Diagnosis Of Mistake Complete Mathematical Story Problems Class V Students Of Elementary School Tanete Riattang Barat District Bone Regency

Nasruddin[1], Bulan Purnama Sari[2]
{ nasruddin@unm.ac.id[1], bulanpurnama@yahoo.co.id[2]}

[1,2]PGSD Bone Universitas Negeri Makassar, Indonesia

Abstract. The problem in this study is about students' mistakes in solving mathematical story problems. The formulation of the problem studied is 1) What mistakes do students make at each step in solving a story problem ?, 2) What is the level of student mistake in solving a story problem ?, 3) What causes students to make mistakes in solving a story problem ?, and 4) Is the level of student mistake significant in solving story problems? The purpose of this study is to: 1) Know what mistakes students make at each step in solving story problems, 2) Obtain an overview of students' mistake rates in solving story problems, 3) Know the causes of students making mistakes in solving story problems, and 4) Knowing whether the level of student mistake is significant in solving story problems. The approach in research is a quantitative approach and the type of research is ex post facto. The variable that was investigated was a single variable, namely students' mistakes in solving story problems. The population in this study were all fifth grade students of SD Tanete Riattang Barat District, totaling 626 people from 3 clusters consisting of 13 schools and research samples were fifth grade students from schools selected by purposive cluster random sampling technique, namely SDN 22 Jeppe'e, SD Inpres 12/79 Bulu Tempe, and SD Inpres 10/73 Watang Palakka as many as 137 students consisting of 72 men and 65 women. Data collection techniques used were tests and interviews. The data analysis technique used 1) descriptive statistics, which were calculating the average score and percentage of students' mistakes, and 2) inferential statistics using one sample t-test. The results showed 1) The types of mistakes made by students were not complete writing down answers, wrong in writing answers, and not writing answers, 2) The level of students' mistakes in completing story problems at each step of solving math story problems was in the high category, 3) The cause of students making mistakes is students do not understand the purpose of the problem, not careful in writing answers, accustomed to abbreviating answers, lack of understanding and wrong way of working on problems (incorrectly using formulas, incorrect concepts, and wrong operations), and 4) The level of student mistakes is significant in solving math story problems.

Keywords: Mistake Resolving Mathematical Story Problems

1 Introduction

Mathematics at every level of education starting from elementary school level to education level can be used to develop the ability to think logically, analytically, systematically, critically, and creatively adjusted to the development of student intelligence.

ICSTEE 2019, September 14-15, Makassar, Indonesia

DOI 10.4108/eai.14-9-2019.2290033

Mathematics learning is a learning process that contains two types of activities that are inseparable. The activity is teaching and learning. Mathematics learning is a teaching and learning process that is built by the teacher to develop student creativity that can enhance students' thinking abilities, and can improve their ability to construct new knowledge as a good protector of mathematics.

Based on information from one of the teachers when the researchers took part in the IV Internship, as many as 60% of students received higher mathematics scores but were less able to obtain well-obtained results such as skills, attitudes and knowledge in daily life. In addition, based on information from one of the teachers in Tanete Riattang Barat sub-district, students use complete mathematical problems with questions that have been made by mathematical models.

This mathematics learning conducted entitled Analysis of the Difficulty of Solving Mathematical Story Problems of Class V Students of SD Tanete Riattang Barat District, Bone Regency problem supports the research [1]. This study shows students make mistakes in determining what is known, determining what is asked, making mathematical models, and interpreting the answers of the model to the problem it was also supported by research [2]. Observing the description, researchers are interested in conducting research on students about the steps in solving the story problem. In this study, researchers focused on tracing the mistakes made by students every step in completing a special story at SD Tanete Riattang Barat Bone Regency with the title Diagnosis of Errors Resolving Mathematical Story Problems for Class V Students of SD Tanete Riattang Barat Bone District.

