validation by expert lecturers, ensuring that the questions and interview protocols were appropriate. Three students were selected to represent each skill category for conducting interviews based on the outcomes of the categorization of numeracy skill levels. This study employed a semi-structured interview approach categorized as in-depth interviews. According to Majid (2017), this type of interview is intended to explore issues more comprehensively. Qualitative data analysis was conducted concurrently with data collection and involved data reduction, data presentation, and concluding the research findings, as outlined by (Rijali, 2019). The data analysis technique employed in this study adhered to the Miles and Huberman model, which includes data reduction, data presentation, and the drawing/verification of conclusions, as discussed by (Sugiyono, 2017).

## RESULT AND DISCUSSION

The research results were an analysis of students' numeracy skills in MCA questions, which comprised 12 questions categorized according to numeracy indicators and further

subdivided into four distinct question types: Multiple Choice, Complex Multiple Choice, short form, and description questions. Following the assessment of test scores, three students were selected from each numeracy skill category to participate in interviews as representatives. The data provided represents the outcomes of the minimum competency assessment test completed by the students who will be included as research subjects. Table 2 presents the results of the MCA problem test instrument.

Table 2. Results of the MCA Problem Test Instrument

Student Name	Total Score			Score	Category
	Indicator	Indicator	Indicator		
	1	2	3		
AMW	12	12	10	94	High
SQA	12	9	7	78	Medium
KAPA	10	4	3	47	Low

### Student with High Numeracy Skills

The findings obtained from the Minimum Competency Assessment (MCA) test and interviews focus on the first indicator question: proficiency in comprehending and using various types of numbers and associated symbols to address real-life problems. Subject AMW understood numbers and symbols in fractions, percentages, decimals, and integers. Subject AMW also documented the work process results effectively using the completion method. The following are examples of MCA test results and AMW's interviews on the first indicator questions in Figure 2.

1. Perhatikan Gambar Informasi Nilai Gizi Minuman Kemasan Berikut!

Jika dituliskan dalam bentuk pecahan paling sederhana, berapakah kandungan sari buah apel?

A.  $\frac{9}{25}$   
 B.  $\frac{3}{12}$   
 C.  $\frac{8}{25}$   
 D.  $\frac{7}{12}$

Original version

1. Take a look at this picture of the nutritional value of a packaged drink!

If written in simplest fraction form, what is the content of apple juice?

A.  $\frac{9}{25}$   
 B.  $\frac{3}{12}$   
 C.  $\frac{8}{25}$   
 D.  $\frac{7}{12}$

english version

Figure 2. AMW Results on Problem

Figure 2 indicates that subject AMW meets the proficiency in comprehending and using

various types of numbers and associated symbols to address real-life problems. Subject AMW demonstrates the ability to comprehend and employ various numbers and associated symbols to address real-life problems. Subject AMW understood numbers and symbols in fractions, percentages, decimals, and integers, as supported by the interview excerpt.

AMW : *I know question number 1 is looking for the content of apple juice, so I simplified it into a fraction. I used this method to solve the problem correctly and in order. Namely, I simplified it with the numerator and denominator, divided by 4.*

From the interview excerpt, AMW demonstrated the ability to understand the problem's meaning and provide a practical summary. Furthermore, they showed accountability for their problem-solving outcomes. The second indicator is competence in analyzing information presented in various formats, including graphs, tables, charts, diagrams, and more. The following are examples of MCA test results and AMW's interviews on Indicator 2 questions in Figure 3.

