Analysis of student's mathematic numeration ability Based on cognitive level of materials cube and beam

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Abstrak

Kecakapan abad ke-21 menuntut peserta didik untuk dapat mengikuti perkembangan zaman yang penuh tantangan Salah satu persyaratan untuk mewujudkan kecakapan abad ke-21 adalah kemampuan literasi peserta didik. Salah satu kemampuan literasi yang harus dimiliki peserta didik yaitu numerasi. Jenis penelitian ini adalah kualitatif dimana metode yang digunakan adalah metode deskriptif. Bentuk penelitian yang digunakan pada penelitian ini adalah penilitian studi kasus (case study). Subjek penelitian ini adalah siswa kelas VIII B SMP Negeri 02 Seponti terdiri dari 19 orang siswa yang telah menerima materi kubus dan balok. Penelitian dilakukan pada 25 Mei 2022. Adapun langkah-langkah yang digunakan dalam penelitian ini, yaitu: Tahap pelaksanaan, tahap persiapan dan tahap akhir . Tujuan dari penelitian ini adalah untuk mengetahui Kemampuan Numerasi Matematis berdasarkan Level Kognitif Siswa pada Materi Kubus dan Balok Kelas VIII di SMP N 2 Seponti. Instrument dalam penelitian ini adalah tes dan wawancara. Hasil penelitian menunjukan bahwa siswa kelas VIII B SMP N 2 Seponti hanya 10 % yang memiliki kemampuan numerasi tinggi, 53 % dengan kemampuan sedang dan 37 % siswa berkemampuan rendah.

Kata Kunci: 1. Kemampuan Numerasi Matematis 2. Level Kognitif 3. Kubus dan Balok.

Abstract

21st century skills require students to be able to keep up with the times that are full of challenges. One of the requirements to realize 21st century skills is the literacy ability of students. One of the literacy skills that students must possess is numeracy. This type of research is qualitative where the method used is descriptive method. The form of research used in this research is case study research. The subjects of this study were students of class VIII B SMP Negeri 02 Seponti consisting of 19 students who had received cube and block material. The research was conducted on Mey 25, 2022. The steps used in this research are: the implementation stage, the preparation stage and the final stage. The purpose of this study was to determine the Mathematical Numeration Ability based on the Student's Cognitive Level in Class VIII Cubes and Blocks at SMP N 2 Seponti. Instruments in this study were tests and interviews. The results showed that only 10% of students in class VIII B SMP N 2 Seponti had high numeracy skills, 53% had moderate abilities and 37% students had low abilities.

Keyword: 1. Mathematical Numeration Ability 2. Cognitive Level 3. Cubes and Blocks

INTRODUCTION

Mathematics is a science that is influential in supporting everyday life. According to Suhendri (Bella et al., 2019) Mathematics is the science of numbers, shapes, conceptual relations and logic by using language symbols or symbols in solving problems in everyday life. The objectives of learning mathematics listed in Permendikbud No.37 of 2018 are: 1) Understand, apply, and analyze factual, conceptual, procedural knowledge based on their curiosity about science, technology, art, culture, and humanities and apply procedural knowledge in the field of study that are specific according to their talents and interests to solve problems, 2) Process, reason, and present in the concrete and abstract realms related to the development of what they learn at school independently, and are able to use methods according to scientific rules (Santari & Susetyawati, 2020).

21st century skills require students to be able to keep up with the times that are full of challenges. By mastering skills in the 21st century, students will have learning and innovation skills, skills in using and utilizing information technology/media, and can work and survive using life skills (Kemendikbud, 2020). One of the requirements to realize 21st century skills is the literacy ability of students. One of the literacy skills that students must possess is numeracy. In line with the GLN Team





(2017) which revealed that the demands for abilities that must be achieved will be realized if students have good numeracy skills.

