



**AN IMPACT OF GAME-BASED TEACHING ON VOCABULARY
LEARNING OF THIRD GRADE STUDENTS IN SHENZHEN
QIANHAI ELEMENTARY SCHOOL**

**BY
XIAOYA MA**

**A THESIS SUBMITTED IN PARTIAL FULFILLMENT
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Live up to time, live up to waiting. In the future, no matter what difficulties I encounter, I will always remember this brilliant day like the stars, never forget my original intention, carry this beautiful memory, continue to move forward, and never stop pursuing my dreams!

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Abstract

This research discussed game-based teaching in third-grade English as an entry point and proposed corresponding teaching strategies for existing problems. The objectives of this research were 1) to find out the impact of game-based teaching on the English vocabulary learning of the third-grade students in Shenzhen Qianhai Elementary School, and 2) to find out satisfaction level of third-grade elementary school students with the use of game-based teaching methods to improve their English learning. This study aims to inspire third-grade English educators. According to the analysis of the data using SPSS, the results revealed that the average of mean scores was 3.66 and the average of S.D. was 0.71, with the highest mean score ($\bar{X} = 4.0$) and the lowest score ($\bar{X} = 3.50$), while the highest S.D. was 0.85 and the lowest S.D. was 0.53. Subsequently, by scrutinizing the current landscape of English game-based teaching in third-grade classrooms and identifying teachers' implementation hurdles, several key issues emerge including biased perceptions of game teaching among educators, haphazard utilization of game methods, limited diversity and innovation in game materials, and insufficient student engagement. Building upon these findings, the research proposes tailored teaching strategies aligned with the learning characteristics of third-grade students and the demands of the English curriculum. These strategies include meticulous preplanning to ensure the suitability of game teaching, providing moderate guidance to enhance student participation and engagement, fostering interactive learning atmospheres through verbal and non-verbal exchanges, and facilitating post-game reflection stimulate critical thinking and optimize teaching effectiveness.

(Total 105 Pages)

Keywords: Impact, Game-based teaching, English Teachers, Elementary School

Student's Signature Thesis Advisor's Signature

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CHAPTER 1

INTRODUCTION

1.1 BACKGROUND OF THE STUDY

English teaching as a foreign language in China's elementary schools has undergone significant changes in recent years. The government has emphasized the importance of English education and has made it compulsory for students to start learning English from the third grade (Zhang, 2019). As a result, the demand for qualified English teachers has increased, and schools were implementing various teaching strategies to ensure that students learn English effectively (Wang, 2022).

Game-based teaching was a strategy that has gained popularity in recent years because of its effectiveness in engaging students and promoting learning. Games could provide a fun and interactive way for students to learn, which could improve their motivation and engagement. Moreover, games could provide opportunities for students to practice English in a natural and meaningful context, which could improve their language proficiency (Wang, 2019).

The use of games in teaching English to young learners has been supported by various research studies. Research have shown that games could provide an effective way for students to learn English vocabulary, grammar, and language skills (Luo, 2023). Games could also help students to improve their speaking and listening skills, which were essential components of language learning (Tobar, Baldiris & Fabregat, 2017).

Research has also shown that game-based teaching could have a positive impact on students' motivation and engagement. Games could provide a fun and engaging way for students to learn, which could improve their motivation and interest

in learning (Mao, 2022). Moreover, games could provide a sense of achievement and success, which could further enhance students' motivation (Lu, 2019).

It has become an indisputable fact that students were overburdened with schoolwork. The state has introduced several initiatives to reduce the academic burden of students at different times, but with little success. Teaching was an activity that promotes children's physical, mental and intellectual development, but in reality, the academic burden was so heavy that some students do not feel the joy of going to school. In a survey of elementary school students' Tired and Sick of Study (TSS) in Shenzhen, Fu (2019) found that: the boredom of learning rate of first grade students was 3.2%; the rate of second grade students was 6.7%; the rate of third grade students was 8.9%; the rate of fourth grade students was 9.7%; the rate of fifth grade students was 13.2%; and the rate of sixth grade students was 21.5%. This indicates that some students were not happy in school. Although this data was not comprehensive, it was representative. School was not only a place to learn, but also a place to grow up happily.

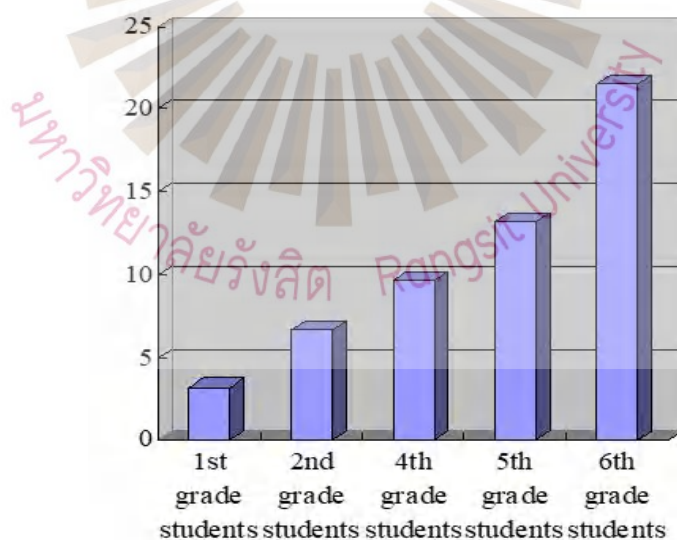


Figure 1.1 Survey of elementary school students' TSS in Shenzhen

Source: Fu, 2019

Chinese basic education was characterized by fast pace, high difficulty, and many points of knowledge, in the same time, our schools teach faster, harder, and

more than many countries, which means that our education omits a lot of things, and what was omitted? The main thing was the participation of students in the process of experience (Cai, 2018). In practice, many students were only asked to memorize the main points of the test, without experiencing the fun of learning, even if they have a momentary interest in learning, it would not last long. 2021 basic education curriculum reform clearly proposes to focus on students' participation in the experience, "teaching process that does not focus on the process of participation was not meaningful for development. We could even say that the essence of teaching and learning process was the process of participation. We could even say that the essence of the teaching process was the process of participation" (Li, 2020). In the teaching process, what we focus on was not only the students' knowledge of the test, but also their experience, understanding and development in the process.

The National English Curriculum requires the introduction of English courses from the third grade onward, and advocates the use of activity-based approaches and experiential participation in basic English teaching (Zhang, 2018). The implementation of games was one of the most important strategies to enhance students' participation in the experiential teaching process and to increase their motivation and interest in learning. Play was a way of working for children, and we should use the inherent qualities of play for teaching (Liu, 2020). Especially for the third-grade students who were learning English for the first time, how to combine their favorite games with teaching and learning to make them really experience the fun of learning? Based on this idea, this paper develops a study in this area.

