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Analysis of Mathematical Problem-Solving Ability for VII Class Students of SMP During the Covid-19 Pandemic

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ABSTRACT

The Covid-19 pandemic has greatly impacted various worlds without exception in the field of education, especially in Indonesia. This situation causes learning that is usually done face-to-face to turn into online learning making students find it difficult to understand the material given. This study aims to determine the mathematical problem-solving ability of MTS Thariqul Hidayah students, Indragiri Hulu Regency in class VII MTS Thariqul Hidayah students as many as 25 students and to describe the level of problem-solving ability categories in each item statement of questions that have been given in the form of descriptive questions consisting of 5 questions. The research method uses qualitative descriptive analysis to find out the extent to which the category achievement is based on problem-solving indicators during the covid-19 pandemic. Based on the ability analysis carried out by students in working on mathematical problem-solving questions with Linear Equations and Inequality One variable found that the student problem-solving process is very low. The instrument used is a question that has been tested for reliability, validity, discriminating power, and difficulty. Generally, the achievement of indicators of problem-solving ability has not been fully achieved due to ineffective learning and lack of interaction between teachers and students. The results showed that there were still student errors in solving mathematical problems in each problem-solving indicator.

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INTRODUCTION

According to [1] circumstances beyond prediction are in the form of a disease from the Covid-19 virus which has brought urgent changes to various sectors. The rapid development of the virus spread widely throughout the world. Every day the world is informed of the increasing scope and impact of this virus. At the beginning of 2020, precisely in March, an epidemic that attacked throughout the country was known as the Novel Coronavirus or Coronavirus Disease (Covid-19), which is a virus that spreads from Wuhan, China, and has spread to 176 countries including Indonesia. Research results [2] stated that to overcome the spread of covid-19 all learning activities in schools were diverted to online or offline learning, where online learning was carried out online. The following was conveyed by the President of the Republic of Indonesia, Mr. Joko Widodo, who immediately announced that there were two people infected with the positive Covid-19 virus. Then that on March 12, 2020, WHO (World Health Organization) also announced that the corona outbreak referred to as a global pandemic outbreak. At this time learning is done by online learning. Online learning is an alternative suggested by the government in meeting educational needs due to the complete closure of schools, both primary and secondary levels. With the implementation of this online learning, it turns out that there are many difficulties for students in receiving lessons, especially in learning

Mathematics. Students find it very difficult to understand Mathematics learning during online learning. According to research that these difficulties affect the ability to solve problems [3]. The students' difficulties were caused by the low understanding of students' problems. In addition, the high ability of students also affects the ability of students to solve mathematical problems. Basically, the implementation of online learning in 2020 is the first time for MTS students, so to see problem solving skills is very difficult for teachers, especially if the problems given are in the form of story questions or problems in everyday life. It is clear that the teacher cannot see if the student understands the essence of the problem.

Learning is an interaction that is carried out in the classroom with the aim of effective communication between teachers and students. The learning process pays attention to learning tools, learning media, strategies, and approaches used. So that the effectiveness in learning becomes more effective if a teacher and students have good communication and interaction to achieve an expected learning goal. One of the subjects at school is mathematics. The standard process in the 2013 curriculum emphasizes Constructivism with student-centered learning, problem solving abilities, which are important aspects that students must develop and possess [4]. According to the opinion of [5], Mathematics is the mother of various sciences; every other science must be closely related to mathematics so that mathematics is often called a universal science that underlies the development of modern technology and advances the power of human thought. In addition, every school must pay attention to the development of mathematics and the application and use of mathematics to solve problems in everyday life.

The purpose of learning mathematics is so that students can solve problems. This is in accordance with the description of this competency in mathematics knowledge, especially secondary education for each subject. The process of learning mathematics in a school can be done by applying conventional learning and online learning. In general, since 2020 online learning methods have been carried out until 2021 and treated electronically utilizing mobile phones implementing computer-based media and PowerPoint. The Ministry of Education and Culture through Circular Number 15 of 2020 concerning Guidelines for Organizing Learning from Home in an Emergency Period for the Spread of Corona Virus Disease (Covid-19) by providing how the steps for the learning process itself are so that all educational units must follow the circular letter.

