



Analysis of Student Creativity Through Project-Based Learning (PjBL) in Elementary Schools

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Keywords

Learning model
Project Basic Learning (PjBL)
Creativity

Abstract

Education in Indonesia is progressing rapidly with various learning models emerging. Of the various learning models, one that gets the attention of researchers is Project Basic Learning (PjBL). This study aims to analyze the creativity of students through the use of the Project Basic Learning (PjBL) learning model. The development of learners' creativity plays an important role in the application of the Project Basic Learning (PjBL) learning model. With this approach, students can be actively involved in the learning process through direct experience both individually and in groups. This gives learners the opportunity to develop new knowledge and skills and improve their ability to solve problems by expressing their creative and innovative ideas. This research uses the Systematic Literature Review (SLR) method which includes various sources. The results obtained show that the application of the Project Basic Learning (PjBL) model is proven to be significant in increasing the creativity of students in schools, so this research tries to fill the gap.

1. Introduction

(1) Independent Curriculum and Learning Flexibility

The Independent Curriculum provides flexibility for educators in arranging the learning process according to the needs of students. Learning must be in accordance with the diagnostic results carried out at the beginning of the learning process. Considering the selection of the right learning model is necessary in various aspects such as the condition of the learners, the characteristics of the learning modules, the learning media facilities available in the school, and the conditions of the educators. Choosing the right learning model can increase students' creativity, one of which is suitable, namely Project Based Learning (PjBL).

Students are given the opportunity to be involved in the problem-solving process in the classroom that allows them to create products through the application of a project-based learning model (Kencana & Rifa'i, 2021). Through this approach, students can not only understand the projects they are working on, but this can increase creativity and motivation to learn as well as encourage cooperation among classmates (Sudibjo et al., 2020). This research will explore how the Project Based Learning learning model can increase students' creativity, thereby providing insight into the implementation and supporting the development of innovative and relevant learning models.

(2) Project Based Learning Model (PjBL)

Project Basic Learning (PjBL) is the development of effective models in skills in the 21st century that are necessary with problem solving that focuses on critical thinking processes, collaboration, leadership and group work, innovation and creativity (Hakkinen in Almulla, 2020). Project-based learning with a focus on students is useful in developing projects, both individually and in groups. Through the project, it will train students' high-level thinking skills by stimulating thinking in arguing, investigating, analyzing, creating, and drawing unique conclusions (Muis & Dewi, 2021).

(3) The effect of PjBL on creativity and activeness of learners

The use of various learning tools can support activeness, improve skills, and improve student learning outcomes (Khasanah, 2021). This study aims to analyze the influence of the Project Based Learning (PjBL) Model on student activity in elementary school and explore the learning process and the results obtained from the application of this model. Students who have creativity can provide unique ideas in facing challenges, as well as be able to develop new understandings of the relationship between

elements that were previously unthinkable. Students' creativity can develop well when actively involved in the learning process (Siregar, 2020).

(4) Benefits of PjBL in Primary School Learning

This research provides various benefits through fun learning, students can be more active and creative so that learning is more meaningful, educators get new approaches to teach more effectively and creatively, and researchers can use data from the application of Project Based Learning that has been analyzed to conduct further research on creative learning methods in elementary schools. Helping students develop with a Project Based Learning model that is not only an ordinary learning model but a model that is able to develop comprehensively.

2. Method

The method in this study uses a scientific approach through a systematic, comprehensive literature review, and is carried out using a specified protocol called SLR (Systematic Literature Review). Researchers use this method because it has several significant advantages, one of which is helping to identify gaps in previous research, providing a strong basis for further research, and ensuring transparency and replication in the research process.

2.1. Screening

There are several stages that must be considered in using the Systematic Literature Review method according to Kitchenham's theory, consisting of several important steps as follows: (1) Starting with an SLR (Systematic Literature Review) review that focuses on research questions that will be answered using a particular method; (2) Conducting a search for relevant literature with a strategy designed to reach as many sources as possible; (3) Documenting the SLR (Systematic Literature Review) process in a complete manner so that readers can make an assessment; (4) Evaluating each potential primary study by considering exclusion and inclusion criteria; (5) Ensuring that each primary study meets the specified quality criteria, then the information obtained will be used for further evaluation; (6) Conducting quantitative analysis as a requirement for the implementation of SLR (Systematic Literature Review).

2.2. Included

This study is the result of collecting relevant data from previous research results, then the data is analyzed and studied in depth from Google Scholar with the keyword "The Influence of Participant Creativity in Project Based-Learning (PjBL)" in the period 2020-2024. Inclusion criteria include studies that explicitly examine the influence of the PjBL learning model on student creativity using the SLR (Systematic Literature Review) research method, and are published in the journal Education and Culture available in Indonesian or English. In addition, the selected research must focus on the context of formal education, especially at the elementary to secondary school levels, and present empirical data related to increased creativity as a result of the application of PjBL in the learning process.

3. Results and Discussion

In this study, efforts to increase students' creativity with project-based learning capital (PjBL) using the SLR (Systematic Literature Review) research method. The purpose of SLR (Systematic Literature Review) is to examine the theoretical foundations that can support the solution of the problems being studied. The theory that has been successfully found provides an important first step for researchers to understand the existing problems according to the framework of scientific thinking and provide insight into previous research and includes and analysis of 10 articles from national journals.

