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The Influence of Lecturer Teaching Motivation on Student Learning Outcomes

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ABSTRACT

Lecturers and students carry out the interaction of teaching and learning activities. Learning is a process of not knowing to know and a process of behavior change. Learning is a transfer of science and technology to human resources competent and able to intelligent dynamics of changing times the success. Teaching motivation is the lecturer's interest in teaching.
The study was conducted using descriptive percentage analysis. Regression analysis was conducted to measure the relationship and influence between teaching motivation and student learning outcomes of the Politeknik Ilmu Pelayaran Semarang.
The results showed a positive and significant influence on the motivation of lecturers to teach student learning outcomes. The F calculate > Ftabel regression test results at $\alpha = 5\%$, which is 4.152 >3.938, mean that teaching motivation affects student learning outcomes. The contribution of teaching causes to learning_outcomes-was 36.7%.

1. Introduction.

Interaction in teaching and learning activities carried out by lecturers and students is the initial stage of transferring science and technology to form Indonesian human resources who are intelligent and able to face the dynamics of changing times (Becker et al., 2023; Bryce et al., 2022; Kleiman & Barenholtz, 2020). The success of the teaching and learning process can be proven by student learning outcomes (Kannangara et al., 2020; STeyn & Heystek, 2018). Various factors influence student learning outcomes, but this study is limited to the lecturer teaching mobility factor (Hembrooke et al., 2005; Vanthournout et al., 2013; Voultsos et al., 2022).

Learning is a process of not knowing to know, and learning is also a process of behavior change based on experience and interaction (Fayez et al., 2023; Hung et al., 2023). The purpose of the teaching and learning process is for someone to experience better changes (Hung et al., 2023). Differences in teaching and learning outcomes are in the form of increasing knowledge, attitudes, and skills (Odinokaya et al., 2019; Pyrko et al., 2019; Saputri et al., 2019). Learning is an activity of oneself (Brandi et al., 2019; Forrester et al., 2023; Hwang et al., 2023; Magwenya & Ross, 2023; Mitchell & Weiler, 2011; Yuan et al., 2023), while others will know if the learning subject concerned shows or shows the abilities or results he has obtained from learning activities.

Teaching motivation will affect learning outcomes (Barak et al., 2022; Shimizu et al., 2021). Interest is the tendency to make contact with objects that are interesting to him. The greater a person's reason for something, the more attention will be devoted to it.

The motivation of lecturers in teaching will affect the learning process. Lecturer motivation builds a positive attitude towards specific courses, generally fostering high interest in learning and learning outcomes (Mitchell & Weiler, 2011). This attitude will help facilitate and support the success of the teaching and learning process. On the contrary, if there is a negative attitude or feelings of displeasure, it will hinder the teaching and

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learning process (Mitchell & Weiler, 2011).

Teaching motivation is important because it can influence students' attitudes and behavior (Alujević & Braović Plavša, 2021; Dobrynin et al., 2016). Fostering student motivation in learning will make students try harder than others. Every student wants to be intelligent and successful, but success does not just come. Success in teaching and learning requires effort, hard work, habituation, and discipline (Carnethon et al., 2009). High learning motivation is an absolute requirement that everyone must have before learning because, without motivation, success is difficult to achieve (Miller et al., 2021; Robbins et al., 2020). The motivation of lecturers in teaching will foster a positive attitude toward students. Such motivation can be influenced by sincerity, ideals, family, and learning facilities (DeWitt & Storksdieck, 2008).

Psychological factors play a role in achieving learning goals to a maximum (Ouali et al., 2023). These psychological factors include intelligence, interest, motivation, talent, and others that have an essential part in relation to understanding the lesson.

The center of attention of this study is related to factors that influence student learning outcomes seen from the point of view of internal, psychological, and factors related to student learning interest. Teaching motivation will generally affect the way of learning (Elizabeth Jesi et al., 2021); students who have high talents and abilities but are less accompanied by interest tend to have maximum learning outcomes, and vice versa. The claim will facilitate the creation of concentration in a student's mind.

Motivation in teaching plays a role in fostering concentration in remembering lesson materials. Memory is crucial when students are undergoing the exam process; good memory affects learning outcomes as expected. The author wants to measure the motivation of lecturers in teaching to impact student learning outcomes (Barak et al., 2022; Thackrah & Thompson, 2019; Yulastri et al., 2020).

