

**RELATIONSHIP BETWEEN PARENT'S ATTENTION, LEARNING FACILITIES, AND LEARNING MOTIVATION, WITH MATHEMATICS LEARNING OUTCOMES IN STUDENTS CLASS VIII AT SMP MUHAMMADIYAH PLERET BANTUL**

**Arif Romadhon<sup>a</sup>, Abdul Taram<sup>b</sup>**

Program Studi Pendidikan Matematika Universitas Ahmad Dahlan  
Jalan Ring Road Selatan, Tamanan, Banguntapan, Bantul Yogyakarta  
[arifromadhon40@gmail.com](mailto:arifromadhon40@gmail.com), [taromahmad@yahoo.com](mailto:taromahmad@yahoo.com)

**ABSTRACT**

Attention parents were low, inadequate learning facilities, as well as students' motivation, is still low allegedly associated with the results of students' mathematics learning. This study aims to determine the presence or absence of a positive and significant relationship between Parents Attention, Learning Facilities, and Motivation to learn the Mathematics Learning Outcomes of Students Class VIII at SMP Muhammadiyah Pleret on the Even Semester Academi Year 2015/2016. The population in this study were all students of class VIII SMP Muhammadiyah Pleret on the even Semester Academic Year 2015/2016 as many as 4 classes. The research sample is a class VIII A using random sampling techniques. Data collection techniques such as test and non-test techniques. Data collection instruments in the form of questions and questionnaires. Test instruments used are validity, reliability test, and test different power. The analysis prerequisite test including normality test, linearity test, and the test of independence. Analysis of data using correlation analysis and linear regression analysis. The results showed that there is a positive and significant correlation between parents attention, learning facilities, and motivation to learn the mathematics learning outcomes, multiple correlation coefficient ( $R$ ) 0.7173, with the regression equation  $\hat{Y} = -39,681 + 0,496 X_1 + 0,284 X_2 + 0,611 X_3$ , at the 5% significance level, obtained  $F_{count}$  at 9.5383 and  $F_{table}$  at 2,9063 means  $F_{count} \geq F_{table}$ . The percentage relative contribution of parents attention 33,41%, the relative contribution on learning facilities 18,11%, and the relative contribution of learning motivation 48,49%, and then effective contribution on parents attention 17,19% , the effective contribution of learning facilities 9,31% , and the effective contribution of learning motivation 24,95%.

**Keywords:** Parents Attention, Learning Facilities, Motivation Learning, Learning Outcomes.

**INTRODUCTION**

Education is the gateway to the nation's civilization. To achieve the progress of civilization, people are required to not only know knowledge but also find new knowledge and develop it. History proves education to build a dignified civilization. Education is the basis of new discoveries that are useful for national life. To build a nation's civilization, humans are needed who have the ability and character. Education is the process of acculturating abilities, values, and attitudes in the life of the nation and state.

Mathematics is a supporting factor in the pace of development and competition in various fields of economics, technology, weaponry, and other fields. Along with advances in various fields resulted in demands on the world of higher education which are not separate from pure science such as mathematics. Based on the results of interviews with a number of students and mathematics teacher Ibu Tintrim at Muhammadiyah Pleret Middle School in Bantul Regency, some students considered learning mathematics difficult. So that it affects the learning outcomes of mathematics. This can be seen from the average scores at the end of semester VIII mathematics tests in Semester I SMP Muhammadiyah Pleret which can be seen in the following table.

**Table 1.** Grades of Mathematics Final Exam Grade VIII of Odd Semester of Muhammadiyah Pleret Middle School in Bantul Regency

No.	Class	Average value	Total student
1.	VII A	29,27	30
2.	VII B	34,30	26
3.	VII C	28,04	31
4.	VII D	31,98	28

(Source: *SMP Muhammadiyah Pleret*)

Table 1 shows that the value of mathematics lessons is still so low compared to the value of other subjects. This proves that there are still students who have difficulty in learning mathematics. Based on observations at SMP Muhammadiyah Pleret Bantul Regency, namely the lack of student motivation in mathematics, it can be shown that many students who pay less attention to teacher explanations during lessons and less active students in class are more likely to be lazy when given a practice question. Furthermore, the use of learning facilities that are not utilized properly, students have been facilitated by the school with a mathematics textbook but only learned during the lesson, students tend not to want to read and learn it again. Other factors that also affect student learning are parents, some parents pay less attention to children's learning development and less often control student learning outcomes as evidenced by interviews with some students who do not tell their parents when mathematics learning outcomes are less satisfactory.

Parents are a component of the family consisting of father and mother and are the result of a legal marriage that can form a family. according to Suryabrata, Sumadi (2007: 14) argues that "The attention of parents is the concentration of certain psychic energy on an object. The attention of parents is more or less awareness that accompanies an activity undertaken ". Thus it can be concluded that the attention of parents in learning a child is the willingness to concentrate thoughts and feelings to provide all learning needs, ranging from learning facilities, time and place to learn, and assistance in learning so that a child gets the results as expected.

