The Effect of Project-based learning Model on Student Creativity in Completing Academic Tasks in the Office Administration Education Study Program Class of 2023

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Abstract. This research aims to analyze the effect of applying the Project-Based Learning (PJBL) method on student creativity in completing academic assignments in the Office Administration Education (PAP) Study Program at Universitas Negeri Jakarta. The background of this research is rooted in the need to prepare a productive and creative generation in the era of the Merdeka Curriculum, where students are encouraged to be active, independent, and innovative in completing academic assignments. This research adopts a descriptive approach with a preliminary study focusing on two main research problems: (1) to what extent students perceive the benefits of implementing Project-Based Learning in completing academic tasks, and (2) the influence of Project-Based Learning on PAP students' creativity. The results showed that the application of the Project-Based Learning method provided significant benefits for students, especially in enhancing active engagement, independence, and critical and creative thinking skills. Practically, the results of this preliminary study can serve as a reference for further research, curriculum development, and learning strategies in higher education aimed at sustainably improving student quality and creativity.

Keywords: Project-Based Learning, Student Creativity

Introduction

A change in economic, social, and cultural conditions as well as the development of science, and the welfare of a nation must have harmony with the preparation of a productive, creative, and noble generation. This is a challenge for every higher education institution to prepare superior figures who are responsive and ready to face existing problems, while not forgetting to instill the values and culture of the Indonesian nation (Soeharso, 2021). The Independent Campus Learning Independent Curriculum is the answer to the need for change (Arsyad, 2022). In this curriculum, students are given more freedom to enrich their insights, competencies, and interact with the real world with a scope that is not only limited to the classroom, but also in communities, villages, other universities, and other service places (Susilawati, 2021).

In an attempt to improve students' creativity in completing academic assignments, Universitas Negeri Jakarta has implemented several learning models. A learning model is a learning activity that is deliberately designed or designed with the aim that teaching and learning activities can be passed and accepted easily by students. Through well-designed activities, students do not have a burden as if they are forced to learn. That is why learning models are grouped into individualistic models and group learning models (Ahyar et al, 2021). One method that is quite often used in the learning process in the PAP Study Program is the Project Based Learning Method. The Project Based Learning model is an

innovative learning that is student centered and places the teacher as a motivator and facilitator, where students are given the opportunity to work autonomously to construct their learning outcomes. (Anggraini, Wulandari, 2021).

The level of creativity of a student is a topic that is quite often discussed in the current digitalization period, because the Project Based Learning method itself is a learning process that directly involves students to produce a project. Basically, this learning model develops solving skills in working on a project that can produce something (Sari, Anggreni, 2018). This research has theoretical and practical benefits. This research provides a theoretical contribution to the development of education science, especially in the development of innovative learning models such as Project Based Learning (PROJECT-BASED LEARNING). By conducting research related to the influence of PROJECT-BASED LEARNING on student creativity in completing academic assignments, this research strengthens the theory of constructivism which focuses on the active role of students in building knowledge through direct experience and problem solving. The results of this study also expand the understanding of the effectiveness of project-based learning methods, especially in higher education, especially in the Office Administration Education study program. Apart from theoretical benefits, this research also has practical benefits, namely benefits directly to certain parties, such as benefits for universities where this research can be a reference in efforts to improve the academic quality of students, especially their creativity with the application of appropriate learning methods.

The results of this study can also provide insight for the university in designing learning methods that are more supportive of increasing student creativity. And this research also provides an overview for universities, the extent of the success of the application of the PROJECT-BASED LEARNING method in increasing the creativity of Office Administration Education Study Program students.

In addition, this research is also useful for researchers who are expected to provide benefits in developing understanding of the influence of PROJECT-BASED LEARNING learning methods on student creativity. In addition, this pre-research writing also hones skills in writing research analysis. And it is hoped that the results of this Pre-Research can be a reference for further research.

This research will be conducted online through a questionnaire Survey. For research observations carried out at the State University of Jakarta, Office Administration Education Study Program using a quantitative approach with a comparative causal research type. It is used to determine whether or not there is an influence between the independent variable, namely the Project Based Learning (PROJECT-BASED LEARNING) learning method on the dependent variable, namely student creativity in completing academic assignments.

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Based on the findings of previous research, there is research by Sirait, J. V., Amnie, E., & Falah, H. S. (2023), which found that Project-Based Learning increased student creativity, especially in the aspects of originality and flexibility of ideas. But there is also research conducted by Abdullah, R (2017), with the results of the study concluding that there is no significant influence between the use of PROJECT-BASED LEARNING models and conventional models on students' creative thinking skills. Based on these findings, two research hypotheses were obtained, namely:

H_0: There is no significant effect of applying the Project Based Learning method on increasing the creativity of Office Administration Education Study Program students in completing academic assignments.

