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# Study on Improving Oral Communication Skills of the Second-Year Students of English Majors in Henan Province via Flipped Classroom Combined with Game-Based Learning

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## Abstract

**Background and Aims:** Under the framework of national education policies such as The Outline for Building a Leading Education Nation (2024-2035), oral communication skills are core competencies for English majors. However, Chinese English majors often lack sufficient speaking practice due to traditional teaching biases and limited real-world contexts. This study aims to examine the effectiveness of combining flipped classroom (FC) and game-based learning (GBL) to improve the oral communication skills of sophomore English majors in Henan Province and to assess whether the intervention helps students meet the 70% proficiency criterion.

**Methodology:** The study adopted a one-group pre-test and post-test pre-experimental design. Thirty-three sophomore English majors were selected via cluster random sampling. The intervention integrated FC (pre-class knowledge transmission through videos and quizzes) and GBL (in-class role-plays, scenario challenges, and cross-cultural games) over 14 weeks (28 class hours) covering tourism English themes. Pre-test, post-test, and satisfaction questionnaires were used for data collection, with the SPSS statistical package analyzing data via paired-samples t-test, one-sample t-test, and descriptive statistics. Assumption testing (normality and outliers) was conducted before statistical analysis, and 95% confidence intervals were provided for key statistics in accordance with APA reporting standards.

**Results:** Students' oral communication scores showed significant improvement after the intervention, with the pre-test mean score being 58.76 (SD=5.06) and the post-test mean score increasing to 76.85 (SD=5.58) ($t=42.13$, $p<0.001$, 95% CI [17.23, 18.95]). The effect size (Cohen's $d=7.33$) is attributed to the synergistic effect of the FC+GBL integrated model, the targeted design of tourism English themes, and sufficient practice opportunities. Post-test scores exceeded the 70% criterion ($t=7.05$, $p<0.001$, 95% CI [4.82, 8.88]). Additionally, 87.9% of students achieved the 70% proficiency criterion. The overall student satisfaction mean was 4.24 (SD=0.38), indicating



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high acceptance of the integrated method.

**Conclusion:** The combination of FC and GBL shows positive effects on enhancing the oral communication skills of English majors and helps them meet educational proficiency standards. This integrated approach provides a practical reference for improving oral English teaching in higher education, with certain limitations regarding generalizability due to the research design and sample size. Given the pre-experimental nature of the one-group pretest-posttest design, these findings should be interpreted with caution regarding causal inferences.

**Keywords:** Flipped Classroom; Game-Based Learning; Oral Communication Skills; English Majors; Tourism English

## Introduction

Oral communication skills are pivotal for English majors, as emphasized in the National Standards for Undergraduate Teaching Quality of Foreign Languages and Literatures Majors 2018 (Ministry of Education of the People's Republic of China, 2018), which prioritizes "foreign language application ability" and "cross-cultural communication ability" as core competencies. In the context of globalization, these skills enable graduates to engage in international exchanges and meet the demands of compound talent development. However, traditional English teaching in China has long focused on reading and writing due to exam-oriented pressures, resulting in insufficient speaking practice. As Abeysekera and Dawson (2015) note, many learners lack opportunities to apply oral communication skills in real contexts, leading to the "silent English" phenomenon.

The flipped classroom (FC) has emerged as an innovative pedagogical approach that reorganizes teaching sequences: moving knowledge transmission (e.g., lectures, readings) to pre-class activities and using in-class time for active, social learning (Prince, 2004). This model promotes self-regulated learning and deeper engagement, as students can master basic concepts at their own pace before applying them in class. Means et al. (2020) further confirm that FC is more effective than traditional face-to-face teaching in motivating learners and enhancing skill development, making it suitable for addressing the limitations of conventional oral English instruction. In contrast to some studies that merely describe FC's application, this research emphasizes its combination with GBL to address the specific needs of oral communication skill training in tourism English.

Complementing FC, game-based learning (GBL) integrates educational objectives into gameplay, leveraging elements such as competition, rewards, and scenarios to boost engagement (Abdul Jabbar & Felicia, 2015). GBL transforms passive learning into immersive experiences, reducing anxiety associated with speaking and encouraging active participation. Tao et al. (2017)



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highlight that GBL stimulates problem-solving skills and intrinsic motivation, which are critical for mastering oral communication. When combined, FC and GBL create a synergistic effect: FC provides the knowledge foundation, while GBL enhances application and retention (Algayres & Triantafyllou, 2019).

