The Impact of Incorporating Project-Based Learning (PjBL) in Pre-University Courses on Language Skills Development

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ABSTRACT

This research investigates the impact of integrating project-based learning (PjBL) into Teaching English as a Second Language in pre-university courses to enhance language skills development. Despite the growing emphasis on communicative and interactive approaches in language education, traditional teaching methods in English language courses at tertiary level studies often fall short in actively engaging students and fostering practical language skills. Many students struggle with applying language concepts in real-world contexts, leading to insufficient proficiency in listening, speaking, reading, and writing. The study examines how PjBL methodologies influence students' proficiency in listening, speaking, reading, and writing within the tertiary level English language teaching and learning context. A mixed-methods approach is employed, utilizing both quantitative assessments of language skill outcomes and qualitative analysis of student perceptions and experiences. A survey questionnaire consisting of both close and open-ended questions is created to obtain responses for the mixed method. Findings suggest that PjBL fosters significant improvements in language acquisition by promoting active engagement, authentic language use, and collaborative learning. Implications for curriculum design and instructional practices in English language teaching and learning practices are discussed based on the study's outcomes.

Keywords: PjBL, life skills, practical language skills, motivation

INTRODUCTION

Amidst the on-going debate whether “grammar or fluency should take precedence in second language acquisition”, Gianfranco Conti (2025) takes a stand to emphasise the communicative ability as having a “more significant role in real world language use”. Cassells (2024), on the other hand opines that prescribed, out of context teaching of “grammar and mechanics” has been found to be unproductive. In fact, Cassells further cautions that overt teaching of grammar rules can adversely affect student learning. ESL teachers, in their pedagogical endeavours, were observed to be attempting to strike a balance between language-based instruction which underscored the teaching of grammar or content-based lessons that implicitly teach grammar using a topic (Maguire, 2019). Examination oriented education systems offer no positive implication onto the teaching of communicative language either, since assessments focus on out-of context language use. As a consequence, speaking and writing skills suffer obvious neglect as in the Chinese EFL teachers' situation where they resort to traditional grammar-translation methods despite the calls for the implementation of communicative language teaching approaches (Lawrence Jun Zhang & Qiang Sun, 2022). Apart from that, Lawrence Jun Zhang & Qiang Sun (2022) citing Richards and Rogers (2015), Richards (2018) and Sun and Zhang (2021) expressed the downside to the focus of grammar rules and sentence structure that emphasises vocabulary and written language. They stressed that this practice produces “deaf and dumb” learners who gain inadequate listening and speaking skills which lead to the inability to communicate in English.

Having identified the shortcomings of grammar rule based English language teaching approaches, gradual introduction of new pedagogical trends such as PjBL (Johnson, 2014; Li, 2017; Smith & Brown, 2020 cited in Stenlly Sedubun ,2024), and technological advancements are viewed as revolutionized moves towards meeting the current needs of TESL. Contemporary methods now integrate digital tools and innovative instructional strategies to enhance language learning. Among these, project-based learning (PjBL) has gained prominence as an effective approach that combines the principles of CLT with experiential learning. This approach marked a significant departure from traditional methods, placing a greater emphasis on speaking and listening skills, and fostering a more dynamic and student-centered learning environment. PjBL involves students working on extended projects that require critical thinking, collaboration, and the practical application of language skills (Beckett & Slater, 2020). This paradigm-shift towards communicative language teaching (CLT) aimed to develop learners' ability to communicate effectively and appropriately in various social contexts, emphasising interaction and the practical use of language in real-life situations was needed to include the enhancement of students' communicative abilities while assisting them to acquire and practice the grammar rules.

PROBLEM STATEMENT

While PjBL has been widely researched across STEM, life skills, motivation, and language learning (Indranuddin et al., 2024; Musahal et al., 2024; Purwaningsih et al., 2020; Winarmi et al., 2022). However, very limited attention has been directed toward its application in pre-university language classrooms. This level of study is a crucial transitional stage where learners consolidate linguistic competence in preparation for tertiary education. The reviewed studies affirm PjBL's potential to enhance critical thinking, collaboration, motivation, and communicative competence, yet the absence of targeted research in pre-university contexts leaves questions about its adaptability and impact in this specific setting. Addressing this gap is essential, as pre-university programs often serve as linguistic gateways to academic success. Thus, this study seeks to explore how PjBL can be harnessed to develop language skills holistically while equipping learners with the autonomy, motivation, and collaborative capacities needed for higher education.

English language proficiency is a critical competency for academic success, and global communication and tertiary-level English language courses frequently rely on traditional pedagogical approaches that prioritize passive knowledge acquisition over active skill application. Such methods, which emphasize rote memorization of grammar rules, vocabulary drills, and standardized testing, often fail to engage learners in meaningful, context-driven language use (Thomas, 2000). This reiterates Richards & Rodgers' (2014), suggestion that, while producing rule-competent students through traditional methods was a successful endeavour, the traditional methods, despite their effectiveness in producing competent students who possessed sound knowledge of the rules of English, often neglected the development of communicative competence. Consequently, students struggle to transfer classroom knowledge to real-world scenarios, resulting in persistent deficiencies in integrated productive language skills—particularly in speaking and writing, which demand higher-order cognitive and communicative abilities (Stoller, 2006).