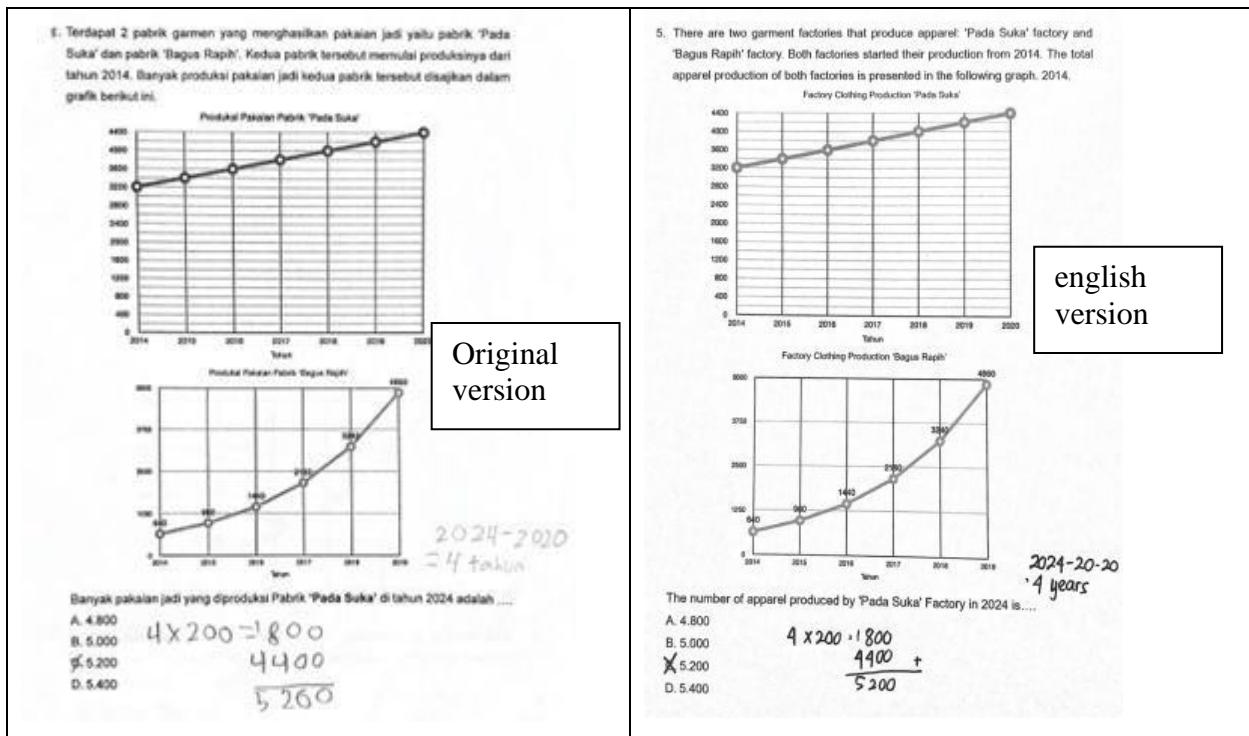


Figure 3. AMW Results on Problem

Figure 3 indicates that the AMW subjects can analyze information displayed in graphs and tables to calculate operations on whole numbers, decimals, and percentage numbers, as the interview excerpt supports.

AMW : I understand that the purpose of the problem is to find out the apparel production at the factory in 2024. However, I noticed that the graph only goes up to 2020, and the annual increase is 200 apparel.

From the interview excerpt, AMW demonstrated the ability to grasp the problem's meaning and provide a practical summary. Furthermore, they showed accountability for their problem-solving outcomes. The written results of the work process using the solution method are also good, although some are not neat.

The third indicator assesses the ability to interpret the results of an analysis to make predictions and informed decisions. The following are examples of MCA test results and AMW's interviews on Indicator 3 questions in Figure 4.

**Arisan Koperasi**

12. Suatu koperasi mengadakan arisan yang diikuti oleh beberapa anggota koperasi. Peserta arisan ada 18 orang dengan iuran sebesar Rp 500.000,00 per bulan. Arisan tersebut akan diundi setiap bulan untuk satu orang pemenang. Uang arisan dikumpulkan dengan cara mentransfer uang ke rekening Bank A milik Ibu Desi yang merupakan pemegang uang arisan. Ada lima peserta yang tidak memiliki rekening Bank A, sehingga uang arisan ditransfer kepada Bu Desi melalui rekening bank lain. Saat Pak Teguh memperoleh arisan, ia berencana membeli sebuah sepeda motor bekas seharga Rp 9.500.000,00.

