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Improving EFL Learners' English Public Speaking Performance through Project-based Learning Strategy at Tertiary Level

Chuanfang Shi^{1,2}, Asiah Kassim^{1*}, Noor Raha Mohd Radzuan¹

¹Centre for Modern Languages, Universiti Malaysia Pahang Al-Sultan Abdullah, Malaysia

²School of Foreign Languages, Hebei Minzu Normal University, China

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Abstract

Traditional English education in China, with its emphasis on grammatical proficiency and written accuracy, often neglects public speaking, resulting in a notable deficiency in practical language application. This study investigated the potential of project-based learning to address this problem by promoting more interactive, student-centered learning experiences that foster authentic language use, specifically aiming to improve public speaking performance among university students in China, who are learning English as a foreign language (EFL). An explanatory sequential mixed method study, involving the pretest and post-test for quantitative data and semi-structured interviews for qualitative data, was conducted with 60 students purposely selected as the research participants. By the triangulation of the quantitative and qualitative findings, it was found that students in the experimental group who underwent the project-based learning intervention showed a significant improvement in English public speaking performance compared with the control group. In addition, students who participated in the interview held a positive attitude toward integrating project-based learning strategy into the process of learning English public speaking. These results contribute to the growing body of evidence supporting the adoption of project-based learning approach in EFL teaching, particularly in contexts where enhancing oral communication skills is a priority.

Keywords: *Project-based Learning, English Public Speaking Performance, Tertiary Level*

Introduction

English public speaking holds a significant place in the global context, as it serves as a key communication tool across diverse international platforms. With English being widely recognized as a lingua franca, proficiency in public speaking in this language enhances opportunities for individuals to engage with a global audience, whether in academic, professional, or diplomatic settings (Crick, 2022). It facilitates the exchange of ideas, cultural

* Corresponding author.

E-mail address: asiah@umpsa.edu.my

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understanding, and collaboration among people from different backgrounds. Moreover, effective public speaking skills in English can contribute to personal and career development, empowering speakers to articulate their thoughts clearly, persuade others, and establish their presence on the world stage (Dolce et al., 2020; Zhang et al., 2023).

Improving English public speaking skills is crucial for Chinese EFL learners due to linguistic, cultural, educational, and psychological challenges that impact their proficiency. Educationally, the focus on rote learning and teacher-centered methods in China does little to develop public speaking skills, neglecting interactive learning approaches (Noman & Xu, 2023). Linguistically, learners struggle with pronunciation, vocabulary, and grammar, hindered further by differences in rhetorical styles between Chinese and English (Wang et al., 2020). Psychologically, fear of mistakes and low confidence deter engagement in public speaking (Ibrahim et al., 2022). Enhancing these skills is vital for global communication, academic success, and professional growth.

Project-based learning presents a promising approach, proven to boost language learning through real-world projects that encourage active participation and collaboration, offering exposure to diverse cultural and rhetorical contexts (Probert, 2024). However, there is a research gap on its efficacy in improving public speaking skills among Chinese EFL learners, with existing studies calling for more focused research on classroom culture, and language anxiety impacts.

This study was designed to assess both the degree to which project-based learning influences the improvement of English public speaking skills among EFL learners, and their attitudes towards its use in their public speaking classes. Employing a mixed-methods approach, this research quantitatively evaluated the impact of this teaching and learning model on EFL learners' public speaking abilities. Additionally, it qualitatively investigated learners' views on the use of this educational approach to enhance their skills in English public speaking. By integrating descriptive quantitative findings with interpretive qualitative insights, the study provided a comprehensive examination of the role that project-based learning played in the domain of English public speaking within an EFL setting, ensuring a thorough academic evaluation of its efficacy.

The Literature Review

Project-based Learning Strategy

Project-based learning represented an educational shift from traditional, passive learning to a dynamic, student-centered approach. This method empowered students to take charge of their learning journey, from project planning to execution, thereby fostering a sense of ownership and motivation (Ly, 2024). It encouraged inquiry, critical thinking, and practical application, allowing students to address real-world problems and apply their knowledge across various contexts. By linking academic learning with tangible, real-life scenarios, project-based learning enhanced both the relevance and impact of education (Rohm et al., 2021).

Furthermore, collaboration was a cornerstone of this approach, reflecting real-world teamwork dynamics and enhancing students' social and communication skills. Reflective practices embedded within this strategy promoted a growth mindset, enabling both students and educators to assess and improve their learning processes (Jia et al., 2023; Morales-Navarro et al., 2024). Additionally, the integration of technology in project-based learning met the

contemporary needs of the digital age, bolstering research, collaboration, and presentation capabilities (Hulyadi et al., 2024).

Moreover, assessment methods within project-based learning shifted towards performance-based evaluations. This shift prioritized practical application over mere memorization, thereby aligning assessments more closely with real-world applications (Stanley, 2021). In this learning environment, teachers assumed the role of facilitators, offering guidance and support to foster student inquiry (Grossman et al., 2022).