Learning facilities are facilities and infrastructure that can support the smooth learning process both at home and at school. With adequate learning facilities, fluency in learning will be realized. In connection with learning facilities as stated by Nasution, S (2005: 76), "To improve the quality of teaching must be supported by a variety of facilities, learning resources and assistants, among others, sufficient resources and tools are needed to enable students to learn individual. Among other things needed resources and tools that are sufficient to enable students to learn individually ". Learning facilities are one of the elements suspected to be related to student mathematics learning outcomes. With adequate learning facilities students are expected to get good learning outcomes. Basically learning facilities are all things that make it easier for a person to learn. Completeness of the availability of this learning facility that might be related to mathematics learning outcomes. With adequate learning facilities can help clarify the subject matter of mathematics delivered by the teacher.

Motivation is a change in a person or person that is marked by the emergence of feelings and reactions to achieve goals. From the various meanings above can be taken the understanding that learning motivation is an impulse or a driving force from within an individual that provides direction and enthusiasm in learning activities, so as to achieve the desired goals. Sardiman (2011: 75) argues that "motivation as a whole driving force in students that lead to learning activities, which ensures continuity of learning activities and which gives direction to learning activities so that the desired goals of the learning subject can be achieved". So the role of motivation for students in learning is very important. The motivation will improve, strengthen and direct the learning process so that effectiveness in learning will be obtained.

Based on the description above, the researcher is interested in conducting research to find out the extent of the Relationship between Parents' Attention, Learning Facilities and Learning Motivation

and Learning Outcomes for Students of Class VIII Middle School Even Semester of Muhammadiyah Pleret in Bantul Regency in the 2015/2016 Academic Year.

## METHODS

This research was conducted at Muhammadiyah Pleret Middle School in Bantul district on the seventh-grade students of the even semester. The population in this study were all students of class VIII Even Semester, SMP Muhammadiyah Pleret, Bantul Regency, Academic Year 2015/2016. The research subjects included class VIII A, VIII B, and VIII C, all homogeneous classes because they were arranged randomly. Sampling is done randomly, using random sampling techniques to the class without regard to strata in the population.

This study uses two data collection techniques, namely test techniques and questionnaire methods. The test used to collect data about the dependent variable is the learning outcomes of class VIII mathematics. According to Arikunto, Suharsimi (2009: 53) states that "The test is a tool or procedure used to find out or measure something in the atmosphere, by means of rules that have been determined." The questionnaire method in this study was used to obtain data on learning motivation, use of learning resources, and parental attention. According to Sugiyono (2013: 199) "Questionnaire is a data collection technique that is done by giving a set of questions or written statements to respondents to be answered".

The data analysis technique in this research is descriptive data analysis. For the prerequisite test analysis using the hypothesis test with the requirements to meet the normality test, linearity test and independent test. Next hypothesis testing uses regression analysis. Regression analysis is a mathematical instrument that states the functional relationship between the independent variable and the dependent variable.

## RESULTS AND DISCUSSION

The first hypothesis test result is that there is a positive and significant relationship between parents' attention and mathematics learning outcomes. In other words, the more attention given by parents the better the mathematics learning outcomes of the students. In this study, a simple correlation coefficient ( $r$ ) of 0.5113 was obtained at a significant level of 5%. There are variations in learning mathematics ( $Y$ ) which are explained by parents' attention ( $X_1$ ) through linear lines  $\hat{Y} = -6,772341857 + 0,755961905 X_1$ , with a regression direction coefficient of 0.7559 This means that each increase of one unit  $X_1$  results in 0.7559 an increase in  $Y$ .

The second hypothesis test result is that there is a positive and significant relationship between learning facilities and mathematics learning outcomes. In other words, the better the learning facilities provided to children, the better the results of student mathematics learning. In this study, a correlation coefficient ( $r$ ) of 0.5059 was obtained at a significant level of 5%. There are variations in mathematics learning outcomes ( $Y$ ) explained by learning facilities ( $X_2$ ) through linear lines  $\hat{Y} = -5,06087642 + 0,780666445 X_2$  with a regression direction coefficient of 0.7806. This means that every increase of one unit  $X_2$  results in a 0.7806 increase in  $Y$ .

The third hypothesis test result is that there is a positive and significant relationship between learning motivation and mathematics learning outcomes. In other words, the higher the motivation to learn, the higher the mathematics learning outcomes of students. In this study, a correlation coefficient ( $r$ ) of 0.5982 was obtained. There are variations in mathematics learning outcomes ( $Y$ ) which are explained by learning motivation ( $X_3$ ) through linear lines  $\hat{Y} = -1,824164496 + 0,877396862 X_3$  with a regression direction coefficient of 0.8773. This means that every increase in one unit  $X_3$  results in a 0.8773 increase in  $Y$ .