With the development of globalization and the trend of internationalization of education, English has become an indispensable language. In China, the popularization of English education has become an important task in the national education reform. The elementary school level was the starting point for students to learn English and was a critical stage for English learning. However, due to the young age of students, their cognitive ability, interest and attention were relatively limited, and traditional English teaching methods were often difficult to arouse their interest and motivation. Therefore, how to carry out English game teaching in the third grade

of elementary school to improve students' interest and effectiveness in English learning has become a hot issue of concern for educational circles and scholars (Song, 2019).

Game teaching, as an emerging teaching strategy, was accepted and applied by more and more educators for its interactivity, fun and effectiveness (Qin, 2019). Students in the third grade of elementary school were in a critical period of physical and mental development, and game teaching not only allows students to learn English in a pleasant atmosphere, but also stimulates their learning interests and promotes their learning motivation and learning drive. Therefore, it was important to explore the effectiveness and strategies of teaching English games in the third grade of elementary school to promote English learning of elementary school students (Cai, 2018).

Therefore, the research studied the game-based teaching strategies from the perspective of English game teaching in third grade of elementary school to promote the English learning of elementary school students and provide reference for elementary school English education in Shenzhen Qianhai elementary school.

1.2 SIGNIFICANCE OF THE PROBLEM

The current situation of English Vocabulary Teaching in elementary schools in China, there were still many problems to be solved. Most teachers' vocabulary teaching methods were too boring (Zheng, 2012). In vocabulary teaching, some teachers simply show students how to read, and then ask them to follow the teacher for several times, even if they finish the task. It was usually in accordance with the following fixed pattern: listening and reading-teacher, reading-explaining, usage-students' memory-dictation. This kind of vocabulary teaching method was too monotonous, which makes students not interested in learning English vocabulary and affects the overall effect of vocabulary teaching. Teachers teach more knowledge points and less memory methods in vocabulary explanation (Julie, Ian & Dennis, 2002). When teaching new vocabulary, teachers often explain their usage in detail, but pay little attention to teach students effective memory methods for different

vocabulary. The students spend a lot of time in the mechanical operation of repeated copying and dictation, but the effect was very little.

There were still many problems to be solved. First of all, most students were not interested in learning words. Elementary school students' autonomous learning ability was not high, coupled with the students were more playful, resulting in the classroom teachers teaching English words students cannot raise interest in learning. Secondly, students did not form a good habit of memorizing words. Students learn English words only ten minutes before class, and they do not actively memorize words after class. At the same time, without the supervision of teachers, students would not learn, resulting in students' insufficient. Moreover, most teachers' vocabulary teaching methods were too boring. In vocabulary teaching, some teachers simply show students how to read, and then ask them to follow the teacher for several times, even if they finish the task. This kind of vocabulary teaching method was too monotonous, which makes students not interested in learning English vocabulary and affects the overall effect of vocabulary teaching. That was why the researcher would like to use game teaching to enhance students' English vocabulary. A successful game teaching could not only regulate students' spirit, but also integrate teaching into games (Sung & Gao, 2017). After intense mental work, students could consolidate their acquired knowledge and deepen their understanding of knowledge through relaxed and happy games. It could also enable students to learn new knowledge through games. Game teaching could also arouse students' interest in mathematics learning, and this interest would be transformed into a mysterious motivation for students to continue learning (David, John & Suns, 2020).

Elementary English was a critical period in the construction of grammar, vocabulary and conversational skills; it was a mechanical memory stage, where students learn and forget quickly and were not strong in language application; and they begin to face the pressure of school tests. Children aged 7-11 years old were exposed to a small amount of vocabulary at school and have further requirements for oral conversation. The purpose of teaching English in elementary school was to cultivate students' keen interest in learning English and good language habits, to lay a good

foundation of phonetic pronunciation, and to develop students' initial ability to listen, speak, read and write as well as their oral communication skills.

1.3 RESEARCH OBJECTIVES

1) To find out the impact of game-based teaching on English vocabulary learning of the third-grade students in Shenzhen Qianhai Elementary School.

2) To find out satisfaction level of third-grade elementary school students by the use of game-based teaching methods to improve their English learning.

1.4 SCOPE OF THE STUDY

1.4.1 Research Site

The purpose of this study was to have a detailed understanding of the current situation of English game teaching in the third grade, and to explore game teaching strategies on this basis, so as to provide some inspirations for the third grade English teachers to truly master game teaching strategies, effectively enhance students' interest in learning, and promote the development of students' various abilities including creative ability and thinking ability in their teaching practice according to students' characteristics.

This research would be conducted at Qianhai Primary School in Shenzhen, China. The school was founded in 1988. The school has 30 classes, 1,343 students, and 91 faculty members. It covers an area of 10,043 square meters, with a building area of 9,248 square meters, and a school building area of 7,918 square meters. The focus of this research was on the third-grade students in this school.

1.4.2 Duration

The researcher decides to use 1 month to complete the teaching methods. In the school, there were 7 classes every day, 3 sessions in the morning and 4 sessions in the afternoon. There was 1 English class every day. Above all, there were 35 lessons per week, 5 of which were English lessons, and each lesson was one hour, there were 20 English classes a month, totally 20 hours.

1.5 CONCEPTUAL FRAMEWORK

The conceptual framework for this study includes the following components and the chart of Independent and Dependent Variables in Figure 1.2:

Table 1.1 Conceptual Framework

Components	Description
Game-Based Learning	The use of games as an educational tool to engage students in the learning process and enhance their motivation and interest in the subject matter.
Third-Grade Students	The specific group of students that were the focus of the study, namely those in the third grade of Shenzhen Qianhai Elementary School.
English Language Learning	The specific subject matter that was being taught through game-based learning, namely English language skills such as reading, writing, speaking, and listening.
Learning Outcomes	The specific outcomes or goals of the study, such as improved English language skills, increased student engagement and motivation, and enhanced learning outcomes.
Teaching Strategies	The specific instructional strategies and techniques used in game-based teaching, such as the use of educational games, simulations, and interactive activities to promote student learning.

