THE CORRELATION BETWEEN STUDENTS LEARNING MOTIVATION, STUDENTS LEARNING STYLE AND PEERS WITH MATHEMATICS LEARNING OUTCOMES IN 8TH GRADE STUDENTS IN THE SMP NEGERI 2 BERBAH SLEMAN REGENCY

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ABSTRACT

Dealing with the low learning motivation, the students who don't have a good process of learning and peers that don't support the learning activity are estimated relates to mathematics learning outcomes. This research is aimed to know 'is there any positive and significant correlation between students learning motivation, students learning style and peers with mathematics learning outcomes in 8th-grade students in odd semester in SMP Negeri Berbah, Sleman Regency in academic year of 2016/2017. The population in this research is all students in class 8 which are spread in 4 classes, in odd semesters of SMP Negeri 2 Berbah Sleman Regency in the academic year of 2016/2017. Then, the sample of this research is taken from 8D class and 8A is as the tested class by using the Random Sampling technique. Data collecting techniques are test and nontest technique. Data collecting instruments are questionnaires. Instruments tested which used are validity test, difference test, and reliability test. The prerequisite test which is used is a normality test, linearity test, and independent test. Data analysis which is used to test the hypothesis is correlation analysis and linear regression analysis. The research result shows that there is a positive and significant correlation between students learning motivation, students learning style, and peers with mathematics learning outcomes, double correlation coefficient (R) 0,5562 with the regression equality $\hat{Y} = 0,1015 + 0,2630X_1 + 0,7389 X_2 + 0,0880X_3$, at 5 % of the significance level, is got F_{count} is 4,0312 and F_{table} is 2,96, so $F_{count} \geq F_{table}$. It is got that relative contribution of students learning motivation is 21,3092 %, relative contribution of students learning style is 71,4523 % and relative contribution of peers is 7,2385 % then, the effective contribution of the way of students learning is 6,5920%, effective contribution of students learning style is 22, 1038% and effective contribution of peers is 2,2392 %.

Keywords: Learning Motivation, Student's learning style, Peers and Mathematics learning outcomes.

INTRODUCTION

Education is a very important thing in life, meaning that every human being has the right to education. Education is not only obtained while a person is studying at formal educational institutions, but education can be obtained by someone through family and environmental education channels in the form of independent learning activities. With education, it is hoped that a future generation of people who are qualified and able to adapt to live in a society, nation and state will emerge.

In the learning process, elements of the learning process play an important role. The core of educational activities is teaching and learning activities. The success of students in attending educational programs in schools is seen based on the results of their learning. Learning outcomes are the maximum benchmarks achieved by students after doing the learning process. Usually in teaching and learning activities at school after the end of learning to find out the level of success is held measurement or evaluation and the results are called learning outcomes.

Mathematics learning is given to students to equip students with the ability to think logically, critically, creatively, analysis, and the ability to work together. This ability is given to students so that students are able to obtain, manage and use information to solve problems in everyday life. Therefore mathematics learning is developed to train students in solving problems and expressing ideas through symbols, tables, and other media. During this time there are several problems in learning mathematics, one of which is the lack of student motivation in learning mathematics. According to Majid, Abdul (2013: 308) states that motivation is active energy that causes a change in a person that appears in

psychiatric symptoms, feelings, and emotions so that it encourages individuals to act or do something because of goals, needs, or desires that must be satisfied.

Basically learning in a good way that includes characteristics such as devoting full attention, reading books diligently, following the lessons in an orderly manner, taking notes neatly, managing learning time regularly, and controlling yourself so that they can carry out all the tasks in school is a good governance for fostering good character. According to Mappeasse, Moh. Yusuf (2009) how students learn is activities carried out by students in certain learning situations, these activities are a reflection of the learning effort they do. How to learn is a way how students carry out learning activities such as how they prepare to learn, take lessons, independent learning activities undertaken, their learning patterns, and how to take the exam.

In accordance with the development of children, the initial social environment is only limited to the family environment will be more extensive and children will be faced with an environment outside the family that has not been entered. The first social environment outside the family is the environment of peers. Where children learn to live with other people who are not family members. According to Santrock, John. W (2008: 100) peers are children of the same age or at the same level of maturity. One of the most important functions of peer groups is to provide sources of information and comparisons about the world outside the family. Children or adolescents usually have close and close peers, to share information about the outside world.

Learning outcomes are essentially a reflection of learning efforts, in general, the more often students learn mathematics, the more understanding or understanding of what is meant in mathematical concepts or theories, so the better the results obtained. In learning mathematics, children who are highly motivated, use learning methods well and have support from peers learning towards mathematics are thought to be able to show an understanding of these lessons so that their learning outcomes will improve.