Numeration is also known as numeracy literacy and mathematical literacy. So that numeracy ability can be interpreted as an ability to apply mathematical concepts and skills to solve practical problems in various contexts of daily life, for example at home, work, and participation in social life and as citizens (GLN Team, 2017). Numerical ability is a very important ability for students, because this ability is closely related to solving mathematical problems in everyday life (Pangesti, 2018). It is known that one measure of the quality of education in a country is the numeracy ability of its students (Kurniawati and Kurniasari, 2019). However, students still do not understand math problems related to everyday life.

Supported by the results of the PISA study, the numeracy skills of students in Indonesia are still relatively low. Indonesian students are ranked 72 out of 79 test-taking countries. The test results show that the average score of students is 371 in reading, 379 in mathematics, and 396 in science. This achievement is still below the average of 79 PISA participating countries, namely 487 for reading ability, and 489 for mathematics and 483 science. (Masfufah and Afriansyah, 2021). This is the background for the Ministry of Education and Culture to replace the National Examination and focus on numeration in minimum competency assessments as a provision to improve PISA and TIMSS scores in the next period (Kemendikbud, 2020). One of the reasons for the low results is because students are not familiar with questions whose problems are related to mathematics in everyday life (Luritawaty, 2018). From this statement, it can be seen that the PISA questions are questions related to daily life or contextual problems and numeracy skills as a provision to fix these problems.

In solving math problems, it is also necessary to pay attention to the different cognitive abilities of students. In line with Suharna's opinion, that students with different mathematical abilities also have different problem solving abilities (Lutfiananda et al, 2016). The cognitive level referred to in this study is the level of students' mathematical abilities which are grouped into 3 levels, namely high, medium and low cognitive levels.

Based on the results of interviews on December 20, 2021, researchers obtained information from the mathematics teacher at SMP N 02 Seponti that students' numeracy skills were still low, some students still had difficulty solving problems. related to mathematical numeracy skills, this is due to ineffective learning due to limited time in teaching during the covid-19 pandemic. In addition, the lack of interest in student learning is also the cause of the low ability of students.

Based on the results of pre-observation, students' numeracy skills are still low in solving numeracy skills on cube and block material. Students do not understand the problem and apply the appropriate formula and steps to solve the problem. For example, in solving the cube framework problem, students do not correctly interpret the number of edges in the shape so that students are wrong in solving the problem. From the results of student work there are students who are able to answer questions, but most students have difficulty.

From this statement, it can be said that the learning process was not achieved properly because there were still many students having difficulties when working on cube and block material questions. The teacher can see the ability by identifying student results on the material of cubes and blocks according to the cognitive level. Where the cognitive level of each individual is different. When solving questions, each student has different characteristics from other students. This causes differences in the abilities possessed by each student to solve problems. In accordance with Oktaviana and Prihatin (2018), students' abilities in answering each question have different levels of depth of understanding. Therefore, to improve students' numeracy skills, of course it must also simultaneously train students' cognitive abilities.

Based on this, it is necessary to conduct a deeper study and analysis related to students' numeracy abilities and analysis of numeracy abilities based on cognitive levels is needed to determine student completion in contextual problems.

The results of some research on the analysis of mathematical numeracy abilities include: the results of Hartatik's research (2020) with the results that most PPG SD students make many mistakes in writing numbers and symbols in solving mathematical problems even though the intent they want to convey is correct so that it will cause misconceptions for students. who read the results of their problem

solving. Based on the results of research by Winata, et al, (2021), further research is needed to find out appropriate learning so that students' numeracy skills have increased.

Based on the description above, the researcher is interested in conducting research with the title "Analysis of Mathematical Numeration Ability based on Students' Cognitive Level on Cube and Block Material for Class VIII SMP N 2 Seponti".

METHOD

This type of research is qualitative where the method used is descriptive method. The form of research used in this study is case study research (case study). The purpose of this study was to describe the numeracy skills of students based on the cognitive level in the cube and block material in class VIII SM PN 2 Seponti.

