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Improving Business English Learners' Self-Efficacy for Oral Communicative Competence through Project-Based Learning

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Abstract

This quasi-experimental study examined the effectiveness of Project-Based Learning (PBL) as a teaching strategy for enhancing the self-efficacy of oral communicative competence among Chinese Business English learners. The participants consisted of 62 Business English students enrolled in a Listening and Speaking course at a private college in China, who were purposefully selected for the study. The intervention involved a 16-week instructional period utilizing PBL as the core teaching strategy. Data were collected through a self-efficacy questionnaire on oral communicative competence, administered as both pre-test and post-test, along with semi-structured student interviews conducted after the intervention. Quantitative data were analyzed using t-tests, while qualitative data underwent thematic analysis. The findings indicated a significant improvement in learners' self-efficacy in oral communicative competence and demonstrated positive student perceptions of PBL as a supportive method for building confidence. The study concludes that PBL is an effective instructional strategy for enhancing oral communicative self-efficacy in Business English contexts. It is recommended that PBL be adopted as a pedagogical approach in English language instruction aimed at

fostering learner confidence and communicative competence.

Keywords: project-based teaching, self-efficacy of oral communicative competence, attitude

1. Introduction

1.1 Introduce the Problem

One of the vital issues in language learning is fostering a positive belief in learning success. Such belief has a significant impact on students' motivation, effort, and classroom engagement, helping them avoid the misconception that challenging tasks are beyond their capabilities (Wang & Rajprasit, 2015). From the perspective of educational psychology, this belief is captured by the concept of self-efficacy—defined as an individual's belief in their ability to execute specific behaviors necessary to achieve desired outcomes (Bandura, 1977).

In the context of English as a Foreign Language (EFL) learning, self-efficacy specifically refers to learners' beliefs in their capabilities to perform well in using English in both academic and real-life settings (Zhang, Ardasheva, & Austin, 2020; Noorollahi, 2021; Sun et al., 2021). These beliefs are especially important for developing oral communication skills, which are widely recognized as one of the most anxiety-inducing aspects of language learning. Environmental constraints—such as limited exposure to authentic communication contexts and insufficient opportunities to practice speaking—often contribute to increased language anxiety and reduced confidence (Chen et al., 2013; Joraboyev, 2020). For instance, Tong et al. (2024) found that many learners hesitate to speak English in public due to fear of negative evaluation, resulting in low oral proficiency and limited classroom engagement.

Low self-efficacy not only reduces learners' willingness to participate in oral tasks but also reinforces avoidance behaviors, creating a cycle that further hinders oral development. The connection between self-efficacy and oral performance is therefore critical: learners who believe in their ability to succeed are more likely to persevere through communicative challenges, while those with low self-efficacy tend to disengage or resist such opportunities (Zhang et al., 2020; Noorollahi, 2021; Sun et al., 2021).

Recognizing the central role of self-efficacy in speaking development, there is a growing need to explore instructional approaches that both increase students' confidence and provide them with meaningful speaking opportunities. Traditional teacher-centered methods often emphasize rote memorization and written grammar exercises, neglecting the importance of interactive speaking practice. In contrast, more communicative and student-centered approaches may offer solutions by creating supportive, authentic, and interactive learning environments. One such approach that holds promise is Project-Based Learning (PBL)—an instructional method designed to promote deeper engagement, real-world relevance, and collaborative knowledge construction. Although this method is elaborated extensively in the literature, its specific impact on improving EFL learners' oral communication competence and self-efficacy remains under-explored in certain contexts, such as in Business English education in China. This gap highlights the need for further research into how PBL might serve as an effective intervention

for strengthening students' oral communication and boosting their confidence in English use.

1.2 Related Studies

1.2.1 Self-Efficacy

Self-efficacy is defined as "beliefs in one's capabilities to organize and execute the courses of action required to produce given attainments" (Bandura, 1997, p. 3). Bandura (1997) argued that human behavior is influenced by the interplay of personal, behavioral, and environmental factors, with self-efficacy serving as a critical predictor of task outcomes.

According to Bandura (1997), four main sources contribute to the development of self-efficacy beliefs: (a) mastery experiences, (b) vicarious experiences, (c) social persuasion, and (d) physiological and emotional states. Mastery experiences refer to individuals' own successful task performance, which generally strengthens self-efficacy, while perceived failures may diminish it, with factors such as task difficulty or assistance influencing these perceptions. Vicarious experiences involve observing others succeed, which can bolster self-efficacy, especially when learners lack direct experience (Bandura, 1997; Schunk, 1987). Social persuasion encompasses verbal encouragement and feedback from teachers and peers, with positive feedback enhancing self-efficacy and negative comments potentially reducing it (Bandura, 1997; Pajares, 2006). Lastly, physiological and emotional states—such as anxiety, stress, or calmness—act as internal cues that can either impair or enhance one's self-efficacy (Bandura, 1997).