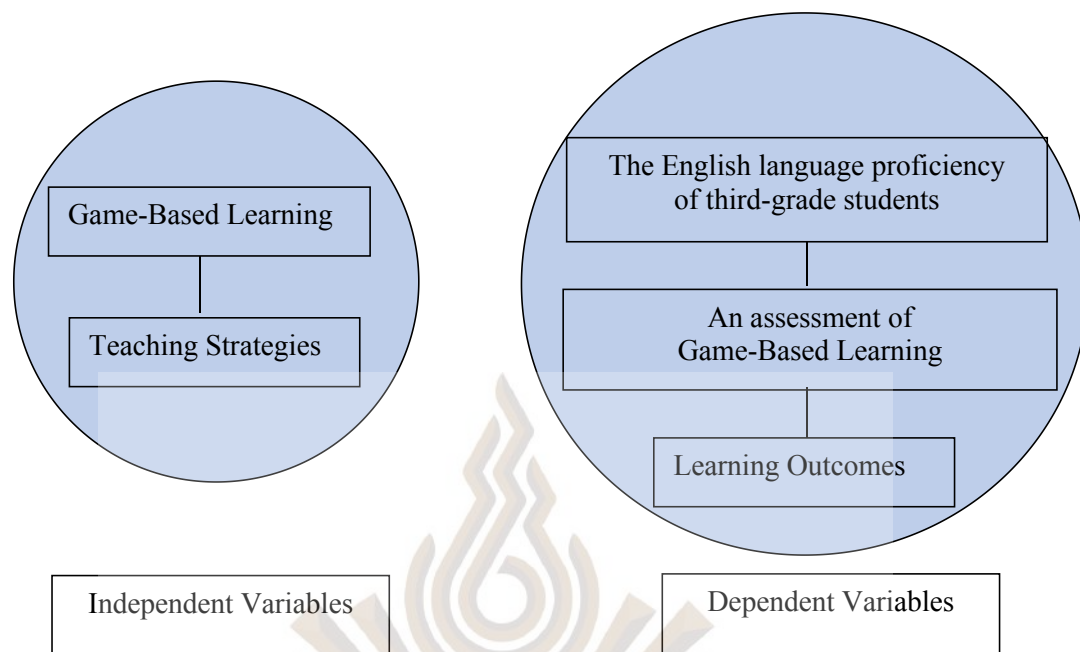


Figure 1.2 Conceptual Framework

1.6 SIGNIFICANCE OF THE STUDY

The significance of a study could be evaluated based on various factors, such as its potential impact on the field of study, its contribution to existing knowledge, its practical implications, and its relevance to current issues or problems. The significance of a study was important for several reasons. Firstly, it helps to justify the research by demonstrating its relevance and importance. Secondly, it provides a basis for evaluating the potential impact of the research and its contribution to the field. Thirdly, it helps to communicate the importance of the research to other researchers, funding agencies, policymakers, and the general public. Overall, the significance of a study was crucial for understanding the value and impact of research and its potential implications for the advancement of knowledge and practical applications.

1.6.1 For the Students

Teachers often need to complete the prescribed teaching tasks within the limited teaching time and maintain the order of the classroom. This was a certain degree of difficulty. However, if the teaching knowledge was integrated into the game, so that students could accumulate knowledge while entertaining. The teaching method that combines pleasure and context could guide students to take the initiative to generate interest and change from passive learning to active learning, which greatly improves teaching efficiency. This not only exercises students' ability to speak English and participate in classroom dialogues, but also build up students' self-confidence, strengthen students' interest in learning, and form a benign teaching cycle model.

1.6.2 For the Teachers

In the traditional teaching mode, the teacher occupies the absolute main body position in the classroom, while in the English teaching of the game method, the students become the main body of the classroom, and the teacher plays a guiding and auxiliary role. On the one hand, this could mobilize the learning atmosphere in the classroom and help stimulate teachers' enthusiasm for teaching. Only by actively developing innovative lesson party games, enriching lesson party teaching content, and improving classroom teaching efficiency. On the other hand, in the actual teaching process, teachers should fully mobilize students to participate in classroom activities, and also ensure that game teaching has good practical effects, forcing teachers to improve their professional qualities and strengthen their ability to combine theory with practice, and then improve the quality of classroom teaching.

1.7 LIMITATIONS OF THE STUDY

In this study, only five classes from the third-grade level in one school in the same city were selected as the study site for data collection. In addition, Shenzhen belongs to a coastal city with better economic development and relatively high educational resources, so the overall level was on the high side of the national average.

The study sample and sample size were small, and they were not representative of the entire country or region. Therefore, the results of this study could only be generalized in a similar context.

1.8 DEFINITIONS OF TERMS

Game-Based Teaching

In this study, Game-Based Teaching refers to using English language games as a primary instructional tool to teach English language skills to third-grade students in Shenzhen Qianhai Elementary School. The approach focuses on using games to teach English language skills such as grammar, vocabulary, listening, speaking, and reading comprehension. The goal was to create a fun and engaging learning environment that encourages students to participate actively and develop their English language skills.

Elementary School

In China, elementary school typically consists of six years of education, starting from the first grade and ending in the sixth grade, and was followed by three years of middle school education. Third grade students, therefore, would be students who were in their third year of elementary school and were approximately 8-9 years old. In this study, Elementary School refers to Shenzhen Qianhai Elementary School where was a specific public school that provides education at the elementary level in the city of Shenzhen, China.

Third-Grade Students

In this study, Third-Grade Students refer to the third-grade students, mainly between the ages of 8 and 9, were known to have acquired some basic skills in reading, writing, and arithmetic at Shenzhen Qianhai Elementary School. At this school, one of the pilot demonstration schools for English education in elementary school in coastal cities, the students were using a game-based approach to learning English, and the

researcher was exploring the impact of this approach on their language learning outcomes.

English Vocabulary in Elementary Schools

In this study, English Vocabulary in Elementary Schools refers to a set of words and phrases that were commonly used in the English language and were taught to students in the third grade of Shenzhen Qianhai Elementary School. These words and phrases include nouns, verbs, adjectives, adverbs, and other parts of speech that were necessary for basic communication in English. In third grade, students should master 500 to 600 words and connect words to categories, meanings, and sentence patterns. The teaching of English vocabulary in this study was focused on using game-based approaches to make the learning process more engaging and interactive for the students. The goal was to improve students' English language proficiency and their ability to communicate effectively in English.

English Vocabulary

It refers to the specific lexical knowledge and language skills related to the English language that were targeted for instruction and learning in Shenzhen Qianhai Elementary School.

CHAPTER 2

LITERATURE REVIEW

In this chapter, relevant literatures were reviewed to provide theoretical background for the research. This chapter establishes a theoretical framework by reviewing the literature on the influence of English game-based teaching. The main feature of this study was to improve the English level of third grade students by analyzing the influence of game method in English vocabulary teaching.

This chapter consists of the following topics:

2.1 Educational System in China

2.1.1 The Overview of Chinese Education System

2.1.2 The Characteristics of English in Different Kinds of School

2.1.3 The Related Vocabulary in Teaching

2.2 Game-Based Learning (GBL)

2.2.1 The Definition of Game-Based Learning

2.2.2 The Advantages of Game-Based Learning

2.2.3 The Role of the Teacher

2.3 Theories and Approaches in English Teaching and Learning

2.3.1 Theories

2.3.2 Methodology

2.4 Theories about English Vocabulary Learning

2.4.1 Definition of English Vocabulary

2.4.2 Features of English Vocabulary

2.4.3 The Important of English Vocabulary

2.4.4 Intentional Learning and Incidental Learning

2.5 Previous Related Research

2.1 EDUCATIONAL SYSTEM IN CHINA

In order to develop its economy, China has been attaching great importance to science and technology and national education in recent years, and has continuously developed and improved China's education system. This part introduces China's education system from three aspects: school system, nine-year compulsory education, and semester. Among them, education policy was very necessary, what kind of policy could be studied to support our education (Robert, 2002).

