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APPLICATION OF THE PROJECT-BASED LEARNING MODEL IN THE PUB (FASHION BUSINESS MANAGEMENT) COURSE TO ENHANCE STUDENT CREATIVITY

Tri Mutmainnah[1*], Marniati[2], Mein Kharnolis[3]
[123]Program Studi Pendidikan Tata Busana, Fakultas Teknik, Universitas Negeri Surabaya, Surabaya, Indonesia
*Correspondence Email: trimutmainnah@unesa.ac.id

ABSTRACT

This study aims to enhance students' creativity in the Pengelolaan Usaha Busana (PUB/Fashion Business Management) course through the implementation of the Project-Based Learning (PjBL) model. The research employed a Classroom Action Research design conducted in two cycles. The subjects of this study were 100 students from the 2024 cohort of the Fashion Education Study Program. Data were collected through observation, questionnaires, interviews, and project assessment. The data were analyzed descriptively using quantitative approaches by calculating the percentage of creativity improvement in cognitive, affective, and psychomotor aspects. The results show that the application of the Project-Based Learning model successfully improved student creativity. Psychomotor creativity increased from 58.12% in the pre-cycle to 69.45% in Cycle I and 82.23% in Cycle II. Affective creativity increased from 56.75% to 65.48% and 79.86%, while cognitive creativity increased from 60.28% to 70.14% and 84.32%. These findings indicate that Project-Based Learning is effective in improving students' creativity in project-based learning within the PUB course.

Keywords: Creativity; Project-Based Learning Model; PUB (Fashion Business Management)

INTRODUCTION

Higher education in vocational and technical fields plays an important role in shaping graduates who are creative, innovative, and able to adapt to industrial developments. Jumini et al. (2023) emphasize that higher education is essential in fostering creativity and innovation among students, enabling them to generate new ideas and respond to evolving industrial demands. As industries continue to evolve rapidly due to technological advancements and shifting market demands, vocational education institutions are required to design learning experiences that not only provide practical skills but also foster the ability to generate new ideas and solutions. In this context, creativity becomes a crucial competency, particularly in fields such as fashion business management, where trends, consumer preferences, and production methods change dynamically. Therefore, educational programs must implement learning models that encourage active participation, collaborative problem-solving, and real-world project execution to ensure that students are well-prepared to enter competitive professional environments.

In the context of Fashion Design learning, student creativity is a major factor in creating clothing designs that have high aesthetic and functional value (Munandar, 2021). Creativity enables students to generate original design ideas, explore diverse materials, and produce fashion concepts that are both visually appealing and aligned with contemporary industry demands. According to Ye & Abd Shukor (2024), "creative thinking ability is a core competency in fashion design education, and integrating industry exposure, global perspectives, and practical application in teaching helps foster originality and trendiness in student works." This highlights the need for learning approaches that intentionally cultivate creativity so that students can develop design outputs that are not only innovative but also relevant to current market expectations.

However, initial observations show that most students still find it difficult to convey their design ideas creatively and innovatively in PUB courses. The learning process used is still predominantly conventional methods based on lectures and individual assignments, so students are less active in developing ideas and collaborating in groups. This difficulty may stem from the fact that the learning process remains heavily dominated by conventional lecture-based teaching and individual assignments, leaving little room for exploratory thinking, peer-to-peer interaction, and real-world problem solving. According to a study by Namiroh et al. (2019), the use of a project-based learning model significantly improves students' creative product outcomes in vocational entrepreneurship compared to conventional teaching methods. Moreover, in the context of vocational fashion education, the traditional pedagogical model has been criticized for limiting students' ability to think divergently; lecturers often deliver content in a unidirectional way, while students are rarely encouraged to collaborate meaningfully or co-create. Such a static learning environment may suppress creativity, reduce motivation, and prevent the emergence of innovative design ideas. For instance, in fashion design education, alternative models such as Project-Based Learning, have been shown to boost both creativity and skill competence among students by engaging them in hands-on, authentic tasks (Oktaviani et al., 2025).

