THE RELATIONSHIP BETWEEN INTEREST LEARNING, DISCIPLINE LEARNING, AND PARENT'S ATTENTION WITH MATHEMATICS LEARNING OUTCOMES IN STUDENTS CLASS VIII

Putri Utami Wijayanti[a], Sumargiyani[b]

Program Studi Pendidikan Matematika Universitas Ahmad Dahlan

Jalan Ring Road Selatan, Tamanan, Banguntapan, Bantul Yogyakarta

[a]putryutami344@gmail.com, [b]sumargiyani04@yahoo.com

ABSTRACT

Some factors influence math learning results. The interest of learning, the discipline of learning, and parent attention hypothetically are the factors which are influenced the math learning result. The objective of this research is to find whether there are positive and significant relations between the interest of learning, the discipline of learning and the parent attention, and the math learning result of the student in grade VIII on Junior High School (SMP) Muhammadiyah Ponjong Gunungkidul Regency in the academic year of 2016/2017. This research population was the students of VIII grade in SMP Muhammadiyah Ponjong Kabupaten Gunungkidul Semester Genap Tahun Ajaran 2016/ 2017, consisting of class VIIIA, VIIIB, VIIIC totaling 63 students. Samples were taken from VIIIB as the research sample class and with the random sampling technique. The writer uses the questionnaire method to collect interest learning, discipline learning, and parents' attention and test method to get the resulting math results. The research instrument: validity test, different power test, and reliability test. Test requirement analysis includes a test of normality, a test of linearity, and independence. The writer uses product-moment correlation analysis and multiple linear regression analysis to analyze the data. The results showed a positive and significant relationship between interest learning, discipline learning, and parent's attention class VIII in even Semester of SMP Muhammadiyah Ponjong Gunungkidul Regency in the academic year of 2016/2017. It is showed by $F_{count} > F_{table}$ is $4,7048 > 3,1599$ with $R = 0,6629$ and $R^2 = 0,4395$ with $\widehat{Y} = 1,0794 + 0,2939\,X_1 + 0,093\,X_2 + 0,2302\,X_3$, with RC $X_1 = 60,875$ %, RC $X_2 = 7,553$% and RC $X_3 = 31,572$%, EC $X_1 = 26,755$%, SE $X_2 = 3,3196$% and EC $X_3 = 13,876$%.

Keywords:　Interest Learning, discipline Learning, Parent's Attention, Mathematics Learning Outcomes.

INTRODUCTION

Education is one of the most important factors for the progress of the nation. The progress of a nation can be determined by the success or failure of the education carried out. The 1945 Constitution's openly stated that one of the Indonesian State's goals was to educate the nation's life. Education plays an important role in preparing quality human resources and competing in science and technology so that education must be implemented and obtain maximum results.

Based on the Law of the Republic of Indonesia Number. 20 of 2003 concerning the National Education System states that: Education is a conscious and planned effort to create an atmosphere of learning and learning process so that students actively develop their potential to have spiritual, religious, self-control, personality, intelligence, noble character, and skills needed by themselves, the community, the nation, and the country. Education in Indonesia is currently faced with demands to produce quality human resources, namely human resources (HR) who can adjust to the current era of globalization. To create strong human resources clearly must be pursued through appropriate and appropriate processes. Progress or decline in education is the responsibility of educators and all parties' responsibility between the government, educators, students, and the community.

Along with the rapid development of science and technology in various fields, it will feel how important and the need for mathematics to be studied as basic science and the development of other sciences. However, until now, mathematics was still categorized as a difficult subject. Some students

consider mathematics a difficult subject. This can be seen from the average mathematics scores in the Final Test of Odd Semester class VIII of SMP Muhammadiyah Ponjong, Gunungkidul Regency in the 2016/2017 school year as in Table 1.