Based on the results of interviews with several students and one of the mathematics teachers at SMP Negeri 2 Berbah, mathematics is one of the subjects that students avoid, because mathematics is a subject that is considered difficult, so it affects the learning outcomes of mathematics. This can be seen from the daily math scores of VIII grade odd semester of SMP Negeri 2 Berbah which can be seen in the following table.

Table 1. Daily Mathematics Test scores of Class VIII Odd Semester Semester 2 Berbah, Sleman Regency

Class	VIII. A	VIII. B	VIII. C	VIII. D
Value	90	90	85	90
The highest	30	40	30	40
Value	63,91	68,75	60,78	69,22
< 75	24	24	27	16
≥ 75	7	7	4	15

(Source: SMP Negeri 2 Berbah)

Based on the results of observations at SMP Negeri 2 Berbah, that is, some students are not serious in participating in mathematics, this is because students' motivation is lacking. So that almost every beginning of the meeting the teacher must give an extra appeal to be more serious in learning. At the end of the meeting, the teacher always evaluates students by reminding them to keep learning at home, the material that has been learned at school is studied again at home.

Based on observations about how to learn, students do not optimize learning time well. 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 study it again.

Based on information from a number of students of SMP Negeri 2 Berbah, Sleman Regency, peer groups of students are less supportive for learning mathematics, it can be seen when the teacher explains a material, there are some students who keep cool chatting with their peers, because students

already think that mathematics is a difficult subject and less fun, besides that they would rather play with friends than learn mathematics.

The purpose of this study is as follows:

1. To find out whether or not there is a positive and significant relationship between learning motivation and mathematics learning outcomes of Grade VIII odd semester students of SMP Negeri 2 Berbah, Sleman Regency in 2016/2017 Academic Year.
2. To find out whether or not there is a positive and significant relationship between students' learning methods and mathematics learning outcomes for students of class VIII Odd Semester of SMP Negeri 2 Berbah, Sleman Regency Academic Year 2016/2017.
3. To find out whether or not there is a positive and significant relationship between peers and mathematics learning outcomes of Grade VIII odd semester students of SMP Negeri 2 Berbah, Sleman Regency 2016/2017 Academic Year.
4. To find out whether or not there is a positive and significant relationship between motivation to learn and how to study with mathematics learning outcomes of students of class VIII Odd Semester 2 Junior High School, Berbah, Sleman Regency, Academic Year 2016/2017.
5. To find out whether or not there is a positive and significant relationship between learning motivation and peers with mathematics learning outcomes of Grade VIII odd semester students of SMP Negeri 2 Berbah Sleman Regency 2016/2017.
6. To find out whether or not there is a positive and significant relationship between the way students and peers learn with the mathematics learning outcomes of Grade VIII odd semester students of SMP Negeri 2 Berbah Sleman Regency in 2016/2017 Academic Year.
7. To find out whether or not there is a positive and significant relationship between learning motivation, student learning methods, and peers with mathematics learning outcomes for students of class VIII Odd Semester of SMP Negeri 2 Berbah, Sleman Regency 2016/2017 Academic Year.

METHODS

This research is classified as quantitative research. This research was conducted at SMP Negeri 2 Berbah, Sleman Regency. Research time in odd semester of 2016/2017 school year. According to Sugiyono (2015: 117) "population is a generalization area consisting of: objects or subjects that have certain qualities and characteristics determined by researchers to be studied and then drawn conclusions." The population in this study were all students of class VIII Odd Semester Public Middle School 2 Berbah Sleman Regency 2016/2017 Academic Year. The classes are classes VIII A, VIII B, VIII C, and VIII D, consisting of 128 students.

According to Sugiyono (2013: 62), "the sample is part of the number and characteristics possessed by the population." In this study samples were taken 1 class randomly, using random sampling techniques to classes without regard to strata in the population. The sampling was done by taking one class randomly, obtained class VIII D as a class of research samples with 32 students.

In this study consisted of 4 variables consisting of 3 independent variables and 1 dependent variable, including independent variables, namely motivation to learn (X1), ways of learning (X2), peers (X3). While the dependent variable is the learning outcomes of mathematics (Y). This study uses two data collection techniques in data collection, namely test and questionnaire techniques. According to Arikunto, Suharsimi (2009: 32) states that "Tests are a series of questions or exercises or other tools used to measure skills, knowledge, intelligence, abilities or talents possessed by individuals or groups." Tests are used to collect data about variables bound namely the learning outcomes of class VIII mathematics. According to Sugiyono (2013: 199) that questionnaire (questionnaire) is a data collection technique that is done by giving a set of questions or written statements to respondents to answer. The questionnaire method in this study was used to obtain data on learning motivation, learning methods, and friends the same age. 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. Furthermore, the hypothesis test 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 results of the hypothesis are obtained that students' motivation in the medium category. The results of several student statements that students have the desire and desire to succeed as students first study the subject of mathematics, relearn the material after being taught, and work on practice questions. As well as the existence of interesting activities in learning so students can focus well when the teacher explains. For how to learn students in the medium category. The results of several student statements that students make lesson schedules, follow lessons and understand math lessons taught by the teacher. As for students' peers in the medium category. The results of several student statements that students are able to take time to interact, work together, and get along with their peers.