In the context of language learning, these sources significantly impact learners' motivation and engagement. Learners who have experienced success in language tasks tend to develop higher self-efficacy, as mastery through practice and feedback reinforces their beliefs (Politzer, 1983). Empirical studies consistently demonstrate that self-efficacy is a crucial factor affecting English as a Foreign Language (EFL) learners' outcomes (Schunk, 1994; Abedini & Rahimi, 2009). High self-efficacy encourages active participation in communicative activities, which is essential for developing oral communication skills (Graham, 2022). Furthermore, strong self-efficacy helps alleviate language anxiety, thereby boosting learners' confidence and sense of accomplishment.

Several studies have underscored the challenges faced by learners with low self-efficacy in speaking contexts. Zhang and Austin (2020), Noorollahi (2021), and Sun et al. (2021) found that learners with low self-efficacy often lack the confidence needed for effective self-expression and tend to avoid engaging in spoken tasks, which in turn impedes the development of their communicative competence in both academic and real-life settings. In contrast, Graham (2022) emphasized that learners with high self-efficacy are more willing to take risks and participate actively in conversations, thereby facilitating the improvement of their oral proficiency.

1.2.2 Project-Based Learning and Self-Efficacy

Project-Based Learning (PBL) is a student-centered teaching approach in which learners actively engage in real-world, meaningful projects over an extended period (Buck Institute for

Education, 2014). Rooted in constructivist learning theory, PBL promotes knowledge construction through inquiry, problem-solving, and critical thinking (Pellegrino & Hilton, 2012; Ravitz, 2010). By responding to authentic and complex questions or challenges, students acquire both knowledge and skills.

In the EFL context, self-efficacy relates to learners' confidence in their ability to use English effectively, particularly in oral communication. Research indicates that high self-efficacy enhances motivation, persistence, and resilience, enabling learners to undertake challenging tasks and persist despite difficulties (Tan & Chan, 2012). Conversely, low self-efficacy tends to lead to avoidance of oral communication activities (Graham, 2022). Raoofi et al. (2012) reported that learners with higher self-efficacy experienced reduced language anxiety, which increased their willingness to participate in speaking tasks. A recent study by Liu (2023) on Chinese university EFL learners revealed significant differences in language learning beliefs and self-efficacy across proficiency levels, indicating a strong correlation between these constructs.

With the rapid expansion of global business exchanges, especially under China's Belt and Road Initiative, the demand for fluent and accurate oral communication skills in business settings has intensified (Liu, 2018). The Chinese Ministry of Education emphasizes the importance of listening and speaking skills in college curricula, particularly through the compulsory Listening and Speaking course, to prepare students for future workplaces (China's College English Curriculum Standards, 2020). Internship programs further aim to integrate theoretical knowledge with practical experience, fostering students' confidence and familiarity with workplace routines.

Despite these efforts, employment data indicate that many Chinese graduates lack sufficient oral communication skills and confidence, even after years of English study, which creates significant challenges in their job market entry (College Graduates' Employment Annual Report, 2023). This suggests that graduates often struggle to adapt to project-based work models in corporate environments and to present their ideas effectively. They typically lack fundamental communication etiquette, teamwork awareness, and problem-solving skills, which contribute to low self-efficacy. Consequently, companies prioritize hiring graduates with strong workplace communication skills and high self-efficacy, yet many graduates fall short of these expectations.

In Taiwan, English for General Purposes (EGP) is a required course for all college students, while English for Specific Purposes (ESP) courses are increasingly offered to both vocational and college students to promote autonomous learning and enhance competitiveness in international workplaces. In 2021, Taiwan's Ministry of Education launched a nationwide bilingual education program aiming to transform Taiwan into a bilingual nation by 2030 (Taiwan Financial Supervisory Commission, 2019). As part of this plan, ESP courses have been recommended for integration with freshman-year EGP courses to facilitate students' success in English Medium Instruction (EMI) courses (Tsao et al., 2008).

Based on the above this study attempts to ascertain the effectiveness of using project-based learning as a teaching strategy on the oral communicative competence of Business English

language learners in a private college. The study also gathers the opinions of the English language learners related to the effectiveness of the teaching strategy from their experience during the implementation of the study in a Business English listening and speaking course and the following research questions and hypothesis were explored:

Research Questions:

1) Does Project-Based Learning (PBL) significantly impact Chinese Business English students' self-efficacy in oral communicative competence?

2) What are students' perceptions of PBL in improving their self-efficacy in oral communicative competence after the intervention?

Research Hypothesis:

H01: There is no significant difference in oral communicative competence self-efficacy pre- and post-test scores between the experimental and control groups.

H01a: There is no significant difference in oral communicative competence self-efficacy pre- and post-test scores within the experimental group.

H01b: There is no significant difference in oral communicative competence self-efficacy pre- and post-test scores within the control group.