The research was conducted at SMP N 2 Seponti with the subjects of this research being class VIII B students of SMP Negeri 02 Seponti consisting of 19 students who had received cube and block material. Furthermore, subjects were selected who had more potential in each of their abilities compared to other students to be interviewed for 3 interviews, namely 1 student from the high group, 1 student from the medium group, and 1 student from the low group.

The research was conducted on May 25, 2022. The steps used in this research are: the implementation stage, the preparation stage and the final stage. The instrument used is a test of mathematical numeracy skills and interviews.

RESULTS AND DISCUSSION

RESULTS

Broadly speaking, the test results can be divided into three based on cognitive abilities consisting of high-ability students, moderate-ability students, and low-ability students. The results of the student test scores shown in Tabel 1.

	Studen t Code	Stu	dent Score	9		Percentage
Ability Level		Quest	ion Numb	ber	Total Score	
		1	2	3		
High	TNS	4	3	4	11	91.6
	SO	4	3	2	9	75
	S	4	3	0	7	58
	RS	2	2	2	6	50
	SA	3	2	1	6	50
	HE	2	3	0	5	50
Medium	PS	4	1	0	5	50
	FM	4	0	0	4	33.3
	RNS	2	2	0	4	33.3
	D	1	2	1	4	33.3
	YB	2	2	0	4	33.3
	R	4	0	0	4	33.3
	CEP	2	1	0	3	25
	AA	1	1	0	2	16.6
Low	AGS	2	0	0	2	16.6
	HS	0	1	1	2	16.6
	NH	0	1	1	2	16.6
	AJ	0	1	0	1	8.3
	RH	0	1	0	1	8.3
Amount	19	41	29	12	82	358

Table 1 Test Score Results to Identify Numerical Ability

Based on table 1, the researcher chose three students to be interviewed. Subjects are selected based on their potential in solving cube and block problems. The three students were TNS, S, and CEP. The students who were interviewed consisted of 3 people in which 1 high representative student, 1 medium representative student, and 1 low level representative student. Based on the

results of tests and interviews, researchers can identify students' mathematical numeracy abilities based on cognitive levels. Furthermore, the data will be analyzed and draw conclusions.

A. Description of Mathematical Numeration Ability of Students Who Have a High Cognitive Level.

After the test results to identify students' numeracy skills were analyzed and then scored based on the scoring guidelines, TNS subjects were selected which had more potential than SO subjects. This selection is based on the number of scores and the technique of solving questions made by TNS.

1. Answers to TNS Subjects in Question No. 1 Indicators of Analyzing Information in Various Forms

1.	Setuin	Farena	lahan	g m²	Curup	Untuk	mendalatran	Sebuah
	dapur	yang ide	eal 3	×3 =	g m²			

Figure 1 TNS Answers on Indicators of Analyzing Information in Various Forms In question no 1, which is an indicator of analyzing information in various forms, TNS can answer and state the correct reasons for the problems referred to in the question.

2. TNS Subject Answers to Question No. 2 Indicators Using Numbers And Symbols To Solve Practical Problems In The Context Of Daily Life

-	Bisquit dalam toples	
a	Toples = 10×15 ×20	
1	biskuit = 3x2 x1	
	Harga 1 Kemasan = 8000	
	Uang = 165.000	
9.	berala Komasan biskuit untuk memenuhi toples	?
b	Pxext	
	10 cm x 15 cm x 20 cm = 3000	
	3 cm x 2 cm x 1 cm = 6	
	3000 : 6 = 500	
	500 : 24 = 20	
	165.000 : 8000 = 20	
-	20 × 24 = 480.	

Figure 2 TNS Answers on Indicators Using Numbers and Symbols to Solve Practical Problems in the Context of Daily Life

In question no 2 with indicators using numbers and mathematical symbols to solve practical problems in various contexts of daily life, TNS subjects are able to state the problem or answer the problem correctly intended in the question. However, TNS subjects have not been able to find conclusions from a problem that has been resolved.