In summary, project-based learning was a pedagogical approach where students developed skills and knowledge through engagements with complex questions or challenges over an extended period. This approach was celebrated for making learning more relevant and engaging, which potentially improved both engagement and educational outcomes (Eden et al., 2024). Research suggested that project-based learning not only enhanced understanding and knowledge retention but also promoted critical thinking through active, real-world learning experiences. It was noted that students who participated in this learning strategy often excelled beyond their peers in traditional settings, particularly in critical thinking skills due to the collaborative and communicative nature of the method (Wobbe & Stoddard, 2023). A meta-analysis by Zhang et al. (2024) concluded that project-based learning positively influenced student attitudes and self-efficacy, indicating that the benefits of this approach outweighed its greater demands on time and resources. The effectiveness of project-based learning hinged on the quality of project design, adept teacher facilitation, and the autonomy granted to students, with successful implementation relying on meticulous planning and adaptable educators.

Application of Project-based Learning Strategy in English Teaching and Learning

Project-based learning has emerged as a significant pedagogical strategy in English language teaching and learning, fostering a more interactive, student-centered approach that contrasts with traditional rote learning methods. The essence of this approach lay in its ability to engage students in real-world and meaningful projects, which enhanced their language skills through an immersive and contextualized learning experience (Boardman et al., 2021). It aligned well with Vygotsky's sociocultural theory, which emphasized the importance of social interaction and cultural context in the learning process, suggesting that knowledge was constructed through social interaction within meaningful contexts (Vygotsky & Cole, 1978). Several studies have highlighted the effectiveness of project-based learning in improving English language proficiency (Akhmad et al., 2024; Aubrey, 2022; Aziz et al., 2024). It was argued that this approach facilitated authentic language use and critical thinking skills, as students were required to solve real-life problems, engage in collaborative tasks, and used the target language as a tool for communication and learning. Similarly, Yuan (2022) emphasized its benefits in enhancing students' linguistic and pragmatic competencies, as it provided them with opportunities to use English in various communicative contexts, thereby improving their fluency and accuracy.

Moreover, it has been found that project-based learning has positively influenced student motivation and attitudes toward English education. According to Wang (2024), providing autonomy and choices within this educational approach significantly enhanced intrinsic motivation as students deeply engaged with projects of personal significance. Additionally, as Guo et al. (2021) emphasized, this method fostered a sense of community among learners,

thereby increasing their motivation and participation. The use of this pedagogy in English education drew considerable attention from academics, who highlighted its potential to improve language skills, learner enthusiasm, and engagement. Research showed that this teaching strategy, focused on real-world challenges and collaborative tasks, provided a stimulating and comprehensive educational experience (Chen et al., 2022; Li et al., 2023; Yi, 2024).

Situating language instruction within authentic and meaningful contexts, the project-based learning strategy facilitated the acquisition of linguistic competencies and promoted effective communication, enriching the educational journey comprehensively. However, the transition from conventional teaching methods to this approach presented significant challenges. Successful incorporation of the project-based learning model into English language curricula required careful planning, consistent support, and an acute awareness of learners' varied needs and backgrounds (Ismailia, 2024). Additionally, adapting project-based learning programs to diverse learning environments and student groups necessitated a tailored approach that considered unique cultural, linguistic, and individual learner contexts. This customization ensured that projects were relevant, stimulating, and accessible, thereby maximizing the educational impact of project-based learning.

Studies on the Integration of Project-based Learning and English Public Speaking Performance in China

The exploration of project-based learning within the realm of English public speaking in China was an emerging field that merged linguistic development with critical life skills. This innovative pedagogical approach was particularly pertinent in the Chinese educational context, where traditional teaching methods often emphasized memorization and test performance at the expense of practical communication skills and critical thinking (Zhao & Wang, 2022). The integration of project-based learning into English public speaking courses presented an opportunity to transform learning experiences, making them more aligned with real-world communication demands and the globalized context in which English operated as a lingua franca (Acfira, 2024). In the context of English public speaking, this pedagogical approach facilitated the application of English in authentic, communicative scenarios, thereby enhancing not only linguistic accuracy but also pragmatic competence and the ability to engage and persuade diverse audiences (Gaston, 2024).

Despite the theoretical alignment of project-based learning with the goals of English public speaking education, empirical research specifically focused on this intersection within the Chinese educational system is sparse. Among the limited studies, the work of Hao and Guo (2023) stood out as a pioneering exploration into how a project-based learning framework can significantly bolster the public speaking capabilities of Chinese university students. This study highlighted not just improvements in the mechanics of speech delivery, but also in the confidence and engagement of students with their audience, an essential component of effective public speaking. Adding to the discourse, Cole (2024) provided insights into how project-based learning approach could be utilized to enhance overall English oral communication skills, a broader category that encompassed public speaking. Their research indicated that when students were engaged in projects that required them to use English for real purposes, their

