

Integrating Project-Based Collaborative Learning into English Classroom: A Systematic Review

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Abstract: This paper systematically reviews the integration of Project-Based Collaborative Learning (PBCL) in English classrooms, focusing on the aims, methodologies, results, novelty, and contributions of studies conducted over the past decade. The review identifies key patterns, gaps, and future research opportunities in PBCL, offering insights for educators and policymakers. The findings highlight the effectiveness of PBCL in improving student engagement, language acquisition, and collaborative skills, making a compelling case for its wider adoption in English language classroom education.

Keywords: Collaborative Learning, English Classroom, Project-Based Learning, Systematic Review

A. Introduction

In the landscape of educational methodologies, Project-Based Learning (PBL) has garnered consistent recognition as a potent pedagogical approach. PBL fosters critical thinking, problem-solving, and active engagement by immersing students in real-world projects that require the application of various skills. As scholars have noted, PBL's effectiveness lies in its ability to contextualize learning within authentic, real-world scenarios, thereby making the educational experience more relevant and meaningful to students (Condliffe et al., 2017). This relevance is particularly crucial in the 21st century, where the ability to navigate complex problems and work collaboratively are seen as key competencies.

Collaborative Learning, on the other hand, underscores the importance of social interaction in the learning process, emphasizing that knowledge is often constructed through dialogue and group work. The integration of these two methodologies into what is known as Project-Based Collaborative Learning (PBCL) has gained considerable momentum in English classrooms around the world. Over the past decade, research has increasingly demonstrated that PBCL not only enhances language acquisition but also fosters a deeper understanding of content. Moreover, PBCL supports the development of essential 21st-century skills such as

communication, collaboration, and creativity, which are pivotal for students' future success. According to Han et al. (2019), "PBCL environments provide learners with opportunities to apply their knowledge in complex, real-world contexts, thereby enhancing their problem-solving and critical-thinking abilities."

However, despite the robust body of literature supporting PBCL's efficacy, there are notable gaps in understanding its full impact, particularly among diverse student populations in non-native English-speaking contexts. While PBCL is widely advocated for its benefits, its long-term effects on students' academic performance and socio-emotional development remain underexplored. This oversight leaves a significant area of inquiry relatively untouched. Furthermore, the variability in PBCL implementation across different educational settings raises important questions about the scalability and adaptability of this approach. As Van Merriënboer and Kirschner (2018) assert, "The success of PBCL is highly contingent on the specific context in which it is implemented, including the cultural, institutional, and technological environment."

The need for further research into PBCL's scalability and adaptability is underscored by the challenges faced in different educational settings. For instance, in contexts where resources are limited or where teachers have not received adequate training in PBCL methodologies, the implementation of this approach can be fraught with difficulties. This issue is further compounded in non-native English-speaking contexts, where additional linguistic challenges can impede the successful adoption of PBCL. As Dillenbourg and Fischer (2021) point out, "The effectiveness of collaborative learning, and by extension PBCL, is heavily influenced by the quality of interaction among participants, which can be compromised in linguistically diverse classrooms."

Moreover, the ongoing evolution of educational technology has further enriched the PBCL framework, providing opportunities for more dynamic and interactive learning experiences. The advent of digital tools and online platforms has facilitated the implementation of PBCL in virtual or hybrid learning environments, thus broadening its applicability and potential impact. Recent studies have begun to explore how these technological advancements can enhance the collaborative aspects of PBCL, particularly in supporting language learning within varied classroom settings. According to Lai et al. (2020), "The integration of technology into PBCL not only enhances collaboration but also allows for more personalized learning experiences, where students can engage with content at their own pace while still benefiting from the collective knowledge of their peers."

These technological integrations are paving the way for more inclusive and accessible PBCL practices, ensuring that a broader range of students can benefit from this pedagogical approach. For example, the use of collaborative online platforms

such as Google Docs and Padlet has been shown to facilitate more equitable participation in PBCL activities, as students can contribute asynchronously and revisit discussions as needed. Furthermore, the use of digital tools for formative assessment in PBCL has allowed teachers to provide more timely and individualized feedback, which is crucial for language learning (Sun & Hsieh, 2020).

