

THE RELATIONSHIPS BETWEEN PARENTS ATTENTION, LEARNING INTEREST AND LEARNING DISCIPLINE WITH MATHEMATICS LEARNING OUTCOMES OF STUDENTS CLASS VII

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ABSTRACT

Many factors influence the mathematics learning outcomes that students get. Parent's attention, learning interest, and learning discipline are factors related to mathematics learning outcomes. This study aims to determine the presence or absence of positive and significant relationships between parent's attention, learning interest, and learning discipline with mathematics learning outcomes of students class VII at SMP Muhammadiyah 1 Godean District Sleman in even semester academic year of 2016/2017. The population in this study were all students of class VII at SMP Muhammadiyah 1 Godean District Sleman in the even semester academic year of 2016/2017, which consists of 5 classes with some 172 students. The random sampling technique used to get the class sample and collected class VII B as a sample. Data were collected by questionnaire method and test method. Test instruments used validity and reliability testing. Prerequisite test analysis using normality test, independence test, and linearity test. Analysis of data using simple linear regression analysis and multiple regression analysis and correlation. The results showed a positive and significant relationship between parent's attention, learning interest, and learning discipline with mathematics learning outcomes of students class VII at SMP Muhammadiyah 1 Godean District Sleman in even semester academic year of 2016/2017. It showed by $F_{\text{count}} > F_{\text{table}}$ or $2,95 > 2,93$ with $R^2 = 0,2338$, and the multiple regression equation is $\hat{Y} = -1,4994 + 0,1992X_1 + 0,2745X_2 + 0,1976X_3$, RC $X_1 = 29,39\%$, RC $X_2 = 46,99\%$, RC $X_3 = 23,62\%$, EC $X_1 = 6,87\%$, EC $X_2 = 10,99\%$, and EC $X_3 = 5,52\%$.

Keywords: parents attention, learning interest, learning discipline, mathematics learning outcomes

INTRODUCTION

Education is a fundamental aspect of the nation's progress because a nation will develop with quality human resources. To improve the quality of education in particular to spur mastery of science and technology, one of them is by improving mathematics teaching. Mathematics is a universal science that underlies the development of modern technology, has an important role in various scientific disciplines, and develops human thought power. Current students' views on mathematics are indeed not excellent. Many students find mathematics, scary, tense, bored, and full of assignments. In learning, mathematics is full of formulas, numbers, and symbols. This assumption makes students feel difficult and lazy in learning mathematics, causing them not actively to participate in learning. Difficulty in learning mathematics is experienced by students of grade VII of SMP Muhammadiyah 1 Godean, Sleman Regency, as indicated by the number of students who score below the MCC (Minimum completeness criteria).

Factors that cause students difficulties in learning can originate from within students or from outside students. Factors originating from within students include interests, intelligence, talent, discipline, and others. At the same time, factors originating from outside students include family factors, school factors, and community factors. Some things that are included in family factors include the family's economic situation, the attention of parents, relations between family members, and the way parents educate.

One of the factors outside the student's self that is thought to influence student learning outcomes is parents' attention. Most parents assume that education is the school's responsibility, so that parents pay less attention to their children's learning activities. However, education is a shared responsibility between

parents and school. Parents are also obliged to instill education with their children because the family is the first and foremost environment for children. Parents need to pay attention to their children in learning activities to motivate children to achieve maximum learning outcomes. The role of the family, especially parents, has a great influence on their children's learning in educating their children. As revealed by Slameto (2010: 61): Parents who do not pay attention to their children's education, for example, they are indifferent to their children's learning, pay no attention to their children's interests, and needs in learning, do not regulate their learning time, do not provide/complete their learning tools, do not pay attention to whether children learn or not, do not know how their progress, difficulties experienced in learning, and others, can cause children to not / less successful in their learning.

The factor within students that are thought to influence student learning outcomes is interest. According to Syah, Muhibbin (2014: 133), interest (interest) means a tendency and high enthusiasm for something. According to Slameto (2010: 180), interest is a sense of preferability and a sense of interest in a thing or activity without being ordered. Meanwhile, according to Djaali (2015: 121), interest can be expressed through statements that show that students prefer one thing to another, can also be manifested through participation in an activity. The existence of an interest in students can be a source of motivation to learn. Another factor that is thought to influence student learning outcomes is discipline.

