



## Educational Game Teaching Methods on Communicative English Listening and Speaking Abilities for Early Childhood Students

Li Qing<sup>1</sup>, Suwana Juithong<sup>2</sup>, Satsayamon Sangway<sup>3</sup>

<sup>1</sup>Master student, Curriculum and Instruction Program, Valaya Alongkron Rajabhat University under the Royal Patronage Pathum Thani Province, Thailand

<sup>2,3</sup>Curriculum and Instruction Program, Valaya Alongkron Rajabhat University under the Royal Patronage Pathum Thani Province, Thailand

E-mail: lq15106372906@163.com, ORCID ID: <https://orcid.org/0009-0000-7864-5018>

E-mail: suwana@vru.ac.th, ORCID ID: <https://orcid.org/0009-0002-1391-5819>

E-mail: satsayamon@vru.ac.th, ORCID ID: <https://orcid.org/0009-0008-3013-2449>

Received 20/12/2023

Revised 09/01/2024

Accepted 21/01/2024

### Abstract

**Background and Aims:** Early childhood education (ECE) in China has undergone significant transformations, shaped by historical, cultural, and socio-political factors. The foundations of early education in China can be traced back to Confucian traditions, emphasizing moral development and the importance of family and community in transmitting cultural values. This overview explores the historical roots, current practices, challenges, and notable reforms in China's general early childhood education system, providing a comprehensive understanding of its evolution. Thus, the purposes of this research were to: 1) To compare the communicative English listening abilities of early childhood students after learning through the educational game teaching method with the criterion determined of 70 percent of the full score. 2) To compare the communicative English speaking abilities of the early childhood students after learning through the educational game teaching method with the criterion determined of 70 percent of the full score. The sample of this study is 30 early childhood students (1 classroom) of Jinshan Xinyuan Preschool Zoucheng City in the academic year of 2023 which was selected by cluster random sampling method.

**Materials and Methods:** The population of this study is 180 early childhood students (6 classrooms), who were enrolled in English courses. The sample of this study is 30 early childhood students (1 classroom) of Jinshan Xinyuan Preschool Zoucheng City in the academic year of 2023 which was selected by cluster random sampling method. Data was collected through listening rubrics and speaking rubrics and SPSS software was used to analyze the collected data, the data used for analysis were the mean value of samples, standard deviation, and single sample t-test.

**Result:** The results of the study were as follows: (1) As presented in Table 4.3, the mean scores of students' English Communicative English Listening Abilities after learning through Learning Management Using the educational game teaching methods were 11.8 and the standard deviation was 1.69. which was statistically higher than the criterion of 70% at a .05 level of statistical significance ( $t_{29}=38.25, p<0.05$ ). The data above showed that Learning Management Using the educational game teaching methods was able to enhance the students' Communicative English Listening Ability. (2) As presented in Table 4.3, the mean scores of students' Communicative English-Speaking Abilities after learning through Learning Management Using the educational game teaching methods were 14.77 and the standard deviation was 2.65. which was statistically higher than the criterion of 70% at a .05 level of statistical significance ( $t_{29}=30.54, p=0.000 < .05$ ). The data





above showed that Learning Management Using the educational game teaching methods was able to enhance the students' Communicative English-Speaking Ability.

**Conclusion:** According to the research results, we can draw the following conclusions: The average score and standard deviation of the preschool students who adopted the educational game teaching mode were higher than the standard of 70% at the level of statistical significance of 0.05. The educational game teaching method can enhance the preschool students' Communicative English Listening and Speaking Abilities.

**Keywords:** Educational Game Teaching Methods; Communicative English Listening Abilities; Communicative English-Speaking Abilities

## Introduction

Early childhood education (ECE) in China has undergone significant transformations, shaped by historical, cultural, and socio-political factors. The foundations of early education in China can be traced back to Confucian traditions, emphasizing moral development and the importance of family and community in transmitting cultural values. This overview explores the historical roots, current practices, challenges, and notable reforms in China's general early childhood education system, providing a comprehensive understanding of its evolution. (China's Education Development and Policy, 1978-2014" by Futao Huang or "Childhood in China" by Liu, 2006)

### *Historical Foundations:*

China's historical perspectives on early childhood education are deeply rooted in Confucian ideals. Confucius, an ancient Chinese philosopher, emphasized the moral and ethical development of individuals, including children. His teachings laid the groundwork for a focus on character education and the significance of familial and societal influences on a child's upbringing. The historical importance of informal education within families and communities played a crucial role in shaping early childhood education practices.