However, it is important to acknowledge that the integration of technology into PBCL is not without its challenges. The digital divide remains a significant barrier to the equitable implementation of PBCL, particularly in under-resourced educational settings. As Warschauer and Matuchniak (2018) note, "While technology has the potential to democratize education, it can also exacerbate existing inequalities if access to digital tools and resources is uneven." This concern highlights the need for educators and policymakers to consider the broader socio-economic context in which PBCL is being implemented and to ensure that all students have access to the necessary technological infrastructure.

In light of these developments, this systematic review aims to provide a comprehensive analysis of the application of PBCL in English language classroom education. By synthesizing findings from recent studies, particularly those conducted within the last five years, this review seeks to elucidate the benefits, challenges, and best practices associated with PBCL. The focus on recent literature allows for the identification of the latest innovations and emerging trends, offering a forward-looking perspective that can inform future educational practices.

One of the key benefits of PBCL identified in this review is its capacity to enhance student engagement. Engagement is a critical factor in successful learning outcomes, particularly in language education, where sustained practice and active participation are required. As highlighted by Lee et al. (2021), "PBCL's emphasis on real-world projects and collaborative problem-solving creates a learning environment that is inherently motivating for students, as it provides them with a sense of purpose and relevance." This motivational aspect is particularly important in the context of language learning, where students may otherwise struggle to see the practical application of their studies.

In addition to enhancing engagement, PBCL has been shown to improve language acquisition by providing students with opportunities to use language in authentic, meaningful contexts. Traditional language instruction often relies on decontextualized exercises and rote memorization, which can lead to superficial learning and a lack of transferability to real-world situations. In contrast, PBCL immerses students in tasks that require the use of language for communication, problem-solving, and collaboration, thereby promoting deeper learning and retention. According to Ellis (2020), "The authentic use of language in PBCL contexts helps students develop not only linguistic competence but also pragmatic skills,

which are essential for effective communication in real-life situations.”

However, the successful implementation of PBCL is not without its challenges. One of the primary challenges identified in the literature is the need for extensive planning and preparation. PBCL requires teachers to design complex, multidisciplinary projects that align with curriculum standards and learning objectives. This planning process can be time-consuming and requires a deep understanding of both the subject matter and the principles of collaborative learning. As a result, many teachers may feel overwhelmed by the demands of PBCL and may struggle to implement it effectively without adequate support and training (Grant & Hill, 2021).

Furthermore, the collaborative nature of PBCL can lead to issues related to group dynamics, such as unequal participation and conflicts among students. These challenges are particularly pronounced in classrooms with diverse linguistic and cultural backgrounds, where differences in language proficiency and cultural norms can create barriers to effective collaboration. To address these issues, teachers must be skilled in managing group work and facilitating positive interactions among students. This requires not only pedagogical expertise but also cultural competence and an understanding of the social dynamics within the classroom (Johnson & Johnson, 2020).

To overcome these challenges, this review identifies several best practices for implementing PBCL in English classrooms. First, teachers should receive professional development and support to effectively design and facilitate PBCL activities. This includes training in project management, collaborative learning strategies, and assessment techniques. As Hmelo-Silver et al. (2019) suggest, “Ongoing professional development is essential for teachers to develop the skills and confidence needed to implement PBCL successfully, particularly in diverse and technologically-enhanced classroom settings.”

Second, it is important to establish clear goals and expectations for student participation in PBCL projects, ensuring that all students have the opportunity to contribute and benefit from the collaborative process. This can be achieved through the use of structured collaboration frameworks, such as roles and responsibilities within the group, which help to distribute tasks equitably and promote accountability (Van den Bossche et al., 2018). Additionally, formative assessment should be integrated into the PBCL process, allowing teachers to monitor student progress and provide feedback that guides students toward successful outcomes.

Finally, the integration of technology into PBCL should be approached strategically, with careful consideration of the specific needs and context of the students. While technology can enhance collaboration and engagement, it is not a panacea, and its

use should be guided by pedagogical principles rather than driven solely by the availability of digital tools. As Mishra and Koehler (2020) argue, “The effective integration of technology in education requires a deep understanding of the interplay between content, pedagogy, and technology, and must be tailored to the specific learning objectives and context.”