Berdasarkan informasi pada teks tersebut, apakah kamu setuju pernyataan berikut benar? Berilah tanda centang (✓) di kolom setuju atau tidak setuju pada setiap pernyataan yang sesuai.

Pernyataan yang Dianggap Benar	Setuju	Tidak Setuju
(1) Uang arisan yang ditransfer dari rekening Bank A sebesar Rp 7.500.000,00.		✓
(2) Uang arisan yang ditransfer bukan dari rekening bank A sebesar Rp 2.500.000,00	✓	
(3) Setiap peserta arisan memiliki peluang yang sama untuk memperoleh arisan sebesar Rp 9.000.000,00.	✓	
(4) Jika ada satu orang lagi ikut arisan, uang arisan yang akan diperoleh Pak Teguh cukup untuk membeli sebuah sepeda motor bekas.		✓

*Handwritten calculations:*  
 $18 - 5 = 13$   
 $500.000 \times 13 = 6.500.000$   
 $6.500.000 + 2.500.000 = 9.000.000$

**Cooperative Social Gathering**

12. A cooperative held an arisan that was attended by several cooperative members. There are 18 participants with contributions of Rp 500,000 per month. The arisan will be drawn every month for one winner. The arisan money is collected by transferring money to Ms. Desi's Bank A account, which is the arisan money holder. There were five participants who did not have a Bank A account, so the arisan money was transferred to Mrs. Desi through another bank account. When Mr. Teguh received his arisan, he planned to buy a used motorcycle for Rp 9,500,000.

Based on the information in the text, do you agree that the following statements are true? Put a check mark (✓) in the agree or disagree column for each statement as appropriate.

Statement Considered True	Agree	Disagree
(1) The arisan money transferred from Bank A's account amounted to Rp 7,500,000.		✓
(2) Arisan money transferred not from bank account A amounting to Rp 2,500,000.	✓	
(3) Each arisan participant has an equal chance of getting an arisan of Rp 9,000,000.	✓	
(4) If one more person joins the arisan, Mr. Teguh will get enough money to buy a used motorcycle.		✓

*Handwritten calculations:*  
 $18 - 5 = 13$   
 $500.000 \times 13 = 6.500.000$   
 $6.500.000 + 2.500.000 = 9.000.000$

Original version

english version

Figure 4. AMW Results on Problem

Figure 4 indicates that AMW subjects could solve the problems in the third indicator well. The research subjects demonstrated their capability to interpret the results of data analysis, particularly in discerning arithmetic operations involving fractional numbers, integers, and decimal numbers. Furthermore, they exhibited the ability to make informed decisions based on this interpretation, as supported by the interview excerpt.

AMW : I know how to solve the problem according to my plan. To simplify the solution, I immediately adjusted the statement to ask whether it was appropriate. I didn't



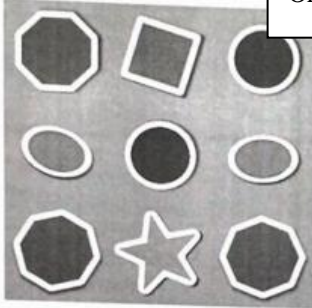
experience difficulties working on the problem, only a little confusion.

From the interview excerpt, AMW demonstrated the ability to interpret the results of data analysis in order to make predictions and informed decisions. So, based on indicators 1 through 3, subject AMW can be said to have a category of high numeracy skills

### ***Student with Medium Numeracy Skills***

The findings from the Minimum Competency Assessment (MCA) test and interviews focused on the first indicator, namely proficiency in understanding and using various types of numbers and related symbols to solve real-life problems. The following are examples of MCA test results and SQA interviews on the first indicator questions in Figure 5.