H02: There is no significant difference in post-test oral communicative competence self-efficacy scores between the experimental and control groups.

2. Method

This study adopted an explanatory sequential mixed-methods design (Creswell, 2009), where quantitative data were collected and analyzed prior to qualitative inquiry. The initial quantitative phase aimed to assess the impact of Project-Based Learning (PBL) on Business English learners' self-efficacy for speaking. The subsequent qualitative phase involved semi-structured interviews to gain deeper insights into learners' perceptions on PBL in improving their speaking self-efficacy after the intervention and to contextualize the quantitative results.

2.1 Participants

Participants included 62 undergraduate students enrolled in a Business English program at a Chinese university. The experimental group (n = 32) received instruction through a PBL approach, while the control group (n = 30) followed traditional teacher-centered instruction. All participants were aged 19–21, with approximately 12 years of English learning experience. Based on their College Entrance Examination scores and classroom performance, their English proficiency could be categorized as B1 (Intermediate) according to the Common European Framework of Reference for Languages (CEFR). All participants were enrolled in a compulsory Listening and Speaking Course for Business English Learners in the third semester.

2.2 Instruments

English Language Proficiency Test

To ensure baseline equivalence between groups, participants completed the National Business English Proficiency Test (NBEPT, Band 4). Developed by the National Business English Major Teaching Collaboration Group and Examination Committee, the NBEPT is a 120-minute standardized test evaluating listening, reading, and language knowledge in business contexts. The test has established content validity and high reliability.

Speaking Test

Speaking performance was assessed using a test modeled after the Cambridge Business English Certificate (BEC) framework. The test consisted of two parts: (1) a brief conversation with the examiner and (2) a short presentation on a business-related topic, followed by discussion questions. Each session lasted approximately seven minutes. The evaluation followed BEC-based criteria for fluency, vocabulary, grammar, coherence, and task fulfillment.

Self-Efficacy Questionnaire

The Speaking self-efficacy was assessed using a modified version of Wang's (2014) Questionnaire of English Self-Efficacy (QESE). The revised questionnaire was designed to capture both background information and specific aspects of speaking confidence. The first section collected participants' demographic data and prior language learning experiences, adapted from Oxford's framework (1990, p. 282), to provide context for interpreting their self-efficacy levels. The second section consisted of 25 self-assessment items that measured speaking self-efficacy across five distinct dimensions. These included Pronunciation and Fluency, Grammar and Vocabulary, Expressive Communication and Adaptability, Engagement and Audience Awareness, as well as Confidence and Professionalism. Together, these dimensions offered a comprehensive evaluation of the learners' perceived abilities in various critical aspects of spoken English. Items were rated on a 7-point Likert scale (1 = "I cannot do it at all", 7 = "I can do it well"), following Bandura's (2006) guidelines. The internal consistency of the questionnaire was assessed using Cronbach's alpha ($\alpha = 0.86$).

Semi-Structured Interview

To complement the questionnaire data, semi-structured interviews were conducted with selected participants from the experimental group. The interview guide was designed based on the questionnaire dimensions, with a focus on areas that exhibited significant or minimal changes in the quantitative results. The interviews explored learners' perceptions of their self-efficacy development in the context of the PBL experience.

2.3 Procedures of the Study

This study employed a quasi-experimental design with pre-test and post-test measures to examine the effectiveness of Project-Based Learning (PBL) in improving Business English learners' self-efficacy in oral communicative competence (OCC). The procedures consisted of three main phases: the pre-test phase, the treatment phase, and the post-test phase.

Pre-test Phase

Approximately one to two weeks prior to the instructional intervention, a pre-test phase was conducted to establish baseline measures for the participants' language proficiency, oral communicative competence, and self-efficacy. A total of 78 first-year Business English majors were involved, with participants assigned to either an experimental or control group.

All the participants first completed the Business English TEM-4 (Test for English Majors - Band 4), a widely recognized standardized test in China that assesses Business English students' proficiency in practical language use. Additionally, a researcher-designed speaking test was administered to evaluate the participants' baseline oral communicative skills in business-related contexts.

To measure learners' self-perceived efficacy in speaking, a self-efficacy questionnaire adapted from validated instruments was distributed. The questionnaire demonstrated strong internal consistency and covered multiple dimensions of oral language use in academic and workplace settings.

All oral responses were independently rated by two experienced English instructors using a researcher-developed rubric aligned with the course objectives and the theoretical construct of OCC. This dual scoring process ensured objectivity and reliability in the assessment of students' performance.

Treatment Phase

The intervention spanned 16 weeks, corresponding to Weeks 3–14 of the Listening and Speaking course for Business English learners. The experimental group received instruction based on PBL principles, while the control group followed conventional teaching practices.

