

## RELATIONSHIP OF DISCIPLINE LEARNING, SELF CONFIDENCE AND FRIENDS WITH PEOPLE OF STUDENTS MATHEMATICS LEARNING OUTCOME

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### ABSTRACT

Low student learning outcomes associated with many factors. Learning discipline, students' self-confidence, and peers are some of the factors possibly related to learning outcomes. This research aims to determine the presence or absence of positive and significant relationships between learning discipline, student's self-confidence, and peers with Mathematics Learning Outcomes in Students Class VIII of SMP Negeri 1 Srandakan District Bantul in Odd Semester Academic Year of 2016/2017. The population in this research was the students of VIII SMP Negeri 1 Srandakan District Bantul in odd semester academic year of 2016/2017, consisted of class VIII A, VIII B, VIII C, VIII D, VIII E, and VIII F, totaling 184 students. Samples were taken from VIII E as the research sample class and with the random sampling technique. The writer uses a questionnaire method to collect the data of learning discipline, the student's self-confidence, and peers and test method to get the resulting learning of math. 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 that there was a positive and significant relationship between learning discipline, student's self-confidence, and peers with mathematics learning outcomes in students class VIII of SMP Negeri 1 Srandakan District Bantul in odd semester Academic Year of 2016/2017. It is showed by  $F_{count} > F_{table}$  is  $4,2172 > 2,96$  with  $R = 0,5649$  and  $R^2 = 0,3191$  with  $\hat{Y} = (-40,8543) + 0,6034 X_1 + 0,0067 X_2 + 0,4299 X_3$ , with  $RC X_1 = 60,5323\%$ ,  $RC X_2 = 0,6276\%$ , and  $RC X_3 = 38,8401\%$ ,  $EC X_1 = 19,3141\%$ ,  $EC X_2 = 0,2003\%$ , and  $EC X_3 = 12,3928\%$ .

**Keywords:** learning discipline, student's self-confidence, peers, mathematics learning outcomes.

### INTRODUCTION

Human Resources (HR) is a factor that is very supportive of the progress of a country. Countries that have human resources with high mastery of science and technology (IPTEK), along with a high work ethic, will be able to compete globally. Although the country has abundant natural resources that are not accompanied by quality human resources, it will be difficult to progress and develop. Efforts that can be made to improve the mastery of science and technology are through education. Through education, students are expected to have a broad view of life and insight, adjust to all the changes that occur, and develop their potential optimally and in balance.

Mathematics is a basic science that plays a vital role in the development of science and technology. Besides mathematics is also a science that is the source of other sciences, many sciences whose development depends on mathematics. As stated by Suherman, Erman, et al. (2003: 25), Mathematics is the queen or mother of science intended that mathematics is the source of other sciences. Considering the importance of mathematics in daily life, mathematics must be learned and understood. Learning outcomes are proof that students have learned. In learning, disciplinary learning, interest in learning, learning motivation, numerical ability, self-confidence, right learning environment, parents' attention, good peer relationships, and so on are needed.

Learning discipline is an attitude and action of students to carry out learning activities by decisions and regulations, as a manifestation of a student's responsibility. Discipline learning can give birth to the spirit of respecting the time and not wasting time. Students who have the discipline of

learning will have motivation or encouragement from within themselves to study hard and diligently work on assignments. Simultaneously, students who do not have the discipline of learning will always be lazy to learn and only use their free time for things that are unimportant and neglect their assignments so that this situation can result in learning outcomes that will show unsatisfactory results.

Student confidence is a positive trait of students who believe in their abilities. Self-confidence will help achieve success because students who have high self-confidence are always optimistic (confident of their abilities), are not easily influenced, dare to ask questions and opinions, like new challenges, are responsible, and are always eager to succeed. While students who have low self-confidence will always be pessimistic (not sure of their abilities), easily influenced, self-closing, quiet, hesitant in making decisions to move, and do not like new things so that it will be difficult to progress.

Peers are the most influential associates in student development. Most of the student's time is spent relaxing or hanging out with peers. With peers, students can express their opinions, respect points of view, and change behavior that is accepted by all, and peers can influence student motivation.

Based on the results of an interview with Mrs. Widarti S.Pd. On July 28, 2016, at SMP Negeri 1 Srandakan, students did not fully apply discipline in learning. Based on the teacher's information, when the learning process takes place, there are still students who do not pay attention to the lesson. When given a group assignment, there are still students who do not participate in discussions and must be told to participate again in discussions with the group. Based on the results of interviews with some of the eighth-grade students at SMP Negeri 1 Srandakan, students only learn mathematics when they are going to have tests or when there is homework only. It shows that students lack discipline in learning.