2. Perhatikan koleksi stiker milik Anton berikut ini!

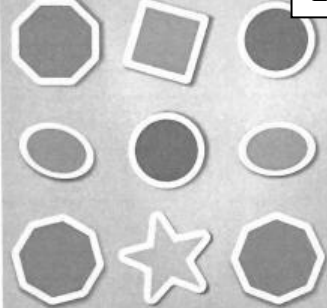


Pilihlah 'Benar' atau 'Salah' dari pernyataan berikut ini dengan memberikan tanda centang (✓)!

Pernyataan	Benar	Salah
Sepertiga stiker milik Anton berbentuk segi delapan	✓	
Stiker Anton yang paling sedikit adalah berbentuk persegi.		✗

$\frac{3}{9} : \frac{3}{3} = \frac{1}{3}$

2. Check out Anton's sticker collection below!



Choose 'True' or 'False' from the following statements by placing a check mark (✓)!

Statements	True	False
One-third of Anton's stickers are octagonal in shape.	✓	
Anton's least sticker is square.		✗

$\frac{3}{9} : \frac{3}{3} = \frac{1}{3}$

Figure 5: Result of SQA

Figure 5 shows that subject SQA fulfills the ability to understand and use various types of numbers and related symbols to solve real-life problems. Subject SQA demonstrates understanding and using numbers and symbols in fractional numbers to solve problems. The results of the interview support this:

SQA : I understand that this question determines Anton's number of stickers. I used the correct method and sequence, which is counting Anton's octagonal stickers and can be simplified. I was hesitant when answering the second statement, but when I confirmed it again, I answered correctly.

From the interview excerpts, the SQA subject showed the ability to understand the



meaning of the problem and provide a practical summary. The SQA subject used the correct method and sequence. Furthermore, they showed accountability for their problem-solving outcomes.

The second indicator is competence in analyzing information presented in various formats, including graphs, tables, charts, diagrams, and more. The following are examples of MCA test results and SQA interviews on Indicator 2 questions in Figure 6.

Original version	English version																				
<p>Perhatikan informasi berikut ini!</p> <p>Daftar Harga Emas Mini</p> <p>Tanggal: 15 Maret 2020</p> <table border="1"> <thead> <tr> <th>Kepingan</th> <th>Harga Jual</th> </tr> </thead> <tbody> <tr> <td>0,05 gram</td> <td>Rp 65.000,00</td> </tr> <tr> <td>0,1 gram</td> <td>Rp 120.000,00</td> </tr> <tr> <td>0,25 gram</td> <td>Rp 280.000,00</td> </tr> <tr> <td>0,5 gram</td> <td>Rp 520.000,00</td> </tr> </tbody> </table> <p>Bu Dewi memiliki emas mini seberat 1 gram yang terdiri atas beberapa kepingan emas. Berat Kepingan emas yang mungkin dimiliki Bu Dewi adalah...</p> <p><input checked="" type="checkbox"/> A. 1 buah kepingan 0,5 gram dan 1 buah kepingan 0,25 gram</p> <p>B. 2 buah kepingan 0,25 gram dan 5 buah kepingan 0,1 gram</p> <p>C. 5 buah kepingan 0,05 gram dan 1 buah kepingan 0,5 gram</p> <p>D. 8 buah kepingan 0,1 gram dan 1 buah kepingan 0,25 gram</p>	Kepingan	Harga Jual	0,05 gram	Rp 65.000,00	0,1 gram	Rp 120.000,00	0,25 gram	Rp 280.000,00	0,5 gram	Rp 520.000,00	<p>8. Take a look at the following information!</p> <p>Mini Gold Price List</p> <p>Date: March 15, 2020</p> <table border="1"> <thead> <tr> <th>Gold Pieces</th> <th>Selling Price</th> </tr> </thead> <tbody> <tr> <td>0,05 gram</td> <td>Rp 65.000,00</td> </tr> <tr> <td>0,1 gram</td> <td>Rp 120.000,00</td> </tr> <tr> <td>0,25 gram</td> <td>Rp 280.000,00</td> </tr> <tr> <td>0,5 gram</td> <td>Rp 520.000,00</td> </tr> </tbody> </table> <p>Ms. Dewi has 1 gram of mini gold that consists of several gold pieces. The weight of gold pieces that Ms. Dewi may have is....</p> <p><input checked="" type="checkbox"/> A. 1 piece of 0.5 gram and 1 piece of 0.25 gram</p> <p>B. 2 pieces of 0.25 gram and 5 pieces of 0.1 gram</p> <p>C. 5 pieces of 0.05 gram and 1 piece of 0.5 gram</p> <p>D. 8 pieces of 0.1 gram and 1 piece of 0.25 gram</p>	Gold Pieces	Selling Price	0,05 gram	Rp 65.000,00	0,1 gram	Rp 120.000,00	0,25 gram	Rp 280.000,00	0,5 gram	Rp 520.000,00
Kepingan	Harga Jual																				
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0,5 gram	Rp 520.000,00																				