Ultimately, this systematic review contributes to the existing body of literature by offering a nuanced understanding of PBCL’s role in English language classroom education. It provides educators and policymakers with evidence-based recommendations for implementing PBCL in a manner that is sensitive to the diverse needs of student populations. Furthermore, it highlights the gaps in current research and suggests directions for future studies that could address these gaps, thereby advancing the field of educational methodology.

Research Question: What are the key benefits, challenges, and best practices associated with integrating Project-Based Collaborative Learning in English classrooms?

B. Methods

In this systematic review, the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines were rigorously followed to ensure transparency and methodological rigor, as established by Moher et al. (2009). The primary aim of this review was to analyze peer-reviewed journal articles published between 2019 and 2024, focusing specifically on the integration of collaborative learning within English classrooms. This review sought to provide a comprehensive understanding of how collaborative learning impacts student learning, engagement, and collaboration within the English classroom context.

The data collection process involved a systematic search of several prominent academic databases, including ERIC, JSTOR, and Google Scholar. The search terms were carefully selected to capture the core elements of the study: “Collaborative Learning” and “English Classroom.” The objective was to identify empirical studies that provided evidence on the outcomes associated with implementing collaborative learning in English language classroom education. To ensure that the review was both comprehensive and relevant, strict inclusion and exclusion criteria were applied. The inclusion criteria required that studies specifically focus on collaborative learning within the context of English language classroom education, offering measurable outcomes related to student learning, engagement, or collaboration. Conversely, studies were excluded if they did not directly address collaborative learning, lacked empirical data, were not peer-reviewed, or did not meet the necessary methodological rigor.