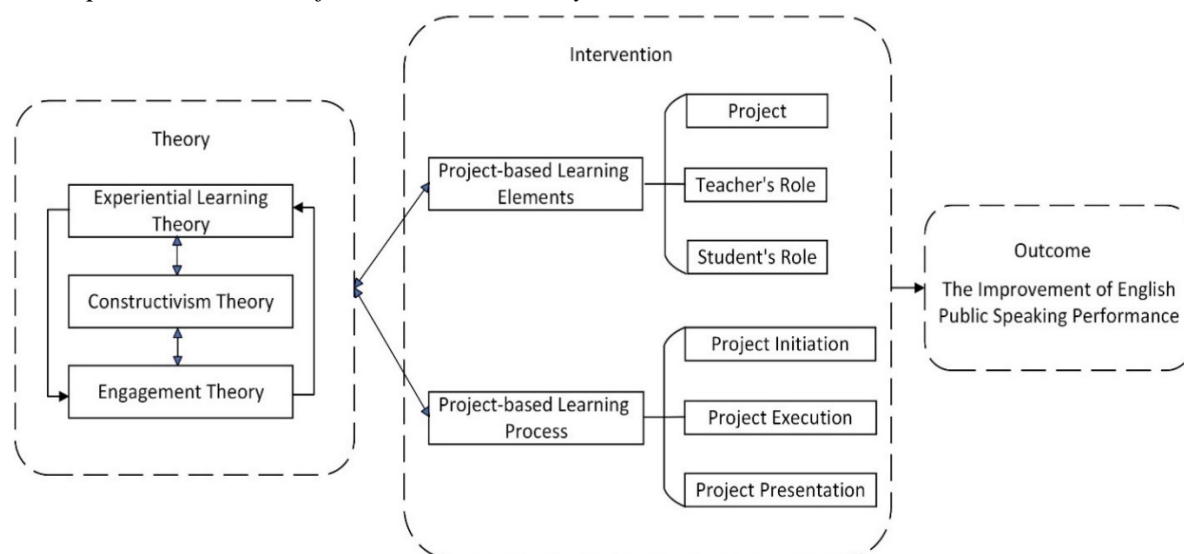
language skills, including those relevant to public speaking, like fluency and coherence, saw notable improvement.

The current scholarly discourse revealed a pronounced lacuna in the domain of project-based learning integration within English public speaking courses in China, underscoring a pivotal shortfall in the extant literature. This deficiency pointed to an exigent demand for enhanced empirical scrutiny that could substantiate and amplify the preliminary affirmative observations reported by Zhang and Ma (2023). In addition to the empirical research, it was important to carefully examine the perceptions and experiences of the primary stakeholders, namely students and instructors, involved in project-based learning in English public speaking. Conducting qualitative inquiries in this context promised to reveal a deep understanding of the diverse benefits, challenges, and practical implications of integrating project-based learning into English public speaking curricula in Chinese educational settings. Such research, as advocated by Lei (2024), was pivotal for delineating the nuanced dynamics at play and forging pedagogical strategies that were both efficacious and responsive to the needs and aspirations of learners and educators alike. This holistic approach to investigating project-based learning's role in English public speaking education in China was essential for crafting pedagogical frameworks that were empirically grounded and pedagogically sound, thereby enhancing both the quality of instruction, and the learning outcomes in this field.

Conceptual Framework

The conceptual framework of this research was designed to explore the improvement of English public speaking performance through the integration of experiential learning theory, constructivism theory, and engagement theory within a project-based learning framework. By examining the relationship between these theories and their practical application in project-based learning strategy, the framework highlighted the pathways through which these approaches contribute to enhanced public speaking skills. Figure 1 visually represented this integration, detailing the connections between the theory, intervention, and the expected outcome.

Integrating experiential learning theory, constructivism theory, and engagement theory within a project-based learning framework offers a student-focused approach that emphasizes context, relevance, and interaction. Dewey's (1938) experiential learning theory describes learning as knowledge creation through transforming experience, involving concrete experience, reflection, conceptualization, and experimentation (as cited in Kolb et al., 2014). Project-based learning embodies this through real-world projects requiring active problem-solving and reflection. Constructivism, based on Piaget (1970) and expanded by Vygotsky (1986), views learners as constructing knowledge through experiences and reflection (as cited in Fosnot, 2013). Project-based learning promotes learner-driven projects, encouraging knowledge construction through engagement and collaboration (Hiver et al., 2020). Engagement theory emphasizes social interaction, technology, and authentic tasks, aligning with the focus of project-based learning on collaborative, meaningful projects (Johnson & Delawsky, 2013). This integration fosters a dynamic learning environment where students actively participate, supporting the development of critical skills and aligning with these theories for a more interactive, student-centered education.

Figure 1*Conceptual Framework for the Present Study*

The intervention in this study was structured around project-based learning, focusing on teachers' and students' roles and the project process. Teachers facilitated and guided, creating an environment for students to explore and solve real-world problems. Students engaged in self-directed learning and collaboration, enhancing critical thinking and problem-solving skills. The process included three stages: project initiation, execution, and presentation (Boss & Krauss, 2022). During initiation, students planned their approach using prior knowledge and experiences (Yang et al., 2024). In execution, students engaged in project work, applying the experiential learning cycle of doing, reflecting, and learning (Poonputta, 2023). In the final stage, students presented their findings and reflected on their learning, reinforcing engagement and experiential learning components (Figueiredo et al., 2022).