According to [6] the reasons why it is important that every student is required to have problem solving skills, namely: 1). Problem solving is a general goal of teaching mathematics. 2). Problem solving which includes methods, procedures, and strategies is the core and main process in the mathematics curriculum. 3). Problem solving is a basic ability in learning mathematics. Which is in line with the indicators of problem solving by taking into account the objectives of Mathematics Learning, according to [7], namely so that students have the following abilities: 1). Understanding Mathematical Concepts, explaining the relationship between concepts, and applying concepts or algorithms flexibly, accurately, efficiently, and precisely in problem solving. 2). Communicating ideas with symbols, tables, diagrams, or other media to clarify problems. 3). Using lessons on patterns and traits, performing mathematical manipulations in making generalizations, constructing proofs, or explaining mathematical ideas and statements. 4). Solving problems which includes the ability to understand problems, design mathematical models, complete models, and interpret the solutions obtained. 5). Have an attitude of appreciating the use of mathematics in everyday life, namely having curiosity, concern, concern, and interest in learning mathematics as well as a tenacious and confident attitude in problem solving.

Even though a mathematics learning process is carried out online or by using application media

such as WhatsApp, teachers, and students can interact and communicate about learning without direct face-to-face. Through this application, the teacher can give assignments to students in the hope that a teacher pays attention to the learning objectives themselves. This online system also requires teachers to be even more creative in educating their students. As pursuers, we must continue to carry out education as education is our need and an obligation that we must carry out despite many obstacles such as lack of networks and so on. Now, as educated humans, we should not despair and are still required to always learn even though learning is done online. The main factor in the lack of mathematical problem solving according to research conducted by [8] is the lack of teacher attention to the implementation of the learning process so that students are less able to have problem solving abilities, besides that educator always provide learning by only sending assignments through social media without providing explanations of the material being taught. So that students are bored and there is no interaction between teachers and students which is expected like face-to-face learning in general. In addition, there are many things that hinder online learning such as a weak network or students not getting a strong network, slow mobile phone movements due to too many incoming messages. And what most often happens when an individual assessment test is sent through a group, it has advantages for students who have not finished and can see the results of their friends' work.

One of the objectives of learning mathematics is to develop students' mathematical problem-solving abilities. The standards for the Mathematics Learning Process that must be possessed by students are in accordance with the National Council of Teachers of Mathematics in [9], namely 1) Problem Solving; 2) Reasoning and Proofing; 3) Communication 4) Connection; 5) Representation. The objectives of learning mathematics in the 21st century in [10] are known as 4C characters, namely Communication, Collaboration, Critical Thinking and Problem Solving, and Innovation. Problem solving in mathematics plays an important role in the curriculum to solve various problems and integrate knowledge and skills by students and expect an expected interaction that is carried out in the classroom in general between teachers and students. Differences in student characteristics that need more attention from a teacher. The difference in question is how the student receives, processes, and organizes the information provided or student knowledge. In addition, the way in processing information is one of the cognitive styles that is one of the causes of differences in the problem-solving abilities of each student. The cognitive style is defined as individual variations in differentiating in understanding, storing, and transforming as well as utilizing information. This is in line with the influence of cognitive style on students' competence in understanding, remembering and receiving information, thinking, and problem solving.

Problem solving ability is very important to be mastered by every student because problem solving ability is one of the essential and fundamental in learning mathematics that must be mastered by students. If a student does not have good problem-solving skills, students will find it difficult to understand their own problems [11]. Problem solving ability is a must that students have in solving problems in the form of story questions and being able to solve different non-routine problems and apply them in everyday life in order to solve the solutions faced in learning mathematics. In [12] states that story problems are highly required to solve problems with their ability to understand problems, design, and solve a story problem. Story questions are one form of problem that presents a problem related to real-life or everyday life experienced by students. But in reality, the difficulty of students is working on questions in the form of story questions.