The establishment of the People's Republic of China in 1949 marked a turning point for education in the country. Early childhood education became a formalized component of the education system, aligning with the government's commitment to using education as a tool for societal transformation. However, the Cultural Revolution (1966-1976) brought disruptions to educational institutions, with traditional practices often suppressed in favor of revolutionary ideals. This tumultuous period left a lasting impact on the education system.

### *Economic Reforms and Educational Priorities:*

The late 20th century saw China undergoing economic reforms that spurred rapid urbanization and increased demands for a skilled workforce. Education became a key priority, and in 1986, the Compulsory Education Law solidified the commitment to providing nine years of education for all Chinese children. This legislative move reflected the government's recognition of education as a fundamental factor in the nation's development.

### *Current Practices in Early Childhood Education:*

Contemporary early childhood education in China is diverse, comprising both public and private institutions, including kindergartens and preschools. Government initiatives have been implemented to enhance the quality of early childhood education, emphasizing a holistic approach that includes cognitive, physical, and social development. The curriculum typically covers language development,



mathematics, arts, and physical education, aiming to provide a well-rounded foundation for children (Ministry of Education of the People's Republic of China, 2018).

#### *Challenges in the System:*

Despite progress, China's early childhood education system faces significant challenges. Regional disparities in educational resources pose obstacles to achieving uniform quality standards across the country. The demand for qualified teachers remains high, and there is increasing concern about the academic pressures placed on young children. Urban-rural divides and difficulties in ensuring access to education for migrant children contribute to the complexity of achieving equality in educational opportunities.

#### *Notable Reforms and Policy Initiatives:*

In response to the challenges, China has undertaken notable reforms and policy initiatives to improve early childhood education. The "Three-Year Action Plan to Promote Early Childhood Education" (2018-2020) stands out as a comprehensive strategy to enhance preschool education quality, provide better teacher training, and increase parental involvement in their children's education (Ministry of Education of the People's Republic of China, 2018). These reforms underscore a commitment to addressing the multifaceted issues within the early childhood education system.

#### *Parental Involvement and Cultural Influences:*

The role of parents in early childhood education in China is significant. Traditional Chinese cultural values place a strong emphasis on education, and parents often actively participate in their children's learning. The one-child policy, which was in place for several decades, intensified parental focus on providing the best educational opportunities for their single child. This cultural context shapes parental expectations and involvement in early childhood education, influencing the dynamics between families and educational institutions.

#### *Early Childhood Education for Migrant Children:*

Migrant children in China face unique challenges in accessing quality early childhood education. The hukou system, which ties social benefits to a person's registered residency, creates barriers for migrant families in urban areas. The limited availability of affordable and culturally sensitive early childhood education services for migrant children exacerbates educational inequalities. Efforts have been made to address these challenges, but more comprehensive policies are needed to ensure equitable educational opportunities for all children, regardless of their household registration status.

Empirical research in the field of education has shown that educational games can have a positive impact on various aspects of learning, including language development. Studies suggest that well-designed educational games not only contribute to linguistic competence but also enhance cognitive abilities, critical thinking, and problem-solving skills. By immersing children in a language-rich gaming environment, educators have the potential to create a seamless integration of learning and play, capitalizing on the intrinsic motivation of students to explore and engage with the English language.

## **Research questions**

1. How are the communicative English listening abilities of the early childhood students after learning through the educational game teaching method by comparing with the criterion determined of 70 percent of full score?



2. How are the communicative English-speaking abilities of the early childhood students after learning through the educational game teaching method by comparing with the criterion determined of 70 percent of full score?

### Research objectives

1. To compare the communicative English listening abilities of the early childhood students after learning through the educational game teaching method with the criterion determined of 70 percent of the full score.

2. To compare the communicative English-speaking abilities of the early childhood students after learning through the educational game teaching method with the criterion determined of 70 percent of the full score.