According to the author, motivation is one's tendency to make contact with objects that attract him. A person with high motivation in learning tends to prefer certain subjects to learn them (Roberson, 2020). The motivation of lecturers in teaching shows a person's attitude to focus particular attention, namely motivation and sincerity in education. Several factors, including internal factors and external factors (Anderson & Brown, 2010) influence this motivation. These internal factors can be a desire, high gravity in teaching, interest, and intention to convey their knowledge to students. External factors are various things that are outside of oneself. Among them are learning infrastructure, environment, culture, management, financing, etc.

The motivation of lecturers in teaching will affect the way students learn, foster student learning motivation, and form moral, mental, and behavioral learning outcomes (Zhang et al., 2022). Students with high learning motivation are expected to have higher enthusiasm and earnestness in focusing on the lesson. The cause of lecturers in teaching will affect the success of teaching and learning activities.

According to the author, learning is a process of gaining knowledge, an effort to obtain changes in attitude, behavior, skills, habituation, or training. Changes in the results of a learning process tend to be fixed in the long term because they go through training and learning experiences. Changes in the learning process results can be in the form of changes in science, attitudes and behavior, skills, skills, and other aspects. Learning is a permanent change; the change can be a behavior change resulting from an exercise in learning or experience (Odinokaya et al., 2019). Learning is a process of changing individual skills over a certain period. The shift in learning that becomes behavior is not a growth process but the result of practice or learning (Gallotti et al., 2021).

Learning outcomes are the outputs of teaching and learning activities (Ji et al., 2018). Learning outcomes are influenced by various factors, including internal and external factors (Apriliyanto et al., 2018). Internal factors that affect learning outcomes include physiological and psychological aspects. Psychological can be in the form of intelligence, talent, or interest in learning. Physiological is the state of physical and mental. External factors come from outside the student in social and non-social environments. Learning outcomes can also be achieved through learning approaches, strategies, and methods used during teaching and learning activities (Kusuma et al., 2021).

2. Methodology.

The type of research used includes quantitative research. The dependent variable is student learning outcomes, and the independent variable is the lecturer's teaching motivation. The population of this study was 114. The sampling technique is carried out by total sampling, namely, the entire sample. The independent variable of this study (X) is teaching motivation. At the same time, the dependent variable (Y) is the learning outcome.

Data collection used using the questionnaire method is a list of questions that must be filled in by respondents to be measured (Jacobs et al., 2020). The validity used in this study used alpha Cronbach (Burgess et al., 2020; Knopp, 2019; Pratama et al., 2022) to assess the instrument's validity. This study used reliability to test the permanence of (Ouali et al., 2023; Pratama et al., 2022) tools. The analysis used is descriptive percentages to measure the percentage of answer scores.

The requirements used are normality, linearity, homogeneity, multicollinearity, correlation, and regression analysis using SPSS version 25 to measure lecturer motivation data on student learning outcomes at the Politeknik Ilmu Pelayaran Semarang.

3. Results.

3.1. Descriptive Analysis.

The variable of teaching motivation.

Based on research data, it was found that teaching motivation was included in the high. Thus showing that the motivation to teach lecturers, in general, is high.

Student learning outcome variables.

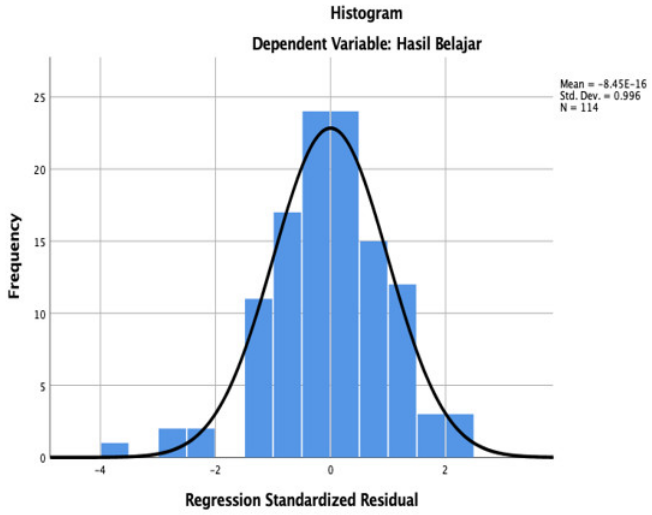
Based on the results of the study, it can be concluded that the learning outcomes are good.