In addition, the low mathematical problem solving ability of students is found when students only work on routine questions or the same as the questions given by the teacher, because from the beginning students do not understand the problems that have been given by the teacher, so students

experience errors in solving math problems and in solving problems. The application of learning students can not read the problem correctly and do not understand the problems that have been given. In addition, errors in the use of strategies resulted in students being wrong in writing the final answer. Unlike the case with students who have been trained in problem solving, these students are accustomed to being skilled at selecting the correct information, being able to analyze the information, and being able to examine the results of problem information. A student can be said to have correct mathematical problem-solving skills when students can understand the information on a complete problem and can use the information obtained as an aid in making strategies and solving problems with the right steps and drawing conclusions based on the context of the problem. So it can be concluded that the notion of problem-solving ability is a thinking process carried out by students in order to find a solution to the problems they face by paying attention to the steps showing an understanding of the problem, planning the problem, and re-examining the results of the answers obtained to find out the truth, especially when this is a global virus pandemic in other words online or home learning, students only receive various understandings without doing and absorbing the information that has been given and difficulties in learning often occur in conducting an experimental problem in accordance with problem solving abilities. The difficulties faced by students during the Covid-19 pandemic in [13] were due to the limited interaction space between teachers and students which caused learning not to be optimal, the number of formulas that students used in learning to make it difficult for students to understand the material. In addition, learning objects are in the form of abstract patterns, making it increasingly difficult for students to understand the material with the category of problem-solving abilities.

Based on the problems above, researchers need to conduct a clearer analysis of the problem-solving abilities of students and the character of junior high school students towards the mathematics learning process carried out during the Covid-19 pandemic carried out by online learning. This research refers to the problems faced by students today, namely the readiness of students to carry out online learning. Students must learn on their own with skills as they are whose understanding is not the same as understanding the material provided by the teacher. And students must process the information provided by the teacher at home with the help of parents and other obstacles that occur when online learning is carried out during the covid-19 pandemic. This research was carried out by referring to the view of learning theory on problem-solving abilities in solving story problems, namely based on the Polya theory [14] regarding the stages of mathematical problem-solving abilities are (1). Understanding the problem/Reading a problem, (2). Developing a plan/choose a strategy, (3). Implementing the plan/solve the problem, and (4). Checking again.

One of the materials that are considered difficult to understand in Mathematics learning in the opinion of [15], at the MTS class VII is the subject of Equations and One Variable Linear Inequality, this is because students are required to master concepts so that later they can understand correctly. The purpose of this material is a lesson that has benefits in various fields such as the field of development, measurement, comparison, and others. Mastery of students is shown by the ability of students to solve problems correctly. However, in reality, it is still found that many students do not understand the material on Equations and Linear Inequality One Variable, among others, in the form of story questions. Students still do not understand the use of numbers in equating the two sides. This allows students not to understand the concept and some previous material related to Linear One Variable equations and inequalities. To overcome these errors, a teacher needs to create active learning and encourage students to study harder.

The results of interviews and observations with math teachers provide information that students still have problems in solving problems related to mathematical problem solving. The obstacle that often occurs is that students are less able to translate information from the problem into mathematical models or languages. Moreover, online learning that occurs at this time the teacher of the field of study only gives routine questions or in the form of regular practice questions contained in textbooks owned by students and using the methods of lessons in the classroom are monotonous. As a result, students' mathematical problem solving skills are not directed and do not match the success of the learning outcomes they want to achieve. Math problem solving skills need to be applied and trained by students, the goal as a provision to solve problems in daily life found. This is in line with the ability of problem-solving is a skill for students to apply mathematical activities in solving problems in mathematics, other sciences, and problems of daily life found. Given the importance of problem-solving skills during the current Covid-19 pandemic on the material of equations and linear inequalities one variable student has difficulty in understanding the information from the given problem. This study aims to illustrate how students' mathematical problem solving skills in the pandemic covid-19 are common today with online or online learning methods or learning implemented from home as well as to describe the ability of students in various categories of mathematical problem solving skills that are based on Polya theory as well as analyze the online learning process that is currently implemented. The results of this study are expected to provide a development of science, especially related to the mathematical problem solving skills of students and know the character of students. In addition, the results of this study can also help teachers in solving alternative mathematical learning models of students in the classroom and teachers can analyze the weaknesses and strengths of mathematical problem solving students.

