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The Effect of Discipline on Mathematics Learning Results of Class X Vocational School Students During the Covid-19 Pandemic

Putu Suarniti Noviantari[a)], Kadek Rahayu Puspadewi, and Ni Kadek Putri Trisnasari

Universitas Mahasaraswati Denpasar
[a]Corresponding Author: pts.noviantari@unmas.ac.id

Abstrack.The purpose of this study was to determine whether there is an effect of discipline on mathematics learning outcomes for class X SMK Negeri 1 Manggis in the 2020/2021 academic year. This research is a quantitative study in the ex-post facto category, which is conducted to examine the events that have occurred so that it demands to go back to uncovering facts and knowing the causes and effects of an event. This type of research used in this study is a causal comparative study. The population of this study were students of class X SMK Negeri 1 Manggis in the 2020/2021 academic year, while the sample in this study was class X1. Based on the results of the analysis and simple linear regression test, it shows that: (1) the students' learning discipline was sufficient with an average of 60.23; (2) The students' mathematics learning outcomes were sufficient with an average of 67.41% 3; (3) Discipline affects student learning outcomes (t. Count = 0.922; a = 0.05) so that H. is rejected, which means that there is an effect of discipline on mathematics learning outcomes of Class X students of SMK Negeri 1 Manggis, with a determination coefficient of 2.5 %. The low percentage of the effect of discipline on student mathematics learning outcomes of class X SMK Negeri 1 Manggis is influenced by several factors such as the lack of honesty of students in filling out disciplinary questionnaires, and data collection which is done online.
Keywords: Influence, Discipline, Learning Outcomes, Causal Comparative

INTRODUCTION

Mathematics is the basis of other sciences, which is the main door in science. Mathematics is often used in everyday life. For example, when we sell goods at a specific price. The development of students, such as activities, processes, learning outcomes, and learning achievement, is influenced by the characteristics of each student [1]. The diversity of individual traits and abilities will make each student have different learning outcomes. Learning outcomes are the acquisition of efforts to change or increase cognitive, affective, psychomotor skills. Learning outcomes are changes in behavior as a whole, not just one aspect of human potential [2]. The abilities and characteristics of students do not only influence learning outcomes, but there are several influencing factors. The learning outcomes achieved by participants result from interactions between various influencing factors, both internal and external factors [3]. Internal factors are factors that originate from within students, which affect their learning abilities. Internal includes discipline, intelligence, interest, and attention, learning motivation, perseverance, attitude, self-confidence, study habits, and physical and health conditions. At the same time, external factors come from outside of students that affect learning outcomes. These include family, school, and community [4][5].

One of the internal factors that affect learning outcomes is discipline [6]. Discipline, in this case, is an effort to continuously foster awareness in working well in every activity carried out effectively [4]. The things that need to be done by students are disciplined in school rules, taking class lessons, doing assignments, and being disciplined in studying at home [5]. In terms of discipline, some students show a lack of discipline when taking mathematics lessons (4). When students start to lack discipline in absorbing lessons, the effect on learning achievement in mathematics Mathematics learning outcomes is still low from the KKM. This situation is caused by the lack of student discipline so that their mathematics learning achievement is low. Research on the effect of student learning discipline has been carried out. The results show a contribution stating that there is an influence of discipline on the mathematics learning outcomes of eighth-grade students of MTs Al-Raisiyah Sekarbela. There are 32% of the impact of discipline on students' mathematics learning outcomes and other influences. Based on

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the background above, the researcher is interested in discussing the power of learning discipline on learning outcomes with the title, The Effect of Discipline on Mathematics Learning Outcomes of Class X Students of SMK Negeri 1 Manggis year 2020/2021 lesson.

The formulation of the problem in this study refers to the disciplinary background on whether there is an influence on learning discipline on Mathematics learning outcomes for Class X SMK Negeri 1 Manggis Academic Year 2020/2021? This study aims to determine whether there is an influence of learning discipline on the learning outcomes of Class X Students of SMK Negeri 1 Manggis for the 2020/2021 Academic Year.

