

THE CORRELATION OF PARENTS ATTENTION, INTELLIGENCE QUOTIENT, AND STUDENT INTEREST TO MATHEMATICS OUTCOMES ON THE SEVENTH GRADE STUDENTS OF SMP

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ABSTRACT

The poor student's outcome correlates with some factors. They are parent's attention, Intelligence Quotient (IQ), and student's interest. This research is aimed at the positive and significant correlation of parent's attention, intelligence quotient, and student's interest to the mathematic outcome on the seventh-grade student of Muhammadiyah Junior High School (SMP Muhammadiyah) Pleret Bantul in the second semester academic year 2016/2017. This research population is all the seventh-grade students of SMP Muhammadiyah Pleret Bantul in the second semester academic year 2016/2017. It consists of six classes. Thirty-two students of VII B students were chosen to be the sample, and it uses random sampling. The data were collected by questionnaire, documentation, and test method. The questionnaire is used to collect a parent's attention and student's interest data. The test is used to collect the student's outcome. The research instrument test uses a validity test, reliability test, and discrimination test. The prerequisite analysis test consists of normality tests, linearity tests, and independence tests. The data analysis to test the hypotheses use product-moment correlation analysis and double linear regression analysis. The results show a positive and significant correlation of parent's attention, intelligence quotient, and student's interest in mathematics outcome. The double correlation coefficient (R) is 0,649, and the determination coefficient (R²) is 0,422. Linear regression equation $\hat{Y} = -67,507 + 0,431 X_1 + 0,841 X_2 + 0,022 X_3$. The relative contribution X_1 is 70,958% , X_2 is 26,950% and X_3 is 39,409% and effective contribution X_1 is 29,945 % , EC X_2 is 11,373 % and X_3 is 16,631 %.

Keywords: Parents Attention, Intelligence Quotient (IQ), student's interest, The Outcome

INTRODUCTION

Education is a process of changing the behavior and ability of a person towards progress and improvement. Education can change one's mindset always to innovate and improve in all aspects of life toward improving self-quality. Education will be meaningful if learning considers student development. Education is conducted through learning activities organized by educational institutions. Learning activities are an educational institution to influence students to achieve the quality that is the educational institution's objective. To achieve that quality, learning activities are done either through direct or indirect interactions between educators and students. Mathematics learning is given to learners to equip students with logical, critical, creative, analytical, and skill-thinking skills. These skills are given to learners to acquire, manage, and utilize information to solve daily life problems. Therefore, mathematics learning was developed to train learners to solve problems and communicate ideas through symbols, tables, and other media. Good learning outcomes characterize student success at school. The first and foremost influence of a student's life, growth, and development is family. In a family, the main responsibilities are parents. Parents are the primary and first examples of a child. Parental attention is required for child progress in terms of education.

The way parents educate their children is their influence on learning their children. The students' learning outcomes will be considered by parents to be different from students' learning outcomes that are not noticed by their parents. The shape of parents' attention to children's learning includes providing tools and learning places for children, creating a conducive learning environment, taking care of children's learning time, paying attention to children's associations, and accompanying children in

learning. However, not all parents care about children's learning activities. It causes parents to not know about children's learning activities at home. As such, parents' support and attention have a very important role for students in achieving maximum learning outcomes. What is more, for math subjects that require a lot of practice and patience. Based on this attention and parents' role is necessary to achieve the maximum results of mathematical learning both in support and encouragement in learning and the provision of facilities that support students in learning mathematics. In addition to parents' attention, intelligence level also plays a role in improving student learning outcomes. Intelligence is the skill to learn from experience and the ability to adapt to the environment (Robert J. Stremberg in H. Djaali, 2012:65). The integration level is made to provide a potential student base that will facilitate the students' learning process and eventually get good math learning results. Learning interests are also factors that come from within students who are suspected to influence the achievement of learning outcomes. Students who have an interest in certain subjects tend to give greater attention to the subject.

Based on the observation on Wednesday, October 12, 2016, the learning mathematics of grade VII students SMP Muhammadiyah Pleret is still low. This can be seen from the average value of mathematics at the central replay of Semester of class VII of the SMP Muhammadiyah Pleret school year 2016/2017, shown in table 1.