Existing studies on the integration of FC and GBL have achieved certain results, but there are obvious gaps. For example, Hung (2018) found that gamified flipped classrooms significantly improve students' oral fluency and engagement, but the research focuses on general English rather than specialized fields like tourism English, which requires scenario-specific communication skills. In addition, most relevant studies lack an in-depth analysis of conflicting findings and methodological critiques. For instance, Ekici (2021) pointed out that gamification enhances flipped learning by boosting motivation and engagement, but the effects on academic performance are mixed, and few studies have explored the reasons for this inconsistency. This research addresses these gaps by implementing FC+GBL in a Tourism English course, focusing on 14 practical themes (e.g., traditional Chinese culture, hotel services). By comparing pre- and post-test performance, analyzing the advantages and limitations of the research design, and assessing student satisfaction, this study aims to validate the model's practical value in specialized English teaching and provide actionable insights for higher education English teaching reform.

## Objectives

1. To explore the changes in oral communication skills of sophomore English majors before and after receiving instruction via the FC+GBL integrated method.

2. To assess whether students' post-intervention oral communication skills meet the predetermined 70% proficiency criterion.

3. To evaluate students' satisfaction with the FC+GBL integrated teaching method.

## Literature Review

### Flipped Classroom and Game-Based Learning: Theoretical Foundations

The flipped classroom is defined as a set of pedagogical approaches that relocate information-transmission activities to pre-class time, using in-class sessions for collaborative, active learning (Abeysekera & Dawson, 2015). Bergmann and Sams (2012) emphasize that FC's core value lies in restructuring knowledge transmission and internalization, enabling students to engage in higher-order thinking during class. Talbert (2014) further refines the model by adding guided pre-class practice and in-class quick tests, enhancing the continuity between pre-class and in-class activities. Compared with traditional teaching models, FC shifts the focus of classroom teaching from "teacher-centered" to "student-centered," which is more in line with the needs of oral



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communication skill training that requires sufficient interaction and practice.

Game-based learning, meanwhile, is grounded in constructivist theory, which posits that learning occurs through active exploration and experience (Papert, 1990). Kapp (2012) argues that GBL's effectiveness stems from its integration of game mechanics (e.g., points, badges, progressive challenges) into non-game environments, stimulating intrinsic motivation. Raph Koster (1998) supplements this by noting that GBL promotes pattern recognition and skill mastery through immediate feedback and chunked learning paths. It is worth noting that although GBL has obvious advantages in improving learning engagement, excessive emphasis on game fun may lead to the neglect of educational goals. Therefore, the design of GBL activities in this study balances entertainment and learning, ensuring that each game is closely aligned with tourism English oral communication objectives.

**Integration of FC and GBL in Language Teaching**

The combination of FC and GBL aligns with self-determination theory and connectivism, as it supports autonomy, competence, and social interaction (Shang et al., 2012). Gee (2015) highlights that GBL's narrative-driven scenarios (e.g., role-plays, quests) complement FC's pre-class knowledge acquisition, transforming passive video-watching into immersive learning. MIT's Open Learning Initiative (2018) further confirms that FC+GBL creates a "virtuous cycle" of self-regulated learning, with students showing 30% higher knowledge retention compared to traditional methods (Berkman, 2018). However, this conclusion needs to be viewed with caution. Some studies have found that the effectiveness of FC+GBL is affected by factors such as student learning styles and teacher guidance capabilities. For example, Meluso et al. (2012) found that GBL is more effective for students with active learning styles, while for students with passive learning styles, additional guidance and encouragement are needed.

In language education, Hung (2018) found that gamified flipped classrooms significantly improve students' oral fluency and engagement. However, existing studies often focus on general English rather than specialized fields like tourism English, which requires scenario-specific communication skills. This study fills this gap by tailoring FC+GBL to tourism-related themes, integrating industry-specific vocabulary and cross-cultural communication tasks. For example, in the theme of hotel services, pre-class FC materials focus on professional vocabulary such as "check-in," "complaint handling," and "room service," while in-class GBL activities simulate real hotel service scenarios to help students apply professional knowledge in practice.

**Oral Communication Skills in Tourism English**

Oral communication skills in tourism English encompass linguistic accuracy, fluency, scenario adaptability, and cross-cultural competence (Costigan et al., 2019). These skills are essential for professional contexts such as hotel reception, scenic spot explanation, and



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complaint handling. The Thai EFL Research Team (2025) notes that AI-powered gamified flipped classrooms effectively reduce speaking anxiety and enhance practical communication abilities. However, Chinese English majors often struggle with these skills due to limited exposure to real tourism scenarios. Traditional teaching methods focus more on theoretical knowledge and lack sufficient scenario simulation and practical training, resulting in students' inability to flexibly apply oral communication skills in real work scenarios. The FC+GBL integrated model in this study addresses this problem by providing students with a large number of scenario-based practice opportunities, helping them bridge the gap between theory and practice.