Experimental Group: PBL-Based Instruction

Students in the experimental group participated in a sequence of project-based tasks aligned with the course outcomes and designed to reflect authentic business communication scenarios. Tasks required the integration of multiple language skills, including reading business materials, drafting project proposals, and delivering oral presentations.

Instruction in the experimental group was learner-centered, with the instructor acting as a facilitator who provided scaffolding at the early stages of each project. As the projects progressed, students assumed greater autonomy in planning, researching, and presenting their work. Each project culminated in a formal group presentation, which was video-recorded for both formative assessment and reflective self-evaluation purposes.

Control Group: Conventional Instruction

In contrast, the control group received traditional instruction typical of tertiary EFL classrooms in China. Lessons were teacher-directed and followed a structured sequence of textbook-based input, in-class listening and speaking drills, and assigned group presentations. Students had limited autonomy, and classroom interaction was largely teacher-initiated. Assessments focused on language accuracy through summative evaluation.

Post-test Phase

Following the completion of the 14-week course, a two-week post-test phase was implemented to assess the impact of the instructional approaches. All participants retook the self-efficacy questionnaire and completed the same listening and speaking tests used in the pre-test phase. The scoring procedures remained consistent with the pre-test, with oral responses independently rated by two trained evaluators.

To gain qualitative insights, four students from the experimental group were selected for semi-structured interviews. These interviews explored their perceived progress in self-efficacy, learning experiences, and attitudes toward the PBL approach. All data collected during the study were anonymized and securely stored. The combination of quantitative and qualitative data provided a comprehensive understanding of the effects of PBL on Business English learners' self-efficacy and oral communicative competence.

2.4 Data Analysis

The data collection process followed a three-phase structure: pre-test, intervention, and post-test, designed to comprehensively assess the impact of Project-Based Learning (PBL) on Chinese Business English learners' self-efficacy. The data analysis section outlines the methods employed to analyze the study's quantitative data. All data, including information from the English Proficiency Test, speaking test, and Self-efficacy questionnaire, underwent quantitative analysis. The Statistical Package for the Social Sciences (SPSS) was used for conducting the analysis. Descriptive statistics was employed to present the demographic variables of the participants, as well as the results from the speaking tests and self-efficacy questionnaires, including mean, frequency, and standard deviation.

3. Results

Before reporting the research result, table 3.1 below summarizes the reliability coefficients overall and for each dimension within the scale of self-efficacy for oral communicative competence.

Table 3.1 Reliability of Self-Efficacy Questionnaire for Oral Communicative Competence

Reliability Statistics	
Cronbach's Alpha	N of Items
.979	25

The data screening process yielded no data errors or missing values in the scale measuring self-efficacy for speaking. As shown in table 4.1, the analysis of Cronbach's Alpha demonstrated very high internal consistency (α=.979) across the scale, indicating strong reliability and suggesting that the items on the scale effectively measured the construct of self-efficacy in speaking.

3.1 Demographic Characteristics of Participants

To ensure the baseline equivalence of the treatment group and comparison group of the quasi-experimental design, the participants shared similar demographic characteristics in terms of age, ethnicity, gender distribution, language background, and academic background. Table 3.2 summarizes the demographic information.

Table 3.2 Demographic Information of the Participants

Variables	Experimental Group (n=32)	Control Group (n=30)
Ethnicity		
Han Chinese	32 (100%)	30 (100%)
Gender		
Female	28 (86.11%)	22 (81.58%)
Male	4 (13.89%)	8 (18.42%)
Age		
18 years	2 (5.56%)	4 (10.53%)
19 years	28 (88.89%)	20 (68.42%)
20 years	2 (5.56%)	3 (15.79%)
21 years	0 (0%)	3 (5.26%)
Grade Level	Junior (second year): 32 (100%)	Junior (second year): 26 (100%)

The following section displays the normal distribution of all the metric variables related to the research hypotheses. However, because the sample size is small (only the Shapiro-Wilk statistic is considered).

Table 3.3: Normality Test of Self-efficacy Scores

Tests of Normality						
		Shapiro-Wilk				
	Group	Statistic	df	Sig.	Skewness	Kurtosis
Prespeaking	E	0.940	32	0.077	0.352	0.077
	C	0. 187	26	0.020	-0.292	0.527
Postspeaking	E	0.912	32	0.013	0.591	-0.755
	C	0.210	26	0.005	0.435	0.897

The Shapiro–Wilk test of table 3.3 was used to assess the normality of speaking scores. Results showed that the experimental group's prespeaking scores were normally distributed ($p = .077$), while all other scores significantly deviated from normality ($p < .05$). Therefore, non-parametric tests were used in further analysis.

3.2 Effects of PBL Teaching Strategy on Self-efficacy for Oral Communicative Competence

H01: The self-efficacy for oral communicative competence pre-test and post-test scores between the experimental and control groups show no significant differences.

This hypothesis has two sub-questions separately. The following reports the results from H0(1a) firstly and H0(1b) secondly.

