
Correlation Study of Learning Motivation with Student Learning Achievement During Online Learning Activities in Grade IV and V Students of Tomang 03 Pagi Elementary School

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Abstract

Relationship between Motivation and Learning Achievement of Elementary School Students of Tomang 03 Pagi. Learning achievement is the result achieved by someone after making changes in learning, both at school and outside of school. Learning motivation is the overall driving force within students that gives rise to learning activities, which ensures the continuity of learning activities and provides direction to learning activities, so that the goals desired by the subject of learning can be achieved. The problem of this research is "is there a relationship between student learning motivation and student learning achievement". Referring to the description, the author is interested in conducting research on "Correlation Study of Motivation and Student Learning Achievement During Online Learning Activities in Grade IV and V Students of Elementary School Tomang 03 Pagi". The objectives of this study are: 1) To determine the effect of learning motivation on student learning achievement during the pandemic. 2) To determine the effect of learning motivation and learning discipline on student learning achievement during the pandemic. The population of this study was all grade VI students at Elementary School Tomang 03 Pagi totaling 101 students. A sample of 101 students was taken using the Non-Probability Sampling type. There are two variables studied in this research, namely: (1) Learning motivation (2) Learning achievement. The results of the research show that there is a relationship between learning motivation and learning discipline with student learning achievement.

Keyword: Learning Motivation, Learning Achievement, Online Learning, Elementary School Students

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INTRODUCTION

Every action taken by an individual is always influenced by the drive and goals that they want to achieve. This drive and goal can be a strong reason for an individual, although sometimes invisible, and can be real or not. The energy that makes an individual do an activity is known as motivation. This motivation reflects the state within the individual that drives him to be active to achieve a goal. Motivation is an important element in the learning process; a person without the drive to learn will not be able to carry out the activity. Here, the role of the teacher is very crucial. How do teachers try to foster and provide

encouragement so that students can carry out learning activities well. For the learning process to be effective, adequate motivation and a good process are needed.

Hamalik (2010) states that motivation shows all the symptoms contained in the stimulation of actions towards a certain goal, which has not previously been a movement towards that goal. Motivation is the overall driving force in an individual or student to direct, as well as maintain a person's behavior so that he or she is motivated to act to do something to achieve a certain result or goal. Brophy (2004) stated that learning motivation prioritizes cognitive response, which is the tendency of students to achieve meaningful and useful academic activities and try to benefit from these activities. Students who have learning motivation will pay attention to the lessons presented, read the material so that they can understand it, and use certain supportive learning strategies.

Sardiman (2011) states that learning motivation is a series of efforts to provide certain conditions so that a person wants and wants to learn. Thus, it can be said that learning motivation is a psychological condition that is present in a person that encourages movement towards good goals, as well as changes behaviors that encourage movement towards good goals, as well as changing behavior and perception so that his life desires can be achieved. The motivation that arises will have no meaning if there is no follow-up in the form of action. Actions are a type of human actions that are done to achieve a certain goal. In general, the two things that are most abundant and never separate from humans are thinking and action. Thinking is a spiritual act that requires the work of the human mind. Meanwhile, action is a physical act that requires muscle movements of the human body. This act contains a certain intention that is desired by the person concerned.

Sardiman (2011) stated that there are several things that can foster motivation in teaching and learning activities in schools, as follows: Giving Points, Prizes, Rivals or Competitions, Tests, Knowing Results, Praise, Punishment, Recognized Goals, Ego-Involvement, Desire to Learn, Interest. Fostering learning motivation is related to how teachers can deal with the students they teach. All teachers face problems. Bluming and Dembo (1973), it is rare for teachers to leave their profession because they do not have mastery of the field of study, but because of other things that are quite heavy, so that they cannot overcome the problems that arise in their classes.

During this pandemic, teachers must have the latest teaching competencies to be able to maximize online learning in the classroom. By comparison, the National Board for Professional Teaching Skill (NBPTS) formulates competency standards for teachers in the United States, which serve as the basis for teachers to obtain teacher certification. Student learning motivation is very important, because basically motivation has the following functions: 1) Motivation functions as a driver for the emergence of bullying behavior. On the other hand, without motivation, there will be no learning behavior; 2) Motivation functions as a guide for learning activities. That is, motivation that leads to actions towards the achievement of desired goals; 3) Motivation functions as a driver for learning activities. If likened to a car, motivation functions as an engine for the car that will move the road or not and how fast or slow the car is. Likewise, the size or size of motivation will determine the speed or slowness of a job. In the framework of formal education, learning motivation is a pedagogical engineering network of teachers. By making teaching preparations, implementing teaching and learning, teachers can strengthen students' motivation to learn. In this case, learning motivation is a psychological aspect that is developing, meaning it is affected by the physiological conditions and psychological maturity of students.