According to Tu'u in Munawaroh, Siti (2013: 10), discipline is an effort to control oneself, and the mental attitude of an individual or community in developing obedience, and obedience to rules, and regulations based on encouragement, and awareness that arise from the heart. Meanwhile, according to Slameto in Munawaroh (2013: 10), discipline relates to an individual's self-control of the rules. Discipline is defined as behavior by specific regulations. Discipline can be done in various ways, including learning mathematics. Learning mathematics requires high discipline from students. That is due to the learning of mathematics carried out in stages and continuously so that in understanding mathematics, it needs continuous training that requires discipline.

The purpose of this study is 1) To find out whether or not there is a positive, and significant relationship between parents' attention, and mathematics learning outcomes of Grade VII students of SMP Muhammadiyah 1 Godean, Sleman Regency in the even semester of the 2016/2017 academic year, 2) To find out whether or not there is a relationship that positive, and significant relationship between learning interest, and mathematics learning outcomes of VII grade students of SMP Muhammadiyah 1 Godean, Sleman Regency in the even semester of the 2016/2017 academic year, 3) To find out whether or not there is a positive, and significant relationship between learning discipline with mathematics learning outcomes of VII grade students of SMP Muhammadiyah 1 Godean Sleman Regency even semester 2016/2017 academic year, 4) To find out whether or not there is a positive, and significant relationship between parents' attention, and interest in learning with mathematics learning outcomes of VII grade students of SMP Muhammadiyah 1 Godean Sleman Regency even semester 2016 academic year / 2017, 5) To find out there or t at least a positive, and significant relationship between parents' attention, and learning discipline with mathematics learning outcomes of Grade VII students of SMP Muhammadiyah 1 Godean Sleman Regency even semester 2016/2017 academic year, 6) To find out whether or not there is a positive, and significant relationship between learning interest, and learning discipline with mathematics learning outcomes for VII grade students of SMP Muhammadiyah 1 Godean, Sleman Regency in the even semester of the 2016/2017 academic year, 7) To find out whether or not there is a positive, and significant relationship between parents' attention, interest in learning, and learning discipline with mathematics learning outcomes Grade VII students of SMP Muhammadiyah 1 Godean, Sleman Regency in the even semester of the 2016/2017 school year.

METHODS

This research was conducted at SMP Muhammadiyah 1 Godean, Sleman Regency, in the even semester of the 2016/2017 school year. The population in this study were all VII grade students of SMP Muhammadiyah 1 Godean, Sleman Regency consisting of five classes, namely class VII A, VII B, VII C, VII D, and VII E totaling 172 students. Sampling was done by random sampling techniques to the class, and obtained class VII B as the sample class. The instruments used in this study were questionnaires and tests. The questionnaire was used to obtain data regarding parents' attention, interest in learning, and learning discipline, while the test was used to obtain data regarding student mathematics learning outcomes.

Indicators used in making questionnaires for parents' attention include parents managing children's learning time, parents providing children's learning facilities, parents supervising children in learning, parents know the child's learning progress, parents help children's learning difficulties. Indicators used in making the study interest questionnaire include feeling like the feeling of interest, participation in learning, and encouragement to learn. Simultaneously, the indicators used in making the discipline of learning questionnaire include discipline in the form of entering school, discipline in doing the task, and discipline in obeying the order.

Testing the validity of using the product-moment formula. While the reliability is calculated using the Alpha formula for the instrument in the form of a questionnaire, and Kuder Richardson (KR-20) for the mathematics learning achievement test instrument. The analysis prerequisite tests used in this study were normality tests, independent tests, and linearity tests. To test the first, second, and third hypotheses, the correlation coefficient is first searched using the product-moment formula, namely:

$$r_{xy} = \frac{N \sum_{i=1}^N XY - (\sum_{i=1}^N X)(\sum_{i=1}^N Y)}{\sqrt{\{N \sum_{i=1}^N X^2 - (\sum_{i=1}^N X)^2\} \{N \sum_{i=1}^N Y^2 - (\sum_{i=1}^N Y)^2\}}}$$

(Arikunto, Suharsimi: 2012)

Description:

r_{xy}	= the correlation coefficient of variables X, and Y
N	= number of respondents
$\sum_{i=1}^N X$	= total score X
$\sum_{i=1}^N Y$	= total score of Y
$\sum_{i=1}^N X^2$	= the sum of the squares of the X score
$\sum_{i=1}^N Y^2$	= sum of the squares of the Y score
$\sum_{i=1}^N XY$	= the number of multiplications of X score, and Y score

Then the significance of the correlation coefficient test is performed using the following formula.

$$t = \frac{r\sqrt{n-2}}{\sqrt{1-r^2}}$$

Description:

r	= correlation coefficient
n	= number of samples

(Sugiyono: 2014)

Test criteria with $\alpha = 5\%$, and $df = n - 2$, if $t_{\text{count}} \geq t_{\text{table}}$, H_0 is rejected, and H_1 is accepted.

