LEARNING TIME MANAGEMENT, LEARNING ENVIRONMENT IN-HOME AND LEARNING MOTIVATION WITH MATHEMATICS LEARNING OUTCOMES

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ABSTRACT

Poor student learning outcomes are associated with many factors. The relationship between learning time management, learning environment in the home, and learning motivation are possible related to learning outcomes. This research aims to determine the presence or absence of positive and significance the relationship between learning time management, learning environment in-home, and learning motivation with Mathematics Learning Outcomes in Students Class X Motorcycle Engineering (TSM) of State Vocational High School (SMK Negeri)) 1 Pleret Bantul Regency in even semester in the academic year of 2016/2017. This research population was the students of X TSM grade in SMK Negeri 1 Pleret Bantul Regency in 2016/2017, consisting of class X TSM A and X TSM B, totaling 66 students. Samples were taken from X TSM A as the research sample class and with the random sampling technique. The writer uses the questionnaire method to collect the data of learning independence, parent's attention, and student's interaction with teacher 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 a positive and significant relationship between learning time management, learning environment in the home, and learning motivation with mathematics learning outcomes in students class X TSM in even Semester of SMK Negeri 1 Pleret Bantul Regency in the academic year of 2016/2017. It is showed by $F_{count} > F_{table}$ is $6,8465 > 2,92$ with $R = 0,6375$ and $R^2 = 0,4064$ with $\hat{Y} = (201,9710) + 0,3909\,X_1 + 0,3076\,X_2 + 0,8385\,X_3$, with RC $X_1 = 23,9976$ %, RC $X_2 = 20,1644$ % and RC $X_3 = 55,8380$ %, EC $X_1 = 9,7528$%, EC $X_2 = 8,1949$% and EC $X_3 = 22,6929$%.

Keywords: Learning Time Management, Learning Environment In-Home, Learning Motivation, Mathematics Learning Outcomes.

INTRODUCTION

Education plays an important role in improving human resources quality and realizing its ideals in the Indonesian nation's intellectual life. Efforts to improve human resources quality and educate the nation's life are carried out through education. Learning success is caused by several factors but can be classified into two groups, namely internal factors and external factors. Internal factors are everything from within the individual, such as student intelligence / intelligence, motivation, memory, interests, attitudes, talents, learning concentration, self-confidence, and study habits / learning time management. While external factors are all things that come from outside, the individual both directly and indirectly can influence individuals in achieving learning achievement, including the school's social environment, community social environment, and family social environment.

One internal factor that influences learning outcomes of learning outcomes is learning time management. Time management is very necessary for the implementation of student assignments as students, namely learning. Time management is intended to prevent chaos, waste, and even worse than the educational objectives. The main objectives are not appropriately achieved because the learning process does not run effectively. Time management plays an important role in achieving the effectiveness of the learning process. Good learning time management will make students more disciplined, organized in carrying out activities, and scheduled in learning. With regularity and discipline in using learning, time will lead to habits that will unwittingly learn discipline. These study habits will make students more prepared

when facing exams. The grades obtained during the exam will make good, and learning achievement will increase.

In addition to learning time management, learning motivation also affects student learning outcomes. Learning motivation is the impetus in a person to try to make changes in behavior that is better in meeting their needs. Motivation is very important for students; students will lose direction without the right motivation and do not have high learning enthusiasm. In addition to the internal factors above, external factors will also affect student learning outcomes. One of the external factors is the social environment of the family. The family environment consists of parents, Susana's home, and family economic conditions. The family environment is very influential on students because it is the primary environment for developing a child. In the family, a child experiences the process of socialization for the first time. This is because a child first knows education from family, especially parents. All attitudes and behavior of parents significantly affect the child's development. In this environment, children are nurtured and trained, physically, mentally, socially, linguistically, and in their skills. A comfortable, conducive, and clean environment can be a learning environment that is meaningful for students' development. Family or parent factors affect a child's success in learning. Children will have a high enthusiasm for learning if the family situation supports their learning activities, meaning that they are understanding, attentive, and family members who are quite harmonious. If going well, these factors will create situations and conditions that can encourage children to study harder.