2.1.1 The Overview of Chinese Education System

China advocates "rejuvenating the country through science and education". In order to develop its economy, China has attached great importance to science and technology and national education in recent years. The educational framework in China was basically the same as that in Japan, with 6- year systems, 3- year systems, 3- year systems, and 4-year systems (Percy, 1989). The government attaches great importance to the popularization and expansion of education. Affected by the emphasis on higher education and the one-child policy, parents have high expectations for their children, and the test pressure of students in all grades in China was no less than that in Japan.

Compulsory education refers to China's unified use of public resources to ensure the education of all school-age children (Jian & Xue, 2021). The three basic principles of compulsory education were compulsory, universal and free. All school-age children should be compulsory to receive the obligation of education, and there was no restriction on the class or origin of the education object, and in addition, they must be exempt from paying tuition. Nine years include six years of elementary school and three years of junior high school. Students were generally 6-14 years old. Primary school classes do not exceed 6 hours a day, and secondary school classes do not exceed 8 hours a day.

In China, a school year was a whole year, and the period includes winter vacation and summer vacation. There were two semesters a year, one semester and half a year. Taking Guangdong Province as an example, it was clear that the first semester starts on September 1, and the second semester starts on February 26. Summer vacation was generally two months, and winter vacation was one month. There were about 30 people in a class, almost 100%. Nowadays, China's education was very popular. Every student has school. Students with good grades go to key schools, and students with poor grades go to ordinary schools.

2.1.2 The Characteristics of English in Different Kinds of School

English was logical. Any language was the product of human thinking activities, which in turn affects the shaping and stereotypes of language learners' thinking (Neil, 2013). English language was the product of logical thinking. The law of human language development was spoken language followed by writing (Gnanaolivu & Malatesha, 2006). And English was the universal language in the world, and English was being learned all over the world, and China was no exception. Many schools have set up English courses.

1) Private schools: Peter Blakeley Holland (2013) has done research showing that private schools generally pay more attention to English, and even many schools use English as a bright spot for enrollment. Private elementary schools basically have English classes every day, and the teaching mode of private elementary schools was relatively new. Almost every school has its own special courses. In addition, most schools would have foreign teachers' courses and some cultural experience activities. The teaching mode was relatively new and pays more attention to the personality development of students. There were many types of textbooks in private elementary schools. You could take a look at your own dolls. When choosing a school, you would know which schools would have special English training. Moreover, private schools would have certain requirements for children's English during interviews, so as to ensure that they could keep up with the school curriculum after entering elementary school (Matthew, 1999).

2) Public schools: Public schools and private schools have similar textbooks in basic subjects such as Chinese and mathematics. The difference was mainly reflected in the teaching of English. Except for some key famous schools, public schools basically have 2-3 English lessons per week, and the curriculum was relatively simple, and most of them were oral courses. Public school English was basically the PEP textbooks used in accordance with the regulations, and the PEP textbooks were relatively simple (Xu, 2016). According to the teaching plan, the first grade completes the memorization of 26 letters and simple sentence patterns and words, and the writing part starts from the third grade, which meets the English learning level of most children. To study in a public elementary school, the teachers must pay close attention to the children's English learning. The gap in school education was here.

3) International schools: Most of the primary schools in international schools were bilingual teaching, or even teaching in English, which provides a good language learning environment for primary school students. Many of these schools also offer foreign elementary school courses. For example, Beijing Aidi School's Bilingual Primary and Secondary Schools have been offering IGCSE courses for many years. They have introduced foreign original textbooks in English to cultivate children's fast reading ability and academic English ability. Most of these public schools can't do it yet. International schools focus on improving children's reading ability, allowing students to read a large number of original books, especially classic books, to improve their reading level (Tricia, Amelia & Michael, 2009). Pay attention to improving students' English communication ability, so that students could use authentic English to communicate with others without barriers.

In summary, the Chinese educational system has undergone notable changes in recent years, with a strong emphasis on English education in various types of schools, reflecting China's commitment to science, technology, and education as drivers of economic growth and development.

2.1.3 The Related Vocabulary in Teaching

When discussing the related vocabulary in the context of teaching, several terms and concepts come to mind. Here's a list of key vocabulary related to teaching:

Table 2.1 The Related Vocabulary in Teaching

Pedagogy	The method and practice of teaching, including the strategies and techniques used to impart knowledge.
Andragogy	The art and science of teaching adults, as opposed to pedagogy, which focuses on teaching children.
Curriculum	The set of courses and content taught in a particular educational program.
Lesson Plan	A detailed outline or guide that teachers use to structure their lessons, including objectives, activities, and assessments.
Assessment	The process of evaluating a student's learning, often through tests, quizzes, projects, or other methods.
Differentiated Instruction	Adapting teaching methods to accommodate diverse learning styles and abilities in the classroom
Scaffolding	Providing support and guidance to students as they learn, gradually reducing the support as they gain independence.
Active Learning	Engaging students in activities that require them to participate actively in the learning process, as opposed to passive reception of information.
Collaborative Learning	A method where students work together in groups to achieve common learning goals.

Source: Zhong, 2018

2.2 GAME-BASED LEARNING (GBL)

In the context of globalization, English teaching has also become an indispensable subject in primary education. Of course, in order to ensure the quality of teaching and the learning effect of students, primary school English education was still

at the stage of basic education. As our second language, English was more difficult for many students. Language acquisition was a systematic project (Elizabeth, Adrienne, Chantelle & David, 2013). It needs to improve the language status from an early age, and it was best to acquire it in the corresponding language environment. If there was no corresponding language environment, teachers should also work hard to create a corresponding situational environment so that students could come into contact with language more naturally and improve their English proficiency. English pronunciation and grammar were both difficult to learn. Many primary school students were prone to get bored when they have not yet started, and it was quite difficult to accept them.

Therefore, it was very important for primary school English teachers to carry out corresponding classroom innovations, actively guide students to fall in love with English, and create a positive and good learning environment. The traditional duck-filling teaching could no longer meet the individualized children's learning requirements and learning habits. Primary school English teachers should find a new way, use modern teaching concepts, entertaining and having fun, so that children could learn knowledge through games. The Game-based Learning was an emerging teaching method that adapts to the development of the times (Lamya & Said, 2019). It was very suitable for primary school English teaching and could effectively enhance students' interest in English learning.