Based on the background that has been stated, the problem formulations in this study are: 1) What are the mistakes made by students at each step in solving mathematical story problems. 2) What is the level of difficulty of students in solving math story problems. 3) What causes students to do problems in solving math problems. 4) Is the level of student error significant in solving math problems. This can be formulated as the purpose of this research; 1) To find out what mistakes made by students at each step in solving mathematical story problems. 2) To solve students' problems in solving math story problems. 3) To find out why students make mistakes in solving math problems. 4) To find out the level of significant student problems in solving math problems.

Learning is a process that is marked by changes in behavior. All that is learned learning in other people changes in behavior that can be shown in various forms such as changing knowledge, attitudes, skills, and habits, but not all behavioral changes are the result of learning. Learning diagnosis is a matter relating to the learning process, such as causes, types, traits of a student's learning difficulties.

Mathematics in schools can be used as a means to foster students' logical, analytical, systematic, critical, and creative thinking skills. However, so far the view of mathematics is a very scary and difficult subject that has not changed among students. Many difficulties experienced by students in solving mathematical problems, for example solving problems related to story problems.

Matter of mathematical stories related to words or series of sentences that contain mathematical concepts. According to Sweden, Sandra, and Japa [3] "Problem stories are questions that are expressed in the form of stories taken from student experiences related to mathematical concepts" mathematical problems expressed by a series of sentences are referred to as a matter of story form" [3]. Learning story problems can be used as a way to train students to solve problems. In story problems students are required to be able to understand the purpose of the problem and find a way to solve it. Storytelling is done by using simple sentences that are often found by students in their daily lives.

The steps in solving a story problem, namely: (a) Find out what the question is asking about. (b) Look for information / information that is essential. (c) Select the appropriate operation. (d) Write the math sentence. (e) Complete the mathematical sentence. (f) State the answer to the story problem in Indonesian so that it answers the question of the story problem [3].

Solve a story problem, each student must pay attention to the steps to solve a story problem, namely: (a) Record the things that are known based on the information contained in the problem, and examine what is asked, including the units being asked . (b) solving problems based on what is known and what is asked [4].

Mathematical story problems are mathematical problems that are set out in simple sentences relating to students' daily lives and to solve math story problems can be done using the following steps:

a. Determine what is known
   This step is the first step in solving a story problem. The information contained in a problem is one of the components needed to make a mathematical model.
b. Determine what is being asked
   The question asked in the problem is one of the problems that requires problem solving and is one of the components needed to make a mathematical model.
c. Make mathematical models (mathematical sentences) and solve them
   Before making a mathematical model, must first know what is known and what is asked and then determine which arithmetic operations will be used.
d. Interpret the model's answer to the problem problem.
   This step contains clear sentences and is marked by the word "finished" at the beginning of the sentence. This is the answer to the problem of the real situation in the matter of the story.

The hypothesis in this study is the level of student error in solving math story problems is in the high category. H0: $\rho \geq \mu 0$, Student error rate in solving math story problems is in the high category Ha: $\rho < \mu 0$, The level of error students solve math story problems is in the low category Information: $\mu 0$ = the average level of errors made by students ($\mu 0 \geq 80\%$ = hig category and $\mu 0 < 80\%$ = low category).

2. Methods

The approach used in research is a quantitative approach and the type of research is ex post facto. The variable that was investigated was a single variable, namely students' mistakes in solving mathematical story problems. The population in this study were all fifth grade students of Tanete Riattang Barat Subdistrict enrolled in the 2018/2019 academic year (even semester) totaling 626 people from 3 clusters consisting of 13 schools and the sample of research were fifth grade students from schools selected by technique purposive cluster random sampling, namely SDN 22 Jeppe'e, SD Inpres 12/79 Bulu Tempe, and SD Inpres 10/73 Watang Palakka as many as 137 students consisting of 72 males and 65 females. Data collection techniques used are 1) tests used to collect information about errors made by students in solving math story problems that contain material that has been learned in grade V of elementary school in

odd semester 2018/2019 which was tested in one of the schools in Bone Regency and validated by the school teacher and one of the lecturers of PGSD Bone FIP UNM, 2) and unstructured interviews conducted for students who made the most mistakes, namely at least answering the two steps to solving the questions correctly. The data analysis technique used 1) descriptive statistics, namely calculating the average score and the percentage of errors made by students, and 2) inferential statistics by using one sample t-test. The criteria used to determine the category of error level of students solving story problems were standard criteria error rate [5].