According to information from Ms. Widarti S.Pd. On July 28, 2016, students did not have reasonable confidence in learning mathematics. When the learning process occurs, there are still students who do not dare ask the teacher when facing difficulties and just choose to remain silent. When allowed to argue, students who dare to think only sure students are students who tend to excel, while other students still look passive. Also, based on the results of interviews with some of the eighth-grade students at SMP Negeri 1 Srandakan, students still considered mathematics to be a difficult subject. In the learning process, students still experience difficulties in understanding formulas and solving mathematical problems. Not all students' peers behave positively in association and support student learning success. According to information from Ms. Widarti S.Pd. On July 28, 2016, there were still peers who invited students to chat while the teaching and learning process disrupted the concentration of other students' learning. Based on interviews with some of the eighth-grade students at SMP Negeri 1 Srandakan, while at home, students spend more time with their peers to play than study.

The low student mathematics learning outcomes can be seen from the midterm tests in VIII of SMP Negeri 1 Srandakan 2016/2017 academic year with a Minimum Mastery Criteria (CCM) of 80, which is shown in Table 1.

**Table 1.** List of values of central replay Semester of Mathematics class VIII Semester 1 SMP Negeri 1 Srandakan year lesson 2016/2017

Class	A	B	C	D	E	F
Mean	47,85	56,33	59,52	51,13	59,68	62,50
Max	62,50	70,00	80,00	72,50	75	92,50
Min	35,00	27,50	42,50	32,50	37,50	27,50
$\geq$ CCM	0	0	1	0	0	5
$<$ CCM	29	30	30	31	31	27

Source: SMP N 1 Srandakan

From table 1 shows that most students have not reached the CCM. This proves that most students have difficulties in learning mathematics.

The purpose of the study is to know whether or not:

1. The positive and significant relationship between learning discipline with learning result of mathematics of grade VIII students SMP Negeri 1 Srandakan District Bantul Odd semester year lesson 2016/2017.
2. The positive and significant relationship between students ' confidence with the result of mathematics learning in Grade VIII SMP Negeri 1 Srandakan District of Bantul Odd semester lesson year 2016/2017.
3. A positive and significant relationship between peers and learning results of the mathematics student of grade VIII SMP Negeri 1 Srandakan District Bantul Odd semester year lesson 2016/2017.
4. A positive and significant relationship between learning discipline and student confidence with learning math result of grade VIII students SMP Negeri 1 District Srandakan Bantul Odd semester year lesson 2016/2017.
5. A positive and significant relationship between learning discipline and peer to peer learning with student mathematics of grade VIII SMP Negeri 1 Srandakan District of Bantul semester odd year lesson 2016/2017.
6. A positive and significant relationship between the confidence of students and peers with the results of learning Mathematics students Grade VIII SMP Negeri 1 Srandakan Bantul Odd semester year lesson 2016/2017.
7. A positive and significant relationship between learning discipline, student and peer confidence with learning math results of Grade VIII students SMP Negeri 1 Srandakan Bantul Odd semester year lesson 2016/2017.

## RESEARCH METHOD

This research is classified as quantitative research. The research place is conducted in SMP Negeri 1 Srandakan Bantul regency. The population is all students of Grade VIII SMP Negeri 1 Srandakan Bantul Regency Odd semester year lesson 2016/2017, consisting of 6 classes.

In this study, the sampling was conducted using Random Sampling Class, i.e., randomly taking classes as samples of research. Moreover, the class gained for research is a class VIII E consisting of 31 students, and for the research trial class is a class VIII D consisting of 31 students.

In this study, two variables are free variables (independent) and variables bound (dependent). Free variables (independent) consist of learning discipline ( $X_1$ ), Student Confidence ( $X_2$ ), and Peers ( $X_3$ ), while the dependent variable is the result of learning Mathematics ( $Y$ ). Data collection techniques used to poll and test techniques. In this research, poll techniques are used to obtain learning discipline data, student confidence, and peers. The test technique is used to obtain students' data in grade VIII Student Mathematics SMP Negeri 1 Srandakan. Test of poll instruments using the content validity test by the reviewers and for the test of learning results according to Arikunto, Suharsimi (2012) Correlation technique product-moment, for the reliability test of the instrument of the poll according to Arikunto, Suharsimi (2012) using formula Alpha, while the difference in power test and instrument reliability test problem in Arikunto, Suharsimi (2012) uses K-R 20 formula. Once the data has been collected, tests of prerequisite analysis should be met test normality, linearity test, and independent test—analysis of data using analytic correlation of product-moment and double linear regression analysis.