2.2.1 The Definition of Game-Based Learning

American psychologist Bruner said: The best motivation for learning was that students have an inherent interest in the knowledge they have learned, and there was no game that could most arouse this inherent interest of students (Mark & Ruth, 1985). "The Game-based Learning, as the name suggests, was to teach in the form of games, so that students in a relaxed atmosphere, in cheerful activities, and even in fierce competition, unknowingly learn the content of the textbook, or learn what must be mastered. The teaching method of extracurricular knowledge. Simply put, the Game-based Learning was a teaching method that combines "game" and "teaching"

ingeniously, so as to arouse students' interest in learning (Steve, Sascha & Günter, 2016).

Game-based learning refers to the use of games to promote learning. The literature indicates that it was usually related to conceptual learning that enhances cognitive knowledge or learning to improve students' cognitive, behavioral, and emotional abilities through simulation activities (Kristina, 2009). Bossier Parish Community College has some explorations in this area. Use games to review words, sentence patterns, and practice new English knowledge points. Students could learn in a relatively relaxed environment. They would not feel disgusted with English learning. On the contrary, it would make the memory of English knowledge points deeper.

This was a game that clarifies the results of learning. What kind of game scholars use to achieve what kind of teaching purpose, to ensure that students could learn knowledge during the game (Coralie & Jean, 2013). The game scholars designed must contain the teaching topic and cannot deviate from the subject.

2.2.2 The Advantages of Game-Based Learning

The Game-based Learning was conducive to the growth of students' knowledge and intellectual development (Mei & Karen, 2016). Karen's study found that the teaching games in the English classroom were inseparable from the syllabus, and were closely related to the content of the textbooks. By actively participating in the games, students could unknowingly absorb the knowledge they have learned and even extracurricular knowledge. In addition, other studies show that these teaching games generally contain the components of developing intelligence, which was conducive to developing students' intelligence and improving students' active thinking ability.

The common finding among scholars was that the Game-based Learning could help stimulate students' interest in learning and reduce students' pressure and burden. Adding appropriate games to the process of English teaching was conducive to cultivating students' interest in learning English subjects, stimulating students' learning motivation, and enabling students to actively participate in classroom teaching

activities, actively interact with teachers, and at the same time turn difficult and easy, and make students fall in love English learning, no longer think that English was a boring subject, easily improve English performance, thereby reducing the pressure and burden of students.

The Game-based Learning was conducive to the physical and mental development of students. The Game-based Learning not only conforms to the physical characteristics of the students, but also adapts to the psychological characteristics of the students (Maxwell, Hadi & Mehrnaz, 2020). Studies pointed out that it could alleviate the tension in the classroom and eliminate the fatigue and fatigue of the students due to learning. The games in the English class were mostly group activities. Students experience the fun of cooperating with others in the games (Ben, 1995). At the same time, the games designed by teachers were usually carried out in the form of group competitions. Students participating in the games would have the mentality of working hard to win. It could encourage them to actively participate, help overcome the psychological barriers of shyness, maintain a state of physical and mental joy, self-confidence, and cultivate a competitive spirit, which was conducive to the physical and mental development of students.

Galeb believes games help students cultivate their interest. Each game activity contains rich aesthetic factors. For example, literature, colors, sounds, actions, images and scenes were silent education that always exists. Games often combine painting, singing, and recitation, sports, etc., so that students understand the meaning of beauty unconsciously, which was conducive to students cultivating taste, cultivate the correct aesthetic point of view, and improve aesthetic ability.

2.2.3 The Role of the Teacher

First of all, the game process was the process of students' exploration and development. When the children play by themselves, the teacher was the "audience". Teachers should try their best to let children play games as they wish. Don't think they know nothing. In fact, they were constantly exchanging "experience" (Joseph, 1979).

Secondly, game materials were tools for student activities. Whether the materials were put in properly plays a key role in the development of students. Teachers should continuously update the game materials in stages and batches, from easy to difficult, and constantly attract children's interest in actively participating in activities, so that they have a sense of freshness.

Then the teacher should guide the students in the game purposefully. Stephen pointed out that when students really need help, teachers should help in time. When the game cannot go smoothly, the teacher should help solve it in time (Stephen, Judith & Linda, 2020).

Research considered that in the game, in addition to observation and guidance, teachers also need to play with the children. Only when they go deep among the children could they truly understand their needs and know what they were thinking and what they want to do. The teacher could act as a customer, sit in the role area, sing a song and dance with the children in the performance area. After finishing the game, the teacher was the object of the child's communication. At this time, he could give the child some suggestions in a targeted manner. When scholars approached the children, we did not lose the experience and knowledge of the adults. What scholars gained was the trust and love of the children.

2.2.4 The Role of the Student

Revital and Yael believed that the student was the main body of the game, and the teacher was the organizer and guide of the activity (Revital, Yael & Orly, 2005). During the game, the student was not only a student, Revital and Yael could also play various roles, such as a doctor, a businessman, a waiter, and possibly a leader, so the role of the student was also changeable during the game.

2.2.5 The Integration of Different Games into English Vocabulary

Teaching

The Integration of Different Games into English Vocabulary Teaching" was a modern and innovative approach to language education that seeks to make the process of learning English more engaging, interactive, and enjoyable for students of all ages. In this educational framework, traditional vocabulary lessons were infused with various types of games and interactive activities, designed to create a dynamic and immersive learning experience.

1) Listen to instructions and do actions

"Listen to Instructions and Do Actions" was an engaging and effective method used in English language teaching games to enhance students' language learning experience. This approach encourages active participation and the application of linguistic skills in a fun and interactive way.

Teachers quickly say some imperative sentences, such as: Touch your head (eye, ear, nose...). Point to the window. Point to the door/ceiling/floor, etc., students would do this after hearing action. The fastest and most accurate wins. There were also words and sentences that could be used to issue instructions: Touch your book (your pen, the desk ...). Open the door (your book ...). Hold your book (pen, pencil ...). Wash your face (hands, teeth...) etc. Samples as shown.

T: Let's play a game "listen and act". I'd like eight students come to the front. Each team, one student.

The student who shows the wrong action or reacts slowly was eliminated, and the remaining four wins, score 10 points for the group, and then draw another student from each group to proceed.

Now listen to me carefully! Touch your nose!

S: Touching the nose...

T: Close your eyes!

S: Some students make mistakes, weed out.

T: Next student.

2) The hen lays eggs

T: Let's play a game. Look! There were two hens. "T" means it belongs to the teacher; "S" means it belongs to you. If the word you read was the word written on the card, you must read it aloud with the teacher. If the words read by teacher do not match the word cards presented, you cannot make a sound. If you shouldn't be following the follow-up reading, which means you have failed, then draw an egg under the teacher's hen; otherwise, draw an egg under your hen, which has more eggs than someone else's hen.

T: (Show ruler card) ruler.

S: ruler.

T: (Show pencil) eraser.

