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Analysis of the Learning System and Student Learning Understanding of Mathematics Learning Outcomes at SMPN Karangkobong

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Abstract: Education has a vital role in improving human resources. A forum that is seen as functioning to improve the quality of human resources is education. One of them is in the field of mathematics. Based on the results of previous research, mathematics is a problematic and feared subject for some students, it can be seen from the number of students who have not reached KKM. This research aims to determine the results of student mathematics learning by analyzing the learning system and student learning understanding carried out at SMPN Karangkobong. This study used quantitative research using descriptive research methods. The study results found that Karangkobong Junior High School students are good at understanding mathematics learning, which is as many as 75% who reach KKM, but there are still some students who get scores below KKM as much as 25%. For KKM in the Mathematics subject set, it is 70.

Keywords: Learning System, Learning Comprehension, Learning Outcomes, Mathematics.

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A. INTRODUCTION

Education has a vital role in improving human resources. Efforts can be made to improve citizens' abilities, personality, and responsibilities. A forum that is seen as functioning to improve the quality of human resources is education. One of them is in the field of mathematics. Mathematics is one of the parents of complex science, which is built from the development of basic concepts by reasoning and the ability to analyze a problem by relating a problem to a concept that has been recognized as valid. Understanding concepts in mathematics learning is undoubtedly very important, by having a good understanding of mathematical concepts, students will not only memorize verbally, but also understand the concepts of the facts or problems asked. Learning mathematical concepts starts from natural objects intuitively, then at a higher stage abstract concepts are given using notation that is more common in mathematics.

Based on the results of previous research, mathematics is a problematic and feared subject for some students, it can be seen from the number of students who have not reached KKM, which means that student learning outcomes in mathematics subjects can be still low. Learning outcomes are student learning achievements that can be seen or measured from student grades after students practice questions given by the teacher when the exam is conducted. Learning outcomes can also be said to be a change in behavior resulting from a

business process carried out by a person such as the individual's own experience in interaction with his environment. Student learning outcomes are defined as students' ability after receiving their learning experience. In assessing learning outcomes, 3 aspects must be considered: cognitive, affective, and psychomotor. . While the results of learning mathematics are students' ability to solve problems that occur in everyday life using mathematical concepts after going through the process of learning mathematics.

The achievement of learning outcomes is determined by students' ability and the learning system applied by teachers and schools. The learning system combines several elements: humans, materials, facilities, equipment, and procedures to achieve goals. The human element in the learning system is the teacher and the people who support the success of the learning process. Material elements in the learning system are everything used in the teaching process such as media, tools or materials, and learning resources. Facilities and equipment are everything that can support the course of the learning process such as classes and others. Procedures are the design of activities that will be carried out during the learning process such as, learning strategies, learning methods, learning schedules, evaluations and others. The main goal of the learning system is student success in achieving learning objectives, which means students have achieved learning understanding.

A student is said to have a learning understanding in mathematics already if students can do things such as being able to restate a concept that has been learned, being able to classify objects according to specific properties, being able to name examples and not examples from kosnep, being able to present concepts in various forms of mathematical representation, being able to use, utilizing and choosing specific procedures or operations, being able to apply concepts or algorithms Solving a problem is also able to develop the necessary conditions and sufficient conditions of a concept. Based on the explanation above, researchers are increasingly interested and want to know and analyze the learning system and student learning understanding can affect mathematics learning outcomes at SMPN Karangkobong.

B. METHOD

The type of research researchers use in finding initial studies is quantitative research using descriptive research methods. With this research, it can provide solutions to solve problems contained in the mathematics learning process, it is expected to know the extent of understanding of student learning and student learning outcomes. The time for the implementation of this study was carried out since April 2022 using information, namely on April 19, 2022, researchers disposition of school mathematics teacher permits, on May 9, 2022, identifying problems based on observations of learning activities. On July 1, 2022, researchers interviewed Mathematics teachers and collected data from student scores and grade VIII mathematics teacher notes. The population in this study was grade VIII students of SMPN Karangkobong, the subjects in this action study were teachers and grade VIII students of SMPN Karangkobong. The sample in this study was in the age range of 13-15 years with details of 20 students consisting of 10 women and 10 men.

The data collection technique used was an interview with mathematics subject teachers. Research instruments are used to measure achievement, individual ability, observe attitudes,

develop individual attitudes, and interview individuals. The research instrument used in this study is interview guidelines. Data analysis techniques here researchers use data reduction, data analysis and concluding. In assessing classroom conditions, researchers use data sources that can be taken from teachers using interview instruments with teachers and school data. Researchers analyze the results of interviews with mathematics teachers to receive the results of problems that occur as a reference for the researcher's preliminary study to be studied. After the data in this study is obtained, analysis is carried out. Data in learning outcomes values are analyzed by finding the highest lowest value, average value and percentage. The value of learning outcomes is obtained from student value records given by class teachers to researchers which is an error in one reference in research.