The outcome was improved English public speaking performance. Active engagement in project-based learning was expected to enhance students' competence in public speaking through iterative planning, executing, and presenting projects, boosting confidence and clarity (Petrosino et al., 2024). This approach promoted a holistic educational experience, preparing students for a complex, interconnected world by fostering essential life skills (Cheung et al., 2021). The theoretical foundations ensured education went beyond knowledge acquisition to emphasize meaningful skill application in real-world contexts. This study aimed to address:

RQ1: To what extent does a project-based learning strategy influence EFL learners' English public speaking performance?

RQ2: How do EFL learners perceive the integration of the project-based learning strategy in facilitating their English public speaking performance?

Methodology

Research Design

The research design of this study aimed to investigate the impact of a project-based learning strategy on the English public speaking performance of Chinese university EFL learners, as well as their perceptions of integrating project-based learning into an English public speaking

course. To achieve this, an explanatory sequential mixed method approach was employed, blending quantitative and qualitative research methodologies to provide a comprehensive analysis of the phenomena under study (Toyon, 2021).

The quantitative component of the research involved a pretest-post-test design. The experimental group was exposed to the project-based learning strategy integrated into their English public speaking course, while the control group continued with traditional teaching methods. The pretest was administered to both groups at the beginning of the study to assess their baseline English public speaking skills. Following the intervention, a post-test was conducted to evaluate any improvements or changes in the student's public speaking performance.

The qualitative component consisted of semi-structured interviews, which were designed to gain deeper insights into the students' experiences and perceptions of the project-based learning strategy within the context of learning English public speaking. These interviews were conducted after the post-test to explore the participants' views on the effectiveness of the project-based learning approach, its integration into the English public speaking course, and any perceived benefits or challenges encountered during the learning process.

The mixed-method design allowed for triangulation of data, enhancing the reliability and validity of the research findings. The quantitative data provided measurable evidence of the effect of project-based learning on students' public speaking performance, while the qualitative data offered rich, contextual insights into the students' subjective experiences, and attitudes toward the learning approach (Creswell & Plano Clark, 2023). This combination of data types facilitated a deeper understanding of the research questions, enabling the study to not only assess the outcomes of the project-based learning strategy but also to understand the underlying reasons for its effectiveness or lack thereof.

Participants

Adhering to Creswell and Creswell's (2018) classification of sampling techniques, this research adopted a convenience sampling approach, specifically selecting two intact classes from the School of Foreign Languages at Hebei Minzu Normal University. This choice facilitated a direct comparison between traditional and innovative teaching methodologies by forming two distinct groups: an experimental group and a control group, each consisting of 30 students with similar ages and English learning backgrounds (see Table 1).

Table 1

Demographic Characteristics of the Research Participants in the Study

Participants' Information	
Gender	Female (n=57); Male (n=3)
Age range	19-20 years old
Duration for English learning	10-11 years
Proficiency level	B1 of CEFR level

The study included a total of 60 participants, with a significant majority being female, accounting for 57 of the participants, while the remaining 3 were male. The age range of the participants was consistently between 19 to 20 years old. Each participant had a substantial duration of English language learning experience, ranging from 10 to 11 years. This extensive

period of language learning was reflected in their proficiency level, which was determined to be at the B1 level according to the Common European Framework of Reference for Languages (CEFR). These participants were chosen for the study due to their considerable and uniform experience in learning English, which ensured a certain level of language proficiency that was necessary for the research. Their demographic characteristics provided a detailed insight into the participants' profiles, which was crucial for understanding the context and applicability of the study's outcomes.

Research Instruments

The study employed two primary research instruments to gather data: rubrics for assessing English public speaking performance, and a semi-structured interview protocol. These instruments were designed to collect quantitative data from both experimental and control groups through pretest and post-test evaluations, and qualitative data about student perceptions, respectively. To ensure the validity of these tools, a panel of experts was consulted, offering insights and recommendations that were incorporated into the final versions of the instruments (Creswell & Creswell, 2018). Furthermore, reliability was established through a pilot study, where the inter-rater reliability of the rubrics was tested, ensuring consistent and accurate measurement across different evaluators. The Cronbach's alpha of 0.848 notably surpassed the 0.7 benchmark typically used for evaluating test reliability, indicating a high level of consistency. Values above 0.8 are generally seen as reflecting good reliability, making the alpha of 0.848 exceptionally robust (Gwet, 2014). The rigorous validation and reliability testing conducted in this study not only ensured the integrity of the data collection methodology, but also enhanced its credibility, making it a reliable foundation for examining the effects of the educational intervention on improving students' public speaking performance.