S: (No sound)

.....

3) Driving the train

T: We have learned a song "How were you?". Now let's review it by playing a game. Everyone sings the song "How were you?". were you ready?

S: I'm ready!

T & S: The train were fast, and where it is. The train was fast and where it is!

T: Ok, stop. It's your turn.

S1: (Sing English songs)

T: very good! Let' give him a big hand.

OK, Let's go on!

.....

4) Passing practice sentence pattern

T: let's play a game. Its name was "passing word". I'll show the first one the word on the card. The first one tells the second one, the second one tells the third one, go on like this. were you clear?

S: Yes! T: Ok, let's begin. (I show the English card of the first classmate in each group, the first classmate starts to spread the word.)

S1: he would not spread.

S2: I can't hear you clearly, it's too noisy!

S3: Ha! I know, I heard what he said. (The last male student heard what a student in front of him said in advance, and quickly ran to the podium and wrote down the answer.)

.....

5) You act, I guess

For example, when teaching students to learn the words "dog, panda, duck, cat, monkey, rabbit", teachers could use games to teach, let students imitate the movements of these animals, and other students guess the corresponding word. For example, let a student imitate the monkey spreading teeth and dancing claws on the podium, and the teacher would guide the students to guess the word monkey. Not only allows every student to participate in classroom games, but also stimulates students' enthusiasm and enthusiasm for learning, learning and mastering and consolidating newly learned knowledge in pleasant games.

In summary, the Chinese educational system has undergone notable changes in recent years, with a strong emphasis on English education in various types of schools, reflecting China's commitment to science, technology, and education as drivers of economic growth and development.

2.3 THEORIES AND APPROACHES IN ENGLISH TEACHING AND LEARNING

2.3.1 Theory

2.3.1.1 Behaviorism Theory

Behaviorism Theory was a school of psychology that uses behaviorist theories and methods to study learning (Fatemeh, Neda, Mohammad, Fariba, 2015). On the basis of a series of closely controlled experimental studies on animals and humans, a series of principles and laws related to learning have been discovered and put forward.

2.3.1.2 Cognitive Learning Theory

Cognitive learning theory was a learning theory that explores the laws of learning by studying the cognitive process of people (Edward, 1997). Cognitive learning theory believes that learning was not passively forming SR connections under the domination of the external environment, but actively constructing cognitive structures within the brain; learning was not to form reaction habits through practice and reinforcement, but to gain expectations through insight and understanding; The organism's current learning relies on its original cognitive structure and current stimulating situation, and learning was guided by the subject's expectations rather than being dominated by habits. Compared with behaviorist theory, related literature indicates that cognitive theory was more concerned with the intermediate link between stimulus and response, that is, how the stimulus causes the response, and what was the internal mechanism of learning behavior.

2.3.1.3 Constructivism Learning Theory

Constructivism learning theory believes that knowledge was not imparted by teachers, but learners in a certain context, that is, the social and cultural background, with the help of other people (including teachers and learning partners) in the process of acquiring knowledge, using the necessary help (Marcia, 1999). Marcia thinks that learning materials were obtained through construction. Therefore, learning was a process of meaning construction achieved through interpersonal collaboration activities with the help of other people in a certain context, that is, a social and cultural background.

2.3.2 Methodology

2.3.2.1 Grammar-Translation Method

This teaching method advocates the use of mother tongue to teach foreign languages. In the teaching, translation and grammar teaching were mainly used, grammar learning was the main method, and the central position of mechanical exercises and grammar was emphasized. The grammar-translation method focuses on cultivating students' reading and translation abilities (Na & Kong, 2011). It focuses on the memory of grammatical rules and vocabulary in teaching. It mainly uses the mother tongue for teaching and uses the mother tongue as a reference system, through a large number of translation exercises and reciting grammar rules. Master the foreign language, do not pay attention to the cultivation of pronunciation and communication skills, and have fewer opportunities to actively use the target language.

The goal of the traditional grammar translation method was to accurately and quickly read and translate articles written in the target language (Robert, 1997). The content of the teaching was language knowledge. The main classroom activity was to read the text word by word, analyze and explain the meaning, grammatical form and sentence structure in the text, and do translation.

2.3.2.2 Brain-Based Learning

Brain-based Learning was the latest scientific theory derived from the exploration and analysis of brain neuroscience research on the human brain, combined with the research of anatomy, medicine, genetics, pharmacy, nutrition, and anthropology to examine (Daniel, 2012). Revise current teaching or learning methods and educational measures, and design or select the most effective learning strategies to match the development of the human brain, with the purpose of enhancing learning motivation and promoting learning effectiveness. This was another brand-new angle that we have been using to understand education from the perspectives of psychology, behavior and sociology.

2.3.2.3 Problem-Based Learning

PBL was a problem-based Learning method and a student-centered education method based on the real world (Sheeba, 2019). Literature indicates that it has become a popular teaching method in the world. It was very different from the traditional subject-based teaching method. PBL emphasizes that students' active learning was the main focus, rather than teachers' teaching in traditional teaching; PBL links learning to larger tasks or problems so that Learners were engaged in problems; it designs authentic tasks, emphasizes setting learning in complex and meaningful problem situations, and solves problems through learners' independent exploration and cooperation, so as to learn the scientific knowledge behind the problem. To form problem-solving skills and self-learning ability. The problem-based Learning method was based on the problem, the student was the main body, and the teacher-oriented heuristic education was aimed at cultivating students' abilities (Elizabeth, 2013).

2.3.2.4 Project-Based Learning

Project-based learning was a student-centered and learn-by-doing approach that organizes learning around projects (Utku, 2010). While entrepreneurship and Project-based learning in SE education were thrilling research topics, there seems to be very little work focusing on the pros and cons of involving external stakeholders to support real demands in software engineering education. Studies have shown that working on real projects also supports students to acquire leadership skills, such as communication, project management and teamwork.

What was the difference between PBL and project-based learning?

PBL was a learner-centered teaching method, based on real situational problems, and high-level learning with "problems" as the core. Project-based learning has a driving or triggering problem (Fajra, 2020). He thinks that questions were used to stimulate and organize learning activities, and learning activities were the main body of project-based learning. There was also one or a series of final works, and students have to communicate and discuss the production of the works, so as to draw conclusions and discover some new problems in the exchange and discussion. Project-based learning focuses on multidisciplinary knowledge and emphasizes cooperation in learning activities. Learning in project-based learning has certain social benefits. Project-based learning believes that students realize inquiry in real life and need to use a variety of cognitive tools and information resources in the learning process.

2.3.2.5 Game-Based Learning

Game-based Learning was an intersection of serious games and e-learning (Brunella & Botte, 2009). It uses an entertaining and entertaining teaching format, allowing students to gain a new learning experience that was fascinating, personalized, interactive and entertaining. Knowledge and skills to achieve the purpose of teaching.

