THE RELATIONSHIP AMONG LEARNING MOTIVATION AND LEARNING ENVIRONMENT AT HOME WITH MATHEMATICS LEARNING OUTCOMES

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ABSTRACT

Many factors influence learning outcomes in students. Motivation to learn and learn about the environment at home was expected to impact students' learning outcomes. The research intends to know whether there are any positive correlation and significance between Motivation to Learn and Learning Environment at Home with Mathematics Learning Outcomes in Students Class VIII of SMP Muhammadiyah 2 Kalasan Sleman in Even Semester in Academic Year of 2018/2019. The population in this research was the students of VIII grade in Junior High School (SMP) Muhammadiyah 2 Kalasan Sleman in Even Semester in Academic Year of 2018/2019, consisted of class VIII A, VIII B, VIII C, VIII D, and VIII E totaling 160 students. Samples were taken by the random sampling technique so that class VIII A was obtained as the research sample class. The writer uses the questionnaire method to collect the data of motivation to learn and the learning environment at home and the documentation technique to get the resulting learning of math. The research instrument: validity 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 no positive and significant relationship between Motivation to Learn and Learning Environment at Home with Mathematics Learning Outcomes in Students Class VIII of SMP Muhammadiyah 2 Kalasan Sleman in Even Semester in Academic Year 2018/2019. It is showed by $F_{count} > F_{table}$ is 1,784207393 < 3.3048172522 with R = 0,3260410241 and R^2 = 0,106302749 with $\hat{Y} = 15{,}4672124 - 0{,}1512599758\,X_1 + 0{,}2422643224\,X_2$, with RC X_1=−3,991108302 % and RC X_2= 103,9911083%, EC X_1=−0,424265786% and EC X_2=11,05454073%.

Keywords: Motivation to learn, Learning Environment at Home, Mathematics Learning Outcomes.

INTRODUCTION

Humans and education are two things that cannot be separated. Since birth, humans have received an education, a primary need, which lasts a lifetime. The first human education is obtained from the family environment, namely from both parents. As time goes by, this education continues to develop. It does not only come from parents but the community, the surrounding environment. Even nowadays, many schools or institutions have been established. -institutions that play an important role in the world of education. The progress of the world of education is very much influenced by science and technology. One of the sciences that underlie the mastery of science and technology is Mathematics, so it can be concluded that Mathematics plays an important role in education. The role of mathematics is so important that it is a basic science that must be studied in every school and at every level of education and needs special attention.

Mathematics is an instrumental science, especially in solving various problems in everyday life. However, many people think that mathematics is difficult and complicated so that they are lazy to learn it, including students at school. Most school students consider mathematics a frightening specter, so their motivation to learn mathematics is very low. Students are reluctant to study mathematics so that the results of learning mathematics are still low.

According to Slameto (2010; 54), Learning success is influenced by many factors but can be classified into two groups, namely internal factors, and external factors. Internal factors come from within students, such as motivation, interests, talents, intelligence, independence, and logical abilities, which play a vital role in determining the maturity of thinking to understand learning material. External factors are factors from outside, such as the learning environment at home, the school's learning environment, and the

surrounding community. Of the many internal factors that may affect students' mathematics learning outcomes, including learning motivation. Where in the learning process requires driving force to learn mathematics. Based on the results of observations made on 23 September 2018 at SMP Muhammadiyah 2 Kalasan, Sleman Regency, teaching, and learning activities still experience many obstacles, especially regarding the lack of student motivation in learning. This can be seen from the fact that students are still not ready to learn when entering the classroom. There are still many students who are chatting, pacing in class, even outside the classroom. The classroom situation is also very messy, so the teacher must tell students to tidy up the class first to not interfere with the lesson. This results in reduced learning hours. When teaching and learning activities occur, students are less focused on lessons and tend to be lazy about taking part in lessons. Many students are noisy and even disturb other students, causing the classroom atmosphere to be noisy and less conducive. Students are reluctant to ask questions when they have difficulty in lessons. Student courtesy towards teachers is also very lacking. This can be seen when the teacher explained that some students ate and drank secretly, put their feet on chairs, and even hit the table on purpose.

Based on an interview with a VIII grade mathematics teacher at SMP Muhammadiyah 2 Kalasan, Mrs. Lailatul Fuah said that the motivation of students to learn in class was still low, so that the teacher had to provide extra motivation so that children pay more attention to the lesson and be more enthusiastic in working on the questions given. This happens because students are afraid of mathematics. Before starting lessons, the teacher must instruct students to calm down first because many students are still chatting and are not ready to accept lessons. When the teacher gives homework, the teacher will apply sanctions for students who do not. This is used so that students do not underestimate the homework assigned. Student learning outcomes are also still low. When tests get bad scores and a remedy is given, there are still scores below the Minimum Completeness Criteria (MCC), so treatments are given again.