C. RESULTS AND DISCUSSION

The following describes the results of research conducted at SMPN Karang Kobong, in the form of data from interview activities. Table 1 is an interview sheet addressed by researchers to teachers who teach mathematics subjects at SMPN Karangkobong.

Table 1. Interview results of mathematics teacher of SMPN karangkobong.

No.	Variable	Question	answer
1.	Learning Outcomes	What is the student's interest in learning mathematics?	Good, in understanding and determining answers to math problems given by the teacher.
2.		Are school facilities adequate to support mathematics learning?	Not yet, because of the lack of teaching aids supporting mathematics learning.
3.		What problems or difficulties do you face in class during the teaching and learning process of mathematics subjects?	Lack of teaching aids provided by schools in mathematics learning.
4.		What media do you use in class as a tool in teaching mathematics?	Package books and laptops
5.		Are students helped in understanding math lessons with the media you use?	Yes, it helps.
6.		How do you condition the class while teaching?	It starts with playing math games or guessing numbers.
7.		What are the learning outcomes of students in mathematics subjects?	Good.
8.	Learning model	What learning model do you use in delivering teaching materials so that students can understand the learning process well?	Cooperative learning model.
9.		Is the model effective? How much impact does learning have to help students learn well?	Effective,90%

10.	What factors do you think hinder students from understanding mathematics subject matter, and in achieving learning objectives?	Environmental factors, and lack of props factors.

Based on the interviews, information was obtained that Karangkobong Junior High School students are pretty good at understanding mathematics learning, but several problems are encountered in learning activities in Mathematics subjects. Such as the lack of teaching aids and school facilities in helping mathematics learning, the lack of student learning outcomes towards mathematics learning. Table 2 is the learning outcomes of mathematics subjects at SMPN Karangkobong.

Table 2. Learning Outcomes Test Data of SMPN Karangkobong Students

No.	Student name	Kkm	Value	Complete	
				Yes	Not
1.	A.....	70	75	✓	
2.	A.... S.....	70	72	✓	
3.	A.. N....	70	79	✓	
4.	A....	70	80	✓	
5.	D.... A....	70	82	✓	
6.	D.. A..... P....	70	66		✓
7.	H... K.....	70	80	✓	
8.	I.... F.....	70	65		✓
9.	K.....	70	75	✓	
10.	K.....	70	85	✓	
11.	M.....	70	75	✓	
12.	M..... S....	70	80	✓	
13.	M..... S....	70	65		✓
14.	N.....	70	67		✓
15.	N.. K.....	70	75	✓	
16.	N... M.....	70	69		✓
17.	R.....	70	74	✓	
18.	R.... H.....	70	80	✓	
19.	R.... A.....	70	75	✓	
20.	S.....	70	85	✓	
Sum				15	5
Percentage				75%	25%

Based on the value of learning outcomes of junior high school students Karang Kobong shows that many students have completed learning so that the value of learning outcomes is above KKM as much as 75%, but there are still some students who get scores that are still

below KKM as much as 25%. For KKM in the Mathematics subject set, it is 70. With the following value conversion:

Tabel 3. learning outcome scores of students at SMP Negeri Karang Kobong

Interval	Predicate
0 – 49	E
50 – 69	D
70 – 79	C
80 - 89	B
90 - 100	A

Learning outcomes have a significant impact on the achievement of learning objectives and are a measure of the quality of education.

D. CONCLUSIONS AND SUGGESTIONS

The main goal of the learning system is student success in achieving learning objectives which means students have achieved learning understanding. Learning outcomes can also be said to be a change in behavior resulting from a business process carried out by a person such as the individual's own experience in interaction with his environment. Student learning outcomes are defined as students' ability after receiving their learning experience. In assessing learning results, 3 aspects must be considered: cognitive, affective, and psychomotor. While the results of learning mathematics are students' ability to solve problems that occur in everyday life with mathematical concepts after going through the mathematics learning process.

Students of SMPN Karangkobong are pretty good at understanding mathematics learning, but several problems are encountered in learning activities in Mathematics subjects. Such as the lack of teaching aids and school facilities in helping mathematics learning, the lack of student learning outcomes towards mathematics learning. Many students have completed learning so that the value of learning outcomes is above KKM as much as 75%, but some students get scores below KKM as much as 25%. For KKM in the Mathematics subject set, it is 70.

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