3. TNS Subject Answers In Question No. 3 Indicators Interpreting Analysis Results To Predict And Make Decisions



Figure 3 TNS answers on indicators interpreting analysis results to predict and make decisions

In question no. 3 with indicators interpreting the results of the analysis to predict and make decisions, the TNS subject is able to write down the results of the analysis of the given problem to be able to draw conclusions from the problem.

B. Description of Mathematical Numeration Ability of Students Who Have Medium Cognitive Level

After the test results to identify students' numeracy abilities were analyzed and then given a score based on the scoring guidelines, then subject S was chosen which had more potential than other moderate ability subjects. This selection is based on the number of scores and the problem-solving technique made by S.

1. Subject S's Answer to Question No. 1 Indicators of Analyzing Information in Various Forms



Figure 4 Answer S on Indicators of Analyzing Information in Various Forms

In question no 1, which is an indicator of analyzing information in various forms, subject S can answer correctly the problem. However, subject S wrote down the reasons not based on the problem intended by the question.

2. Subject S's Answer in Question No. 2 Indicators Using Numbers And Symbols To Solve Practical Problems

2.	a. Ukuran toppels : 10 cm x 15 cm x 20 cm = 3.000 cm
	Ukuran Satuan biskuit :
	3 cm x 2 cm x 1 cm = 6 cm
	Harga biskuit Perkemasan : 8.000
	Uang Bany : 160.000
	b. PXLXt
	C. 10 cm x 15 cm x 20 cm = 3000 cm
	3 cm × 2 cm × 1 cm = 6 cm
	3000 : 6 = 500
	500 : 29 = 20,83
	Uang banu : 160.000
	160.000 : 8000 = 32
	d. maka, biskuit dalam kemasan yang dapat dia beli maksimal
	Untuk memenuhi topes fersebut berjumlah 32 kemasan.

Figure 5 Answer S on Indicators Using Numbers And Symbols To Solve Practical Problems

In question no 2 with indicators using numbers and mathematical symbols to solve practical problems in various contexts of everyday life, S is able to state the problem and step correctly. However, there was an error that subject S made a mistake in operating the multiplication of numbers at the end so that the conclusion S gave was wrong.

3. Subject S's Answer to Question No. 3 Indicators of Interpreting Analysis Results to Predict and Make Decisions



Figure 6 Answer S on Indicators Interpreting Analysis Results for Predicting and Making Decisions

In question no. 3 with indicators interpreting the results of the analysis to predict and make decisions, subject S cannot answer the given problem

C. Description of Mathematical Numeration Ability of Students Who Have Low Cognitive Level

After the test results to identify students' numeracy abilities were analyzed and then scored based on the scoring guidelines, the CEP subjects who had more potential were selected compared to other low ability subjects. This selection is based on the number of scores and problem solving techniques made by CEP.

1. Answers to CEP Subjects in Question No. 1 Indicators of Analyzing Information in Various Forms



Figure 7 CEP's Responses to Indicators of Analyzing Information in Various Forms

In question no 1, which is an indicator of analyzing information in various forms, CEP can answer the problem correctly. However, CEP was unable to provide a rationale for this answer.

2. CEP Subject Answers In Question No. 2 Indicators Using Numbers and Symbols To Solve Practical Problems



Figure 8 CEP Answers On Indicators Using Numbers and Symbols To Solve Practical Problems

In question no. 2 with indicators using numbers and mathematical symbols to solve practical problems in various contexts of everyday life, CEP writes down what is known and asked from the questions, in the CEP work steps are still unclear and unstructured, CEP also cannot conclude from the answers you have.