Student mathematics learning outcomes at SMK Negeri 1 Pleret Bantul Regency is still low. This is because students assume that mathematics is a tricky subject. The problems in this study are: 1) is there a positive and significant relationship between learning time management and mathematics learning outcomes of students of class X TSM SMK Negeri 1 Pleret Bantul Regency Even Semester 2016/2017 Academic Year ?, 2) Is there a positive and significant relationship between learning environments at home with the learning outcomes of students of class X TSM SMK 1 Pleret Bantul Regency Even Semester Academic Year 2016/2017 ?, 3) Is there a positive and significant relationship between learning motivation with mathematics learning outcomes of students of class X TSM Vocational School 1 Pleret Bantul Regency Even 2016/2017 Academic Year ?, 4) Is there a positive and significant relationship between learning time management and learning environment at home with mathematics learning outcomes for students of class X TSM SMK 1 Pleret Bantul Regency Even Semester 2016/2017 Academic Year ?, 5) Is there positive and significant relationship between learning time management and learning motivation with mathematics learning outcomes s students of class X TSM SMK Negeri 1 Pleret Bantul Regency Even Semester Academic Year 2016/2017 ?, 6) Is there a positive and significant relationship between learning environment at home with learning motivation with mathematics learning outcomes of students of class X TSM SMK Negeri 1 Pleret Bantul Regency in Bantul Even Semester 2016/2017 Academic Year ?, 7) Is there a positive and significant relationship between learning time management, learning environment at home and learning motivation with mathematics learning outcomes for students of class X TSM SMK 1 Pleret Bantul Regency Even Semester 2016/2017 School Year?

The purpose of this study are: 1) To determine whether there is a positive and significant relationship between learning time management and mathematics learning outcomes of students of class X TSM SMK 1 Pleret Bantul Regency Even Semester Academic Year 2016/2017., 2) To find out whether there is a relationship positive and significant between the learning environment at home with the mathematics learning outcomes of students of class X TSM SMK 1 Pleret Bantul Regency Even Semester Academic Year 2016/2017., 3) To find out whether there is a positive and significant relationship between learning motivation with mathematics learning outcomes of class students X TSM VOCATIONAL SCHOOL 1 Pleret Bantul Regency Even Semester Academic Year 2016/2017., 4) To find out whether there is a positive and significant relationship between learning time management and learning environment at home with mathematics learning outcomes of students of class X TSM SMK Negeri 1 Pleret District Bantul Even Semester Academic Year 2016/2017., 5) To find out whether or not positive and significant relationship between learning time management and learning motivation with mathematics learning

outcomes of students of class X TSM SMK Negeri 1 Pleret Bantul Regency Even Semester Academic Year 2016/2017, 6) To find out whether there is a positive and significant relationship between learning environment at home and motivation to learn by learning outcomes in class X TSM SMK Negeri 1 Pleret Bantul Regency Even Semester Academic Year 2016/2017., 7) To find out whether there is a positive and significant relationship between learning time management, learning environment at home and learning motivation with learning outcomes Mathematics of Grade X students of TSM SMK Negeri 1 Pleret Bantul Regency Even Semester 2016/2017 Academic Year.

Some opinions about learning in the following: 1) Slameto (2010: 2) states that learning is a process of effort by someone to obtain a new change in behavior as a whole, as a result of his own experience in interactions with the environment, 2) Hamalik, Oemar (2005: 27) states that learning is a modification or reinforce behavior through experience. According to this understanding, learning is a process, an activity, and not an outcome or objective. Learning is not just remembering, but it is broader than that, namely experiencing. Learning outcomes are not a mastery of training results, but changes in behavior, 3) Shah, Muhibbin (2005: 89) states that learning is a processing activity. It is a very fundamental element in every type and level of education. Understanding mathematics learning according to Gagne in Suherman, Erman, et al. (2003: 33) states that: In learning mathematics, there are two objects obtained by students, namely direct objects and indirect objects. Indirect objects include investigating and solving problems, learning independently, being positive towards mathematics, and learning. While the direct object in the form of facts, skills, concepts, and rules. Uno, Hamzah B (2007: 130) states that: The nature of mathematics learning is mental activity to understand the meaning and relationships of symbols and then apply them to real situations.

