

OPEN ACCESS

Manuscript ID:
EDU-2025-13038687

Volume: 13

Issue: 3

Month: June

Year: 2025

P-ISSN: 2320-2653

E-ISSN: 2582-1334

Received: 16.03.2025

Accepted: 18.05.2025

Published Online: 01.06.2025

Citation:

Xie, C., Rattanapun, S.,
Buaduang, R., Darojat, T.,
& White, A. R. (2025). A
Study on Gamified Education
for English Proficiency
Improvement in Lishui City's
Primary Schools. *Shanlax
International Journal of
Education*, 13(3), 38-46

DOI:

[https://doi.org/10.34293/
education.v13i3.8687](https://doi.org/10.34293/education.v13i3.8687)



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A Study on Gamified Education for English Proficiency Improvement in Lishui City's Primary Schools

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Abstract

This study aims to explore the impact of gamified teaching on primary school students' oral English proficiency and compare it with traditional teaching methods. The study randomly selected 160 students from 10 classes and divided the participants into gamified teaching group and traditional teaching group. The experimental group adopted gamified teaching and the traditional teaching methods. Data were collected through pre-test and post-test with two group students, Gamified and Traditional. Then quantitative analysis was carried out, showed a significant improvement in oral proficiency in the gamified teaching group compared to the traditional teaching group. The results showed that the use of gamification significantly improved students' speaking ability, engagement and confidence. (mean improvement 12.8) Compared with the tradition and gamified group, the gamified instruction group showed significant improvement in oral proficiency. (Mean improvement 5.3) The positive results observed in the experimental group integrating game elements (challenge, reward, and competition) into the learning process can motivate students to engage actively and engage more deeply with the language. The findings support the hypothesis that gamification has a significant and positive impact on students' English proficiency, enhancing its potential as a powerful teaching tool. This research contributes to the Sustainable Development Goals of 'quality education and decreasing inequalities' by offering a scalable approach to improving language teaching in varied learning environments.

Keywords: Gamified Education, English Proficiency, Inequality, Quality Education, Primary School

Introduction

English has become an essential global communication tool, emphasizing the need for basic oral proficiency from an early age. Primary school is a critical stage for language acquisition; however, traditional teaching methods often fail to engage students effectively in oral English learning. Challenges such as low participation, limited interactivity, and a lack of motivation hinder students' progress. Gamified education, an innovative teaching approach, has shown potential in addressing these limitations by creating engaging and interactive learning environments.

Despite its potential, gamified education faces significant barriers in China. Students' varying English proficiency levels lead to different levels of engagement and learning outcomes. Parents often question the effectiveness of gamification, associating it with play rather than learning. Teachers also encounter challenges in balancing content delivery with classroom management in gamified settings. Moreover, the lack of alignment between gamified teaching and traditional assessment methods creates conflicts, limiting its implementation in oral English instruction.

This study aims to evaluate the efficacy of gamified education in improving oral English proficiency, providing evidence-based solutions to the aforementioned challenges. By addressing individual differences, fostering student engagement, and offering practical teaching strategies, this research contributes to both theoretical understanding and practical applications of gamified teaching in primary education. It also aligns with Sustainable Development Goals by promoting quality education and reducing educational inequalities.

The research is focused on sixth-grade students in Lishui City's Zhongshan Primary School. It evaluates changes in oral English proficiency over one semester, analyzing the effects of gamified teaching strategies compared to traditional approaches. Potential limitations include variations in student engagement and the applicability of findings across different educational contexts.

This study advances gamified education theories and offers practical strategies for educators, curriculum designers, and policymakers. It highlights the potential for gamification to enhance language learning and encourages its integration into teacher training programs.

Research Questions

- How does gamified education improve primary school students' oral English proficiency?
- What are the differences in oral English efficiency between gamified and traditional teaching methods?
- Which gamified elements contribute most significantly to oral English efficiency in primary school's students?

Research Objectives

- To analyze the student's oral English proficiency in primary schools.
- To compare the English proficiency of gamified and traditional teaching methods.
- To identify critical factors within gamified education that impact oral English proficiency.

Research Hypothesis

- Gamified education positively impacts students' oral English proficiency.
- Students taught through gamified education outperform those taught via traditional methods.
- Key gamification elements, immediate feedback and interactive tasks, are strongly associated with improved oral English proficiency.