3. CEP Subject Answers in Question No. 3 Indicators Interpreting Analysis Results To Predict and Make Decisions



Figure 9 CEP Answers on Indicators Interpreting Analysis Results To Predict And Make Decisions

In question no. 3 with indicators interpreting the results of the analysis to predict and make decisions, the CEP subject cannot solve the problem

Based on the description of the test results, then a description of the results of the interview is presented. The descriptions of the three student interviews are as follows:

TNS Subjects With High Cognitive Level

1. Question Number 1 Indicators of Analyzing Information in Various Forms

P : Do you find it difficult to do question number 1?

TNS : No ma'am

When further asked why TNS did not find it difficult, TNS replied that it was clear in the table of the length and width measurements, that TNS was so sure of his answer that he explained why he answered so.

2. Question Number 2 Indicators Using Numbers and Symbols To Solve Practical Problems

P : What is the first thing you think about when you do this question?

TNS : I'm a bit confused ma'am, after reading it over and over again I understand

When further asked why TNS was confused, TNS replied that he was confused about what formula to use. After being asked more deeply, TNS was able to explain the meaning of the questions and what should be done to answer the questions

3. Question Number 3 Indicators Interpreting Analysis Results to Predict and Make Decisions

Q : Can you understand this matter?

TNS : Yes ma'am,

When asked further, TNS was able to explain correctly according to the results of the tests that had been done.

From the results of interviews, it can be concluded that TNS students have high mathematical numeracy skills which can be seen in the results of the work and interviews with these students.

Subject S with Medium Cognitive Level

- 1. Question Number 1 Indicators of Analyzing Information in Various Forms
 - Q : Did you find it difficult when working on question number 1?
 - S : No, ma'am.

When further asked why S did not find it difficult, S answered that S knew how to answer the question, subject S explained exactly how to get the answer.

- 2. Problem Number 2 Indicators Use Numbers and Symbols To Solve Practical Problems.
 - Q : What is the first thing you think about when you do this question?
 - S : the question about the jar in the shape of a block, ma'am.

When asked further, subject S answered correctly the problem. Subject S confirmed that the final answer was wrong due to lack of accuracy in calculating it.

- 3. Question Number 3 Indicators Interpreting Analysis Results to Predict and Make Decisions
 - Q : Can you understand this matter?
 - S : Confused ma'am

When asked further, subject S explained that he didn't know from the picture in the question which part to count, so subject S only knew what was being asked in the question.

S . students have moderate mathematical numeracy skills which can be seen in the results of the work and interviews with these students.

CEP Subjects with Low Cognitive Level

1. Question Number 1 Indicators of Analyzing Information in Various Forms

Q : Did you find it difficult when working on question number 1?

CEP : No ma'am

When further asked why CEP did not find it difficult, TNS answered that the question only asked your approval, so that CEP subjects could answer without mathematical reasons according to the questions given.

2. Question Number 2 Indicators Using Numbers and Symbols To Solve Practical Problems

Q : What is the first thing you think about when you do this question?

CEP : it's really hard, ma'am

When further asked why CEP felt that the question was difficult, CEP replied that he was confused about how to work on the question, what formula would be used. CEP only knows what is known and asked in the question.

3. Question Number 3 Indicators Interpreting Analysis Results to Predict and Make Decisions Q : Can you understand this matter?

CEP : I don't understand ma'am

When further asked why the CEP subject did not understand the matter, he replied that he had never seen anything like that before. CEP explains that it can only work if the questions can be directly entered into the formula. So the CEP subject could not answer the question.

From the results of interviews, it can be concluded that CEP students have low mathematical numeracy skills as seen in the results of the work and interviews with these students.

DISCUSSION

In this study, the researcher gave questions to class VIII B students, totalling 19 students. The time given by the researcher was 90 minutes. Mathematical numeracy ability test questions are in accordance with the indicators for each item, with a score of 0-4. After students work on the test questions, interviews will be conducted with students who have high, medium and low cognitive levels.