METHODS

Descriptive research is divided into several types, namely survey methods, continuous descriptive methods, case study research, job and activity analysis research, action research, library research, and documentaries. The form of research used in this research is job analysis and activity research. The research in question is that researchers want to find out how the analysis of problem-solving abilities is carried out by students by studying problems that have been given during the covid-19 pandemic. The research instrument is a written test in the form of an essay whose validity, distinguishing power, and level of difficulty have been measured. The student's problem-solving ability assessment sheet was adapted from Kholif where the sheet contains four problems solving designed by researchers [16]. This research was conducted at MTs Thariqul Hidayah, Indragiri Hulu Regency with the subject of class VII students in the even semester of the 2020/2021 school year. This study aims to determine the mathematical problem-solving ability of students on the work that has been completed so that an overview of the analysis of students' abilities in solving problems on the subject of Linear Equations and Inequality One Variable is obtained. The data collection technique in this study used a test technique, to get the results of student work in solving problem solving. The test technique is in the form of an essay test which aims to determine students' problem-solving abilities on each indicator of students' problem-solving abilities, researchers provide a classification of the results of the student's work on mathematical problem-solving abilities adapted from [17]. As follows:

Table 1. Classification of Problem-Solving Ability Test Results

Score Range	Category
$x \geq 80\%$	High
$60\% \leq x < 80\%$	Medium
$40\% \leq x < 60\%$	Low
$x < 40\%$	Very Low

According to Polya in [18] there are four steps that can be taken to solve the problem:

1. Understanding the problem

The procedure that students can do is write down what data is known, and write down what is asked of the question, and how about the information obtained, what conditions must be met, restating the original problem in a more operational form or in other words it can be solved from the given problem.

2. Planning the solution

The activities that can be carried out by students with the steps of planning the solution are students can search for or remember problems that have been solved previously or currently or have similarities with the problem to be solved, and look for patterns or rules for solving mathematical problems in compiling procedures for solving problems they want to solve. Students complete with the guidelines of the previous steps, namely understanding the problem.

3. Solving problems according to plan

Activities that must be carried out by students at the step of solving the problem according to the plan are carrying out the procedures that have been made in the previous steps or stages of understanding the problem and developing strategies to be achieved or completing the plans that will be worked on to get the solution in determining mathematical problems correctly and precisely according to with solution steps.

4. Checking the procedure again and the result of the completion

Activities that can be carried out in this step are analyzing data and evaluating how the procedures obtained and generalizations can be made or in other words looking for conclusions on the results that have been made using an understandable language arrangement and if this stage cannot be carried out then the following previously also had an effect on the success of problem solving.

Thus, the indicators of mathematical problem solving used in this study are 1). Understanding the problem and planning problem solving, 2). Making the process of solving a problem, 3). Explain or interpret the results of the problem, 4). Re-check the correctness of the results or answers. Problem Solving Score Rubric according to Polya is presented in Table 2 [19].

Table 2. Problem Solving Score Rubric according to Polya

Measured Aspect	Score	Information
Understanding the Problem	0	When a student is wrong to write down what is known and asked from the question or completely wrong
	1	When a student writes only one thing whether what is known or asked from the question,
	2	When a student is correct to write down what is known and asked from the problem or not to write down what is known and asked from the problem but immediately write a sketch of the solution
Planning the solution	0	When a student is wrong to write down the formula or solution procedure
	1	When a student writes the wrong formula or only partially correct in writing the formula
	2	When a student writes formula or plans the solutions correctly

Solving the problem according to plan	0	There is no solution at all
	1	When a student only writes down the solution but the completion procedure is not clear or wrong
	2	When a student uses certain correct procedures but incomplete calculations
	3	When a student presents correct, complete, and appropriate completion steps
Checking the procedure again and the result of the completion	0	When a student does not answer what is asked or does not write a conclusion
	1	When a student is the wrong answer what is asked or writes the wrong conclusion.
	2	When a student answers what is asked or the conclusion is written correctly and precisely