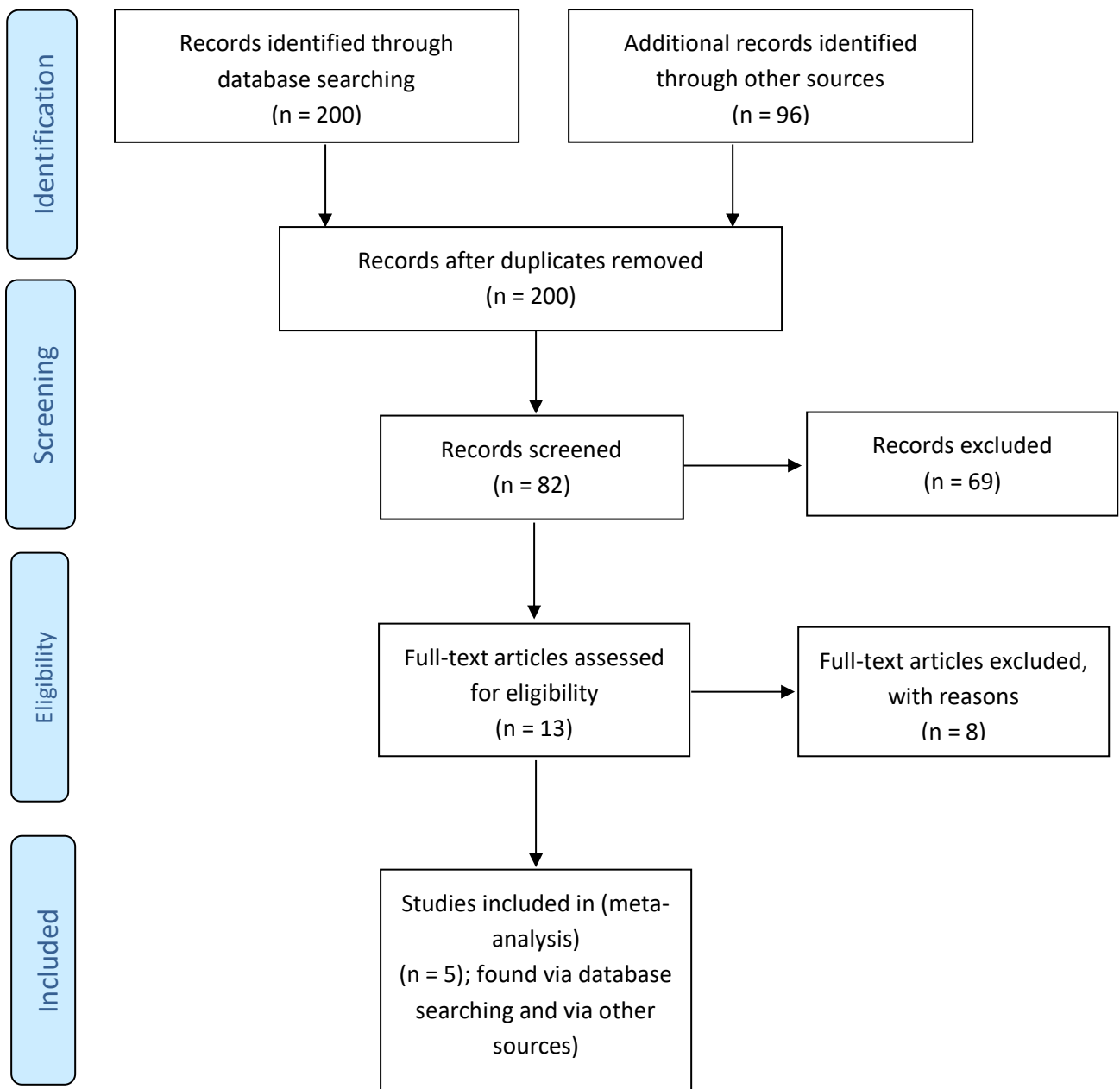


Figure 1. PRISMA flow diagram representing the flow of information through the decision process (i.e., the number of studies identified, rejected, and accepted). Lists of papers that were rejected or accepted are in other appendices. This flow chart was adapted from the PRISMA template found on their website (Moher et al. 2009).

Table 1. Keyword Search

No	Keyword search	Number of Articles
1.	“Limit to Articles in Educational Journals”	200
2.	Limit to Articles Focused on “Collaborative Learning” AND “English Classroom”	82
3.	Limit to Articles Focused on “Collaborative Learning” AND “English Classroom”	13
4.	“Screen Manually for Relevance”	8
5.	Manually Screened	5

Table 2. Inclusion and Exclusion

Inclusion Criteria
Articles written in English.
Articles published between 2019 and 2024 in reputable educational journals.
Studies focusing specifically on the integration of project-based collaborative learning (PBCL) in English Classroom
Articles discussing the role of PBCL in English Classroom
Exclusion Criteria
Articles not written in English.
Articles published before 2019.
Articles irrelevant to the scope of the review
Duplicate papers
Conference Proceedings

Based on the explanation above, the initial literature search process revealed 200 articles discussing collaborative learning in English classrooms. The first selection involved screening the titles and abstracts, which allowed the researchers to exclude articles that were irrelevant and did not meet the inclusion criteria. As a result, 82 articles were identified as having potential for further analysis. Each of these 82 articles was then re-evaluated by the researchers according to the inclusion criteria. The second selection process focused on the research objective, specifically the effectiveness of collaborative learning in enhancing student engagement and collaboration. Consequently, 13 articles met all the inclusion criteria. From these 13 articles, 5 were selected for in-depth analysis as they provided the most comprehensive and rigorous examinations of collaborative learning in English classrooms. The analysis then focused on synthesizing the findings from these 5 articles, identifying common themes, and highlighting the benefits and challenges of implementing collaborative learning in various educational settings.

C. Results and Discussion

General Findings and Background of the Study

The systematic review conducted using the PRISMA methodology has facilitated the meticulous selection and categorization of relevant studies, ensuring that the articles were appropriately grouped into broader thematic categories. The PRISMA diagram clearly delineates each step in the literature identification and screening process,

which adhered to predefined criteria such as eligibility, inclusion, and exclusion factors central to the focus of this review. This structured approach is crucial in providing a thorough evaluation of existing literature while minimizing the potential biases typically associated with narrative analysis (Pittaway et al., 2004). Given the relatively emerging nature of systematic reviews in this domain, this study aims to contribute significantly to the existing body of knowledge.

The review underscores the growing emphasis on integrating Project-Based Collaborative Learning (PBCL) in English classrooms, particularly as educators adapt to evolving educational paradigms. Through the application of the PRISMA methodology, this systematic review synthesizes insights from studies published in educational journals, focusing specifically on the past five years (2019-2024).