H0(1a): The self-efficacy for oral communicative competence pre-test and post-test scores

shows no significant differences for the experimental group.

Paired samples t-tests were performed on the self-efficacy questionnaire for speaking test data to determine changes before and after the experiment in both groups. Table 3.4 summarises the results of paired samples t-test for the experimental group.

Table 3.4 Results of Paired sample t-test for the Oral Communicative Competence Test of the Experimental group

Self-efficacy for Speaking questionnaire	Mean	Std. Deviation	t	df	Sig. (2-tailed)	Mean Difference	d
			-3.70	31	0.001	0.95	1.46
Pretest	3.78	0.77					
Posttest	4.73	1.13					

As presented in Table 3.4, the experimental group exhibited a significant disparity between the pretest and posttest results for the self - efficacy in the speaking questionnaire (t (31) = - 3.70, p = 0.001<.05). The mean score of the pretest (M = 3.78, SD = 0.77) was notably lower than that of the posttest (M = 4.73, SD = 1.13). This outcome clearly demonstrates a significant enhancement in the self - efficacy for speaking among the members of the experimental group. Therefore, H0(1 a) was rejected.H0(1b): The self-efficacy for speaking pre-test and post-test scores shows no significant differences for the control group. Table 3.5 presents the results of paired samples t-test for the control group.

Table 3.5 Results of Paired sample t-test for the Speaking self-efficacy Test of the Control Group

Speaking test	Mean	Std. Deviation	t	df	Sig. (2-tailed)	Mean Difference	d
			-0.95	25	0.021	-0.15	1.34
Pretest	3.92	0.92					
Posttest	4.08	0.93					

As presented in Table 3.5, the control group exhibited a significant disparity between the pretest and posttest results for the self-efficacy for speaking questionnaire (t (25) = -.59, p =.021<.05). The mean score of the pretest (M = 3.92, SD = 0.92) was lower than that of the posttest (M = 4.08, SD = 0.93). This outcome clearly demonstrates an enhancement in the self - efficacy for speaking among the members of the control group. Therefore, H0(1 b) was rejected.

H02: The self-efficacy for oral communicative competence post-test scores between the experimental and control groups show no significant differences.

To assess the first null hypothesis, an independent samples t-test was carried out. The aim of this test was to compare the impacts of Project-based Learning (PBL) and traditional teaching strategies on the self-efficacy for speaking skills of Business English learners. Table3.6 presents the summary statistics from the independent samples t-test.

Table 3.6 Independent Sample t-test for the Oral Communicative Competence Self- efficacy Test between Experimental and Control Groups

Groups	Mean	Std.	t	df	Sig.	Mean Difference	d
			2.38	56	0.01	0.66	1.05
Experimental	4.73	1.13					
Control	4.07	0.93					

It can be seen from the data in Table 3.6 that the BE learners in the PBL group (M = 4.73, SD = 1.13) outperformed those in the conventional group (M = 4.07, SD = 0.93) based on the mean scores. Moreover, a significant difference in the mean scores of speaking tests between the experimental and control groups was found ($t = 2.38$, $p = 0.01 < 0.05$). These results suggest that the improvement of self-efficacy for speaking skills between the learners who were taught using PBL and the conventional teaching strategies was statistically significant. That is to say, the PBL approach appears to have had a more pronounced impact on enhancing the self-efficacy of oral communicative competence among learners compared to the conventional teaching method. From the above results, H01and H02 were all rejected.

3.3 Self-efficacy for Oral Communicative Competence of Post-Test Dimensions Comparison

After presenting the overall impact of Project-Based Learning (PBL) on learners' self-efficacy, this study further seeks to analyze students' performance across the distinct dimensions of oral communicative competence in the questionnaire. This comparative analysis of post-questionnaire scores aims to reveal the extent of improvement in each dimension and uncover the potential contributing factors behind such changes. The following part presented the results in details. To check each dimension for self-efficacy questionnaire of posttest scores between the experimental group and the control group, the paired sample t-test was used to report the results.

Table 3.7 Independent Samples t-Test for Each Dimension of the Posttest Between the Experimental Group and the Control Group

Dimensions	Group	Mean	Std.	t	df	Sig.	Mean Difference	d
Pronunciation				2.09	56	.041	0.54	1.02
	C	4.40	1.09					
&Fluency	E	4.97	0.97					
Grammar&				1.53	56	0.113	0.44	1.09
	C	3.90	0.72					
Vocabulary	E	4.34	1.32					
Communication				2.57	56	0.013	0.65	0.95
	C	4.06	0.62					
& Adaptability	E	4.70	1.15					
Engagement&				3.65	56	<0.001	0.94	0.98
	C	4.06	0.88					
Awareness	E	5.00	1.05					
Confidence&				2.34	56	0.023	0.26	1.02
	C	4.13	0.90					
Professionalism	E	4.75	1.10					

It can be seen from the above table 3.7 that the Pronunciation & Fluency dimension showed a significant difference in the posttest scores between the experimental group (M=4.97, SD=0.97) and the control group (M=4.40, SD=1.09). The t-value of 2.09 (df = 56) suggests that the difference in mean scores between the pretest and posttest is significant. p =.041<.05(two-tailed) further supports this, indicating that students in the experimental group performed significantly better. The effect size, as measured by Cohen's d (d=1.02), suggests a large effect.