### Literature Review

Before introducing the application of the game teaching method to English teaching at primary school, it is necessary to introduce the background information of this research to help readers have a better understanding of the originality of this research. In the following part, the background information will be introduced from two perspectives: the history and present situations of the game teaching method in Western countries and China.

#### *1. The history and present situations of game teaching in foreign countries*

As the name suggests, the game teaching method is the method by which the teachers make use of educational games in teaching activities to improve the motivation of the students to learn the knowledge presented by their teachers (Avedon & Brian 1971: 32-49). One hundred years ago, contemporary people began to use the game teaching method in teaching activities and they have already done a variety of research about how to apply such software in teaching activities. (Kiili, K. 2005: 17-23). At that time, the majority of the teachers found the plain presentation of teaching content could only make young students lose their interest in learning so they started to lead students to play some games in class, hoping that the games could keep students concentrated (Carrier M., 2005: 84-98). As a result of the above trial teaching experiences, many scholars started to investigate how to use such a method. Their efforts could be summarized as:

In most cases, westerners started to develop game-teaching methods earlier than the Chinese did because the technological revolution started much earlier in Western countries. The first effort to explore the possibility of games applicable to teaching activities started in the 1950's. The real motivation to develop such software is that businessmen wanted to provide some software for parents to lead their children to learn after class at home. (Crawford, 2003: 105-121). At that time, some software deserved more attention: the French software company provided several game software that enabled children to learn and play simultaneously, including Tomb of the Pharaoh and others. Such software was quite popular in France so many other similar companies started to try to develop more similar software (Dick & Carey, 1996: 99-114). Besides, the software is advantageous because it enables children to broaden their horizons and improve their intelligence using playing such games (Larsen Freeman, 1986: 44-57). Such a trial game-teaching method helped educationalists realize of the necessity of applying the game-teaching method in teaching activities.





Many other countries continuously made efforts to improve the technology of game teaching methods (Dick & Carey, 2004: 76-84). In the UK, some electronic companies started to design more software that enabled users to learn and play games at the same time and the cooperation of such companies and some famous universities enabled them to make more important achievements in the development of such software. The software products enabled children to play role-playing games and each role enabled them to try different tasks, which will improve their comprehensive competence (Cao, et al, 2015: 64-65). Mentioning the electronic industry, the USA should never be ignored because the achievement made by Americans in software development exceeds that of any other capitalist country. One of the examples to prove such achievement is the development of software applicable to children's learning activities. In addition, some American scholars made efforts to establish theoretical systems to account for how the game software operates to help learners improve their learning efficiency. For instance, Marprensky used to publish a book to introduce the important theories and principles of how game software could be used properly to improve learning efficiency (Gao, 2007: 21-23). All in all, the analysis of the history of game software could prove that those scholars have made great efforts to account for the phenomenon that game software could help learners improve their learning efficiency and raise their interest in learning.

## ***2. The history and present situations of game teaching in China***

Similarly, Chinese scholars and educationalists have made unremitting efforts to investigate how to use games in various teaching activities. Chinese research about such a topic is, in essence, practice-oriented because most of it focuses on how to combine the use of games and other teaching activities. Among the research about the use of games in teaching activities, the majority was about how to use such software in the classes at primary schools. Many of those researchers focused on the introduction of the application of education games in English teaching activities from different perspectives: some researchers focused on strategies for applying game-teaching methods in English teaching. One of the typical examples is to use of games in English teaching at primary schools. Such research is attached to significance because it presents English teachers with many important suggestions about the use of games. Some other researchers investigated how to make the best of the game-teaching method in teaching activities. One example of research is made by Zhu (2000). In that research, she illustrated the key points about the use of games in teaching with some teaching practice. Besides the above research, some other scholars made efforts to introduce how to use games at schools in certain provinces in China. In addition to the above study, to designed the classroom activities in which the games are used so that his research could provide important clues about the organization of teaching activities using games. According to Li, it is difficult for teachers in primary schools to make plans for the application of game teaching methods so that they can guarantee the high efficiency of teaching activities. It is complicated to reach those goals because teachers need to reach various teaching purposes. Besides, the game teaching method may be improper to be used in practical English teaching activities and such impropriety indicates that teachers should make some creative adaption of such software until they are suitable to be used in English teaching.

The above analysis shows that both Chinese and Westerners have made efforts to investigate the use of the game-teaching method in various teaching activities. Those studies laid a solid foundation for more application of games to teaching activities in the future.



