

# **The Implementation of the Project-Based Learning Method to Enhance Student Engagement and Learning Independence in Islamic Education for Grade VII at SMP IT DOD Medan**

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## **Abstract**

This study aims to determine the effectiveness of the Project Based Learning (PJBL) model in increasing student activeness, independence, and learning outcomes in the subject of Islamic Religious Education (PAI) grade VIII at SMP IT DOD Medan. The method used is quantitative with a population of 120 students. The data collection technique was carried out through pre-test and post-test. Data analysis was conducted using SPSS with normality, homogeneity, and paired sample t-test. The results of the study show that PJBL is effective in increasing students' learning activity and independence. The calculated t value was greater than the t table ( $2,126 > 1,684$ ), with a contribution to the improvement of learning outcomes by 32.6%.

**Keywords:** PJBL; Engagement and Learning Independence; PAI; SMP IT DOD Medan

**Abstrak:** Penelitian ini bertujuan untuk mengetahui efektivitas model Project Based Learning (PJBL) dalam meningkatkan keaktifan, kemandirian, dan hasil belajar siswa pada mata pelajaran Pendidikan Agama Islam (PAI) kelas VIII di SMP IT DOD Medan. Metode yang digunakan adalah kuantitatif dengan populasi sebanyak 120 siswa. Teknik pengumpulan data dilakukan melalui pre-test dan post-test. Analisis data menggunakan SPSS dengan uji normalitas, homogenitas, dan paired sample t-test. Hasil penelitian menunjukkan bahwa PJBL efektif meningkatkan keaktifan dan kemandirian belajar siswa. Nilai t hitung lebih besar dari t tabel ( $2,126 > 1,684$ ), dengan kontribusi terhadap peningkatan hasil belajar sebesar 32,6%.

**Kata Kunci:** PJBL; Keaktifan dan Kemandirian Belajar; PAI; SMP IT DOD Medan

## Introduction

The contextual learning approach can be realized, among others, by cooperative, discovery, inquiry, exploratory, critical thinking and problem-solving methods. One of the learning methods that can be used in Islamic religious education subjects is the Project Based Learning (PJBL) method. Project Based Learning (PJBL) is one way of providing learning experiences by confronting children with daily problems that must be solved in groups (Wicaksana & Sanjaya, 2022).

The project method comes from John Dewey's idea of the concept of "learning by doing", which is the process of obtaining learning outcomes by doing certain actions according to their goals, especially the process of mastering children about how to do a job consisting of a series of behaviors to achieve goals. By using the project method, children gain learning experience in various jobs and responsibilities to be implemented in an integrated manner in order to achieve common goals (Surahman & Fauziati, 2021).

If a teacher can use and apply Project Based Learning (PJBL), it makes students more active and independent in learning because in the process this method creates students to ask a lot of questions, find a concept and analyze learning, so that through this method process it will be able to improve student learning outcomes. Activeness is the most important principle in learning, because learning without activeness makes it impossible for a person to succeed in learning (Ansya, 2023). Activeness in the teaching and learning process is the functioning of all the tools that exist in students, in the teaching and learning process, especially the mind, hearing, vision and so on that are used in the teaching and learning process (Zukin, 2022).

Based on the phenomenon in the field as the results of the author's observation in class VII of SMP IT Dod Medan, it is known that the learning outcomes of Islamic Religious Education are still relatively low, with an average score ranging from 60-70. This data is obtained from the average score of the students' Islamic Religious Education subjects. The low learning outcomes are inseparable from the factors of the learning methods applied by teachers. From the author's observations, in the learning process of Islamic Religious Education, teachers still dominate the classroom with conventional methods, such as lectures, questions and answers, and assignments. This method, in the author's view, is less able to create an active and independent learning atmosphere, thus having an impact on low student learning outcomes.

