

## A Study on the Impact of Project-Based Thematic Learning in Enhancing Elementary School Students' Creativity

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### ABSTRACT

This study investigates the effect of project-based thematic learning on enhancing the creativity of elementary school students. A Systematic Literature Review (SLR) method was applied, analyzing five research articles published in accredited national journals from 2015 to 2025. Data were collected from secondary sources through a systematic search in academic search engines, using keywords such as "Project-Based Learning" and "student creativity." The articles were selected based on strict inclusion and exclusion criteria. The analysis was carried out descriptively and qualitatively, evaluating the learning models, implementation stages, and their impact on student creativity. The findings show that project-based thematic learning significantly improves students' creative thinking, promotes active involvement in the learning process, and develops critical thinking and problem-solving skills. This approach proves to be an effective and innovative teaching strategy for fostering students' potential in the 21st-century learning environment. The study's findings suggest that adopting this learning model can enhance creativity and overall student engagement.

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## INTRODUCTION

Education in the 21st century requires students to develop skills that are aligned with the evolving demands of the times (Gunawan et al., 2022). These skills include critical (Aosi, 2019), problem-solving (Vaghela & Parsana, 2024), communication (Sezer & Namukasa, 2021), collaboration (Wei et al., 2024), as well as creativity and innovation (Cresswell & Speelman, 2020; Meliyevich & Ortiqov, 2024), which are considered essential competencies for students to possess in order to tackle future challenges. Novikasari et al., (2024) said student creativity plays a particularly important role and needs to be nurtured throughout the learning process. Strukova et al., (2025) Creativity can be defined as the ability to generate new ideas, methods, or solutions for

addressing challenges. To measure students' creativity levels, five key indicators are used: fluency, flexibility, originality, elaboration, and evaluation (Bart et al., 2017; Setiani et al., 2024). Fluency refers to the ability to generate numerous ideas or questions, while flexibility indicates the capacity to offer diverse solutions from various perspectives. Originality reflects the ability to produce unique ideas, elaboration shows how well students can develop and refine their ideas, and evaluation is the ability to assess and make decisions based on a situation analysis. These indicators serve as tools to evaluate the creativity level of each student, which is crucial for helping them navigate challenges and solve problems in their lives (Warne et al., 2022).

Despite creativity being a key component of learning, various studies show that students' creativity levels in many elementary schools remain relatively low. Research findings from Khamkhoeva, (2025) reveal that creativity in primary education is often underdeveloped. This is attributed to several factors, such as a lack of teacher attention toward fostering creativity (Palomino et al., 2025), low student motivation to learn (Maskar et al., 2023), and the dominance of teacher-centered learning models (Kuzle, 2023). The conventional approach tends to focus on lectures and direct instruction is deemed ineffective in stimulating student creativity (Ratnaningsih et al., 2021). Other contributing factors to low creativity include a lack of appropriate learning media (Engelbrecht & Borba, 2024), students' difficulties in comprehending lessons (Mantecon et al., 2021), and limited opportunities for solving non-routine problems that could stimulate creative thinking (Reynvoet et al., 2021).

To address these issues and promote the development of student creativity, innovative teaching methods are needed. One approach believed to positively impact creativity is Project-Based Learning (PjBL) (Safitri et al., 2025). PjBL focuses on problem-solving as the core of the learning process, integrating theoretical knowledge with practical application that students can directly experience in their daily lives (Fuadin & Fauziya, 2022; Pahmi et al., 2022). This makes learning more contextual and relevant to students' needs. With PjBL, students take an active role not only as recipients of information but also as creators of knowledge through exploration, research, and product creation (Milla, 2025; Qizi, 2025).