Table 1. Value of Middle Semester 1 SMP Muhammadiyah Pleret school year 216/2017

Class	VIII A	VIII B	VIII C	VIII D	VIII E	VIII F
Average	27,33	27,50	28,63	28,33	35,80	46,13
Score Max	40,00	42,50	37,50	42,50	62,50	75,00
Score Min	20,00	10,00	20,00	17,50	15,00	22,50
≥ 70	0%	0%	0%	0%	0%	0,01%
< 70	100%	100%	100%	100%	100%	99,99%
Amount	31	32	32	32	29	30

According to the table above, it appears that the results of Deuteronomy Tengan of Class VII mathematics in Junior Muhammadiyah Pleret are still low. A total of 99.99% of students still have not reached the minimum submission criteria of 75. Various efforts have been made to improve students' mathematical learning outcomes. These efforts include teaching material improvement, optimizing the learning process, procurement of new books, and providing mathematical aids. However, the achieved results have not been as expected.

Parents have a very important role in the education of their children. Parental attention is required for the child's progress in terms of education. Parent's attention is the centration of concentration done by parents to an object, in this case, the child, which will make the child creative and not become cowardly because it feels that he/she is protecting. David Wechsler Heidentrich in Dalyono, M (2015:182) finalized intellectual intelligence as the ability to learn and use what has been learned to adapt efforts to lesser-known situations or solve problems. Intellectual intelligence can be influenced by several factors, both from within and outside the individual. According to Dalyono, M (2015:186-187), five factors affect the intellectual intelligence of the innate, maturity, formation, interest, and distinctive provisioning and freedom. The integration level is made to provide a potential student base that will facilitate the students' learning process and eventually get good math learning results.

There are different levels of intellectual intelligence in humans, as well as the ability to solve problems. The importance of individual differences, especially in the educational world, brings awareness to the need for special treatment of students who have unusual intelligence. The difference – The difference shows the possibility of differences in human possession. According to the Slameto (2010:180), interest is a sense of liking and interest in a thing or activity, without anyone telling. Interest is essentially the acceptance of a relationship between yourself and something outside of yourself—the stronger or closer the relationship, the greater the interest. With high interest, then students will strive to get good results. According to Soedjana, Nana (2016:22), the learning outcomes are the students' skills

after receiving their learning experience. Based on the results of interviews with one of the teachers of mathematics in SMP Muhammadiyah Pleret, the learning interest of students in mathematics is still low. This can be demonstrated during the learning process, as students do not heed the lesson. Students talk with friends when the teacher explains, and there are still students who do not work on the assignment.

Based on the background and problem limitation, it can be formulated the problem that will be researched is there is a positive and significant relationship between the attention of parents, intellectual intelligence, and learning interest with the results of the Mathematics learning students Grade VII even semester SMP Muhammadiyah Pleret school year 2016/2017?

In connection with the formulation of the problem that has been described, then the objective that is to be achieved from this research is to know the presence or absence of a positive and significant relationship between the attention of parents, intellectual intelligence, and learning interest with the results of the mathematics student grade VII even semester junior Muhammadiyah Pleret school year 2016/2017.

METHODS

This research is classified as quantitative research. The place of research was conducted at Muhammadiyah Pleret Middle School. Simultaneously, the research was carried out in the even semester of the 2016/2017 school year because classes are arranged randomly without a superior class. In this study, the samples were taken randomly using random sampling techniques to the class. It was said random because the sampling class was carried out randomly from the existing classes because the class arrangement was randomly drawn, and the sample class was Class VII B with 32 students. There are two research variables, namely the independent variable (Independent) and the dependent variable (dependent). The independent variable (Independent) consists of parental attention (X_1), intellectual intelligence (X_2), and interest in learning (X_3), while the dependent variable (dependent) namely the results of learning mathematics (Y). Data collection techniques used questionnaires, documentation, and tests. In this study, the questionnaire method was used to obtain data on parents' attention and student interest in learning. The documentation method is used to obtain data about intellectual intelligence. Simultaneously, the test method is used to obtain data about students' mathematics learning outcomes in grade VII at SMP Muhammadiyah Pleret. The questionnaire test uses the content validity test by reviewers and the instrument reliability test with the alpha formula. In contrast, the test instrument tests use the instrument validity test with product-moment correlation techniques, different power tests, and instrument reliability tests with the KR-20 formula (Arikunto, S. 2009: 100). After the data is collected, the analysis prerequisite tests must be met normality test, linearity test, and independence test. Data analysis uses product-moment correlation analysis and multiple linear regression analysis.