Features:

It has the most basic characteristics of traditional games, retains the look and feel of the game, as well as its strong attraction and stickiness, allowing users to continue to be excited during the game.

The teaching mode was based on student experience, and users gain knowledge through continuous trial and error. Teaching knowledge was fragmented, the knowledge of the system was divided into several knowledge points, and then implanted in different links of the game, students could accumulate knowledge bit by bit.

These theories and methodologies provide diverse approaches to English teaching and learning, catering to different learning styles and objectives.

2.4 THEORIES ABOUT ENGLISH VOCABULARY LEARNING

Theories about English vocabulary learning were an essential aspect of understanding how individuals acquire and expand their knowledge of English words and phrases. These theories provide valuable insights into the cognitive processes, strategies, and factors that influence vocabulary development. Here were some key aspects to consider when exploring theories about English vocabulary learning:

2.4.1 Definition of English Vocabulary

English vocabulary: vocabulary was a collection of all words in a certain language. The collection of all the words in English was the vocabulary.

The emergence of English vocabulary was the product of two-way communication between Chinese and English (Laura, 2018). Some names and concepts with Chinese characteristics have entered English vocabulary, while some English vocabulary has entered Chinese, deriving new meanings in the cultural environment and forming semantic and cultural characteristics of English vocabulary

were described. The cultural characteristics of English word meaning mainly include the expansion or contraction of word meaning, the conversion of commendatory and derogatory color of word meaning, the extension of word meaning, and the innovation of word meaning.

2.4.2 Features of English Vocabulary

For the subject of English, it was very different from other languages. It has many unique characteristics of its own. Among them, the more notable feature was that the English vocabulary covers a wide range and a large number. The large range of the word causes the etymology of the word to be very complicated and the update speed was fast. With the continuous development of society, many new elements in the society continue to emerge. In recent years, many foreign languages have also been increasing, which makes the vocabulary of English continue to increase (William, 2012). For example, foreign languages such as Latin, French, or Italian were constantly impacting English, which has caused great changes and improvements in the pronunciation of English. It was also because of the influence of many foreign languages that many words were out of touch in pronunciation and spelling. For example, the same English letter sounds different in different English words: pizza, piazza, pie, pipe.

In terms of structure, English vocabulary was more regular in composition, especially in prefixes and suffixes. The mastery of English formation methods would directly affect the students' grasp of English vocabulary (Patel & Praveen, 2018). This was because in English vocabulary, many words were composed of some word formation methods. For example, similar to go-between, biosphere. These English words could be turned into another word by adding some suffixes before or after the root. If students master this method, they would be able to easily distinguish and master some new words and enrich the English learning content. For example, labor could become laborer and laborious.

2.4.3 The Importance of English Vocabulary

Vocabulary teaching was an important part of English teaching, and it was the key to the success or failure of college English teaching (Paul & Eric, 2020). The mastery and use of vocabulary was the basis for enhancing language knowledge and training language skills, and the effect of vocabulary teaching was related to the realization of foreign language teaching goals. In English teaching, it was an important task for teachers to let students understand the importance of learning vocabulary, guide them to learn and memorize English vocabulary more effectively, and cultivate students' good vocabulary learning.

Vocabulary was the basic element of foreign language learning and communication. Learning English was inseparable from vocabulary. Vocabulary was like the bricks used in building a house. It was the most basic and indispensable material and plays an important role in language and cultural communication (Alex, 2017). With the frequent exchanges of Chinese and Western cultures and the in-depth development of foreign language teaching research, vocabulary teaching has received more and more attention. To learn English well, a certain number of English words must be mastered. The size of the number of vocabulary and the proficiency of using vocabulary directly affect the language communication ability (Kyoko, 2019). In the study of pronunciation, grammar, and vocabulary, it was difficult to master vocabulary. Most students spend a lot of time on English words but the memory effect was not good. Vocabulary was the basic unit of language. English expression and communication must be realized through vocabulary. Without vocabulary, it was impossible to express and communicate. Therefore, vocabulary was an indispensable basic language for cultivating students' language communication skills.

Vocabulary was an important part of English teaching. It was the foundation of English listening, reading, and writing (Joanne & Margaret, 2020). The guarantee for improving English listening, speaking, reading, writing and translation abilities was to have sufficient vocabulary. The greater the vocabulary of students, the greater the reading. The higher the level of writing and writing, students only have to master more

vocabulary to understand and understand. On the contrary, practical activities such as listening, speaking, reading, and writing and communication skills become empty talk. Therefore, all English skills were inseparable from the accumulation and use of vocabulary. Vocabulary plays an important role in English teaching.

2.4.4 Intentional Learning and Incidental Learning

Intentional learning refers to learning with certain learning intentions and tasks in advance, and after certain efforts, using certain methods and strategies (Carl & Marlene, 2018). The purpose of intentional learning was clear, the tasks were specific, the methods were flexible, and it was accompanied by positive thinking and will. Effort, so it was an active and intentional learning activity. Through intentional learning, systematic and complete scientific knowledge could be effectively obtained. So, it was dominant in study and work.

Incidental learning was a phenomenon in which an individual has no motivation to learn and the consciousness of active learning, but learns a certain experience accidentally or unconsciously (Victoria & Karen, 2015). For example, pre-school children do not have the purpose of learning language in advance in games and interactions with adults, but they have mastered a lot of language knowledge in activities. In an experimental setting, it was defined as learning that has nothing to do with the prescribed task. For example, in an experiment, the subjects were asked to read a series of words to others. The prescribed task was to read the words, but after the test, it was found that they had memorized many words they had read.

Understanding these aspects of theories about English vocabulary learning was vital for educators and learners alike. It informs effective teaching methods, strategies, and the recognition of the central role vocabulary plays in language acquisition and communication. It highlights the significance of both intentional and incidental learning processes in building vocabulary knowledge.

2.5 PREVIOUS RELATED RESEARCH

Mazeyanti, Alan & Suziah (2014) carried out research entitled "Evaluating game-based learning effectiveness in higher education". The main aim of this research work was to evaluate the effectiveness of using GBL in Higher Education. This paper briefly discusses a proposed research framework, the data analysis framework, some results obtained from a data collection activity, as well as a statistical analysis of the data.

Meihua & Karen (2016) carried out research entitled "Game-based Learning and 21st century skills: A review of recent research". This paper examines the most recent literature in regard to game-based learning and identified 29 studies which targeted 21st century skills as outcomes. The range of game genres and game design elements as well as learning theories used in these studies were discussed, together with the range of indicators, measures and outcomes for impacts on 21st century skills. The findings suggest that a game-based learning approach might be effective in facilitating students' 21st century skill development. The paper also provides valuable insights for researchers, game designers, and educators in issues related to educational game design and implementation in general.