RESULTS AND DISCUSSION

Researchers conducted research in class VII of MTs Thariqul Hidayah in Indragiri Hulu Regency online because it was caused by the Covid-19 outbreak with the help of WhatsApp. Students are asked to submit online answers without face-to-face learning to see the results of students' mathematical abilities on the material of One Variable Linear Equations and Inequality. 3 students were selected to represent 25 research subjects, each in the category of High academic, Medium academic, and Low academic at the stage of problem-solving abilities based on Polya's theory and scoring guidelines that have been made by referring to mathematical abilities. Based on the results of tests conducted on problem-solving abilities, the subject of S-21 represents 7 students out of 25 with high problem-solving abilities, S-15 represents 12 students who are in the medium category and while S-5 represents 6 students who have low problem-solving abilities. The results of the students' mathematical classification are used as a reference for selecting research subjects. Below will be presented the results of the analysis on the level of problem-solving abilities of 25 students:

Table 3. Percentage of students' problem-solving abilities per indicator

Question Number	**Indicator of Problem-solving Ability (%)**			
	A	**B**	**C**	D
1	91,39	80,10	86,02	36,59
2	95,69	90,32	86,02	39,78
3	89,24	81,18	71,77	41,57
4	83,87	74,19	57,34	40,86
5	90,04	81,44	67,70	39,70

Information:
A: Understanding the problem
B: Planning the solution
C: Solving the problem according to the plan
D: Checking the procedure again and the result of the completion

In the table above, it can be seen that the results of student work are categorized as high based on indicators of problem-solving abilities at MTSs Tariqul Hidayah, although there are still some who have not followed problem solving abilities. The following will present the results of student work based on indicator problem solving abilities.

1. Understanding the problem

Question:

Toni has 30 coins consisting of five hundred and one thousand. If the total value of money is Rp. 24,500,00. Determine the number of five hundred coins.

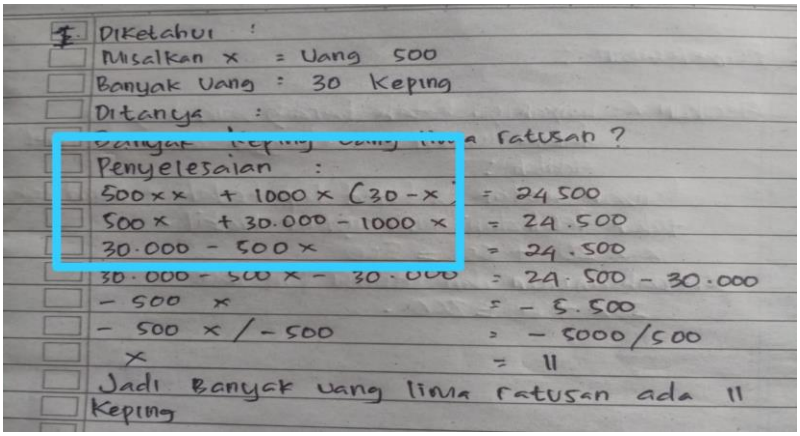

Figure 1. Student Worksheet Results on Indicator 1

In figure 1 of the story above, that understanding of the problem is shown through the way students understand what is known and asked from the question correctly and correctly. The above students' work can be known that the student's ability to understand the problem can explain the problem in the student's own language and can write down what they know and what is asked of the problem according to the mathematical model so that it can be said that the student can meet the indicators of understanding the problem.

2. Planning the solution

Question:

Budi bought 12 notebooks at Berkah shop. Budi paid with Rp. 50,000 bill and received a change of Rp. 8000. If the price of a book is y rupiah, determine:

a. One variable linear equation model
b. The price of a notebooks

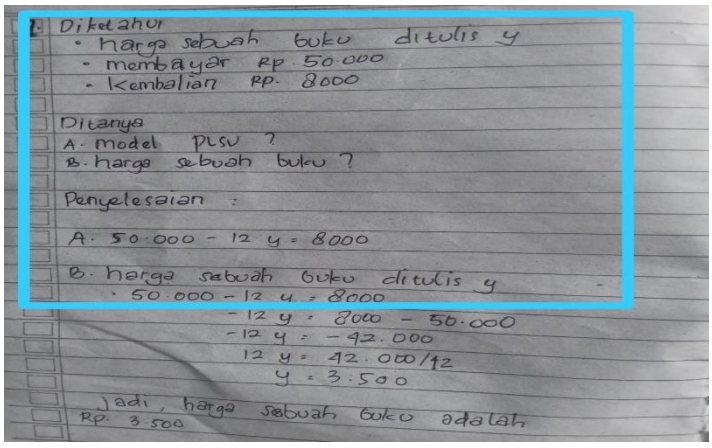

Figure 2. Student Worksheet Results on Indicator 2

Figure 2 shows the indicators of students' mathematical problem solving in planning mathematical problem solving in determining the strategy to be used. In the picture above the researcher took the results of student worksheets at random to find out about the description of students' abilities in planning problem solving. Basically, students are able to write down what they know and write down

what students ask. Students are able to determine problem solving strategies clearly and correctly.