The fourth hypothesis test result is that there is a positive and significant relationship between parents' attention and learning facilities with mathematics learning outcomes. In other words, the greater attention given by parents to children's learning and good learning facilities, the better student learning outcomes. From the multiple correlation analysis, it is obtained the value of the multiple correlation

coefficient (R) of 0.6205. There are variations in mathematics learning outcomes (Y) that can be explained by parents' attention ( $X_1$ ) and learning facilities ( $X_2$ ) through linear lines  $\hat{Y} = -21,5746822 + 0,565693363 X_1 + 0,57772178 X_2$ . This means an increase in one unit ( $X_1$ ) resulted in a 0.5656 increase in Y, and an increase in one unit ( $X_2$ ) resulted in a 0.5777 increase in Y. While for relative contributions  $X_1$  by 50.8% and  $X_2$  by 49.2% and effective contributions  $X_1$  of 19.56% and  $X_2$  of 18.94%.

The fifth hypothesis test results are that there is a positive and significant relationship between parents' attention and learning facilities with mathematics learning outcomes. In other words, the greater the attention of parents and high motivation to learn, the student learning outcomes will also be better. From the multiple correlation analysis, it is obtained the value of the multiple correlation coefficient (R) of 0.7003. There are variations in mathematics learning outcomes (Y) that can be explained by parents' attention ( $X_1$ ) and learning motivation ( $X_3$ ) through linear lines  $\hat{Y} = -31,96465137 + 0,55890484 X_1 + 0,728658677 X_3$ . This means an increase in one unit ( $X_1$ ) resulted in a 0.5589 increase in Y, and an increase in one unit ( $X_3$ ) resulted in a 0.7286 increase in Y. As for the relative contribution of  $X_1$  by 39.4% and  $X_3$  by 60.6% and effective contribution of  $X_1$  of 19.33% and  $X_3$  of 29.73%.

The sixth hypothesis test results are that there is a positive and significant relationship between learning facilities and learning motivation with mathematics learning outcomes. In other words, the better the learning facilities and the strong motivation, the better the mathematics learning outcomes of the students. From the multiple correlation analysis, it is obtained the value of the multiple correlation coefficient (R) of 0.6452. There are variations in mathematics learning outcomes (Y) that can be explained by learning facilities ( $X_2$ ) and learning motivation ( $X_3$ ) through linear lines  $\hat{Y} = -18,51900073 + 0,429059647 X_2 + 0,675706418 X_3$ . This means an increase of one unit ( $X_2$ ) resulted in a 0,429 increase in Y, and an increase in one unit ( $X_3$ ) resulted in a 0,6757 increase in Y. While for relative contributions  $X_2$  of 33.8% and  $X_3$  amounted to 66.2% and effective contribution of  $X_2$  amounted to 14 06% and  $X_3$  27.56%.

The seventh hypothesis test results are that there is a positive and significant relationship between parents' attention, learning facilities and learning motivation with mathematics learning outcomes. In other words, the better the attention of parents to children's learning, and good learning facilities, and high motivation to learn, the better student learning outcomes. From the multiple correlation analysis, it is obtained the value of the multiple correlation coefficient (R) of 0.7173. In this study also obtained a coefficient of determination ( $R^2$ ) of 0.5145 meaning the variation of mathematics learning outcomes (Y) which can be explained by parents' attention ( $X_1$ ), learning facilities ( $X_2$ ), and motivation to learn ( $X_3$ ) through linear lines  $\hat{Y} = -39,6816294 + 0,49699208X_1 + 0,28413548X_2 + 0,61157003X_3$ . This means an increase in one unit ( $X_1$ ) results in a 0.4969 increase in Y, an increase in one unit ( $X_2$ ) results in a 0.2841 increase in Y, and wear one unit ( $X_3$ ) results in 0,6115 increase in Y. As for the relative contribution of  $X_1$  by 33, 41%,  $X_2$  of 18.11% and  $X_3$  of 48.49% and effective contribution of  $X_1$  of 17.19%,  $X_2$  of 9.31% and  $X_3$  of 24.95%. This shows that learning motivation provides a more significant relationship to learning outcomes in mathematics compared to the attention of parents and learning facilities.

## CONCLUSION

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

1. There is a positive and significant relationship between parents' attention and mathematics learning outcomes for students of class VIII in the even semester of SMP Muhammadiyah Pleret 2015/2016 Academic Year. This is indicated by the t-test that is  $t_{count} > t_{table}$  or  $3.2041 > 1.6991$ . Simple correlation coefficient (r) parents' attention to mathematics learning outcomes of 0.5113 with linear regression equations  $\hat{Y} = 6,7723 + 0,7559 X_1$ .

