THE RELATIONSHIP BETWEEN AN ANXIETY OF MATHEMATICS AND ATTENTION OF PARENTS WITH MATHEMATICS LEARNING OUTCOMES TO THE EIGHTH GRADE STUDENTS

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ABSTRACT

Based on the observations at the time at SMP Muhammadiyah Depok Sleman Regency, the anxiety of facing the students 'mathematics subjects is still high. This can be seen from the students' attitude that is restless, afraid, worried, anxious, nervous, tense when told that there will be a daily test, pretest And posttest math lessons, as well as some poor parental concerns that are based on some parents who not come to school to take care of education issues. This study aims to determine whether or not there is a significant relationship between the anxiety of facing mathematics students and attention of parents of VIII class at SMP Muhammadiyah 1 Depok Sleman Semester Even semester In Academic Year 2016/2017. This study population is all the student's VIII Class of SMP Muhammadiyah 1 Depok semester of academic year 2016/2017. It is taken in VIII B Class as the sample of research class with a random sampling technique to the class. Data collection techniques in the form of test techniques and questionnaires. The research instrument test uses validity tests, different power tests, and reliability tests. Test prerequisite analysis includes a normality test, independent test, linearity test. Analysis of data for hypothesis testing using correlation analysis and linear regression analysis. The results showed that there was no negative and significant relationship between anxiety facing mathematics subjects with mathematics learning result, with r = -0,0081, there is a positive and significant correlation between the attention of parents with the results of learning mathematics, with r = 0,6093, and there is a significant relationship between the anxiety of facing mathematics subjects and the attention of parents with the results of learning mathematics, with $F_{count} = 10{,}9721$; $F_{table} = 3{,}27$ so that $F_{count} \geq F_{table}$. Relative contribution of X_1 = 0,254 %, X_2 = 99,746%, and effective contribution X_1 = 0,098 %, X_2 = 38,438%. This indicates that the attention of parents (X_2) has a greater relationship with mathematics learning outcomes than with anxiety facing Mathematics subjects (X_1) with mathematics learning outcomes.

Keywords: anxiety facing mathematics subjects, parent's attention, mathematics learning outcomes.

INTRODUCTION

In the era of globalization as it is today, increasingly advanced technological developments will influence other fields, one of which is the field of education, education is a must for everyone. In mathematics, education has an important role in everyday life, both directly and indirectly. Mathematics is a deductive mindset, meaning that a theory or statement in mathematics can be accepted if its truth has been proven deductively (Heruman, 2007: 1). Until now, mathematics in school is still a complicated subject for students. Mathematics is considered a less exciting subject, complicated, and boring so that mathematics becomes less enjoyable, resulting in low student learning outcomes. The results of exposure to the state of students of SMP Muhammadiyah 1 Depok in Sleman Regency above are supported by the data of the mathematics test scores in the mid-semester of the 2016/2017 academic year which explains that the mathematics learning outcomes of VIII grade students of SMP Muhammadiyah 1 Depok are still low. The number of students with an average grade below the KKM is 149 students out of 150 students.

Many factors cause the still low learning outcomes of mathematics in SMP Muhammadiyah 1 Depok Sleman. This study only takes a few variables as internal factors that may be related to learning outcomes. That factor is anxiety facing math subjects. According to Prawitasari, Johana E. (2011: 79),

academic anxiety will arise due to excessive parent expectations, many and difficult academic tasks, social comparisons with other students, and experiences of failure.

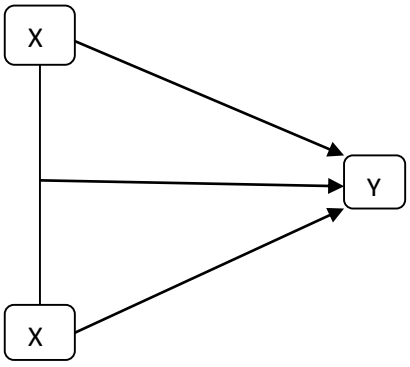
Meanwhile, as an external factor, parental attention is one of the variables that is possible to have a relationship with mathematics. According to Catarina (2006: 63) forms of parental attention that support learning outcomes are as follows: 1. giving adequate learning facilities, 2. giving sufficient learning opportunities to students, 3. giving appropriate reprimands or praise, 4. create a family atmosphere that can support the learning process, 5. help students if they have difficulty in learning, 6. guide in the discipline of learning and provide motivation to their students, 7. pay attention to the process and learning outcomes of students continuously. From the explanation above, it turns out that many factors are included in students' internal factors, one of which is anxiety. According to Gunarsa Singgih (2013: 27), anxiety is a worry. Fear is not clear why.

Anxiety in mathematics is anxious, anxious, anxious, unnatural fear experienced by students when they face everything about mathematics. Anxiety in mathematics is apparent when students face math lessons, tests, and tests. In external factors, parents are included in the category of social, environmental factors. This shows that parents also have a relationship with student learning outcomes. Based on observations when observing Saturday, October 15, 2016, at SMP Muhammadiyah 1 Depok, Sleman Regency. Researchers find that most students find it difficult to learn mathematics, so student's mathematics learning outcomes tend to be less than optimal. Based on some VIII grade students and BK SMP Muhammadiyah 1 Depok teachers in Sleman regency, parents also pay less attention to their children's school activities.

