The Influence of Peer Associations and Learning Independence on the Economics Learning Outcomes of Class X High School Students

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Abstract

This research aims to: 1) Find out the influence of peer interactions on student learning outcomes in class X economics subjects at SMA PGRI Teluknaga 2) Knowing the effect of independent learning on student learning outcomes in class Knowing the effect of peer association and independent learning simultaneously on student learning outcomes in class X economics at SMA PGRI Teluknaga. The research approach used is a quantitative approach with Association methodology. The population in this study were students in class X IPS SMA PGRI Teluknaga totaling 85 students with a sample size of 70 students. The technique of taking samples using Random Sampling technique. The number of samples in this study was determined using the Slovin formula. Data collection techniques by way of observation, questionnaires, and documentation. The data used is Simple Linear Regression and Multiple Linear Regression. The results of the study can be concluded that (1) There is an influence of peer association on learning outcomes, namely 19.3% and 80.7% influenced by other factors. (2) There is an influence of learning independence on learning outcomes, namely 17.4% and 82.6% is influenced by other factors. (3) The simultaneous influence of peer interaction and learning independence on learning outcomes is 31.6% and 68.4% is influenced by other factors.
Keywords: Peer Associations; Learning Independence; and Learning Results

Introduction

In carrying out its functions, the world of education is required to make a real contribution to improving the nation's progress. This can be seen from various educational institutions including Senior High Schools (SMA) in Indonesia competing to produce graduates who have quality in the form of adequate skills so they can compete at the next level of education, namely higher education and in the world of work and are able to survive various difficulties. .

Based on the National Education System Law no. 20 of 2003 article 58 (1) explains that "evaluation of student learning outcomes is carried out to monitor the process, progress and improvement of student learning outcomes on an ongoing basis". Learning outcomes can be

seen from the achievements achieved by students. Proof of someone's success after gaining learning experience or learning something is the learning achievement achieved by students within a certain time.

One of the factors that influences student learning outcomes is peer interaction. According to Slameto (2013:54) one of the factors that influences students' economic learning outcomes is peer interaction. The school environment cannot be separated from the world of teenagers, at school children meet their friends, play with their friends, study together, and interact with their friends. Not only at school, at home children also socialize with their peers.

The problem that occurs related to peer interactions that researchers observed at PGRI Teluknaga High School is that when their friends chat during class, there are students who also join in their friends' conversations in class, there are still students who depend on their friends when doing assignments or during exams. , students follow their friends only because they have the same opinions and views, when doing independent assignments there are often students who copy their friends' work, there are still many students who do not believe in their answers and often compare them with their friends' answers. The implementation of independent learning is still minimal, in everyday life when they are in the school environment, many have cellphones that are connected to the internet, but instead of increasing their knowledge they are more engrossed in interacting with their peers on social media which only has a negative impact on the world of education in Indonesia. The use of the internet which should be useful for independent learning and increasing knowledge has turned into a negative impact that disrupts students' independent learning. By having the nature of independent learning, it is hoped that it can improve student learning outcomes.

Based on the results of observations, in reality not all students have the same study results and abilities. Through the PTS result documents for the even semester of 2022/2023 for class In economics subjects, there are still many students who have not succeeded in achieving the expected grades and their learning results are unsatisfactory.

Based on the problems above, the researcher wants to analyze the influence of peer interaction and learning independence on student learning outcomes in class study on student learning outcomes in class X economics subjects, the influence of peer interaction and independent learning simultaneously on student learning outcomes in class X economics subjects.

Methods

The research method is a systematic step that will become a reference in solving problems (Anggara & Abdillah, 2019). The research approach used in this research is a quantitative approach with the methodology used by researchers is the association method. According to Sugiyono (2017), association research is research that aims to determine the relationship between two or more variables.

Then the population in this study were X IPS students at SMA PGRI Teluknaga which are presented in the following table:

Table 1.Population Distribution

No	Class	The number of students
1	X IPS 1	28
2	X IPS 2	30
3	X IPS 3	27
Amount		85

The sample in this study was determined using a random sampling technique for the three members of the population. The number of samples in this study was determined using the Slovin formula. The samples obtained were class X IPS students at SMA PGRI Teluknaga which are presented in table 2 below:

Table 2.Sample Distribution

Class	Number of Samples
Class X IPS 1	0.32 x 70 = 23
Class X IPS 2	0.35 x 70 = 25
Class X IPS 3	0.31 x 70 = 22
Amount	70 Students

Furthermore, the data collection techniques and instruments used are presented in table 3 below:

Table 3.Data Collection Techniques and Instruments

Technique	Instrument	Objective	Indicator
Questionnaire	Peer Relationship Questionnaire Sheet	Collecting Data on Peer Interactions on Economics Learning Outcomes	1. Friends as a substitute for family 2. Learn to solve problems 3. Getting an emotional boost

| | Learning Independence Questionnaire Sheet | Collecting Data on Learning Independence on Economic Learning Outcomes | 1. Able to solve problems
2. Have high learning motivation
3. Have a responsible attitude
4. Able to carry out learning evaluations
5. Have confidence. |

Results And Discussion

The Influence of Peer Associations on Learning Outcomes in Economics Subjects in Class X SMA PGRI Teluknaga

The influence of peer interactions on learning outcomes in Economics subjects is processed using statistical tests with simple linear regression techniques provided that the sample data is normally distributed and has a linear relationship. Below is presented table 4 of the prerequisite test results.