The first hypothesis test result is that there is a positive and significant relationship of learning motivation with learning outcomes in mathematics. with a simple correlation coefficient (r) = 0.3772, at a significant level of 5%. This can be explained through linear relationships $\hat{Y} = 31{,}0659 + 0{,}5678\,X_1$. This means that every increase of one unit X1 results in 0.5678 increase in Y, in other words, the higher the motivation to learn, the higher the mathematics learning outcomes. From the results of this calculation, it can be seen that by increasing motivation to learn mathematics student learning outcomes will be even better, and vice versa.

The second hypothesis test result is that there is a positive and significant relationship of learning with mathematics learning outcomes, with a simple correlation coefficient (r) = 0.5263, at a significant level of 5%. This can be explained through linear relationships $\hat{Y} = 13{,}0269 + 0{,}9260\,X_2$. This means that every increase in one unit of X_2 results in a 0.9260 increase in Y, in other words, if the way of learning is done well, then the results of learning mathematics will increase. From the results of this calculation, it can be seen that by using the method of learning well the student's mathematics learning outcomes will be even better, and vice versa.

The third hypothesis test results are that there is a positive and significant relationship of peers with mathematics learning outcomes, with a simple correlation coefficient (r) = 0.3765 at a significant level of 5%. This can be explained through a linear relationship $\hat{Y} = 30{,}3021 + 0{,}5570\,X_3$. This means that each increase in one unit of X3 results in a 0.5570 increase in Y, in other words, if a good peer then the mathematics learning outcomes will increase. From the results of this calculation, it can be seen that with peers the mathematics learning outcomes of students will be even better, and vice versa.

The fourth hypothesis test results are that there is a positive and significant relationship of learning motivation and learning ways with mathematics learning outcomes, with a multiple correlation coefficient (R) = 0.5542 at a significant level of 5%. This can be explained through linear relationships $\hat{Y} = 1{,}8234 + 0{,}2875\,X_1 + 0{,}7859\,X_2$. This means that every increase of one unit X_1 results in a 0.2875 increase in Y and every increase in one unit X_2 results in a 0.7859 increase in Y, in other words, if the motivation to learn is high and how to learn well, then the results of learning mathematics will increase. From the results of these calculations, it can be seen that by increasing motivation to learn and how to learn in mathematics subjects, student mathematics learning outcomes will be even better, and vice versa.

The fifth hypothesis test results are that there is a positive and significant relationship of learning motivation and peers with mathematics learning outcomes, with a multiple correlation coefficient (R) = 0.4410 at a significant level of 5%. This can be explained through linear relationships $\hat{Y} = 16{,}0445 + 0{,}3894\,X_1 + 0{,}3808\,X_3$. This means that every increase of one unit X_1 results in 0.3894 increase in Y and every increase in one unit X_3 results in 0.3808 increase in Y, in other words, if the motivation of learning is high and peers support learning, the learning outcomes of mathematics will increase. From the results of these calculations, it can be seen that by increasing motivation to learn and support peers in mathematics, student mathematics learning outcomes will be even better, and vice versa.

The sixth hypothesis test results are that there is a positive and significant relationship between learning and peers with mathematics learning outcomes, with a multiple correlation coefficient (R) = 0.5352 at a significant level of 5%. This can be explained through linear relationships $\hat{Y} = 7,7547 + 0,8098\,X_2 + 0,1734\,X_3$. This means that every increase of one unit of X_2 results in 0.8098 increase of Y and every increase of one unit of X_3 results in 0.1734 increase of Y, in other words, if the way of learning is good and supporting peers in learning then the results of learning mathematics will also increase. From the results of this calculation, it can be seen that by means of good learning and peer support in learning mathematics, student mathematics learning outcomes will be even better, and vice versa.

The seventh hypothesis test results are that there is a positive and significant relationship between learning motivation, learning methods and peers with mathematics learning outcomes, with multiple correlation coefficients (r) = 0.5562 at a significant level of 5%. This can be explained through linear relationships $\hat{Y} = 0,1015 + 0,2630\,X_1 + 0,7389\,X_2 + 0,0880\,X_3$. This means that every increase of one unit X_1 results in 0.2630 increase in Y, every increase in one unit X_2 results in 0.7389 increase in Y and every increase in one unit X_3 results in 0.0880 increase in Y, in other words if the motivation to learn is high, the way to learn is better and support it peers in learning the results of learning mathematics will increase. Student mathematics learning outcomes are related to learning motivation, ways of learning and peers with an effective contribution of 30.94% while 69.06% is influenced by other factors not discussed in this study.