Based on the explanation above, the researchers interested in researching the relationship between anxiety facing math subjects and the parents' attention with the results of learning Mathematics students Grade VIII SMP Muhammadiyah 1 Depok Regency of the Semester Even school year 2016/2017. The identification issues in this study are 1. Mathematics is still categorized as a difficult subject. 2. There is a sense of anxiety experienced as a large student in the face of mathematical subjects. 3. Most of the parents pay less attention to their children's learning activities. 4. Still, low mathematics learning results are mostly students. The goal that is to be achieved from the implementation of this research is to know whether there is a negative relationship, there is no positive and significant relationship between anxiety facing math definites and parents ' attention with learning outcomes Mathematics Grade VIII Students SMP Muhammadiyah 1 Depok Semester even school year 2016/2017.

METHODS

The design of the research used is as follows:



Information:

X_1 = anxiety facing math subjects

X_2 = Parents attention

Y = Mathematics Learning Results Grade VIII students

This research was conducted in SMP Muhammadiyah 1 Depok Kabupaten Sleman and carried out during the even semester of the 2016/2017 school year in class VIII SMP Muhammadiyah 1 Depok District of Sleman. The population in this study is all students of Grade VIII SMP Muhammadiyah 1 Depok Regency of Sleman in the even semester of the 2016/2017 school year consisting of classes VIII A, VIII B, VIII C, VIII D, with a total of 150 students. In this research, sampling was carried out using random sampling techniques. It is said to be random because the sampling class is randomly generated from existing classes. The class is randomly generated and taken as the sample class is VIII B class, with the number of students from 38 students. While class VIII C with the number of students as much as 37 students as trial classes.

The techniques used to collect data in this research are polls and tests. Before being used to disclose actual data, the instrument was tested in a trial class to know the validity and reusability of the instrument or, in other words, to identify the problem – problems weak or disabled. According to Sugiyono (2015:173), an instrument is said to be valid if it can be used to measure what it should be measured. The analysis test used in this study is a prerequisite test that is a test of normality, linearity test and independent test, and hypothesis testing. To test the hypothesis in use simple linear regression analyses and double linear regression. Test details of normality, linearity test, and independent test as follows:

a. Test normality. Test normality is used to determine whether the data used is a normal distribution or not. The formula used is chi-squared.
b. Linearity Test. The linearity test is used to know the relationship between the free variables and the bound variables to be linear or not. The test statistics used are.
c. Independent Test. The independence test is used to know the presence or absence of the relationship between the free variable anxiety confronts math subjects (X_1) with the parent's attention variable (X_2), i.e. using a formula.

RESULTS AND DISCUSSION

The anxiety Data on the subject of mathematical subjects was obtained from the instrument scores of 30 items given to 38 students in the sample class. From that data obtained the highest score of 114 and the lowest score of 70. Frequency distribution of the anxiety score faced mathematical subjects obtained an average price of 92.8947 and a standard deviation of 9.67385. The result of the categorizing of the number of students can be known that anxiety facing mathematics students VIII SMP Muhammadiyah 1 Depok Regency of Sleman even Semester 2016/2017 is included in the category of the medium due to frequency is located at intervals of $83.22086 \leq X \leq 102.56854$ that is as many as 29 students or 76.316%.

Parent's attention data is derived from a poll instrument of 30 items given to 38 students in the sample class. From that data obtained the highest score of 115 and the lowest score of 72. Frequency distribution of parents ' attention scores obtained an average price of 89.3684 and a standard deviation of 12.2814. The result of categorizing the number of students can be known that the attention of parents of class VIII SMP Muhammadiyah 1 Depok Regency of Sleman even Semester 2016/2017 is included in the medium category because the greatest frequency lies in the Interval $77.087 \leq X \leq 101.6498$, i.e., as many as 24 students or 63.1579%.

The mathematical learning data results were obtained from the test instrument some 20 items given to 38 students in the sample class, from that data obtained the highest score of 90 and the lowest score of 60. Our learning score frequency distribution obtained an average price of 70.9474 and a standard deviation of 6.79406. The result of categorizing the number of students can be known to learn the results of mathematics students in grade VIII SMP Muhammadiyah 1 Depok Regency of Sleman even Semester 2016/2017 is included in the medium category because the greatest frequency lies in the Interval $64.1534 \leq X \leq 77.7415$ that is as many as 29 students or 76.316%.

This test is done to know the anxiety of facing mathematical subjects (X_1), the attention of parents (X_2), and the results of Learning Mathematics (Y) is the normal distribution or not. Can be seen in table 1

Table 1. Summary of test result normality

No	Variable Research	χ^2_{count}	df	χ^2_{table}	Conclusion
1	X1 (anxiety facing math subjects)	2,556	3	7,814	Normal
2	X2 (parents' attention)	7,972	4	9,487	Normal
3	Y (Learning Outcomes)	1,295	3	7,814	Normal

The linearity test is used to determine whether the free variables (X_1 and X_2) and the bound (Y) variables are linear. Can be seen in table 2.