Table 1. Standard Criteria for Error Rate

Error Category	**Category**
90 % - 100 %	Very High
80 % - 89 %	High
65 % - 79 %	Medium
55 % - 64 %	Low
< 55 %	Very Low

a. Description of student error rates

The results of the descriptive statistical analysis showed a description of the characteristics of the distribution of scores and variables to be measured. The statistics presented include the calculated average and percentage. Based on the aspects assessed, the scores obtained are described as follows:

1. Determine what is known

Table 2. Student Errors Data of Determine What is Known

Question Number	Number of Students	%	Category
1.	123	89,8	
2.	89	65	
3.	131	95,6	
4.	122	89,1	
5.	116	84,7	
Total	581	424,2	
Average	116,2	84,8	High

Based on the standard criteria the error rate can be concluded that the level of student error in determining what is known to be in the high category.

2. Determine what is being asked

Table 3. Student Error Data of Determining Questions Asked

Question Number	Number of Students	%	Category
1.	69	50,4	
2.	55	40,1	
3.	73	53,3	
4.	74	54	
5.	75	54,7	
Total	346	252,5	
Average	69,2	50,5	Very Low

Based on the standard criteria of the error rate it can be concluded that the level of student error in determining what is asked is in the very low category.

3. Make a mathematical model (mathematical sentences) and solve it

Table 4. Student Error Data of Creating a Mathematical Model (Mathematical Sentence) and Solving it

Question Number	Number of Students	%	Category
1.	129	94,2	
2.	127	92,7	
3.	113	82,5	
4.	133	97,1	
5.	128	93,4	
Total	630	459,5	
Averange	126	92	Very high

Based on the standard criteria table the error rate can be concluded that the level of student error in making mathematical models (mathematical sentences) and solving them is in the very high category.

4. Interpret the model's answer to the problems

Table 5. Student Error Data of Interpreting Model Answers to Problems

Question Number	Number of Students	%	Category
1.	134	97,8	

2.	133	97,1	
3.	111	81	
4.	136	99,3	
5.	129	94,2	
Total	643	469,4	
Average	107,2	93,9	Very high

Based on the standard criteria table the error level can be concluded that the level of student error in interpreting the answers of the model to the problems is in the very high category.

Based on the presentation of the percentage of student errors, the following is given a recapitulation of the percentage of student errors at each step in solving story problems:

Table 6. Recapitulation of Percentage of Students Who Make Mistakes at Each Step in Solving Story Problems

Question Number	Number of Students	%	Category
6.	134	97,8	
7.	133	97,1	
8.	111	81	
9.	136	99,3	
10.	129	94,2	
Total	643	469,4	
Average	107,2	93,9	Very high

Based on the recapitulation of the percentage of students who made mistakes at each step in completing story problems, it can be concluded that on average about 110 of 137 students or 80.3% of students made mistakes in completing math story problems where based on the standard criteria table the level of error rates the error is in the high category. The most prominent mistake is in the fourth step which is interpreting the model's answer to the problems.

b. Description of interview results

Based on the results of the study there were 15 students who made the most mistakes. To find out the types and causes, tracing is conducted through unstructured interviews with these students. From the results of the interviews, several students have the same case.