Conceptual Framework

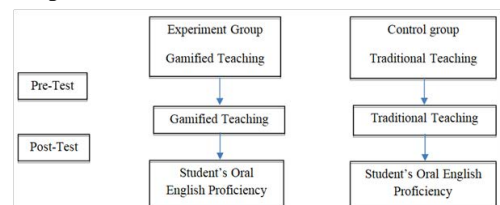


Figure 1 Conceptual Framework

Review of Literature

Gamification has been found to highly contribute to an improvement in the English learning skills of students in primary schools through their vocabulary, British grammar, and overall language skills (Wen, 2023). The implementation of the gamification technique using the game of Among Us enhances motivation and attitude towards studying English among students (Casanova-Mata, 2023).

Formative assessments with gamification have been determined to improve skills in English language proficiency, especially in grammar and vocabularies (Li et al., 2024). With thanks to AI, gamification has revolutionized language teaching to provide individualistic and engaging experiences, which have improved the language skill of students (Ulfa, 2023).

Gamification in English language teaching with the help of artificial intelligence improves student engagement and performance (Safdar et al., 2025). Gamification can greatly enhance engagement

and willingness to learn among the students, which is what it managed to do in other classes, in mathematics, specifically ([Maryana et al., 2024](#)).

Student motivation in language and science education has also shown positive relations with gamification, indicating that it may be a useful strategy to teach a variety of subject areas ([Cunha et al., 2018](#); [Zourmpakis et al., 2023](#)). In university studies, gamification tactics have a strongly positive influence on motivation and academic achievement in foreign-language English ([Huseinović, 2023](#)). Having elements of gamification helps in creating a playful environment to learn, which is one of the most important factors to achieve student engagement and performance ([Cunha et al., 2018](#)). Individualized gamification solutions that are backed by AI have also demonstrated outstanding success to improve the language learning experiences through individualized learning plans ([Safdar et al., 2025](#)).

Research Methodology

A sample 160 students from ten sixth-grade classes attended Zhongshan Primary School in Lishui City. The experiment's participants were chosen at random from among these 160 students. The students were placed into two groups: the experimental group, which got gamified teaching, and the control group, which was taught traditionally. Each group contained 80 students.

The study utilized a random sampling technique to select participants. From each class, 16 students were chosen - 8 for the experimental group and 8 for the control group. This random assignment ensures that the groups were comparable in terms of their demographic characteristics and English proficiency before the experiment. In addition, a stratified random sampling method was employed to control for factors such as age, gender, and previous English performance, ensuring the representativeness of the sample.

Mechanism of Experimental Group and Control Group

Experimental group: The gamification technique will be used to teach oral English. These approaches were designed to encourage engagement and continued participation while

remaining consistent with the learning objectives. Throughout the experiment, this set of students will practice speaking English orally by using gaming assignments and situational simulation. Challenge, reward, and competition for instance, point systems, leaderboards, and role-playing exercises are the essential components of gamification. 1) Students were rewarded with points for finishing assignments and successfully answering questions, and they received prompt feedback to increase their motivation. 2) Every week, leaderboards were shown to provide a competitive element and let students see how they were doing in comparison to their peers. additional, 3) to foster a sense of challenge and immersion, the featured role-playing scenarios and time-limited tests.

Control group: Students in the control group will receive the traditional oral English teaching method, mainly through the teacher's explanation and regular classroom exercises. The teaching method of this group does not contain gamification elements, which is used as the comparison object of the experimental group.

Data analysis was conducted using both descriptive and inferential statistics. Descriptive statistics, such as means and standard deviations, were calculated to summarize the students' pre-test and post-test scores. Inferential statistics, including t-tests and regression analysis, were used to examine the significance of differences between the experimental and control groups in terms of their oral English proficiency. SPSS software was utilized for all statistical analyses to ensure the reliability and accuracy of the results.

Result

Table 1 Number of Participants Form

Group	Number of classes	Sample size	Total
Gamified teaching group	10/Class	8	80
Traditional teaching group	10/Class	8	80
Total			160

Through various methods such as pre-test, post-test, observation and evaluation, this paper comprehensively evaluates the effect of gamified

teaching and traditional teaching on the cultivation of students' oral English ability, so as to ensure the scientific and objective of the research.