In the Malaysian context, English enjoys the status as a second language, a critical and profound position as a language of commerce, education and management, which is made more crucial with the use of IT whose skills cannot be acquired without average level of proficiency in the English language (Azlina & Saraswathy, 2021). In addition, the acquisition of English as a second language involves bringing into one's grasp the four language skills, failing of even one would adversely affect the mastery of the other three skills (Christopher, 2016 cited in Azlina Abdul Aziz, 2021). Pre-university students of English language courses, being the focus group of this study, often struggle with three major challenges that hinder effective language acquisition due to their learning styles and approaches which are mainly passive learning, lack of real-world application, and low student engagement. These issues persist despite advancements in communicative language teaching (CLT) and task-based learning (TBL). Many university English courses still follow traditional lecture-based methods, where students passively receive knowledge rather than actively practicing language skills. This approach limits opportunities for meaningful interaction and critical thinking. Students in teacher-centred classrooms displayed insufficient retentivity abilities of language skills compared to those in active learning environments (Almulla, 2020) Passive instruction fails to develop fluency, as learners rarely engage in spontaneous communication. Parrado-Martínez & Sánchez-Andújar (2020) observed that students in conventional ESL courses struggled with

speaking and writing because they had few chances to apply knowledge in interactive settings. Chen & Yang (2023) noted that lecture-based methods are less effective than experiential approaches (e.g., PjBL) in fostering long-term language retention.

Notably, despite growing advocacy for experiential learning frameworks like project-based learning (PjBL) in pre-university education, its adoption in tertiary English as a Second Language (ESL) contexts remains underexplored. Existing studies on PjBL focus predominantly on STEM disciplines or younger learners (Beckett & Slater, 2005), product based vocational learning process to meet the needs of industry (Nizwardi Jalinus, Rahmat Azis Nabawi, Aznil Mardin, 2017), the impact of PjBL on the acquisition of mathematical competency (Y.Yunita et al., 2021), among others, leaving gaps in understanding its efficacy for adult language learners in higher education. This disconnect raises critical questions: Can PjBL address the limitations of conventional ESL instruction at the university level? How might its emphasis on collaboration, authentic tasks, and learner autonomy influence holistic language development?

Aims Of Study

This study aims to assess the impact of incorporating PjBL into TESL pre-university courses on the development of language skills. By evaluating both quantitative outcomes and qualitative experiences, this research seeks to provide a comprehensive understanding of how PjBL influences language proficiency and learner engagement. Hence, the objectives of this study are firstly, to find out how PjBL influences the acquisition of listening, speaking, reading and writing skills among students of pre-university TESL courses and to examine the students' perceptions of project-based learning in TESL pre-university courses, focusing on its impact on their motivation, engagement, and overall language development. The aims are to be fulfilled by structuring the study to answer three research questions which are 1. How does PjBL influence the acquisition of listening, speaking, reading and writing skills among pre-university students? 2. What are student perceptions of PjBL in language learning? The completion of this study would offer empirical base on the impact of PjBL integration on ESL learners' listening, speaking, reading, and writing skills in tertiary education. By addressing the scarcity of context-specific research, it aims to provide actionable insights for curriculum designers and educators striving to align pedagogical practices with the dynamic communicative demands of the 21st century particularly for pre-university English language courses.

The findings of this study will contribute to the ongoing discourse on effective TESL methodologies and offer insights for educators and curriculum designers aiming to enhance language education through innovative approaches.

LITERATURE REVIEW

Theoretical Base of Study.

Project based learning is a response to a significant shift in educational needs of the 21st century learning context. Present day students are expected to possess multiple real world skills that are applicable across multitude of fields and contexts Project based learning, as such, serves to fulfil the crux of education today; the intent in nurturing learners to develop the ability to not only adopt skills applicable in authentic real world situations but also incorporate "critical inquiry, problem-solving, and collaborative engagement" (Suherman et al., 2021; Rehman et al., 2021a cited in Rehman et al (2024).

Project based learning, therefore, entails students engaging in the activity over an extended period, either collaboratively in groups or individually with guidance provided by teacher/facilitator. Project-based learning (PjBL), unlike other student-centred approaches to teaching(Blumenfeld et al., 1991; Helle, Tynjälä, & Olkinuora, 2006 cited in Pengyue Guo et al., 2020) is an inquiry-based instructional method that draws upon learners' participation in knowledge construction by completing extended tasks, or projects which emulate real world use of knowledge and skills (Pellegrino & Hilton, 2012; Peterson, 2012, as cited in Krajcik & Shin, 2014). Project based learning is also a learning approach in which students' collaborative team learning emphasising on examining real-life problem, designed to align with the school curriculum, competencies required for the 21st

century encompass "transferable knowledge" and the ability to understand "how, why, and when to apply this knowledge" (Pellegrino & Hilton, 2012, cited in Condlife, 2017).