Table 7: Student Data that Made the Most Mistakes in Solving Mathematical Story Problems

o	**Student Name**	**Question Number**																			
		1				**2**				**3**				**4**				**5**			
		Step				**Step**				**Step**				**Step**				**Step**			
			I	**II**	**V**		**I**	**II**	**V**		**I**	**II**	**V**		**I**	**II**	**V**		**I**	**II**	**V**
1.	AR	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

2.	ASP	-	√	-	-	-	√	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3.	AF	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4.	ADK	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5.	ARY	-	-	-	-	-	-	-	-	-	-	-	-	√	-	-	-	-	-	-	-
6.	BA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7.	FD	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8.	MEAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9.	MS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10.	MF	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11.	RMH	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12.	RZ	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13.	SLM	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14.	SS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15.	WH	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

The excerpts of the results of interviews that represent the same case are as follows:

1. Error determining what is known (represented by question number 1)

a. Error for not understanding the meaning of the problem

Students who make mistakes are ASP, AF, ADK, BA, MS, MF, RMH, RZ, and WH which are represented by ASP.

Student answers: Known = $(\frac{7}{8}+\frac{5}{6}+\frac{7}{8})$

The description of the answers shows that the student made a mistake about what was known in the problem. The interview excerpts are as follows:

Q: What do you know about question number 1?
S: Don't know sis.
Q: Try reading the problem!
S: (Reading the question)
Q: Is there nothing you can catch after reading the questions?
S: Nothing sis.
Q: Do you understand the purpose of the question?
S: No sis.
Q: Then what do you mean the answer you wrote?
S: I just wrote it down

Based on the interview passage, it can be seen that the cause of students making mistakes is because students do not understand the purpose of the problem.

b. Error due to inaccuracy

Students who make mistakes namely AR, ARY, FD, SLM, and SS are represented by FD.

Student answer: Known = Dhika has a $\frac{1}{2}$ piece of bread obtained from the mother.

The description of the answers shows that students are incomplete in determining what is known in the problem. Students do not write the other known thing, that is the Dhika bread given by Dinda in the amount of "$\frac{1}{4}$ part. The interview excerpts are as follows:

Q: What do you know about question number 1?
S: Dhika gets bread from mom for $\frac{1}{2}$part.
Q: What else do you know?
S: Dinda gives Dhika bread for $\frac{1}{4}$portion.
Q: Why do you only write bread from mom?
S: Forgot sis.
Q: Why did you forget?
S: In a hurry Sis wants to work on the problem so forget to write down the bread from Dinda.
Q: Next time you have to be more calm when working on the problem.
S: Yes sis.

Based on the interview passage, it can be seen that the cause of students making mistakes is because students are in a hurry and not careful in reading the questions.

c. Error because accustomed to abbreviating answers

Students who make mistakes are MEAL

Student answers : Mother gives $\frac{1}{2}$
Dina gives bread $\frac{1}{4}$

The description of the answers shows that students abbreviate the answers. The interview excerpts are as follows:

Q: What do you know about question number 1?
S: Mother gives as much bread as $\frac{1}{2}$part and Dinda gives as much as $\frac{1}{4}$part bread.
Q: Is it the same as what you wrote? (while showing students' answers)
S: No sis.
Q: Why not write it like what you mentioned earlier?
S: Lazy Sis, it's too long if you have to write everything down. It's usually like this.
Q: It should not be like that, things that are known must be written clearly and completely so that the problem is easy to understand.
S: Yes sis.

Based on the interview passage, it can be seen that the cause of students making mistakes is because students are accustomed to abbreviating answers.

2. Error in determining what was asked (represented by question number 2)

a. Error for not understanding the meaning of the problem

Students who make mistakes namely AF, ADK, ARY, BA, FD, MS, MF, RMH, WH and SS are represented by AF.

Students do not write down answers and as for the interview passage as follows:

Q: What is asked in question number 2?
S: Don't know sis.
P: Try reading the problem!
S: (Reading the question)

P: How's that? What was asked in the problem?
S: Don't know sis.
Q: Do you understand the purpose of the question?
S: No sis.