3. Solving the problem according to the plan

Question:

A farmer owns a rectangular plot of land. The width of the land is 6m shorter than the length. If the circumference of the ground is 60m, determine the area of the farmer's land.

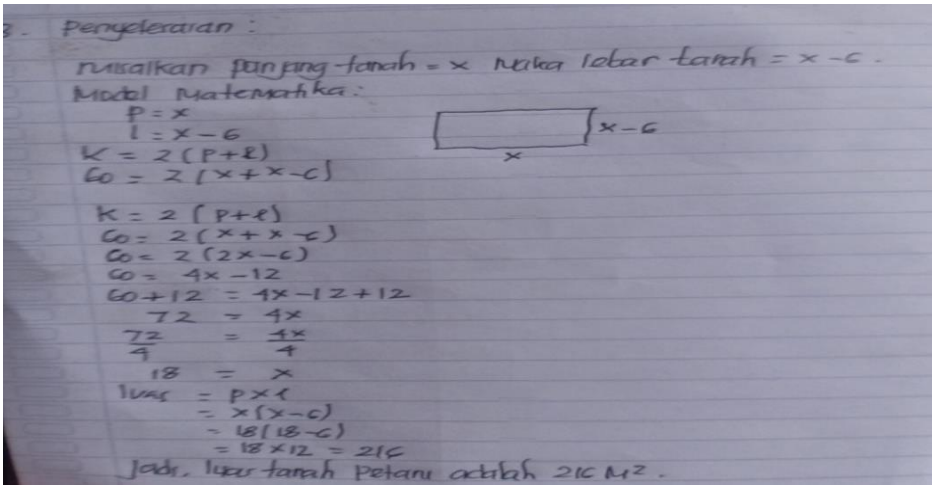

Figure 3. Student Worksheet Results on Indicator 3

In the indicators of students' problem-solving abilities against indicators of solving problems according to the plan, it is clear that students are already able to carry out problem solving abilities. In the picture above is the work of students who were randomly selected by the researchers according to ability. Students are able to write down what is known and asked and determine the strategy that will be used to solve the problem.

4. Checking the procedure again and the result of the completion

Question:

Pak Roni owns a box car that transports goods with a carrying capacity of no more than 800 Kg. The weight of the Pak Roni is 60 kg and he will transport boxes of goods which each box weighs 20 Kg. Determine the equation model of this problem and determine the maximum number of boxes that Roni can carry in one trip.

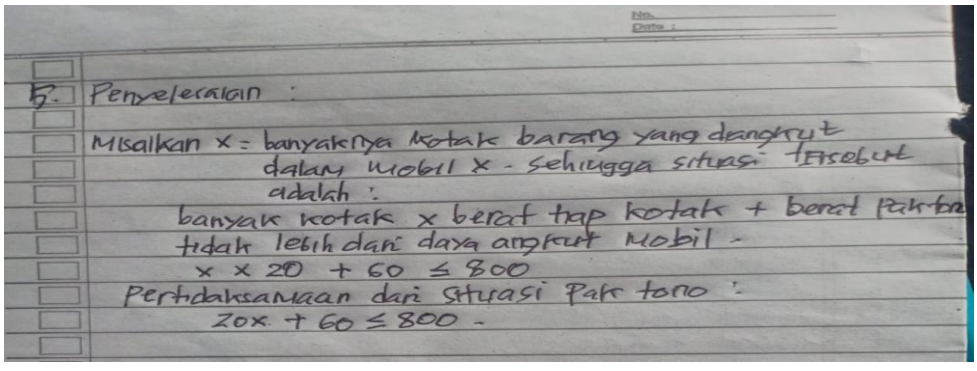

Figure 4. Student Worksheet Results on Indicator 4

In Figure 4 above the problem that is often done by students is that students make very fatal mistakes in solving problems. Students do not write down what is known and what is asked so

that students have errors in completing the next procedure. In the picture above, students do not re-examine the work completed and almost some students only list the final results without following the rules of problem-solving abilities. Based on the percentage of indicators of problem-solving ability, the research presents problems based on the categories of achievement of students' academic abilities.