Testing the fourth, fifth, and sixth hypotheses first look for multiple correlation coefficients using the following formula.

$$R^2 = \frac{JKR}{JKT}$$

Where

$$JKR = b_1 \sum x_1 y + b_2 \sum x_2 y$$

$$JKT = \sum y^2$$

(Khasanah, Uswatun: 2014)

Then the significance of the correlation coefficient test is performed using the following formula

$$F = \frac{R^2/k}{(1 - R^2)/(n - k - 1)}$$

Description:

R = multiple correlation coefficient

k = number of independent variables

n = number of sample members

(Sugiyono: 2012)

Test criteria with $\alpha = 5\%$, and df: $v_1 = k, v_2 = n - k - 1$ is if $t_{count} \geq t_{table}$, then H_0 is rejected, and H_1 is accepted.

The seventh hypothesis testing first looks for multiple correlation coefficients using the following formula.

$$R^2 = \frac{JKR}{JKT}$$

Where

$$JKR = b_1 \sum x_1 y + b_2 \sum x_2 y + b_3 \sum x_3 y$$

$$JKT = \sum y^2$$

Then the significance of the correlation coefficient test is performed using the following formula.

$$F = \frac{R^2(n - p - 1)}{p(1 - R^2)}$$

Description:

R = multiple correlation coefficient

p = number of independent variables

n = number of sample members

(Sugiyono: 2014)

Test criteria with $\alpha = 5\%$, and df: $v_1 = p, v_2 = n - p - 1$, i.e., if $F_{count} \geq F_{table}$, then H_0 is rejected, and H_1 is accepted.

Interpretations of the magnitude of the correlation coefficient (r) can be seen in the following Table 1.

Table 1. Interpretation of Value r

Great value R	Interpretation
$0,800 \leq r \leq 1,00$	Very high
$0,600 \leq r < 0,800$	high
$0,400 \leq r < 0,600$	Enough
$0,200 \leq r < 0,400$	Low
$0,00 \leq r < 0,200$	Very low

(Arikunto, Suharsimi: 2012)

RESULTS, and DISCUSSION

The results of the normality test are presented in Table 2 below.

Table 2. Normality Test Results

Variable	χ^2_{count}	χ^2_{table}	df	Variable
Parents attention (X_1)	0,6764	5,9915	2	Normal
Interest to learn (X_2)	2,4565	7,8147	3	Normal
Discipline and Learning (X_3)	0,1520	5,9915	2	Normal
Mathematics Learning Results (Y)	3,1891	7,8147	3	Normal

According to table 2, it appears that $\chi^2_{\text{count}} \leq \chi^2_{\text{table}}$ so that the data spread obtained in each of the research variables is a normal distribution.

Independent test results are presented in table 3 below.

Table 3. Independent variable Research test results

Variable	χ^2_{count}	χ^2_{table}	df
X_1 , and X_2	20,9672	37,6525	Independent
X_1 , and X_3	27,8887	37,6525	Independent
X_2 , and X_3	28,6445	37,6525	Independent

According to table 3 it appears that $\chi^2_{\text{count}} \leq \chi^2_{\text{table}}$ so that it can be concluded that the relationship between free variables is independent.

The linearity test results are presented in table 4 below.

Table 4. Research variable linearity test results

Variable	F_{count}	F_{table}	df
X_1 , and Y	1,21	2,76	Linear
X_2 dan Y	1,09	3,41	Linear
X_3 dan Y	1,98	2,65	Linear

According to table 4 $F_{\text{count}} \leq F_{\text{table}}$ so that it can be concluded that between the variables freely with the bound variables have a linear relationship.

The results of the first, second, and third hypothesis test calculations can be seen in table 5 below.