Table 1. List of Mathematics Exam Grade VIII grade for SMP Muhammadiyah Ponjong, Gunungkidul Semester, 2016/2017 Academic Year

Value	VIII A	VIII B	VIII C
Max	85	75	6,3
Min	45	65	55
Mean	67,2	68,9	68,09
MCC	70	70	70
Value ≥ MCC	6	3	3
Value ≤ MCC	14	19	18
Total	20	22	21

Source: SMP Muhammadiyah Ponjong

Various attempts have been made to improve student success in mathematics and improve mathematics education quality in general. These efforts include improving teaching materials, improving the curriculum, optimizing the learning process, procuring new books, and providing mathematical teaching aids. However, in reality, the results achieved have not been as expected.

According to Russel in Uno, Hamzah B. (2009: 108), mathematics is defined as a study that begins by studying the parts that are very known to the parts that are not known. In dealing with the complexities of learning mathematics in schools, the first thing to do is foster student interest in mathematics. Interest is related to students' pleasure in doing activities. In this case, the activity in question is the activity of learning mathematics. Because without any interest, students will have difficulty in learning and mastering mathematics well.

According to Slameto (2013: 57), interest is a constant tendency to pay attention and remember some activities. Activities that are of interest to students are given constant attention, accompanied by pleasure, and a sense of satisfaction is gained. Other things that affect the student learning process's success or failure include internal factors, including learning discipline. In school, violations are often committed by students. For example, late coming to school, often making a fuss, not doing assignments, and other violations caused by low student self-discipline levels. To overcome this, the school rules and sanctions if the regulations are not implemented, so students strictly obey them. Many students obey these rules, but also not a few who do not obey them.

According to Willis, Sofyan S. (2012: 155) explained that discipline concerns the business's vigor and meets the targets and the right time. Means discipline in work and time discipline. One external factor that has a role in the learning process of students is the attention of parents. 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 in their children because it 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.

According to Walgito, Bimo (2010: 110), attention is the concentration or concentration of all individual activities shown to an object or group of objects. According to Rusyan, Tabrani (1989: 196) states that children need stimulation, encouragement, guidance, or motivation from their parents. Thus, it can be concluded that parents' attention in learning a child is the willingness to concentrate on children to provide all their learning needs both from facilities, time and place of learning, and assistance in learning so that a child gets satisfactory results.

Based on the description above, the researchers are interested in researching mathematics learning outcomes regarding the factors that influence it, namely learning interest, learning discipline, and parents' attention. With the research title: The Relationship between Learning Interest, Learning

Discipline and Parents' Attention with Mathematics Learning Outcomes of Class VIII Students of SMP Muhammadiyah Ponjong, Gunungkidul Regency Even Semester Academic Year 2016/2017.

The research that has been conducted and is relevant to this research is the first Widiyawati Research, Ratna (2012) with the title The Relationship of Learning Interest with Mathematics Learning Outcomes of Class VIII Students of SMP Negeri 10 Malang Even Semester Academic Year 2012/2013. Kurniawan conducted the second research, Ari (2014), with the title Relationship between Learning Interest, Peer Interaction, and Learning Discipline with Mathematics Learning Outcomes of Grade VII Students of MTs Geometry Semester in Prambanan District Klaten Academic Year 2014/2015. The third study was conducted by Purwantini (2012) with the title The Relationship of Learning Discipline and Parental Attention with Mathematics Learning Outcomes of Class VIII Students in Second Semester of Muhammadiyah Pleret Bantul School Year 2011/2012.

The purpose of this study was to determine whether there was a relationship between interest in learning, disciplined learning, and parents' attention with mathematics learning outcomes of eighth-grade students of SMP Muhammadiyah Ponjong, Gunungkidul Regency even semester of the 2016/2017 school year.

METHODS

This research was conducted at SMP Muhammadiyah Ponjong in Gunungkidul Regency in the 2016/2017 school year. This study's population were all eighth-grade students of SMP Muhammadiyah Ponjong, Gunungkidul Regency, which consisted of five classes: class VIII A, VIII B, and VIII C, totaling 63 students. Sampling was done by random sampling techniques to the class and obtained class VIII B as the sample class. The instruments used in this study were questionnaires and tests. Questionnaires are used to obtain data about learning interests, learning discipline, and parental attention. In contrast, tests are used to obtain data about student mathematics learning outcomes.