High Academic Ability Category

Students who are categorized as high academic are students who almost all problem-solving indicators are achieved and are able to correctly write down what is known and asked, develop plans or strategies correctly, carry out procedures and draw conclusions on what has been completed. In the category of high academic ability represented by S-21 for 7 students, the results of the tests carried out by students got good results. In other words, the subject can guide the steps that have been given in accordance with the mathematical problem-solving ability of the material. Students represented by S-21 show based on problem solving indicators that can write down what is known and asked correctly, develop a solution strategy, implement solutions and students can draw conclusions correctly. So in the category of high ability students are expected to meet mathematical problem solving indicators.

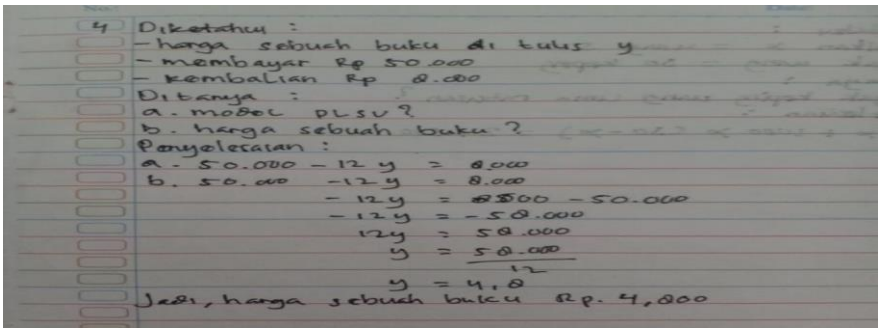

Figure 5. High Academic Ability of Subject-21

Based on Figure 5, it can be seen that from the written answers of the subject S-21, the student is able to solve problems according to the stages of problem-solving abilities and in accordance with the steps and the subject writes down what is known and asked, makes a plan that will be used to solve the problem, uses the strategies that have been developed, able to perform calculations properly and correctly, and can re-examine by determining the correct conclusion on the question and providing the right reasons to strengthen the answer so that the results of the written answers of the subject S-21 can be categorized as high ability, in other words, the subject is able to understand problem solving ability in accordance with the stages of problem-solving ability.

Medium Academic Ability Category

Students who can be categorized as moderate academic abilities are students who can solve problems correctly but these students still have errors in answering. Students in this moderate academic category are students who have achieved half or part of the problem-solving indicators in the research conducted. Students are able to write down what is known and write down what is asked of the questions that have been given. However, of the four problem solving indicators, students make mistakes. In the moderate academic ability category, Subject-15 was chosen to represent 15 students who had moderate problem-solving abilities. In this category, the results of the tests examined show good results, although they have not been said to be perfect in accordance with

mathematical problem-solving abilities. The following will analyze the results of the written tests carried out in solving the story questions that have been given to determine students' mathematical problem-solving abilities based on written results that have been done by sending answers via WhatsApp and not face-to-face learning.

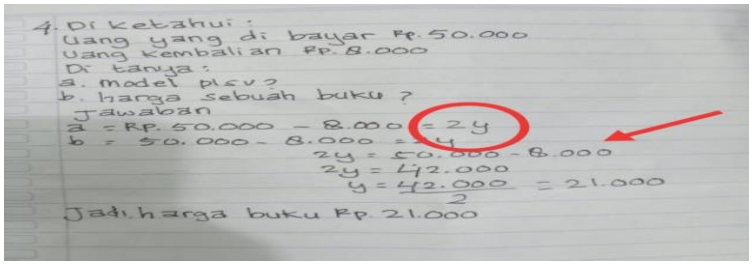

Figure 6. Medium Academic Ability of Subject-15

Based on Figure 6, the results of the analysis showed that subject-15 is able to solve problems in accordance with the problem-solving ability procedure. Subjects can write down what is known and asked, make plans that will be used to solve problems as well as strategies that are prepared and perform calculations well even though there are calculation errors so that the problem fails, and subjects can provide solutions and re-examine the problems that have been given In essence, in the problem-solving ability guidelines, the subject is categorized as making mistakes which can result in the subject not following the procedure even though he only made a calculation error from the work that has been given.