Table 5. First, second, and third hypothesis test calculation results

Hypothesis	r	t_{count}	t_{table}
1	0,3559	2,12024	1,69596
2	0,4181	2,56298	1,69596
3	0,4047	2,46378	1,69596

According to table 5 obtained coefficient of correlation between variables of parental attention, and the variable the results of mathematics learning is 0.3559 and is included in the low category with a value of $t_{\text{count}} \geq t_{\text{table}}$ which means there is a positive, and significant relationship Between the attention of parents with the results of mathematical learning. The correlation coefficient between the learning interest variables and the mathematical learning outcomes variable is 0.4181. It is included in the category with enough $t_{\text{count}} \geq t_{\text{table}}$ value, which means there is a positive and significant relationship between learning interests and learning outcomes Mathematic. The obtained coefficient of correlation between learning disciplinary variables and the variable of mathematical learning outcomes is 0.4047 and included in the category with sufficient value $t_{\text{count}} \geq t_{\text{table}}$, which means there is a positive, and significant relationship between Learning discipline with the results of mathematical learning.

The results of the fourth, fifth, and sixth hypothesis test calculations can be seen in the following table 6.

Table 6. The results of the fourth, fifth, and sixth hypothesis test

Hypothesis	r	t _{count}	t _{table}
4	0,4740	4,35	3,32
5	0,4396	3,59	3,32
6	0,4544	3,90	3,32

Based on table 6 obtained coefficient of correlation between variables of parental attention, and variable interest of learning with a variable of mathematical learning results is 0.4740, and belongs to the category enough with the value of $F_{\text{count}} \geq F_{\text{table}}$ which means there is a relationship Positive, and significant between the attention of parents, and the learning interest with the results of mathematics learning. The correlation coefficient between the parent's attention variables, and the learning discipline variables with the mathematical learning variable is 0.4396 and belongs to the category enough with the value of $F_{\text{count}} \geq F_{\text{table}}$ which means there is a positive relationship, and Between parents ' attention, and learning discipline with the results of mathematical learning. Also, obtained coefficient of correlation between learning interest variables, and learning discipline variables with a variable of mathematical learning results are 0.4544 and belong to the category quite with the value of $F_{\text{count}} \geq F_{\text{table}}$ which means there is a relationship Positive, and significant between learning interests, and learning discipline with mathematical learning outcomes.

The result of the seventh hypothesis test calculation can be seen in table 7 below.

Table 7. Result of seventh hypothesis test calculation

Hypothesis	r	t _{count}	t _{table}
7	0,4836	2,95	2,93

Based on table 7 obtained coefficient of correlation between variables of parental attention, interest in learning, and discipline learning with a variable of mathematical learning results is 0.4836, and included in the category quite with the value of $F_{\text{count}} \geq F_{\text{table}}$ which means There is a positive, and significant relationship between parents ' attention, learning interest, and learning discipline with the results of mathematical learning. Also, it obtained the coefficient of determination of 0.2338. It can be explained that 23.38% of the results of mathematical learning are influenced by parental attention, learning interests, and discipline of learning, while other factors influence the rest.

CONCLUSION

Based on the results of research and discussion, the following research conclusions can be taken:

1. There is a positive and significant relationship between parents' attention with the outcome of learning Mathematics grade VII SMP Muhammadiyah 1 Godean Kabupaten Sleman, even semester 2016/2017.
2. There is a positive and significant relationship between the interest of learning with the results of learning Mathematics students Grade VII SMP Muhammadiyah 1 Godean Kabupaten Sleman, even semester 2016/2017.
3. There is a positive and significant relationship between learning discipline and learning mathematics from grade VII students SMP Muhammadiyah 1 Godean Kabupaten Sleman, even semester 2016/2017 school year.
4. There is a positive and significant relationship between the attention of parents, and the learning interest with the results of mathematics learning students Grade VII SMP Muhammadiyah 1 Godean Kabupaten Sleman even semester 2016/2017.
5. There is a positive and significant relationship between the attention of parents and the discipline of learning with the results of the mathematics of students of Grade VII SMP Muhammadiyah 1 Godean Kabupaten Sleman even, semester 2016/2017.

6. There is a positive and significant relationship between learning interest and learning discipline with learning math results of Grade VII students SMP Muhammadiyah 1 Godean Kabupaten Sleman even, semester 2016/2017.
7. There is a positive and significant relationship between parents ' attention, learning interest, and learning discipline with learning outcomes of mathematics grade VII students SMP Muhammadiyah 1 Godean Kabupaten Sleman, even semester 2016/2017.

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