

## THE EFFECT OF LEARNING DISCIPLINE ON MATHEMATICS LEARNING OUTCOMES

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**Abstract.** The purpose of this study is to find out The Effect of Learning Discipline on Mathematics Learning Outcomes. The population in this study were students of fourth grade of SDN 01 Gunung Picung. The analysis prerequisite testing technique is in the form of a normality test, then the homogeneity test is carried out. Data that is declared normal and homogeneous is used to test the hypothesis which results show that there is The Effect of Learning Discipline on Mathematics Learning Outcomes. Simple correlation regression analysis technique produces a relationship model which is expressed in the form of a regression equation, namely  $\hat{Y} = 88.1 + 1.37X$ . The results of this study are indicated by statistical analysis which produces a correlation coefficient (rxy) of 0.57. While the coefficient of determination is 32.49%. Regression analysis techniques and simple correlation of learning discipline with mathematics learning outcomes produce an effect which is expressed in the form of a regression equation, namely  $\hat{Y} = 88.1 + 1.37X$ . which means that each increase in learning discipline units causes an increase in mathematics learning outcomes by 0.57 units. Based on the results of the research above, it can be concluded that there is a positive influence between the learning discipline and mathematics learning outcomes on the fourth grade of SDN 01 Gunung Picung, Bogor Regency, 2020/2021 academic year

**Keywords:** learning discipline; mathematics

### I. INTRODUCTION

Education has an important role for human life, because it can affect all aspects of personality and life in its development. The education that children get for the first time is in the family. The way parents educate their children is very influential on the behavior and attitudes of these children in social life. The success of providing education can be influenced by several factors, one of which is the curriculum. The curriculum is a very important component in the world of education, the current curriculum is the 2013 curriculum. Curriculum 2013 learning is learning based on thematic learning. Thematic learning is learning that relates several subject content based on the theme. With the implementation of the learning process can produce student learning outcomes. Learning outcomes aim to determine the ability of students in the learning process and to determine student development. Learning outcomes are behaviors or competencies (attitudes, knowledge and skills) that are obtained by students after going through learning activities. There are two factors that influence learning outcomes, namely internal factors from students and external factors from outside students. One of the external factors of learning outcomes is learning discipline.

Learning discipline is the obedience of students to carry out their learning obligations consciously so that changes are obtained in themselves, both in the form of knowledge, actions and attitudes both studying at home and studying at school. The number of schools in Indonesia that are still developing conventional learning methods makes it

difficult for students to develop and master 21st century skills [1].

Based on the information obtained through the results of observations that have been carried out at SDN Gunung Picung 01, Pamijahan District, Bogor Regency. The students, especially grade IV have a low level of learning discipline, this can be seen from the report card data and the list of results for the daily grades of grade IV students at SDN Gunung Picung 01, Pamijahan District, Bogor Regency which consists of 34 students in grades IV-A, 34 students in grade IV. -B, and 34 students of class IV-C. In the midterm and final exams, there were 44 students (43%) out of 102 students who had reached the KKM and there were 58 students (56%) out of 102 students who had not reached the KKM at SDN Gunung Picung 01, Pamijahan District, Bogor Regency. The KKM that should be achieved by students is 75 which has been determined at school.

Low mathematics learning outcomes are influenced by many factors. The first factor that appears in this background is that students are less interested and do not understand the models, methods, and learning media used and delivered by the teacher. As for the factors that were seen after that, one of them was an environmental factor that was less conducive so that the material presented by the teacher was not understood by students and the learning discipline factor was still found to be less disciplined by students when studying. Lack of student discipline when studying will interfere with learning, especially during the learning process in class. Students who lack the discipline to learn. Disturbing other students who will have an impact on

the class atmosphere that will not be active, innovative, creative, affective, and fun.

Based on the background of the problem, the researcher is interested in researching with the title The Effect of Learning Discipline on Mathematics Learning Outcomes in Mathematics. This causal study is for fourth grade students of Gunung Picung State Elementary School 01 odd semester for the 2020/2021 academic year. Learning outcomes are changes that occur in students, both concerning cognitive, affective, and psychomotor aspects as a result of learning activities. The notion of learning outcomes as described above is stated by Dita [2] which states that learning outcomes can be interpreted as the level of student success in studying subject matter at school which is expressed in scores obtained from test results to know a certain number of subject matter. This understanding is supported by Ridwan [3] who argues that learning outcomes are behaviors or competencies (attitudes, knowledge and skills) that students acquire after going through learning activities. There are two factors that influence learning outcomes, namely internal factors from students and external factors from outside students.