2. There is a positive and significant relationship between learning facilities with mathematics learning outcomes for students of class VIII in the even semester of SMP Muhammadiyah Pleret 2015/2016 Academic Year. This is indicated by the t-test that is  $t_{count} > t_{table}$  atau  $3,1585 > 1,6991$ . Simple correlation coefficient (r) learning facilities with mathematics learning outcomes of 0.5059 with linear regression equations  $\hat{Y} = 5,0608 + 0,7806 X_2$ .
3. There is a positive and significant relationship between learning motivation and mathematics learning outcomes for students of class VIII in the even semester of SMP Muhammadiyah Pleret 2015/2016 Academic Year. This is indicated by the t-test that is  $t_{count} > t_{table}$  or  $4.0205 > 1.6991$ . Simple correlation coefficient (r) learning motivation with mathematics learning outcomes of 0.6316 with linear regression equations  $\hat{Y} = -1,8241 + 0,8773 X_3$ .
4. There is a positive and significant relationship between parents' attention and learning facilities with mathematics learning outcomes for students of class VIII in the even semester of SMP Muhammadiyah Pleret 2015/2016 Academic Year. This is indicated by the F-test that is  $F_{count} > F_{table}$  or  $8.7668 > 3.34$ . The multiple correlation coefficient (R) of 0.6205 and the coefficient of determination ( $R^2$ ) of 0.385 with a linear line equation  $\hat{Y} = -21,5746 + 0,5656 X_1 + 0,5778 X_2$ . The relative contribution of  $X_1$  was 50.8% and  $X_2$  was 49.2% and the effective contribution of  $X_1$  was 19.56% and  $X_2$  was 18.94%.
5. There is a positive and significant relationship between parents' attention and learning motivation with mathematics learning outcomes for students of class VIII even semester of SMP Muhammadiyah Pleret 2015/2016 Academic Year. This is indicated by the F-test that is  $F_{count} > F_{table}$  or  $13,4797 > 3,34$ . The multiple correlation coefficient (R) of 0.7003 and the coefficient of determination ( $R^2$ ) of 0.4905 with a linear line equation  $\hat{Y} = -31,9646 + 0,5589 X_1 + 0,7286 X_3$ . The relative contribution of  $X_1$  was 39.4% and  $X_3$  was 60.6% and the effective contribution  $X_1$  was 19.33% and  $X_3$  was 19.72%.
6. There is a positive and significant relationship between learning facilities and learning motivation with mathematics learning outcomes for students of class VIII in the even semester of SMP Muhammadiyah Pleret 2015/2016 Academic Year. This is indicated by the F-test that is  $F_{count} > F_{table}$  or  $9,9854 > 3,34$ . The multiple correlation coefficient (R) of 0.6452 and the coefficient of determination ( $R^2$ ) of 0.4163 with a linear line equation  $\hat{Y} = -18,519 + 0,429 X_2 + 0,6757 X_3$ . The relative contribution of  $X_2$  was 33.8% and  $X_3$  was 66.2% and the effective contribution of  $X_2$  was 14.06% and  $X_3$  was 27.56%.
7. There is a positive and significant relationship between parents' attention, learning facilities, and motivation to learn with mathematics learning outcomes of students of class VIII in the even semester of Muhammadiyah Pleret Middle School Academic Year 2015/2016. This is indicated by the F-test that is  $F_{count} > F_{table}$  or  $9,5383 > 2,96$  with a double correlation coefficient (R) of 0.7173 and a coefficient of determination ( $R^2$ ) of 0.5142. Linear regression equation  $\hat{Y} = -39,681 + 0,496 X_1 + 0,284 X_2 + 0,611 X_3$ . The relative contribution of  $X_1$  was 33.41%,  $X_2$  was 18.11% and  $X_3$  was 48.49% and the effective contribution was  $X_1$  17.19%,  $X_2$  was 9.31% and  $X_3$  was 24.95%.

## REFERENCES

- Sardiman. 2008 . *Interaksi Dan Motivasi Belajar Mengajar* . Jakarta : PT Raja Grafindo Persada
- Nasution, S . 2005. *Berbagai Pendekatan Dalam Proses Belajar Dan Mengajar*. Jakarta : Bumi Aksara.
- Sugiyono. 2013. *Metode Penelitian Pendidikan (Pendekatan Kuantitatif, Kualitatif, dan R&D)*. Bandung : Alfabeta.
- Suryabrata, Sumadi . 2007 . *Psikologi Pendidikan*. Jakarta : PT Raja Grafindo Persada.
- Arikunto, Suharsimi. 2009. *Dasar-Dasar Evaluasi Pendidikan*. Jakarta: Bumi Aksara.