The outcome of this approach is that they gain knowledge and skills by working for an extended period of time to investigate and respond to an authentic, engaging, and complex question, problem, or challenge (Guido, 2025). PjBL can also be perceived as a teaching and learning approach that is built on a combination of experiential learning, behaviourist and constructivist theories- doing and learning, redoing and remembering which leads to construction of knowledge. Since the basic aim of PjBL is towards structuring and reinforcing preferred student behaviour through specifically designed tasks, feedback and incentives, PjBL can be aptly posited within the two theories; behaviourist and constructivist theories of learning. Experiential learning (Dewey 1938 cited in Sirwesvary and Khairul Azhar Jamaludin, 2025) specifically in this context bridges PjBL with behaviourism and constructivism to produce desired outcome of student-learning. Smith (1980) cited in Ord (2012) in linking youth work and experiential learning, clearly illustrates that experiential learning is about learning by doing which is based on the assumption that, i)optimum learning occurs when one is personally involved in the activity, ii) knowledge is discovered when learning impacts or affects one's behaviour, and iii) optimal engagement in learning occurs through a predefined learning task that allows one to set his or her own pace and learning objectives that are achievable.

Krajcik and Shin (2014) indicated six hallmarks of PjBL, including a driving question, the focus on learning goals, participation in educational activities, collaboration among students, the use of scaffolding technologies, and the creation of tangible artifacts. Among all these features the creation of artifacts that solve authentic problems is most crucial, which distinguishes PjBL from other student-centered pedagogies, for example, problem-based learning. This creation process requires learners to work together to find solutions to authentic problems in the process of knowledge integration, application, and construction. Instructors and community members (e.g. clients), normally as facilitators, provide feedback and support for learners to assist their learning process.

The past literatures focusing on the theoretical foundation of PjBL underscore the value of this method of learning for the students at large. Carefully selected and designed tasks lead students to vast opportunities that not only in the acquisition of knowledge and skills pertaining to specific subjects but also the integrative learning of knowledge beyond the subject matter at hand. PjBL serves as a teaching learning method that interweaves the prospects of learning as a progressive two-way mode of acquisition and use of knowledge and experience; both occurring simultaneously.

Project-Based Learning and STEM Integration

Project-Based Learning (PjBL) is widely recognized as an effective approach for fostering inquiry, creativity, and higher-order thinking in STEM education. Research affirms that integrating PjBL with STEM contexts enhances students' critical, creative, and computational thinking, particularly when tasks are designed around real-world problems and interdisciplinary content (Indranuddin et al., 2024). In the sciences, PjBL has been shown to cultivate problem-solving skills, strengthen conceptual understanding, and develop scientific literacy (N Diana, Yohannes and Y Sukma, 2020). Similarly, mathematics education research underscores its role in stimulating creative and critical thinking, especially when digital tools or problem-based scenarios are embedded into the project cycle (Pramasdyahsari et al., 2023). The consistent theme emerging from these studies is that PjBL, when integrated into STEM, not only deepens content mastery of scientific phenomenon, but also equips learners with transferable skills required for future academic and professional endeavours. Such findings signal the capacity of PjBL to be adapted beyond STEM domains, including in language education, where similar demands for critical inquiry, collaboration, and communication are present.

Project-Based Learning and Life Skills Development

Past studies also position PjBL as a dominant pedagogical strategy for cultivating essential life skills and twenty-first century competencies. These studies illustrate how PjBL advances critical thinking, creativity, collaboration, and communication—the 4Cs—by situating learners in collaborations with fellow students, in authentic tasks

that demand sustained inquiry and problem-solving (Thao Thi Nguyen, 2017; Meyer & Wurdinger, 2016). Students at all levels, are encouraged to negotiate meaning, share responsibilities, and co-construct knowledge, thereby sharpening interpersonal and intrapersonal skills (Pan Pan Yang et al., 2025; Guido, 2025). In chemistry and physics classrooms, integrating design thinking with STEAM-oriented PjBL has been particularly effective in promoting computational thinking and scientific literacy while reducing misconceptions (Ananda et al., 2023). What enhances the significance of project-based learning (PjBL) is its capacity to cultivate crucial life skills such as resilience, adaptability, and collaboration—qualities essential for students to thrive in the modern world. These competencies not only prepare learners for higher education and future careers but also nurture empathy and social awareness. Equipping educators to integrate these skills into daily instruction extends beyond academic achievement; it empowers students to succeed in life through experiential, project-driven engagement with real-world issues. (Deflitch, n.d). These findings affirm that PjBL functions not merely as a content-delivery approach but as a holistic pedagogy for preparing learners to meet the cognitive, social, and affective demands of the twenty-first century.