Based on the interview passage can be known the cause of students making mistakes because they do not understand the purpose of the problem.

b. Error due to inaccuracy

Students who make mistakes are SLM and RZ which are represented by RZ.

Student answer : Asked the rest of the mother's butter $\frac{11}{3}$

The description of the answers shows that students are wrong because they write the answers behind the questions asked. The interview excerpts are as follows:

Q: What is asked in question number 2?
S: How much is Dhika bread now?
Q: Then what does $\frac{11}{3}$mean?
S: This is the answer sis
Q: Why is it written here?
S: Immediately, I wrote sis, right so that I immediately answered the question.
Q: It should not be like that, to answer the question because there is at the last step that usually uses the word "so".
S: Oh yeah, sis.

Based on the interview passage, it can be seen the cause of students making mistakes because they are not thorough, in a hurry and immediately want to write answers to questions.

c. Error because accustomed to not writing things asked

Students who make mistakes are AR and MEAL which are represented by AR.

Students do not write down what is asked and the interview passage is as follows:

Q: What is asked in question number 2?
S: What is the number of Dhika bread now.
Q: Why isn't it written down?
S: Because it usually doesn't need to be written sis.
Q: It can't be like that, you have to write the question that was asked.
S: Yes sis.

Based on the interview passage, it can be seen that the cause of students making mistakes is because they are accustomed not to write the questions that are asked.

3. Error creating a mathematical model (mathematical sentence) and solving it (represented by problem number 3)
   a. Error does not work because it does not understand how to do the problem
      Students who make mistakes are AR, AF, ADK, ARY, BA, FD, MF, and WH which are represented by AF. Based on the results of the interview, the student said that he did not write the answers because he did not know how to do them so that it could be seen that the cause of the students made mistakes was because they could not understand the problems in the problems.
   b.Error working on the problem
      Students who make mistakes are ASP, MEAL, MS, RMH, RZ, SLM, and SS that are represented by SLM.

Student answers: $\text{Speed} = \frac{\text{Distance}}{\text{Time}}$

$\text{Speed} = \frac{320}{4 \text{ hours}}$

$= 800$

From the students' answers it can be seen that students have completed a mathematical model that has been made, in this case the wrong calculation operations. Based on the results of the interview, the student said that he was in a hurry to do the division because he wanted to finish quickly, so that it could be seen that the cause of the students made mistakes was because they were not careful in doing calculations on the mathematical model.

4. Error interpreting the model's answer to the problems (represented by question number
   a. Error not doing step 4 because it didn't work step 3
      Students who make mistakes namely AF, ADK, BA, FD, MF, and WH are represented by AF. Students do not write answers, this starts from students not working on step 3 that is not making mathematical models and working on them. Because in the interview in step 3 the students say "they don't know how to do the problems" then the interview cannot be continued.
   b. Error because cannot understand the purpose of the problem
      Students who make mistakes are AR.
      Student answer : So the actual distance is 3,200,000
      The description of the answers shows that students wrote the wrong answer which should have the final answer 32 km according to the question request. Based on the results of the interview, students said that he did not understand the purpose of the questions.
   c. Error for not writing answers
      Students who make mistakes are ASP, ARY, MEAL, MS, RMH, RZ, SLM, and SS represented by SS. Students do not write answers even though students work on step 3. Based on the results of the interview, students said he did not write down because he could not express the model's answers into sentences according to the questions asked.

Based on the results of the tests carried out, in addition to the students who make the most mistakes also need to be presented the results of the work of students who make mistakes with medium and low categories. Presentation of interview data about the types of student errors in solving story problems and their causes, it can be concluded that:

1. In the step of determining what is known, the most prominent type of mistake made by students is wrong in writing what is known. The reason students make these mistakes is because students are accustomed to abbreviating answers so that students do not understand the known meaning of the problem.
2. In the step of determining what is asked, the most prominent type of mistake made by students is not writing down what is asked in the problem. The reason students make these mistakes is that students do not understand what is asked by the problem so they do not write what is asked.
3. In the step of making a mathematical model (mathematical sentence) and solving it, the most prominent type of error made by students is wrong in making a mathematical model and solving it. The reason students make these mistakes is students do not understand the

mathematical sentences in the problem and the difficulty in performing arithmetic operations.

