

# THE EFFECT OF BLENDED LEARNING AND INDEPENDENT LEARNING ON LEARNING OUTCOMES OF ISLAMIC RELIGIOUS EDUCATION FOR TANJUNG PURA JUNIOR HIGH SCHOOL STUDENTS

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## Abstract

The purpose of this study was to determine the effect of Blended Learning, independent learning and the influence of Blended Learning and independent student learning together on the learning outcomes of Islamic Religious Education at Tanjung Pura Langkat Middle School. This type of research is a quantitative study with a population of 244 people, so that the sample taken is 150 people. The results of the study revealed that there was a positive and significant influence between Blended Learning on Islamic Religious Education learning outcomes where Blended Learning had an effect of 6.1% on PAI learning outcomes and the remaining 93.9% was determined by other factors. The independence of learning has an influence on the learning outcomes of Islamic Religious Education by 10.3% and the remaining 89.7% is determined by other factors. Meanwhile, the learning outcomes of Islamic Religious Education, Blended Learning and independent learning have an influence of 16.5% and the remaining 83.5% is determined by other factors.

**Keywords:** Blended Learning; Independent Learning; Learning Outcomes.

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## INTRODUCTION

Whether intentionally or unintentionally, consciously or not, education is inseparable from the teaching and learning process. The teaching and learning process is one of the curriculum activities in an educational institution in order to influence students in achieving educational goals. An education is said to be good or of good quality if the learning process takes place in an interesting and challenging way so that students can learn as much as possible through a continuous learning process (Akmalia, 2021). A quality education process will also produce quality educational results so that it is certain that it will improve the quality of life of the nation. Based on this, education can be pursued through formal institutions such as schools. School is an educational institution that is held on a very regular basis, with a very rich and systemic program, and is carried out by professional education staff in their fields who are equipped with adequate facilities (Zaki et al., 2022). Through this institution, students are expected to gain knowledge from the teaching and learning process that has been undertaken.

Learning is defined as a process of changing behavior as a result of interaction between individuals and the environment (Rafi, 2012). While learning outcomes are abilities that are acquired by individuals after the learning process takes place, which can provide changes in behavior both knowledge, experience, attitudes and skills of students so that they become better than before (Purwanto, 2000), from this process an overview of students' (Purwanto, 2000) in achieve a number of competency standards and basic competencies (Kusnandar, 2013). There are several factors that influence learning outcomes including internal factors and external factors. Internal factors come from within the child's biological nature, while external factors are factors that are outside the student's self (Slameto, 2013). In addition, there are other aspects that can result in low Islamic Religious Education teaching and learning which is suspected from within students, namely learning independence. Learning independence is the skill of a student to try independently in extracting learning information from learning sources other than educators. Independent learning is needed in educational activities, in order to achieve the goals of teaching and learning in forming good morals.

Given the magnitude of the challenges in implementing a solid learning system as a whole, the school makes the learning process in a mixed way between direct learning and indirect learning or known as *Blended Learning*. Blended Learning refers to learning that combines face-to-face learning (*face to face*) and internet-based learning (*online*) (Idris, 2018) (Wardani et al., 2018). In other words, *Blended Learning* combines aspects of web/ *internet based learning*, *video streaming*, *synchronous* and *asynchronous* audio communication with traditional 'face to face' learning (Sjukur, 2013). *Blended Learning* also makes teaching and learning computer-based (online and offline) (Hima, 2017). Based on that, the *blended method learning* uses two approaches at once. Even though students and teachers are learning remotely, they can still interact with each other.

When entering a turbulent pandemic throughout the world, this learning model is very helpful, because face-to-face meetings are not allowed. However, the problem in Indonesia, especially this learning model, is that some teachers in rural areas are still unfamiliar with it. The absence of internet access is the main problem faced by teachers in remote areas, the lack of teachers mastering information and technology is also the biggest problem. Even though with the development of the era this learning model is very effective because students are more independent in learning and more flexible in exploring access to learning resources. This is also what our minister of education proclaimed with the term "Freedom to Learn". But again, this problem is always the opposite of a network that doesn't support it, especially in areas that sometimes don't have internet access at all.