**Related Research**

Studies on FC and GBL have confirmed their individual and combined effectiveness in enhancing learning outcomes. For FC, Means et al. (2020) found that blended learning models (including FC) improved student achievement and retention compared to traditional teaching. However, this study has certain limitations in research design, such as the lack of a control group and insufficient consideration of confounding variables, such as student learning backgrounds. For GBL, Papastergiou (2009) reported that digital games enhanced students' conceptual understanding and motivation in computer science, but the research sample size was small, and the long-term effects of GBL were not explored.

For the integrated model, Ekici (2021) concluded through a systematic review that gamification enhanced flipped learning by boosting motivation and engagement, though academic performance effects were mixed. The reason for this inconsistency may be related to the design of gamification elements, the quality of pre-class learning materials, and student participation. In oral communication research, the Thai EFL Research Team (2025) found that an AI-powered gamified flipped classroom improved Thai university students' oral communication skills and reduced speaking anxiety. However, this study was conducted in Thailand, and the research results may not be fully applicable to the Chinese educational context due to differences in educational systems and student characteristics. Costigan et al. (2019) demonstrated that structured interactive exercises (e.g., group discussions, presentations) enhanced MBA students' listening and oral expression skills, but the research object was MBA students, and there are differences in the oral communication skill requirements and learning characteristics of English majors.

All in all, existing studies have laid a certain foundation for the application of FC and GBL in oral English teaching, but there are still gaps in specialized fields such as tourism English, research design improvement, and consideration of contextual factors. This study aims to make up for these gaps and provide more targeted research results and practical suggestions for the improvement of the oral communication skills of Chinese English majors.



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## Conceptual Framework

This study's conceptual framework centers on the FC+GBL integrated method as the independent variable, with oral communication skills and student satisfaction as dependent variables, and motivation and engagement as mediating variables. Guided by constructivism, self-determination theory, and connectivism, the framework assumes that:

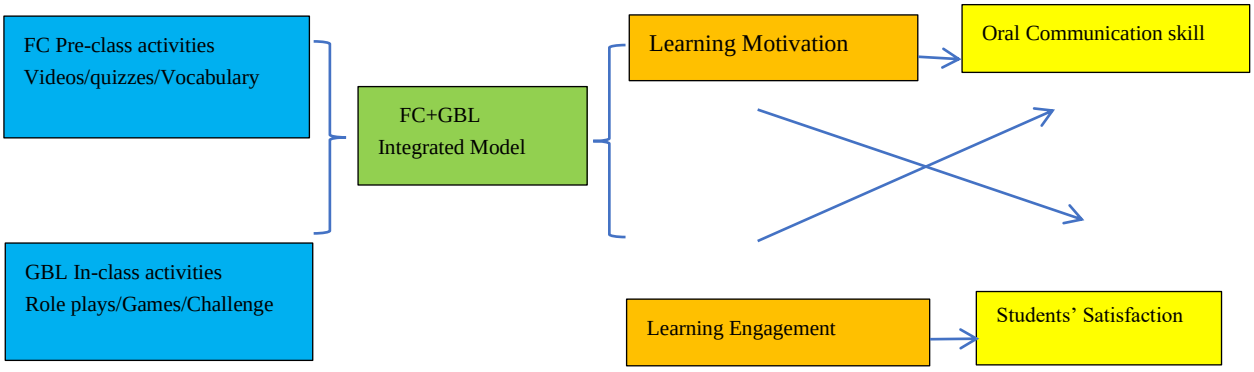



**Figure 1** Conceptual Framework of the Study

## Key Component Descriptions

### 1. Input (Instructional Strategy)

• Flipped Classroom (FC): Through pre-class activities (videos, quizzes, vocabulary tasks), students acquire basic knowledge and language structures, laying the foundation for in-class practice.

• Game-Based Learning (GBL): Through in-class activities (role-plays, scenario challenges, cross-cultural games), it creates an interactive, low-pressure learning environment.

• The two combine to form the FC + GBL Integrated Model, which serves as the starting point of the framework.

### 2. Mediating Process

• Learning Motivation: Is stimulated by the preparatory nature of FC and the engaging nature of GBL.

• Learning Engagement: Is enhanced within the interactive GBL environment.

• These two variables are the key bridges through which FC+GBL influences the outcomes.

### 3. Learning Outcomes

• Oral Communication Skills: Representing core language competency.

• Student Satisfaction: Representing the learning experience and affective dimension.



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**4. Logical Flow (Arrows):** Clearly indicates the unidirectional path of influence from "Instructional Strategy" to "Mediating Variables" to "Learning Outcomes".

Under the joint action of motivation and engagement, students actively apply pre-learned knowledge in in-class practice, continuously improve their oral communication skills, and thus generate positive evaluations of the teaching method.