RESEARCH METHODS

This research includes quantitative research in the ex-post-facto category, which is carried out to examine events that have occurred. It demands backward to reveal facts and determine the cause and effect of an event. The type of research used in this study is comparative causal research or causal relationship. The researcher intends to find the influence between the independent and dependent variables. The approach used is a quantitative research approach, where data obtained from the sample or research population is then analyzed according to the statistical methods used and then interpreted. A population is a group of subjects/objects that concern the study in carrying out research. The people in this study were all students of class X SMK Negeri 1 Manggis. The population is 68 people, which are spread over two classes. A determine the sample; a systematic sampling technique was used. A technique determination model is based on the order of the population that has been given a serial number.

Data collection techniques in this study were questionnaires and tests. The questionnaire is used to obtain data or information from respondents by providing several questions or statements by the variables to be measured. In this case, the questionnaire will be given to class X students of SMK Negeri 1 Manggis as respondents of the research. The documentation method is used to obtain data from written materials, including transcripts, ligger meeting notes, agendas. Documentation carried out by researchers, in this case, is in the form of questionnaire data and student learning outcomes of class X SMK Negeri 1 Manggis. The test method in this study was used to obtain data on students' mathematics learning outcomes. In this study, a test consisting of several items was used with the material of a two-variable linear equation system (SPLDV).

The instrument was used to determine whether student discipline affects the mathematics learning outcomes of class X SMK Negeri 1 Manggis students in the 2020/2021 student year. A discipline questionnaire is used to determine student discipline. The learning outcomes test was used to determine the mathematics learning outcomes of class X students of SMK Negeri 1 Manggis.

Data analysis was carried out using an analytical requirements test; the test was processed using descriptive analysis formulas and inferential analysis. Descriptive analysis was used to determine the criteria obtained in the disciplinary questionnaire and the student's mathematics learning outcomes test—the procedure for descriptive analysis. The inferential analysis includes test requirements analysis and hypothesis testing. A test requirements analysis consists of a data normality test and a linearity test. The normality test determines if the data obtained are standard or not. Linearity test is used to determine whether discipline results are linear with student learning outcomes. The hypothesis test consists of a simple linear regression, correlation, determination, and T-test. A simple linear regression test is used to determine the comparison of independent variables and dependent variables. A correlation test is used to determine the level of relationship between the independent variable and the dependent variable. A determination test is used to determine the percentage of the influence of the independent variable and dependent variables' impact. The T-test is used to determine the significance of the independent variable on the dependent variable.

RESEARCH RESULTS AND DISCUSSION

Data on the results of disciplinary questionnaires and tests of mathematics learning outcomes for class X SMK Negeri 1 Manggis for the academic year 2020/2021

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TABLE 1. Categories of Learning Discipline Scores

Interval	Frequency	Percentage	Category
Skor≥ 77	3	8,8 %	Very good
66≤ *skor* < 77	9	26,5%	Good
55 ≤ *skor* <66	10	29,4%	Enough
43 ≤ *skor* < 55	12	35,3%	Low
< 43	0	0 %	Very low
Total	34	100%	

Based on Table 1, it is known that the minimum and maximum scores of class X students of SMK Negeri 1 Manggis are 43 and 79, respectively. The average score of student learning discipline in class X1 of SMK Negeri 1 Manggis is 60.21 with a sufficient category. The results of in-depth stretching through interviews are as follows.

TABLE 2. Interview Results

Category	Number of Student	Student Description at Interview
Very good	3	- Students pay attention to the teacher's explanation with focus and good - Students study the material presented again - Students take online lessons on time
Good	9	- Students take online lessons on time - Students pay attention to the teacher's explanation with focus and good
Enough	10	- students are lazy to do difficult math assignments - students are lazy to learn math at home - students are lazy to take down teacher material if the class is online
Low	12	- Students tend to play using chat when learning online - Often late to join online classes - Lazy to study math at home - Students do not focus on listening to the teacher's explanation while studying - Students do not follow the lesson until it is finished
Very low	0	-
Total	34	

The criteria for assessing student learning outcomes can be presented in the following table.