The Project Based Learning (PjBL) model is believed to be a solution to this problem. PjBL emphasizes learning based on real projects, which forces students to think critically, work together, and create creative products (Barron et al., 2014; Wena, 2009). By applying this model, it is hoped that students will be able to combine theory with practice through creative and innovative clothing design and manufacturing projects. By integrating projects that mirror real-world tasks, PjBL enables students to bridge the gap between theory and practice, encouraging them to apply concepts in meaningful, hands-on ways. In the context of fashion business management, this approach could facilitate student-led design and manufacturing projects in which learners experiment with aesthetic ideas, production techniques, and functional constraints, thereby enhancing both their creativity and practical skills. Empirical research supports this: a study by Oktaviani et al (2025) found that applying PjBL in an embroidery (sulaman) course significantly increased fashion students' creativity, technical skills, and collaborative autonomy. Empirical studies in vocational fashion education indicate positive outcomes from PjBL implementation for example, Idawati et al. (2024) found that PjBL acts as an accelerator for improving textile motif design competency, enhancing students' creativity, critical thinking, and cross-disciplinary skills in SMK fashion programs. Therefore, applying PjBL in PUB courses is expected to encourage students not only to produce more original and market-relevant clothing designs but also to manage project workflows and solve practical manufacturing problems collaboratively.

Based on this, this study was conducted with the aim of determining how the application of the Project Based Learning model can increase student creativity in PUB courses.

Project-Based Learning Model

The Project-Based Learning model is a student-centered learning method, which involves participating in organized projects related to the real world. PjBL helps students learn to plan, work on, and evaluate projects together (Doppelt, 2003). According to Wena (2009), the main characteristics of PjBL consist of four things, namely: (1) focusing on real problems, (2) producing real products, (3) requiring cooperation between participants, and (4) emphasizing the process of reflection on learning outcomes.

Creativity in Learning

Creativity is defined as a person's ability to produce new and useful ideas, solutions, or works (Munandar, 2021). Guilford (1950) states that creativity can be seen in three aspects, namely fluency, flexibility, and originality in thinking. In vocational education, creativity includes the ability to think innovatively (cognitive aspect), enthusiasm and openness (affective aspect), and the ability to create works (psychomotor aspect).

PjBL and Student Creativity in PUB

The PUB course requires students to create and produce clothing products that are in accordance with the principles of design, aesthetics, and function. By applying Project-Based Learning, students are taught to design ideas, make sketches, test materials, and finally produce the finished product. This approach encourages students to think creatively, innovate, and collaborate in teams, as emphasized by Trianto (2024) who describes active learning as a process that develops higher-order thinking skills, and supported by Pahlefy et al. (2024) who highlight the role of design-based learning in fostering creativity and group problem-solving.

RESEARCH METHODS

This study used the Classroom Action Research (CAR) method, which was carried out in two cycles. Each cycle consisted of four stages, namely planning, implementation, observation, and reflection. The research subjects were 100 fifth-semester students of the Fashion Design Education Study Program. Data collection methods included questionnaires to measure creativity, observation of student activities, interviews, and assessment of fashion project results. Data analysis was performed using a percentage formula:

$$P = \frac{F}{N} X\ 100\%$$

with an indicator of success in increasing creativity by ≥15% from the pre-cycle to cycle II.

RESULTS AND DISCUSSION

After implementing the Project Based Learning (PjBL) model in the PUB course during two PTK cycles, all aspects of creativity measured (cognitive, affective, psychomotor) showed significant improvement from the pre-cycle to cycle II. Summary of results:

Table 1. Increase in Student Creativity in Pre-Cycle, Cycle I, and Cycle II

Aspect	Pre-Cycle	Cycle I	Cycle II
Cognitive creativity	60,28%	70,14%	84,32%
Affective creativity	56,75%	65,48%	79,86%
Psychomotor creativity	58,12%	69,45%	82,23%

(The figures above are the average percentages of observation instruments/questionnaires/project scores used in the study.)

Overall, the improvement from the pre-cycle to cycle II exceeded the predetermined success indicator (≥15%), so it can be concluded that PjBL is effective in increasing student creativity in PUB

courses. These findings are consistent with previous studies that show the effectiveness of PjBL for creativity and practical outcomes (see related references).

Cognitive Creativity

The results of the measurements showed a significant increase in cognitive ability, from 60.28% to 70.14%, and then rising again to 84.32%. In the project planning stage, students were asked to identify user needs or determine a theme—for example, hijab fashion for the office or an eco-fashion collection—then conduct brief research on trends and brainstorm ideas.

This series of activities encouraged students to generate a variety of ideas (divergent thinking) while selecting the best ideas based on predetermined criteria (convergent thinking). Additional tasks such as creating user profiles, analysing materials, and explaining the reasons for choosing construction techniques required students to translate aesthetic concepts into appropriate technical decisions.

This process strengthens problem-solving skills, as seen in the increase in cognitive scores. Several indicators that have improved include the ability to freely develop design concepts (original ideas and their reasons), the skill to modify designs after material testing, and the ability to solve pattern construction problems when making prototypes.

