ORIGINAL ARTICLE

THE IMPLEMENTATION OF PROJECT-BASED LEARNING (PjBL) IN WRITING SKILLS: AN ANALYSIS OF LEARNING APPROACH

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Abstract

Project-based learning (PjBL) is a pivotal approach in language education, which aligns seamlessly with the demands of the 21st century. Essentially, the importance of the constructivist approach has become more significant in recent years to create effective teaching and learning strategies. The 21st century has provided significant contributions to the evolution of contemporary language acquisition. As such, focusing on students' needs and evaluating the effectiveness of existing teaching methods in preparing students to master the language proficiently are crucial in this dynamic landscape. The need to enhance language proficiency, particularly writing skills, has prompted educators to seek novel approaches to student engagement in Malaysia. English, which is recognised as the second language, plays a pivotal role in primary, secondary, and tertiary education. The prevalence of unsatisfactory English writing skills among Malaysian students underscores the significance of implementing effective strategies to address the current issue. Hence, highlighting and adopting innovative approaches to elevate Malaysian students' English writing skills are vital. The present study aims to appraise teachers' and students' acceptance and perceptions of implementing PjBL in writing skills. A document analysis method was employed through secondary resources to determine the PjBL effectiveness in enhancing students' writing skills. Discussions and recommendations were also provided to relevant parties regarding PjBL as an innovative approach to improving writing skills.

Keywords: Project-based learning, writing skills, constructivism theory, English language, teachers, and ESL learners.

Introduction

Education is the fundamental pillar of national development, which includes a comprehensive and robust educational system. Educational transformations are required for Malaysians to effectively compete internationally. The 21st century has contributed significantly to the changes in contemporary language teaching and learning in recent years. Educational restructuring and strategies should prioritise students and assess the effectiveness of existing teaching methods adequately in facilitating the development of students' language abilities and practical application beyond the classroom. Specifically, teachers are motivated to search for alternative teaching approaches to assist students in improving language skills. A holistic teaching strategy recommended for teachers is project-based learning (PjBL), which has gained increased attention in education. The PjBL role is explored as an alternative to traditional methods to promote 21st-century skills. Specific PjBL characteristics allowing students to be independent and cooperative are deemed to be capable of improving students' English proficiency (Nur Shafiekah et al., 2019)[1]. Students could obtain positive learning results by incorporating authentic resources to acquire English skills and a more profound understanding by being immersed in simulated experiences.

The PjBL originated from educational philosophers, such as John Dewey, in the early 20th century and was developed progressively until contemporarily. The main purpose is to engage students with the curriculum and encourage proactive attitudes without compromising on knowledge and fundamental skills (Guo et al., 2020)[2]. The PjBL serves as an innovative learning approach in education and represents 21st-century educational needs (Al-Busaidi & Al-Sayebi, 2021)[3]. The PjBL implemented by teachers in the classroom will benefit students to independently explore respective ideas and concepts, thereby enabling students to perform decisions that directly impact project outcomes and the overall learning process (Melor et al., 2020)[4]. The PjBL has been demonstrated as a versatile technique applicable in several sectors throughout educational history. The PjBL is actively employed in medicine, engineering, law, and various other highly skilled disciplines. Moreover, PjBL is widely employed by educators in facilitating language acquisition (Duke et al., 2021)[5].

The PjBL is popular across the world among the top universities in various fields. The current trend is observed in language learning. Furthermore, learning a language is a social and dynamic process (Guo et al., 2020)[2]. The PjBL allows students to interact with one another, which contributes positively to the success of PjBl in teaching and learning languages. Integrating PjBL allows the students to utilise the language in negotiating an actual and real-life situation, apart from working in groups and communicating to resolve issues (Susanti et al., 2020)[6]. The PjBL

also provides English as a Second Language (ESL) learners with an alternative perspective (Lu, 2021) as writing skills are the most difficult skills to learn in the language learning process. Thus, PjBL is perceived to be capable of assisting students in writing more efficiently, especially in tertiary education. Students would not realise the benefits when being keen on working collaboratively. Educators and students might have overlooked the advantages and importance of PjBL in writing skills and how PjBL efficiently assists in enhancing writing abilities.

Methodology

The current study employed the document analysis method to analyse students' and teachers' acceptance and perceptions of implementing PjBL in writing skills. Content analysis was performed with secondary data, which were collected from 23 studies in written publications related to the general PjBL issue and PjBL as the intervention for ESL learning, especially writing skills. Relevant articles were searched from different search engines, including Science Direct (http://www.sciencedirect.com/), ERIC (https://eric.ed.gov/), Semantic Scholar (https://www.semanticscholar.org/me/research) and Google Scholar (https://scholar.google.com/). The articles were identified based on keywords, such as 'project-based learning', 'project-based learning in writing skills', 'project-based learning as a constructivist approach', 'project-based learning impacts on writing skills', 'project-based learning in enhancing students' writing skills', and 'teachers' perception on project-based learning'. Resultantly, a total of 109 articles were identified, with only 22 remaining after the second stage of the screening process. A total of 70% of the articles were related to PjBL in writing skills, with the remaining associated with general PjBL. The selected articles focused on PjBL issues in several countries, namely Indonesia, Malaysia, China, and Saudi Arabia. The identified articles primarily served as a reference in analysing PjBL as a learning approach.

