THE INFLUENCE OF LEARNING MOTIVATION AND INTEREST ON STUDENTS' LEARNING OUTCOMES

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ABSTRACT

This research aims to see the influence of student learning and interest in statistics courses on student achievement at STIA Nusantara Sakti Sungai Penuh students. The research approach used is a quantitative approach. The sample in this study consisted of 30 people who were first semester students of the 2024 academic year who took statistics courses. The data collection tool used is a questionnaire which contains a set of statements that must be selected by respondents in the form of a Likert scale. The analysis tool uses multiple linear regression analysis. Hypothesis testing uses the F test and t test. Data processing was carried out using SPSS version 25. The results of the study showed 1) There is a significant influence of learning motivation and interest in statistics courses on the learning achievement of STIA Nusantara Sakti Full River students simultaneously and partially, 2) There is a large influence of learning motivation and interest on the learning achievement of STIA Nusantara Sakti Sungai Penuh students as a whole. Simultaneous is 79% and the remaining 21% is influenced by other variables not studied. The partial influence is that motivation influences learning achievement by 54.21% and interest influences learning achievement by 24.77%, 3) The variable that most influences learning achievement is motivation namely 54.21%.
Keywords: learning motivation, interest, learning achievement, multiple linear regression analysis

INTRODUCTION

One of the successes of students in lectures can be seen from the learning outcomes obtained. Student learning outcomes are one of the main indicators to assess how effective the education process is in higher education. These learning outcomes reflect the extent to which students are able to understand, apply, and develop the knowledge gained during lectures (Elizabeth & Ramadhan, 2025) . Learning outcomes are changes obtained by students after the learning process. These changes contain what students learn and are presented in the form of numbers or letter symbols aimed at knowing how much success students have in following the process of learning activities in class (Diyah & Indriyani, 2024) .

Many factors affect student learning outcomes, both from within and outside the students themselves. According to Slameto (2018) the factors that influence student learning outcomes are grouped into two, namely internal factors and external factors. Internal factors are factors that come from within the individual who is learning, while external factors are factors that come from outside the individual. Internal factors such as physical factors, intelligence, interest, motivation, and readiness. Furthermore, external factors consist of family factors which include economic conditions, relationships with family members, cultural background, school factors and community factors.

Among the many things that affect learning outcomes, motivation and interest are some of them. Motivation is a person's drive to change behavior in a better direction to achieve his goals. Motivation to learn can arise due to intrinsic factors, in the form of desire and desire to succeed and drive learning needs, hopes for ideals. While the extrinsic factors are appreciation, a conducive learning environment, and interesting learning activities (Nasrah, 2020) . To measure student motivation, learning motivation indicators are used according to Uno (2014), namely: 1) the existence of desire and desire to succeed; 2) the existence of encouragement and needs in learning; 3) the existence of future hopes and ideals; 4) the existence of rewards in learning; 5) the existence of interesting activities in learning; and 6) the existence of conducive learning situations.

Apart from motivation, another factor that can affect student learning outcomes is student interest. Interest is a fixed tendency to pay attention and remember some activities. Interest has a big influence on learning outcomes, because if the subject matter is of interest, students will follow as well as possible, the material will be easier to understand and remember, because interest adds to learning activities (Slameto, 2018). Interest in learning is an aspect of a person's psychology that manifests itself in several symptoms, such as: passion, desire, feeling like to carry out the process of changing behavior through various activities which include seeking knowledge and experience, in other words, interest in learning is a person's attention, liking, interest in learning which is shown through enthusiasm, participation and activeness in learning (Sirait, 2016). The indicators used to measure student interest are according to Safari's opinion in (Ricardo & Meilani, 2017) which includes: 1) having a sense of pleasure; 2) interest in learning; 3) attention in learning; and 4) involvement in learning.