In this study, there are two variables, namely the independent variable and the dependent variable. The independent variable (independent) consists of learning discipline ( $X_1$ ), student confidence ( $X_2$ ), and peers ( $X_3$ ), while the dependent variable (dependent) is the result of learning mathematics ( $Y$ ). Data collection techniques used questionnaires and test techniques. In this study, the questionnaire technique was used to obtain data on learning discipline, student confidence, and peers. The test technique was used to obtain data on mathematics learning outcomes for students of class VIII of SMP Negeri 1 Srandakan Questionnaire instrument test uses content validity test by reviewers and for learning achievement test questions according to Arikunto, Suharsimi (2012) product-moment correlation technique, for questionnaire instrument reliability testing according to Arikunto, Suharsimi

(2012) uses alpha formula, while the difference power test and reliability test the question instrument in Arikunto, Suharsimi (2012) uses the KR formula 20. After the data has been collected, an analysis prerequisite test that must be met includes the normality test, linearity test, and independent test. Data analysis uses product-moment correlation analysis and multiple linear regression analysis.

## RESULT AND DISCUSSION

The first hypothesis test acquired a simple correlation coefficient ( $r$ ) of 0.5296 at a significant level of 5%. Thus, a coefficient of the determinant ( $r^2$ ) of 0.2805 can be explained: 28.05% of learning outcomes are influenced by learning discipline, while other factors influence the rest. There are variations in the mathematical (Y) learning outcomes described by learning discipline ( $X_1$ ) through the direct line  $\hat{Y} = -26,5851 + 0,8762 X_1$ , with a regression coefficient of 0.8762. Meaning each increment of one unit  $X_1$  resulted in a 0.8762 increase of Y. The first hypothetical test result is a positive and significant relationship between learning discipline and measurable learning outcomes. In other words, the higher discipline of studying students will be the higher the learning outcomes.

In the second hypothesis test, the correlation coefficient was obtained ( $r$ ) 0.3792 at a significant level of 5%. Thus, the coefficient of the determinant ( $r^2$ ) of 0.1438 that can explain 14.38% of the learning outcome is influenced by the student's confidence. In contrast, other factors influence the rest. There are variations in the mathematical (Y) learning outcomes described by student confidence ( $X_2$ ) through the direct line  $\hat{Y} = 15,7164 + 0,4834 X_2$ , with a regression coefficient of obtained 0,4834. Meaning each increment of one unit  $X_2$  resulted in 0.4834 increase of Y. The second hypothesis test result is that there is a positive and significant relationship between student's confidence and the results of mathematical learning. In other words, the higher student's confidence will be the higher students learning outcomes.

In the third hypothesis, test acquired correlation coefficient ( $r$ ) of 0.4881 so obtained ( $r^2$ ) amounting to 0.2382, which can explain 23.82% of the outcome of learning by peers. At the same time, the rest is influenced by other factors. There are variations in the Mathematics (Y) learning results described by the learning Motivation ( $X_3$ ) through the direct line  $\hat{Y} = -19,1052 + 0,8263 X_3$  with a regression direction Sebesar0,88263. Meaning each increment of one unit  $X_3$  resulted in a 0.8263 increase of Y. The third hypothetical test result is that there is a positive and significant relationship between peers and math learning outcomes. In other words, the better the interaction of peers then the better the results of learning.

From the double correlation analysis is obtained a double correlation coefficient value ( $R$ ) of 0.5299. This study also obtained a coefficient of determination ( $R^2$ ) of 0.2808 means 28.08% of the results are influenced by learning discipline and confidence of students, while other factors influence the rest. There are variations of mathematical (Y) learning outcomes that can be explained by learning discipline ( $X_1$ ) and student Confidence ( $X_2$ ) through the direct line  $\hat{Y} = -26,6005 + 0,8468 X_1 + 0,0327 X_2$ . This means the increment of one unit ( $X_1$ ) resulted in a 0.8468 increase in Y, and the increment of one unit ( $X_2$ ) resulted in 0.0327 kenaikanY. The relative contribution of  $X_1$ , 96.5339% and  $X_2$ , 3.4661%, and  $X_1$  effective contribution of 27.1079% and  $X_2$  of 0.9733%.

The fourth hypothesis test result is that there is a positive and significant relationship between learning discipline and student confidence with mathematical learning outcomes. In other words, the higher discipline of teaching students, the better the results. Likewise, with the student's confidence, the better the students' confidence, the better the results of the learning.