The Communication & Adaptability dimension showed a significant improvement in the experimental group (M = 4.70, SD = 1.15) over the control group (M = 4.06, SD = 0.62), t(56) = 2.57, p = .013 < .05. The large effect size (d = 0.95) indicates a meaningful impact of the intervention on students' self-efficacy.

Moreover, the Engagement & Awareness dimension exhibited the most significant difference, with the experimental group (M=5.00, SD=1.05) outperforming the control group (M=4.06, SD=0.88). The t-value of 2.57 (df = 56) suggests that the difference in mean scores between the pretest and posttest is significant. p<.0001 (two-tailed) further supports this. The effect size (d=0.98) further supports the substantial impact of the intervention.

For the Confidence & Professionalism dimension, the experimental group (M=4.75, SD=1.10) had significantly higher scores than the control group (M=4.13, SD=0.90), The t-value of 2.34 (df = 56) suggests that the difference in mean scores between the pretest and posttest is significant. p=.023 <.05 also indicated that the difference was significant. The effect size (d=1.02) suggests a strong practical significance.

However, no statistically significant difference was found in the Grammar & Vocabulary dimension, as indicated by a t-value of 1.53 (df = 56, p = .113 > .05), despite the experimental group (M = 4.34, SD = 1.32) having a higher mean score than the control group (M = 3.90, SD = 0.72).

Overall, these findings indicated that the PBL intervention significantly improved students' self-efficacy for oral communicative competence across multiple dimensions, with large effect sizes suggesting that the changes were meaningful and not merely due to chance.

3.4 Students' perceptions toward project-based learning in improving their self-efficacy for speaking skills after PBL

This section explores students' perceptions of how project-based learning (PBL) influenced their self-efficacy in oral communicative competence. Based on interview data, six key themes emerged, reflecting both gains in confidence and persistent challenges. These themes are analyzed in relation to Bandura's (1997) theory of self-efficacy and relevant constructs in communicative competence. Table 3.8 presents the themes alongside with their sub-themes.

Table 3.8 Summary of Emergent Themes and Sub-themes from Students

Theme	**Sub-themes**
1. Enhanced Audience Engagement	Eye contact; Gesture use; Adjustment to audience
2.Partial Confidence in Complex Speaking	General confidence; Complex-task anxiety

Theme	Sub-themes
3. Motivated Listening Strategies	Authentic materials; Pre-listening planning
4.Listening Barriers & Group Dynamics	Unfamiliar accents; Passive listening behavior; Group roles
5.Presentations as Confidence Boosters	Presentations; Positive feedback
6. Peer & Reflection Support	Learning from peers; Post-task reflection
7. Remaining Barriers	Role rigidity; Emotional fatigue

As seen in Table 3.8, students' perceptions of project-based learning were organized into key themes and sub-themes. These are further illustrated and supported with direct student quotations and analysis in the following sections.

Theme 1: Enhanced Audience Engagement

A prominent theme that emerged was the student's enhanced ability to connect meaningfully with the audience during oral presentations. This reflects a growing consciousness and intentional regulation of how messages were conveyed and interpreted. The participant described a transition from a passive presentation style to one characterized by interactive engagement, including purposeful eye contact, the use of hand gestures, and adjustments tailored to the audience's needs.

"Before, I mostly stared at the screen or read from my notes. Now, I'm more comfortable looking at my classmates as I speak. I think it helps them follow what I'm saying."

This progression highlights the development of strategic competence as described by Canale and Swain (1980), and aligns with Bandura's (1997) notion of self-efficacy, which involves individuals' belief in their capacity to regulate behavior and achieve desired outcomes.

"When the topic is challenging, I try using hand gestures to explain things. It makes me feel more confident and professional."

These reflections indicate that the learner began to take ownership of their communication skills, experiencing a sense of agency that contributed to a positive mastery experience—one of the primary contributors to self-efficacy development. While students showed notable growth in audience engagement, they also expressed ambivalence about their confidence when faced with more demanding speaking tasks.

Theme 2: Partial Confidence in Complex Speaking

While the student's general speaking confidence improved, they reported feeling only somewhat confident when addressing more abstract or cognitively demanding topics, especially in business English contexts.

"It's easier when the topic is daily life or something I know. But if the topic is complex, I feel confused."