H_1: There is a positive and significant effect of the application of the Project Based Learning method on increasing the creativity of Office Administration Education Study Program students in completing academic assignments.

Methods

This research uses a quantitative approach with a comparative causal research type. It is used to determine whether or not there is an effect between the independent variable, namely Project Based Learning (PROJECT-BASED LEARNING) on the dependent variable, namely student creativity in completing academic assignments. The research design used is ex post facto, where researchers do not provide direct treatment, but rather observe phenomena that have occurred based on student perceptions of the application of project-based learning.

The sample and population in this study were 31 students of the Office Administration Education Study Program, Faculty of Economics, State University of Jakarta, Class of 2023. The sample was taken using purposive sampling technique, namely respondents who were selected as members based on the researcher's own considerations. With the criteria of students who have taken courses with the project-based learning model.

The instrument used in this research is a Likert scale-based questionnaire which is distributed online to students of the Office Administration Education Study Program at State University of Jakarta class of 2023. This questionnaire was prepared to measure two main variables, namely:
- Variable (X1): Project Based Learning (PROJECT-BASED LEARNING)
- Variable (Y1): Student Creativity in Completing Academic Assignments

Using the measurement scale used in the questionnaire is a 5-point Likert scale.

Tabel 1: Likert Scale

Statement	Score
Strongly Agree	5
Agree	4
Somewhat Agree	3
Disagree	2
Strongly Disagree	1

Source: Sugiyono (2017: 93)

The data collection technique used in this study was carried out through a questionnaire distributed online as the main instrument in data collection. Validity and reliability tests were carried out after data collection, the validity test was made using the Pearson Product Moment correlation to determine the extent to which each item in the questionnaire was able to measure the intended variable.

The reliability test was conducted to measure the consistency of the research instrument by calculating the Cronbach's Alpha value, where the instrument is considered reliable if the α value is > 0.6.
Before conducting regression analysis, the data is also tested to fulfill classical assumptions including the Normality test using the Kolmogorov-Smirnov test. Multicollinearity test to see the linear relationship between the independent and dependent variables. Homoscedasticity test to ensure that the residual variance is fixed or homogeneous.

after the data has met the classical assumptions, then the regression analysis was used to determine the significant influence between the PROJECT-BASED LEARNING method on student creativity. With the general formula $Y=a+bX$. The analysis results will show the coefficient of determination (R^2) and significance value (p-value). If the significance value (p) <0.05 then H_0 is rejected and H_1 is accepted, which means there is a significant influence between the Project-based learning model on student creativity.

Result and Discussion

Result
Validity test

Validity testing was carried out using Pearson Product Moment correlation analysis on each statement item in the questionnaire. The table below is the result of calculating using Pearson Product Moment correlation analysis.

Tabel 2: Validity Test

	Correlations									
		X1	**X2**	**X3**	**X4**	**Y1**	**Y2**	**Y3**	**Y4**	**Total**
X1	**Pearson Correlation**	1	.604**	.757**	.756**	.670**	.603**	.624**	.590**	.840**
	Sig. (2-tailed)		<,001	<,001	<,001	<,001	<,001	<,001	<,001	<,001
	N	31	31	31	31	31	31	31	31	31
X2	**Pearson Correlation**	.604**	1	.595**	.573**	.536**	.821**	.533**	.639**	.806**
	Sig. (2-tailed)	<,001		<,001	<,001	.002	<,001	.002	<,001	<,001
	N	31	31	31	31	31	31	31	31	31
X3	**Pearson Correlation**	.757**	.595**	1	.682**	.673**	.533**	.658**	.553**	.821**
	Sig. (2-tailed)	<,001	<,001		<,001	<,001	.002	<,001	.001	<,001
	N	31	31	31	31	31	31	31	31	31
X4	**Pearson Correlation**	.756**	.573**	.682**	1	.666**	.596**	.731**	.671**	.852**
	Sig. (2-tailed)	<,001	<,001	<,001		<,001	<,001	<,001	<,001	<,001
	N	31	31	31	31	31	31	31	31	31
Y1	**Pearson Correlation**	.670**	.536**	.673**	.666**	1	.675**	.682**	.620**	.837**
	Sig. (2-tailed)	<,001	.002	<,001	<,001		<,001	<,001	<,001	<,001
	N	31	31	31	31	31	31	31	31	31
Y2	**Pearson Correlation**	.603**	.821**	.533**	.596**	.675**	1	.479**	.536**	.801**
	Sig. (2-tailed)	<,001	<,001	.002	<,001	<,001		.006	.002	<,001
	N	31	31	31	31	31	31	31	31	31
Y3	**Pearson Correlation**	.624**	.533**	.658**	.731**	.682**	.479**	1	.829**	.837**
	Sig. (2-tailed)	<,001	.002	<,001	<,001	<,001	.006		<,001	<,001
	N	31	31	31	31	31	31	31	31	31
Y4	**Pearson Correlation**	.590**	.639**	.553**	.671**	.620**	.536**	.829**	1	.822**
	Sig. (2-tailed)	<,001	<,001	.001	<,001	<,001	.002	<,001		<,001
	N	31	31	31	31	31	31	31	31	31
Total	**Pearson Correlation**	.840**	.806**	.821**	.852**	.837**	.801**	.837**	.822**	1
	Sig. (2-tailed)	<,001	<,001	<,001	<,001	<,001	<,001	<,001	<,001	
	N	31	31	31	31	31	31	31	31	31