A number of research results show that the *Blended learning model Learning* has a positive influence on learning, starting from the teaching and learning process (Banggur et al., 2018), the desire to learn, and student learning outcomes (Khoiroh, 2017). In addition, this *blended model* is appropriate when used as a teaching and learning model in the 21st century and in the future (Hasbullah, 2014). Blended Learning-based learning produces a stronger feeling of communicating between students than traditional or fully *online* (Idris, 2018). The *face-to-face* learning process has lost its appeal in the 21st era. This happened because some students thought that with increasingly widespread technological developments, the learning process in the 21st era could be done online (*e-learning*). To accommodate technological developments (*e-learning*) without having to abandon face-to-face *learning*, there must be a strategy for organizing teaching, delivering teaching, and teaching the right quality, namely *Blended Learning* (Wardani et al., 2018). There is interaction in the *blended learning model Learning* creates a motive for students to compete in learning (Usman, 2019). Not only that, starting from the teaching and learning process this *blended learning system* combines distance and face-to-face learning systems (Kuntarto & Asyhar, 2017). There is a significant influence between learning interest between classes that use *e-learning blended model edmodo learning* (experimental class) with a class that uses learning using presentation slides (control class) (Fauziyah & Triyono, 2020).

Due to the renewal of blended learning practices in rural schools in Indonesia, this article tries to discuss topics related to the application of blended learning in this context. Through the *blended learning learning system*, it is hoped that interactions between students and teachers will appear more frequently, so that the enthusiasm of students to learn becomes more motivated.

## METHODOLOGY

This study uses quantitative research methods. The population in this study were all students at Tanjung Middle School, totaling two hundred and forty-four students (244) students, while the sample was students of class VII, VIII, and IX. Data collection for all variables was carried out by distributing instruments in the form of questionnaires to respondents. The instrument was prepared with reference to the theoretical studies that were derived into the operational definition of the research, followed by determining the indicators for each variable, then compiling an instrument grid containing indicators and research instrument items.

Before the instrument is used in research, the instrument is first tested to obtain a valid (measuring instrument capable of measuring what must be measured) and reliable (measuring instrument capable of providing consistent measurement results in different times and places). After that, testing the data analysis requirements was carried out. To test the feasibility of the regression model used, it must first fulfill the classical assumption test. The classic assumption test used in this study is the normality test, multicollinearity test and heteroscedasticity test.

Because this study has more than one independent variable to be tested, multiple regression analysis is used to determine the effect on the dependent variable. Meanwhile, to test the effect of the independent variables partially (separately) on the dependent variable. t-test is used. And to determine the effect of the independent variables together (*simultaneously*) on the dependent variable is done using the F test test, namely by comparing F count with F table.

## RESULTS AND DISCUSSION

Testing data analysis requirements is a model used to test the feasibility of a data for use in a study. There are several tests that must be carried out first in this study to test whether the model used represents or approaches the existing reality. To test the feasibility of the regression model

used, first fulfill the classical assumption test including normality test, multicollinearity test and heteroscedasticity test . The data normality test uses the *Kolmogorov-Smirnov Test of Normality* in the SPSS 20.0 program. The results of the Normality test that has been carried out using SPSS can be seen in the table below:

**Table 1.** Kolmogorov-Smirnov Normality

	Tests of Normality					
	Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
	Statisti cs	df	Sig.	Statisti cs	df	Sig.
<i>Blended Learning</i>	.052	150	,200 *	,986	150	,126
independence Learning outcomes	,067	150	.095	,989	150	,289
Learning outcomes	.058	150	,200*	,985	150	,091

\*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

Sumber: Pengolahan Data SPSS

Based on the results of the data normality test according to *Kolmogorov-Smirnov* which was carried out from 150 respondents which included *Blended Learning* variable data ( $X_1$ ), the independent learning variable ( $X_2$ ), and the Islamic Religious Education learning outcomes variable ( $Y$ ), it is known that the *Blended Learning variable* ( $X_1$ ) is 0.200 which means  $0.200 > 0.05$ , then the data is normally distributed. Then the learning independence variable ( $X_2$ ) is 0.095 which means  $0.095 > 0.05$ , so the data is normally distributed. Meanwhile, the outcome variable for Islamic Religious Education ( $Y$ ) is 0.200 which means  $0.200 > 0.05$ , then the data is normally distributed. It is assumed that it is feasible to be tested with regression calculations.