4. Test Prerequisite Hypothesis.

4.1. Normality test.

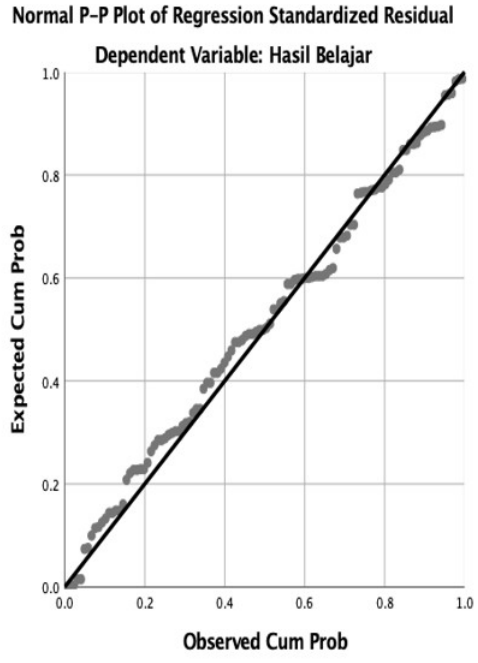
Based on the output of SPSS version 25, it can be seen that in the histogram diagram, most of the data is close to a linear curve. In a normal P Plot diagram, it can be seen that most of the data are close to a linear line. Kolmogorov-Smirnov's results obtained a score of 0.200 > 0.05, so it can be concluded that the data is normally distributed. The full results can be seen in the following diagram.

Figure 1: Normality Test Histogram Diagram.



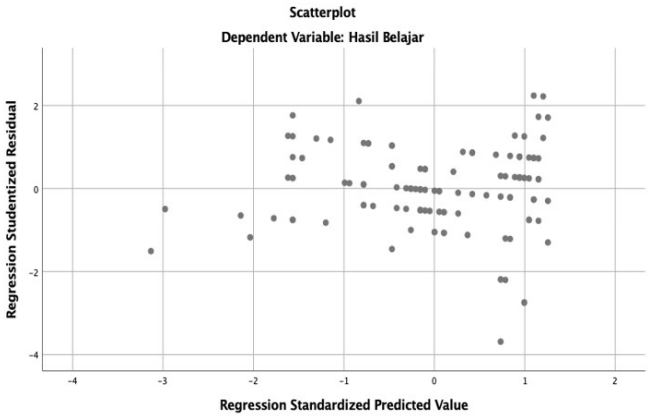
Source: Authors.

Figure 2: Diagram Normal P Plot.



Source: Authors.

Figure 3: Diagram Scatterplot.



Source: Authors.

4.2. Multicollinearity Test.

Based on the output of SPSS version 25, it can be seen that the VIF is 1,000 < 10.0. So it can be concluded that there is no data multicollinearity. The full results can be seen in the following table.

Table 1: Multicollinearity Test Output Interpretation Table.

Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	88.125	1.962		44.905	.000		
	Motivasi Mengajar	.020	.010	.189	2.038	.044	1.000	1.000

Source: Authors.

4.3. Correlation analysis.

The magnitude of the correlation value/relationship R is teaching motivation to learning outcomes of 0.289. Based on these data, a coefficient of determination (R Square) of 0.36 was obtained. This can be interpreted that the influence of teaching motivation variables on learning outcomes is 36.7%, while the remaining 63.3% is influenced by other factors that are not studied. The full results can be seen in the following table.

4.4. Anova Analysis.

Based on the output of SPSS version 25, it is obtained that F is calculated at 4.152 with a significance level of 0.044 < 0.05. So it can be concluded that regression models can be used to predict teaching motivation variables on learning outcomes. The full results can be seen in the following table.

Table 2: Interpretation Table Correlation Analysis.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.289[a]	.367	.027	2.01742

a. Predictors: (Constant), Teaching Motivation

b. Dependent Variable: Learning Outcomes

Source: Authors.

Table 3: Anova Analysis Interpretation Table.

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	16.900	1	16.900	4.152	.044[b]
	Residual	455.836	112	4.070		
	Total	472.737	113			

a. Dependent Variable: Learning Outcomes

b. Predictors: (Constant), Teaching Motivation

Source: Authors.

4.5. Analysis Coefficients.

Based on the output of SPSS version 25, the coefficient for the teaching motivation variable is 0.20, and a constant of 88.125 with the regression model obtained is $\hat{Y}$ = 88.125 + 0.20X. A constant of 88.125 means that the consistent value of the teaching motivation variable is 88.125. The X regression coefficient of 0.20 states that for every 1% increase in the value of teaching motivation, the participation value increases by 0.20. The regression coefficient is positive, so it can be said that the direction of influence of teaching motivation on learning outcomes is positive. The full results can be seen in the following table.

Table 4: Coefficients Analysis Table.

Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	88.125	1.962		44.905	.000		
	Motivasi Mengajar	.020	.010	.189	2.038	.044	1.000	1.000

a. Dependent Variable: Learning Outcomes

Source: Authors.

5. Discussion.

5.1. Teaching Motivation.

Teaching motivation is a lecturer's awareness of teaching. Internal and external factors influence teaching motivation. These internal factors can be a desire, high sincerity in education, interest, and intention to convey knowledge to students. External factors are various things that are outside of oneself. Among them are learning infrastructure, environment, culture, management, financing, etc. Based on the results of the descriptive calculation of the teaching motivation questionnaire, the exceptionally high category was obtained 0%, the high category was 69%, the medium category was 29%, the low category was 2%, and the deficient category was 0%. Based on the results of the descriptive analysis that teaching motivation is in the high category. This gives the idea that lecturers have high motivation to learn. High interest is expected in the teaching and learning process of students can be serious so that student learning outcomes can be optimal.

5.2. Student Learning Outcomes.

Student learning outcomes are the results obtained by students after experiencing the teaching and learning process. The learning outcomes in this study are grades for the Mechanics and Hydrodynamics course.

The lowest grade point average was 72.68, and the highest grade point average of 82.15 amounted to 114 students. Based on the results of the descriptive analysis, student learning outcomes are good.

5.3. The Effect of teaching motivation on learning outcomes.

Based on this research, teaching motivation affects learning outcomes if a lecturer has high motivation in teaching, influencing students to be more excited, more diligent, and enthusiastic about the learning process so as to affect student learning outcomes. The results of the SPSS version 25 output regression test showed that Fcalculate = 4.152 > Ftable = 3.98 at α = 5%, so it can be concluded that there is an influence between lecturer teaching motivation on student learning outcomes. Lecturer teaching motivation and student learning outcomes include good criteria, but after analysis using regression analysis, it turns out that the percentage of influence of learning interest on learning outcomes is included in the sufficient category. The amount of influence between lecturer teaching motivation on student learning outcomes is 36.7%, while the remaining 63.3% is influenced by other factors that are not studied, such as infrastructure, quality culture, attitudes, talents, etc., that are different for each individual so that even though the teaching motivation is not too high but the learning outcomes obtained can be increased. So not only are teaching motivation variables that affect student learning outcomes but there are still other factors that affect student learning outcomes that are not studied.

The output result of SPSS version 25, found the regression equation formula $\hat{Y}$ = 88.125 + 0.20X. Based on these outputs, it can be concluded that an increase follows every increase in 1

lecturer's motivation score in teaching in student learning outcomes of 0.20. Based on these data, increasing teaching motivation will affect student learning outcomes.

Based on Table 5 above, if the lecturer's teaching motivation is strong, the learning outcomes obtained by students will increase. High lecturer teaching motivation will determine student learning outcomes, so it can be concluded that teaching cause affects learning outcomes.

Based on research conducted by (Guo et al., 2023), states lecturer support in the form of emotional support, lecturer competence, and lecturer behavior has a significant positive relationship with student involvement in learning. Teachers increase student engagement by encouraging decision-making and building positive relationships. Professional lecturers need to realize that motivation in education is very supportive of students to improve their learning outcomes.

Similar research was conducted by (Anderson & Brown, 2010), that students who used learning mechanisms accompanied by professional lecturers were also influential, although carried out remotely. Because lecturers have motivation, enthusiasm, and interest and instill better reflection in teaching and learning activities, professional lecturers can use this mechanism to provide cognitive, affective, and psychomotor competencies to increase learning effectiveness.

In addition, the school environment is also influential; these factors include student activities in the school environment and culture to friends getting along. Lecturers with high motivation generally have an increased desire to realize students' dreams. The school environment, family, teachers, motivation, supportive ideals, and adequate learning facilities so that students more easily achieve learning outcomes. Based on this description, this study shows that teaching motivation affects student learning outcomes.

Conclusions.

There is a positive and significant influence between the motivation of lecturers to student learning outcomes. The Fcalculate > Ftabel regression test results at $\alpha = 5\%$, which is 4.152 >3.938, mean that teaching motivation affects student learning outcomes. The contribution of teaching causes to learning outcomes was 36.7%, while the remaining 63.3% was influenced by other factors not studied.

Seeing the results of the research, there needs to be a strong motivation for lecturers at the beginning of learning. In addition to the results of these studies, it is necessary to explore again the factors that affect student learning outcomes. It requires the commitment of a lecturer. That the main task is to teach, provide teaching materials, provide motivation, example and make students who previously did not know understand and understand according to their respective fields of knowledge.

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