Table 2 Demographic Information of the Sample

Variable	Gamified teaching group (n=80)	Traditional teaching group (n=80)
Gender	42/38	40/40
Average Age	12.2 years	12.1 years
Prior English Level (Beginner /Intermediate / Advanced)	60/15/5	62/14/4

Both groups were balanced in terms of gender, age, and prior English proficiency. This distribution ensures that any differences in outcomes observed between groups can be attributed to teaching methods rather than demographic factors.

Descriptive Statistical Analysis

The data collected from the pre-test and post-test scores of oral English proficiencies were analyzed. Below is a descriptive analysis of the improvement in the scores of the two groups.

Table 3 Comparison of Pre-Test and Post-Test Scores

Group	Sample Size	Mean Pre-test Score	Mean Post-test Score	Standard deviation	Mean Improvement
Gamified teaching group	80	65.4	78.2	8.5	12.8
Traditional teaching group	80	64.8	70.1	10.3	5.3

The results show that the spoken ability of students in the Gamified teaching group has improved by an average of 12.8 points, which is significantly higher than the 5.3 points of the Traditional teaching group.

Cronbach Reliability Analysis

To verify the internal consistency of the research tools, Cronbach Alpha coefficient was used for reliability assessment.

Table 4 Cronbach Alpha Coefficient Analysis

Scale/Test	Cronbach Alpha (α)	Reliability Interpretation
Student Motivation Questionnaire	0.82	High Reliability
Teacher Classroom Observation Scale	0.87	Very High Reliability
Oral Proficiency Test Score Standard	0.80	High Reliability

All the research tools showed high reliability, indicating that the test results have good consistency and are suitable for further data analysis.

Correlation Analysis

In order to explore, relationship between teaching methods and students' oral ability improvement, Pearson correlation coefficient was used to analyze teaching methods and improvement range.

Table 5 Analysis of the Correlation Between Teaching Methods and Oral English Ability Improvement

Variable	Correlation Coefficient (r)	Significance Level (p)
Gamified improved teaching and oral ability	0.72	$P < 0.01$
Traditional teaching and oral English ability improved	0.45	$P < 0.05$

The analysis results show that Gamified teaching has a strong positive correlation with the improvement of students' oral ability ($r = 0.72$, $p < 0.01$), while Traditional teaching has a weak correlation ($r = 0.45$, $p < 0.05$).

Regression Analysis

In order to further analyze the key factors affecting the improvement of oral English ability, the experiment conducted multiple regression analysis on teaching methods, students' motivation and learning style.

Table 6 Regression Analysis Result

Variable	Standardized Regression Coefficient (β)	t-Value	Sig. Level (p)
Teaching Method (Gamified & Traditional)	0.58	6.12	$P < 0.001$
Student Learning Motivation	0.34	4.03	$P < 0.01$
Student Learning Style	0.22	2.89	$P < 0.05$

Regression analysis shows that teaching method is the most significant factor affecting the improvement of students' oral ability, (0.58) followed by students' learning motivation (0.34) and learning style (0.22). This shows that Gamified's teaching is effective in stimulating students' interest in learning and improving their oral performance.

The 8 interviewees results provide qualitative insights into the effectiveness of gamified education in improving students' oral English proficiency. Interviews were conducted with both students and teachers before and after the experiment. The semi structure interviews as follow:

- How does gamified education improve primary school students' oral English proficiency?
- Gamified education positively impacts students' oral English proficiency.
- Students taught through gamified education outperform those taught via traditional methods
- Key gamification elements, immediate feedback and interactive tasks, are strongly associated with improved oral English proficiency.
- What are the differences in oral English efficiency between gamified and traditional teaching methods?
- Which gamified elements contribute most significantly to oral English efficiency in primary school's students?

Findings

Students' Perceptions

Students in the experimental group reported higher levels of engagement, enjoyment, and motivation

compared to their experiences with traditional teaching methods. They expressed those gamified activities, such as role-playing and interactive games, made learning more enjoyable and helped them feel more confident in speaking English. Many students mentioned that the immediate feedback and rewards in the gamified setting encouraged them to participate actively and take more risks in speaking.

Teachers' Perspectives

Teachers noted that gamified education significantly improved classroom dynamics, as students were more enthusiastic and eager to participate. They observed that students were less shy and more willing to engage in conversations, particularly in group activities. However, some teachers also expressed concerns about managing classroom discipline during highly interactive game-based lessons, as students sometimes became distracted or overly focused on the competitive aspects of the activities.