The multicollinearity test results that have been carried out using SPSS 20.0 can be seen in the table below:

**Table 2.** Tolerance Figures and VIF

Model	Coefficients <sup>a</sup>	
	Collinearity Statistics	
	tolerance	VIF
1 (Constant)		
<i>Blended Learning</i>	1,000	1,000
Independent Learning	1,000	1,000

From the table above it can be seen that the *Blended Learning* variable has a tolerance value of 1,000 and a VIF value of 1,000. This shows that there is no multicollinearity in the regression model. The results of this test test the existence of a correlation between the independent (free) and dependent (dependent) variables. Meanwhile, the tolerance value for the independent learning variable is 1,000 and the VIF value is 1,000. This shows that there is no multicollinearity in the regression model. From this multicollinearity test it can be seen that there is a correlation between the independent (independent) variables and there is ***no multicollinearity problem*** .

### The Effect of Blended Learning on PAI Learning Outcomes

Based on the results of calculations with the SPSS program, a regression equation is obtained between the *Blended Learning variables* ( $X_1$ ) to the learning outcomes of Islamic Religious Education (Y) is  $\hat{Y} = 59.579 + 0.195X_1$ . The regression equation provides information that every change in value of *Blended Learning* equal to one unit, it will affect the learning outcomes of Islamic Religious Education of 0.195. The correlation coefficient is positive, meaning that there is a positive relationship between *Blended Learning* ( $X_1$ ) on the learning outcomes of Islamic Religious Education (Y). Following are the results of linear regression analysis using the SPSS 20.0 program.

Tabel 3. Coefficients <sup>a</sup>					
Model	Unstandardized Coefficients		Standardize d Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	59,579	13,735		4,338	,000
Blended Learning	,195	,059	,250	3,318	,001
Independent	,440	,103	,323	4,286	,000

Based on the table, it is obtained that  $t_{count}$  is 3.318 where  $t_{count} > t_{alpha\ table}$  is 0.05 (df = 149) and a significance (Sig.) is 0.001. So it can be seen that the  $t_{count}$  is 3.095 or a significance value (Sig.)  $0.002 < 0.05$ , so it can be concluded that the two variables have a significant regression relationship and  $X_1$  has an effect on Y.

Table 4. Summary Models				
Mode l	R	R Square	Adjusted R Square	std. Error of the Estimate
1	,247 <sup>a</sup>	,061	.054	12.204

From the table above, it can be seen that the effect of *Blended Learning* on learning outcomes in Islamic Religious Education is 6.10%. This explains that the regression equation between *Blended Learning* ( $X_1$ ) and the learning outcomes of Islamic Religious Education (Y) is linear and significant with a large influence of 6.10% so that it can be accounted for as a tool in making decisions in this study and in research furthermore. With the influence given, it gives an assumption that *Blended Learning* has an influence on improving learning outcomes in Islamic Religious Education. The better *the Blended Learning* carried out by the head of the madrasa, the better the learning outcomes of Islamic Religious Education students.

### The Effect of Learning Independence on Learning Outcomes of Islamic Religious Education

The results of calculations with the SPSS 20.0 program obtained the regression equation between the independent learning variable ( $X_2$ ) and the learning outcomes of Islamic Religious Education (Y) is  $\hat{Y} = 59.579 + 0.440 X_2$ . The regression equation provides information that any

change in the value of learning independence by one unit will affect the learning outcomes of Islamic Religious Education by 0.440. The correlation coefficient is positive, meaning that there is a positive relationship between learning independence ( $X_2$ ) and learning outcomes in Islamic Religious Education (Y). Following are the results of linear regression analysis using the SPSS 20.0 program.

Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	59,579	13,735		4,338	,000
	Blended Learning	,195	,059	,250	3,318	,001
	Teknologi	,440	,103	,323	4,286	,000

Based on the table above, a  $t_{count}$  of 4.286 is obtained where  $t_{count} > t_{alpha\ table}$  is 0.05 (df = 149) and a significance (Sig.) of 0.000. Based on this, it can be seen that  $t_{count}$  is 4.286 or a significance value (Sig.)  $0.000 < 0.05$ , so it can be concluded that the two variables have a significant regression relationship and  $X_2$  has an effect on Y.

Summary Model <sup>b</sup>				
Model	R	R Square	Adjusted R Square	std. Error of the Estimate
1	,390 <sup>a</sup>	,103	,141	11,618

Based on the table above, the magnitude of the influence of independent learning on learning outcomes of Islamic Religious Education is 10.3%. This explains that the regression equation between learning independence ( $X_2$ ) and learning outcomes in Islamic Religious Education (Y) is linear and significant with an influence of 10.3% so that it can be accounted for as a tool in making decisions in this study and in subsequent studies. With the influence given, it gives an assumption that independent learning has an influence on improving learning outcomes in Islamic Religious Education. The better the learning independence possessed by the teacher, the better the learning outcomes of Islamic Religious Education will be.