From the results of data collection related to the learning process using the Project Basic Learning (PjBL) model to determine the creativity of students, it was found that the application of the project-based model from the selection of several relevant sources was found as follows:

Table 1. Table 1. Increasing students' creativity in the application of the Project Based Learning (PjBL) learning model

No	Article	Researchers	Research Methods	Research Results
1	Analysis of the application of project-based learning to increase	Megawati (2023)	Systematic Literature Review (SLR)	Innovative learning has great potential in increasing the creativity of students in elementary school with the application of Project Basic Learning (PjBL) as a learning

	student creativity in grade IV elementary school			model. This model has a positive impact on the development of students' creativity because it encourages them to think critically and look for innovative solutions. There are drawbacks to the PjBL model such as lack of understanding of teachers and limited school facilities, in order to achieve optimal results, it is very important for teachers to get adequate training and provide supportive resources for schools.
2	Evaluation of the Effectiveness of Project-Based Learning Methods in Developing Students' Creativity	Jeditia Taliak, Taufiq Al Farisi, Riska Aprilia Sinta, Abdul Aziz, & Nur Laily Fauziyah (2024)	Case studies with observations, interviews, and questionnaires	This approach has the potential to broaden the learning experience and significantly enhance creative skills. An effective approach can encourage students' creativity through the use of project-based learning methods that prepare them for the social requirements and complex work of the future.
3.	The Influence of Project Based Learning Model on Elementary School Students' Creativity	Kusmiati (2022)	Experimental research	The impact of the project-based learning model based on the creativity of science learning in Class IV Kamal SDN 1. Based on the results of the hypothesis test, the impact of the project-based learning creativity learning model in Table 3 is proven to be known based on the results of the Sig.(2-tailed) analysis of $0.000 < 0.05$ concluding that there is a difference in student creativity before and after learning proving the effect on project-based learning creativity. Grade IV students experienced an increase that was effectively applied in science learning subjects using the PjBL learning model.
4	Type Learning Project-based subject Science class III deep Increase ability Creative Thinking student	Angela Marietya Puspita, Erry Utomo, & Agung Purwanto (2022)	Systematic Literature Review (SLR)	Improving creative thinking in elementary schools by using a project-based learning model. Several studies support the view regarding improving student competence towards project-based learning models. Through this model, students are encouraged to ask questions, offer various solutions to solve problems, explain concepts in detail, and create new things. By involving activities outside the classroom, it can teach students to be active and creative in problem solving.
5	Analysis of the Project Based Learning learning model on the Students of SDN Pandeanlamper 03 Semarang	Rizky Wulandari, Sri Suneki, Titik Haryati, dan Maryati (2023)	Descriptive qualitative	Research at SDN Pandeanlamper 3 Semarang on the application of the Project Basic Learning (PjBL) learning model in entrepreneurship is very effective in increasing the creativity of grade VI students. Through entrepreneurial projects and business practices for 2 weeks, students show high enthusiasm and creativity skills that include curiosity, asking questions, expressing opinions, having their own ideas, imagination, and problem-solving skills. Despite experiencing obstacles such as power outages, it actually encourages students to innovate in finding alternative solutions. The variety of products they create such as fruit juice and sandwiches reflects the spirit of innovation and

expression of each group. The results of the interview from one of the teachers support PjBL which is in great demand by students and is able to arouse creativity in real and applicable ways.

From the data results of 10 reviewed articles, 5 articles obtained stated that Project Basic Learning (PjBL) plays a role in helping to improve students' creativity skills which have a significant positive impact after the implementation of PjBL, especially in the aspects of collaboration and problem solving. Active involvement of students through this approach can add direct experience individually or in groups. This allows them to express feelings and ideas more creatively. Project Basic Learning (PjBL) can improve problem-solving skills, and develop better learning outcomes as included in the data results above in the field of science and social aspects, namely collaboration and communication.

The success of the implementation of Project Basic Learning (PjBL) is influenced by the role of teachers in managing the learning process. By having advantages in the Pancasila profile, it is hoped that the role of teachers in implementing this learning model can support and be competent so that learning runs optimally. The project-based learning model, in addition to having the advantages mentioned in the results of this study, has also been proven to be able to reduce students with low levels of creativity. Thus, this learning model is an effective and relevant approach in facing today's educational challenges that require students to be more innovative and adaptive.

3.1. Conclusion

Based on the results of the discussion of various sources of articles discussing the application of the Project Basic Learning (PjBL) learning model, it can be concluded that it has proven to be very effective in increasing student creativity, especially at the elementary and secondary school levels. The learning process using this model allows students to be actively involved through appropriate and relevant project assignments.

The implications of the research results show the importance of teacher training in implementing PjBL so that learning becomes more creative and contextual. With the application of Project Basic Learning (PjBL) can increase creative ideas and innovative solutions by strengthening social skills, such as cooperation, communication, and responsibility.

The success of the implementation of Project Basic Learning (PjBL) with the role of teachers managing the learning process, creating a supportive learning environment, and providing constructive guidance and feedback. Overall, this learning model has been proven to enrich the learning experience through active, collaborative, and contextual activities that can produce students who are better prepared to face difficulties in learning

Author Contributions

Adibah Cahya Ramdhani: Conceptualization; Data curation; Formal analysis; Funding acquisition; Investigation; Methodology; Project administration; Resources; Software; Supervision; Validation; Visualization; Roles/Writing - original draft; Writing - review & editing. Candra Utama: Writing - review

Funding

You are requested to identify who provided financial support for the conduct of the research and/or preparation of the article and to briefly describe the role of the sponsor(s), if any, in study design; in the collection, analysis and interpretation of data; in the writing of the report; and in the decision to submit the article for publication. If the funding source(s) had no such involvement, it is recommended to state this.

No funding support was received.

Declaration of Conflicting Interests

Declarations of interest: none.

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