Based on the description above, to improve learning outcomes through student activity and independence, it is necessary to apply more effective learning methods. One of the relevant methods is *Project Based Learning (PJBL)*, because this method encourages students to actively ask questions, find concepts, analyze, and give birth to new ideas or concepts. Thus, students' activeness and independence in learning will be

formed naturally, which will ultimately have a positive impact on improving their learning outcomes.

## Method

This study uses a quantitative approach with an experimental method to measure the effect of the application of *the Project Based Learning (PJBL)* model on student learning outcomes in Islamic Religious Education subjects (Syahrizal & Jailani, 2023). The population in this study is all students of grade VIII of SMP IT Dod Medan which totals 120 people.

The data collection technique is carried out through two stages, namely: (1) Pre-Test is given to students before the implementation of *the Project Based Learning learning model*. The purpose of this pre-test is to find out the initial level of students' ability to understand Islamic Religious Education material before treatment. (2) Post-TestAfter the implementation of the PJBL model, students are again given a test (post-test) with the aim of finding out the improvement of learning outcomes after learning is carried out using the model.

The data obtained from the pre-test and post-test results were then analyzed using the help of SPSS statistical software. The data test included normality tests, homogeneity tests, and paired sample *t*-tests to see the significance of the differences between pre-test and post-test results. The results of this analysis are the basis for drawing conclusions about the effectiveness of the PJBL method in improving student learning outcomes.

## Results and Discussion

### Results

#### Validity Test

**Table 1. Results of the Validity Test**

NO. ITEM	CALCULATION	RTABEL	STATUS
1	0.981	0.312	Valiid
2	0.878	0.312	Valiid
3	0.878	0.312	Valiid
4	0.878	0.312	Valiid
5	0.898	0.312	Valiid
6	0.788	0.312	Valiid
7	0.878	0.312	Valiid
8	0.878	0.312	Valiid
9	0.981	0.312	Valiid
10	0.981	0.312	Valiid

**Table 2. Post Test Validity Test Results**

NO. ITEM	CALCULATION	RTABEL	STATUS
1L	0.974	0.312	Valiid
2L	0.999	0.312	Valiid
3L	0.999	0.312	Valiid
4L	0.999	0.312	Valiid
5	0.974	0.312	Valiid

6	0.999	0.312	Valiid
7	0.999	0.312	Valiid
8	0.999	0.312	Valiid
9	0.999	0.312	Valiid
10	0.946	0.312	Valiid

### Reliability Test

**Table 3. Reliable Levels Based on Alpha Levels**

ALPHA	RELIABILITY RATE
≤0.00 S/R 0.20L	Lees Relabel
>0.20L S/R 0.40L	Somewhat Relabel
>0,40L S/D 0,60L	Fairly Relabel
>0,60L S/R 0,80L	Relabel
>0,80L S/D 1,00L	Very Relabel