Indicators used in making the interest in learning questionnaires tend to pay attention. There is a sense of liking and pleasure towards something that interests him, obtaining something of pride and satisfaction in something he is interested in, preferring something of interest to others. The indicators used in making the learning discipline questionnaire include having regular learning time, learning little by little, completing assignments on time, doing repetitive learning, and a supportive learning atmosphere. Simultaneously, indicators used in making questionnaires for parents' attention include providing an excellent place to learn, providing tools for learning, supervising children's learning, and paying attention to learning time.

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. This study's analysis prerequisite tests were a normality test, independent test, and linearity test. To test the first, second, and third hypotheses, correlation coefficients are first searched using the product-moment formula, namely:

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

(Arikunto, Suharsimi, 2012: 87)

Information:

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 Y

$\sum_{i=1}^{N} X^2$ = the sum of the squares of the X score

$\sum_{i=1}^{N} Y^2$ = the sum of the squares of the Y score

$\sum_{i=1}^{N} XY$ = the number of multiplications of the X score and the Y score

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

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

Information:

r = Correlation coefficient

n = number of samples

(Sugiyono, 2014: 259)

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

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

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

Information

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

$JKT = \sum y^2$

(Khasanah, Uswatun, 2014: 106-108)

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

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

Information:

R   = multiple correlation coefficient

k   = number of independent variables

n   = number of sample members

(Sugiyono, 2012: 266)

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

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

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

Information

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

$JKT = \sum y^2$

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

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

Information

R= multiple correlation coefficient

p= number of independent variables

n= number of sample members

(Sugiyono, 2014: 283-286)

Test criteria with $\alpha = 5\%$ and df : $v_1 = p, v_2 = n - p - 1$ ie if $F_{count} > F_{table}$ then H_o 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

Large Value r	Interpretation
$0,90 \leq r \leq 1$	Very strong
$0,70 \leq r < 0,90$	Strong
$0,50 \leq r < 0,70$	Moderate
$0,30 \leq r < 0,50$	Weak

$0,00 \leq r < 0,30$	Very Weak

(Khasanah, Uswatun 2014: 55)

RESULTS AND DISCUSSION

The summary of normality test results can be seen in Table 2.

Table 2. Normality Test Results

Variable	χ^2_{count}	χ^2_{table}	df	Info.
Interest to learn (X$_1$)	0,885	5,9915	2	Normal
Learning Discipline (X$_2$)	0,361	5,9915	2	Normal
Parents attention (X$_3$)	0,817	3,481	1	Normal
Learning Intensity (Y)	0,123	5,9915	2	Normal

Based on Table 2, it can be seen that $\chi^2_{count} \leq \chi^2_{table}$ so that the distribution of data obtained in each research variable is normally distributed.

The independent test results are presented in Table 3 below.

Table 3. Independent Test Results

Variable	χ^2_{count}	χ^2_{table}	Info.
X_1 and X_2	25,749	31,410	Independent
X_1 and X_3	18,767	31,410	Independent
X_2 and X_2	30,189	31,410	Independent

Based on Table 3, it can be seen that $\chi^2_{count} \leq \chi^2_{table}$ so that it can be concluded that the relationship between independent variables is independent.

The results of the linearity test are presented in Table 4 below.

Table 4. Linearity Test Results of Research Variables

Variable	F$_{count}$	F$_{table}$	Info.
X$_1$ and Y	0,866	3,283	Linear
X$_2$ and Y	1,967	3,955	Linear
X$_3$ and Y	-0,446	2,151	Linear

Based on Table 4, $F_{count} \leq F_{table}$ so that it can be concluded that the independent variable with the dependent variable has a linear relationship.

The first, second, and third hypothesis test calculations can be seen in the following Table 5.