RESULTS AND DISCUSSION

In this section, further discussion of the results of the research was analyzed in correlation. This study found that the seventh hypothesis test results showed a positive and significant relationship between parents' attention, intellectual intelligence, and interest in learning with mathematics learning outcomes. In other words, the better the attention of parents to students, the better the learning outcomes. Likewise, with intellectual intelligence, the higher the intellectual intelligence, the better the learning outcomes. Interest in learning also influences learning outcomes, because if students' interest in learning mathematics is high, the learning outcomes will also be higher.

This normality test is used to test the distribution of data obtained by each variable, whether it is normally distributed or not. A summary of the results of the normality test for the four variables is:

Table 2. Summary of Normality Test Results

No	Variable	χ^2_{count}	χ^2_{table}	df	Info.
1	Parents' attention (X_1)	0,784	11,070	5	Normal
2	Intellectual intelligence (X_2)	0,064	11,070	5	Normal
3	Learning Interests (X_3)	5,450	11,070	5	Normal
4	Mathematics Learning Results (Y)	2,446	11,070	5	Normal

The linearity test is used to know between the free variables and the bound variables to have linear relationships. The summary of the four linearity test results are:

Table 2. Summary of linearity test results

No	Variable	F_{count}	F_{table}	Info.
1	X_1 with Y	0,387491226	2,92	Linear
2	X_2 with Y	0,572960254	2,34	Linear
3	X_3 with Y	1,063452686	2,65	Linear

The independence test is used to determine the presence or absence of relationships between free variables. A summary of the independence test results of the three free variables are:

Table 3. Summary of the independence test result

No	Variable	χ^2_{count}	χ^2_{table}	df	Info.
1	X_1 with X_2	29,271	37,625	25	Independent
2	X_1 with X_3	28,071	37,625	25	Independent
3	X_2 with X_3	36,534	37,625	25	Independent

From the multiple correlation analysis, the multiple correlation coefficient (R) value is 0.649. In this study also obtained a coefficient of determination (R^2) of 0.422, which means that variations in mathematics learning outcomes (Y) can be explained by student learning habits (X_1), home learning environment (X_2), and numerical ability (X_3) through linear lines $\hat{Y} = -67,507 + 0,431 X_1 + 0,841 X_2 + 0,022 X_3$. This means an increase in one unit (X_1) resulted in a 0.431 increase in Y, increase in one unit (X_2) resulted in a 0.841 increase in Y, and wearing one unit (X_3) resulted in a 0.022 increase in Y. While for the relative contribution of X_1 by 70,958%, X_2 by 26,950% and X_3 amounted to 39.409% and the effective contribution X_1 amounted to 29.945%, X_2 amounted to 11.373% and X_3 amounted to 16.631%. This shows that parents' attention gives a more significant relationship to mathematics learning outcomes than intellectual intelligence and interest in learning.

CONCLUSION

Based on the results of the research and discussion as described above, it can be concluded that there is a positive and significant relationship between parents' attention, intellectual intelligence, and learning interest with mathematics learning outcomes in students of the VII SMP Muhammadiyah Pleret class on the even semester of the 2016/2017 school year. This is indicated by the test - F, i.e., $F_{count} > F_{table}$ or $6.81 > 2.95$, with a double correlation coefficient (R) of 0.649 and a coefficient of determination (R^2) of 0.422. The linear regression equation $\hat{Y} = -67,507 + 0,431 X_1 + 0,841 X_2 + 0,022 X_3$. The relative contribution of X_1 is 70.958%, X_2 is 26.950% and X_3 is 39.409% and the effective contribution is X_1 29.945%, X_2 is 11.373% and X_3 is 16.631%.

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