From the double correlation analysis is obtained a double correlation coefficient value ( $R$ ) of 0.5648. This study also obtained a coefficient of determination ( $R^2$ ) of 0.3191 means 31.91% of the results are influenced by study discipline and peers, while other factors influence the rest. There is a variety of mathematical (Y) learning outcomes that can be explained by learning discipline ( $X_1$ ) and peers ( $X_3$ ) through the direct line  $\hat{Y} = -40,8724 + 0,6090 X_1 + 0,4305 X_3$ . This means the increment of one unit ( $X_1$ ) Mengakibatkan0,6090 The increase in Y, and the increment of one unit ( $X_3$ ) resulted in

the 0.4305 increase of Y. The relative contribution of 61.1012% and  $X_1$  38.8988% as well as the effective contribution  $X_3$  of 19.4948% and  $X_3$  of 12.4110%.

The fifth hypothetical test result is a positive and significant relationship between learning discipline and peers to peer learning with mathematical outcomes. In other words, the higher discipline of learning students will be better learning outcomes. As well as peers, the better the interaction of peers, the results of the learning.

From the double correlation analysis is obtained a double correlation coefficient value ( $R$ ) of 0.5152. This study also obtained a coefficient of determination ( $R^2$ ) of 0.2654 means 26.54% of the results are influenced by the confidence of students and peers, while other factors influence the rest. There are variations of math (Y) learning outcomes that can be explained by student confidence ( $X_2$ ) and peers ( $X_3$ ) through the linear line linear  $\hat{Y} = -25,6593 + 0,2398X_2 + 0,6733X_3$ . This means the increment of one unit ( $X_2$ ) resulted in a 0.2398 increase in Y, and the increment of one unit ( $X_3$ ) resulted in a 0,6733 increment Y. The relative contribution of  $X_2$  of 26.8752% and  $X_3$  by 73.1247% as well as the effective contribution  $X_2$  of 7.1328% and  $X_3$  of 19.4076%.

The sixth hypothesis of hypotheses is that there is a positive and significant relationship between students' and peers' confidence in mathematical learning outcomes. In other words, the higher the confidence of students, the result of mathematics learning is increasing. So also with good peer interaction, the better the interaction of peers then the results of the learning is even better.

The multiple correlation analysis obtained the value of the multiple correlation coefficient ( $R$ ) of 0.5649. This study also obtained a coefficient of determination ( $R^2$ ) of 0.3191, meaning 31.91% influenced by learning discipline, student self-confidence, and peers while the rest by other factors. Variations in mathematics learning outcomes (Y) can be explained by learning discipline ( $X_1$ ), student confidence ( $X_2$ ), and peers ( $X_3$ ) through linear lines  $\hat{Y} = -40,8543 + 0,6034 X_1 + 0,0067 X_2 + 0,4299 X_3$ . This means an increase in one unit ( $X_1$ ) results in a 0.6034 increase in Y, an increase in one unit ( $X_2$ ), results in 0.0067 increase in Y, and an increase in one unit ( $X_3$ ) results in 0.4299 increase in Y. While for relative contribution  $X_1$  of 60,5323%,  $X_2$  amounted to 0.62763% and  $X_3$  amounted to 38.8401% and effective contribution  $X_1$  amounted to 19.3141%,  $X_2$  amounted to 0.2003% and  $X_3$  amounted to 12.3928%. This shows that the discipline of learning provides the most significant relationship to mathematics learning outcomes compared to students' confidence and peers.

The seventh hypothesis test results are that there is a positive and significant relationship between learning discipline, student self-confidence, and peers with mathematics learning outcomes. In other words, the higher the discipline of student learning, the better the learning outcomes. Likewise, with student confidence, the better the confidence of students, the results of learning mathematics will be improved. Besides peers also affect learning outcomes, the better the interaction of students with peers, the better the learning outcomes.

Based on research that has been carried out among the three variables that give the most significant contribution to learning outcomes in mathematics is learning discipline. This shows that the discipline of learning provides the most significant relationship to learning outcomes in mathematics compared to the confidence of students and peers. This research is supported by research conducted by Purwantini (2012) with the discipline of learning to make the enormous effective contribution among other variables, amounting to 14.98%.