Table 5. First, Second, and Third Hypothesis Test Calculation Results

Hypothesis	r	t$_{count}$	t$_{table}$
1	0,6817	4,1671	1,7247
2	0,3623	1,7386	1,7247
3	0,3477	2,4314	1,7247

Based on Table 5, the correlation coefficient obtained between the variables of interest in learning and mathematics learning outcomes variable is 0.6817. It is included in the low category with the value of $t_{count} \geq t_{table}$, which means there is a positive and significant relationship between learning interest with learning outcomes in mathematics. The correlation coefficient between the discipline of learning variables and the mathematics learning outcomes variable is 0.3623. It is included in the excellent category with the value of $t_{count} \geq t_{table}$, which means there is a positive and significant relationship between learning discipline with mathematics learning outcomes. The correlation coefficient obtained between the parents 'attention variable and the mathematics learning outcome variable is 0.3477. It is included in the excellent category with the value of $t_{count} \geq t_{table}$,

which means there is a positive and significant relationship between parents' attention and mathematics learning outcomes.

The calculation of the fourth, fifth, and sixth hypothesis tests can be seen in the following table 6.

Table 6. Calculation Results for the Fourth, Fifth, and Sixth Hypothesis Tests

Hypothesis	R	F_{count}	F_{table}
4	0,6836	8,3343	3,5218
5	0,5143	10,0603	3,5218
6	0,2796	3,6881	3,5218

Based on Table 6, the correlation coefficient obtained between the learning interest variables and the learning discipline variable with the mathematics learning outcome variable is 0.6836. It belongs to the excellent category with the value of $F_{count} > F_{table}$, which means there is a positive and significant relationship between learning interest and learning discipline with learning outcomes. Mathematics. The correlation coefficient between the variables of interest in learning and parents' attention with the mathematics learning outcome variable is 0.5143. It is included in the excellent category with the value of $F_{count} > F_{table}$, which means there is a positive and significant relationship between learning interest and parental attention with mathematics learning outcomes. The correlation coefficient between the learning discipline variable and the parent's attention variable with the mathematics learning outcome variable is 0.2796. It is included in the excellent category with the value of $F_{count} > F_{table}$, which means there is a positive and significant relationship between learning discipline and parents' attention with mathematics learning outcomes.

The results of the seventh hypothesis test calculation can be seen in the following Table 7.

Tabel 7. Seventh Hypothesis Test Calculation Results

Hypothesis	R	F_{count}	F_{table}
7	0,6629	4,7048	3,1599

Based on Table 7, the correlation coefficient obtained between the variables of learning interest, learning discipline, and parents' attention to the mathematics learning outcomes variable is 0.6629. It is included in the excellent category with the value of $F_{count} > F_{table}$, which means there is a positive and significant relationship between learning interest, discipline learning, and parents' attention with mathematics learning outcomes. The determinant coefficient obtained by 0.4395 shows that 43.95% of mathematics learning outcomes are influenced by learning interest, learning discipline, and parents' attention. Other factors influence the rest.

CONCLUSION

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

1. There is a positive and significant relationship between learning interest and mathematics learning outcomes of VIII grade students of SMP Muhammadiyah Ponjong, Gunungkidul Regency, even semester 2016/2017 academic year.
2. There is a positive and significant relationship between learning discipline and mathematics learning outcomes of VIII grade students of SMP Muhammadiyah Ponjong, Gunungkidul Regency, even semester 2016/2017 academic year.
3. There is a positive and significant relationship between parents' attention and mathematics learning outcomes of VIII grade students of SMP Muhammadiyah Ponjong, Gunungkidul Regency, even semester 2016/2017 academic year.
4. There is a positive and significant relationship between learning interest and learning discipline with the mathematics learning outcomes of VIII grade students of SMP Muhammadiyah Ponjong, Gunungkidul Regency, even semester 2016/2017 academic year.

5. There is a positive and significant relationship between learning interest and parents' attention with the mathematics learning outcomes of Grade VIII students of SMP Muhammadiyah Ponjong, Gunungkidul Regency, even semester 2016/2017 academic year.

6. There is a positive and significant relationship between learning discipline and parents' attention to math learning outcomes of eighth-grade students of SMP Muhammadiyah Ponjong, Gunungkidul Regency, and even the semester 2016/2017 academic year.

7. There is a positive and significant relationship between learning interest, learning discipline, and parents' attention with mathematics learning outcomes of Grade VIII students of SMP Muhammadiyah Ponjong, Gunungkidul Regency, even semester 2016/2017 academic year.

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