

Analysis of FKIP Students' Perception Towards The Implementation of The PjBL Model In Improving Creativity and Learning Independence

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Absract

In the era of 21st century education, a learning approach that can encourage creativity and learning independence is needed to prepare students to face global challenges. One of the learning models that is considered effective in this context is Project Based Learning (PjBL). This study aims to analyze the perceptions of FKIP students towards the implementation of the PjBL model and its impact on increasing creativity and learning independence. The method used in this study is a quantitative survey method with a descriptive and correlational approach. A sample of 100 students was selected by simple random sampling. The results showed that the majority of students had a positive perception of the implementation of PjBL (76% in the "good" and "very good" categories). As many as 73% of students showed a high level of creativity, and 69% showed high learning independence after participating in project-based learning. The correlation test showed a significant relationship between perceptions of PjBL and creativity ($r = 0.642$) and learning independence ($r = 0.598$). Regression analysis showed that perceptions of PjBL contributed 41.2% to creativity and 35.7% to learning independence. This shows that PjBL provides a meaningful learning experience, fosters creative thinking skills, and increases student independence in managing the learning process. These findings are supported by various recent studies that show the effectiveness of PjBL in developing essential 21st century skills. Therefore, this model deserves to be adopted more widely in learning in higher education.

Keywords: Project Based Learning, Student Perception, Creativity, Learning Independence, 21st Century Education

INTRODUCTION

Technological developments and changes in learning paradigms require innovation in learning methods in higher education in order to optimally increase student involvement and abilities. One method that is currently being widely applied is Project Based Learning (PjBL), which places students as the center of learning through the completion of real projects that require creativity and independence. Project-based learning is characterized by student autonomy, collaboration, communication, and reflection in real-life practice. More specifically, project-based learning allows students to learn by finding solutions, asking questions, discussing ideas, designing plans, and communicating with others.(Maros et al., 2023) Through PjBL, students' knowledge and skills, collaboration, and learning abilities are integrated as a whole. Because PjBL emphasizes placing students as the center of learning and emphasizes independent learning experiences, the role of lecturers also shifts from being dominant to being more of a facilitator.(Wang, 2022) This learning model is believed to be able to encourage students to think critically, manage learning independently, and develop innovative abilities that are needed to face the challenges of the 21st century.

Creativity and learning independence are important competencies that students must have, especially prospective educators at the Faculty of Teacher Training and Education (FKIP), in order to be able to design and implement effective and innovative learning processes in the future.(Widodo, 2024) Creativity is an important ability that needs to be possessed in facing the challenges of 21st century learning. Creativity includes the ability to develop designs, strategies, and models to solve problems.(Ariyanti et al., 2023) Creativity allows students to produce new solutions to learning problems, while learning independence ensures that they are able to organize and manage their learning process effectively without always relying on lecturers. Therefore, it is important to know students' perceptions of the application of the PjBL model in the context of developing these two competencies.

Various studies have shown that students' perceptions of learning methods can affect their level of participation, motivation, and academic success.(Raharjo et al., 2025) However, in the FKIP environment, studies on students' perceptions of the PjBL model, especially in relation to increasing creativity and learning independence, are still limited. Therefore, this

study aims to analyze FKIP students' perceptions of the implementation of the Project Based Learning model and its impact on increasing creativity and learning independence. The findings of this study are expected to provide practical contributions in developing learning strategies that are more responsive to the needs of today's students.

Although Project Based Learning (PjBL) has been widely adopted as an innovative learning method, its success is highly dependent on how students perceive and experience the learning process. Challenges in implementing PjBL, such as lack of resources and varying student readiness in facing the project-based learning model.(Mustafa, 2024) Therefore, it is important to analyze student perceptions as one indicator of the success of implementing this model. In the Faculty of Teacher Training and Education (FKIP), a deep understanding of student perceptions of PjBL can help lecturers optimize learning strategies that can increase creativity and learning independence, which are vital aspects in the formation of prospective professional educators.

This study aims to explore the perceptions of FKIP students towards the implementation of the Project Based Learning model in the context of increasing creativity and learning independence. It is hoped that the results of this study can be a basis for the development of more effective and adaptive learning methods, as well as strengthening the role of FKIP in producing creative and independent graduates in facing the challenges of future education.

Although Project Based Learning (PjBL) is widely recognized as an effective learning approach in increasing engagement and mastery of materials, several studies have stated that the success of its implementation is highly dependent on how students understand and respond to the learning process(Mustafa, 2024) Positive student perceptions can strengthen intrinsic motivation and increase opportunities for creativity and sustainable learning independence. Conversely, negative perceptions often arise due to lack of resource support, limited time, or lack of clarity in the instructions given.

