THE RELATIONSHIP BETWEEN STUDY HABIT AND SELF-CONFIDENCE WITH LEARNING RESULTS OF MATHEMATICS STUDENTS CLASS VII MTs

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ABSTRACT

This study aims to determine whether there is a positive and significant relationship between study habits and self-confidence with learning results of mathematics students class VII State Islamic Junior High School (MTs Negeri) 4 Bantul, even semester academic year 2017/2018. This research is quantitative. The population in this study is students class VII MTs Negeri 4 Bantul even semester academic year of 2017/2018, which consists of class VII-A, VII-B, VII-C, VII-D, VII-E, VII-F, VII-G, and VII-H that are totaled at 228 students and sampling using random sampling technique to class obtained class VII-C. The data collection technique is questionnaires, and that technique is used to obtain data on study habits and self-confidence, and test methods are used to obtain the data from math scores. Instruments of test: validity, linearity, and reliability test. Analysis prerequisite test, including the normality test, linearity test, and the test of independence. Data analysis is using product-moment and multiple linear regression analysis. The results showed a positive and significant relationship between study habits and self-confidence with learning results of mathematics students class VII MTs Negeri 4 Bantul even semester academic year of 2017/2018. This is indicated by $F_{count} > F_{table}$ is $4{,}1479 > 3{,}4028$ with R = $0{,}5068$ and $R^2 = 0{,}2569$ and $\hat{Y} = 4{,}2517 + 0{,}4753X_1 + 0{,}3594X_2$ by SR $X_1 = 52{,}82$ % and RC $X_2 = 47{,}18\%$, EC $X_1 = 13{,}56\%$ and EC $X_2 = 12{,}12$ %.

Keywords: Study Habit, Self Confidence, Learning Results of Mathematics.

INTRODUCTION

Education aims to create quality human resources to become the next generation who are intelligent and able to compete with other countries to be implemented and obtain maximum results. By improving the quality of education significantly to spur mastery of Science and Technology, it is necessary to refine further and improve the teaching of Natural Sciences and Mathematics. Mathematics is a field of study that is always present at every level of education. Since primary education, mathematics needs to equip students with thinking logically, analytically, systematically, and creatively. However, the lack of students 'ability to understand mathematical material can be seen from students' poor learning outcomes. As the authors' observations on MTs Negeri 4 Bantul, in general, student learning outcomes are still below expectations shown in bold below.

Table 1. Final Mathematics Assessment Values of MTs Negeri 4 Bantul Academic Year 2017/2018

Information	Class							
	VII-A	VII-B	VII-C	VII-D	VII-E	VII-F	VII-G	VII-H
Total Student	30	28	28	28	28	27	29	28
MCC	71	71	71	71	71	71	71	71
Score ≥ 71	4	7	9	10	3	11	7	11
Score < 71	26	23	19	18	24	16	22	17

From the table above, it can be seen that 166 students out of 228 students have not yet reached the Minimum Completeness Criteria (MCC) for mathematics subjects set by the school, which is 7.1. This shows that grade VII students' learning outcomes are still low and must be immediately improved to meet the expectations. This is due to many factors that affect student success in learning.

According to observations made on Monday, October 2, 2017, at MTs Negeri 4 Bantul during mathematics learning, it was found that students were less prepared to participate in learning, which included preparing textbooks and collecting assignments given at the previous meeting. Students also ignore the teacher giving the material, while students tend to be cool to talk with their peers. When learning, students tend to be passive when they do not understand the material or questions. According to Djaali (2014: 128), habit is a way of acting that is obtained through repeated learning, which in the end becomes settled and is automatic. Learning habits can be interpreted as a way or technique that settles on students to receive lessons, read books, do assignments, and arrange a time to complete activities. Learning habits will influence learning outcomes, such as the research results by Siti Maemunah (2015).

The results of an interview with Mrs. Warih Handayani as a grade VII mathematics teacher at MTs Negeri 4 Bantul, which was held on October 2, 2017, showed that students were passive when they did not understand the material and lacked Confidence when working on the questions in front of their friends. According to Anthony (in Ghufron, Nur and Rini Risnawinata, 2012: 34), Confidence is an attitude in someone who can accept reality, can develop self-awareness, can have and achieve everything that is desired. Learning habits will influence learning outcomes, such as the research conducted by Novi Wahyu Nugroho (2017) and Wulansari Fitriana (2013).

In this study, the following problems were formulated: (1) Is there a positive and significant relationship between study habits with mathematics learning outcomes of Grade VII students of MTs Negeri 4 Bantul even semester of the academic year 2017/2018? (2) Is there a positive and significant relationship between self-confidence and mathematics learning outcomes of Grade VII students of MTs Negeri 4 Bantul even semester 2017/2018 school year? (2) Is there a positive and significant relationship between learning habits and self-confidence with mathematics learning outcomes of class VII MTs Negeri 4 Bantul even semester 2017/2018 school year?

From the main problems that have been formulated above, the purpose of this study is to find out whether or not there is a positive and significant relationship between learning habits and self-confidence with mathematics learning outcomes in class VII MTs Negeri 4 Bantul even semester 2017/2018 school year.