Data Collection

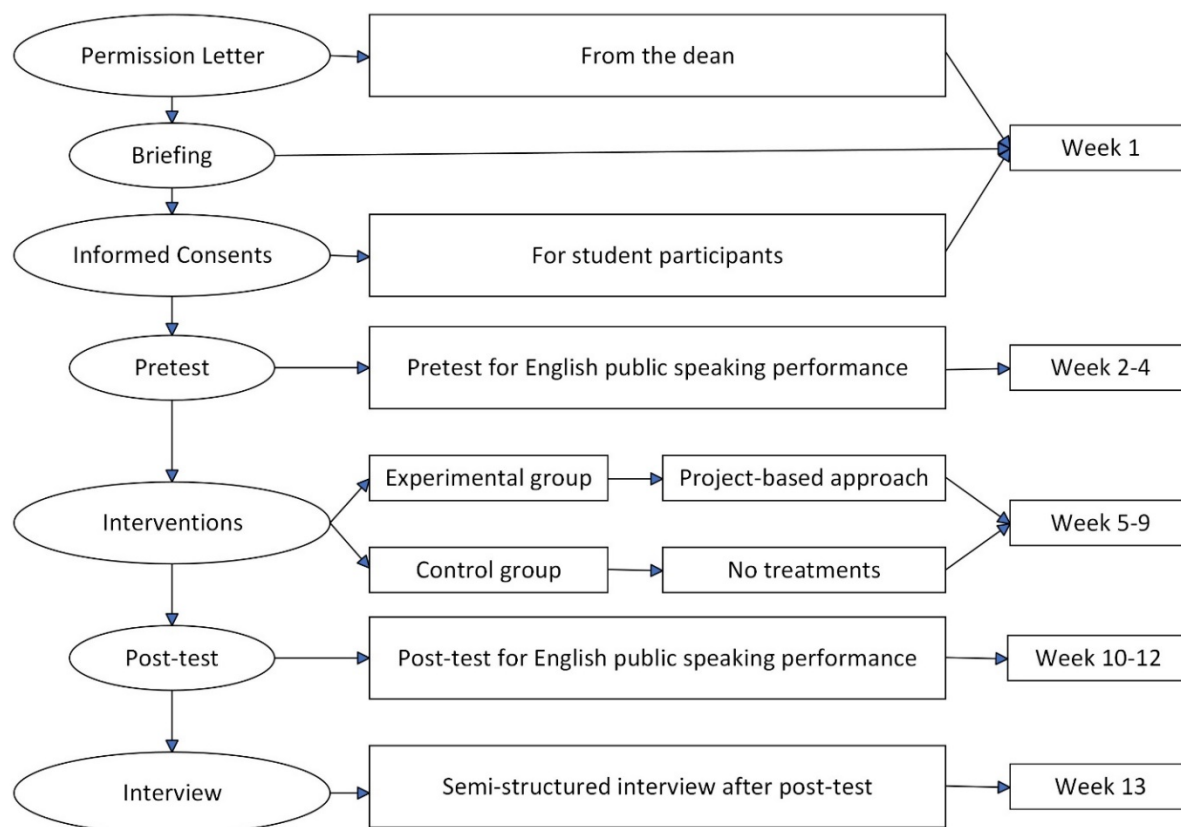
As illustrated in Figure 2, the study's mixed-method approach, which primarily integrated pretest, post-test, project-based learning intervention, and interviews, provided a thorough analysis of the research questions.

To ensure ethical compliance, the process began with obtaining a permission letter from the dean. Following this, a briefing session was conducted to inform the individuals involved about the study's aims and ethical guidelines. After the briefing, informed consent forms were distributed to and collected from the student participants. To address ethical concerns, the names of all students involved in the research have been anonymized as S1 to S60. This approach maintains participant confidentiality while adhering to ethical standards.

The research involved administering pretest to both the experimental ($n=30$) and control ($n=30$) groups to establish baseline data. The experimental group then engaged in a project-based learning strategy, emphasizing experiential learning through real-world projects, while the control group did not receive this intervention. Post-test was conducted in both groups to assess the impact of project-based learning strategy, with quantitative data analyzed for significant differences.

Figure 2

Flowchart of Data Collection for Present Study



Additionally, semi-structured interviews with 15 volunteers from the experimental group provided qualitative insights into their experiences. These interviews allowed for an in-depth exploration of participants' perceptions and learning outcomes, enriching the quantitative findings (Liao & Li, 2023).

Data Analysis

In the present study, a dual-faceted analytical approach was adopted to address the complex nature of the gathered data, which included both quantitative and qualitative elements. Thorough statistical analyses were conducted on the quantitative data, using both independent samples t-test and paired-samples t-test. These analyses were performed with the aid of the Statistical Package for the Social Sciences (SPSS) software. The choice of these statistical tests was due to their effectiveness in comparing the average values between two distinct groups and assessing differences within the same group over two points in time, respectively. This approach allowed for a comprehensive examination of the potential variations within the parameters being studied. The qualitative data, on the other hand, necessitated a different analytical lens, given its inherent nature in favor of rich, descriptive insights (Edwards, 2020). To this end, NVivo, a leading qualitative data analysis software, was employed to conduct a thematic analysis. This approach was instrumental in identifying, analyzing, and reporting themes within the data. By adopting NVivo as the analytical tool, the research was able to systematically organize and code the qualitative data, facilitating a nuanced understanding of the underlying themes and narratives (Pham, 2024).

The integration of SPSS and NVivo within the methodological framework of this study underscored the commitment to comprehensive analytical rigor, catering to the multifaceted dimensions of the data. This dual approach not only enhanced the depth and breadth of the analysis but also aligned with the interdisciplinary nature of the research inquiry, ensuring that both quantitative and qualitative data contribute to a holistic understanding of the phenomena under study.