Furthermore, in the Faculty of Teacher Training and Education (FKIP) UNU Lampung, the development of creativity and learning independence is very important because these two aspects are the foundation for students to become educators who are able to innovate and be independent in solving learning problems in the classroom. Therefore, a comprehensive understanding of student perceptions of the implementation of PjBL is a necessity to ensure that this learning model can be implemented optimally according to the characteristics and needs of FKIP students.

This study aims to explore the perceptions of FKIP students towards the implementation of the Project Based Learning model and its impact on increasing creativity and learning independence. With the results obtained, it is expected to provide a significant contribution to the development of more responsive and student-centered learning methods in higher education institutions. In addition, although PjBL encourages students to be more active and creative in the learning process, its implementation often faces challenges related to student readiness in managing time, overcoming technical obstacles, and collaborating effectively. Student perceptions of these obstacles need to be understood so that lecturers and institutions can design appropriate support to maximize the benefits of PjBL.

FKIP students are prepared to become creative and independent educators, strengthening both aspects is very crucial to support the quality of graduates who are able to innovate and have a positive impact on the world of education. Therefore, this study not only aims to identify students' perceptions of PjBL, but also to explore the impact of implementing this model in increasing their creativity and learning independence. By gaining a comprehensive understanding of students' perceptions, it is hoped that the results of this study can be the basis for strategic recommendations for lecturers and education managers at FKIP in optimizing the use of Project Based Learning. This is also expected to improve the quality of the learning process and produce graduates who are ready to face the challenges of 21st century education with adequate creative and independent abilities.

METHODS

This study uses a quantitative approach with a survey method to analyze the perceptions of FKIP students regarding the implementation of the model *Project Based Learning* (PjBL) in improving creativity and learning independence. The population in this study were all FKIP students at a state university, with a sample of 100 students taken by proportional random sampling from several study programs. Sampling was based on the Slovin formula:

$$n = \frac{N}{1 + N(e)^2}$$

where:

n = number of samples,

N = population size,

and e = tolerable error rate (e.g. 0.1 for a 10% error rate).

The research instrument is a closed questionnaire with a Likert scale of 1–5. To test the validity of the instrument, the Pearson Product Moment correlation technique is used, while reliability is tested using the Cronbach Alpha formula:

$$r_{11} = \left(\frac{k}{(k-1)} \right) \left(1 - \frac{\sum \sigma_i^2}{\sigma_t^2} \right)$$

with k is the number of items, $\sum \sigma_i^2$ is the sum of the item variances, and σ_t^2 is the total variance. The data were analyzed descriptively quantitatively using the percentage formula to determine the tendency of student perception:

$$P = \frac{f}{N} \times 100 \%$$

where f is the frequency of answers in a particular category and N is the number of respondents. To analyze the relationship between the implementation of the PjBL model with creativity and learning independence, statistical analysis techniques of Pearson correlation and simple linear regression are used to see the contribution of independent variables to the dependent variable.

RESULTS AND DISCUSSION

Results

This study aims to analyze the perceptions of FKIP students regarding the implementation of the learning model *Project Based Learning* (PjBL) in

improving creativity and learning independence. The number of samples was 100 students from various study programs at FKIP. Data were obtained through a closed questionnaire compiled based on indicators from the three variables studied.

1. Student Perceptions of the Implementation of Project Based Learning (PjBL)

Student perception data on the implementation of PjBL is presented in Figure 1 below:

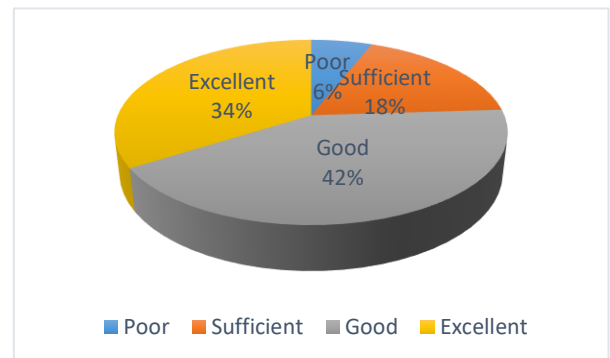


Figure 1. Pie Chart of Student Perceptions of PjBL

Based on the image above, it shows that the majority of FKIP students have a positive perception towards the implementation of the model *Project Based Learning* (PjBL) in learning. Of the total 100 respondents, 42% stated that the implementation of PjBL was in the "Good" category, and 34% stated "Very Good". Only a small portion considered it sufficient (18%) and less (6%). This indicates that project-based learning strategies are seen as being able to create meaningful learning experiences and in accordance with student expectations.