Table 4.Peer Association Data Prerequisite Test Results

No	Prerequisite Test	Technique	Interpretation
1	Normality test	Kolmogrov-Smirnov	1. The sig value for peer interaction is $0.200 > 0.05$, so it has a normal distribution. 2. The sig value of learning outcomes is $0.086 > 0.05$, so the distribution is normal.
2	Linearity Test	Anova Table	The sig value is $0.847 > 0.05$, so there is a linear relationship between peer interactions and learning outcomes.

Based on table 4 above, it can be explained that the prerequisite test results have been met and can be continued to test the Simple Linear Regression hypothesis with the following results.

Table 5.Hypothesis Test Results Peer Association Data

Hypothesis testing	Technique	Interpretation
Simple Linear Regression Test	Model summary	$R^2 = 0.193$ contribution of the influence of peer interactions on learning outcomes, namely 19.3% The r value $= 0.440$

			There are learning outcomes with a moderate relationship.
	Anova modelª		Sig value 0.000 < 0.05 There is an influence of peer interaction on learning outcomes.
	Coefficients		Y= 84,984+0.294x. The contribution of the influence of peer interactions on learning outcomes is constant at 84.98. Every one-unit increase in peer interaction will give an increase of 0.294 to Y learning outcomes

Based on the results of simple linear regression in the output of the summary model, the R² value is 0.193, meaning there is an influence of peer interaction on learning outcomes, and the r value obtained is 0.440, meaning there are learning outcomes with a moderate relationship, and a large contribution of the influence of peer association on learning outcomes, namely 19 .3% and 80.7% are influenced by other factors. Based on the output of the Anova model, the significance value is 0.000 <0.05, which means that there is an influence of peer interaction on learning outcomes. Based on the Coefficient output, the multiple linear regression equation Y= 84,984+0.294x means that the contribution of the influence of peer interaction on learning outcomes is constantly 84,984, and every one-unit increase in peer interaction will give an increase of 0.294 to Y on learning outcomes. This is reinforced by Sumardjono (2014: 66) who says "peers are children or teenagers who are more or less at the same age level or at the same level of development".

The Influence of Learning Independence on Learning Outcomes in Economics Subjects in Class X SMA PGRI Teluknaga

The influence of independent learning on learning outcomes in economics subjects is processed using statistical tests with simple linear regression techniques provided that the sample data is normally distributed and has a linear relationship. Below is presented table 6 of the prerequisite test results.

Table 6.Learning Independence Data Prerequisite Test Results

No	Prerequisite Test	Technique	Interpretation

1	Normality test	Kolmogrov-Smirnov	1. The sig value of learning independence is 0.200 > 0.05, so the distribution is normal. 2. The sig value of learning outcomes is 0.086 > 0.05, so the distribution is normal.
2	Linearity Test	Anova Table	The sig value is 0.430 > 0.05, so learning independence and learning outcomes have a linear relationship.

Based on table 6 above, it can be explained that the prerequisite test results have been met and can be continued to test the Simple Linear Regression hypothesis with the following results.

Table 7.Hypothesis Test Results Data on Learning Independence

Hypothesis testing	Technique	Interpretation
Simple Linear Regression Test	Model summary	R^2 = 0.174 contribution of the influence of independent learning on learning outcomes, namely 17.4%. The value of r = 0.417 There are learning outcomes with a moderate relationship.
	Anova model[a]	Sig value 0.000 < 0.05 There is an influence of learning independence on learning outcomes.
	Coefficients	Y= 86.961+0.303x. The contribution of the influence of independent learning on learning outcomes is constant at 86,961 Every one-unit increase in learning independence will give an increase of 0.303 to Y learning outcomes

Based on the results of simple linear regression in the output of the summary model, the R^2 value is 0.174, meaning there is an influence of learning independence on learning outcomes, and the r value obtained is 0.417, meaning there are learning outcomes with a moderate relationship, and the contribution of the influence of learning independence to learning outcomes is large, namely 17.4 % and 82.6% influenced by other factors. Based on the output of the Anova model, the significance value is 0.000 <0.05, which means that there is an influence of learning independence on learning outcomes. Based on the Coefficient output, the multiple linear regression equation Y= 86,961+0.303x means that the contribution of the influence of learning independence to learning outcomes is constant at 86,961, and every one-unit increase in learning independence will give an increase of 0.303 to Y learning outcomes. This is

reinforced by Ali and Asrori (2012: 109) stating that "an independent individual is one who dares to make decisions based on an understanding of all the consequences of his actions".