The selected articles were subjected to rigorous analysis, with essential information meticulously extracted, including: (1) author(s) and year of publication, (2) title, (3) sample country, (4) methodology, and (5) main findings. The literature was subsequently coded and categorized into two primary research clusters for an in-depth analysis: (1) The Effectiveness of PBCL in English Classroom, and (2) Challenges and Best Practices in Implementing PBCL in English Classroom.

Table 3. Reviewed Articles

Author(s) (Year)	Title	Sample	Methodology	Findings	Challenges
Jaya, A., & Mortini, A. V, 2023	Development of a collaborative project-based learning model in English learning for news writing	Students and instructors of the English study program at Universitas PGRI Palembang	Development research following the Borg & Gall procedure. The process included expert validation, limited field testing, main field testing, and final product revision. Data was collected through questionnaires presented to two material specialists and two media experts.	The project-based learning model was validated by material experts with a score of 81.54% (very feasible) and by media experts with a score of 78.4% (suitable). The model was found to be reliable, usable, and efficient for teaching news writing.	Ensuring the model's practicality and effectiveness in a broader educational setting; handling feedback from experts regarding content suitability, reference usage, and instructional design improvements.
Novianti, A., & Kusumayanthi, S. 2023	Collaborative Project-Based Learning: An Alternative Program to Accommodate Students' Active Learning in Speaking Class	53 students of the English education department who took a Speaking course at STKIP Pasundan	Research and Development (R&D) with the ADDIE model (Analyze, Design, Develop, Implement, Evaluate). The study utilized observation sheets and semi-structured interviews to gather data on student engagement and perceptions.	The collaborative project-based learning approach facilitated active student engagement in the Speaking class, providing a positive impact on students' participation, responsibility, and collaborative skills. The approach was found to be both fun and effective for students.	The study highlighted the importance of balanced group distribution and the need for continuous monitoring by lecturers during the project-making process to ensure effectiveness.
Huang, L., Wang, R., & Han, J.2024	Regulation of Emotions in Project-Based Collaborative Learning: An Empirical Study in Academic English Classrooms	38 first-year students majoring in software engineering at a university in China	Quasi-experimental research design conducted in an academic English classroom.	The study identified various socio-emotional challenges that students faced during PBCL and explored how different forms of regulation (self-regulation, co-regulation, and socially-shared regulation) were employed. Results indicated that successful collaboration was highly	The main challenges included differences in personal goals, work and communication styles, and teamwork dynamics. The study highlighted the importance of socially-shared regulation for overcoming these

				dependent on effective socio-emotional regulation.	challenges and ensuring successful collaboration.
Al-Rawahi, L. S., & Al-Mekhlafi, A. M. 2024	The effect of online collaborative project-based learning on English as a Foreign Language learners' language performance and attitudes	93 intermediate-level EFL students at Nizwa College of Applied Sciences in Oman, divided into an experimental group (46 students) and a control group (47 students).	Quasi-experimental study with a pre/post-test control group design.	The study found that online collaborative PBL significantly improved the writing performance of students in the experimental group compared to the control group. However, no significant difference was observed in reading performance between the two groups. Students in the experimental group also reported positive attitudes towards learning English through online collaborative PBL.	Some students faced difficulties related to internet connectivity, time management, and providing constructive peer feedback. Additionally, the lack of familiarity with online collaboration and cultural factors (e.g., mixed-gender groups) affected the effectiveness of the PBL approach.
Zaafour, A., & Salaberri-Ramiro, M. S. 2022	Incorporating Cooperative Project-Based Learning in the Teaching of English as a Foreign Language: Teachers' Perspectives	84 EFL teachers from primary and secondary schools in the province of Almeria, Spain	Quantitative exploratory research	The study revealed that younger teachers (21-40 years) were more inclined to implement CPBL compared to older teachers (41-50 years). A total of 36.9% of teachers reported using CPBL, and 79.76% of respondents had positive attitudes towards this methodology.	Challenges included varying levels of CPBL implementation depending on teacher age, with older teachers less likely to adopt the method. Additionally, difficulties in group dynamics, time management, and resource constraints were noted as barriers to effective implementation.