Project-Based Learning and Learner Motivation

Another significant strand of scholarship emphasizes the motivational affordances of PjBL. A meta-analysis confirms that project-based environments enhance students' intrinsic motivation by fostering autonomy, relatedness, and competence (Wijnia et al., 2024). Such findings are reinforced by studies showing that PjBL sustains interest and persistence by embedding learning in authentic, meaningful tasks (Shekhar et al., 2024). Diana Susanti, Liza Yulia Sari, Vivi Fitrian (2022) found that the use of interactive digital books for PJBL revealed a significant improvement on learning motivation at 96.37%. Language studies likewise demonstrate motivational gains, particularly when PjBL projects are connected to cultural expression, collaborative writing, or speaking tasks that align with students lived experiences (Garim et al., 2023). Importantly, motivational studies highlight not only the benefits but also the obstacles associated with PjBL, such as time constraints and resource limitations, which may affect its sustainability in certain contexts (Dhevi Tri Pratiwi, 2025). She draws attention to the noticeable effect of PjBL on both student learning attainment and motivation. The studies Dhevi Tri Pratiwi (2025) reviewed established that the studies consistently demonstrated that PjBL encouraged higher levels of participation, enhanced intrinsic motivation, and led to improved academic attainment. Her work clearly indicated a link between the integration of digital tools, students as the regulators of their own learning and enhanced motivation as the significant outcome of PjBL.

Project-Based Learning and Language Studies

The evolution of teaching English as a Second Language has undergone significant transformations over the past century. Traditional methods, which dominated the early 20th century, were primarily centered on grammar translation and rote memorization, focusing on the structural aspects of the language. Skinner's theory of language acquisition (1957) emphasises the connection between successful acquisition of language and reinforcement of learning through use and reuse of learnt language skills, linking words with meaning and positive feedback (Lemetyinen, 2023). Though Skinner's theory heavily leaned on ideas of mimicking, conditioning and reinforcement for elementary level language acquisition, these ideas continue to be the developmental strategies for second language learners and users of English within experiential learning approaches. These methods, while effective in teaching the rules of English, often failed to engage students actively or develop their communicative competence (Richards & Rodgers, 2014).

By the mid-20th century, there was a paradigm shift towards communicative language teaching (CLT), which emphasized interaction and the practical use of language in real-life situations. CLT aimed to develop learners' ability to communicate effectively and appropriately in various social contexts (La Ode Nggawu & Nguyen Thi Phuong Thao, 2023). This approach marked a significant departure from traditional methods, placing a greater emphasis on speaking and listening skills, and fostering a more dynamic and student-centered learning environment.

In recent years, the advent of new pedagogical trends and technological advancements has further revolutionized TESL. Contemporary methods now integrate digital tools and innovative instructional strategies to enhance

language learning. Among these, project-based learning (PjBL) has gained prominence as an effective approach that combines the principles of CLT with experiential learning. PjBL involves students working on extended projects that require critical thinking, collaboration, and the practical application of language skills (Beckett & Slater, 2020).

Second language learners develop and enhance their language skills through practice, which they are able to fulfil when the context is created for them. In this sense, PjBL embodies the essence of constructivist ideals. At the centre of both methodologies is the strong belief active involvement, collaborative effort as well as authentic, real-world tasks enable individuals to master the knowledge impactfully (Femilia Utami Dewi, 2025). The perception in turn, aligns and resonates with student centred learning strategies in which knowledge is actively constructed through experiential engagement and reflective practice (Farzana Sultana Doly, 2024).

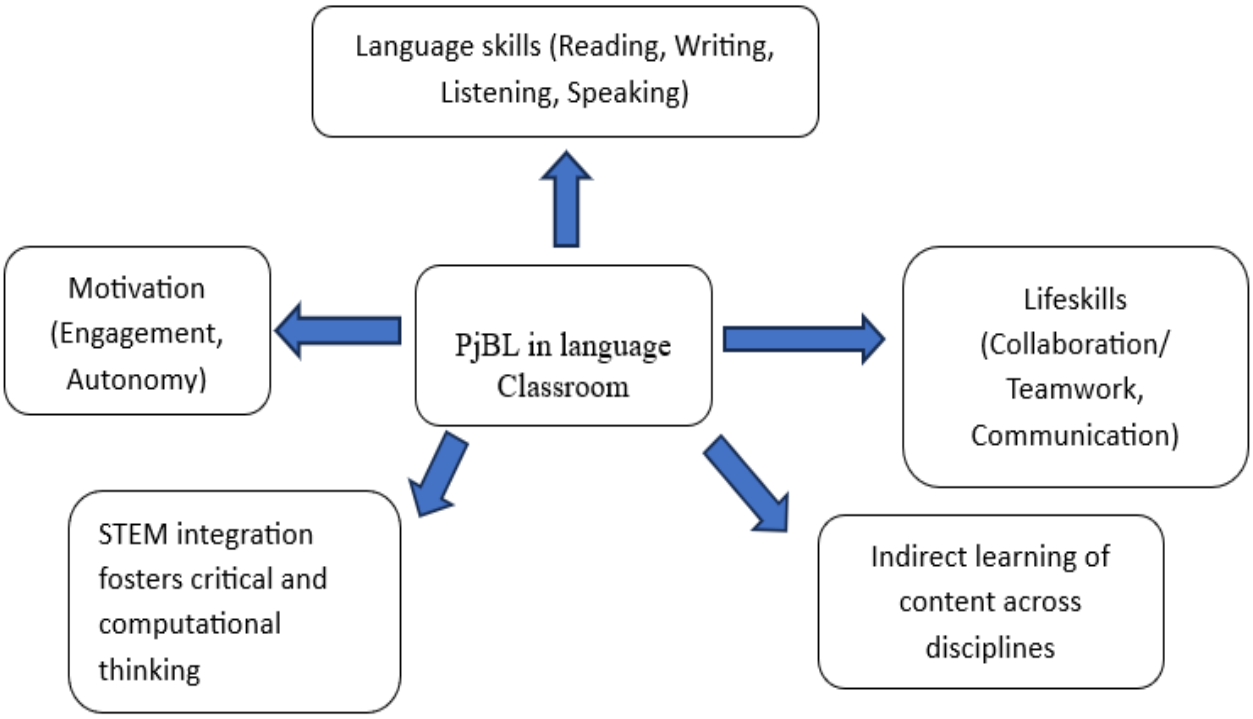
In the field of language education, PjBL has gained traction as an approach that strengthens communicative competence, literacy practices, and academic discourse. Evaluative studies at university and school levels demonstrate that PjBL enhances learners' writing, speaking, and overall linguistic proficiency by situating language use in purposeful, collaborative projects (Adrefiza et al., 2024). For young learners, teachers report that PjBL fosters confidence and engagement, particularly when tasks are supported with multimodal resources such as audiovisual aids and animated videos (Amalina et al., 2023). At higher levels, PjBL has been shown to reduce speaking anxiety, strengthen academic writing skills, and encourage reflective practices when paired with scaffolding or feedback (Li et al., 2023; Indriyani et al., 2023). Emerging technologies, including immersive virtual reality, have further expanded the scope of PjBL in language learning, offering learners authentic, interactive environments for oral communication (Shi et al., 2024). Beyond English, studies in Japanese and other languages reveal that PjBL facilitates the integration of linguistic and soft skills, suggesting its versatility across diverse linguistic and cultural settings (Wahidati & Kharismawati, 2023). Collectively, these findings confirm that PjBL is not only adaptable to language classrooms but also instrumental in bridging linguistic skills with creativity, collaboration, and critical inquiry.