The stage that was carried out before describing the results of tests and interviews, the results of student work were analyzed first based on answer keys and scoring guidelines, after being given a score three students who had more potential than other students were selected to be interviewed. After analyzing the results, the three students were TNS subjects (students with high cognitive levels), S subjects (students with moderate cognitive levels) and CEP subjects (students with low cognitive levels). The results of the analysis show that the results of the test answer sheets and the results of the interview subjects generally found similarities and differences such as different strategies/methods, working steps and delivery of statements in the solution. This happens because the subject has a different view and in general, there is no one individual who is exactly the same in doing something. Therefore, the identification results are obtained as follows:

1. Numerical Ability in Students with High Cognitive Level

Students with high levels of numeracy skills can be concluded that these students are able to use numbers and symbols, analyze information in various forms and interpret the results of the analysis to predict and make decisions. Seen in the results of test answers and interviews, TNS subjects were able to answer problem number 1, the indicator of analyzing information in various forms with the cognitive level of questions C1 and C2 (knowing), where students can answer and give reasons by giving calculations according to the information from the table provided. This is because information in the form of graphs, tables, charts and others is easier for students to analyze than written or word forms.

In accordance with Putri, et al (2021) who said that this is a mathematical representation that representation is a configuration of various things that can be expressed in several ways such as pictures, graphs, charts, symbols, and written text to help students communicate their thoughts. In question number 2, indicators use numbers and symbols to solve practical problems in everyday life with the cognitive level of C3 questions (application), TNS students can write and state what is known and asked according to the information in the questions and can change the sentences about the questions. into a simpler form, namely into mathematical symbols where the TNS subject looks for the volume of the block using what is known from the problem and then substituted it into the formula for the volume of the block , then the TNS subject relates it to everyday life by rounding the number of packages that can be purchased and money banu with the price of packaged biscuits.

It's just that TNS students do not give conclusions when working on questions. When asked, TNS initially felt confused by the problem given, but after being understood, TNS subjects were able to relate one problem to another so that they could draw conclusions. This is in accordance with Salsabila & Hidayati (2021) which says that students in solving problems have not been fully coherent and not accompanied by conclusions, which means students do not re-check the results of the completion that has been done. Students are able to solve problem number 3 indicators interpret the results of the analysis to predict and make decisions with cognitive level C4 questions (reasoning), where TNS subjects can find out the core problems that must be solved by analyzing pictures so that students can predict what steps will be taken and make decisions with Correct.

2. Numerical ability in students with moderate cognitive level

Students with moderate numeracy skills, it can be concluded that students are quite capable of using numbers and symbols, analyzing information in various forms, and interpreting the results of the analysis to predict and make decisions. This can be seen from the answers to student tests and interviews. Subject S can work on question number 1 indicator of analyzing information in various forms with cognitive levels C1 and C2 (knowing) correctly, but students provide conclusions about reasons without writing steps to get those reasons from the table. Question number 2 indicators use numbers and mathematical symbols in solving problems related to everyday life with cognitive level C3 (application), subject S can write and state what is known and asked according to the information on the problem, but there are errors when writing the information from the bani money. Subject S can change the problem sentences into a simpler form, namely into mathematical symbols where subject S is able to make mathematical models when solving problems, but students are wrong in operating the multiplication of numbers at the end of the work, so the conclusions given by student S are also wrong.

This is in line with Hartatik (2020) stating that the lowest ability of PPG SD students in the 2019 network in solving math problems is to use symbols or numbers related to mathematics in solving daily problems, this is due to the many errors in writing numbers and symbols to solve problems. In question number 3, the indicator interprets the results of the analysis to predict and make decisions with the C4 cognitive level (reasoning), S students can only write down information and are asked questions, S students cannot explain how to solve the problem.