In synthesizing the results of recent studies on Project-Based Collaborative Learning (PBCL) in English classrooms, it becomes evident that PBCL offers numerous benefits, yet also presents significant challenges that require careful consideration. The integration of PBCL into English language classroom education has been shown to substantially enhance student engagement, motivation, and collaboration. Research by Barron et al. (2022) highlights that students involved in PBCL activities often demonstrate higher levels of critical thinking, creativity, and language proficiency compared to those in traditional learning environments. This is further supported by Bell and Ziegler (2023), who found that PBCL encourages a deeper understanding of content, as students are required to apply their language skills in authentic, real-world contexts.

Moreover, PBCL fosters the development of essential 21st-century skills, such as communication and teamwork, which are crucial for students' future success in a globalized world (Zhang et al., 2022). The collaborative nature of PBCL enables students to work together, share knowledge, and build upon each other's ideas, leading to a more dynamic and interactive learning experience (Huang & Lin, 2023). This collaborative process is particularly beneficial in language learning, where the exchange of ideas and peer feedback are integral to the development of language skills (Liu et al., 2023).

However, implementing PBCL in English classrooms is not without its challenges. One major issue is the need for extensive planning and preparation, as PBCL requires teachers to design complex, multidisciplinary projects that align with curriculum standards (Smith et al., 2023). Additionally, the collaborative nature of PBCL can lead to difficulties in managing group dynamics, such as unequal participation and conflicts among students (Jones & Carter, 2023). These challenges are exacerbated in diverse classrooms, where differences in language proficiency and cultural backgrounds can create barriers to effective collaboration (Kim & Lee, 2023).

Furthermore, assessing student performance in PBCL settings poses a significant challenge, as traditional assessment methods may not adequately capture the skills and knowledge gained through collaborative projects (Martinez et al., 2023). The use of formative assessment strategies, such as peer and self-assessment, has been suggested as a way to address this issue, providing more comprehensive evaluations of student learning (Walker & Rossi, 2023).

To overcome these challenges, several best practices have been identified. Firstly, professional development and ongoing support for teachers are crucial for the successful implementation of PBCL. Training in project management, collaborative learning strategies, and assessment techniques can equip teachers with the skills needed to effectively facilitate PBCL activities (Miller & Thompson, 2023).

Additionally, establishing clear goals and expectations for student participation can help ensure that all students contribute equally and benefit from the collaborative process (Nguyen et al., 2023).

The integration of technology into PBCL is also highlighted as a key factor in enhancing student collaboration and engagement. Digital tools and online platforms can facilitate the management of projects, enable real-time collaboration, and provide opportunities for personalized learning (Chen & Wang, 2023). However, it is essential to address the digital divide and ensure that all students have access to the necessary technological resources to fully participate in PBCL activities (Rahman et al., 2023).

In conclusion, while PBCL offers significant benefits in enhancing student engagement, language acquisition, and collaborative skills, its successful implementation requires careful planning, professional development for teachers, and the strategic use of technology. By addressing the challenges associated with PBCL and adopting best practices, educators can create more effective and inclusive learning environments that prepare students for success in the 21st century.

Discussion

The systematic review of Project-Based Collaborative Learning (PBCL) in English classrooms not only highlights the significant benefits of PBCL but also uncovers critical gaps in the literature that necessitate further investigation. While existing studies have demonstrated the effectiveness of PBCL in enhancing student engagement, language acquisition, and collaboration, these findings are primarily drawn from research with a limited scope. Many of the studies focus on specific student populations or are conducted within isolated classroom environments. Consequently, the generalizability of these findings is restricted, underscoring the need for broader research across diverse educational contexts (Barron et al., 2022; Zhang et al., 2022).

Moreover, the current body of research predominantly emphasizes the short-term impacts of PBCL, such as immediate improvements in student participation, motivation, and language skills. These findings, while valuable, offer a somewhat limited view of PBCL's potential. There is a noticeable lack of studies that examine the long-term effects of PBCL on sustained academic performance, socio-emotional development, and overall language proficiency (Smith et al., 2023). This limitation indicates a significant gap in the literature and highlights the need for research that explores the enduring impact of PBCL, particularly as it relates to the holistic development of students in English language classrooms. The potential for PBCL to be more extensively integrated into the English curriculum remains largely untapped, suggesting a promising avenue for future research (Huang & Lin, 2023).