Taken together, the reviewed scholarship establishes PjBL as a dynamic pedagogical approach which demonstrated benefits within specific disciplines, learner levels and real-world skill domains relevant for professional development. Its capacity to integrate STEM learning, cultivate life skills and enhance motivation, underscores its versatility and relevance in contemporary education. Yet, despite its growing application, there remains a limited body of research focused specifically on how PjBL can be systematically implemented in evaluating the learners' growth in subject specific language skills, enhancing their acquisition of subject specific content and most of all, how the cycle of acquisition of content -based knowledge, experience and skills and the application of these occurs simultaneously to indicate the progress in the students' academic endeavours. Besides that, as this study focused on the impact of PjBL in the development of pre-university students' language skills, it was found that there are insufficient studies that support the use of PjBL for holistic development of language skills. This gap highlights the need for further empirical inquiry that situates PjBL within pre-university contexts, where learners are preparing for higher education demands and where language proficiency plays a critical role in academic success.

CONCEPTUAL FRAMEWORK

Drawing on the four strands of literature—STEM integration, life skills development, learner motivation, and language studies—this study conceptualizes PjBL as a pedagogical bridge that simultaneously strengthens linguistic competence and equips learners with transferable skills. The framework positions PjBL as a mediating factor that connects instructional practices (project design, scaffolding, collaboration) with learning outcomes (language skills, motivation, autonomy, and readiness for higher education). In this model, PjBL is not confined to skill acquisition but is understood as a holistic educational strategy where language learning, motivation, and life skills intersect. By situating pre-university learners at the center of authentic, project-driven tasks, the framework underscores the potential of PjBL to prepare students linguistically, cognitively, and socially for the demands of tertiary education.

Figure 1 Conceptual framework of Project-Based Learning (PjBL) impact on language skills development.



This framework illustrates how five domains—STEM integration, indirect learning across disciplines, life skills, motivation, and language studies—interact to support the development of language skills. Each domain contributes distinct yet complementary dimensions whereby, STEM integration fosters critical and computational thinking, life skills emphasize collaboration and communication, motivation enhances learner engagement and autonomy, and language studies provide direct pathways for improving writing, speaking, and literacy and indirect learning of content across disciplines is a built-in benefit of PjBL where students are steered to explore multidisciplinary knowledge and content. Intriguingly, these domains converge to strengthen language skills development in pre-university contexts.

METHODOLOGY

Research Design

This study employed both a qualitative and quantitative research design using a survey research method to determine the students' perceptions towards the use of PjBL in promoting English language learning and the 21st century skills in the pre-university TESL classroom.

Instruments

The project-based learning was implemented as an integration of learning and assessment for some subjects within the TESL programme over a period of one year. The students have a wide and varied range of experience in the acquisition of knowledge together with language skills. However, the focus of this study is on the impact of PjBL on the students' language skills development and the level of their satisfaction in their participation in PjBL. Therefore, this study utilised a questionnaire developed by Nualpen Puangpunsi (2021) aiming to gather information about the students' experience, perception and feedback on the use of PjBL. The first part of the questionnaire, consisting of two questions with twelve checkboxes, was used to inquire about participants' perception towards the role of PjBL in the development of English skills and the 21st century skills. Secondly, twelve questions on the Likert rating scale, named as 'very unsatisfied' to 'very satisfied', were used to document participants' satisfaction level on the implementation of project work in the learning activity. Thirdly, two open-ended questions were designed for students to provide their ideas about the benefits and difficulties experienced from the integration of project work in the English class. It is noted that the questionnaire was anonymously introduced to the participants at the end of project work.