Low Academic Ability Category

Students who can be categorized as low academic based on Polya's theory on problem solving abilities are students who cannot solve problems correctly and even these students cannot write down what is known, write down what is asked of the question. Students have difficulty in solving problems both in writing the mathematical model so that students in this category have difficulty performing calculations and as a result, the results achieved are not in accordance with the indicators of mathematical problem-solving ability. Furthermore, the category of low academic ability Subjects S-5 was chosen to represent 6 students who had low problem-solving abilities on the results of the work that had been done. The following presents the results of the analysis of the written test of problem-solving abilities carried out by the subject of S-5 in solving the problems that have been given to solve the problems that have been given. The following are the results of student work categorized as Low Academic.

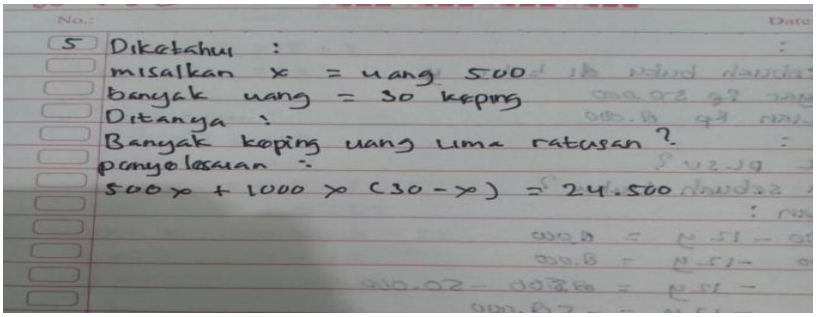

Figure 7. Low Academic Ability of Subject S-5

Based on Figure 7, the analysis of the answers above shows that S-5 has not been able to solve the problem, namely the subject understands the problem that is known and asked. However, the

subject did not make a settlement plan, did not use the strategies that had been prepared and did not perform the calculations correctly, and the subject did not show indicators of re-examining the results that had been done and did not write down the conclusions of the problem so that students in this category did not master the indicators of problem solving ability. Moreover, learning is carried out online or only sending assignments to work on and ineffective learning, the possibility of this low academic category ability must have happened to almost some students during the current covid-19 pandemic.

CONCLUSIONS AND SUGGESTIONS

Based on the results of the research and discussion that have been described, it can be concluded that the problem-solving ability of class VII MTS Thariqul Hidayah Indragiri Hulu Regency is included in the low category based on indicators of mathematical problem-solving ability. In addition, the factors that can cause students to make mistakes in solving math problem solving problems with Linear Equations and Inequality One Variable, namely in the process of understanding the questions are known and asked, namely students are not accustomed to writing down the information contained in the questions, lack of understanding of students interpreting information on problems in mathematical operations. Students have difficulty in entering data on problem-solving strategies and students are not careful in the calculation process, the lack of student interest in reading story-shaped questions is caused by students not being interested in learning mathematics, the lack of student understanding is caused by the teacher only giving questions online without providing material explanations. The Covid-19 virus outbreak made students not carry out face-to-face learning. Other factors that can affect students' mathematical problem-solving abilities in online learning or not face-to-face to the material of Linear One Variable equations and inequalities are less than optimal online learning processes so that students find it difficult to make mathematical models, lack of mastery of prerequisite material and lack of training. Non-routine practice questions for students.

Suggestions that can be conveyed are to teachers in the field of Mathematics to provide understanding or direction to students so that they can make plans for completion in advance so that they can continue the indicators of problem-solving abilities related to questions, either by sending an explanatory video or Media PowerPoint during the Covid-19 pandemic that has attacked all countries in the world. Moreover, at a time like this, a teacher must continuously motivate students' learning abilities and the teacher does not just provide questions for students to work on. In addition, the application of indicators of students' problem solving abilities must also be emphasized so that students do not write down the final results without following the rules of mathematical problem solving abilities.

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