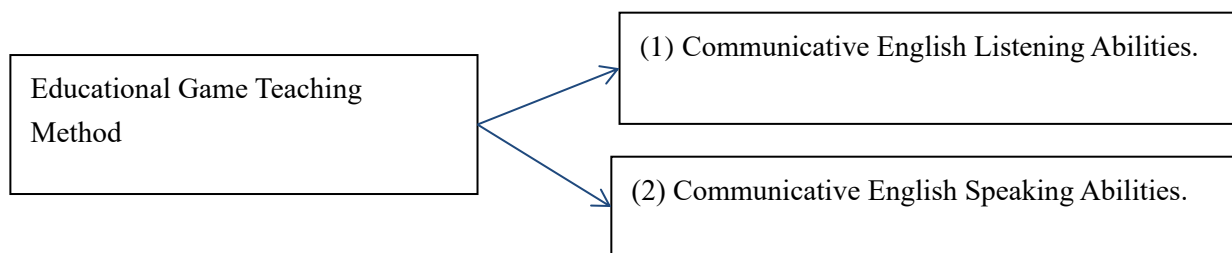
## Research Conceptual Framework

The Independent variable is the Educational Game Teaching Method.

The dependent variables are (1) Communicative English Listening Abilities, and (2) Communicative English-Speaking Abilities.

Independent variable

Dependent variables



## Methodology

### 1. Population and sample

The population of this study is 180 early childhood students (6 classrooms), who were enrolled in English courses.

The sample of this study is 30 early childhood students (1 classroom) of Jinshan Xinyuan Preschool Zoucheng City in the academic year of 2023 which was selected by cluster random sampling method.

### 2 Research instruments:

**2.1 Lesson Plans on Communicative English Listening and Speaking Abilities:** The researcher provided an evaluation form to 5 experts to check or evaluate the lesson plans. After collecting data, analyze the collected data to determine the appropriateness and consistency of the lesson plans. If the average score of appropriateness and consistency assessed by a group of experts is higher than 3.51, it means that the components of the lesson plans have good appropriateness quality and internal consistency. After obtaining the expert evaluation results, the developed teaching model was revised and improved according to the expert's suggestions.

### 2.2 Listening and Speaking Rubrics

Table 1 Listening Rubrics

No.	Categories	Criteria		
		Level 1	Level 2	Level 3
1	Listens to others' ideas, opinions, and points of view	Limited ability to others' ideas, opinions, and points of view	Listens some of the time to others' ideas, opinions, and points of view	Listens attentively of the time to others' ideas, opinions, and points of view
2	Challenges to others' ideas, opinions, and points of view	Challenges to others' ideas, opinions, and points of view	attempts to challenge others' ideas, opinions, and points of view appropriately	Challenges others' ideas, opinions, and points of view appropriately



No.	Categories	Criteria		
		Level 1	Level 2	Level 3
		may be inappropriate		
3	asks question	asks few questions	attempts to ask appropriate questions	asks questions appropriate

Researchers use English listening rubrics for students' assessment and the evaluation form of English listening rubrics had a total of 3 items, and the Index of Item Objective Congruence (IOC) of each item in the evaluation form was 1, higher than 0.67, the result of analyzing the IOC index showed that all English-speaking rubrics items were appropriate and could be used in the speaking rubrics IOC (1.00).

Table 2 Speaking Rubrics

No.	Categories	Criteria		
		Level 1	Level 2	Level 3
11	Expresses ideas, opinions, and feelings when speaking to others in terms of: - fluency - volume - speed - intonation	Expresses ideas, opinions, and feelings with <b>limited clarity</b> when speaking to others in terms of: - fluency - volume - speed - intonation	Expresses ideas, opinions, and feelings with <b>partial clarity</b> when speaking to others in terms of: - fluency - volume - speed - intonation	Expresses ideas, opinions, and feelings with <b>clarity</b> when speaking to others in terms of: - fluency - volume - speed - intonation
22	Vocabulary	uses a limited vocabulary	attempts to use new vocabulary	uses new vocabulary effectively
33	Eye contact	has difficulty maintaining appropriate eye contact when speaking	maintain eye contact some of the time when speaking	maintain appropriate eye contact when speaking
44	Gestures and motions	makes limited use of gestures and motions when speaking	makes some use of gestures and motions when speaking	uses gestures and motions effectively when speaking



Researchers use English speaking rubrics for student assessment and the evaluation form of English listening rubrics had a total of 3 items, and the Index of Item Objective Congruence (IOC) of each item in the evaluation form was 1, higher than 0.67, the result of analyzing the IOC index showed that all English-speaking rubrics items were appropriate and could be used in the speaking rubrics IOC (1.00).