Conceptually, PjBL is designed to increase the active involvement of students in the learning process, through the completion of real projects that are relevant to the lecture material. In its implementation, students feel that lecturers are not only information centers, but also facilitators who guide students to complete projects independently and collaboratively. This shows a shift in the learning paradigm from *teacher-centered* become *student-centered*. Thus, the positive perception of students reflects the initial success of the implementation of PjBL in the FKIP environment, although further evaluation is still needed to perfect its implementation.

2. Student Creativity Level in Project Based Learning

The creativity indicators measured include originality, flexibility, and elaboration of ideas in completing project tasks. The results are presented in Figure 2.

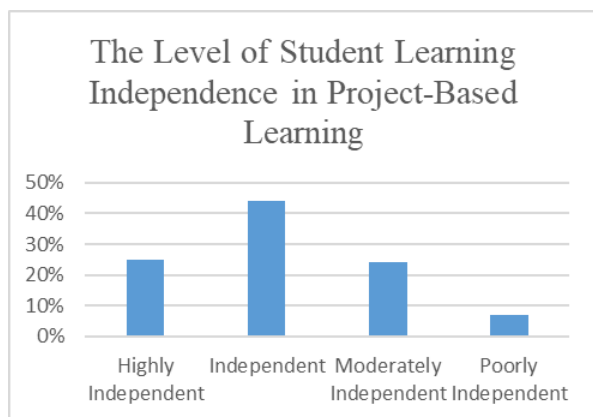


Figure 2. Level of Student Creativity in PjBL

Based on the table and bar graph above, it shows the distribution of student creativity after participating in learning with the PjBL approach. The results show that 44 students (44%) are in the "Creative" category, and 29 students (29%) are in the "Very Creative" category, which means that 73% of students experienced an increase in creativity. Meanwhile, 21% are in the "Quite Creative" category, and only 6% still show low creativity.

This increase in creativity is demonstrated through students' ability to generate new ideas, develop unusual solutions, and be able to think flexibly and originally in completing projects. In implementing PjBL, students are required to think openly and reflectively, formulate ideas, evaluate approaches, and present results with high creativity. This is in accordance with the theory of social constructivism which states that creativity grows through interaction, exploration, and contextual learning experiences.

Furthermore, creativity in learning is not only limited to the final results of the project, but is also seen in the process of problem solving, teamwork, and independent decision making. Thus, the PjBL model has proven to be an effective medium in stimulating students' creative potential.

3. Level of Student Learning Independence

Independence is measured by students' initiative, discipline, and responsibility in the learning process. The results are as follows:

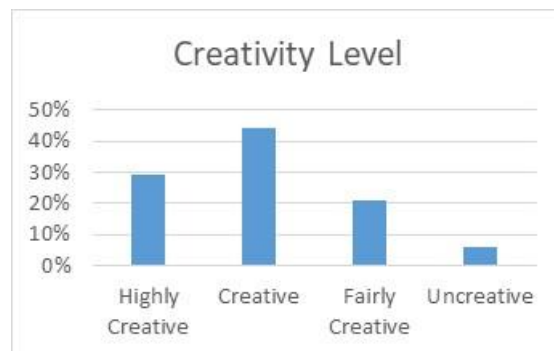


Figure 3. Level of Student Learning Independence in PjBL

Based on the table and graph above, it shows that the majority of students have a fairly high level of learning independence in the context of PjBL learning. As many as 44% of students claim to be "Independent" in managing their learning process, and 25% feel "Very Independent". The remaining 24% are at the "Quite Independent" level, and only 7% are still "Less Independent".

This increase in learning independence reflects a change in students' attitudes in facing the learning process. In the PjBL model, students are required to manage their own time, determine learning strategies, and complete projects gradually without full dependence on lecturers. This trains them to become active learners, responsible for their learning outcomes, and brave in making decisions.

The results of informal interviews with several students, it is known that they feel more confident and trained in critical thinking and taking initiative during the learning process. They also become accustomed to exploring information sources independently and working together in teams more effectively. In general, the PjBL model is considered capable of strengthening the character of independence that is very much needed in the world of work and real life.

4. Results of Instrument Validity and Reliability Tests

Before being used to collect data, the research instrument was first tested for validity and reliability to ensure that the statement items in the questionnaire actually measured what should be measured consistently. Validity testing was carried out using the Pearson Product Moment correlation formula for 25 questionnaire items. The test results showed that all items had a *valuer count* greater than *r table* at a significance

level of 5% (with $N = 100, r_{table} \approx 0.197$), so that all statement items are declared valid. This means that each item in the questionnaire is able to represent the measured variable, both for perceptions of PjBL, creativity, and learning independence.