This sub-theme demonstrates a task-specific limitation of self-efficacy, aligning with Bandura's

(1997) view that self-efficacy varies depending on context and task difficulty. The student described experiencing mental strain during presentations that required advanced vocabulary, layered reasoning, or had strict time limits. These situations often caused anxiety, particularly due to the fear of negative evaluation and struggles with recalling appropriate language in front of others.

"When I forget the words in front of others, I feel nervous and afraid they will think I'm not good at English."

The findings suggest that while Project-Based Learning (PBL) fosters confidence in familiar scenarios, it may not fully support learners in more complex speaking tasks. To maintain learners' motivation and emotional stability, additional scaffolding—such as structured language support or rehearsal opportunities—is essential for easing cognitive pressure and promoting continued growth in self-efficacy.

Theme 3: Motivated Listening Strategies

An important progression observed in the student's learning was their increasingly active involvement in listening activities. This theme, referred to as *Motivated Listening Strategies*, illustrates the student's conscious use of specific techniques aimed at enhancing both listening comprehension and confidence.

"I listened again and again."

Such repeated and goal-oriented practice exemplifies self-regulated learning behaviors, as defined by Zimmerman (2000). The student further reported applying selective attention by focusing on essential words and expressions rather than attempting to process every single word, indicating a shift from a bottom-up to a more top-down approach to listening.

"I don't try to understand every word. I just catch the important ones."

Additionally, the student highlighted the role of peer support in group discussions, which created chances to clarify meaning and reduce anxiety.

"When I don't understand something, I ask my group members. They help me."

This experience corresponds with Bandura's (1997) theory, emphasizing the value of vicarious learning and verbal encouragement from others in building self-efficacy beliefs.

Theme 4: Listening Barriers and Group Dynamics

Despite employing purposeful listening strategies, the participant continued to encounter significant challenges. Three interconnected sub-themes emerged: difficulty understanding unfamiliar accents, hesitation to seek clarification, and unequal participation within group settings.Comprehending non-native English accents—especially those from Indian or Southeast Asian speakers—was noted as particularly difficult:

"Some of the materials have Indian speakers or people from other countries... I find it hard to understand. It's not like American English or the English we're used to."

The student also reported discomfort in interrupting for clarification, viewing such behavior as socially inappropriate:

"I don't often interrupt, even if I don't understand, because I don't want to be rude or make others feel uncomfortable."

Additionally, imbalanced group dynamics contributed to passive involvement. In cases where a few individuals dominated the discussion, the participant found it difficult to engage:

"Sometimes, one or two people in the group do most of the talking. I just listen. I want to talk, but I don't know when to join."

These insights indicate that in the absence of clearly defined roles and interaction protocols, project-based group activities can unintentionally reinforce passivity and reduce opportunities for oral participation, particularly for less assertive learners.

Theme 5: Presentations as Confidence Boosters

The participant identified project presentations and feedback sessions as key turning points in building speaking self-efficacy. Successfully completing a presentation was described as a source of pride and accomplishment:

"At first, I was nervous about presenting, but when I finished and everyone listened, I felt proud. I didn't expect that I could do it in English."

Positive feedback from teachers and peers served as powerful social persuasion, validating the learner's efforts and increasing motivation:

"After I spoke, my teacher said I did well, and my classmates said 'good job.' That made me feel more confident."

These experiences constitute mastery experiences and external encouragement, both of which Bandura (1997) identified as major contributors to the development of self-efficacy beliefs.

Theme 6: Peer & Reflection Support

Both participants emphasized the importance of peer interaction as a valuable resource for enhancing their speaking abilities. By listening to their classmates during discussions and presentations, they absorbed useful phrases, sentence structures, and presentation techniques that they could incorporate into their own speech. Zhang referred to this as a form of indirect learning:

"I listen to how they explain ideas and how they use words. I feel like I can learn from their way of speaking."

This exposure to peers was particularly beneficial for learners who felt less confident or struggled to generate ideas. Their peers acted as readily available models of effective communication, often motivating quieter students to become more engaged and actively participate in future activities.

Reflection, particularly following speaking tasks such as presentations, also played a

significant role in learner development. Both students observed that reviewing their own performances helped them identify strengths and areas for improvement. Zhu Rundi shared:

"After the task, I think about what words I forgot or what parts were difficult. Then I know how to prepare next time."

Through individual reflection and occasional group discussions, learners were able to internalize their experiences, enhance strategic awareness, and gradually build confidence. This reflective practice was considered a key component of ongoing progress within the Project-Based Learning framework.

Theme 7: Remaining Barriers

Although project-based learning (PBL) had a generally positive impact, some challenges persisted for the learners, particularly role rigidity and emotional fatigue, which limited the full development of their oral communicative competence despite improvements in other areas.

Participants shared that being assigned fixed or repetitive roles within groups sometimes restricted their opportunities to practice speaking in diverse ways. For instance, repeatedly taking on passive or support roles meant fewer chances to lead discussions or deliver presentations. Zhu Rundi explained:

"In my group, I always did the PPT and others spoke. I wanted to speak more, but they said I was good at slides."