As revealed by Slameto (2010: 60-64), in the family environment, several factors can affect student learning, namely: a) The way parents educate children and parents' attention, the way parents educate their children greatly influences their children's learning, which can cause children less successful in learning. This mostly happens only in children from families whose parents are too busy taking care of their work, b) Relationships between family members relations between family members, and the most important relationship between parents and their children. For the sake of smooth learning and the success of children, good relationships should be sought in the child's family. A good relationship is a loving relationship, accompanied by guidance and, if necessary, penalties for the success of children's learning, c) The atmosphere of the house, the atmosphere of the house referred to as a situation or events that often occur in the family where the child is located and study. In order for children to learn well, they need to create a calm and peaceful home atmosphere. In the atmosphere of a quiet and peaceful home, in addition to children at home staying at home, children also learn well and comfortably, d) State of the family economy, the family economic situation is closely related to children's learning. Besides fulfilling their basic needs, children who are learning besides fulfilling their basic needs, such as eating, clothing, health protection, etc., also need learning facilities such as study rooms, tables, chairs, lighting, stationery, books, and others. Learning facilities can only be fulfilled if the family has enough money, e) Understanding parents, learning children need encouragement with parents' understanding. If the child is studying, do not be bothered with household chores. Sometimes children experience a lack of enthusiasm; parents are obliged to give their understanding and encouragement, help as much as possible the difficulties experienced by their children in school, f) Cultural background, level of education, or habits in the family affect children's attitudes in learning. If necessary, it is instilled in good children to encourage enthusiasm for learning. So it can be concluded that the comfort in learning at home is influenced by a comfortable study space, learning tools, educating parents, relationships between family members, a comfortable home atmosphere, understanding parents, and habits in the family.

According to Slameto (2010: 28) argues that learning requires sufficient means so that students can learn calmly. The availability of a comfortable study room, learning tools (stationery, books, teaching aids) is very influential for students always to want to learn. So it can be concluded that the comfort in learning at home is influenced by a comfortable study space, learning tools, educating parents, relationships between

family members, a comfortable home atmosphere, understanding parents, and habits in the family. Based on several factors that can affect learning outcomes so that the indicators used in this study are the house's atmosphere, the way parents educate relationships between family members, family economic conditions, understanding parents, and cultural background. Understanding motivation, according to Hamalik, Oemar (2005: 158) states that motivation is a change of energy in a person (person), which is characterized by the emergence of feelings and reactions to achieve goals. Sardiman A.M (2011: 84) said that learning outcomes would be optimal if there is motivation. The more detailed the motivation provided, the more successful the lesson will be. While Uno, Hamzah B (2012: 23) said that motivation could arise due to intrinsic factors, the desire and desire to succeed, and the drive for learning needs and ideals. According to Sardiman AM (2011: 83), the motivation that exists in everyone has the following characteristics: a) Persevering in the task (can work continuously for a long time, never stop before completion), b) Resilient in facing difficulties (not quickly discouraged). Does not require encouragement from the outside to achieve as well as possible (not satisfied with the achievements achieved), c) Can maintain his opinion (if you are sure of something), d) It is not easy to let go of the thing that is believed, e) Hard work (happy to find and solve problem problems), f) Get bored with routine tasks like repetitive things that make it less creative.

From the description above, it can be concluded that learning motivation is a change of energy or energy in a person, which is marked by the emergence of feelings, and effective encouragement in achieving goals. Indicators of learning motivation that will be used in this study are perseverance in facing tasks, tenacious in facing difficulties, able to defend their opinions, not easy to let go of things they believe in, hard work (happy to solve problem problems), easily bored with repetitive things so less creative. Understanding learning outcomes, according to Suprijono, Agus (2009: 5), learning outcomes are patterns of prophecy, values, understandings, attitudes, appreciation, and skills. Learning outcomes in the study in question are the results obtained by students in mathematics. So, it can be stated that the results of learning mathematics are the results achieved by someone to learn mathematics expressed in the form of values in the form of numbers or letters as a result of evaluations in mathematics learning given by schools in a certain period in the form of tests.

METHODS

This research is classified as quantitative research by taking place at SMK Negeri 1 Pleret Bantul Regency in the even semester of the 2016/2017 school year. This study's population were all students of class X TSM SMK Negeri 1 Pleret Bantul Regency, which consisted of 2 classes, namely X TSM A and X TSM B, totaling 66 students. As a sample class 34, TSM A classes were taken by 34 students using random sampling techniques. In this study, the data collection techniques used were questionnaires and tests. Questionnaire techniques to obtain data on learning time management, learning environment at home, and student motivation, while test techniques to obtain data about student mathematics learning outcomes. The test used is an analysis prerequisite test with a normality test, linearity test, and independence test. In this study, the hypothesis test used was regression analysis.