Figure 6: Result of SQA

Figure 6: The interview excerpt supports the claim that SQA subjects showed reasonable ability to assess information presented in tabular form and perform calculations involving whole numbers and decimals.

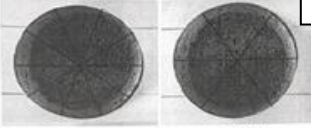
SQA : I understand the meaning of the problem, which is how many pieces of gold belong to Mrs. Dewi if it reaches 1 gram, but I don't understand how to solve it and find the problem in the problem, which is how many pieces reach the weight of 1 gram.

From the interview excerpts, the SQA subject was able to interpret the results of the analysis of information displayed in tabular form, but there were still mistakes in the solution process, resulting in incorrect answers for counting operations on decimal numbers

The third indicator assesses the ability to interpret the results of an analysis to make predictions and informed decisions. The following are examples of MCA test results and AMW interviews on Indicator 3 questions in Figure 7.

11. Ibu membuat kue bolu sebanyak dua Loyang. Kedua kue bolu tersebut masing-masing dipotong sama besar dengan pembagian seperti tampak pada gambar di bawah.

**Pembagian Kue Bolu**



Bolu Pertama      Bolu Kedua

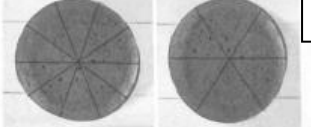
Di rumah terdapat Ayah, Ibu, Adam, Erni, dan Bibi. Ibu berkata kepada Erni bahwa kue bolu pertama dibagi rata untuk anak-anak. Sementara, kue bolu kedua dibagi rata untuk Ayah, Ibu, dan Bibi.

Pilih dan berilah tanda centang (✓) pada setiap pernyataan yang benar berdasarkan informasi yang ada pada teks tersebut.

Pernyataan	Benar
(1) Dari bolu kedua, setiap orang memperoleh $\frac{2}{6}$	<input type="checkbox"/>
(2) Erni memperoleh $\frac{1}{2}$ bagian dari bolu pertama	<input checked="" type="checkbox"/>
(3) Jumlah bolu yang diperoleh ayah dan ibu sebesar $\frac{2}{3}$ bagian dari bolu kedua	<input checked="" type="checkbox"/>
(4) Jika kue bolu untuk ayah, ibu, dan bibi diberikan kepada Adam untuk dibagikan kepada teman-temannya, besar kue bolu Adam adalah $1\frac{2}{10}$ bagian.	<input checked="" type="checkbox"/>

11. Mom made two pans of sponge cake. The two sponge cakes are each cut into equal pieces with the division as shown in the picture below.

**Sponge Cake Sharing**



First Sponge Cake      Second Sponge Cake

At home there were Dad, Mom, Adam, Erni and Auntie. Mom told Erni that the first sponge cake was divided equally among the children. Meanwhile, the second sponge cake is divided equally for Dad, Mom, and Auntie.

Choose and put a check mark (✓) on each correct statement based on the information in the text.