This consistent assignment to non-speaking tasks reinforced unequal participation and hindered some students' progress in oral fluency, despite overall skill gains.

Additionally, increased workload, performance pressure, and ongoing communication demands contributed to emotional exhaustion among some learners. This fatigue occasionally diminished their motivation to participate in speaking activities, particularly toward the end of project cycles. Bai remarked:

"Sometimes I feel very tired. So many tasks, and we must speak again and again. I lose energy and don't want to talk."

Although not constant, this emotional strain emerged during intense project periods and could reduce the effectiveness of PBL unless managed through appropriate pacing, support, or variety in task design.

4. Discussion

This study investigated the impact of Project-Based Learning (PBL) on the self-efficacy of Chinese Business English learners, focusing particularly on speaking skills. Firstly, quantitative results showed a significant increase in speaking self-efficacy in the PBL group, with mean scores rising from 3.78 to 4.73 ($t(31) = -3.70$, $p = 0.001$), whereas the control group showed minimal change. Moreover, the posttest difference between groups was also statistically significant ($t = 2.38$, $p = 0.01$). However, no significant improvement was found in

listening self-efficacy. Despite using listening strategies such as selective attention and repeated listening, learners faced ongoing challenges like unfamiliar accents, passive listening habits, and unclear group roles, which appeared to limit their confidence in listening.

These findings therefore support Bandura's (1977, 1997) theory of self-efficacy, which highlights mastery experiences as essential for building confidence. Within PBL, learners engaged in authentic speaking tasks such as presentations and role-plays, likely contributing to their increased speaking self-efficacy. This outcome is consistent with previous research (Shin, 2018; Bilgin et al., 2015; Yang & Harijanto, 2022) showing that PBL can improve learners' self-efficacy.

In addition, increased speaking confidence may also reflect reduced anxiety. Bandura (1997) suggested that higher self-efficacy lowers perceived threats and encourages active participation. Miguel and Carney (2022) similarly found that collaborative, project-based learning alleviates language anxiety. Given that speaking anxiety is widespread among Chinese EFL learners, the confidence gains observed here suggest that PBL not only develops skills but also creates a more positive learning environment (Fan & Wang, 2022).

Complementing the quantitative results, interview data provided further insights into learners' experiences with PBL. A common difficulty was understanding diverse English accents, which lowered confidence during group discussions. Additionally, group dynamics posed challenges; students assigned passive roles felt marginalized and had fewer opportunities to speak. Speaking anxiety, especially fear of grammatical or pronunciation errors, further inhibited participation, particularly in public speaking or interactions with more proficient peers.

Nevertheless, many learners reported increased confidence after completing project milestones, especially presentations. These moments, though initially stressful, served as important mastery experiences reinforced by positive feedback from peers and instructors.

Furthermore, peer support and reflection were also crucial. Observing classmates' speaking styles helped learners adopt useful communication strategies, while structured reflection allowed them to assess their performance, identify improvements, and plan for future tasks.

Despite these benefits, some issues remained. Fixed group roles limited equal participation, and the demanding nature of PBL sometimes led to emotional fatigue, which reduced motivation and engagement.

Overall, while PBL presented some difficulties, it promoted significant improvements in oral communicative competence and self-efficacy. These results highlight the need for supportive group dynamics, fair task distribution, and reflective practices to sustain motivation and maximize speaking opportunities.

Moreover, the study examined how PBL influences self-efficacy through Bandura's Social Cognitive Theory (1977, 1986, 1997), which identifies mastery experiences, vicarious learning, verbal persuasion, and emotional states as key sources. Interview data revealed that learners built confidence mainly through successful task completion and positive peer feedback. One student noted, "When I saw my classmates nodding and smiling during my presentation, I

realized I could really communicate effectively," illustrating Bandura's emphasis on mastery experiences.

In addition, learners benefited from observing fluent peers and engaging in post-task reflection, supporting self-regulation processes (Zimmerman, 2000). However, challenges such as unfamiliar accents and complex speaking tasks sometimes triggered anxiety, temporarily lowering self-efficacy.

These findings are consistent with prior research emphasizing mastery and social support as central to self-efficacy development (Fan & Wang, 2022; Wang et al., 2014). Furthermore, this study suggests that PBL's effectiveness varies by skill and learner proficiency: speaking self-efficacy improves within a well-structured PBL framework, while listening self-efficacy may need more targeted support.

In conclusion, PBL can significantly enhance oral self-efficacy among Business English learners, but differentiated scaffolding is necessary to ensure all learners have access to mastery experiences, peer modeling, and reflective learning. By integrating theory, learner perspectives, and classroom practice, these findings offer valuable guidance for curriculum designers aiming to optimize PBL in language education.

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