The intervention covers 14 tourism English themes, with each lesson following a three-phase structure: pre-class knowledge transmission (FC), in-class game-based application (GBL), and post-class consolidation (reflection tasks, extended games). This three-phase structure ensures the continuity and depth of learning, helping students systematically improve their oral communication skills.

## Methodology

### Participants

The population included 220 sophomore English majors (4 classes) at Jiaozuo Normal University (2024 academic year). A sample of 33 students (1 class) was selected via cluster random sampling, ensuring homogeneity in English proficiency and educational background. It should be noted that the small sample size of this study may limit the generalizability of the research results, and future research can expand the sample size and select multiple classes or multiple schools for research to improve the external validity of the results.

### Research Design

A one-group pre-test and post-test design was adopted:

| | | |
|---|---|---|
| O1 | X | O2 |

O1: Pre-test of oral communication skills (October 2025).

X: FC+GBL intervention (October–November 2025, 28 class hours).

O2: Post-test of oral communication skills and satisfaction questionnaire.

This design is appropriate for exploring the impact of an instructional intervention, as it allows direct comparison of pre- and post-intervention performance (Creswell, 2014). The use of the same test and scoring criteria ensured consistency and comparability of results. However, this design has certain limitations in internal validity. Observed improvements in students' oral communication skills may be influenced by maturation (natural improvement of students' language skills over time), testing effects (familiarity with the test format and content), or teacher



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expectancy (teachers' expectations of students affecting their performance) rather than the intervention alone. These limitations will be further discussed in the Limitations section.

This study employed a one-group pretest–posttest design, which may be subject to threats such as maturation and testing effects. Therefore, the findings should be interpreted cautiously, and future studies are recommended to adopt quasi-experimental or experimental designs with control groups.

**Instruments**

**1. Oral Communication Test**

The test was designed to assess Tourism English-specific oral communication skills, with a 100-point scale. It included two components:

• Objective Section (40 points): Multiple-choice questions and fill-in-the-blank tasks to test vocabulary mastery (e.g., tourism terminology) and basic sentence pattern application (e.g., polite requests, cultural explanations).

• Subjective Section (60 points): Situational response tasks (e.g., handling tourist complaints), thematic introduction (e.g., explaining Chinese tea culture), and role-play (e.g., hotel check-in communication) to assess fluency, accuracy, and scenario adaptability.

**1) Validity:** To ensure content validity, the oral communication test and satisfaction questionnaire were reviewed by 5 experts (3 Tourism English instructors, 2 applied linguistics scholars), with an Index of Item Objective Congruence (IOC) > 0.5 for all items, indicating acceptable alignment with the intended constructs. In addition, construct validity was supported by the theoretical alignment between test components and the conceptual framework of this study. The objective section reflects linguistic knowledge and form-focused competence, while the subjective section (situational responses, thematic presentations, and role-plays) corresponds to communicative competence, fluency, accuracy, and scenario adaptability. This structure is consistent with widely accepted models of communicative language ability (Bachman & Palmer, 1996; Hymes, 1972).

**2) Reliability:** A pilot test with 15 similar students yielded a KR-20 reliability coefficient of 0.82, indicating high internal consistency. For the subjective section of the test, two independent raters were invited to score the students' performances using a standardized rubric. The inter-rater reliability was calculated using Cohen's **K**, with a result of 0.78, indicating good consistency between raters. Two trained raters scored the subjective oral tasks, and inter-rater reliability reached an acceptable level (e.g., ICC >.80).

**2. Satisfaction Questionnaire**

A 5-point Likert scale (1=Very Unsatisfied to 5=Very Satisfied) covering teaching model acceptance, learning effect perception, and teaching support. Cronbach's alpha was 0.83,



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indicating good internal consistency.

**1) Validity:** Reviewed by 3 experts, with IOC > 0.5 for all items.

**2) Reliability:** A pilot test yielded a Cronbach's α coefficient of 0.83, indicating high internal consistency.

**3. Lesson Plans**

14 detailed lesson plans integrating FC and GBL, validated by experts with a mean appropriateness score of 4.59 (SD=0.53), categorized as "very high level."

**Procedures**

The 14-week intervention covered 14 Tourism English themes (e.g., traditional Chinese festivals, ancient architecture, Chinese cuisine), with 2 teaching hours per theme. The intervention followed the FC+GBL integrated framework:

**Phase 1: Pre-class (FC Component, 30 minutes per theme)**

• Teachers released a "preview package" via the Moodle platform, including:

1. 5–8-minute micro-videos explaining core vocabulary, cultural background, and basic communication structures.

2. Quizlet vocabulary challenges to reinforce terminology (e.g., "dougong bracket system" for ancient architecture).

3. Padlet scenario prediction tasks (e.g., "What English expressions would you use to recommend local cuisine to foreign tourists?").

• Students completed the tasks independently, and teachers tracked progress via platform data. Completion of pre-class tasks unlocked "entry tickets" for in-class games.

