Improving Psychomotor Skills of Fashion Design Students through Project-Based Learning in Knitting Technique Material

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ABSTRACT

Objective: This research investigates how applying the Project-Based Learning (PjBL) approach affects students' cognitive performance in the subject of product creation using knitting techniques in Grade XI Fashion Design at VHS 8 Surabaya. **Method:** This The study utilized the Classroom Action Research (CAR) approach, conducted across three cycles that included the stages of planning, execution, observation, and reflection. Data collection was carried out through observational methods and performance-based assessments. The data were then analyzed using descriptive quantitative methods to evaluate the effectiveness of the learning implementation and the enhancement of students' psychomotor skills. **Results:** The findings indicated that the application of the PjBL model was rated as "Good," covering both student and teacher activities in collaboratively designing, conducting, and evaluating the project. Students' psychomotor learning outcomes significantly improved, with average scores increasing from 77.5 in Cycle I to 87.5 in Cycle III. The student passing rate also rose markedly, from 15.6% to 87.5%. **Novelty:** What sets this research apart is its contextual emphasis on knitting techniques in the fashion domain, highlighting psychomotor skills—an element that has frequently been neglected in earlier studies. Moreover, this study reinforces the relevance of the PjBL model in supporting the Merdeka Curriculum, which emphasizes the strengthening of technical skills, student independence, and creativity in vocational education.

INTRODUCTION

Indonesian education is continuously evolving to meet global dynamics, the challenges of Industry 4.0, and the rising complexities of labor market demands. The Merdeka Curriculum was introduced to address these challenges by granting teachers and students the autonomy to choose learning approaches that suit their needs, while focusing on strengthening 21st-century competencies, including critical thinking, innovation, teamwork, and effective communication (Darmawan & Winataputra, 2020). Within vocational schools, especially in the Fashion Design program, mastering hands-on skills like knitting is critically essential for student competence. However, learning activities in this context are still predominantly conventional and lack contextual relevance, which reduces learners' participation and prevents them from effectively mastering practical abilities.

To address this issue, Project-Based Learning (PjBL) offers a fitting solution, aligning well with the core values promoted in the Merdeka Curriculum. PjBL facilitates active and meaningful learning through authentic projects that encourage students to plan, collaborate, and reflect throughout the learning process (Afzal & Tumpa, 2025; Omelianenko & Artyukhova, 2024; Williamson, 2024). This approach has been proven to

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