4. In the step of interpreting the model's answer to the problems, the most prominent type of error made by students is not to interpret the model's answer to the problem. The reason students make these mistakes is because students cannot draw conclusions and are accustomed to not interpreting the model's answers to the problems.

Based on the description of the results of the study, to find out whether the level of student error was significant or not, it was tested using inferential statistics by one sample t-test. The results obtained from the calculation of the t-test is 355.68 (inferential statistical analysis in appendix 3 page 99) and the value of the t-table for Dk: 136 is 1.65613 so it can be seen that 355.68> 1.65613 = t arithmetic > t table then H0 is accepted and Ha is rejected which means that the level of error of students completing math story problems is in the high category ($\mu 0 \geq 80\%$). Because H0 is accepted, it can be concluded that the level of students' errors in completing the math problems of fifth grade students of SD Tanete Riattang Barat District, Bone Regency is significantly significant.

The results of this study are supported by several studies, including the following:

1. Research conducted by Karmilawati entitled Analysis of Difficulties in Resolving Mathematical Story Problems of Class V Students of SD Tanete Riattang Barat District of Bone Regency shows that students make mistakes in determining what is known, determining things that are asked, making mathematical models (mathematical sentences), errors complete mathematical sentences, and interpret the model's answers to the problems.
2. Research conducted by Mar'atush Sholihah, entitled Analysis of Student Errors in Solving Mathematical Story Questions for Class VII MTs UIN-SU T.P Laboratory 2017/2018, the mistakes made by students in solving story problems are as follows; 1) Language interpretation errors where students cannot transfer what is known from the problem into mathematical symbols. 2) Concept errors which cannot determine the formula that must be used to solve problems because they forget what formula will be used in solving problems and when writing formulas students use it incorrectly. 3) Technical errors where students cannot do the arithmetic operations that exist on the mathematical model.
3. Research by Nurul Farida entitled Analysis of the Errors of Class VIII Middle School Students in Solving Mathematical Story Problems at SMPN 2 Karang Anyar in 2015 about students' mistakes in solving math story problems, namely as follows; 1) Students make a mistake changing the information given into mathematical expressions. 2) An error cannot determine the formula that must be used to solve the problem. 3) Misconceptions of students are wrong in applying the concept. 4) Misconceptions of concepts where students lack understanding. 5) Error interpreting. 6) Error not writing conclusions. 7) Errors in calculations.

Based on the analysis of research data and discussion, the following conclusions can be drawn:

1. The type of error made by students is incomplete or unclear writing answers, wrong in writing answers, and not writing answers.
2. The level of errors students solve story questions in solving math problems class V SD Tanete Riattang District Bone Regency is in the high category. In step I is in the high category, step II is in the very low category, step III is in the very high category, and step IV is in the very high category.

3. The cause of students making mistakes that is students do not understand the purpose of the problem, not careful in writing answers, accustomed to abbreviating answers, wrong in interpreting language, lack of understanding and wrong way of doing problems in this case using the formula, wrong concept, and wrong calculation operations .
4. The level of student error is significant in solving math problem questions for fifth grade students of SD Tanete Riattang District, Bone Regency

As for the suggestions as follows:

1. For mathematics teachers, especially elementary school teachers in Tanete Riattang Barat District, Bone Regency in teaching to better guide students in solving math story problems by paying attention to the steps in solving mathematical story problems so that students are accustomed to solving story problems in accordance with the steps.
2. For parents, the government, and all elements related to education to always seek a system that can improve students' learning abilities, especially in learning mathematics about the steps to solve mathematical story problems.
3. For other researchers working specifically in the field of mathematical studies in order to be able to examine other matters related to the results of this study, in order to obtain a deeper insight in order to improve the quality of education in Indonesia.