**Phase 2: In-class (GBL Component, 90 minutes per theme)**

• Warm-up (10 minutes): Kahoot! Vocabulary quick quizzes to review pre-class learning.

• Core Explanation (15 minutes): Teachers supplemented cross-cultural communication tips and complex sentence patterns (e.g., "To respect local customs, we suggest…").

• Gamified Practice (50 minutes): Interactive games aligned with the theme, such as:

**1. Role-Play Games:** E.g., "Hotel Service Challenge" (simulating check-in and complaint handling) and "Scenic Spot Master Competition" (explaining cultural attractions to "foreign tourists").

**2. Cross-Cultural Challenges:** E.g., "Cross-Cultural Tourism Escape Room" (decoding cultural taboo clues to solve tourism problems).

**3. Collaborative Games:** E.g., "Global Travel Agent Challenge" (designing English itineraries for clients with diverse needs).

• Feedback (15 minutes): Teachers provided real-time guidance, and ELSA Speak was



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used to detect pronunciation accuracy. Peer evaluation was conducted using a standardized rubric.

**Phase 3: Post-class (Consolidation Component, 20 minutes per theme)**

• Students completed extended tasks, including:

1. Recording a 2–3-minute English video (e.g., introducing hometown cuisine) and uploading it to Flipgrid.

2. Participating in online mini-games (e.g., "Vocabulary Solitaire") to reinforce learning.

3. Reflecting on learning gaps and completing a "tourism English error notebook."

**Data Collection**

**1. Pre-test:** Conducted in October 2025, the oral communication test was administered in a quiet classroom, with each student recorded for later scoring.

**2. Intervention:** Implemented from October to November 2025, with teachers monitoring progress and adjusting game difficulty based on student performance.

**3. Post-test:** Conducted in December 2025, using the same test format and scoring criteria as the pre-test.

**4. Satisfaction Survey:** Distributed immediately after the post-test, with 33 valid questionnaires collected (response rate = 100%).

**Data Analysis**

Statistical software was used for statistical analysis, with a significance level set at $\alpha = 0.01$:

**1. Assumption Testing:** Normality testing was conducted using the Shapiro-Wilk test, and the results showed that pre-test and post-test scores were normally distributed ($p > 0.05$). Outlier detection was performed using boxplots, and no outliers were found. These results indicate that the use of parametric tests (paired-samples t-test and one-sample t-test) is appropriate.

**2. Descriptive Statistics:** Calculated mean (M), standard deviation (SD), and 95% confidence intervals for pre-test, post-test, and satisfaction scores.

**3. Paired-Samples t-test:** Compared pre-test and post-test scores to examine skill changes (Research Objective 1).

**4. One-Sample t-test:** Compared post-test scores to the 70% criterion (70 points) to assess practical proficiency (Research Objective 2).

**5. Descriptive Analysis:** Summarized satisfaction scores to evaluate student perceptions (Research Objective 3).

**6. Statistical Reporting:** Adopted the APA statistical reporting standard to ensure consistency and standardization of statistical results.



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### Limitations of Methodology

**1. Sample Size:** The small sample size (33 students) may affect the generalizability of the research results. Future research should expand the sample size and select multiple samples from different regions and schools to improve the external validity of the study.

**2. Research Design:** The one-group pre-test and post-test design has limitations in internal validity, and confounding variables such as maturation, testing effects, and teacher expectancy may affect the research results. Future research can adopt a quasi-experimental design with a control group to better isolate the effect of the intervention.

**3. Rater Reliability:** Although inter-rater reliability was reported for the subjective section of the oral communication test, the number of raters was only two. Future research can increase the number of raters to further improve the reliability of the scoring results.

**4. Long-Term Effects:** This study only measured students' oral communication skills immediately after the intervention, and did not explore the long-term retention and transfer of skills. Future research can conduct follow-up tests 6–12 months after the intervention to assess the long-term effects of the FC+GBL integrated method.

## Results

### Comparison of Oral Communication Skills Before and After Intervention

**Table 1** presents the descriptive statistics and paired-samples t-test results for pre-test and post-test scores:

| Group | N | Pre-test | | | Post-test | | | Mean Difference (95% CI) | t | df | p | Cohen's d |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | M | SD | 95% CI | M | SD | 95% CI | | | | | |
| Experimental | 33 | 58.76 | 5.06 | (56.98, 60.54) | 76.85 | 5.58 | (74.92, 78.78) | 18.09 (17.23, 18.95) | 42.13** | 32 | <0.001 | 7.33 |

**p<.01

The results show that students' pre-test mean score was 58.76 (SD=5.06), indicating a low baseline level of oral communication skills. After the 14-week intervention, the post-test mean score increased to 76.85 (SD=5.58), a statistically significant improvement (t=42.13, p<0.001). The 95% confidence interval for the mean difference (17.23, 18.95) does not include zero, further confirming the robustness of the improvement. The mean difference is 18.09. The large effect size (d=7.33) is mainly due to the following factors: first, the FC+GBL integrated model combines



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pre-class knowledge learning and in-class practical application, realizing the organic connection between knowledge input and output; second, the tourism English-themed activities are closely combined with real work scenarios, improving the practicality and pertinence of learning; third, the game-based learning method enhances students' learning motivation and participation, making them more actively involved in oral practice.