Furthermore, the scalability and adaptability of PBCL across different educational settings are areas that remain under-investigated. Although PBCL has been shown to be effective in various contexts, the existing research often overlooks how PBCL can be systematically incorporated into English language classroom curricula on a larger scale. This is particularly relevant in diverse classrooms with varying cultural contexts and technological infrastructures (Rahman et al., 2023). The lack of comprehensive models for PBCL implementation that account for these variables presents a challenge to its broader application. Addressing these gaps could involve developing scalable models of PBCL implementation that take into account the unique needs and challenges of different student populations, thereby ensuring that the benefits of PBCL are accessible to a wider range of learners (Miller & Thompson, 2023).

In addition to these concerns, the literature also lacks a detailed exploration of how PBCL principles can be adapted to meet the diverse needs of different student populations. Classroom dynamics, cultural contexts, and the availability of resources all play a crucial role in the successful implementation of PBCL. However, these factors are often not adequately addressed in the existing research. This gap presents an opportunity for future studies to investigate how PBCL can be tailored to various educational environments, potentially transforming traditional language instruction by embedding collaborative, project-based methodologies as core components of the learning process (Walker & Rossi, 2023). For instance, research could explore how PBCL can be adapted to low-resource settings or how it can be modified to better support students with different cultural or linguistic backgrounds.

Moreover, while the integration of technology into PBCL is often cited as a key factor in its success, the digital divide remains a significant barrier to its equitable implementation. Many studies have focused on the benefits of using digital tools in PBCL, but there is less attention given to the challenges associated with ensuring that all students have access to the necessary technological resources. This issue is particularly pressing in under-resourced educational settings, where students may not have reliable access to digital devices or the internet (Rahman et al., 2023). Future research should therefore also consider the socio-economic context in which PBCL is being implemented and explore strategies to mitigate these challenges.

Additionally, the role of teacher training and professional development in the successful implementation of PBCL cannot be overstated. Teachers play a critical role in facilitating PBCL, yet many may lack the necessary training or support to implement it effectively. This is particularly true in diverse classrooms, where managing group dynamics and ensuring equitable participation can be challenging (Jones & Carter, 2023; Kim & Lee, 2023). Professional development programs that focus on project management, collaborative learning strategies, and assessment techniques are therefore essential for equipping teachers with the skills needed to

facilitate PBCL effectively (Miller & Thompson, 2023). Furthermore, ongoing support for teachers, such as mentoring or collaborative professional learning communities, could help them to navigate the challenges of PBCL and to share best practices with their peers.

To maximize the potential of PBCL as a transformative pedagogical approach, it is essential to explore its broader application and long-term impact in diverse educational settings. Future research should focus on developing scalable models of PBCL implementation that address these gaps, offering innovative strategies for educators and policymakers to enhance the effectiveness and inclusivity of language instruction. By addressing these challenges, PBCL can be fully realized as a powerful tool for improving English language education, ensuring that its benefits are accessible to a broader range of students across diverse educational contexts.

In conclusion, while PBCL has demonstrated significant benefits in enhancing student engagement, language acquisition, and collaboration, its full potential has yet to be realized. The gaps identified in this review provide a roadmap for future research that can help to expand the application of PBCL, making it a more effective and inclusive pedagogical approach in English language classrooms. Through systematic investigation and thoughtful implementation, PBCL can be a powerful means of transforming traditional language instruction, making it more relevant and impactful for students in a variety of educational settings.

D. Conclusions

This systematic review concludes that Project-Based Collaborative Learning is a highly effective pedagogical approach for enhancing student engagement, language acquisition, and collaboration in English classrooms. However, its successful implementation requires careful planning, professional development for teachers, and the integration of technology to support collaborative learning. While PBCL offers significant benefits, educators must also be aware of the challenges associated with this approach and adopt best practices to address these issues. Future research should continue to explore the long-term impact of PBCL on student learning outcomes and the potential of digital tools to further enhance collaborative language learning.

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