Apart from these internal factors, external factors that influence student learning outcomes are the learning environment, especially the home's learning environment. Based on interviews with several students, most students do not like mathematics because it is considered difficult and confusing. Students prefer to do homework at school with other students when there is homework, rather than doing it at home. This is because students feel unable to do homework on their own. When asking for help from parents, parents are reluctant to help for various reasons such as not feeling tired after work, asking for help from other people such as neighbors or relatives. Most of the students' parents only graduated from junior high school and high school and worked as laborers and farmers to pay less attention to their children's learning development. Parents rarely ask about the days passed by students at school, problems experienced in learning, and whether there are homework, assignments, or tests or not. Parents also rarely remind, let alone supervise students, in learning, so students prefer to play, watch TV and play with gadgets after school.

This study's problems are: 1) Is there a positive and significant relationship between learning motivation and mathematics learning outcomes of class VIII students of SMP Muhammadiyah 2 Kalasan, Sleman Regency, even semester of the 2018/2019 academic year? 2) Is there a positive and significant relationship between the learning environment at home with the learning outcomes of class VIII students of SMP Muhammadiyah 2 Kalasan, Sleman Regency, even semester of the 2018/2019 academic year? 3) Is there a positive and significant relationship between learning motivation and the learning environment at home with the mathematics learning outcomes of grade VIII students of SMP Muhammadiyah 2 Kalasan, Sleman Regency, even semester of the 2018/2019 academic year?

This study's objectives are 1) To determine whether there is a positive and significant relationship between learning motivation and mathematics learning outcomes of class VIII students of SMP Muhammadiyah 2 Kalasan, Sleman Regency, even semester of the 2018/2019 academic year. 2) To determine whether there is a positive and significant relationship between the learning environment at home and the mathematics learning outcomes of grade VIII students of SMP Muhammadiyah 2 Kalasan, Sleman Regency, even semester of the 2018/2019 academic year. 3) To determine whether there is a positive and significant relationship between learning motivation and the learning environment at home with the

mathematics learning outcomes of class VIII students of SMP Muhammadiyah 2 Kalasan, Sleman Regency, even semester of the 2018/2019 academic year.

The definition of learning motivation, according to Uno, Hamzah B. (2011: 3), the term motivation comes from the word motive, which can be interpreted as the power contained in an individual, which causes the individual to act or act. Island Rukminto Adi stated that motives cannot be observed directly but can be interpreted in their behavior, in the form of stimulation, encouragement, or a power generator for the emergence of certain behavior. W.S Winkel stated that motive is the driving force within a person to carry out certain activities to achieve certain goals. Thus, motivation is the impetus in trying to make changes meet their needs. In addition to the explanation of this definition, motivation also has different types based on the source where the motivation comes from, as Hamalik's opinion, Oemar (2013: 162-163) states that,

Types of Motivation: 1) Intrinsic motivation is the motivation involved in learning situations from the students' needs and goals. 2) Extrinsic motivation is motivation caused by factors outside the learning situation, such as numbers, credits, diplomas, levels, prizes, medals, conflict, and competition; the negative ones are sarcasm and ridicule (ridicule), and punishment.

The home's learning environment is where informal education is carried out, and individuals from the family first obtain an education. Sartain in Purwanto, Ngalim (2011: 72) says that what is meant by the environment (environment) includes all conditions in this world, which in specific ways affect our behavior, growth, development, or our life processes except genes. Even genes can be viewed as providing the environment for other genes. Meanwhile, Slameto ((2015: 60-77) argues that external factors that influence learning can be grouped into three factors: family factors, school factors, and community factors. The following description discusses these three factors.

Family factors: Students who learn will receive influence from the family in how their parents educate, the relationships between family members, the household atmosphere, and the family's economic situation. Soetjipto Wirowidjojo in Susilo MJ (2009: 77) stated that the family is the first and foremost educational institution. A large healthy family means education in a small size, but it is decisive for education in a large size, namely the nation's education, state, and world.

METHODS

Researchers take quantitative research, using a form of research design in the form of a Linkage Model between Two Independent Variables and Bound Variables (Sugiyono, 2012: 68). This study's population were all class VIII students of SMP Muhammadiyah 2 Kalasan, Sleman Regency, even semester of the 2018/2019 academic year, totaling 160 students and consisting of 5 classes. In this study, the sample was determined using random sampling, namely, using a class lottery. This method is done because each class in the population is considered homogeneous. This can be seen from the absence of superior classes. Teachers who teach and teaching methods used the same in every class after the drawing was carried out from a population consisting of 5 classes, class VIII A was obtained as the research sample.