Next, the reliability test was conducted using the Cronbach Alpha formula to determine the internal consistency of the instrument. The calculation results showed that the Alpha coefficient value was 0.89, which according to the reliability category is included in the "very high" classification. This indicates that the questionnaire instrument used is very consistent in measuring the research variables. Thus, it can be concluded that the instrument is suitable for use in collecting comprehensive data from 100 FKIP student respondents.

5. Correlation and Regression Test Results

The results of the Pearson correlation test and simple linear regression were used to determine how the variables relate to each other.

Table 1. Pearson Correlation Test Results

Variable X (PjBL)	Variable Y	r value	Significance (p)	Interpretation
Perceptions of PjBL	Creativity	0,642	< 0,05	Strong and significant
Perceptions of PjBL	Independence	0,598	< 0,05	Strong and significant

Table 2. Simple Regression Test Results

Variable X (PjBL)	Variable Y	r value	Significance (p)	Interpretation
Perceptions of PjBL	Creativity	0,642	< 0,05	Strong and significant
Perceptions of PjBL	Independence	0,598	< 0,05	Strong and significant

Based on the table above, to determine the relationship between students' perceptions of the implementation of Project Based Learning (variable X) with creativity and learning independence (variables Y1 and Y2), statistical tests were conducted using Pearson correlation and simple linear regression analysis. The results of the correlation test showed that there was a positive and significant relationship between perceptions of PjBL and student creativity, with a correlation coefficient value of $r = 0.642$, and a significance of $p < 0.05$. Similar things were also found between perceptions of PjBL and learning independence, with a value of $r = 0.598$, which was also significant. This means that the more positive students' perceptions of the

implementation of PjBL, the higher their creativity and independence in learning.

Furthermore, a simple regression test was used to see the magnitude of the contribution of variable X to variable Y. The results showed that perceptions of PjBL contributed 41.2% to learning creativity ($R^2 = 0,412$), and 35.7% on learning independence ($R^2 = 0,357$). The rest is influenced by other factors outside this study, such as the learning environment, social support, and students' intrinsic motivation. These findings strengthen the conclusion that PjBL not only has a theoretical impact, but also has a real influence on the formation of character and the quality of students' learning processes empirically.

DISCUSSION

The results of this study indicate that the majority of FKIP students have a positive perception of the implementation of the learning model. *Project Based Learning* (PjBL) in learning. As many as 76% of students stated that the implementation of PjBL was in the category of "Good" and "Very Good". This finding is in line with research by Ramadhona and Lahagu which states that PjBL is effective in increasing student creativity in high school, because this approach places students as the center of learning and allows them to explore and implement ideas in real projects. (Ramadhona & Lahagu, 2024)

Then in terms of creativity, as many as 73% of students showed a high level of creativity after participating in PjBL. This is supported by research by Puryanto which found that PjBL significantly improved students' learning outcomes, motivation, and creativity in science learning in elementary schools. (Puryanto, 2023) PjBL provides opportunities for students to think critically and creatively in completing projects, which in turn improves their ability to generate original and innovative ideas.

Furthermore, in terms of learning independence, the results show that 69% of students feel more independent after following the project-based learning model. Research by Subiyantoro shows that PjBL has succeeded in creating a more dynamic learning environment and stimulating students' creativity, which also has an impact on increasing their learning independence. (Subiyantoro, 2024) In PjBL, students are given the freedom to manage projects, determine strategies, and reflect on

their work results, which trains them to become independent learners.

In addition, the results of statistical tests show a significant relationship between student perceptions of PjBL and creativity ($r = 0,642$) and learning independence ($r = 0,598$). This indicates that the more positive the students' perceptions of project-based learning, the greater their chances of developing in terms of creativity and independence. Research by Maziidah and Dewi also found that PjBL was significantly correlated with creative thinking skills and the development of independent learning character in students. (Maziidah & Dewi, 2023)

Project-based learning not only has an impact on academic achievement, but also on the development of students' affective and personality aspects. This finding reinforces the importance of implementing the PjBL model widely and systematically, especially in the context of higher education that emphasizes active, collaborative, and real-world solution-oriented learning.

CONCLUSION

Based on the results of the study, it can be concluded that the implementation of the Project Based Learning (PjBL) model in FKIP students has a significant positive effect on increasing creativity and learning independence. Most students feel that PjBL is able to encourage them to think more creatively and manage the learning process independently, although there are a small number of students who face obstacles in adapting to this method. The success of PjBL implementation is greatly influenced by student readiness and the support of lecturers in providing adequate guidance and facilities. Therefore, this project-based learning model is worthy of being developed and applied more widely as a learning strategy that is relevant to the needs of 21st century education.

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