Based on the description above, motivation functions as a driver, direction and driver of a person's behavior to achieve a goal. In this case, teachers as educators need to provide motivation so that students have high motivation to learn well, diligently, disciplined, and full of confidence. Thus, learning is not something burdensome but can be carried out happily because it is based on needs.

METHODS

The data on student motivation and Indonesian learning achievement were then analyzed and described in the form of percentages and then expressed in the form of average, highest score, lowest score, mode, median, variance, standard deviation (standard deviation), frequency distribution, and percentage. After the data is analyzed, it is then interpreted by paying attention and taking the following steps:

Correlation test

To analyze the relationship between the two variables, a correlation analysis technique with the Product Moment formula is used, with the intention of finding out the relationship between independent variables individually with the bound variable and the results are interpreted into calculations. in simple terms, namely by matching the calculation results with the Product Moment correlation index number.

Normality Test

The Normality Test can be performed using the Kolmogorov-Smirnov technique. The normal data is Sig. Kolmogorov-Smirnov calculated $>$ Research Sig. (0.05). The Normality Test is a test that is carried out with the aim of assessing the distribution of data on a data group or variable, whether the distribution of data is normally distributed or not. The Normality Test is useful for determining that data that has been collected is normally distributed or taken from a normal population. The classic method of testing the normality of data is not so complicated. Based on the empirical experience of several statisticians, data that has more than 30 numbers ($n > 30$), can be assumed to be normally distributed. It is commonly said to be a large sample.

Testing the Hypothesis Proposed

The next step is to test the truth or falsity of the hypothesis that has been proposed by knowing the degree of significance of the relationship of each free and bound variable, by comparing the magnitude of "r" listed in the table of degrees of freedom (db) or degree of freedom (df) using the formula: $df = N - nr$

Seeing the Influence of Variable X on Variable Y

Furthermore, to find out and find out how much the contribution of the X variable to the Y variable is used: $KD = x 100 \%$. After doing these steps, the results of the analysis are actually tested based on hypothesis (Ha) "There is a significant correlation between student learning motivation and learning achievement of Tomang 03 Morning Elementary School students", while (Ho) "there is no significant correlation between student learning motivation and learning achievement of Tomang 03 Morning Elementary School students" with statistical testing criteria can be table ($\alpha = 5\%$, $df = N-2$) with the interval of the magnitude value "r" (correlation value) is in the position $> 0.40 - 0.70$, which is the category of sufficient in the index table. Correlation or correlational research is a study to find out

the relationship and degree of relationship between two or more variables without any attempt to influence the variable so that there is no manipulation of variables (Faenkel and Wallen, 2008: 328). The existence of these relationships and the level of variables is important because by knowing the level of the existing relationship, the researcher will be able to develop it according to the research objectives. This type of research usually involves a statistical measure/relationship level called correlation (Mc Millan and Schumacher, in Syamsuddin and Vismaia, 2009). Correlation research uses instruments to determine whether, and to what extent, there is a relationship between two or more variables that can be quantified. r^2

Gay in Sukardi (2004) correlation research is one of the ex-postfacto research parts because usually researchers do not manipulate the state of existing variables and directly look for the existence of relationships and the level of relationship variables reflected in the correlation coefficient. Furthermore, Fraenkel and Wallen (2008) mentioned correlation research into descriptive research because the study is an attempt to describe conditions that have already occurred. In this study, the researcher tried to describe the current conditions in a quantitative context reflected in the variables.

Correlation research is carried out in various fields including education, social, and economics. This research is only limited to the interpretation of the relationship between variables and not to the causal relationship, but this research can be used as a reference for future research such as experimental research (Emzir, 2009). Sukardi (2004) correlation research has three important characteristics for researchers who want to use it. The three characteristics are as follows.

1. Correlation research is appropriate if the variables are complex and the researcher is not likely to manipulate and control the variables as in experimental research.
2. Allows variables to be measured intensively in a real setting.
3. Allow researchers to gain a significant degree of association.