Overall, project-based learning provides a real context and project constraints (clients or themes) so that students can apply design principles while facing technical challenges. Lecturer support through provocative questions and constructive feedback also helps sharpen students' originality and depth of thinking.

Affective Creativity

The affective assessment results showed a measurable increase, from 56.75% to 65.48%, and then increased again to 79.86%. Project-based learning (PjBL) requires teamwork through the division of roles such as designer, pattern cutter, seamstress, quality controller, and documenter. Based on observations, there was an increase in active participation, communication between members, and a sense of responsibility for the team's work. Periodic reflection activities through project logbooks and inter-team presentation sessions also strengthened the sense of ownership of the project and increased motivation for independent learning. Students who were usually passive began to ask questions more often, try new ideas, and accept criticism more openly. The affective assessment included indicators such as initiative, perseverance when facing prototype failures, and the courage to accept suggestions—and all of these indicators showed significant improvement in cycle II.

Overall, a learning environment that provides freedom in projects and opportunities for public presentations (such as mini exhibitions) has proven to strengthen affective values, including pride in one's work, enthusiasm for improvement, and a professional attitude. Interaction in teamwork also contributes to improving students' social communication skills.

Psychomotor Creativity

Psychomotor assessment showed measurable changes, increasing from 58.12% to 69.45%, and then reaching 82.23%. The PjBL model requires students to produce real prototypes through a series of stages such as pattern making, fitting, advanced sewing techniques, and final finishing. Students were given time and access to various resources to carry out the iteration process, starting from sketching, mock-up creation, to the final product. The observation instrument assessed fine motor skills, stitch accuracy, neatness of finishing, and the ability to use various techniques such as raglan seams, French seams, and overlock combinations. Many groups also explored materials and finishing techniques they had never tried before, such as using thin interfacing to overcome the complexity of the material or variations in pleats to produce certain textures. These exploratory efforts contributed directly to an increase in psychomotor scores.

Overall, repeated practice accompanied by direct feedback from lecturers and peers during each learning cycle accelerated the improvement of students' technical abilities. In the context of PjBL, working on real products and the existence of deadlines helped minimize passive learning, while increasing opportunities for effective practice to strengthen psychomotor skills.

CONCLUSIONS

Based on the results of the research and discussions that have been conducted, it can be concluded that the application of the Project Based Learning (PjBL) model in the Fashion Design and Testing (PUB) course has proven to be effective in enhancing student creativity in three main areas: cognitive, affective, and psychomotor. In the cognitive aspect, students showed an increase in their ability to think creatively, analytically, and originally in developing fashion design ideas. The increase in percentage from 60.28% in the pre-cycle to 84.32% in cycle II shows that students are increasingly able to: a) Produce new and innovative ideas based on themes or user needs; b) Develop rational and aesthetic design concepts with consideration of materials, functions, and manufacturing techniques; c) Independently solve technical problems during the design and production process. This occurred because the PjBL model provided space for students to experiment, conduct small research projects, and make decisions based on the results of their reflections. In terms of affective aspects, there was an increase from 56.75% to 79.86%. Students became more motivated, confident, and had a high sense of responsibility for their work. Cooperation and communication within the group also increased significantly. Through the division of roles in the project (designer, pattern maker, seamstress, documenter), students learned to manage conflicts, respect other people's opinions, and develop professional empathy. The PjBL model has been proven to foster a positive attitude towards learning, as students feel the meaning and direct benefits of the projects they work on. In terms of psychomotor skills, there was an increase in practical skills from 58.12% to 82.23%. Students became more skilled in: a) Drawing designs and converting them into accurate construction patterns; b) Applying more complex sewing and finishing techniques; c) Innovating decorative techniques and experimenting with materials to strengthen the character of the design. The project process, which emphasized the design–prototype–evaluation cycle, accustomed students to iterative testing and refinement, accelerating the development of fine motor skills and precision in their work. Overall, the average increase in student creativity from the pre-cycle to cycle II reached more than 20%, exceeding the research success indicator. This shows that Project-Based Learning is able to integrate conceptual learning (theory) with practical skills (production) and motivate students to produce innovative and aesthetically valuable fashion works. The application of Project Based Learning in PUB courses not only increases student creativity in fashion design, but also shapes graduates who are creative, collaborative, and adaptive to the challenges of the modern fashion industry. Thus, this model is worthy of wider adoption in practice-based courses in vocational education and applied arts.

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