RESULTS AND DISCUSSION

Table 1. Distribution of Number of Students by Learning Time Management Score Categories

Category	Score	*F*	%
High	X > 97,08	4	11,765
Is	81,10 $\leq$ X $\leq$ 97,08	24	70,588
Low	X < 81,10	6	17,647
	Total	34	100

From the results of the categorization can From the results of the categorization, it can be seen that the management of class X learning time TSM SMK 1 Pleret Bantul Regency Even Semester of the

2016/2017 school year is included in the medium category because the highest frequency lies in the intervals of $81.10 \leq X \leq 97.08$ namely as many as 24 students or 70,588%.

Table 2. Distribution of Number of Students by Category Score home study environment

Category	Score	F	%
High	X > 94,03	6	17,647
Is	75,31≤ X ≤ 94,03	21	61,765
Low	X < 75,31	7	20,588
	Total	34	100

From the results of the categorization, it can be seen that the learning environment in class X TSM of SMK Negeri 1 Pleret Bantul Regency Even Semester of the 2016/2017 school year is included in the medium category because the highest frequency lies in the interval of $75.31 \leq X \leq 94.03$, namely 21 students or 61.765%.

Table 3. Distribution of Number of Students by Category Learning motivation scores

Category	Score	F	%
High	X > 92,49	5	14,706
Is	78,45 ≤ X ≤ 92,49	23	67,647
Low	X < 78,45	6	17,647
	Total	34	100

From the results of the categorization, it can be seen that the motivation of class X TSM Vocational High School 1 Pleret Bantul Regency Even Semester of the 2016/2017 school year is included in the medium category because the most significant frequency lies in the interval of $78.45 \leq X \leq 92.49$ namely 23 students or 67.647%

Table 4. Distribution of Number of Students by Category Score Learning Outcomes in Mathematics

Category	Score	F	%
High	$x \geq 75$	14	41,176
Low	$x < 75$	20	58,824
	Total	34	100

From the results of the categorization, it can be seen that the learning outcomes of class X TSM SMK 1 Pleret Bantul Regency Even Semester of the 2016/2017 school year is included in the low category because the highest frequency lies in the interval X < 75 that is as many as 20 students or 58.824%.

Table 5. Summary of Normality Test Results

Variable	χ^2_{count}	χ^2_{table}	df	Info.
Learning Time Management (X_1)	1,4934	7,8147	3	Normal
Home Learning Environment (X_2)	2,5545	7,8147	3	Normal
Learning Motivation (X_3)	1,6780	7,8140	3	Normal
Mathematics learning outcomes (Y)	3,1681	7,8147	3	Normal

Table 6. Summary of Linearity Test Results

Variable	F_{count}	F_{table}	Info.
X$_1$ to Y	−0,6581	2,41	Linear
X$_2$ to Y	2,3650	2,90	Linear
X$_3$ to Y	−0,6740	2,41	Linear

Table 7. Summary of Independence Test Results

Variable	χ^2_{count}	χ^2_{table}	df	Info.
X_1 and X_2	27,842	37,652	25	Independent
X_1 and X_3	19,458	37,652	25	Independent
X_2 and X_3	25,142	37,652	25	Independent

Table 8. Summary of Hypothesis Test Results

Hypothesis	t_{count}	t_{table}	df	Info.
1	3,0171	2,0396	32	H_0 rejected
2	3,0171	2,0396	32	H_0 rejected
3	3,0555	2,0396	32	H_0 rejected
	F_{count}	F_{table}	df (v_1, v_2)	Info.
4	5,8637	3,30	(2, 31)	H_0 rejected
5	7,1737	3,30	(2, 31)	H_0 rejected
6	6,7655	3,30	(2, 31)	H_0 rejected
7	5,4320	2,92	(2, 31)	H_0 rejected

CONCLUSION

1. There is a positive and significant relationship between learning time management and mathematics learning outcomes of students of class X TSM SMK Negeri 1 Pleret Bantul Regency Even Semester 2016/2017 school year. This is indicated by the t-test that is $t_{count} > t_{table}$ or $3.0131 > 2.0396$. The simple correlation coefficient (r) between parents' attention and mathematics learning outcomes is 0.4706. And the simple regression equation Y for X_1 is $\hat{Y}= -1.0129 + 0.8043X_1$.