Participants

The target population for this study was post-secondary students who underwent studies in the pre-university TESL programme enrolled at a large public university in Malaysia. We aimed to generalize our findings to this group of students. Our sample was comprised of 168 representing students who completed an online survey.

Using a non-probability convenience sampling procedure, where the participants were chosen based on the convenience of accessibility and availability. This sampling method was chosen as it is quick and cost-effective, and it was drawn from the part of the population most convenient for the researcher to access whereby these respondents were students taught and assessed by the researchers using the PjBL method.

The final sample consisted of 168 pre-university students (118 female [70%] and 50 male [30%]) who enrolled in the TESL Foundation course a pre-requisite for a degree in TESL. The number of respondents were determined based on the Krejcie & Morgan table of sampling (1970). Before the process of data collection started, PjBL framework and its aims were clarified to participants whose feedback and suggestion were gathered to describe pros and cons of using PjBL in a language learning**.**

Presentation And Analysis Of Data

Demographic Data

Table 1: Demographic Data

Demographic	**N**	**Descriptors**	**f (Frequency)**	**% (Percentage) Rounded**
Age	168	18 -19 yrs. old	101	60
		20-30 yrs. old	33	20
		31-40 yrs. old	21	13
		> 40 yrs. old	13	7
			168	100
Gender	168	Male	50	30
		Female	118	70
			168	100
Years of Studying English as Second Language	168	1-5 years	25	15
		6-10 years	14	8
		> 10 years	129	77
			168	100
Level of Current Study	168	Foundation/Pre Uni	109	65
		Diploma	32	19
		B. Degree	27	16
			168	100
Programme of Study	168	Science & Technology	31	18
		Social Science	137	82
			168	100

Table 1 shows the demographic data of the respondents (N=168). The age distribution of the respondents is 101 (60%) between 18-19 years old, 33 (20%) between 20-30 years old, 21 (13%) between 31-40 years old and 13 (7%) more than 40 years of age. As for the gender, out of the total respondents, 50 (30%) are male and 118 (70%) are female. The number of years studying English as Second Language among the respondents shows 25 (15%) between 1-5 years duration, 14 (8%) between 6-10 years and 129 (77%) more than 10 years. The 168 respondents' current level of study displays 109 (65%) at Foundation level, 32 (19%) at Diploma level and the remaining 27 (16%) are at the Bachelor's degree level; where 31 (18%) are undergoing studies in Science & Technology programmes while 137 (82%) are in Social Science programmes.

The data indicates that the highest percentage (77%) of participants have more than 10 years of learning English which can be inferred as a representation of 11 years of formal learning of English within the Malaysian school system. A large majority of the participants are students of pre-university / foundation programme which explains the 77% of participants who have more than 10 years of experience in learning English. This information is important as the focus group of this study is the students of a pre-university programme who have arrived at their present course of study with learning methods and strategies they acquired and used to perform academic tasks at secondary school. It is unclear if these strategies and methods have prepared them for or provided them easy transition into post-secondary or even tertiary level learning strategies that require independent, creative, self-regulated learning. This being the context of study, offers valid and insightful data on the efficacy of PjBL among students of language studies at pre-university courses.

Presentation of Data pertinent to RQ1: Impact of PjBL on the development of English Language skills and Life Skills

Q1: According to the implementation of project work in the classroom, what skills have you developed well?

Table 2: Developed English Language Skills

English Language Skills	N	f (Frequency)	% (Percentage)
Speaking Skill	168	142	84.5
Critical Reading Skill		126	75
Reading & Listening Comprehension Skill		136	81
Report Writing Skill		90	53.6
Grammar & Structure Skill		115	68.5
Vocabulary Skill		125	74.4

Table 2 exhibits the English Language Skills that the respondents said to develop well through the implementation of project-based learning tasks. The result reveals 142 (84.5%) on speaking skill, 126 (75%) on critical reading skill, 136 (81%) on reading and listening comprehension skill, 90 (53.6%) on report writing skill, 115 (68.5%) on grammar and structure skill, and 125 (74.4%) on vocabulary skill.

The data provides clear implication of PjBL as an English teaching and learning strategy, which has a direct impact on core English language skills This table directly addresses the acquisition of specific linguistic skills.

Speaking Skill at (84.5%) is the most significant finding for direct language acquisition. The overwhelming majority of students (142 out of 168) reported developing their speaking skills well. This directly supports the premise of that PBL moves beyond traditional methods to foster practical, active language use. PBL inherently requires discussion, negotiation, presentation, and collaboration, all of which force students to use spoken English authentically.

Reading & Listening Comprehension at (81%) and Critical Reading at (75%) show that PBL is not just about "doing"; it is also about "processing." To complete a project, students must actively read and listen to English

resources (articles, videos, interviews, instructions) to gather information, understand tasks, and evaluate content. These move reading and listening from passive reception to an active, purpose-driven activity, enhancing comprehension and critical engagement with texts.