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 learning motivation and mathematics learning outcomes for students of class VIII in the odd semester of SMP Negeri 2 Berbah, Sleman Regency in the 2016/2017 school year. This is indicated by the t-test that is t_{stat} 2,1936 > t_{table} 1.6991, simple correlation coefficient (r) between learning motivation with mathematics learning outcomes of 0.3772 with linear regression equations $\hat{Y} = 31,0659 + 0,5678\,X_1$.

2. There is a positive and significant relationship between student learning methods and mathematics learning outcomes for students of class VIII odd semester of SMP Negeri 2 Berbah, Sleman Regency in the 2016/2017 school year. This is indicated by the t-test that is t_{stat} 3,3334 > t_{table} 1,6991, simple correlation coefficient (r) between ways of learning with mathematics learning outcomes of 0.5263 with a linear regression equation is $\hat{Y} = 13,0269 + 0,9260\,X_2$.

3. There is a positive and significant relationship between peers with mathematics learning outcomes for students of class VIII odd semester of SMP Negeri 2 Berbah, Sleman Regency in the 2016/2017 school year. This is indicated by the t-test that is t_{count} 2,9350 > t_{table} 1,6991, simple correlation coefficient (r) between peers with mathematics learning outcomes of 0.3765 with linear regression equations $\hat{Y} = 30,3021 + 0,5570\,X_3$.

4. There is a positive and significant relationship between learning motivation and student learning and mathematics learning outcomes for students of class VIII odd semester of SMP Negeri 2 Berbah, Sleman Regency in the 2016/2017 school year. This is indicated by the F-test that is $F_{count} = 5,9848 > F_{table} = 3,34$, simple correlation coefficient (r) between learning motivation and learning ways with mathematics learning outcomes of 0.5542 with linear regression equations $\hat{Y} = 1,8234 + 0,2875\,X_1 + 0,7859\,X_2$. The relative contribution of X_1 was 23.4568% and X_2 was 76.5432% and the effective contribution of X_1 was 7.2048% and X_2 was 23.5105%.

5. There is a positive and significant relationship between learning motivation and peers with mathematics learning outcomes for students of class VIII odd semester of SMP Negeri 2 Berbah, Sleman Regency in the 2016/2017 school year. This is indicated by the F-test that is F_{stat} 3.3805> F_{table} 3.34. Simple correlation coefficient (r) between learning motivation and peers with

mathematics learning outcomes of 0.4410 with linear regression equations $\hat{Y} = 16{,}0445 + 0{,}3894\,X_1 + 0{,}3808\,X_3$. The relative contribution of X_1 was 50.1843% and X_3 was 49.8157% and the effective contribution of X_1 was 9.7608% and X_3 was 9.6890%.

6. There is a positive and significant relationship between the way students and peers learn with mathematics learning outcomes of students of class VIII odd semester of SMP Negeri 2 Berbah, Sleman Regency in the 2016/2017 school year. This is indicated by the F-test namely F_{count}=5.8278> F_{table} = 3.34, the simple correlation coefficient (r) between learning and peers with mathematics learning outcomes of 0.5352 with linear regression equations $\hat{Y} = 7{,}7547 + 0{,}8098\,X_2 + 0{,}1734\,X_3$. The relative contribution of X_2 was 84.5897% and X_3 was 15.4103% and the effective contribution of X_2 was 24.2267% and X_3 was 4.4135%.

7. There is a positive and significant relationship between learning motivation, student and peer learning methods and mathematics learning outcomes of students of class VIII odd semester of SMP Negeri 2 Berbah, Sleman Regency in the 2016/2017 school year. This is indicated by the F-test that is $F_{count} = 4{,}0312 > F_{table} = 2{,}98$, simple correlation coefficient (r) between learning motivation, learning methods and peers with mathematics learning outcomes of 0.5562 with linear regression equations $\hat{Y} = 0{,}1015 + 0{,}2630\,X_1 + 0{,}7389\,X_2 + 0{,}0880\,X_3$. The relative contribution of X_1 was 21.3092%, X_2 was 71.4523% and X_3 was 7.2385% and the effective contribution of X_1 was 6.5920%, X_2 was 22.1038% and. X_3 of 2.2392%. This means that student mathematics learning outcomes are influenced by learning motivation, student and peer learning methods by 30.94% while 69.06% is influenced by other factors not discussed in this study.

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