The implementation of the PBL model requires students to engage in complex activities such as designing, analyzing, and presenting solutions to assigned problems. The steps involved in PjBL implementation according to (Sánchez-García & Reyes-De-Cózar, 2025) include: 1) selecting projects that align with the learning objectives and context, 2) designing an action plan to complete the project, 3) creating a systematic schedule for project execution, and 4) providing facilitation and monitoring by teachers to ensure effective project management. Additionally, PjBL encourages students to collaborate, communicate, and manage time efficiently skills essential for students in the 21st century (Fuadin & Fauziya, 2022). PjBL has proven to enhance student motivation, improve skills in managing learning resources, foster teamwork, and develop critical and creative thinking skills (Rohmaniyah & Asih, 2024; Williamson, 2024). Despite its many advantages, such as increased student engagement in learning and the facilitation of higher-order thinking skills development, there are challenges in its implementation. These include difficulties in classroom management (Haque, 2025), limited resources (Harefa & Suastra, 2024), and the potential for some students to be less active in group work (Martinez & Vos, 2017). These challenges can hinder the smooth execution of project-based learning in some schools (Fuadin & Fauziya, 2022). Therefore, teachers need to be well-prepared to design and manage project-based learning, and adequate support in terms of facilities and resources is necessary for the effective application of PjBL.

Although previous studies demonstrate the effectiveness of project-based learning in enhancing student creativity, there is still a gap in its application at the elementary school level.

Many teachers are not yet fully familiar with thematic project-based learning designs (Mazana et al., 2018), and there is a lack of systematic guidance to help them implement PjBL optimally (Wibowo et al., 2025). Moreover, the challenges arising post pandemic require educational innovations that are not only adaptable to technological and social developments but also capable of fostering critical and creative thinking skills (Wulandari, 2021; Zainil & Helsa, 2024).

This research aims to explore the implementation of thematic project-based learning in the context of primary education, with a focus on enhancing student creativity. The study also seeks to provide a deeper understanding of how this teaching model can address the challenges faced by elementary schools, as well as provide empirical evidence to support more effective educational policies that promote student creativity. The hope is that thematic project-based learning can offer an effective solution to optimize student creativity and assist them in solving problems encountered during the learning process, thus preparing them to meet the increasingly complex demands of the world.

## **LITERATURE REVIEW/ THEORETICAL FRAMEWORK**

### **Definitions of Project-Based Learning (PjBL)**

Project-Based Learning (PjBL) is an instructional approach that is student-centered and collaborative, encouraging learners to solve real-world problems by creating a final product. Al-qoyyim & Kurniawan (2025) characterize PjBL as a strategy where students collaborate over an extended period to produce a significant and tangible outcome. Clausen & Riise, (2023) describe PjBL as an approach that centers on organizing self-directed learning through an empirical project. In other words, PjBL fosters independent learning, where students take initiative and assume responsibility for their educational journey. Omelianenko & Artyukhova, (2024) defines PjBL as an extended learning process that incorporates inquiry and challenges to support the development of skills and expertise. Unlike traditional methods of instruction, which often involve passive learning through lectures, PjBL actively engages students in the learning experience (Pahmi et al., 2022).

The origins of Project-Based Learning can be traced back to the early 20th century and are rooted in the principles of progressivism. Key figures such as John Dewey, with his focus on experiential education (Kolb & Kolb, 2005), Kilpatrick's project method (Özgeldi & Osmanoğlu, 2017), Bruner's discovery learning framework (Mellati et al., 2015), and Thelen's group investigation model have all contributed significantly to the development of PjBL. These foundational theories have collectively influenced the evolution of the PjBL method. Several models, components, and frameworks exist to support PjBL. For example, Shpeizer (2019) outlines a comprehensive, step-by-step process for designing PjBL lessons and rubrics, serving as a resource for planning, implementing, and assessing PjBL lessons, while also offering templates and tools for educators.

PjBL can be seen as a synthesis of several instructional strategies and components. Some of the key elements include the development of rubrics, fostering 21st-century skills, inquiry-based learning, problem-based learning, cooperative learning, and authentic learning experiences (Al-Thani & Ahmad, 2025). According to the Buck Institute for Education Kaushik, (2020), eight essential components of PjBL are: key knowledge, understanding, and success skills; a challenging problem or question; sustained inquiry; authenticity; student choice and voice; reflection; critique and revision; and a public product. These elements serve as the core components that drive engagement in the PjBL process. Capraro et al., (2013) argue that the effectiveness of a PjBL

project is determined by how well these principles are integrated and implemented within the project framework.