Results and Discussion

The PjBL Development in Writing Skills

The PjBL is not only a practical method but also an alternative instructional model. The approach is crucial to optimising learning activities owing to involving learners in constructing knowledge through meaningful projects and real-world product development (Duke et al., 2021)[5]. The creative process also necessitates collaborative efforts among learners to resolve real-world issues and foster knowledge integration, application, and construction (Lu, 2021)[7]. Instructors, educators, and teachers frequently act as facilitators to provide valuable feedback and support in enhancing students' learning experiences. The PjBL has evolved into a more sophisticated instructional strategy for kindergarten through grade 12 (K-12) education in the 21st century. A PjBL environment promotes student engagement via experiential learning, offers students greater autonomy in selecting preferred areas of study, and empowers students to embrace the ownership

of personal learning journeys (Melor et al., 2020)[4].

Elite universities implemented PjBL and demonstrated that students exhibited superior performance in mathematics, problem-solving, and strategic planning when compared to the peers attending conventional schools (Guo et al., 2020)[2]. Although PjBL usage is currently limited to only several schools, this approach is anticipated to expand and thrive in the future. The fundamental elements in contemporary PjBL, which adhere to the standards, provide potent foundations for the ideas and efforts of prior philosophers and educators. Specifically, authenticity, contemplation, continuous inquiry, and student voice and choice are enduring and influential elements in the modern classroom (Alotaibi, 2020)[8]. Therefore, the primary difference from traditional English teaching is the high emphasis on the communicative and functional aspects of language learning by focusing on the integrity of language and content learning (Guo et al., 2020)[2].

While PjBL is extensively applied and recognised for the suitability in the science, technology, engineering, and mathematics (STEM) education field, more implementation is observed in language acquisition. The efficacy and relevant benefits in enhancing students' language proficiency and self-assurance evoked a significant interest in integrating PjBL into second language teaching through the practice of the major four skills, namely reading, writing, listening, and speaking. The proper implementation in teaching language is teachers' top priority as Malaysian students generally demonstrate unsatisfactory performances in English language examinations, especially writing. Students' low performance in English writing motivated the Malaysian Ministry of Education to ensure teachers improve teaching and learning approaches simultaneously with continuous knowledge expansion in a highly technological society. The goal of enhancing teaching quality corresponds with the study aim to determine the effective PjBL approaches in assisting ESL students to improve writing skills.

Kemaloglu-Er (2022)[9] discovered that integrating PjBL in tertiary learning activities would motivate students to participate and improve personal knowledge while improving ESL students' writing skills significantly compared to other skills. The findings aligned with the postulation that PjBL would significantly motivate ESL learners in ESL learning. Therefore, PjBL is suitable for language teaching and learning, especially writing skills (Praba et al.,2018)[10]. Cahyaningrum and Widyantoro (2020)[11] compared three different approaches to improving ESL students' writing, namely PjBL, problem-based learning (PjBL), and traditional teaching methods. The results revealed that PjBL students' post-test scores were the highest compared to other groups. Moreover, PjBL engaged students more with the learning content, which suggested a strong correlation between motivation and writing proficiency. The findings also emphasised the importance of creating a conducive learning environment to enhance both motivation and skills. Similarly, Melor et al. (2020)[4] demonstrated that PjBL allowed ESL learners to resolve challenges in writing collaboratively through interaction and discussion. The collaborative environment was constantly maintained for PjBL students to complete the work in groups. Resultantly, students possessed a deeper understanding of writing for the provided topic while enhancing self-confidence.

Learning Theories on PjBL

PjBL was frequently correlated to constructivism theory in previous studies (Nurul Farhana et al., 2017)[12]. The existing literature demonstrates that the constructivism theory is the most suitable theory to further support PjBL studies (Nurul Farhana et al., 2017)[12]. The constructivism theory depicts the process of learners constructing knowledge based on experiences rather than passively receiving information. Notably, learners are more inclined to experiment with the subject instead of relying on rote memorisation. As such, the PjBL approach is highly associated with this conception. Constructivism is defined by prominent scholars as a paradigm comprising two main dimensions, namely cognitive constructivism and social constructivism. Cognitive constructivism posits that knowledge construction is contingent upon an individual's interpretation of personal active experiences (Pandya, 2018)[13]. The concept was further elaborated on by the renowned scholar Jean Piaget. Social constructivism was developed by Les Vygotsky, which asserts that knowledge is actively formed via social interaction and cooperation (Saleem et al., 2021)[14].