2. There is a positive and significant relationship between the learning environment at home with students' learning outcomes of class X TSM SMK Negeri 1 Pleret Bantul Regency Even Semester 2016/2017 school year. This is indicated by the t-test that is $t_{count} > t_{table}$ or $2.5291 > 2.0369$. The simple correlation coefficient (r) between the learning environment at home with mathematics learning outcomes of 0.4082. We also obtained a simple regression equation for Y over X_2 is $\hat{Y}= 21.2686 + 0.5799X_2$.

3. There is a positive and significant relationship between students' motivation in class X TSM SMK 1 Pleret Bantul Regency Even Semester 2016/2017 school year. This is indicated by the t-test that is $t_{count} > t_{rable}$ or $3.0555 > 2.0396$. The simple correlation coefficient (r) between learning motivation with mathematics learning outcomes of 0.4752. Also, we obtained a simple regression equation Y for X_3 is $\hat{Y}= -5.8637 + 0.8976X_3$.

4. There is a positive and significant relationship between learning time management and learning environment at home with mathematics learning outcomes of students of class X TSM SMK 1 Pleret Bantul Regency Even Semester of the 2016/2017 school year. This is indicated by the *F test* that is $F_{count} > F_{table}$ or $5.8637 > 3.30$. The multiple correlation coefficient (R) between the management of learning time and the learning environment at home with mathematics learning outcomes of 0.5198 and the coefficient of determination (R^2) of 0.2745 with a linear line equation $\hat{Y}= -15,1558 + 0,6199X_1+0,3612X_2$. The relative contribution of X_1 was 62.1930%, and X_2 amounted to 37.8070%, and the effective contribution of X_1 was 17.0702%, and X_2 amounted to 10.3769%.

5. There is a positive and significant relationship between learning time management and learning motivation with mathematics learning outcomes of students of class X TSM SMK 1 Pleret Bantul Regency Even Semester 2016/2017 school year. This is indicated by the F test that is $F_{count} > F_{table}$ or $5.8637 > 3.30$. The correlation coefficient (R) between learning time management and learning motivation with mathematics learning outcomes is 0.6109. The coefficient of determination (R^2) is

0.2745 with a linear line equation Ŷ= -33,8571 + 0,5649X$_1$+0,6392X$_3$. The relative contribution of X$_1$ is 49.1629%, and X$_3$ is 50.8371%, and the effective contribution X$_1$ is 15.5546%, and X$_3$ is 16.0843%.

6. There is a positive and significant relationship between the learning environment at home and learning motivation with mathematics learning outcomes of students of class X TSM SMK 1 Pleret Bantul Regency Even Semester of the 2016/2017 school year. This is indicated by the F test, which is $F_{count} > F_{table}$ or 6.7655 > 3.30. The correlation coefficient (R) between the learning environment at home and learning motivation with mathematics learning outcomes is 0.5512. The coefficient of determination (R^2) is 0.3039 with a linear line equation Ŷ= -26,8445+0,4157X$_2$+0,7330X$_3$. The relative contribution of X$_2$ was 39.2974%, and X$_3$ was 60.7026%, and the effective contribution of X$_2$ was 11.9407%, and X$_3$ was 18.44448%.

7. There is a positive and significant relationship between learning time management, learning environment at home, and learning motivation with mathematics learning outcomes of class X TSM students of SMK Negeri 1 Pleret Bantul Regency Even Semester of the 2016/2017 school year. This is indicated by the *F test* that is $F_{count} > F_{table}$ or 5.4320 > 2.92. The correlation coefficient (R) between learning time management, learning environment at home and learning motivation with mathematics learning outcomes of 0.5933 and the coefficient of determination (R^2) of 0.3520 with a linear line equation Ŷ= -42,7353 + 0,4381X$_1$ + 0,2948X$_2$ + 0,5829X$_3$. The relative contribution of X$_1$ is 34.2716%, X$_2$ is 24.0593% and X$_3$ is 41.66691% and the effective contribution X$_1$ is 12.0634%, X$_2$ is 8.4688% and X$_3$ is 14.6674%.

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