Results

The research findings were presented in this section from the perspectives of two research questions, where the results of quantitative and qualitative research complemented and validated each other. This approach allowed for a more comprehensive understanding of the data, as it combined the statistical rigor of quantitative analysis with the nuanced insights of qualitative research. This dual-method approach enhanced the credibility and depth of the research findings, providing a richer and more detailed perspective on the subject matter.

The Influence of Project-based Learning Strategy on EFL Learners' English Public Speaking Performance

To address the first research question concerning the impact of employing a project-based learning approach on the enhancement of English public speaking performance among university-level EFL learners in China, a comprehensive analysis was undertaken. This analysis meticulously examined the data collected through both pretest and post-test, employing a quantitative research methodology to ensure a rigorous and objective evaluation of the effectiveness of the instructional strategy in question.

Firstly, to further ensure that the initial English public speaking levels of the students in the experimental group and the control group were essentially the same, the researcher conducted a homogeneity test on the participants of the two groups using the independent-samples t-test in SPSS data analysis software, and the results were presented in Table 2.

Table 2

The Results of Homogeneity between the Experimental and Control Group

Test	F	t	df	Sig.
Levene's Test of Equality of Variances	.573	.508	58	.614

Levene's Test for Equality of Variances was conducted to assess the homogeneity of variances between the experimental and control groups. The results indicated that the test was not significant, $F(1,58) = 0.573$, $p = .614$. This non-significant result suggested that there was no substantial difference in variances between the two groups. Therefore, the assumption of homogeneity of variances was met, allowing for the subsequent analyses to proceed with confidence in their validity.

Paired-samples t-test was then conducted to determine if there were statistically significant differences in the means of the same group at two different times, specifically before and after the project-based learning intervention. The researcher operated two sets of data taken from the experimental and control group, the test results were shown in Tables 3 and 4, respectively.

Table 3*The Results of Paired-samples T-test (Control Group)*

Condition	N	Mean	SD	df	p
Post-test vs Pretest	30	.300	.953	29	.095

A paired-samples t-test was conducted to compare the scores of the control group before and after the project-based learning intervention (see Table 3). The analysis aimed to determine whether the intervention had a significant effect on the participants' performance. The results indicated that there was no statistically significant difference in scores from pretest ($M = 0.300$, $SD = 0.953$) to post-test, $t(29) = 1.725$, $p = .095$. The mean difference of 0.300 points suggests a small increase, but this change was not significant at the 0.05 level. These findings imply that the project-based learning intervention did not have a substantial impact on the control group's scores. This lack of significant difference highlights that any observed improvements might be due to random variation rather than the intervention itself.

Table 4*The Results of Paired-samples T-test (Experimental Group)*

Condition	N	Mean	SD	df	p
Post-test vs Pretest	30	23.200	3.708	29	.000

Conversely, for the experimental group (see Table 4), the results indicated a statistically significant increase in scores from pretest ($M = 23.200$, $SD = 3.708$) to post-test, $t(29) = 3.708$, $p < .001$. The substantial mean difference demonstrates that the project-based learning intervention effectively improved the scores of the experimental group. This significant increase suggests that the intervention had a positive impact, likely enhancing the participants' understanding and skills in the subject matter. These findings support the efficacy of project-based learning as an instructional strategy in this context.

Finally, to further corroborate that the results of the paired-samples t-test were related to the intervention of project-based learning strategy, the researcher conducted an independent-samples t-test between the control group and the experimental group using data obtained from the post-test. This was to observe whether the English public speaking performance of the two groups of students had any differences (see Table 5).

Table 5*The Results of Independent-samples T-test (Control Group vs Experimental Group)*

Group	N	Mean	SD	t	df	p
Experimental	30	86.33	1.048	21.277	58	.000
Control	30	64.03				

The results revealed a statistically significant difference in scores between the two groups. Specifically, the experimental group had a higher mean score ($M = 86.33$, $SD = 1.048$) compared to the control group ($M = 64.03$, $SD = 1.048$); $t(58) = 21.277$, $p < .001$. This substantial difference indicates that the project-based learning intervention was highly effective in enhancing the performance of the participants in the experimental group. The significant p-

value ($< .001$) underscores the robustness of these findings, suggesting that the observed effect is not due to chance.

EFL Learners' Perceptions of the Integration of Project-based Learning in Facilitating English Public Speaking Performance

To explore the second research question regarding how participants perceived the combination of project-based learning strategy with English public speaking courses, data from semi-structured interviews were analyzed by using the thematic analysis software NVivo. This comprehensive examination of participants' remarks led to the identification of codes and key themes (See Figure 3). This section focused on elaborating four themes directly related to the second research question.

Figure 3
Themes Drawn from Semi-structured Interview



Theme 1: Traditional Teaching Methods

The first theme identified from the responses of 15 learners during the interviews pertained to their perspectives on conventional pedagogical approaches utilized by the researcher in the English public speaking course before their exposure to project-based learning intervention.