The constructivism theory is one of the pivotal theories for this study due to the importance of cognitive development and social interactions in establishing meaningful learning (Nurul Farhana et al., 2017)[12]. Meaningful learning is required for ESL students to enhance writing components and develop writing strategies. Accordingly, PjBL is considered one of the approaches for students to develop meaningful learning through interactions and communications. Implementing PjBL as a teaching and learning method could also provide a significant impact according to cognitive constructivism. Learners could develop critical thinking and problem-learning skills (Tamimi & Salamin, 2020)[15], which allows autonomous reasoning. Meanwhile, cognitive theory propounds engaging with subjects as active participants in the learning process. Learners should actively enhance and apply personal knowledge to surroundings. Essentially, cognitive constructivism highlights the individual's cognitive processes and abilities to integrate different information with previous knowledge. The cognitive constructivism technique could be effectively applied in English language teaching and learning. Students could employ current information stored in the schemata to construct alternative knowledge acquired in the classroom (Pandya, 2018)[13]. Students would consider the most efficient method to utilise the knowledge upon receiving the input. Thus, teachers play a vital role in enabling knowledge acquisition by offering appropriate directions and essential resources to students.

Students should perform critical thinking in writing. Students are not solely reproducing information when being engaged in writing. Instead, students are actively developing phrases and paragraphs to effectively communicate personal perspectives. The writing approach enables students to pay more attention to language structures and grammar. The PjBL fundamental is to improve students' cognitive abilities to enhance writing skills and proficiency. Additionally, PjBL is highly correlated to the social constructivism theory (Nurul Farhana et al., 2017)[12]. Particularly, PjBL students could work collaboratively in various writing activities. Social constructivism is an educational method underscoring students' active participation, discussion, and information exchange (Saleem et al., 2021)[14]. The theory corresponds to the primary PjBL feature, wherein

students are organised into groups in a PjBL environment. Educators would facilitate opportunities for students to communicate and collaborate with classmates in encouraging active participation in project discussions. Language instructors should employ a constructivist approach, including PjBL, to provide cognitive and social advantages for students. The approach would not only enhance students' social aptitude but also improve writing proficiency. Therefore, this study explored how PjBL assisted language teachers in enhancing students' writing performance via constructivism theories in language teaching and learning.

Applying PjBL in Writing Skills

Teachers' and students' PjBL acceptance levels would determine the implementation of PjBL as part of tertiary students' learning processes in language learning, including writing skills. The acceptance would also determine whether PjBL could replace the traditional approach. In addition, students' perceptions are integral as effective teaching would significantly impact students' performance (Tamimi & Salamin, 2020)[15]. Therefore, teachers' and students' perceptions were defined in the current study as teachers' and students' opinions on PjBL implementation in terms of writing skills. Both positive and negative perceptions were employed to investigate PjBL implementation in enhancing writing skills. Specifically, teachers' PjBL acceptance and perceptions depended on the actual PjBL effectiveness in ESL teaching and improving teaching methodologies. Kemaloglu-Er and Sahin (2022)[16] discovered various factors that contributed to different PjBL perceptions and acceptance among teachers. Certain PjBL advantages encompassed increased engagement, real-world application, collaborative learning, and adaptability and flexibility in teaching.

PjBL enhances student engagement by providing hands-on and meaningful learning activities. Teachers would subsequently observe a heightened passion level among students, which results in a more dynamic and interactive classroom atmosphere (Praba et al., 2018)[10]. Furthermore, PjBL promotes the practical application of acquired information to real-life situations. Teachers may illustrate the practical significance of each educated content by creating and guiding projects, which would further enhance PjBL significance for students (Lu, 2021)[7]. Previous academicians (Praba et al., 2018; Kusmartini, 2018)[10][17] also examined the impact of integrating PjBL as a teaching approach on fostering collaboration among students. The approach provides multiple advantages for teachers, including observing and supervising joint endeavours, refining the abilities to manage group interactions, and fostering efficient cooperation. Wardani et al. (2020)[18] also revealed that PjBL allowed teachers to be flexible in integrating the approach into the learning process. Adaptability is necessary due to the dynamic nature of PjBL. Teachers would acquire the ability to adapt existing teaching methods while modifying techniques according to project development and students' needs. Hence, higher adaptability leads to enhanced resilience and versatility in teaching.