Statements	Correct
(1) From the second sponge cake, each person gets $\frac{1}{6}$	<input type="checkbox"/>
(2) Erni gets $\frac{1}{2}$ of the first sponge cake	<input checked="" type="checkbox"/>
(3) The number of sponges obtained by mom and dad is $\frac{2}{3}$ of the second sponge.	<input checked="" type="checkbox"/>
(4) If the sponge cake for dad, mom and aunt is given to Adam to share with his friends, the size of Adam's sponge cake is $1\frac{2}{10}$	<input checked="" type="checkbox"/>

Figure 7: Result of SQA

Figure 7: SQA subjects showed proficiency in answering indicator 3. However, as the interview excerpt supports, some errors were identified in interpreting the information analysis to perform fraction calculations.

**SQA :** I know how to solve the problem, and that is what I have in mind. The easy way is to adjust to the statement in the problem, but I had difficulty with the fourth statement because I did not understand how to calculate it.

From the interview excerpt, the SQA subject could interpret the problem analysis results to calculate fractional numbers. However, there was a statement in the problem that could not be adequately solved because he did not know how to calculate it. Additionally, the presentation of the work process of the SQA subject in the third indicator was well-structured. Therefore, indicators 1 through 3 of the SQA subject's numeracy ability are included in the medium category.

### ***Student with Low Numeracy Skills***

The findings from the Minimum Competency Assessment (MCA) test and interviews focused on the first indicator, namely proficiency in understanding and using various types of numbers and related symbols to solve real-life problems. The following are examples of MCA test results and AMW interviews on the first indicator questions in Figure 8.



Original version	English version
<p>4. Bacalah teks berikut untuk menjawab pertanyaan dibawah ini!</p> <p style="text-align: center;"><b>Lompat Jauh</b></p> <p>Seorang Atlet lompat jauh sedang berlatih untuk persiapan lomba seperti pada gambar yang ditampilkan. Ia melakukan enam kali lompatan. Jarak lompatan yang telah dicapai atlet tersebut dari lompatan pertama hingga keenam berturut-turut adalah 653 cm, 645 cm, 643 cm, 635 cm, 634 cm, dan 654 cm.</p>  <p>Pilihlah satu jawaban yang benar. Berdasarkan informasi pada teks tersebut, lompatan terpendek yang dicapai atlet tersebut saat latihan terjadi pada lompatan....</p> <p>A. Ketiga B. Keempat C. Kelima <input checked="" type="radio"/> D. Keenam</p>	<p>4. Read the following text to answer the questions below!</p> <p style="text-align: center;"><b>Long Jump</b></p> <p>A long jump athlete is practicing for a competition as shown in the picture. He makes six jumps. The distance the athlete has jumped from the first to the sixth jump is 653 cm, 645 cm, 643 cm, 635 cm, 634 cm, and 654 cm respectively.</p>  <p>Choose one correct answer. Based on the information in the text, the shortest jump that the athlete achieved during training occurred in the jump....</p> <p>A. Third B. Fourth C. Fifth <input checked="" type="radio"/> D. Sixth</p>

Figure 8: Result of KAPA

Figure 8 shows that the KAPA subject is proficient in comprehending and using various types of numbers and associated symbols to address real-life problems. Subject KAPA is quite capable of understanding and using numbers and symbols in integers to solve problems, which is supported by the results of the interview:

**KAPA :** I understand this problem is about finding an athlete's shortest jump. I used the correct method but made a mistake in ordering the jumps, so the order is incorrect.

From the interview excerpt, Subject KAPA showed the ability to understand the meaning of the problem and provide an adequate summary. However, the KAPA subject was mistaken about the answer choice for their problem-solving results.

Subject KAPA solved the problems in indicator one well, although there were still mistakes in problem number 2, Multiple Choice Complex (PGK), and problem number 4, Multiple Choice (PG). Subject KAPA can quite understand and use numbers and symbols in percentage numbers, fractions, decimals, and integers to solve problems. Therefore, the KAPA subject's numeracy ability for the first indicator is in the medium category.