### 3. Data collection

The procedures of data collection were as follows: (1) The samples were taught by using Educational Game Teaching Methods, and (2) After finishing the instruction, the samples received by using the listening rubrics and speaking rubrics

### 4. Data analysis

In this study, data were analyzed by using the statistical program according to the research objectives; (1) Compare Communicative English Listening Ability after receiving educational game teaching methods with the determined criterion set at 70 percent by using listening rubrics. And (2) Compare Communicative English-speaking ability after receiving educational game teaching methods with the determined criterion set at 70 percent by using speaking rubrics.

## Results

Table 1 The result of comparing the communicative English listening ability of the early childhood students after learning through the educational game teaching method with the criterion determined of 70 percent of the full score

Group	N	Full score	Criteria score	M	S.D.	t	p
Experimental group	30	15	10.5	11.8	1.69	38.25*	0.000

\* $p < 0.05$

As presented in Table 1, the mean scores of students' Communicative English Listening Abilities after learning through Learning Management Using the educational game teaching methods were 11.8 and the standard deviation was 1.69. which was statistically higher than the criterion of 70% at a .05 level of statistical significance ( $t_{29} = 38.25, p < 0.05$ ). The data above showed that Learning Management Using the educational game teaching methods was able to enhance the students' Communicative English Listening Ability.

Table 2. The result of comparing the communicative English-speaking abilities of the early childhood students after learning through the educational game teaching method with the criterion determined of 70 percent of the full score

Group	N	Full score	Criteria score	M	S.D.	t	p
Experimental group	30	20	14	14.77	2.65	30.54*	0.000

\* $p < 0.05$





As presented in Table 2, the mean scores of students' Communicative English-speaking abilities after learning through Learning Management Using the educational game teaching methods were 14.77 and the standard deviation was 2.65. which was statistically higher than the criterion of 70% at a .05 level of statistical significance ( $t_{29}=30.54, p=0.000 < .05$ ). The data above showed that Learning Management Using the educational game teaching methods was able to enhance the students' Communicative English-speaking ability.

**According to the research results, we can draw the following conclusions:**

The average score and standard deviation of the preschool students who adopted the educational game teaching mode were higher than the standard of 70% at the level of statistical significance of 0.05. The educational game teaching method can enhance the preschool students' Communicative English Listening and Speaking Abilities.

## Discussion

The Communicative English Listening and Speaking Abilities of the preschool students after using the educational game teaching methods were higher than the standard of 70%.

### 1. The educational game teaching methods can effectively improve students' performance.

Educational games have gained recognition as effective teaching tools that can significantly enhance students' performance by fostering a more engaging and interactive learning environment. These games leverage the principles of gamification to make the educational experience enjoyable, motivating, and impactful. Research conducted by Prensky (2001) emphasizes the potential of educational games to enhance critical thinking, problem-solving skills, and overall cognitive abilities. The interactive nature of these games allows students to actively participate in the learning process, promoting a hands-on approach that reinforces understanding and retention of complex concepts.

Furthermore, educational games often incorporate real-world scenarios, simulations, and role-playing, providing practical applications for theoretical knowledge. This integration of theoretical and practical learning helps bridge the gap between classroom instruction and real-world situations, preparing students for challenges they may encounter in their future careers. A study by Steinkuehler and Duncan (2008) suggests that educational games can also improve motivation and engagement, as they offer a sense of autonomy and accomplishment. Students are more likely to be invested in their learning when it is presented in a format that aligns with their interests and preferences.

In conclusion, educational games have the potential to be powerful tools for improving students' performance by promoting active learning, critical thinking, and practical application of knowledge. As technology continues to advance, integrating well-designed educational games into the curriculum can contribute significantly to creating a dynamic and effective learning environment.