Vocabulary at (74.4%) and Grammar & Structure at (68.5%) point towards the crucial impact of the development of these foundational skills. The data suggests that students are not just learning vocabulary and grammar in isolation but are acquiring them in context through the project work. They learn the specific language needed to complete their tasks, which leads to more meaningful and retained learning. For example, a student working on an environmental project will naturally acquire relevant terminology and the grammatical structures needed to explain cause and effect.

Report Writing (53.6%) with the lowest percentage, though still reported by over half of the students, is a common and insightful finding. Writing is often the most challenging skill to master and requires the most structured support. It suggests that while PBL provides an authentic purpose for writing (e.g., creating a project report), students may still need more explicit instruction, scaffolding, and feedback focused specifically on writing mechanics within the PBL framework.

Q2: According to the implementation of project work in the classroom, what skills have you developed well?

Table 3: Developed Life Skills

Life Skills	N	f (Frequency)	% (Percentage)
Collaboration & Teamwork Skill	168	153	91.1
Communication Skill		155	92.3
Problem Solving Skill		127	75.6
Media & technology Literacies		93	55.4
Information Literacy		101	60.1
Critical Thinking Skill		124	73.8

Table 3 illustrates the Life Skills that the respondents said to develop well through the implementation of project-based learning tasks. The result reveals 153 (91.1%) on collaboration and teamwork skill, 155 (92.3%) on communication skill, 127 (75.6%) on problem solving skill, 93 (55.4%) on media and technology skill, 101 (60.1%) on information literacy skill, and 124 (73.8%) on critical thinking skill.

The data from this table is critical for interpretation because it shows how and why PjBL is so effective for language acquisition. The development of these life skills creates the conditions for language learning to thrive.

The highest percentages in the entire dataset are of Communication Skill (92.3%) and Collaboration & Teamwork (91.1%). They are the engine of PjBL-driven language acquisition. To collaborate effectively, students must communicate. This constant necessity to explain ideas, resolve conflicts, delegate tasks, and make group decisions provides an immense amount of low-stakes, repetitive practice in all language skills, but especially speaking and listening. This finding is a powerful confirmation of the collaborative learning aspect that study aimed to explore.

PjBL tasks are inherently problem-oriented, requiring solutions and open ended. Critical thinking and problem solving at (73.8%) and (75.6%) respectively means students are engaging deeply with the language. They are not just memorizing facts; they are using English to analyze information, synthesize ideas from different sources, and create solutions. Through PjBL, the students are effectively developing these skills which in turn pave the way for deep cognitive engagement while facilitating higher-order language use and retention.

PjBL in modern contexts often involve research using digital tools. Developing these skills means students are reading extensively in English (online articles, journals, databases), evaluating digital sources, and often using

technology to create outputs (e.g., videos, presentations, blogs) the knowledge and experience of which is illustrated through the data; 60.1% participants possessing Information Literacy skills and 55.4% having Media & Technology skills. This immerses them in authentic English language materials and multimodal communication.

These data also indicate the influence of PjBL perceived to have a highly significant impact on English language learning. PjBL positively influences the acquisition of all four core language skills (listening, speaking, reading, and writing) among pre-university students by creating an authentic, engaging, and communicative learning environment. Speaking and Listening are the most directly and dramatically enhanced, driven by the non-negotiable requirements for communication and collaboration. Reading is enhanced through critical reading and information literacy, as students actively engage with texts to solve problems and complete their projects. Writing development is supported but may require more targeted scaffolding, as it is often the final output of a process that relies heavily on oral collaboration. In essence, students are not just learning the language for the project; they are learning the language through the process of collaboration, problem-solving, and communication that the project demands. The life skills developed are not separate from language acquisition; they are the mechanisms through which acquisition occurs.

Presentation of Data pertinent to RQ2: Satisfaction level on participation in Project Based Learning

Table 4: Satisfaction Level on participation in Project Based Learning

Statement/Item	N	Satisfaction Level (Likert Scale)									
		1 Very Unsatisfied		2 Unsatisfied		3 Neutral		4 Satisfied		5 Very Satisfied	
	168	f	%	f	%	f	%	f	%	f	%
1. I increased my responsibility and confidence level by working on this project	168	0	0	1	0.6	14	8.3	57	33.9	96	57.1
2. Project work activates my enthusiasm for participating in class activities	168	2	1.2	0	0	14	8.3	59	35.1	93	55.4
3. I could perform excellent team-working skills	168	0	0	1	0.6	17	10.1	65	38.7	85	50.6
4. Learning by doing this project challenged me to develop my English language skills	168	0	0	2	1.2	8	4.8	54	32.1	104	61.9
5. I feel more confident in my English language performance	168	0	0	2	1.2	17	10.1	49	29.2	100	59.5
6. I have developed my information searching skills	168	0	0	1	0.6	16	9.5	58	34.5	93	55.4
7. Project work promotes a positive learning environment	168	0	0	0	0	23	13.7	41	24.4	104	61.9