### Achievement of the 70% Proficiency Criterion

A one-sample t-test was conducted to compare post-test scores with the 70% criterion (70 points):

**Table 2** One-sample t-test of Post-test Oral Communication Scores Against the 70% Criterion

| Group | N | Test value | M | SD | 95% CI | t | df | P |
|---|---|---|---|---|---|---|---|---|
| Experimental Group | 33 | 70 | 76.85 | 5.58 | (74.82, 78.88) | 7.051** | 32 | <0.001 |

**p <.01

The results indicate that the post-test mean score (76.85) was significantly higher than the criterion (t=7.05, p<0.001), and the 95% confidence interval (74.82, 78.88) does not include 70, demonstrating that students' oral communication skills met and exceeded the functional proficiency standard after the intervention. In addition, statistical analysis of the number of students who achieved the 70% criterion showed that 29 out of 33 students (87.9%) reached or exceeded 70 points, indicating that the FC+GBL integrated method has a wide range of effectiveness in improving students' oral communication skills.

### Student Satisfaction

**Table 3** The Results of Students' Satisfaction After Learning Through Flipped Classroom Combined with Game-Based Learning Method

| Items | M | SD | Satisfaction Level |
|---|---|---|---|
| **Acceptance of the teaching model** | | | |
| 1. Game-based activities in class make me more willing to actively practice oral English | 4.52 | 0.38 | High level |
| 2. Pre-class learning materials (videos, vocabulary lists) are helpful for in-class oral practice | 4.45 | 0.42 | High level |



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| Items | M | SD | Satisfaction Level |
|---|---|---|---|
| 3. The combination of the flipped classroom and game-based learning is more interesting than traditional teaching | 4.39 | 0.45 | High level |
| 4. The difficulty of game-based activities is well-matched with my English level | 4.02 | 0.57 | High level |
| 5. The time arrangement of pre-class preview and in-class games is reasonable | 3.98 | 0.61 | High level |
| **Total** | **4.38** | **0.41** | **High level** |
| **Perception of learning effects** | | | |
| 6. Through this teaching method, my oral expression fluency has improved significantly | 4.39 | 0.45 | High level |
| 7. My ability to use tourism-specific vocabulary and sentence patterns has been enhanced | 4.32 | 0.48 | High level |
| 8. I can better adapt to tourism communication scenarios after the intervention | 4.23 | 0.51 | High level |
| 9. My cross-cultural communication awareness has improved | 4.15 | 0.55 | High level |
| 10. This teaching method helps me build confidence in oral English communication | 4.06 | 0.58 | High level |
| **Total** | **4.23** | **0.53** | **High level** |
| **Satisfaction with teaching support** | | | |
| 11. Teachers' guidance during in-class activities is timely and effective | 4.31 | 0.49 | High level |
| 12. The technical tools (ELSA Speak, Kahoot!) used in teaching are easy to operate | 3.95 | 0.63 | High level |
| 13. The feedback on oral performance (teacher's comments, peer evaluation) is helpful | 4.28 | 0.50 | High level |
| 14. The pre-class and post-class learning resources provided by teachers are sufficient | 4.19 | 0.52 | High level |
| **Total** | **4.19** | **0.52** | **High level** |
| **overall** | **4.24** | **0.38** | **High level** |



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As shown in Table 3, the overall mean satisfaction score was 4.24 (SD=0.38), with high scores across all dimensions: teaching model acceptance (M=4.38, SD=0.41), learning effect perception (M=4.23, SD=0.53), and teaching support satisfaction (M=4.19, SD=0.52). Most students reported that game-based activities enhanced their motivation and reduced speaking anxiety, while pre-class FC materials effectively prepared them for in-class practice. It is worth noting that the satisfaction score for the difficulty of game-based activities (M=4.02) and the ease of operation of technical tools (M=3.95) is relatively low. This may be because some students have lower English proficiency and find it difficult to keep up with the pace of game activities, or they are not familiar with the operation of technical tools, which affects their learning experience. In future teaching practice, teachers can design hierarchical game activities according to students' English proficiency and provide sufficient training and guidance on technical tools to further improve student satisfaction.