Sekolah Tinggi Ilmu Administrasi Nusantara Sakti (STIA-Nusantara Sakti) Sungai Penuh is one of the private universities in Sungai Penuh City. STIA Nusantara Sakti is under the Ministry of Education and Culture Kopertis Region X Padang which has received an accreditation certificate from BAN-PT and has two study programs namely Strata One State Administration Science and Diploma III Office Administration. In college itself, the term teacher is called a lecturer and students are called students. From the results of interviews conducted with several students who attended statistics lectures, they had a fairly high motivation to attend lectures even though some people were less interested in statistics courses whose material was calculation. This can be seen from the lack of student participation and involvement during lectures. Only a few people actively asked and answered the lecturer's questions. Even so, students still follow lectures well in order to get good results too.

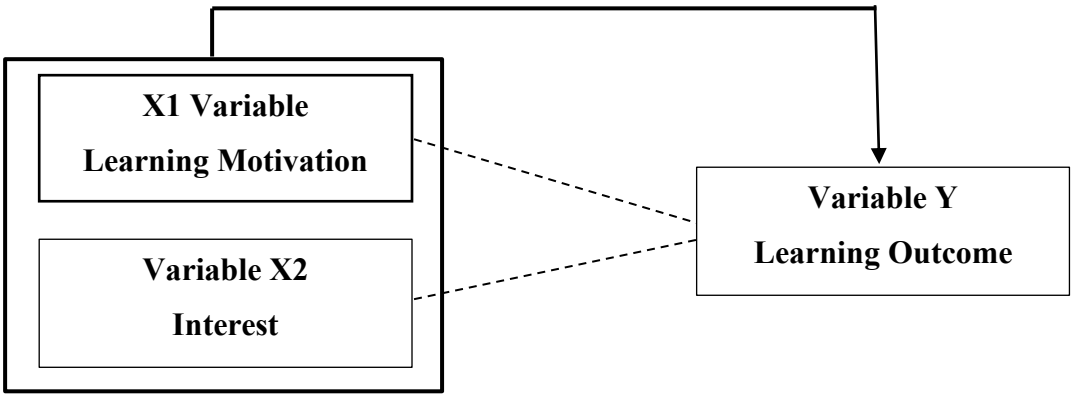
The description that has been stated above is the background for the author to conduct research entitled "The effect of learning motivation and interest on student learning outcomes". Through this research, it is hoped that it can provide input to lecturers related to factors that affect student learning outcomes, especially in terms of increasing student motivation and interest in learning in the classroom.

METHODS

Based on the problems and research objectives that have been expressed, this study uses a quantitative approach. According to Rully and Poppy (2017) quantitative research is a scientific study that examines a problem from a phenomenon, and looks at possible links or relationships between variables in the specified problem. The purpose of quantitative research is to obtain an explanation of the meaningfulness or significance in the hypothesized model as an answer to the problem formulation. The data collection technique used in this study is a questionnaire (questionnaire) to measure motivation and interest. Meanwhile, to see student learning outcomes is through the final semester exam score (UAS) of the statistics course. According to Sugiyono (2018) "questionnaire (questionnaire) is a data collection technique that is done by giving a set of questions or written statements to respondents to answer". The questionnaire given is a closed questionnaire which has five answer choices in the form of a Likert scale. Respondents in this study were STIA Nusantara Sakti Sungai Penuh students who took statistics courses totaling 30 people. Data processing is done with the help of *SPSS software version* 25.

In this study to see and understand the concept of student learning outcomes seen from two factors that influence it, namely learning motivation and interest. These factors can certainly have an influence both simultaneously and partially on learning outcomes. Based on the description that has been stated, the relationship between variables can be described in the following conceptual framework:

Figure 1. Conceptual Framework Chart



Source: data processed 2024

RESULTS AND DISCUSSION

1. Questionnaire Instrument Test

a. Validity Test

After processing the data from the distribution of questionnaires to 30 students with the help of *SPSS.25 software*, the results are presented in the following table.