References

[1] Karmilawati, "Analisis Kesulitan Menyelesaikan Soal Cerita Matematika Siswa Kelas V SD Negeri Kecamatan Tanete Riattang Barat Kabupaten Bone," Fakultas Ilmu Pendidikan Universitas Negeri Makassar, Makassar, 2014.

[2] Sholihah dan Mar'atush, "Analisis Kesalahan Siswa dalam Menyelesaikan Soal Cerita Matematika Kelas VII MTs Laboratorium UIN-SU T.P 2017/2018," Fakultas Ilmu Tarbiyah dan Keguruan Universitas Islam Negeri Sumatera Utara, Medan, 2018.

[3] Winarni, Endang Setyo, dan Sri Harmini, *Matematika untuk PGSD*. Bandung: Remaja Rosdakarya, 2011.

[4] Sutisna, "Analisis Kesulitan Menyelesaikan Soal Cerita Matematika pada Siswa Kelas IV MI YAPIA Parung-Bogor," UIN Syarif Hidayatullah, Jakarta, 2010.

[5] Purwanto dan Ngalim, *Prinsip-prinsip dan Teknik Evaluasi Pengajaran*. Bandung: Rosda karya, 2015.

[6] Arikunto,Suharsimi dan Cepi, *Evaluasi Program Pendidikan*. Jakarta: Bumi Aksara, 2014

[7] Faridah, Nurul, Analisis Kesalahan Siswa SMP Kelas VIII dalam Menyelesaikan Masalah Soal Cerita Matematika. *Jurnal Pendidikan Matematika FKIP Universitas Muhammadiyah Metro*,Vol.4 (2): 42-52, 2015

[8] Hamzah dan Muhlisrarini. *Perencanaan dan Strategi Pembelajaran Matematika*. Jakarta: Raja Grafindo Persada, 2014

[9] *Kamus Bahasa Indonesia untuk Pelajar*. Jakarta: Badan Pengembangan dan Pembinaan Bahasa Kementerian Pendidikan dan Kebudayaan, 2011.

[10] Mulyadi, *Diagnosis Kesulitan Belajar dan Bimbingan terhadap Kesulitan Belajar Khusus.*Malang: Nuha Litera, 2008

[11] Nurhidayati, Anissa. *Tak Sulit Belajar Matematika*.Bandung: Media Sarana Cerdas. 2013

[12] Slameto. *Belajar dan Faktor-faktor yang Mempengaruhi*. Jakarta: Rhineka Cipta, 2015

[13] Sudijono, Anas, *Pengantar Statistik Pendidikan*. Jakarta: Rajagrafindo Persada, 2010
[14] Sugiyono, *Metode Penelitian Kuantitatif, Kualitatif, dan R&D*. Bandung: Alfabeta, 2017
[15] Triwiyanto, Teguh. *Manajemen Kurikulum dan Pembelajaran.* Malang: Bumi Aksara, 2015
[16] Wahyuddin dan Muhammad Ihsan. Analisis Kemampuan Menyelesaikan Soal Cerita Matematika Ditinjau dari Kemampuan Verbal pada Siswa Kelas VII SMP Muhammadiyah Se-Kota Makassar. *Suska Journal of Mathematics Education*, Vol. 2 (2): 111-116, 2016
[17] Wijaya, Aris Arya dan Masriyah, Analisis Kesalahan Siswa dalam Menyelesaikan Soal Cerita Materi Sistem Persamaan Linear Dua Variabel. *Jurnal MATHEdunesa Jurusan Matematika Fakultas MIPA Universitas Negeri Surabaya*, Vol. 2 (1), 2012
[18] Winarni, Endang Setyo dan Sri Harmini, *Matematika untuk PGSD*. Bandung: Remaja Rosdakarya, 2011

.