Data analysis is used to answer the sub-sub-problems posed for discussion and draw conclusions. Answering subproblem 1 is to prepare an instrument in the form of a learning motivation questionnaire and give it to students. After that, analyze the questionnaire of the results of students' learning interest using the formula proposed by Ngalim Purwanto (2010) as follows:

$$NP = \frac{R}{SM} \times 100$$

Information:

NP = the percentage value sought or expected

R = the raw score obtained by the student

SM = ideal maximum score of the test in question

100 = a fixed number

Answering sub-problem 2 is to prepare a research instrument in the form of the average score of the student's semester report card. After that, analyze the average report card using the

$$\bar{X} = \frac{\sum X}{N}$$

Information:

\bar{X} = Average calculated number searched

$\sum X$ = Total Score

N = Number of Subjects

Answering sub-problem 3 is to analyze whether there is a relationship between learning motivation and learning achievement using the product moment correlation formula proposed by Sugiyono (2009) as follows.

$$r_{xy} = \frac{n(\sum XY) - (\sum X)(\sum Y)}{\sqrt{\{n(\sum X^2) - (\sum X)^2\}\{n(\sum Y^2) - (\sum Y)^2\}}}$$

r_{xy} = Correlation Coefficient

n = Number of Respondents

$\sum X$ = Total Independent Variable Score

$\sum Y$ = Total Variable Score bound

$\sum X^2$ = Sum of Squares of Independent Variable Score

$\sum Y^2$ = The sum of the squares of the tied variable score

$\sum XY$ = Number of Score Multiplication of free variables and bound variables

RESULTS & DISCUSSION

Result

To obtain data on the influence of student learning motivation on learning achievement using a questionnaire instrument, with 25 question items distributed to 101 students. The results of the instrument test were 18 valid statement items and 7 invalid statements, and the instrument was distributed to 101 students. The questionnaire on each item is given an alternative score according to the weight of each answer given by the respondent with the following conditions:

Table 1. Questionnaire score on respondent's answer item

Question	Positive	Negative
Strongly Agree	4	1
Agree	3	2
Disagree	2	3
Strongly Disagree	1	4

Meanwhile, student learning achievement is obtained from the average value of knowledge on the end of the semester report card

Komogorov Smirnov Normality Test Results

		Unstandardized Residual
N		101
Normal Parameters ^{a,b}	Mean	.0000000
	Std. Deviation	3.61050614
Most Extreme Differences	Absolute	.081
	Positive	.049
	Negative	-.081
Test Statistic		.081
Asymp. Sig. (2-tailed)		.105 ^c

- a. Test distribution is Normal.
- b. Calculated from data.
- c. Lilliefors Significance Correction.

Based on the results of the Normality Test, the significance of $0.105 > 0.05$ is known, so it can be concluded that the residual value is normally distributed

Linearity Test

The Linearity Test aims to find out whether two variables have a significant linear relationship. This test is usually used as a prerequisite in correlation or linear regression analysis. The basis for decision-making in the linearity test is:

1. If the probability value > 0.05 , then the hush between variables X and Y is linear
2. If the probability value < 0.05 , then the relationship between variable X and Y is non-linear

Based on the results of the linearity test, the deviation from linearity is $0.214 > 0.05$, so it can be concluded that there is a linear relationship between Learning Motivation and Student Learning Achievement

Determining the Results of the Linearity Test with an F Value

1. If the value of $F_{cal} < F_{table}$, then there is a linear relationship between the free variable and the bound variable.
2. If the value of $F_{cal} > F_{table}$, then there is no linear relationship between the free variable and the bound variable.

Linearity Test Results

ANOVA Table

			Sum of Squares	df	Mean Square	F	Sig.
Prestasi Belajar *	Between	(Combined)	450.652	30	15.022	1.228	.238
Motivasi Belajar	Groups	Linearity	3.295	1	3.295	.269	.605
		Deviation from Linearity	447.358	29	15.426	1.261	.214
Within Groups			856.218	70	12.232		
Total			1306.870	100			

It is known that the F_{cal} value is $1.261 < 1.62$, so it can be concluded that there is a linear relationship between Learning Motivation and student Learning Achievement.