### 2. The educational game teaching methods improve students' recognition.

The process of judging individual needs and levels is a process of judging the actual (acquired) or potential value of the educational activity and completing the purpose of increasing educational value (Chen (1999). Educational games stand out as powerful tools for enhancing students' recognition and comprehension across various subjects. Leveraging the interactive and engaging nature of games, these teaching methods actively involve students in the learning process. The immersive environments provided by educational games prompt students to apply critical thinking skills, problem-solving

strategies, and decision-making processes in dynamic scenarios, thereby enhancing cognitive abilities. Immediate feedback mechanisms within these games contribute significantly to the learning process, allowing students to learn from their mistakes and reinforcing correct recognition. "What Video Games Have to Teach Us About Learning and Literacy," educational games not only make learning enjoyable but also facilitate a deeper and more impactful understanding of academic concepts.

Based on the findings of this study, it is hoped that with the improvement of the educational game teaching methods could be changed better. Enhancing educational game teaching methods holds the key to transforming traditional learning approaches for the better. By incorporating innovative technologies, adaptive algorithms, and interactive design principles, educators can create engaging and personalized gaming experiences that cater to diverse learning styles. These improvements not only make learning more enjoyable but also facilitate a deeper understanding of complex concepts. The importance of integrating educational goals seamlessly into game mechanics, ensuring a balance between entertainment and educational objectives. Moreover, incorporating real-world problem-solving scenarios within educational games can enhance critical thinking skills and practical application of knowledge. To achieve this, collaboration between educators, game designers, and researchers is essential. The continuous refinement of educational game teaching methods can revolutionize the learning experience, fostering a more dynamic and effective educational environment for students.

## Conclusion

Through comparative analysis of the preschool students using the educational game teaching listening and speaking rubrics after the intervention of the educational game teaching.

1. The Communicative English Listening Abilities of the preschool students after using the educational game teaching methods were higher than the standard of 70% at the 0.05 statistical significance level ( $M = 11.8$ ,  $S.D. = 1.69$ ).

2. The Communicative English-speaking abilities of the preschool students after using the educational game teaching methods were higher than the standard of 70% at the 0.05 statistical significance level ( $M = 14.77$ ,  $S.D. = 2.65$ ).

The educational game teaching methods were feasible in English teaching, which helped to improve students' learning effect and communicative English listening and speaking abilities.

## Recommendation

### 1. Recommendation for implication

In the three learning stages of educational game teaching, pre-class learning in educational game teaching is different from traditional classroom learning. Students need to know clearly that they need to take responsibility for their learning results through self-learning before class, instead of thinking that pre-class learning is just preparation or preview of classroom activities.

1.1 Teachers need to strengthen the knowledge reserve of the educational game teaching methods, strengthen theoretical learning, improve teaching ability, and earnestly complete the course preparation to make teachers have confidence during teaching.

1.2 In teaching, the educational game teaching methods take students as the main body and teachers as the lead to complete the teaching organization. Although the teacher is the guide, the teacher



cannot leave the students alone, because the teacher guides the students to learn actively, so the students become the subject of learning.

1.3 In the practice of the educational game teaching methods, teachers should guide students to actively learn the content of this lesson, and always keep supervision and guidance, so that students will not deviate from the topic during the learning process.

1.4 The educational game teaching methods can effectively improve students' academic performance in the actual classroom teaching process. Therefore, if conditions permit, the educational game teaching methods should be prioritized in the classroom.

## 2. Recommendation for further research

2.1. The practice time of the educational game teaching methods is relatively short and the number of lectures is limited. To better test the influence of educational game teaching on the cultivation of students, teachers also need to use educational game teaching methods to conduct more effective empirical research in the classroom for a long period.

2.2. The research is limited by my academic level and external resources, so there are some deficiencies in the exploration of the educational game teaching methods, which need further exploration and attempts in the later stage.

2.3. Only a school cannot represent all ordinary preschools, so the educational game teaching methods still need to be verified in more ordinary preschools, to make the experimental results more convincing.

2.4. My study will continue to reflect on and improve the shortcomings of this practice in future educational game-teaching activities. In my opinion, with the continuous popularization of information technology and in-depth research, the value of educational game teaching will be more perfectly reflected in future teaching.

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