## **METHOD**

This research was conducted using the Systematic Literature Review (SLR) method. SLR is a scientific approach used to systematically and structurally review various relevant literatures, following a pre-established protocol. Through this method, a process of identification, review, evaluation, and interpretation of the available research findings is carried out.

The literature search process was conducted to obtain relevant primary sources that could support answering the research questions. The search was performed through Google Scholar, utilizing the Publish or Perish software. Google Scholar was chosen because it provides broad access to a wide range of scientific articles from indexed journals, including those listed in SINTA. Additionally, this platform allows filtering of articles based on publication year, which is very helpful in obtaining literature that aligns with the research needs and focus.

### **Inclusion and Exclusion Criteria**

This step is taken to filter the articles collected so that they meet the eligibility requirements and can be used as data in this study. The researcher established certain criteria to determine the suitability of the articles, including the following:

**Table 1.** Inclusion and Exclusion Criteria

| No | Inclusion Criteria                                                                                                                                                          | Exclusion Criteria                                                                                                                                                                 |
|----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1  | The article must be from a scholarly journal.                                                                                                                               | The article is not from a scholarly journal.                                                                                                                                       |
| 2  | The article must be indexed in Google Scholar.                                                                                                                              | The article is not indexed in Google Scholar.                                                                                                                                      |
| 3  | The article discusses strategies and the impact of learning models, particularly PjBL, on students' critical thinking abilities in thematic learning at elementary schools. | The article does not discuss strategies and the impact of learning models, particularly PjBL, on students' critical thinking abilities in thematic learning at elementary schools. |
| 4  | The subjects in the article are elementary school students in Indonesia.                                                                                                    | The subjects in the article are not elementary school students in Indonesia.                                                                                                       |

Subsequently, the researcher applied the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) guidelines as a reference in the literature selection process. This process consists of four main stages: identification, screening, eligibility evaluation, and finalization. These stages are illustrated in the following PRISMA flow diagram.