TABLE 3. Category of Student Learning Outcomes Score

Interval	Frequency	Percentage	Category
Skor≥ 85	1	2,9 %	Very good
73≤ *skor* < 85	13	38,3%	Good
62 ≤ *skor* < 73	5	14,7 %	Enough
50 ≤ *skor* < 62	15	44,1%	Low
< 50	0	0 %	Very low
Total	34	100%	

The average test result of students' mathematics learning is 67.41 with good category. The intermediate student learning outcomes are still below the Minimum Provisions Criteria (KKM), which is 70.

Before testing the hypothesis, the normality test and linearity test were first carried out. The data is said to be normal if the value of sig. > 0.05. In the normality test, a significance value of 0.200 is obtained; it can be stated that the data is normally distributed. Linearity test is used to see if discipline is linear on student learning outcomes.

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In the linearity test, the data is said to be linear if the value of sig. > 0.05. A Obtained the value of sig. 0.305, then the independent variable is linear to the dependent variable.

Based on the values of a and b above, it can show the linear regression equation as follows:

1. The constant value (a) of 58.139 shows that if there is no discipline, the Mathematics Learning Outcomes are 58.139.
2. The value of the regression coefficient is 0.05, which means that for each addition of one student's discipline score, the student's mathematics learning outcomes increase by 0.05. Because the regression coefficient is positive, student learning outcomes are directly proportional to student discipline.

A simple Correlation Test was used to determine the relationship between the independent variable (Discipline) and the dependent variable (Mathematics Learning Outcomes). The strength of the relationship between the independent variable and the dependent variable can be seen from the correlation coefficient. The correlation coefficient is 0.159, which means that if the independent variable Discipline increases, then the dependent variable on Mathematics Learning Outcomes increases. If the independent variable of learning discipline increases, the dependent variable of Mathematics Learning Outcomes increases.

A determination test is used to determine the contribution of the influence of the independent variable on the dependent variable. The coefficient of determination is obtained by finding the square of the correlation coefficient multiplied by 100%. The coefficient of determination is 2.5%. It can be concluded that the influence of discipline on students' Mathematics Learning Outcomes is 2.5%, while 97.5% is influenced by other factors that were not examined in this study.

A determine the significance level of the correlation coefficient of the independent discipline variable on the dependent variable of Learning Outcomes. The results can be seen on the output coefficients and compared. Obtained >$ttabel$or 0.922 > 0.338. Because >, then one is accepted and 0 is rejected, meaning that the correlation coefficient is significant. So it can be concluded that there is an influence of Discipline on Mathematics Learning Outcomes of Class X Students of SMK Negeri 1 Manggis.

Based on the results of data analysis and simple linear regression calculation of discipline (X) with students' mathematics learning outcomes (Y), the equation = 58.139 - 0.05X with a correlation coefficient of 0.159 shows that student discipline is directly proportional to student learning outcomes in mathematics. The value of > or 0.922 > 0.338 at a significant level of 5%, which means that discipline influences the learning outcomes of class X students of SMK Negeri 1 Manggis. Thus, the hypothesis which states that there is an influence of discipline on students' mathematics learning outcomes is accepted.

The results of this study are in line with the opinion of several experts. Nawawi's (1989:140) discipline, in this case, is meant to be an effort to continuously foster awareness in working or studying well in the sense that everyone carries out their functions effectively. People who are successful in learning and working always occupy discipline above all actions and deeds.

Please note that the study results do not fully describe student discipline because there are several obstacles in this research process, such as. The method used is online or online, so that there are still many students who do not follow the specified time for various reasons given by students. Researchers also sometimes find it challenging to contact students who are late in collecting answers, and there are still many other obstacles that researchers experience when conducting research. So this becomes something that is beyond the control of the researcher.

CONCLUSION

Based on the analysis and discussion results in this study, it can be concluded that there is a significant positive effect of discipline on the mathematics learning outcomes of class X students of SMK Negeri 1 Manggis for the 2020/2021 academic year. It can be seen in the analysis results, which states that it is 0.922 and is 0.338 at alpha 0.05. So based on the hypothesis testing criteria, namely > or 0.922 > 0.338, it can be stated that one is accepted and 0 is rejected. The coefficient of determination of 2.5% is included in the deficient category. Other factors influence the remaining 97.5%. The small percentage of disciplinary influence is caused by less honest students filling out the disciplinary questionnaire.

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