Table 2. Summary of linearity test results

No	Variable	F_{count}	F_{table}	Conclusion
1	X_1 and Y	-0,486	2,28	Linear
2	X_2 and Y	1,351	2,43	Linear

Independent tests were conducted to determine whether there was a link between the free variables, i.e., the anxiety variables faced mathematical subjects (X_1) and the parental attention (X_2) using a Chi-squared formula (χ^2). Can be seen in table 3.

Table 3. Summary of independent test results

No	Variable Research	χ^2_{count}	Conclusion
1	X_1 and X_2	38,748	Independent

Based on the results of a simple correlation analysis t-test, then obtained the correlation coefficient of anxiety facing mathematical subjects (X_1) with the results of Learning Mathematics (Y) amounting to-0.0081 and the result t_{count} = -0,0486 while t _ Table At a significant 5%, v = 36 of 1.6883. Retrieved t_{count} =-0.0486; $t_{tabel} = -1.6883$ so $t_{count} > t_{table}$, then the first hypothesis was tested by accepting $H_{0.1}$ and rejecting $H_{1.1,}$ which means there is no negative and significant relationship between anxiety facing subjects Mathematics with math learning results. The correlation coefficient $r = -0{,}0081$ indicates between anxiety facing mathematical subjects with the results of learning mathematics has a fragile relationship. At the same time, the equation of the Regresinya line is $\hat{Y} = 69{,}4318 - 0{,}0052\, X_1$.

Based on the results of the simple correlation analysis-T, then obtained the correlation coefficient of parental attention (X2) with the result of learning Mathematics (Y) of 0.6093 and the result t_{count} = 4.6104 whereas t_{tabel} at a significant level of 5%, v = 30 that is 1.6883 obtained $t_{count} = 4.6104$, $t_{table} = 1.6883$ so $t_{count} > t_{table}$, then the second hypothesis has been tested by rejecting $H_{0.2}$ and receiving $H_{1.2}$ which means there are positive Between the attention of parents with the results of mathematical learning. The correlation coefficient *r* = 0,6093 shows that the attention of the elderly with mathematical learning outcomes has a moderate relationship. While the equation of the Regresinya line is $\hat{Y} = 38{,}9226 + 0{,}3364\, X_2$.

With a double correlation analysis then acquired second correlation coefficient (R) between anxiety facing mathematical subjects (X_1) and the attention of parents (X_2) with the results of Learning Mathematics (Y) of 0.6208 indicates there is a moderate relationship between anxiety confronts math subjects and parents ' attention with math learning outcomes. Next on the test of the significance of the correlation coefficient using test-F obtained F_{count} = 10.9721 whereas F_{table}= 3.27 at a significant level of 5%, v_1 numerator = 2 and v_2 Pemtell = 35 so $F_{count} \geq F_{table}$, Thus $H_{0,3}$ rejected and received $H_{1,3}$, so there is a significant link between anxiety confronting math subjects and the attention of parents with the results of math learning.

CONCLUSION

Based on the results of the research and discussion above, the conclusions of the study can be drawn as follows.

1. There is no negative and significant relationship between anxiety facing mathematics subjects with mathematics learning outcomes of eighth-grade students of SMP Muhammadiyah 1 Depok, Sleman Regency in the even semester of the 2016/2017 school year. This is indicated by the test-t, which is $t_{count} = -0{,}0486$; $t_{table} = -1{,}6883$ so $t_{count} > -t_{table}$. The simple correlation coefficient (*r*) between anxiety facing mathematical subjects (X_1) with mathematics learning outcomes (Y) of -0.0081 with the linear regression equation $\hat{Y} = 69{,}4318 - 0{,}0052\, X_1$. This means that each decrease of one unit X_1 results in 0.0052 increase in *Y*.
2. There is a positive and significant relationship between parents' attention with the results of learning Mathematics students Grade VIII SMP Muhammadiyah 1 Depok District of Sleman, even semester 2016/2017. This is indicated by a test-t, which is $t_{count} = 4.6104$; $t_{table} = 1.6883$, so $t_{count} > -t_{table}$. A simple correlation coefficient (*r*) between the attention of the elderly (X_2) with the results of the mathematical Study *(Y)* of 0.6093 with a linear regression equation $\hat{Y} = 38{,}9226 + 0{,}3364\, X_2$. This means each increment of one unit of X_2 resulted in 0.3364 increase of *Y*.
3. There is a significant relationship between anxiety facing math subjects and the attention of parents with the results of learning Mathematics students Grade VIII SMP Muhammadiyah 1 Depok District of Sleman, even semester 2016/2017. It is indicated by test *F*, i.e. $F_{count} = 10{,}9721$; $F_{table} = 3{,}27$ $F_{count} \geq F_{table}$.

From the results of this calculation, the attention of parents (X_2) has a more significant relationship with the results of learning mathematics, compared with the anxiety of dealing with mathematical subjects (X_1) with the results of learning mathematics.

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