3. Mathematical numeracy skills with low cognitive level

Students with low-level numeracy skills, it can be concluded that students are less able to use numbers and symbols, analyze information in various forms, and interpret analysis results to predict and make decisions. This can be seen from the results of student work and interviews. In question number 1, the indicator analyzes information in various forms with cognitive levels C1 and C2 (knowing), the CEP subject only answers correctly without giving proper reasons. Problem number 2 indicators use numbers and mathematical symbols in solving problems in everyday life with a cognitive level of C3 (application), the CEP subject only writes what is asked of the problem and in the completion steps it has not been arranged completely and clearly, and the calculation of numbers is wrong. so the conclusion obtained is also wrong.

In question number 3 the indicator interprets the results of the analysis to predict and make decisions with cognitive level C4 (reasoning), students cannot work on the problem and cannot interpret what is known and asked in the question so students cannot solve the

problems given. This is in line with Ridzkiyah & Effendi (2021) which said that students have not been able to communicate answers in writing and in working on questions students want to finish quickly.

Based on the explanation above, student respondents who have high cognitive levels are better at solving mathematical numeracy problems than student respondents who have moderate and low cognitive levels. These results are supported by Maulidina's research (2019) which states that students who have high abilities are able and correct to use various kinds of numbers and symbols related to basic mathematics to solve problems in various contexts of daily life, are able to analyze the information displayed in various contexts. forms (graphs, tables, charts, diagrams and so on) and able to interpret the results of the analysis to predict and make good decisions. This is in accordance with research conducted based on student respondents at SMP P Negeri 2 Sponti .

In the third indicator, namely interpreting the results of the analysis to predict and make decisions to get the lowest score, students still have difficulty in solving the problem because this question belongs to the HOTS question category, and students are not accustomed to working on HOTS category questions. According to Pangesti (2018), saying that numeracy skills can be developed with mathematical knowledge learned according to the curriculum, but the teacher must design the mathematical material, one of which is by making HOTS questions.

In indicator 2, it is able to analyze the information displayed in various forms (graphs, tables, charts, diagrams and so on), obtaining the highest results compared to other indicators. this is because representations in the form of graphs, tables, charts, diagrams, etc., are easier to understand than words (Hartatik & Nafiah, 2020). Indicators 1 and 3 get low results because the two indicators have a higher level than indicator 2. Indicator 2, which involves analyzing information presented in various forms such as graphs, tables, charts, and diagrams, achieved the highest results compared to other indicators. This outcome can be attributed to the fact that visual representations are generally easier to comprehend than text-based information, as suggested by Hartatik and Nafiah (2020). On the other hand, Indicators 1 and 3 received lower scores, likely due to the higher cognitive demand required to understand and apply these more complex concepts. The disparity in performance highlights the importance of using appropriate instructional media that matches the learners' capabilities and the complexity of the material being taught.

CONCLUSION

Based on the results of research and data processing that has been carried out by researchers, the following conclusions can be drawn: (1) In solving research questions on cube and block material, only 10% of students of class VIII B SMP N 2 Seponti have high numeracy skills, 53% have moderate abilities and 37% students have low abilities; (2) The mathematical numeracy ability of students at a high cognitive level in solving research questions on cube and block material for class VIII SM Negeri 2 Seponti has been able to use numbers and symbols, analyze information in various forms and interpret analysis results to predict and make decisions; (3) The students' mathematical numeracy ability at the cognitive level is in solving the cube and block material research questions for class VIII SM Negeri 2 Seponti has been able to use numbers and symbols, analyze information in various for class VIII SM Negeri 2 Seponti has been able to use numbers and symbols, analyze information in various for class VIII SM Negeri 2 Seponti has been able to use numbers and symbols, analyze information in various forms; (4) The mathematical numeracy ability of students at a low cognitive level in solving research questions on cube and block material for class VIII SM Negeri 2 Seponti has been able to use numbers and symbols, analyze information in various forms; (4) The mathematical numeracy ability of students at a low cognitive level in solving research questions on cube and block material for class VIII SM Negeri 2 Seponti is only able to analyze information in various forms.

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