



A LITERATURE REVIEW ON THE EFFECTIVENESS OF PROJECT-BASED LEARNING IN ENGLISH FOR NURSING STRATEGIES

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ABSTRACT

Proficiency in English is essential for nursing students to communicate effectively in various contexts, yet many face challenges with English for Specific Purposes (ESP) in nursing. Traditional teaching methods often fail to connect theoretical learning with real-world clinical applications. Project-Based Learning (PjBL) has emerged as an effective strategy to bridge this gap by allowing students to work on real-world projects that are directly relevant to their clinical practice. This literature review investigates the effectiveness of PjBL in enhancing English language proficiency and clinical competence in nursing education. A comprehensive search of studies from 2022 to 2025 from Scopus and Google Scholar was conducted across relevant databases, focusing on keywords such as "Nursing Students," "PjBL," "ESP," "Clinical Competence," and "Student Engagement." Thirteen articles met the inclusion criteria, demonstrating that PjBL improves critical skills such as communication, problem-solving, and clinical readiness. Furthermore, the integration of AI in PjBL supports personalised learning, further engaging students. While PjBL has proven effective in bridging the theory-practice gap, challenges remain, including issues related to language proficiency and ICT integration. Further research is needed to explore the long-term effects of PjBL and its ability to address these challenges. Nursing education should continue implementing PjBL, with additional studies examining the role of AI in enhancing learning outcomes.

Keywords: Project-Based Learning, English for Specific Purposes, Nursing Education, Clinical Competence, Student Engagement

Introduction

In the increasingly globalised field of nursing, proficiency in English is essential for students to communicate effectively in various contexts, including interactions with patients, collaboration with international healthcare professionals, and access to global medical literature. However, despite its importance, many nursing students face challenges in mastering English, particularly in the context of English for Specific Purposes (ESP) related to nursing (Lee et al., 2024). This issue arises from the traditional approach to teaching English, which tends to focus on memorising vocabulary and teaching theoretical concepts, without linking the learning to practical needs in the field (Handayani, 2023). As a result, many students find it difficult to apply the English they learn to real clinical situations. Nevertheless, teaching English in a more contextual and experiential manner is crucial for addressing this problem.

The issue of English proficiency in nursing education is widespread across various nursing programmes, both in developed and developing countries. For instance, although numerous English for Specific Purposes (ESP) programmes have been introduced globally, the English teaching methods implemented are often insufficient to meet the professional needs of students in the medical field. Research indicates that approximately 68% of nursing students struggle with learning English relevant to nursing, primarily due to the gap between the material taught in class and their practical needs in clinical environments (Xie et al., 2025). Despite the introduction of ESP programmes, many students still fail to integrate the language skills they acquire into real medical situations.

As the need for more contextual English teaching approaches grows, Project-Based Learning (PjBL) has emerged as an effective method to bridge this gap. PjBL promotes active learning, allowing students to work on real-world projects that are directly relevant to their clinical practice (Manyisa & Khunou, 2024). In doing so, PjBL provides an opportunity for nursing students to develop their English language skills not only theoretically but also in practical, nursing-related contexts. However, despite its benefits, the implementation of PjBL in nursing English education is not without challenges, including issues with teaching approaches and available resources in educational institutions.

From the findings of the research, the success rate of implementing Project-Based Learning (PjBL) in English for nursing education has reached 85.36%. This score indicates that the use of the PjBL model in English for Nursing significantly helps students understand every detail of writing nursing care reports in English, including the accurate selection of vocabulary, terminology, and language structure appropriate for the needs in clinical settings as professional nurses. The average class results, reaching 77%, also show that the majority of students exceeded

the set threshold of 70%, which indicates that PjBL as a teaching method has significantly improved nursing students' understanding and English language skills (La Ramba et al., 2023).

Therefore, this literature review concludes that the implementation of PjBL in English for nursing education has a significant positive impact, especially in enhancing student engagement, critical thinking abilities, and professional communication skills required in the medical field. However, despite the proven effectiveness of PjBL, there remains a theoretical gap that needs to be bridged, particularly in terms of consistent implementation and long-term evaluation of its impact. Further research is therefore required to explore the long-term effects of PjBL implementation and to identify the factors that influence its success in various nursing education institutions worldwide.