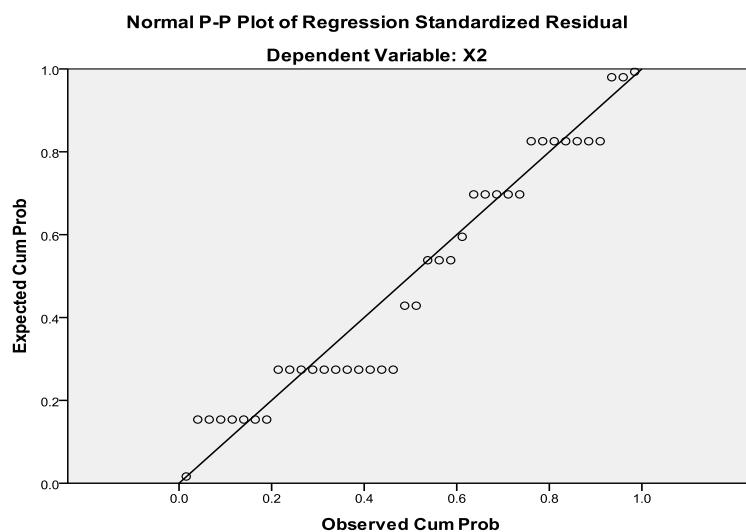
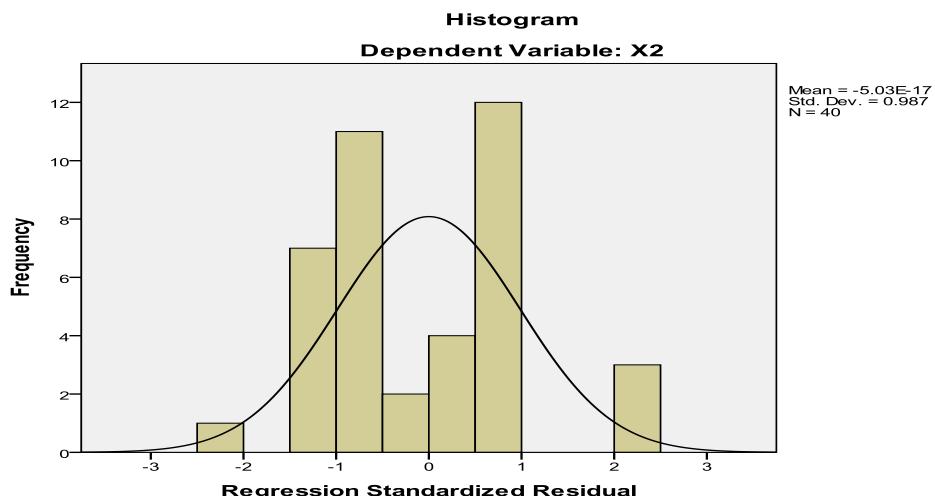
**Table 4. Variable Instrument Reliability Test Results**

VARIABEL	CRONCBAC'S ALPHA	ALPHA MINIMAL	STATUS
Freiei Teis	1,000	0,60	Relabel
Post Teis	0,998	0,60	Relabel

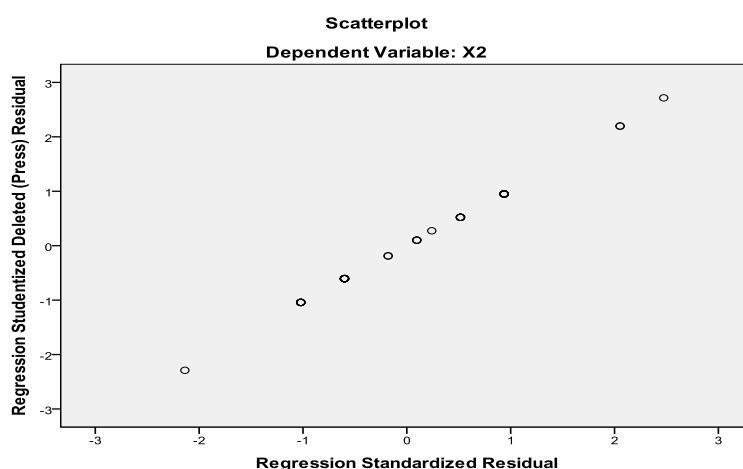
### Normality Test

**Table 5. Data Normality Test Results Kolmogorov-Smirnov**

		FREIEI TEIS	POST TEIS
N		30	
Normal	Meian	756777423	829106541
Parameiteirsa	Std. Deiviatiion	124781834	573779612
Most Eixtreimei	Absolutei	.112	.127
Düiffeireinceis	Posiitiivei	.058	.127
	Neigatiivei	-.112	-.084
Kolmogorov-Smiirnov Z		.645	
Asymp. Sig. (2-tailed)		.923	



### Heteroscedasticity Test



### T test

Table 6. Test Results <sup>a</sup>						
Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	57.500	8.294		6.933	.000
	X1	.273	.129	.326	2.126	.040

a. Dependent Variable: Y

Based on the table above, it is known that the significance value is 2.126, which is greater than 0.05 ( $2.126 > 0.05$ ). In addition, the calculated *t* value of 2.126 is also greater than the *table t* of 1.684 ( $2.126 > 1.684$ ) and points in a positive direction. Thus,  $H_0$  is accepted and  $H_a$  is rejected. Therefore, it can be concluded that there is a significant influence of the application of the *Project Based Learning* (PJBL) method in increasing the activeness and independence of learning on the learning outcomes of Islamic Religious Education (PAI) students at SMP IT DOD Medan.