**. Correlation is significant at the 0.01 level (2-tailed).

Based on the results in the table, the significance value is 0.001, this value is greater than 0.05, so the research instrument is valid. This shows that all statement items in the questionnaire have adequate validity, because they are able to measure aspects of student creativity significantly. The good validity of this instrument reinforces the conclusion that each item is relevant to the construct to be measured.

Realiability test

Tabel 3: Reliability test
Reliability Statistics

Cronbach's Alpha	**Cronbach's Alpha Based on Standardized Items**	**N of Items**

.932	.934		8

Based on the results of the reliability test on the research instrument, the Cronbach's Alpha value is 0.932, which indicates that this research instrument has a very high level of reliability.

Normality Test

In testing normality, it is carried out using One-Sample Kolmogorov-Smirnov analysis on each statement item in the questionnaire. The table below is the result of calculating using One-Sample Kolmogorov-Smirnov analysis.

One-Sample Kolmogorov-Smirnov Test

			Unstandardized Residual
N			31
Normal Parameters[a,b]	Mean		.0000000
	Std. Deviation		2.61171044
Most Extreme Differences	Absolute		.182
	Positive		.182
	Negative		-.101
Test Statistic			.182
Asymp. Sig. (2-tailed)[c]			.011
Monte Carlo Sig. (2-tailed)[d]	Sig.		.008
	99% Confidence Interval	Lower Bound	.006
		Upper Bound	.011

a. Test distribution is Normal.
b. Calculated from data.
c. Lilliefors Significance Correction.
d. Lilliefors' method based on 10000 Monte Carlo samples with starting seed 2000000.

Figure 4: Normality Test
Source: Primary data, 2025

The normality test results show the value of Asymp. Sig. (2-tailed) value of 0.011 and the Monte Carlo Sig. (2-tailed) value of 0.008, with a 99% confidence interval in the range of 0.006 to 0.011.

These significance values were compared with the commonly used significance limit of $\alpha = 0.05$. Since the significance value obtained is smaller than 0.05, it can be concluded that the residual data is not statistically normally distributed.

Thus, based on the Kolmogorov-Smirnov test results, the data does not meet the assumption of normality. Therefore, if further analysis requires the assumption of normal distribution (e.g. parametric regression), it is necessary to transform the data or consider non-parametric statistical methods as an alternative.

Tabel 5: Multicollinearity test

Coefficients[a]

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
1 (Constant)	2.111	1.896		1.114	.275		
Project Based Learning	.879	.127	.790	6.937	<,001	1.000	1.000

a. Dependent Variable: Kreativitas Mahasiswa

Source: Primary Data, 2025

Multicollinearity test is conducted to determine whether there is a high linear relationship between independent variables in the regression model. Based on the test results, the Tolerance value of 1.000 and VIF (Variance Inflation Factor) of 1.000 were obtained for the Project Based Learning variable. The tolerance value which is greater than 0.10 and the VIF value which is smaller than 10 indicate that there is no indication of multicollinearity in the model. Thus, it can be concluded that the independent variables in this study do not have a high correlation with each other, so they are suitable for use in further regression analysis.