It suggested that the most significant perceived disadvantage of traditional teaching methods related to teaching methodology and curriculum. S3 expressed that “it was a one-size-fits-all approach that did not work for me” while S8 also revealed that “the course materials felt outdated, they didn’t include modern techniques or consider the changing nature of public speaking in the digital age”. Additionally, there appeared to be an equal distribution of concern regarding language and communication skills, practical challenges, and psychological and cultural aspects. S13 disclosed that “there was too much focus on the spoken words and not enough on non-verbal aspects of public speaking like body language and eye contact”. Meanwhile, S1 said that “it was not enough on real-world practice as well”. Feedback and personalization were considered a disadvantage more frequently than the three items mentioned above, but less frequently than teaching methodology and curriculum. As what was illustrated by S2 in the interview—“In my classes, feedback was scarce and very general. I never got specific, actionable advice on how to improve my speaking skills.”

Theme 2: Integration of Project-based Learning Approach

During the discussion, the interviewees shared their insights on the integrating of project-based learning approach into English public speaking instruction, four primary codes were extracted: cooperative learning, feedback and constructive suggestions, confidence and motivation, and presentation skills development. Both cooperative learning and feedback and constructive suggestions were identified, suggesting that project-based learning strategy fostered collaborative skills among learners and encouraged critical thinking and the refinement of ideas through peer-to-peer interaction. In the process of the interview, S12 said “guidance in effective team collaboration during group projects enhanced my communication skills and confidence in collective settings”. Moreover, confidence and motivation appeared to be positively influenced by this strategy. S14 conveyed in the interview that “presenting our final project to an external audience gave me real experience in public speaking and helped build my confidence”. This underscored the role of project-based learning in bolstering students’ self-efficacy and intrinsic motivation. Most notably, the development of presentation skills was highlighted as a significant benefit. S10 commented, “our projects were not just about delivering facts; we were encouraged to infuse creativity and personal storytelling, which made public speaking more enjoyable,” supporting this point. This indicates that the project-based learning strategy was particularly effective in enhancing students’ public speaking and presentation abilities.

Theme 3: Teacher’s Role in Teaching and Learning

The interviewees shed light on the multifaceted responsibilities of teachers within the educational process, delving into their perspectives from various angles. The identified roles encompassed the facilitation of practical applications and the creation of a supportive learning environment, each highlighted consistently throughout the responses. S10 remarked that “the teacher’s integration of real-world scenarios and audiences into projects made his learning

more applicable and practical". Providing personalized guidance emerged as a recurrent theme, emphasizing the importance of tailored support for students. "Individualized advice from the teacher, considering my unique strengths and weaknesses, greatly improved my public speaking skills." S14 said. Notably, a prominent focus was placed on skills development, reflecting the prevalent role of educators in honing and cultivating essential competencies among learners. The response given by S15 could be a proof for this point—"the teacher's emphasis on critical thinking pushed her to develop speeches that were not only well-delivered but also intellectually stimulating and persuasive". The diverse array of responsibilities elucidated in the findings underscores the intricate nature of the teacher's role, with a particular emphasis on fostering skills development as a pivotal aspect of their educational duties.

Theme 4: Perceived Improvements

The visual representation in Figure 3 illustrated the perceived improvements in public speaking skills as reported by the interviewees. These improvements were categorized into four distinct areas: cultural and research awareness, language proficiency, anxiety reduction and confidence building, and speech delivery techniques.

As depicted in Figure 3 above, the largest section of the pie chart corresponded to speech delivery techniques. This suggested that all participants felt they had enhanced their skills in English public speaking performance. S7 expressed in the interview that "project-based learning helped me focus on clarity, teaching me to express complex ideas in a more understandable way". Anxiety reduction and confidence building was shown as the second most significant area of improvement, occupying a substantial portion of the chart. S14 made it clear in the interview that "presenting our final project to an external audience gave me real experience in public speaking and helped build my confidence". Thus, most of the participants perceived a notable increase in confidence and a decrease in anxiety related to public speaking. Language proficiency, the third area of improvement, represented by a smaller segment, indicating that the participants experienced advancements in their language usage. S2 said that "through extensive research and preparation for projects, she was exposed to new words, which significantly enriched her vocabulary". Lastly, the smallest segment, cultural and research awareness, was highlighted through the statement of S13, who noted, "engaging in projects related to diverse cultures has heightened my awareness of the subtle differences in how language is used".

Discussion

This research employs both quantitative and qualitative methods to investigate the impact of project-based learning on the English public speaking abilities of university-level EFL students in China and their attitudes towards its integration into curricula. Quantitative analysis using t-tests reveals significant improvements in the experimental group's public speaking performance post-intervention, underscoring the efficacy of the project-based learning strategy. The qualitative findings from thematic analysis of semi-structured interviews highlight themes such as traditional teaching methods, integration of project-based learning, the teacher's role, and perceived improvements in speech delivery and confidence.