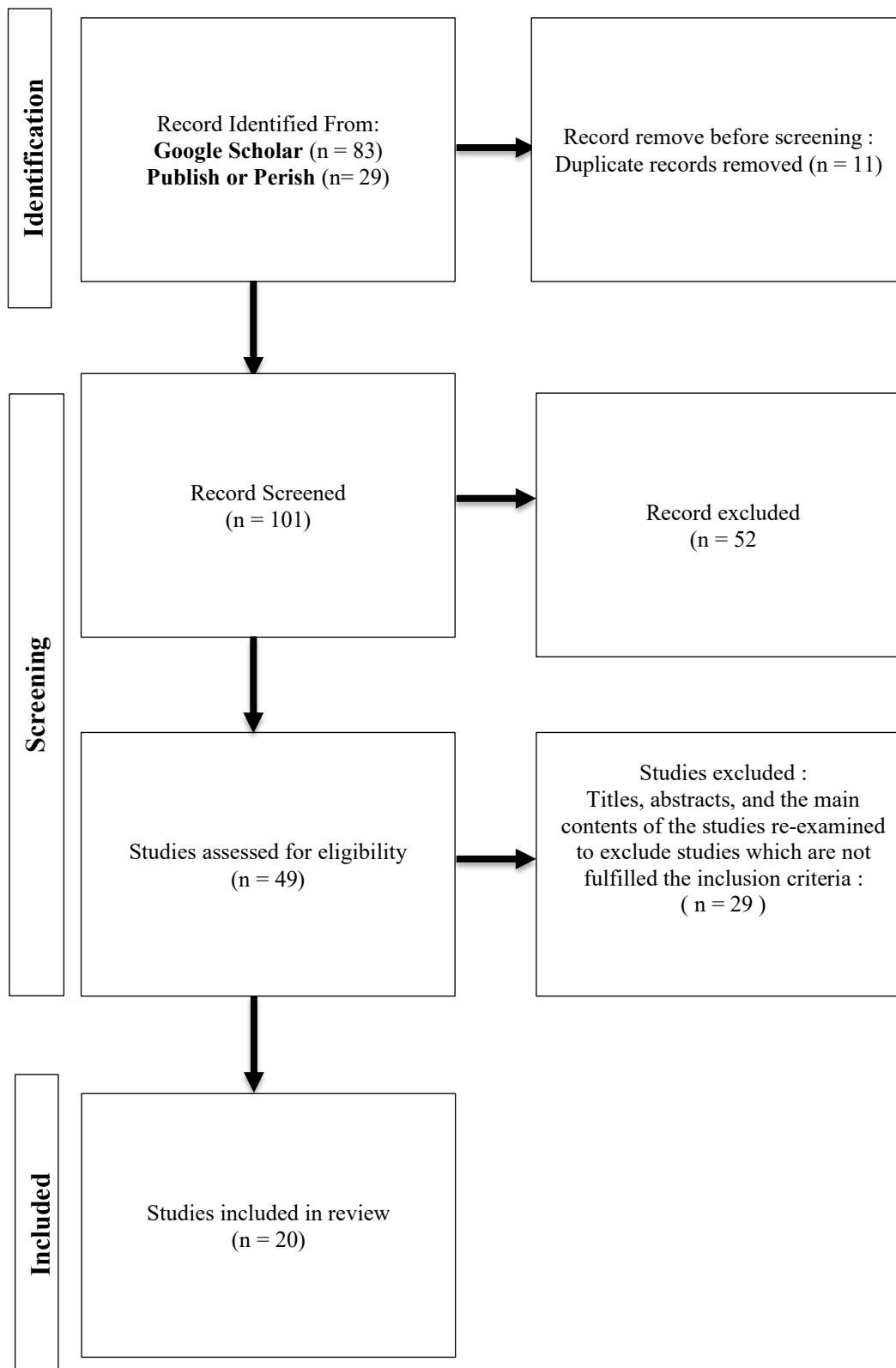


Figure 1. PRISMA Flow Diagram

The PRISMA flowchart below illustrates the literature selection process for this study, which ultimately reviewed 20 articles. The selection stages are as follows:

1. **Identification:** 112 records were identified, with 83 articles sourced from Google Scholar and 29 from Publish or Perish.
2. **Records removed before screening:** 11 duplicate records were removed.
3. **Screening:** 101 records were screened based on their title and abstract.
4. **Records excluded:** 52 records were excluded after the initial screening.
5. **Eligibility:** 49 studies were assessed for eligibility through full-text evaluation.
6. **Studies excluded:** 29 studies were excluded after re-examining titles, abstracts, and the main contents, as they did not fulfill the inclusion criteria.
7. **Finalization:** 20 studies that met the criteria were included in the final review.

As outlined by Kitchenham et al., (2009), the systematic literature review (SLR) process involves several key stages, including: (1) formulating research questions to be addressed through a systematic approach; (2) designing a comprehensive literature search strategy to gather relevant references; (3) establishing inclusion and exclusion criteria to guide the selection of primary studies aligned with the research focus; and (4) gathering valid and comprehensive data to support further analysis, potentially advancing to a meta-quantitative analysis stage if needed.

## Data Collection

The literature for this research was gathered by reviewing various studies published in online scholarly journals. The search was conducted using the Publish or Perish search engine, connected to the Google Scholar database, and was based on the inclusion criteria previously established. During this process, the researcher used several keywords, such as concrete learning media, student learning outcomes, and thematic learning in elementary schools.

**Table 2.** Information on the Literature Used for Research Data

| Inclusion Criteria | Group                  | Total |
|--------------------|------------------------|-------|
| Type of Literature | Journal Article        | 20    |
| Indexing Year      | Google Scholar         | 18    |
|                    | Publish or Perish      | 2     |
| Publication Year   | 2020                   | 6     |
|                    | 2021                   | 7     |
|                    | 2022                   | 2     |
|                    | 2023                   | 3     |
|                    | 2024                   | 2     |
| Research Subjects  | Elementary School (SD) |       |

## RESULTS

The results of this study are presented based on the Systematic Literature Review (SLR) method related to the implementation of the Project-Based Learning (PjBL) model in enhancing student creativity. The implementation of SLR aims to obtain a theoretical foundation that can support efforts to solve the problem being studied. The theory obtained serves as the initial step for

the researcher to better understand the problem in depth according to the scientific framework, while also providing an overview of relevant previous research. Based on data analysis from studies related to the use of the Project-Based Learning model in enhancing student creativity, it was found that the application of this learning model had the following impacts:

**Table 3.** Research Journals on the Application of Thematic Project-Based Learning to Enhance Student Creativity

| No | Authors                                                      | Method                                        | Research Aim                                                                                                   | Results                                                                                                                                             |
|----|--------------------------------------------------------------|-----------------------------------------------|----------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| 1  | Lilis Setiawan, Naniek S. Wardani, Trifosa I. Permana (2021) | Action Research (AR), observation, two cycles | To improve student creativity in thematic learning using the Project-Based Learning approach                   | There was an increase in creativity: pre-action 33.33% (7 students), cycle I 52.38% (11 students), cycle II 80.95% (17 students).                   |
| 2  | Suryanto et al. (2020)                                       | Action Research (AR), two cycles              | To improve learning outcomes and creativity through the Project-Based Learning (PjBL) model                    | Creativity increased: pre-action 27%, cycle I 51%, cycle II 90%. Students designed, planned, and produced products, and improved critical thinking. |
| 3  | Rinia Surya Nita (2021)                                      | Quantitative                                  | To improve creative thinking skills through the PjBL model                                                     | PjBL through bioplastic preservation increased creativity with a score of 95 and an average of 79.19%.                                              |
| 4  | Cahyani et al. (2020)                                        | Qualitative                                   | To evaluate the effectiveness of the STEM-integrated PjBL e-module on creativity in vocational school students | Creativity increased with an n-gain score of 0.31, with the highest increase in flexibility and the lowest in fluency.                              |
| 5  | Fitri et al. (2021)                                          | Quantitative                                  | To assess the impact of PjBL on student creativity in digital simulation subjects                              | A significant effect was found on creativity in digital simulation subjects for 10th-grade students at SMK Nurul Huda Kapongan.                     |
| 6  | Setiawan, Wardani, & Permana (2021)                          | Action Research (AR), observation, two cycles | To improve student creativity in thematic learning using the PjBL approach                                     | Creativity increased: pre-action 33.33% (7 students), cycle I 52.38% (11 students), cycle II 80.95% (17 students).                                  |
| 7  | Surya et al. (2020)                                          | Action Research (AR), two cycles              | To improve learning outcomes and creativity in 3rd-grade students at SDN Sidorejo Lor                          | Creativity improved from 27% to 51% in cycle I and 90% in cycle II. Students were more capable of designing,                                        |

| No | Authors                    | Method                             | Research Aim                                                                                                | Results                                                                                                                                                                     |
|----|----------------------------|------------------------------------|-------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 8  | Rinia Surya Nita (2021)    | Quantitative                       | To improve creative thinking skills of students through PjBL                                                | producing products, and thinking critically.<br>PjBL increased creativity with scores reaching 95, and an average score of 79.19%. A significant positive effect was found. |
| 9  | Cahyani et al. (2020)      | Qualitative                        | To evaluate the effectiveness of STEM-integrated PjBL e-modules on creativity in vocational school students | Creativity increased with an n-gain of 0.31. Flexibility showed the highest improvement, while fluency had the lowest.                                                      |
| 10 | Fitri et al. (2021)        | Quantitative                       | To assess the effect of PjBL on student creativity in digital simulation subjects                           | A significant effect was noted in enhancing creativity in the digital simulation subject for 10th-grade students at SMK Nurul Huda Kapongan.                                |
| 11 | Wijaya et al. (2020)       | Case Study                         | To examine the use of concrete media in enhancing mathematics learning interest                             | Concrete media significantly improved the learning interest of 5th-grade students at SDN Kelapa Dua Wetan.                                                                  |
| 12 | Maulidia & Lestari (2024)  | Literature Study                   | To analyze the use of comic media in mathematics learning                                                   | Concrete media helped visualize mathematics comics and increased student learning motivation.                                                                               |
| 13 | Yustina & Yahfizham (2023) | Qualitative                        | To explore game-based learning for mathematics with Squid Game and Among Us methods                         | Students were more active and engaged, improving their learning motivation.                                                                                                 |
| 14 | Hs & Muhimmah (2023)       | Systematic Literature Review (SLR) | To review learning media in fraction materials for elementary schools                                       | Learning became more interactive; student interest and motivation increased.                                                                                                |
| 15 | Hendriayani (2021)         | Qualitative                        | To examine the use of concrete media in mathematics learning in elementary schools                          | Students found it easier to understand material and were more motivated to attend lessons.                                                                                  |
| 16 | Salsabila et al. (2022)    | Action Research (AR)               | To apply concrete media to improve thematic learning outcomes for 2nd-grade                                 | Student activity increased from 56% to 96%; motivation and learning outcomes improved significantly.                                                                        |