Tabel 6: Uji Heterokedastisitas Glejser

Coefficients[a]

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	3.565	1.300		2.742	.010
Project Based Learning	-.121	.087	-.250	-1.392	.174

Sumber : Data Primer, 2025

Based on the results in the Heteroscedasticity Test table, a significance value of 0.174 is obtained. The result of the significance value is greater than 0.05. Based on the test results it can be concluded that the data does not occur Heterokedastisitas

Tabel 7. Uji Regresi Linier sederhana

Coefficients[a]

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	2.111	1.896		1.114	.275
Project Based Learning	.879	.127	.790	6.937	<,001

a. Dependent Variable: Kreativitas Mahasiswa

Sumber: Data Primer, 2025

Based on the results of the simple linear regression test displayed in the table, it is found that the Project-Based Learning (Project-Based Learning) variable has a regression coefficient value of 0.879. Thus, it can be concluded that the application of the project-based learning model has a positive influence on student creativity. Then, the significance value (Sig.) of <0.001 which is far below the significance threshold of 0.05 indicates that the effect is statistically significant.

$Y = 2.111 + 0.897X$

The equation can be translated:

1. The constant of 2.111 implies that the consistent value of the student creativity variable is 2.111.

2. The regression coefficient X of 0.897 states that every 1% increase in Project-Based Learning value, the participation value increases by 0.897. The regression coefficient is positive, so it can be said that the direction of the influence of the Project-Based Learning variable (X) on Student Creativity (Y) is positive

Decision making is based on two things. Based on the significance value of table 5, the sig value is 0.001 <0.05, so it can be concluded that the Project-Based Learning variable (X) has an effect on the Student Creativity in academic task completion variable (Y). Then the second is based on the t value, it is known that the t value is 6.937> t table 2.040, so it can be concluded that the Project-Based Learning variable (X) has an effect on the student creativity in academic task completion variable (Y). This is reinforced by the calculated t value of 6.937, which means it is greater than the t table value at the 5% significance level, so the alternative hypothesis (H_a) is accepted and the null hypothesis (H_0) is rejected.

Discussion

Project Based Learning Model
The results show that the Project Based Learning model supports learning that is more relevant to the curriculum and course. Project Based Learning is also a learning model that encourages students to produce a product through project-based learning. This result is reinforced by the opinion of Sari et al, (2015) explaining that the project-based learning (Project-Based Learning) model is a learning model that is able to build students' abilities by involving project work that produces a real work that can be shown such as reports, making products and completing written assignments that the teacher provides.

Student Creativity in Completing Academic Tasks
The results showed that students felt that creativity was needed in completing academic assignments, besides that academic assignments also helped students develop creativity. Creativity itself is the ability of intuition which can be trained, academic tasks can be a stimulus in training a student's intuition. The results of this study are reinforced by the opinion of Saefudin (2014: 43) which states that creative thinking is a combination of logical thinking and divergent thinking based on intuition in consciousness.

The Effect of Project-based learning Model Implementation on Student Creativity in preparing academic assignments
This research indicates that the Project Based Learning (Project-Based Learning) learning model (variable X) has a significant influence on the level of student creativity (variable Y). This is evidenced through simple linear regression analysis which shows a significance value of 0.001, which is smaller than the 0.05 threshold. Therefore, it can be concluded that Project-Based Learning plays a role in increasing student creativity. In addition, based on the t statistical test, the t count value of 6.937 which is greater than the t table of 2.040 also strengthens the conclusion that there is a real influence between the two variables.

These results are in line with research involving 28 first semester students from the Chemical Engineering Study Program, Faculty of Science and Technology, Jambi University, who took the Basic Physics course in the 2022/2023 academic year. The data obtained showed that student creativity in the course had increased after the application of the Project-Based Learning model. The level of creativity, as measured by the dimensions of novelty, resolution, and elaboration, is in the average range of 77%, which is included in the good category. This increase was due to the Project-Based Learning approach allowing students to be more independent and free in conveying their ideas to solve problems (Sirait, J. V., Amnie, E., & Falah, H. S., 2023). However, there are also findings from other studies that do not support these results. The study was conducted at MAN 2 Palu on all grade X students in the 2015/2016 academic year using purposive sampling technique. This study showed that both project-based learning and problem-based learning models applied to experimental and control classes did not show a significant effect on students' creative thinking skills. The average creative thinking skills in the experimental class were not much different than the control class (Abdullah, R., 2017).

The difference in results between studies is a natural thing, because it can be caused by differences in measurement indicators, characteristics of the object of research, and various other external factors. Therefore, it is recommended for future researchers to expand the scope of respondents and use more up-to-date and well-structured research instrument.

Conclusion

This study shows that the application of Project-Based Learning (Project-Based Learning) method significantly increases students' creativity in completing academic assignments. Students felt the benefits of Project-Based Learning in increasing active involvement, independence, and critical and creative thinking skills. With a descriptive approach, this study confirms that Project-Based Learning supports the spirit of the Merdeka Curriculum which emphasizes independence and innovation. The results of this study can be the basis for developing learning strategies and curricula in higher education.

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