### Uji R (Determinan)

**Table 7. Determinant Test Results**  
**Model Summary<sup>b</sup>**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.326 <sup>a</sup>	.106	.083	6.50626	1.622

a. Predictors: (Constant), X1

b. Dependent Variable: Y

If there is more than one independent variable, then to see the ability of these variables to predict dependent variables, the value used is *Adjusted R<sup>2</sup>*. The *Adjusted R<sup>2</sup>* value of 0.326 indicates that the dependent variables can be explained by independent variables of 32.6%. In other words, the application of the *Project Based Learning* (PJBL) method plays a role in improving students' learning skills and independence which contributes to the learning outcomes of Islamic Religious Education (PAI) at SMP IT DOD Medan. Based on the description above, as the results of the calculation using the SPSS program, it can be seen that there is a significant influence between student learning activity and independence through the application of the *Project Based Learning* method on the learning outcomes of PAI students in grade VIII of SMP IT Dod Medan.

### Discussion

Based on the description of the research that has been carried out in the previous chapter, it can be explained that the results of the analysis using SPSS show a significance value of 2.126. This value is greater than

0.05 ( $2,126 > 0.05$ ). In addition, the calculated *t*-value of 2.126 is also greater than the table's *t*-value of 1.684, and points in a positive direction. Thus,  $H_0$  was accepted and  $H_a$  was rejected, so it can be concluded that there is an effect of the application of the Project Based Learning (PJBL) method in increasing the activeness and independence of learning on the learning outcomes of Islamic Religious Education (PAI) students in grade VIII of SMP IT Dod Medan.

The percentage of influence given by the Project Based Learning (PJBL) method on increasing student learning activity and independence on PAI learning outcomes was 32.6%. While the rest are influenced by other factors outside of the variables studied.

This study has relevance to the research conducted by (Huda et al., 2022) concluding that there is a significant influence of the application of the Project Based Learning model on student learning outcomes, as shown by a significance value of 0.000 ( $< 0.05$ ). This study also shows that there is a significant difference in learning outcomes between classes that use the PJBL model and classes that use conventional methods, where the learning outcomes of students in the PJBL class are better.

In addition, this study is also in line with findings (Primartadi et al., 2022) showing that the application of the PJBL method can increase students' learning activity in the learning process. This can be seen from the change in the behavior of students who began to actively ask questions, put forward ideas, and complete the given projects. The conclusion of the study is that the implementation of PJBL has gone well, but it still needs to be improved so that student activity becomes more optimal.

## Conclusions

Based on the description and results of the research that has been presented, it can be concluded that:

1. The Project Based Learning (PJBL) model has been proven to be able to increase student learning activity in Islamic Religious Education (PAI) class VIII junior high school IT Dod Medan. This is because this learning model provides opportunities for students to find problems, ask questions, analyze, and draw conclusions independently through project activities.
2. The Project Based Learning model is also effective in increasing students' learning independence. Students become not dependent on their peers or teachers, but are encouraged to learn independently in completing assignments and problems given.
3. The application of the Project Based Learning model is able to improve the learning outcomes of PAI students in grade VIII of SMP IT Dod Medan. This is shown by the results of the *t*-test which shows that the *t*-value is calculated to be greater than the *t*-table ( $2,126 > 1,684$ ). The amount of influence on learning outcomes was 32.6%,

while the rest was influenced by other factors outside the research variables.

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