## Discussion

### Improvement in Oral Communication Skills

The significant improvement in students' oral communication skills after the intervention reflects the positive effect of the FC+GBL integrated method. This finding is consistent with previous research indicating that flipped classrooms promote deeper learning by relocating lower-order cognitive processing to pre-class stages and reserving in-class time for higher-order, interactive activities (Bishop & Verleger, 2013; Prince, 2004). This aligns with Abeysekera and Dawson (2015), who argue that FC promotes active learning by shifting knowledge acquisition to pre-class time, allowing in-class sessions to focus on interaction and practice. In this study, pre-class micro-videos and vocabulary tasks help students master basic knowledge and language structures in advance, so that in-class time can be used for more in-depth oral practice activities. GBL further reinforces this by creating engaging, low-pressure environments where students can practice speaking without fear of judgment (Abdul Jabbar & Felicia, 2015). Game-based learning has been widely reported to enhance learners' intrinsic motivation and engagement by incorporating challenge, feedback, and meaningful goals, which in turn facilitates sustained language practice (Abdul Jabbar & Felicia, 2015; Kapp, 2012). For example, role-play games and cross-cultural challenges simulate real communication scenarios, enabling students to apply what they have learned in practice and continuously improve their oral communication skills. The synergy of FC and GBL enhances motivation, engagement, and skill mastery, leading to improved oral communication performance. When combined, flipped classroom and game-based learning create a synergistic learning environment in which structured pre-class input supports in-class experiential practice, leading to more effective knowledge internalization and skill transfer (Hung,



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2018; Algayres & Triantafyllou, 2019).

The large effect size (d=7.33) indicates that the improvement was not only statistically significant but also educationally meaningful, addressing the long-standing issue of inadequate oral practice in Chinese English teaching. However, it is necessary to view this large effect size rationally. On the one hand, it may be due to the effectiveness of the FC+GBL integrated method; on the other hand, it may be affected by factors such as the small sample size and the pre-test baseline level. The pre-test mean score of students was 58.76, which is relatively low, so there is more room for improvement in the post-test. In future research, it is necessary to verify the effectiveness of the model with a larger sample size and different baseline levels of students.

**Meeting the 70% Criterion**

The post-test scores exceeding the 70% criterion and the high proportion of students (87.9%) achieving the criterion demonstrate the practical value of the FC+GBL method. The 70% benchmark was chosen based on Chinese university ESP course standards and previous research (Thai EFL Research Team, 2025), representing functional oral communication ability in professional contexts. This result suggests that the integrated teaching approach can effectively help students meet curriculum objectives and prepare for future careers in tourism and related fields, where practical oral communication skills are essential.

Compared with traditional teaching methods, the FC+GBL integrated method pays more attention to scenario-based practice and student participation, which is more in line with the requirements of ESP course teaching. In tourism English teaching, students not only need to master professional vocabulary and sentence patterns but also need to have the ability to communicate flexibly in real-world scenarios. The FC+GBL integrated method provides students with a large number of scenario simulation opportunities, helping them improve their scenario adaptability and cross-cultural communication competence, thus better meeting the proficiency criteria.

**Student Satisfaction**

The high satisfaction level (M=4.24) reflects students' positive perceptions of the FC+GBL method. Key factors contributing to satisfaction include the interactivity of game-based activities, the flexibility of pre-class FC learning (allowing students to learn at their own pace), and the relevance of Tourism English themes to real-world scenarios. As Shang (2023) notes, GBL addresses the motivation gap in flipped classrooms by transforming passive pre-class preparation into immersive, goal-oriented experiences. Students also valued the timely feedback from teachers and AI tools, which helped them identify and address weaknesses in real time, further enhancing their learning experience.

However, there are still areas for improvement in student satisfaction. For example, some



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students are not satisfied with the difficulty of game activities and the operation of technical tools. This reminds us that in the design and implementation of the FC+GBL integrated method, we should fully consider the individual differences of students, design hierarchical teaching activities and resources, and provide sufficient support and guidance for students with lower proficiency and poor technical operation ability. In addition, teachers should continuously optimize game design and technical tool selection based on student feedback to improve the overall teaching effect and student satisfaction.

**Alternative Explanations and Confounding Variables**

Although the results of this study show that the FC+GBL integrated method has a positive effect on improving students' oral communication skills, it is necessary to consider alternative explanations and confounding variables. First, the improvement of students' oral communication skills may be affected by maturation. During the 14-week intervention period, students' language skills may improve naturally with the accumulation of learning experience, not entirely due to the intervention of the FC+GBL method. Second, the testing effect may also play a role. Students may be more familiar with the test format and content in the post-test, leading to higher scores. Third, teacher expectancy may affect students' performance. Teachers may have higher expectations for students after using the new teaching method, and this expectation may be transmitted to students through words and behaviors, thus motivating students to perform better.