METHODS

This research was conducted in class VII MTs Negeri 4 Bantul, even semester of the 2017/2018 academic year, on May 7 - May 19, 2018, with the trial class being class VII-B. The sample class being VII-C, each consisting of 30 students and 27 students. In this study, three variables were consisting of two independent variables, namely study habits (X_1), self-confidence (X_2), and one dependent variable, namely mathematics learning outcomes (Y). This research is classified as quantitative research. Based on the research variables above, the model of the relationship between the independent variables and the dependent variable can be structured as follows:

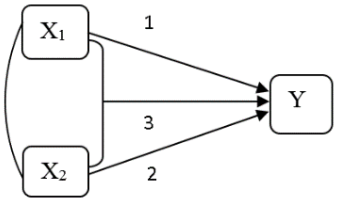

Figure I. Linkage Model of Independent Variables with Bound Variables

Information:

X_I: Study Habits

X_2: Confidence

Y: Mathematics Learning Outcomes

(Sugiyono, 2015: 68)

The data collection technique used the questionnaire method to obtain data on learning habits and self-confidence, and the test method to obtain data on mathematics learning outcomes. The research instrument test was the validity test, the difference power test, and the reliability test. The prerequisite analysis test includes the normality test, linearity test, and independent test. Data analysis used product moment analysis and multiple linear regression analysis.

RESULTS AND DISCUSSION

Learning habits data were obtained from the instrument scores given to 27 students totaling 25 items. The highest score of 95 and the lowest score of 54 obtained an average value of 66.3333 and a standard deviation of 9.3109. From this criterion, the following study habits score grouping is obtained:

Table 2. Distribution of the Number of Students Based on the Score-Category of Learning Habits

Category	Score	*F*	%
High	X > 75,6442	4	14,8148
Medium	57,0224 ≤ X ≤ 75,6442	20	74,0741
Low	X < 57,0224	3	11,1111
Total		27	100

From the categorization results in the table above, it can be seen that most of the class VII-C MTs Negeri 4 Bantul in the 2017/2018 school year are included in the moderate category because the most significant frequency lies in the interval 57.0224 ≤ X ≤ 75.6442, namely as many as 20 students or 74.0741%.

Confidence data was obtained from the instrument score given to 27 students totaling 25 items. Then obtained the highest score of 113 and the lowest score of 61, obtained an average value of 80.6667, and a standard deviation of 11.5991. From these criteria, the grouping of self-confidence scores is obtained as follows:

Table 3. The distribution of the number of students based on the category of self-confidence scores

Category	Score	*F*	%
High	X > 92,2658	6	22,2222
Medium	69,0676 ≤ X ≤ 92,2658	17	62,9630
Low	X < 69,0676	4	14,8148
Total		27	100

From the categorization results in the table above, it can be seen that the Confidence of class VII-C MTs Negeri 4 Bantul even semester of the 2017/2018 school year is included in the moderate category because the most significant frequency lies in the interval 69.0676 ≤ X ≤ 92,2658, which is 17 students or 62.9630%.

Value data of mathematics learning outcomes obtained from the instrument's score given to 27 students totaling 19 items. Then the highest score obtained was 17, and the lowest score was 7. From these criteria, the learning outcomes score grouping is obtained as follows:

Table 4. Distribution of Number of Students by Category of Student Mathematics Learning Outcomes

Category	Score	F	%
High	X > 15,882	5	18,5185
Medium	9,8796 ≤ X ≤ 15,882	16	59,2593
Low	X < 9,8796	6	22,2222
Total		27	100

From the categorization results in the table above, it can be seen that the results of Learning mathematics class VII-C MTs Negeri 4 Bantul even semester 2017/2018 academic year are included in the moderate category because the most significant frequency lies in the interval 9.8796 ≤ X ≤ 15.882, which is 16 students or 59.2593%.

The prerequisite analysis tests carried out in this study were the normality test, linearity test, and independence test. The normality test in this study used the chi-square formula(χ^2). The decision-making criteria are the distribution of data obtained on each of the normally distributed variables when $\chi^2_{\text{count}} \leq \chi^2_{\text{table}}$ has a significant level of 5% and degrees of freedom k-1. Where k is the number of interval classes. The results of the normality test are presented in the following table:

Table 5. Summary of Research Variable Normality Test Results

No	Variable	χ^2_{count}	χ^2_{table}	dk	Information
1	Study Habits (X_1)	3,4733	7,8147	2	Normal
2	Self-Confidence (X_2)	0,7539	5,9915	3	Normal
3	Mathematics Learning Outcomes (Y)	0,0580	5,9915	2	Normal

After the normality test, the linearity test was carried out. Linearity test is used to determine whether the independent variable and the dependent variable have a linear relationship or not by using a linear regression formula (F-test). The decision-making criterion is the relationship between variables and linear if $F_{\text{count}} \leq F_{\text{table}}$, with a significant 5% level and the numerator degrees of freedom (v_1) =k-2 and the denominator (v_2) n-k. In this study for X_1 against Y with $v_1 = 18$ and $v_2 = 7$, and for X_2 against Y with $v_1 = 17$ and $v_2 = 8$. The summary of the results of the linearity test for the independent variables and the dependent variable can be seen in the following:

Table 6. Summary of Linearity Test Results

No.	Variable	F_{count}	F_{table}	Information
1	X_1 to Y	0,5625	3,4669	Linear
2	X_2 to Y	0,2861	3,1867	Linear

The independent test is used to determine whether there is a relationship between the independent variables, namely the learning habits variable (X_1) and the self-confidence variable (X_2) using the chi-squared formula. The decision-making criteria are variable X1, and variable X_2 is independent Ir $\chi^2_{\text{count}} \leq \chi^2_{\text{table}}$, at α =5%, and degrees of freedom dk = (B – 1) (K – 1). Where B is the number of rows, and K is the number of columns. The independent test results are presented in the following table:

Table 7. Summary of Independent Test Results

No	Variable	χ^2_{count}	χ^2_{table}	Information
1	X_1 to X_2	29,8085	37,6525	Independent

The purpose of the discussion of the results of this study was to determine the relationship between study habits (X_1) and self-confidence (X_2) with mathematics learning outcomes (Y) of class VII students of MTs Negeri 4 Bantul in the 2017/2018 school year. In this section, a further discussion is carried out on the research results analyzed by correlation.

In the first hypothesis test, a simple correlation coefficient (r) was obtained at 0.4724. The coefficient of determination (r^2) is obtained from 0.2232, which can be explained that study habits influence 22.32% of learning outcomes while other factors influence the rest. There is variation in mathematics learning outcomes (Y), which is explained by the habit of learning (X_1) through the linear line $\hat{Y} = 2.4612 + 0.1486\ X_1$, with a regression coefficient 0.1486. The first hypothesis test results were accepted: a positive and significant relationship between study habits and mathematics learning outcomes.

In the second hypothesis test, a correlation coefficient (r) is obtained from 0.4647. The coefficient of determination (r^2) is 0.2160, which can explain that 21.60% of learning outcomes are influenced by self-confidence, while other factors influence the rest. There is variation in mathematics

learning outcomes (Y), which is explained by self-confidence (X_2) through the linear line $\hat{Y} = 2.4986 + 0.1217X_2$ with a regression coefficient of 0.1217. The second hypothesis test results are accepted, namely that there is a positive relationship between self-confidence and mathematics learning outcomes.

From the multiple correlation analysis, the value of the multiple correlation coefficient (R) is 0.5068. This study also obtained a coefficient of determination (R^2) of 0.2568, meaning that study habits and self-confidence influence 25.68% of learning outcomes while other factors influence the rest. There is a variance of mathematics learning outcomes (Y), which can be explained by study habits (X_1) and self-confidence (X_2) through the linear line $\hat{Y} = 0.8089 + 0.0903X_1 + 0.0683X_2$. Meanwhile, the relative contribution of $_{X1}$ was 52.82%, and X_2 was 47.18%. The learning habits variable provides the most significant contribution to learning outcomes than self-confidence variables. Meanwhile, the effective contribution of X_1 was 13.56%, and X_2 was 12.12%. With a value (R^2) of 0.2568, it can be concluded that study habits and self-confidence jointly influence 25.68% of mathematics learning outcomes. In comparison, 0.6184 or 61.84% are influenced by other factors not researched in this study. The third hypothesis test results are accepted, namely that there is a positive and significant relationship between study habits and self-confidence with mathematics learning outcomes.

CONCLUSION

Based on the results of the research and discussion as described above, it can be concluded that:

1. There is a positive and significant relationship between study habits and mathematics learning outcomes of grade VII students of MTs Negeri 4 Bantul in the even semester of the 2017/2018 school year. This is indicated by the t-test, namely $t_{count} > t_{table}$ or 2.6798> 2.0595. The simple correlation coefficient (r) between study habits and mathematics learning outcomes is 0.4724 with a linear regression equation $\hat{Y} = 2.4612 + 0.1486X_1$.
2. There is a positive and significant relationship between self-confidence and mathematics learning outcomes of grade VII students of MTs Negeri 4 Bantul in the even semester of the 2017/2018 school year. This is indicated by the t-test, namely $t_{count} > t_{table}$ or 2.6243> 2.0595. The simple correlation coefficient (r) between self-confidence and mathematics learning outcomes is 0.4647 with a linear regression equation $Y\hat{} = 2.4986 + 0.1217\ X_2$.
3. There is a positive and significant relationship between study habits and self-confidence with the mathematics learning outcomes of grade VII students of MTs Negeri 4 Bantul in the even semester of the 2017/2018 school year. The F-test indicates this, namely $Fc_{ount} > F_{table}$ or 4.1479> 3.4028. The multiple correlation coefficient (R) between study habits and self-confidence with mathematics learning outcomes is 0.5068 and (R^2) is 0.2568 with the multiple linear regression equation $\hat{Y} = 0.8089 + 0.0903X_1 + 0.0683X_2$. The relative contribution of X_1 was 52.82%, and the relative contribution of X_2 was 47.18%, and the effective contribution of X_1 was 13.56% .

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