The data collection technique used was a questionnaire technique with instruments in the form of a questionnaire and documentation techniques in the form of values from the 2018/2019 Year-End Assessment. The prerequisite analysis test was the normality test with the Chi-squared formula, the linearity test with the F-test formula, and the independence test with the Chi-squared formula. The research hypothesis test used a simple correlation test and multiple regression analysis tests. The research hypothesis test using a simple correlation test was carried out to determine whether there was a positive and significant relationship between 1) learning motivation and students 'mathematics learning outcomes, 2) learning environment at home with students' mathematics learning outcomes. Furthermore, the research hypothesis test using multiple regression analysis was conducted to determine whether there was a positive and significant relationship between learning motivation and the learning environment at home with students' mathematics learning outcomes.

RESULTS AND DISCUSSION

The summary of normality test results can be seen in Table 1.

Table 1. Summary of Normality Test Results

Variable	χ^2_{count}	χ^2_{table}	df
X_1	1,887	5,591	2
X_2	0,673	5,591	2
Y	3,806	5,591	2

From the normality test at the 5% significance level, it can be seen $\chi^2_{count} \leq \chi^2_{table}$. This means that the distribution of data obtained on each variable is normally distributed.

The summary of the linearity test results can be seen in Table 2.

Table 2. Summary of Linearity Test Results

Variable	F_{count}	F_{table}
X_1 to Y	-0,221	2,917
X_2 to Y	0,957	2,917

From the linearity test at a significant level of 5% and the numerator degrees of freedom (v_1) = k-2 and the denominator (v_2) = n-k, it can be seen $F_{count} \leq F_{table}$This means that there is a linear relationship between the independent variable (X) and the dependent variable (Y).

The summary of the results of the independence test can be seen in Table 3.

Table 3. Summary of Independence Test Results

Var. Research	χ^2_{count}	χ^2_{table}	df
X_1 and X_2	32,814	37,652	25

From the independence test at a significant level of 5% and degrees of freedom (df) = (B-1) (K-1), it can be seen $\chi^2_{count} \leq \chi^2_{table}$. This means that the distribution of data obtained on each variable is mutually independent.

The summary of the results of the first hypothesis test can be seen in Table 4.

Table 4. Summary of the First Hypothesis Test Results

t_{count}	t_{table}	v	Info
0,07106574	2,03951345	31	H_0 is accepted, H_1 is rejected

From the first hypothesis test at a significant level of 5% and v = n-2, it can be seen that $t_{count} < t_{table}$There is no positive and significant relationship between learning motivation and mathematics learning outcomes of class VIII students of SMP Muhammadiyah 2 Kalasan, Sleman Regency, even semester of the 2018/2019 academic year.

The summary of the results of the second hypothesis test can be seen in Table 5.

Table 5. Summary of the Second Hypothesis Test Results

t_{count}	t_{table}	v	Info
1,3333864	2,039513446	31	H_0 is accepted, H_1 is rejected

From the second hypothesis test at a significant level of 5% and v = n-2, it can be seen that $t_{count} < t_{table}$, which means that there is no positive and significant relationship between the learning environment at home and the mathematics learning outcomes of grade VIII students of SMP Muhammadiyah 2 Kalasan, Sleman Regency, even semester of the 2018/2019 academic year. The summary of the results of the third hypothesis test can be seen in Table 6.

Table 6. Summary of the Third Hypothesis Test Results

F_{count}	F_{table}	v	Info
1,784207	3,3048172	$v_1 = 2$ $v_2 = 31$	H_0 is accepted, H_1 is rejected

From the third hypothesis test at the 5% significant level, the numerator $v_1 = 2$, and the denominator $v_2 = 31$, it can be seen that $F_{count} < F_{table}$, which means there is no positive and significant relationship between learning motivation and the learning environment at home with the mathematics learning outcomes of grade VIII students of SMP Muhammadiyah 2 Kalasan, Sleman Regency, even semester of the 2018/2019 academic year.

CONCLUSION

Based on the results of research and discussion, the following research conclusions can be drawn:

1. There is no positive and significant relationship between learning motivation and mathematics learning outcomes of class VIII students of SMP Muhammadiyah 2 Kalasan, Sleman Regency, even semester of the 2018/2019 academic year.
2. There is no positive and significant relationship between the learning environment at home and the mathematics learning outcomes of grade VIII students of SMP Muhammadiyah 2 Kalasan, Sleman Regency, even semester of the 2018/2019 academic year.
3. There is no positive and significant relationship between learning motivation and the learning environment at home with the mathematics learning outcomes of grade VIII students of SMP Muhammadiyah 2 Kalasan, Sleman Regency, even semester of the 2018/2019 academic year.

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