Table 1. Validity Test Results

Item Number	Motivation Variable (X1)		Interest Variable (X2)		r table
	r count	Description	r count	Description	
1	0,444	Valid	0,421	Valid	0,361
2	0,615	Valid	0,408	Valid	0,361
3	0,733	Valid	0,595	Valid	0,361
4	0,795	Valid	0,749	Valid	0,361
5	0,809	Valid	0,718	Valid	0,361
6	0,490	Valid	0,487	Valid	0,361
7	0,678	Valid	0,805	Valid	0,361
8	0,705	Valid	0,769	Valid	0,361
9	0,578	Valid	0,711	Valid	0,361
10	0,801	Valid	0,733	Valid	0,361

Source: primary data processed 2024

Based on the table above, it is known that all items have a value of r count> r table, so the item is declared valid and can be used as a valid data collection tool.

b. Reliability Test

Based on the results of processing the questionnaire data with the help of SPSS.25 software, the following reliability test results were obtained.

Table 2. Reliability Test Results

Number	Variable	*Cronbach's Alpha* value	Comparison Value	Description
1	Motivation (X1)	0,865	0,6	Reliable
2	Interest (X2)	0,845	0,6	Reliable

Source: primary data processed 2024

Based on table 2 above, it is known that the *Cronbach's alpha* value for each variable has a value greater than 0.6 (*Cronbach's* alpha> 0.6), so that all variables studied are declared reliable.

2. Analysis Prerequisite Test

a. Normality Test

Based on the results of data processing using the help of *SPSS.25 software,* the following results were obtained.

Table 3. Normality Test Results

One-Sample Kolmogorov-Smirnov Test		
		Unstandardized Residual
N		30
Normal Parameters[a,b]	Mean	,0000000
	Std. Deviation	1,59132219
Most Extreme Differences	Absolute	,093
	Positive	,093
	Negative	-,070
Test Statistic		,093
Asymp. Sig. (2-tailed)		,200[c,d]

Source: primary data processed 2024

Based on the table above, it is known that the value of *Asymp. Sig. (2-tailed)* is 0.200 while α = 0.05, then *Asymp. Sig. (2-tailed)* > α, so based on the decision-making criteria in the *Kolmogorov-Smirnov Test*, the residual values are normally distributed.

b. Linearity Test

1) Motivation Linearity Test (X1) Against Learning Outcomes (Y)

The results of the linearity test of motivation to learning outcomes are presented in the following table.

Table 4. Linearity Test of Motivation (X1) Against Learning Outcomes (Y)

ANOVA Table

			Sum of Squares	df	Mean Square	F	Sig.
Y * X1	Between Groups	(Combined)	257,258	9	28,584	12,553	,000
		Linearity	227,203	1	227,203	99,778	,000
		Deviation from Linearity	30,056	8	3,757	1,650	,173
	Within Groups		45,542	20	2,277		
	Total		302,800	29			

Source: primary data processed 2024

Based on the table above, the *Deviation from Linearity Sig*. = 0.173 and the value of α = 0.05, then the value of *Deviation from Linearity Sig*. > α. So it is concluded that there is a linear relationship between motivation and learning outcomes.

2) Linearity Test of Interest (X2) on Learning Outcomes (Y)

The results of the linearity test of Interest (X2) on Learning Outcomes (Y) are presented in the following table.

Table 5. Linearity Test of Interest (X2) on Learning Outcomes (Y)

ANOVA Table

			Sum of Squares	df	Mean Square	F	Sig.
Y*X2	Between Groups	(Combined)	243,750	9	27,083	9,173	,000
		Linearity	191,006	1	191,006	64,693	,000
		Deviation from Linearity	52,744	8	6,593	2,233	,069
	Within Groups		59,050	20	2,952		
	Total		302,800	29			

Source: data processed in 2024

Based on the table above, the value of *Deviation from Linearity Sig*. = 0.069 and the value of α = 0.05, then the value of *Deviation from Linearity Sig*. > α. So it is concluded that there is a linear relationship between interest and learning outcomes.