In general, Oemar [4] agrees with this opinion that learning outcomes aim to determine the ability of students as teachers to help their development into quality citizens and individuals. Learning discipline according to Amri [5] suggests that discipline is a way for society to teach children to behave morally that is approved by the group. Meanwhile, according to Stara [5] states that discipline comes from the Latin "discere" which means learning. From this word, comes the word "Disciplina" which means teaching or training. And now, the word discipline is experiencing development of meaning in several senses. First, discipline is defined as compliance with regulations or subject to supervision and control. Second, discipline as an exercise that aims to develop oneself to behave in an orderly manner [6]. Naim's opinion [7] Learning discipline is obedience to respect and implement a system that requires people to submit to decisions, orders, and applicable regulations.

## II. RESEARCH METHODS

The method used in this study is a causal research. Aims to identify the influence between two variables, where the variable in this study is the discipline of learning on mathematics learning outcomes. In this study there are two variables, namely the independent variable and the dependent variable, where the independent variable in this study is Learning Discipline (X) and the dependent variable is Mathematics Learning Outcomes (Y). The constellation of research problems can be seen in the following figure:

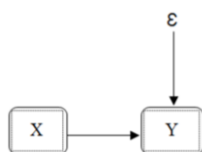


Figure 1. Constellation of Research Problems

Information:

X = Learning Discipline

Y = Mathematics Learning Outcomes

= Other variables that are not examined directly

## III. RESULTS AND DISCUSSION

After going through the process of hypothesis testing data analysis, the research results can be known. The results of data analysis and hypothesis testing obtained data that there is a positive influence between learning disciplines (X) on mathematics learning outcomes (Y). This is indicated by the significance and regression test which shows the regression equation, namely  $y = 88.1 + 1.37X$ . This means that every one unit increase in the reading interest variable will cause an increase in descriptive essay writing skills of 1.37 units.

The strength of the positive influence between learning disciplines on mathematics learning outcomes is indicated by the path coefficient of 0.57. The coefficient price indicates that there is a moderate influence of the learning discipline variable on mathematics learning outcomes. While the coefficient of determination ( $r^2$ ) is 32.92%. This means that the increase or decrease in mathematics learning outcomes is influenced by 32.92%, while the rest is influenced by other factors. This research is confirmed by research conducted by Alimaun, Imam [8]. with the title The Influence of Discipline on Learning Outcomes of Elementary School Students in the Assisted Area of R. A. Kartini, Kutoarjo District, Purworejo Regency. Hypothesis testing with a significance level of 5% obtained results indicating that there is an influence of discipline on student learning outcomes. Shown by the results of the correlation coefficient (R) of 0.790 and the coefficient of determination ( $R^2$ ) 62.4%. The significance value of 0.000 is smaller than 0.05, namely  $0.000 < 0.05$ , so it can be concluded that  $H_0$  is rejected and  $H_a$  is accepted. This shows that 62.4% of learning outcomes are influenced by student discipline. The results of data analysis are supported by several theories as proposed by Dewi, Yosi Puspa [9]. with the title The Influence of Student Discipline on Learning Outcomes of Civics Class 4 SDN Gugus Ki Hajar Dewantara, Tugu District, Semarang City. The results of this study indicate that: 1) Student discipline in this study is known that 30 students (71.4%) are in the high category. 2) The learning outcomes of Citizenship Education in this study showed that 31 students (73.8%) were in the high category. 3) There is a significant and positive influence between student discipline on the learning outcomes of Citizenship Education.

Based on the results of hypothesis testing data analysis, it was obtained data that there was a positive influence of learning discipline on mathematics learning outcomes. This shows that the research hypothesis is accepted, meaning that learning discipline has an influence on mathematics learning outcomes.

Researchers realize that there are many limitations in conducting this research which are caused by several factors including limited references, limited knowledge of educational statistics, limited knowledge of quantitative

research, limitations in sampling, limited research time due to the COVID-19 pandemic and limited funding.

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#### IV. CONCLUSION

Based on data collection, data processing, and discussion of research results, it can be concluded that there is a significant positive effect between learning disciplines on mathematics learning outcomes. This means that the higher the student's learning discipline, the higher the learning outcomes of mathematics will be. On the other hand, the lower the students' reading interest, the lower the mathematics learning outcomes.

This can be shown from the regression equation =  $88.1 + 1.73X$ , which means that every increase in 1 learning discipline will increase the skills of learning mathematics outcomes. The strength of the influence of learning discipline on mathematics learning outcomes with path coefficient  $r_{xy} = 0.96$  with a coefficient of determination = 0.32.94 indicates that 1.73% of mathematics learning outcomes can be produced from good discipline.

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