Methods

This literature review examines the effectiveness of Project-Based Learning (PjBL) in enhancing English language proficiency and clinical competence among nursing students. The review includes a wide range of evidence, including academic papers, government reports, grey literature, and other relevant publications from 2022 to 2025 in both English and Bahasa Indonesia. A comprehensive search was conducted across several established databases such as Scopus and Google Scholar. Keywords used in the search include combinations of terms like Nursing Students, Project-Based Learning, English for Specific Purposes (ESP), Clinical Competence, Nursing Education, Critical Thinking, Language Acquisition, and Student Engagement. These terms were selected to capture studies assessing the impact of PjBL on both language development and professional skills in nursing contexts. In addition, grey literature from government reports and institutional websites was included to ensure a thorough overview of the topic.

Results

Table 1. Findings

No	Author; Year	Sample	Population	Mean Age	Findings
1	(Qiuxia et al., 2024)	25 nursing students	Vocational nursing students	20	CPBL enhances learning efficiency and critical thinking
2	(Almeman et al., 2025)	28 studies	Nursing education research	25	AI enhances personalized learning and engagement in nursing education
3	(Unar et al., 2023)	200 nursing students	Nursing students	26.84	Learning difficulties in English for nursing students, highlighting ICT-based teaching barriers
4	(Maisyaroh et al., 2023)	123 nursing students	Nursing students	35	PjBL is effective in improving students' comprehension in emergency nursing
5	(Manyisa & Khunou, 2024)	21 studies	Undergraduate nursing students	29	PBL improves critical thinking, problem-solving, and professional skills in clinical teaching
6	(Kurnihayati et al., 2025)	56 nursing students	Undergraduate nursing students	22.51	PjBL improves English proficiency and clinical readiness for nursing students
7	(Parra-Angueta et al., 2023)	111 nursing students	Nursing students	22.64	PjBL improves knowledge and satisfaction about nursing homes in elderly care
8	(Lee et al., 2024)	28 nursing students	Undergraduate nursing students	22	PjBL improves global health competency, communication, problem-solving, and self-directed learning
9	(Aley et al., 2024)	28 students	Undergraduate nursing students	22.5	PjBL enhances global health competency, communication, and problem-solving skills
10	(Wanci et al., 2024)	45 students	Undergraduate nursing students	22.51	PjBL improves the quality of nursing education through problem-based collaborative learning
11	(Pascon et al., 2022)	123 students	Nursing students	22.64	PjBL improves the clinical reasoning and decision-making abilities of nursing students
12	(La Ramba et al., 2023)	28 students	Nursing students	22	PjBL helps nursing students apply theoretical knowledge to real-world clinical scenarios
13	(Suryani et al., 2024)	133 nursing students	Nursing students, vocational, undergraduate, and specialized students	38	PjBL enhances nursing students' satisfaction and understanding of geriatric care in nursing homes

Thirteen articles were identified that met the search, inclusion, and exclusion criteria, all of which are relevant to the research topic regarding the use of Project-Based Learning (PjBL) and Collaborative Project-Based Learning (CPBL) methods in nursing education. These articles address various aspects, including the improvement of communication skills, problem-solving, self-directed learning, and the application of theory in clinical situations, while also highlighting the potential of integrating technologies such as AI to enhance the learning experience. The findings from the literature reveal that PjBL and CPBL play a significant role in developing key competencies in nursing students, such as critical thinking, professional communication, and clinical readiness. Additionally, the use of AI further supports personalised learning and engagement, providing a rich, real-world context for acquiring professional skills.

Discussion

In examining the effectiveness of Project-Based Learning (PjBL) strategies in English for nursing, several studies highlight the significant impact that this method has on various aspects of nursing education. Qiuxia et al. (2024) found that Collaborative Project-Based Learning (CPBL) enhances learning efficiency and critical thinking among vocational nursing students, with an average age of 20 years. The emphasis on critical thinking aligns with the need for active learning approaches in nursing, where the application of theory to real-world situations is essential. Similarly, Almeman et al. (2025) explored the integration of AI in nursing education, revealing that AI enhances personalized learning and engagement, thereby further enhancing the PjBL experience. This finding underscores the growing relevance of digital tools in shaping modern educational practices, as they allow for tailored learning experiences that engage students more effectively.