## CONCLUSION

Based on the results of research and discussion, as described in Chapter IV, the following research conclusions can be taken:

1. There is a positive and significant relationship between learning discipline and mathematics learning outcomes for students of class VIII of SMP Negeri 1 Srandakan, Bantul Regency, odd semester 2016/2017 Academic Year. This is indicated by the t-test that is  $t_{count} > t_{table}$  or  $3.3621 > 1.6991$ . The simple correlation coefficient ( $r$ ) between learning discipline and mathematics

- learning outcomes is 0.5210. And the simple regression equation Y for  $X_1$  is  $\hat{Y} = -26,5851 + 0,8762 X_1$ .
2. There is a positive and significant relationship between student's self-esteem and mathematics learning outcomes for students of class VIII of SMP Negeri 1 Srandakan, Bantul Regency, odd semester 2016/2017 Academic Year. This is indicated by the t-test that is  $t_{count} > t_{table}$  or  $2.2069 > 1.6991$ . The simple correlation coefficient ( $r$ ) between student confidence with mathematics learning outcomes of 0.3792. A simple regression equation for Y over  $X_2$  is also obtained from  $\hat{Y} = 15,7164 + 0,4834 X_2$ .
  3. There is a positive and significant relationship between peers with mathematics learning outcomes for students of class VIII of SMP Negeri 1 Srandakan in Bantul, an odd semester of the 2016/2017 Academic Year. This is indicated by the t-test that is  $t_{count} > t_{table}$  or  $3.0112 > 1.6991$ . The simple correlation coefficient ( $r$ ) between learning motivation with mathematics learning outcomes of 0.4881. A simple regression equation of Y for  $X_3$  is also obtained as  $\hat{Y} = -19,1052 + 0,8263 X_3$ .
  4. There is a positive and significant relationship between learning discipline and student confidence with the results of mathematics learning for eighth-grade students of SMP Negeri 1 Srandakan, Bantul Regency in the odd semester of the 2016/2017 Academic Year. This is indicated by the F test, which is  $F_{count} > F_{table}$  or  $5.4664 > 3.34$ . The multiple correlation coefficient (R) between learning discipline and student confidence with mathematics learning outcomes is 0.5296, and the coefficient of determination ( $R^2$ ) is 0.2808 with a linear line equation  $\hat{Y} = -26,6005 + 0,8468X_1 + 0,0327X_2$ . The relative contribution of  $X_1$  is 96.5339%, and  $X_2$  is 3.4661%, and the effective contribution  $X_1$  is 27.1079%, and  $X_2$  is 0.9733%.
  5. There is a positive and significant relationship between learning discipline and peers with mathematics learning outcomes of Grade VIII students of SMP Negeri 1 Srandakan, Bantul Regency in the odd semester of the 2016/2017 Academic Year. This is indicated by the F test, which is  $F_{count} > F_{table}$  or  $6.5597 > 3.34$ . The correlation coefficient (R) between learning discipline and peers with mathematics learning outcomes is 0.5649, and the coefficient of determination ( $R^2$ ) is 0.3191 with a linear line equation  $\hat{Y} = -40,8724 + 0,6090X_1 + 0,4305X_3$ . The relative contribution of  $X_1$  was 61.1012% and  $X_3$  was 38.8988%, and the effective contribution of  $X_1$  was 19.4948%, and  $X_3$  was 12.4110%.
  6. There is a positive and significant relationship between students 'and peers' self-confidence with the mathematics learning outcomes of Grade VIII students of SMP Negeri 1 Srandakan Bantul Regency in the odd semester of the 2016/2017 Academic Year. This is indicated by the F test, which is  $F_{count} > F_{table}$  or  $5.0581 > 3.34$ . The correlation coefficient (R) between student and peer confidence with mathematics learning outcomes of 0.5152 and the coefficient of determination ( $R^2$ ) of 0.2654 with a linear line equation  $\hat{Y} = -25,6593 + 0,2398X_2 + 0,6733X_3$ . The relative contribution of  $X_2$  was 26.8752% and  $X_3$  was 73.1248%, and the effective contribution of  $X_2$  was 7.1328%, and  $X_3$  was 19.4076%.
  7. There is a positive and significant relationship between learning discipline, the self-confidence of students and peers with mathematics learning outcomes of students of class VIII of SMP Negeri 1 Srandakan in Bantul, an odd semester of the 2016/2017 school year. This is indicated by the F test, which is  $F_{count} > F_{table}$  or  $4.2172 > 2.96$ . The correlation coefficient (R) between learning discipline, student and peer confidence with mathematics learning outcomes is 0.5649 and the coefficient of determination ( $R^2$ ) is 0.3191 with a linear line equation  $\hat{Y} = -40,8543 + 0,6034 X_1 + 0,0067 X_2 + 0,4299X_3$ . The relative contribution of  $X_1$  is 60.5322%,  $X_2$  is 0.6276% and  $X_3$  is 38.8401% and the effective contribution is  $X_1$  is 19.3141%,  $X_2$  is 0.2003 % and  $X_3$  are 12.3928%.

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