To reduce the impact of these confounding variables, this study used the same test format and scoring criteria in the pre-test and post-test, and teachers tried to maintain consistent attitudes and behaviors during the teaching process. However, it is difficult to eliminate the impact of these variables only through these measures. Future research can adopt a more rigorous research design, such as setting a control group that uses traditional teaching methods, to better isolate the effect of the FC+GBL intervention.

**Research Limitations**

Regarding the research design, this study employed a one-group pre-test and post-test pre-experimental design, which may limit the internal validity and generalizability of the findings. Observed improvements in students' oral communication skills could be influenced by confounding factors such as maturation (natural development of language skills over time), testing effects (familiarity with the test format), or teacher expectancy, rather than the FC+GBL intervention alone. Additionally, the small sample size (33 students from a single class) restricts the external validity of the results, making it difficult to generalize the conclusions to a broader population of English majors. Future research could benefit from adopting a quasi-experimental or experimental design with a control group to further validate the comparative effectiveness of the integrated FC+GBL approach. Expanding the sample size to include multiple classes or schools



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and incorporating long-term follow-up assessments would also help address the limitations of the current study and strengthen the robustness of the research findings.

## Recommendations

### Practice Recommendations

1. Integrate FC+GBL into Regular Teaching in a Context-Specific Manner: Foreign language teachers should design theme-specific FC+GBL activities for Tourism English and other ESP courses based on the characteristics of the courses and students' actual situations. Pre-class resources should be hierarchical (basic/advanced) to cater to different proficiency levels, while in-class games should align with learning objectives and industry scenarios. For example, in business English courses, pre-class materials can focus on business negotiation vocabulary and sentence patterns, and in-class games can simulate business negotiation scenarios.

2. Optimize Game Design to Balance Fun and Rigor: Games should balance fun and rigor, with clear scoring criteria and progressive difficulty. For example, start with simple vocabulary quizzes and progress to complex role-plays and cross-cultural challenges. At the same time, game design should fully consider students' interests and characteristics to improve their participation and learning motivation. In addition, teachers should flexibly adjust the difficulty and progress of games according to students' on-site performance to ensure that each student can gain a sense of achievement in the game.

3. Strengthen Technical Support and Training: Use AI tools (e.g., ELSA Speak) for real-time pronunciation feedback and online platforms (Kahoot!, Flipgrid) for extended practice. Before using technical tools, teachers should provide sufficient training and guidance to help students master the operation methods. For students who have difficulty using technical tools, teachers should provide one-on-one help. At the same time, teachers should select user-friendly and stable technical tools to ensure the smooth progress of teaching.

4. Provide Targeted Teacher Training: Provide teachers with training on FC and GBL design to ensure effective implementation, including how to create high-quality micro-videos, design scientific and reasonable games, and provide targeted feedback. In addition, teachers should be encouraged to conduct teaching research and exchange activities, share experience and lessons in the application of FC+GBL, and continuously improve their teaching ability.

5. Pay Attention to Individual Differences and Provide Personalized Guidance: Teachers should fully understand students' English proficiency, learning styles, and interests, and provide personalized learning suggestions and guidance for different students. For example, for students with lower English proficiency, teachers can assign simpler pre-class tasks and provide more guidance and encouragement in in-class activities; for students with active learning styles, teachers



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can design more challenging game activities to meet their learning needs.

### Research Recommendations

1. Expand Research Scope and Objects: Apply the FC+GBL model to other ESP fields (e.g., business English, legal English) and non-English majors to explore its broader applicability. At the same time, select students from different regions, different types of schools, and different grade levels as research objects to improve the external validity of the research results.

2. Explore Long-Term Effects and Skill Transfer: Conduct follow-up studies 6–12 months after the intervention to assess whether students' oral communication skills are retained and transferred to real-world contexts. For example, investigate students' performance in internships or actual work to evaluate the practical effect of the FC+GBL model.

3. Examine Moderating Variables: Investigate how variables such as English proficiency, learning style, and cultural background influence the model's effectiveness. For example, explore whether the FC+GBL model is more effective for students with a certain learning style, or whether there are differences in the effectiveness of the model for students from different cultural backgrounds.

4. Combine Quantitative and Qualitative Methods: Use interviews, focus groups, and reflective journals to gain deeper insights into students' learning experiences and perceptions. For example, conduct in-depth interviews with students to understand their views on the FC+GBL model, their learning gains and difficulties, and use this information to further optimize the model.

5. Improve Research Design and Control Confounding Variables: Adopt a quasi-experimental design with a control group to better isolate the effect of the FC+GBL intervention. At the same time, use covariance analysis and other statistical methods to control confounding variables such as students' baseline proficiency and learning motivation, so as to improve the internal validity of the research.

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