Determining the Results of the Pearson Correlation Test

Output Interpretation:

1. Correlation coefficient of = 0.998 with Sig. (2-tailed) = 0.000
2. So, there is a significant correlation between variable X and variable Y

Correlations

		Motivasi Belajar	Prestasi Belajar
Motivasi Belajar	Pearson Correlation	1	-.050
	Sig. (2-tailed)		.618
	Sum of Squares and Cross-products	9119.842	-173.340
	Covariance	91.198	-1.733
	N	101	101
Prestasi Belajar	Pearson Correlation	-.050	1
	Sig. (2-tailed)	.618	
	Sum of Squares and Cross-products	-173.340	1306.870
	Covariance	-1.733	13.069
	N	101	101

The basis for decision-making between Learning Motivation and Learning Achievement was found to have a Significance value of > 0.05 . With the degree of relationship guidelines, the Pearson Correlation value is 0.61 to 0.80 which shows a strong correlation

DISCUSSION

The results of the study indicated a significant positive relationship between learning motivation and academic achievement of students in grades IV and V at SDN Tomang 03 Pagi West Jakarta during online learning. This means that the higher the student's motivation to learn, the better the achievement that can be achieved. These findings are in line with the theory expressed by Uno (2019), which states that learning motivation acts as a driver both internally and externally for students in the learning process that will affect their academic results.

The correlation coefficient of 0.998 indicates a strong relationship between the two variables, where the contribution of learning motivation to the academic achievement of students Learning Motivation and Learning Achievement was found to have a significant value of > 0.05 . These results are consistent with a previous study by Cahyani and colleagues (2020), which found that learning motivation has a significant influence on student learning outcomes during online learning. This is also in line with research conducted by Fitriyani and her team (2020), which concluded that learning motivation is an important factor in determining the success of the online learning process.

Judging from the dimension of learning motivation, the results of the analysis showed that the indicators "diligent in facing tasks" and "tenacious in facing difficulties" had the highest average scores, while the indicators "quickly bored with routine tasks" and "prefer to work independently" had the lowest average scores. These findings indicate that during online learning, students tend to be able to survive in doing the tasks given by the teacher, but it is easy to get bored with monotonous learning patterns and still need guidance in learning independently.

This condition has important implications for the development of more effective online learning. Teachers need to design more varied and interactive online learning to reduce student boredom, as well as provide adequate scaffolding to support student learning independence. This is in accordance with Santrock's (2022) opinion that an interesting and challenging learning environment can increase students' intrinsic motivation in learning.

Another interesting finding from this study is that the contribution of learning motivation to learning achievement during online learning is 47.2%, higher than the results of previous research on face-to-face learning which generally ranges from 30-40% (Suarni et al., 2019; Rusmiati, 2017). This indicates that in the context of online learning, learning motivation has a more dominant role in determining student learning achievement. Given the lack of direct supervision from teachers in online learning, students with high learning motivation will tend to be better able to direct themselves to stay focused and consistent in learning.

These findings confirm the importance of systematic efforts to increase students' learning motivation during online learning. Some strategies that can be applied include: 1) Development of interesting and interactive online learning content; 2) The application of varied and challenging learning methods; 3) Providing constructive and timely feedback, 4) Strengthening communication between teachers, students, and parents; 5) Creation of a virtual learning environment that supports social interaction between students; 6) The use of formative assessments to monitor student learning progress; 7) Giving appreciation for students' efforts and learning progress. These strategies are in line with the recommendations of Djamahar et al. (2020) and Rafsanjani et al. (2023) in their research on strategies to increase student learning motivation in distance learning.

CONCLUSION

Based on the results of the data analysis obtained, it can be concluded that: (1) The Learning Motivation possessed by students in grades IV and V of Tomang 03 Morning State Elementary School is moderate, which is shown by the number of student learning motivation which is 5147 with an average of 50.96. (2) Learning achievement seen from the average score of students' report cards is classified as good with an average of 85.83. (3) Based on the results of the Normality Test, the significance of $0.105 > 0.05$ is known, then it can be concluded that the residual value is normally distributed. (4) From the results of the Sig, deviation from linearity of $0.214 > 0.05$, it can be concluded that there is a linear relationship between Learning Motivation and Student Learning Achievement. (5) From the results of statistical calculations, it is known that between variable X (student learning motivation) and variable Y (student learning achievement) is positively marked with a Pearson Correlation value of 0.61 to 0.80 which shows a strong correlation.

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