Implementing PjBL in writing courses could be highly challenging. Nurkhamidah (2023)[19] explicated seven challenges, with creating the project, managing the group work, and insufficient

time for planning and implementing as the most challenging aspects. Particularly, the creation of the project was the most difficult component (Nurkhamidah, 2023)[19] as the initial stage involved identifying the central topic and desired outcomes that required the joint approval of both teachers and students. Teachers must amass a substantial amount of information to assist in formulating the project. Teachers might encounter difficulty in determining the most optimal and efficient project to be conducted in the writing class owing to multiple factors to be considered, including student characteristics and the learning environment. Nonetheless, PjBL allows students to engage in autonomous work or collaborate in small or large groups, which is highly recommended to cultivate collaborative abilities (Deveci, 2018)[20]. Teachers serve as facilitators to effectively direct students in the learning journey and monitor students' collaborative work through instructional strategies in classroom management (Aghayani & Hajmohammadi, 2019)[21]. The PjBL also minimises the amount of time on teacher-directed seatwork or class discussions. Students' time will be dedicated to independent work or collaborative activities in small groups, although teachers might encounter challenges in coordinating group work.

Teachers encounter a further obstacle, namely limited time for planning and implementing PjBL activities in the writing class. The teacher must possess the ability to effectively allocate time to guide students in successful project completion. Educators must also strategise teaching-learning activities before conducting teaching. Effective planning is crucial for teaching and learning to reduce class management issues while promoting academic achievement (Lu, 2021)[7]. Instructors may require more time to implement PjBL as strategic and efficient learning necessitates careful preparation. The process involves identifying the project type, selecting the learning source, planning writing activities, executing the activity, and evaluating the project (Wardani et al., 2020)[18]. Thus, teachers should be provided with adequate time to include planning in teaching and learning activities. Additionally, PjBL acceptance by students is a critical factor in determining students' positive attitudes towards PjBL, which may differ based on personal perspectives on whether PjBL benefits ESL learning, including enhancing English writing skills. Past scholars (Lu, 2021; Kemaloglu-Er, 2022)[7][9] demonstrated various benefits of PjBL implementation in supporting students' writing skills. Students with limited English ability might struggle to adapt to PjBL as English was the primary language in writing courses. Individuals might also experience difficulties in interacting and connecting with other participants in a PjBL environment when PjBL prioritises collaborative learning. Students might feel intimidated by other students' higher levels of English ability when the project is completed in pairs or small groups.

Guo et al. (2019)[2] delineated that the prospect of engaging in English language communication and discussion might intimidate PjBL students. Nevertheless, consistent practices and regular application of effective learning strategies would assist students in becoming gradually acquainted with English. Students' self-discipline levels would also significantly influence PjBL effectiveness in ESL learning, especially writing skills (Wardani et al., 2020)[18]. Melor et al. (2020)[4] also examined the effects of incorporating PjBL into English writing courses, which revealed that PjBL significantly improved students' writing components. Specifically, PjBL was

perceived by students as collaborative and enjoyable to assist in improving writing components in assigned tasks. Similarly, Wardani et al. (2021)[22] elucidated that the most effective method of improving English writing is involving students in a collaborative environment. The improvement was observed in terms of grammar, vocabulary, organisation, content, and mechanics. Kemaloglu-Er (2022)[9] also discovered that students' communication skills and vocabulary were significantly improved through collaborative learning and interactions after PjBL was implemented in writing classes.

The PjBL is an innovative learning approach (Lu, 2021)[7] expected to assist learners with the practice of self-centred learning, especially writing skills, through feedback and discussion. and this has improved students' critical thinking. The PjBL involves students in genuine and practical situations to stimulate critical thinking on the subject (Puangpungsi, 2021)[23]. Students would be prompted to examine materials, identify pertinent facts, and perform well-informed choices in organising written assignments when students engage in writing projects that simulate real-world scenarios. The practical setting acts as a stimulus for critical thinking and motivates students to achieve a deeper comprehension and explore the intricacies of the subject. Moreover, collaborative writing projects provide students with the opportunities to encounter other perspectives and concepts. Students would be motivated to analyse different viewpoints, evaluate the merits and drawbacks of each argument, and participate in meaningful learning (Deveci, 2018)[20]. Students would improve personal capacities to scrutinise material and produce high-quality manuscripts during the collaborative process.

Conclusion

Past PjBL studies demonstrated that PjBL provided a solid approach for teachers to transform and improve the existing teaching curriculum, despite only limited studies appraising PjBL in terms of writing skills. The dynamic nature of PjBL enables educators to develop curriculum components highly correlating to real-world problem-solving, thereby increasing the relevance and application of classroom content. Furthermore, PjBL not only benefits teachers but also empowers students. Students could gain meaningful learning that indirectly assists in improving English writing subconsciously, which would corroborate PjBL effectiveness in providing catalysts for students to improve writing skills. Summarily, the current study would be beneficial to all relevant parties in ESL learning, especially writing skills.

Acknowledgment

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