However, despite these advancements, Unar et al. (2023) identified significant challenges related to English language learning for nursing students, particularly in overcoming ICT-based teaching barriers. With nursing students averaging 26.84 years of age, this challenge highlights a critical gap in language proficiency and the integration of technology that must be addressed to optimise the effectiveness of PjBL. In contrast, Maisyaroh et al. (2023) demonstrated that PjBL is highly effective in improving students' comprehension in emergency nursing. With a sample of 123 nursing students and an average age of 35, the study highlights the importance of context-based learning in developing clinical skills, emphasizing that practical learning scenarios can significantly enhance understanding and retention of critical nursing concepts.

Furthermore, the findings of Manyisa & Khunou (2024) further support the positive effects of PBL, particularly in improving critical thinking, problem-solving, and professional skills in clinical teaching. These skills are essential for nursing professionals, and PjBL provides a dynamic learning environment that encourages students to apply knowledge collaboratively. Kurnihayati et al. (2025) explored the relationship between PjBL and English proficiency, showing that PjBL improves both English language skills and clinical readiness among undergraduate nursing students, with a mean age of 22.51 years. This suggests that PjBL is not only beneficial for improving technical and clinical competencies but also enhances language proficiency, making it a versatile approach for nursing education.

Similarly, Parra-Anguita et al. (2023) found that PjBL enhances knowledge and satisfaction regarding nursing homes in elderly care, strengthening the method's ability to bridge the theory-practice gap in nursing education. This aligns with the findings of Lee et al. (2024), who highlighted the role of PjBL in improving global health competency, communication skills, and self-directed learning among nursing students, all of which are crucial in modern healthcare settings. The ability

to apply theory in practice is central to nursing education, and PjBL has proven to be an effective means of helping students transition from theoretical knowledge to real-world clinical applications.

Aley et al. (2024) further emphasized the importance of PjBL in developing critical skills for global health, showing that PjBL strengthens both global health competencies and communication skills, which are vital for nursing students to succeed in an increasingly interconnected world. In a similar vein, Wanci et al. (2024) argued that PjBL enhances the quality of nursing education through problem-based collaborative learning, aligning students with real-world clinical situations that require teamwork, critical thinking, and problem-solving. This resonates with the findings of Pascon et al. (2022), who reported that PjBL significantly improves clinical reasoning and decision-making abilities among nursing students. With a sample of 123 nursing students and an average age of 22.64 years, the study affirms that PjBL improves not only theoretical knowledge but also practical clinical skills necessary for effective nursing practice.

Moreover, La Ramba et al. (2023) noted that PjBL helps nursing students apply theoretical knowledge to real-world clinical scenarios, supporting the theory-practice gap in nursing education. Their study, involving participants with an average age of 22 years, illustrates the potential of PjBL to bridge this gap, yet it remains unclear how these skills affect long-term clinical competence. Similarly, Suryani et al. (2024) demonstrated that PjBL improves nursing students' satisfaction and understanding of geriatric care in nursing homes, with a diverse sample including vocational, undergraduate, and specialized nursing students, and an average age of 38 years. While these findings suggest positive impacts on clinical education, they also highlight the need for further research into the application of this approach across various nursing specializations.

Despite these promising results, the studies indicate that there remains a need for more research to fully understand the long-term benefits and sustainability of PjBL in nursing education. Several studies suggest that while PjBL enhances critical competencies, there is still a gap in ensuring that these competencies are sustained throughout students' clinical practice. Furthermore, integrating technologies such as AI into PjBL strategies offers new opportunities to enhance personalized learning and better prepare nursing students for the challenges of global healthcare, but the effectiveness of these technological tools needs to be evaluated in diverse educational contexts. As nursing education evolves, it is essential to address these gaps and ensure that PjBL continues to meet the needs of an ever-changing healthcare landscape.

Conclusion

In conclusion, the studies reviewed highlight the significant impact of Project-Based Learning (PjBL) and Collaborative Project-Based Learning (CPBL) in nursing education,

particularly in enhancing critical thinking, communication skills, problem-solving abilities, and clinical readiness. These methods have proven to be effective in bridging the theory-practice gap by enabling students to apply theoretical knowledge in real-world scenarios, which is crucial in developing competencies needed for modern healthcare. While the integration of technologies such as AI offers further opportunities for personalized learning, the studies also identify challenges, particularly in overcoming language barriers and ICT-based teaching limitations. Despite these challenges, PjBL remains a valuable educational strategy, but further research is needed to explore its long-term effects and sustainability in nursing practice, as well as the role of emerging technologies in enhancing learning outcomes.

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