These results align with experiential learning, constructivism, and engagement theories, demonstrating significant enhancements in public speaking performance. The improvement in

public speaking can be attributed to the practical, hands-on nature of project-based learning, aligning with Dewey's cycle of experiential learning, which emphasizes concrete experience, reflection, conceptualization, and experimentation (as cited in Kolb et al., 2014). Students engaged in real-world projects, enhancing their speaking skills through iterative practice and feedback. Constructivism views learners as active participants in their learning, constructing knowledge through interaction and collaboration (as cited in Fosnot, 2013). The collaborative nature of project-based learning allowed students to share ideas and build on each other's insights, creating a richer learning experience. The qualitative data reveal positive attitudes towards project-based learning, indicating that engagement principles fostered a dynamic and interactive learning environment, enhancing public speaking skills. Engagement theory emphasizes social interaction, technology, and authentic tasks (Johnson & Delawsky, 2013). Students were more motivated and engaged through real-world applications and collaborative projects. This environment improved not only public speaking skills but also critical thinking, problem-solving, and teamwork abilities, essential for future careers (Sabnani, 2024).

The findings of this study are consistent with earlier research on the benefits of project-based learning in language education. Studies have shown that project-based learning can significantly improve language proficiency and communication skills by providing students with opportunities to use the language in authentic contexts (Nguyen, 2021; Owens & Hite, 2022). The improvement in public speaking performance observed in the experimental group aligns with these findings, reinforcing the notion that project-based learning is an effective instructional strategy for enhancing language skills. Moreover, the study by Petrosino et al. (2024) demonstrated that project-based learning enhances students' confidence and ability to articulate their thoughts clearly and effectively. This is corroborated by the present study, where students reported increased confidence and reduced anxiety in public speaking. The alignment with these studies suggests that project-based learning not only improves language skills but also addresses affective factors such as confidence and motivation, which are crucial for language learning.

Contrarily, some studies have highlighted challenges in implementing project-based learning, such as the need for extensive teacher preparation and potential resistance from students accustomed to traditional teaching methods (Meng et al., 2023; Yang et al., 2021). While these challenges were not the primary focus of the current study, the positive perceptions of students toward project-based learning indicate that, when implemented effectively, these challenges can be mitigated.

The implications of these findings are multifaceted, impacting both pedagogical practices and policy decisions in EFL education. The significant improvement in public speaking performance suggests that project-based learning should be more widely adopted in EFL curricula. Educators should incorporate project-based tasks that require students to engage in real-world language use, promoting authentic learning experiences (Boss & Krauss, 2022). Positive student perceptions toward project-based learning highlight the importance of creating supportive and engaging learning environments. Teachers should be trained to facilitate project-based learning effectively, guiding students through various stages of project work while providing constructive feedback (Tan & Huet, 2021). Professional development programs focusing on project-based learning strategies can equip teachers with the necessary skills to implement this approach successfully.

The study underscores the need for a shift from traditional, teacher-centered methods to more student-centered approaches in EFL education. Policymakers should advocate for curricular reforms that emphasize experiential and constructivist learning principles, fostering a holistic educational experience that enhances language proficiency, critical thinking, collaboration, and problem-solving skills (Boardman et al., 2021). The significant improvement in public speaking performance among students in the experimental group demonstrates the practical benefits of project-based learning. Through active engagement in project-based tasks, students applied their language skills in meaningful contexts, leading to greater retention and proficiency. The collaborative nature of project-based learning made learning more enjoyable and relevant, increasing student motivation and engagement. By creating a supportive environment that encourages exploration and collaboration, teachers can help students develop critical thinking skills and students can take ownership of their learning by assessing their own skills, ultimately leading to significant improvements in language skills and learner confidence (Benraghda et al., 2022; Mohamed, 2023).


In conclusion, the integration of project-based learning into EFL education offers a promising approach to enhancing public speaking skills. By aligning with experiential learning, constructivism, and engagement theories, project-based learning provides a comprehensive framework for fostering authentic language use and developing critical communication skills. The positive findings of this study contribute to the growing body of evidence supporting project-based learning and underscore its potential as a transformative instructional strategy in language education. Educators and policymakers should consider the benefits of project-based learning and work towards incorporating it more widely into EFL curricula to improve language learning outcomes and prepare students for the demands of a globalized world.


Conclusion

By incorporating project-based learning strategy into the curriculum, the experimental group showed notable advancements in public speaking compared to the control group, verifying its capability to enhance practical language use and address the lack of oral communication skills development in traditional English education. The research confirmed project-based learning strategy as a viable method for enhancing English public speaking abilities, with students responding positively to this approach. The combination of quantitative and qualitative data from pretest, post-test, and interviews strongly supported its role in improving EFL learners' public speaking skills and fostering a more engaging and student-centered learning environment. However, the study's limitations, including its small sample size and the short duration of the project-based learning intervention, suggest the need for further research with larger, more diverse groups and over extended periods. Future studies should explore the long-term effects of it on EFL public speaking skills, encouraging educators to integrate this strategy into EFL programs to better cater to students' needs and interests.

ORCID

 <https://orcid.org/0000-0003-3556-3455>

 <https://orcid.org/0000-0001-7999-8261>

 <https://orcid.org/0000-0001-7418-6360>

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Ethics Declarations

Competing Interests

No, there are no conflicting interests.

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