The Simultaneous Influence of Peer Association and Learning Independence on Class X Learning Outcomes at SMA PGRI Teluknaga

The influence of peer interaction and learning independence on learning outcomes in Economics subjects is processed using statistical tests with simple linear regression techniques with the condition that the sample data is normally distributed, has a linear relationship, there is no relationship between independent variables, inequality in the variance of the residuals in one other observations, and are not autocorrelated. Below is presented table 8 of the prerequisite test results.

Table 8.Prerequisite Test Results

No	Prerequisite Test	Technique	Interpretation
1	Multicollinearity Test	Coefficients	The Tolerance value is $0.973 > 0.10$, which means that multicollinearity cannot occur, and the VIF is $1.028 > 0.10$. The conclusion is that there is no multicollinearity in peer interaction and independent learning.
2	Heteroscedasticity Test	Coefficients	The significant value of peer influence is $1,000 > 0.05$, so H_0 is accepted, which means that peer influence has no symptoms of heteroscedasticity and the sig value of learning independence is $1,000 > 0.05$, so H_0 is accepted, which means that learning independence has no symptoms of heteroscedasticity.
3	Autocorrelation Test	Model Summary	The value $d = 1.964 > Du = 1.550$ then H_0 is accepted, which means the random errors are not autocorrelated.

Based on table 8 above, it can be explained that the prerequisite test results have been met and can be continued to test the Simple Linear Regression hypothesis with the following results.

Table 9.Hypothesis Test Results

Hypothesis testing	Technique	Interpretation
Multiple Linear Regression Test	Model summary	$R^2 = 0.316$ contribution of the influence of peer interaction and learning independence on learning outcomes, namely 31.6%

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		The r value = 0.562 There are learning outcomes with a moderate relationship.
	Anova model[a]	Sig value 0.000 < 0.05 There is an influence of peer interaction and learning independence on learning outcomes.
	Coefficients	$Y = 104{,}558 + 0.255x_1 + 0.258x_2$ The contribution of the influence of Y = gave an increase of 0.255 and 0.258 to Y (learning outcomes).

Based on the results of multiple linear regression in the output of the summary model, the R^2 value is 0.316, meaning there is an influence of peer interaction and learning independence on learning outcomes, and the r value obtained is 0.562, meaning there is a learning outcome with a moderate relationship, and a large contribution to the influence of peer interaction and independence. learning on learning outcomes, namely 31.6% and 68.4% influenced by other factors. Based on the output of the Anova model, the significance value is 0.000 <0.05, which means that there is an influence of peer interaction and learning independence on learning outcomes. Based on the Coefficient output, we get the multiple linear regression equation $Y = 104{,}558 + 0.255x_1 + 0.258x_2$, meaning that the contribution of the influence of Y = -units of X_1 (peer interaction) and X_2 (learning independence) simultaneously will give an increase of 0.255 and 0.258 to Y (learning outcomes). According to Dimyati and Mudjiono (2013:3) stated "learning outcomes are the result of an interaction between acts of learning and acts of teaching. From the teacher's side, the act of teaching ends with a process of evaluating learning outcomes. From the student's perspective, learning outcomes are the end of the peak of the learning process." Abdillah (2021) also stated the same thing that the result of learning is a change in behavior in oneself. These changes in behavior involve changes in the nature of knowledge (cognitive), skills (psychomotor) and those involving values and attitudes (affective). Then it was also confirmed by Ahmad (2021) who stated that there was an influence of peer interaction on the learning independence of class VIII students at SMP Negeri 5 Kupang City. Maulana (2022) also stated that there is a positive and significant influence of peer interaction and motivation to study together on the learning achievement of class VIII students in social studies subjects at Madrasah Tsanawiyah Al-Rosyid Bojonegoro for the 2021/2022 academic year.

Conclusion

Based on the results and discussion of the research, it can be concluded that the influence of peer interaction is 0.193, meaning that there is an influence of peer association on learning outcomes, and the contribution of the influence of peer association on learning outcomes is 19.3% and 80.7% is influenced by other factors. outside the research variables. Then the influence of learning independence is 0.174, meaning there is an influence of learning independence on learning outcomes. And the large contribution of the influence of independent learning on learning outcomes is 17.4% and 82.6% influenced by other factors outside the research variables. Furthermore, there is an influence of peer interaction and learning independence on learning outcomes of 31.6% and 68.4% is influenced by other factors.

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