3. Multiple Linear Regression Analysis

To see the effect of learning motivation and interest on student learning outcomes, multiple linear regression analysis is used with the following results:

Table 6. Multiple Linear Regression Analysis Output

Coefficients [a]

Model		Unstandardized Coefficients		Standardized Coefficients			Correlations		
		B	Std. Error	Beta	t	Sig.	Zero-order	Partial	Part
1	(Constant)	4,505	3,193		1,411	,170			
	X1	,576	,127	,626	4,519	,000	,866	,656	,399
	X2	,294	,131	,312	2,251	,033	,794	,397	,199

a. Dependent Variable: Y

Source: primary data processed in 2024

From the Coefficients table above, the regression equation can be made as follows:
Y = a + b1 X1 + b2 X2 + e
Y = 4.505 + 0.576 X1 + 0.294 X2 + e
The meaning of the above equation is;

The constant value of 4.505 means that if it is considered that there are no motivation (X1) and interest (X2) variables, the learning outcome (Y) is 4.505. The regression coefficient of 0.576 is positive, stating that every addition of one score of the motivation variable will be followed by an increase in learning outcomes of 0.576. The regression coefficient of 0.294 is positive, meaning that each addition of one score of the interest variable will be followed by an increase in learning outcomes of 0.294 points.

4. Hypothesis Test

a. The Effect of Learning Motivation and Interest on Student Learning Outcomes Simultaneously and Partially

1) Simultaneously

Table 7. F Test Output

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	239,144	2	119,572	50,717	,000[b]
	Residual	63,656	27	2,358		
	Total	302,800	29			

a. Dependent Variable: Y
b. Predictors: (Constant), X2, X1

Source: primary data processed in 2024

From the table above, it is known that the value of Sig. = 0.000 and α = 0.05 then sig. < α so Ho is rejected and Ha is accepted. This means that simultaneously there is an effect of learning motivation and student interest on student learning outcomes.

2) Partially

The hypothesis proposed is:
Ho 1: There is no effect of motivation on student learning outcomes
Ha 1 : There is an influence of motivation on student learning outcomes
Ho 2 : There is no effect of interest on student learning outcomes
Ha 2 : There is an influence of interest on student learning outcomes

a) Seeing the partial effect of the motivation variable (X1) on learning outcomes (Y)

From table 6 above, it is known that the sig value. = 0.000 and α = 0.05 then sig. < α so Ho is rejected and Ha is accepted. This means that there is an effect of motivation on student learning outcomes

b) Seeing the partial effect of the interest variable (X2) on learning outcomes (Y)

From table 6 above, it is known that the sig value. = 0.033 and α = 0.05 then sig. < α so Ho is rejected and Ha is accepted. This means that there is a significant influence between interest on learning outcomes.

b. The effect of learning motivation and student interest on student learning outcomes simultaneously and partially

1) Simultaneously

Table 8. Output of the Coefficient of Determination Value

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,889[a]	,790	,774	1,53546

a. Predictors: (Constant), X2, X1

Source: primary data processed in 2024

KD = R Square X 100%
= 0,790 X 100%
= 79%

So learning motivation and interest simultaneously affect student learning outcomes by 79% and the remaining 21% is influenced by other variables not examined.

2) Partially

To determine the amount of influence partially used coefficient table (table 6). Calculating the amount of influence partially can be used the formula:
Effective Contribution (SE) = *Beta* X *rxy* X *100%*

a. The effect of motivation (X1) on learning outcomes (Y)

SE = 0.626 x 0.866 x 100% = 54.21%
So the effect of motivation on student learning outcomes is 54.21%.

b. The effect of interest (X2) on learning outcomes (Y)

SE = 0.312 x 0.794 x 100% = 24.77%
So the effect of interest on student learning outcomes is 24.77%.

CONCLUSIONS

Based on the results of the research and discussion that has been stated in the previous chapter, it can be concluded that:

1. There is an Effect of Learning Motivation and Interest on Student Learning Achievement Simultaneously and Partially
2. The magnitude of the influence of learning motivation and interest on the learning achievement of STIA Nusa students simultaneously is 79% and the remaining 21% is influenced by other variables not examined. The amount of influence partially, namely motivation affects learning achievement by 54.21% and interest affects learning achievement by 24.77%.
3. The variable that most affects learning achievement is motivation, which is 54.21%.

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