Challenges and Recommendations

Both students and teachers identified certain challenges with gamified education, such as the need for careful game selection to match students' proficiency levels. Some students felt that the games were too easy, while others found them too challenging. Teachers recommended providing more tailored gamified tasks to address varying skill levels and ensuring that the learning goals were always prioritized over the entertainment aspect of the games.

Conclusion

In this research, 160 primary school students in Zhongshan, Lishui, China, were selected as subjects, and the influence of gamification on oral English teaching was explored by a controlled experimental design. The objective is to compare the effectiveness of gamified learning methods and traditional teaching methods in improving students' oral English level. The results of pre-test, post-test and interview qualitative data showed that the use of gamification significantly improved students' speaking ability, engagement and confidence. Compared with the control group receiving traditional instruction, the experimental group receiving gamified instruction showed significant improvement in oral proficiency.

The positive results observed in the experimental group suggest that integrating game elements such as challenge, reward, and competition into the learning process can motivate students to engage actively and engage more deeply with the language. The findings support the hypothesis that gamification has a significant and positive impact on students' English ability, enhancing its potential as a powerful teaching tool.

Discussion

The purpose of this study is to explore the effectiveness of Gamified teaching in oral English proficiency in primary schools and to compare it with Traditional teaching methods. By analyzing the data results and interview feedback, we were able to draw some clear conclusions and explore the reasons behind them in depth.

Research results show that the Gamified teaching group is significantly superior to the Traditional teaching group in improving its oral ability. In comparison with the assessment scores of the Gamified teaching group, the speaking ability of the Gamified teaching group increases by an average of 12.8 marks, while that of the Traditional teaching group only increases by 5.6 marks. This result shows that gamification can significantly enhance students' language learning motivation, improve class participation, and thus promote the development of students' oral ability.

Gamified makes classes more interactive and interesting by introducing elements such as instant feedback, competition and task challenges. These elements can stimulate students' interest in learning, especially for highly motivated students and students with a strong language foundation, and can improve their oral fluency and express confidence in a pleasant learning atmosphere. This is consistent with the existing literature on Gamified teaching promoting student participation and learning motivation.

The results of the interview show that students with high motivation and a strong language foundation are particularly outstanding in Gamified teaching. They take the initiative to participate in classroom activities and get more opportunities for language practice from Gamified. However, students with low motivation and weak language foundation

did not perform as well as the former under this teaching mode, which also affected the overall performance improvement of the experimental group to a certain extent.

The motivation and language base of students play a decisive role in Gamified's teaching effectiveness. Highly motivated students are better able to engage in gamified tasks, enjoy learning and improve their speaking skills quickly. Students with a weak language base, although Gamified offers more opportunities for language output, still require more personalized guidance and support. This is consistent with the existing research, which shows that motivation and personalized learning needs are important factors affecting the effect of gamified learning.

Although the Traditional teaching group has made some progress, compared with the Gamified teaching group, the improvement of its oral ability is obviously smaller. This result highlights the limitations of traditional teaching methods in oral English teaching, especially in stimulating students' sense of participation and learning motivation.

Traditional teaching methods tend to focus on knowledge transfer and test scores, and lack interactivity and immediate feedback, resulting in students easily feeling bored and unmotivated. Especially in the cultivation of oral English ability, traditional teaching often ignores the practice and communication opportunities of students, and can not fully stimulate the desire of expression of students. Therefore, the traditional teaching mode lags behind in improving oral English ability.

The research also shows that the procedural assessment of Gamified teaching (task completion, instant feedback, etc.) plays a positive role in the improvement of students' speaking ability, while the traditional outcome assessment (final exam results) fails to fully reflect students' progress in gamified learning.

Through the design of tasks and challenges, gamified teaching is able to track the learning process of students in real time and provide timely feedback based on student performance. This process assessment mechanism can help students identify their strengths and weaknesses and adjust their learning strategies in time, so as to achieve

better learning results. Traditional tests focus more on final grades and ignore continuous improvement and engagement in the student learning process. This phenomenon is also consistent with the concept of formative assessment in educational theory.

The results of this study are consistent with previous research, especially on the effectiveness of Gamified teaching in language learning. A large number of literatures have shown that gamification teaching can significantly enhance students' learning interest and participation, especially in language learning, and effectively improve their oral ability. Compared with traditional teaching methods, gamification elements can better promote the development of students' oral ability by improving their internal motivation and external motivation.