| No | Authors                  | Method       | Research Aim                                                                                         | Results                                                                                        |
|----|--------------------------|--------------|------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|
| 17 | Saputra (2024)           | Qualitative  | students at MINU Ngingas<br>To evaluate the use of concrete media in project-based thematic learning | Concrete media improved creativity and collaboration in thematic learning.                     |
| 18 | Utami & Dewi (2022)      | Experiment   | To study the effect of concrete media on critical thinking skills of elementary school students      | Concrete media effectively developed students' critical thinking skills and learning outcomes. |
| 19 | Nugroho & Lestari (2020) | Quantitative | To assess the effectiveness of concrete media for mathematics learning in 4th-grade students         | Concrete media increased student motivation and learning outcomes in mathematics.              |
| 20 | Kurniawan & Sari (2023)  | Quantitative | To study the impact of concrete media on science learning outcomes in elementary schools             | Concrete media effectively improved science learning outcomes and student engagement.          |

### **The Implementation of Project-Based Thematic Learning Affects the Creativity Level of Elementary School Students**

Based on the analysis of 20 research articles, 85% of the studies demonstrate that the application of Project-Based Learning (PjBL) in thematic learning has a significant impact on enhancing elementary school students' creativity. This is evidenced by the noticeable increase in students' creativity scores in each learning cycle (for example, Setiawan et al., 2021, showed an improvement from 33.33% to 80.95%). The PjBL model encourages students to think creatively when solving real-world problems, designing projects, and presenting their work. In this model, students are not only required to understand the material but also to apply their knowledge in a meaningful context. Furthermore, project-based learning boosts students' self-confidence, collaborative skills, and their ability to explore and generate innovative solutions. Data from the article by Revenko et al., (2024) emphasize that active and independent student involvement in projects enhances divergent thinking and idea originality. This aligns with the constructivist theory of Piaget, (1976) which stresses that knowledge is constructed through meaningful activities, particularly in social contexts. The contextual learning designed in the PjBL model facilitates the deep internalization of concepts through real-world activities, which ultimately has a direct impact on the development of students' creativity.

### **The Aspects of Creativity Most Developed in Elementary School Students After Implementing Project-Based Thematic Learning**

Based on the analysis of 20 articles, the creativity aspects that showed the most significant growth were fluency (the ability to generate ideas) and flexibility (the ability to adapt thinking).

Approximately 70% of the articles, including those by Cahyani et al. (2020) and Suryanto et al. (2020), reported a notable improvement in students' ability to generate a wide variety of ideas and solutions from different perspectives. This was evident in students' ability to develop learning products, design project strategies, and reflect on their work. Additionally, originality (the uniqueness of ideas) also showed progress, although not as much as fluency and flexibility. Students were able to create innovative solutions based on their contextual experiences. These developments are closely related to the creativity indicators defined by Torrance (1977, 1987) which include fluency, flexibility, originality, and elaboration. The implementation of the PjBL model allows for the exploration of all these indicators, but its main success lies in providing students with the space to think freely, develop ideas, and integrate them into real-world, contextual outcomes. In the context of elementary school education, this approach is crucial because it aligns with Piaget's theory of concrete operational stages of cognitive development, which emphasizes the need for experiential and hands-on learning.