The results of the MCA test questions and interviews on the second indicator, namely, the ability to analyze information in various forms (graphs, tables, charts, diagrams, etc.), are

presented. The following are examples of MCA test results and KAPA interviews on Indicator 2 questions in Figure 9.

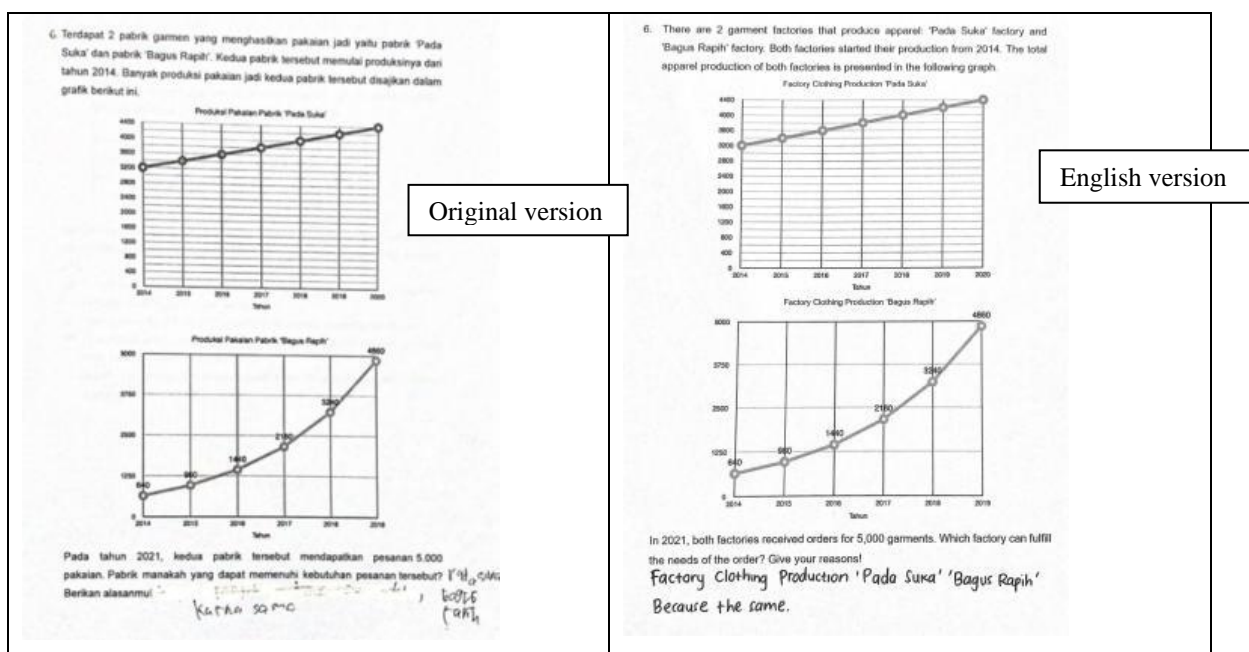


Figure 9: Result of KAPA

Figure 9: KAPA subjects cannot solve problems in indicator two well. KAPA subjects are less able to analyze information displayed in graphs to perform integer counting operations, as the interview excerpt supports.

**KAPA:** I only understand the problem's purpose, which is to find a factory that can produce 5000 orders of apparel in 2021. I identified the problem in the question but don't know how to solve it.

From the interview excerpt, the KAPA subject could analyze the information displayed as a graph to perform operations on integers. Subject KAPA could only explain what the question meant but could not solve the problem. The results of the KAPA subject's work process were also not appropriately written because he did not know how to solve it.

The results of the MCA test questions and interviews on the third indicator, namely, the ability to interpret the analysis results to predict and make decisions, are presented. The following are examples of MCA test results and KAPA interviews on Indicator 3 questions in Figure 10.