However, there are some differences between the findings of this study and some other studies. For example, while most students benefit from Gamified teaching, some students with low motivation and weak foundations fail to significantly improve their oral skills. This shows that Gamified teaching is not suitable for all students, especially when some students may not be able to keep up with the class without proper support.

Although this study provides valuable insights into the teaching effect of Gamified, it still has some limitations. First of all, it is limited by the sample. This study was only conducted among sixth grade students in a school in Lishui, China. In the future, the sample scope can be expanded to include students from different regions, grades and backgrounds to verify the wide applicability of the research conclusions. Furthermore, while this study mainly focuses on the short-term effect of Gamified's teaching, future research should focus on its long-term impact, especially its lasting impact on students' speaking ability and interest in language learning.

Gamified shows a remarkable advantage over traditional teaching in improving the spoken English ability of primary schools, especially in improving students' learning motivation and class participation. In future education practice, teachers should adjust teaching methods according to students' personal characteristics, combine gamification elements with traditional teaching to meet the needs of

different students. At the same time, best practices for personalized support and multiple assessments need to be further explored to ensure that all students benefit from gamified instruction.

Recommendation Agenda

According to the research results, some suggestions can be made for the practical application and further research of the research results.

The first is to integrate gamification into curriculum design. Schools and educational institutions should consider integrating gamification technology into English curriculum, especially in the area of improving oral English ability. Play-based fun can help develop students' participation and improve their learning ability. Innovations should be proposed in the instructional design for teachers to effectively implement gamification elements and ensure that they are aligned with curriculum objectives.

Second is gamification in teacher training programs, which should include modules on how to use gamification in the classroom. Understanding game mechanics, motivational theory, and how to design interactive language activities will enable teachers to foster more dynamic and engaging learning environments

Policy makers should consider the integration of gamification elements in education programs at a national level. Changes at a national level could be implemented in collaboration with large education technology companies. Applications could be developed that are specifically tailored to meet the needs of Chinese primary schools.

Research Contribution

This study makes the following contributions on different levels:

Personal Level: For students, this research highlights the potential of gamification to make learning more engaging and effective. It provides insights into how a fun learning environment can help reduce language anxiety and improve speaking skills. For educators, these findings offer practical strategies for incorporating gamified elements into teaching, making lessons more interactive and motivating students.

Organization Level: At the organizational level, this study provides a proven method for schools and educational institutions to improve language learning. Integrating gamification into the curriculum can improve overall student performance and satisfaction. This approach can also improve teacher-student dynamics as teachers adopt a more innovative and participatory approach to teaching.

Industry Level: For the education technology industry, the study highlights the need for more sophisticated gamified learning platforms. The positive results of this study indicate that the market for digital tools that can combine language learning with gamification elements is growing. Edtech companies can benefit from these findings by developing new apps that cater to students and educators.

Policy Formulation: The results of this study provide evidence for policymakers that gamification can improve educational outcomes. Policies that encourage the use of innovative teaching methods, such as gamification, should be considered in national education strategies. Supporting teacher training in gamification technologies could be an important policy recommendation for improving language education.

Contribution to the Sustainable Development Goals: The study is in line with Sustainable Development Goal 4: Quality Education, which aims to ensure inclusive and equitable quality education for all. By providing an engaging and effective teaching strategy, gamification helps to improve the quality of language education, especially in under-resourced schools. In addition, it contributes to Sustainable Development Goal 10: Reducing inequalities, as gamification offers an inclusive approach that can accommodate students with different learning needs and backgrounds.

Further Research

Future research should focus on the long-term effects of gamification on language ability. While this study shows short-term benefits, it would be valuable to investigate whether these improvements persist over time, especially as students transition to higher levels of language learning.

At the same time, future research should examine the effects of gamification on different groups of students, including those with different socioeconomic backgrounds or learning abilities. Investigating how students with language learning difficulties respond to gamification instruction can provide valuable insights into how gamification can be tailored for inclusive education.

In addition, cross-cultural research could explore whether the positive effects of gamification observed in this study hold true in different educational and cultural contexts. Because motivation and engagement can vary by cultural context, comparative studies can reveal important differences and inform the design of culturally sensitive gamified learning environments.

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