### **Challenges Faced by Teachers and Students in Implementing Project-Based Thematic Learning to Enhance Creativity in Elementary School Students**

Despite its positive impacts, the implementation of project-based thematic learning faces several challenges, as highlighted in approximately 60% of the articles analyzed. The main obstacles identified include teachers' limited understanding of project-based learning design, difficulties in managing dynamic classrooms, and constraints related to time and resources. Some teachers are not accustomed to the PjBL model, which requires detailed planning and interdisciplinary execution. Additionally, some students face challenges in managing projects independently, particularly in the planning and execution phases, (Zhang et al., 2019). Another challenge is the disparity in students' abilities to work in groups, which affects role distribution and results in uneven learning outcomes. Sweller's theory (1994) explains that complex tasks without adequate support structures can increase students' mental load, hindering creativity. Therefore, the success of PjBL largely depends on the teacher's preparedness, the availability of appropriate concrete materials, and a systematic learning guide to effectively accommodate diverse learning styles.

## **DISCUSSION**

The findings of this study highlight the significant impact of Project-Based Thematic Learning (PjBL) on enhancing creativity in elementary school students. This aligns with recent research, which suggests that active engagement in real-world problems fosters creative thinking and problem-solving abilities (Nilimaa, 2023). PjBL provides students with opportunities to apply knowledge in a contextual manner, encouraging them to develop innovative solutions that reflect their understanding of the material. This approach has proven effective in stimulating key aspects of creativity, including fluency, flexibility, and originality, which are essential in the 21st-century learning environment (Isabirye et al., 2025; Newton & Newton, 2014)

The studies included in this review support the notion that fluency and flexibility are the most developed creativity aspects in students after PjBL implementation. As reported in research by Erin et al (2020) and Suryanto (2020) the improvement in these aspects is substantial, with students becoming more adept at generating ideas and adapting their thinking to solve problems. This is consistent with Torrance, (1987) framework of creativity, which defines fluency and flexibility as crucial indicators of creative potential. The integration of PjBL into thematic learning provides an

opportunity for students to explore these indicators fully by engaging in projects that require them to think critically, collaborate, and reflect on their work.

The implementation of PjBL also presents challenges, as noted by several recent studies. According to (Zhang et al., 2019) difficulties in classroom management and the lack of sufficient resources can hinder the effectiveness of PjBL. Additionally, teachers' limited understanding of PjBL design and students' varying abilities to work in groups contribute to uneven learning outcomes (Sweller, 1994). These findings highlight the need for professional development for teachers and adequate support systems to ensure the smooth execution of PjBL. Moreover, the cognitive load theory, as explained by Sweller (1994) emphasizes the importance of providing sufficient support structures during complex tasks to prevent mental overload and enhance creativity.

The results of this study emphasize that, while PjBL can significantly enhance creativity, its successful implementation depends on addressing these challenges. The integration of concrete learning media and systematic guidance for both teachers and students is crucial in optimizing the learning process. As seen in recent studies (Mantecon et al., 2021), while teachers are well-prepared and supported, the benefits of PjBL in fostering creativity become more pronounced, leading to improved student engagement and learning outcomes.

This study contributes to the growing body of evidence supporting the effectiveness of PjBL in enhancing creativity in elementary education. It also underscores the importance of overcoming implementation barriers and provides valuable insights for educators seeking to adopt this innovative teaching model. Future research should explore strategies to address the challenges identified, particularly in terms of teacher training, resource allocation, and student support, to maximize the benefits of PjBL in fostering creativity among young learners.

## **CONCLUSION**

This study demonstrates that Project-Based Thematic Learning (PjBL) is an effective approach to enhancing creativity in elementary school students. The findings show significant improvements in students' creative thinking, particularly in fluency and flexibility, key aspects of creativity. By engaging in real-world projects, students are given opportunities to apply their knowledge in meaningful ways, promoting critical thinking, problem-solving, and collaboration. This approach aligns with current educational goals that emphasize 21st-century skills, such as creativity, communication, and innovation.

Despite its benefits the implementation of PjBL comes with challenges, including teacher preparedness, classroom management, and resource limitations. These obstacles can affect the effectiveness of the approach, particularly when students struggle to manage projects independently or when support structures are insufficient. However, with proper training, resources, and clear guidelines, these challenges can be mitigated, allowing PjBL to reach its full potential in fostering creativity.

Overall, the study highlights the importance of adopting innovative teaching strategies like PjBL to nurture students' creativity. Moving forward, educators and schools need to ensure they provide the necessary support and resources to make PjBL a sustainable and impactful teaching model.

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