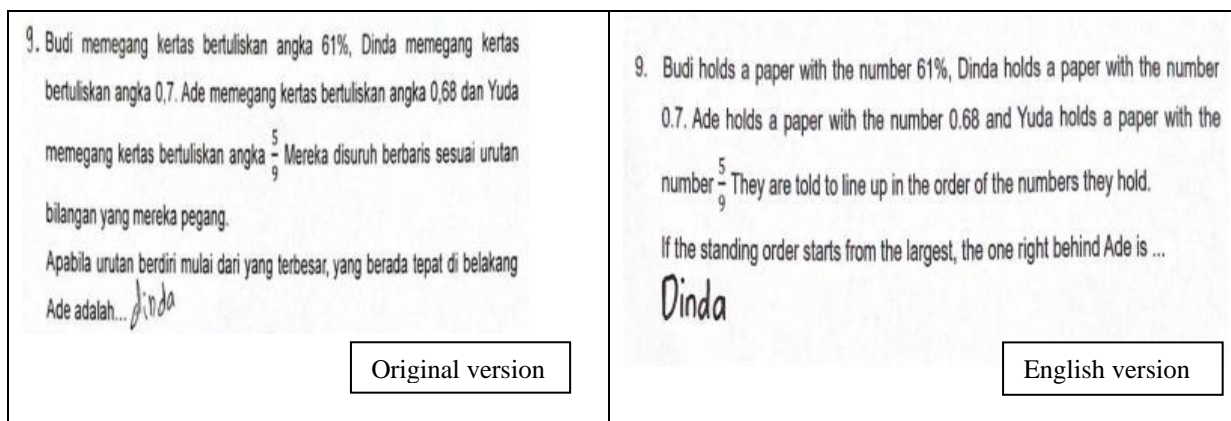


Figure 10: Result of KAPA

Figure 10 shows that the KAPA subjects were less able to solve the problem in the third indicator quite well. In the problem, there was an error in interpreting the analysis results to predict and make decisions because the KAPA subject did not know how to solve it, and the work process results were also missing, as supported by the interview excerpt.

**KAPA:** I did not know how to solve the problem, and it did not match what I had in mind. I had difficulty because I didn't know how to sort different numbers; there are decimals and fractions..

From the interview excerpt, KAPA subjects cannot interpret the analysis results to predict and make decisions about arithmetic operations on decimal and fractional numbers. So, based on indicators 1 through 3, the KAPA subject's numeracy ability is in the Low category of numeracy skills.

The results of this study revealed that most students in grade VI have medium numeracy skills. In line with research conducted by Tresnasih et al., (2022) It was found that students' numeracy skills are also at a medium level in solving Minimum Competency Assessment questions that have not fulfilled all indicators of numeracy skills with various causes, one of which is not being accustomed to working on contextual problem exercises, leading to frequent mistakes and a lack of understanding of the material in the provided problems.

## CONCLUSION

Based on the results and discussion in the research, students' numeracy skills consist of three categories: high numeracy skill, medium numeracy skill, and low numeracy skill, each with three indicators: 1) Proficiency in comprehending and using various types of numbers

and associated symbols to address real-life problems, 2) Competence in analyzing information presented in various formats, including graphs, tables, charts, diagrams, and more. 3) Capability to interpret the outcomes of such analyses in order to make predictions and informed decisions.

Students with high numeracy skills can achieve almost all numeracy indicators. Students in the medium numeracy skill category have not achieved all numeracy skill indicators because they still make mistakes and may not fully understand the questions given. Students with low numeracy skills have a pretty good understanding indicator. However, they have not been able to analyze and interpret the results of the information analysis in the problem. Based on student answers, the contributing factor is that students are confused about working on contextual problems and understanding the initial analysis related to the problems stated, so they have been unable to make the right decisions. This means that students who have low numeracy skills have not been able to solve Minimum Competency Assessment questions on indicators of numeracy skill to analyze information in various forms (graphs, tables, charts, diagrams, and so on) and the ability to interpret the results of the analysis to predict and make decisions.

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