Table 4 shows the respondents satisfaction level on their participation in Project-Based Learning based on the seven (7) given statements that seek responses on a 5 Likert Scale of satisfaction level. Item 1 on the statement

"I increased my responsibility and confidence level by working on this project" shows 55 (33.9%) of the respondents are satisfied and 96 (57.1%) are very satisfied that makes the total of 91% combination of respondents that are satisfied and very satisfied. Item 2 on the statement "Project work activates my enthusiasm for participating in class activities" displays 59 (35.1%) of respondents are satisfied and 93 (55.4%) are very satisfied that sees a total of 90.2% responses on satisfied and very satisfied. Item 3 on "I could perform excellent team-working skills" exhibits 65 (38.7%) of the respondents are satisfied and 85 (50.6%) are very satisfied that shows a total of 89.3% combination of satisfied and very satisfied. Item 4 on the statement "Learning by doing this project challenged me to develop my English language skills" reveals 54 (32.1%) are satisfied and 104 (61.9%) are very satisfied which forms a total of 94% combination of satisfied and very satisfied. Item 5 on the statement "I feel more confident in my English language performance" demonstrates 49 (29.2%) of the respondents are satisfied and 100 (59.5%) are very satisfied that combines a total of 88.7% of satisfied and very satisfied. Item 6 on the statement "I have developed my information searching skills" illustrates 58 (34.5%) of respondents are satisfied and 93 (55.4%) are very satisfied which makes a total of 89.9% combination of satisfied and very satisfied. Item 7 on the statement "Project work promotes a positive learning environment" shows 41 (24.4%) of the respondents are satisfied and 104 (61.9%) are very satisfied that sums a total of 86.3% combination of satisfied and very satisfied.

The data reveal an overwhelmingly high level of student satisfaction with their participation in Project-Based Learning (PjBL). The consistently extreme positive skew towards "Satisfied" and, more prominently, "Very Satisfied" across all seven items indicates that PjBL is not only an effective pedagogical tool but also a highly enjoyable and motivating experience for pre-university students. This satisfaction is fundamentally linked to feelings of personal growth, confidence, active engagement, and a positive classroom environment.

PBL shifts the responsibility for learning from the teacher to the student. The data shows students are highly satisfied with this shift; they appreciate the autonomy and ownership over their work. Successfully completing a project from start to finish is a major confidence booster. The high satisfaction with increased confidence in their English performance (Item 5) directly links this personal growth to your study's core focus on language skills. It suggests that PjBL reduces language anxiety and builds self-efficacy, which is crucial for language acquisition.

This theme gets to the heart of why PjBL is effective. Item 4 has the highest satisfaction rate (94%) of all items. This is a significant result as students are not only recognizing that they are developing their skills, but they are also highly satisfied with being challenged. This indicates that they find the "learning by doing" approach more meaningful and rewarding than passive learning methods. This directly leads to the enthusiasm mentioned in Item 2. PjBL makes learning active and purposeful, which transforms student motivation and makes them eager to participate, directly addressing the issue of fallinshort in actively engaging students.

Students are highly satisfied with the collaborative and real-world skills they gain. The satisfaction with teamwork (Item 3) shows they value the social aspect of learning and feel they succeeded in a collaborative setting. This aligns perfectly with the data from RQ1, which showed collaboration was the top life skill developed. The development of information searching skills (Item 6) shows satisfaction with gaining practical, academic, and digital literacy skills that are essential for university and modern life.

Finally, Item 7 is critical. The high satisfaction with the "positive learning environment" indicates that the PjBL classroom is perceived as a supportive, engaging, and less stressful space. This positive affective environment is a key factor in reducing barriers to learning and encouraging risk-taking with the new language.

In sum, students are not just learning effectively with PjBL; they are enjoying the process. This high satisfaction level is crucial because it suggests that PjBL is a sustainable and motivating approach that can lead to long-term engagement with the English language, addressing the issue of traditional methods "falling short" in engaging students. The positive emotional response is a key ingredient in the recipe for successful language acquisition.

FINDING AND DISCUSSION

The findings of this study align robustly with the existing body of literature on PjBL's effectiveness in language

learning. The significant improvement in speaking and comprehension skills corroborates studies by Almulla (2020) who attributes this to the authentic communication demands inherent in collaborative projects. Furthermore, the high levels of student satisfaction, confidence, and engagement directly support the theoretical framework that PjBL promotes intrinsic motivation and learner autonomy (Peng Yue Guo et al., 2020).

The challenges identified—time management, group dynamics, and the need for scaffolding—are not unique to this study but are well-documented implementation considerations in PjBL literature (Dhevi Tri Pratiwi, 2025). This congruence confirms that while PjBL is a powerful approach, its success is contingent upon careful design, ongoing facilitation, and supportive structures to guide students through the learning process.

The quantitative and qualitative data converge to present a clear finding that the integration of Project-Based Learning into the pre-university ESL curriculum leads to marked improvements in language proficiency, particularly in oral and communicative skills, while simultaneously fostering a highly motivating and positive learning environment that builds student confidence and 21st-century skills. The challenges identified offer crucial practical insights for refining future PjBL implementations to maximize efficacy and learner support.

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