### The Effect of Blended Learning and Independent Learning on Learning Outcomes in Islamic Religious Education

The results of the study show that the statistical effect of *Blended Learning* and Learning Independence owned by teachers on Islamic Religious Education learning outcomes states that there is a positive and significant influence between *Blended Learning* ( $X_1$ ) and Teacher learning independence ( $X_2$ ) on Islamic Religious Education learning outcomes (Y) the testing was carried out using regression analysis techniques. The results of the hypothesis test showed that at the 9.5 % confidence level ( $\alpha = 0.05$ ) an F count of 14.538 was obtained with a significance (Sig.) 0.000. Thus, there is a positive and significant influence between a *Blended Learning* and Teacher Learning Independence together on Islamic Religious Education Learning Outcomes. The magnitude of the

influence is shown by the coefficient of determination  $R^2$  (*R square*) = 0.165 , which means that *Blended Learning* and Independent learning together have an influence on the learning outcomes of Islamic Religious Education by 16.5 % and the remaining 83.5 % is determined by other factors. The results of the Coefficient of Determination can be seen in the table below.

**Tabel 5.** Determinant Coefficient Results

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,406 <sup>a</sup>	,165	,154	11,545

**Tabel 6.** F test results

ANOVA <sup>a</sup>						
	Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3875,719	2	1937,859	14,538	,000 <sup>b</sup>
	Residual	19594,655	147	133,297		
	Amount	23470,373	149			

Taking into account the results of the multiple regression analysis in the table above, it shows the regression equation (*unstandardized coefficients B*)  $\hat{Y} = 59.579 + 0.195 X_1 + 0.440 X_2$  , which means that each increase of one unit score *Blended Learning* and Independent learning together will affect the increase in the score of Islamic Religious Education learning outcomes of 0.635 . Thus, from the two variables above it turns out that the one that has the greatest influence on the learning outcomes of Islamic Religious Education is the variable of self-study by students. This research is in accordance with the theory that *Blended Learning* is a purposeful external factor developing a climate that is conducive and better in teaching and learning activities, through coaching and improving the teaching profession, with the aim of increasing learning outcomes in Islamic Religious Education (Purwanto, 2000). In addition, the learning independence possessed by the teacher is an internal factor that influences the learning outcomes of Islamic Religious Education, because the learning independence possessed by students in learning activities or activities carrying out assignments in madrasas in an effort to improve Islamic Religious Education learning outcomes.

## CONCLUSION

There is a positive and significant effect of *Blended Learning* on the learning outcomes of Islamic Religious Education . The magnitude of the influence is shown by the coefficient of determination  $R^2$  (*R square*) = 0.061, which means that *blended learning* has an influence on the learning outcomes of Islamic Religious Education students by 6.1% and the remaining 93.9% is determined by other factors. The results of a simple regression analysis show the regression equation  $\hat{Y} = 59.579 + 0.195X_1$  , which means that every one increase in the value of *blended learning* will be followed by an increase in the value of Islamic Religious Education learning outcomes by 0.195.

There is a positive and significant influence between learning independence on the learning outcomes of Islamic Religious Education . The magnitude of the influence is shown by the

coefficient of determination  $R^2$  (*R square*) = 0.103, which means that independent learning has an influence on the learning outcomes of Islamic Religious Education of 10.3% and the remaining 89.7% is determined by other factors. The results of simple regression analysis show the regression equation  $\hat{Y} = 59.579 + 0.440 X_2$  which means that every one increase in the value of learning independence will be followed by an increase in the value of learning outcomes in Islamic Religious Education of 0.440.

There is a positive and significant influence between madrasah *blended learning* and independent learning together on the learning outcomes of Islamic Religious Education. The magnitude of the influence is shown by the coefficient of determination  $R^2$  (*R square*) = 0.165, which means that *blended learning* and independent learning together have an influence on the learning outcomes of Islamic Religious Education by 16.5% and the remaining 83.5% is determined by other factors. The results of simple regression analysis show the equation  $\hat{Y} = 59.579 + 0.195 X_1 + 0.440 X_2$ .

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