Margarida, Mireia, Michela, Effrey, Sara & Sylvester (2012) carried out research entitled "Learning through playing for or against each other? Promoting collaborative learning in digital game-based learning". Study aims to characterize game dynamics in the adoption of multi-player GBL. The first section of the paper introduces collaborative GBL and describes the combination of intragroup dynamics of cooperation and positive interdependence and an intergroup dynamic of competition to maintain gameplay. The second part of the paper describes two multi-player GBL scenarios: the multi-player game with interpersonal competition and the multi-player game with intergroup competition.

Azita & Patrick Felicia (2015) carried out research entitled "Gameplay engagement and learning in game-based learning: A systematic review". In this review, the author investigated game design features that promote engagement and learning in game-based learning (GBL) settings. The aim was to address the lack of empirical evidence on the impact of game design on learning outcomes, identify how the design of game-based activities may affect learning and engagement, and develop a set of general recommendations for GBL instructional design. The findings illustrate the impact of key gaming features in GBL at both cognitive and emotional levels.

Ucu Maria Dwi&Siti (2017) carried out research entitled "Developing and application of Mobile Game-Based Learning (M-GBL) for high school students' performance in Chemistry". This study aims to develop and understand the effect of a M-GBL implementation on student learning outcomes associated with student learning independence. The research method used was quasi-experiment with two ways Anava research design. The conclusions are: M-GBL media was feasible to be used as chemistry learning media which was practical, fun, interesting, could be used anywhere, and in accordance with facilities owned by learners.

Rula, Fatma & Mazin (2016) carried out research entitled "Educational gamification vs. game-based learning: Comparative study". In this paper, author would explain different theoretical support for the benefit of using game in education and learning. Author would also demonstrate the difference among those methods such as, Game Base Learning (GBL), educational game and Gamification in education.

Francesco, Kathleen & Carlos (2016) carried out research entitled "A proof-of-concept study of game-based learning in higher education". This article describes a proof-of-concept study designed to assess the effects of GBL on enjoyment, engagement, and learning in higher education using a large sample size and quantitative measures. The study uses a large data set (n=440) involving English, Math and Science undergraduate courses.

Sukran (2015) carried out research entitled "Elementary school teachers' views on game-based learning as a teaching method". The purpose of this study was to understand elementary school teachers' views on GBL related to elementary school courses. The data of the study were collected by using semi-structured interviews and analyzed using descriptive analysis. According to the findings of the study, the elementary school teachers believe that content of the social studies course; in-class leisure activities, engaging child literature, games and physical activities were suitable for using GBL in the classroom.

These research studies collectively contribute to the body of knowledge regarding the implementation, benefits, and outcomes of GBL in various educational contexts. The findings and insights from these studies could inform the design and integration of game-based teaching methods offering valuable guidance for educators and researchers alike.



CHAPTER 3

RESEARCH METHODOLOGY

The main content of this chapter was to introduce the research methodology of this research. This chapter shows the research design, research location, research population and samples, research instruments, validity and reliability, data collection, data analysis and ethics consideration. In addition, this chapter also shows the specific content of data analysis in quantitative and qualitative research.

3.1 RESEARCH DESIGN

The researcher adopted a mixed research method, two research methods were used in the study. The design of the mixed method requires equal use of qualitative and quantitative methods to understand the research object. researcher could use quantitative analysis methods to make up for the shortcomings of qualitative analysis, or use qualitative analysis methods to make up for the shortcomings of quantitative analysis. The meaning of numbers could be supplemented by words, pictures and dialogues. Numbers could be used to improve the accuracy of words, pictures and dialogues (Jason & Steve, 2007). At the same time, the use of quantitative analysis methods and qualitative analysis methods could also generate more complete knowledge for theory and practice.

In contrast, quantitative research was more scientific, but requires advanced mathematical knowledge, while qualitative research, although rough, was more applicable when the data was insufficient or the analyst has a weak mathematical foundation (James, 1994). Therefore, researcher used qualitative and quantitative research methods in the process of analysis.

The data for the quantitative study was obtained through in-class pre-test and post-test student scores. The data of qualitative research came from the researcher's questionnaire survey. Quantitative research was to use mathematical language to describe. It was based on statistical data, the establishment of mathematical model, and the mathematical model for the quantitative characteristics, quantitative relations and quantitative changes to analyze a method. Qualitative research was the description of relevant words. It was a method to analyze the nature, characteristics, development and change law of the object of analysis by subjective judgment mainly based on the analyst's intuition and experience (Robert, 1988).

3.2 RESEARCH LOCATION, POPULATION AND SAMPLES

3.2.1 Research Site

This research was conducted in an elementary school in Shenzhen, Guangdong Province, China. Its name was Qianhai Elementary School. It was built in May 2003 and has now developed into a modern public school integrating kindergarten, elementary school, and junior high school. Contains 6 classes in the preschool education department, 39 classes in the elementary school, 38 classes in the junior high school, with more than 4,000 students. The school covers an area of 36,950 square meters, with a building area of 29,792 square meters. There were currently 223 teachers. There were 44 senior teachers, accounting for 18%; 116 teachers with intermediate titles, accounting for 52%; 106 backbone teachers, accounting for 47.5%, 36 graduate students, accounting for 16.14%.

3.2.2 Population

The population was defined as the "third-grade students of Qianhai Elementary School," which includes all third-grade students in the school, with an estimated age range of 7 to 9 years old. The text states that the total number of third-grade students in the school was 157.

3.2.3 Samples

All 157 students in third-grade, both male and female were selected as the sample for this study. The Yamane formula was used to determine the sample size. It's given by:

$$n = \frac{N}{1 + Ne^2} \quad (3-1)$$

N- The population size

n- The sample size

e- The acceptable sampling error range $\pm 5\%$

$$n = \frac{157}{1 + 157 * 0.05^2} \approx 113$$

3.3 RESEARCH INSTRUMENTS

There were two types of instruments in this research, questionnaire and interview, as follows.

3.3.1 Questionnaire

The questionnaire with a total of 14 questions, including 13 single-choice questions and 1 multiple-choice question. It mainly investigated students' recognition of game teaching and teachers' recognition of game teaching. The application of game teaching, students' participation in game teaching, and the interaction between teachers and students in game teaching. The sample of the questions were shown as follows.

Table 3.1 Questionnaire

Items	Statements	Options				
		1	2	3	4	5
1.	Do you like games in English class?	1	2	3	4	5
2.	Do you think that the games organized by the teacher could improve academic performance?	1	2	3	4	5
3.	Do you like to play games in the English classroom?	1	2	3	4	5
4.	Does your English teacher often organize games in class? (Including some small games)	1	2	3	4	5
5.	Do you think that the games organized by the teacher could improve academic performance?	1	2	3	4	5
6.	Does the teacher always do a few games or does he or she change the games every now and then?	1	2	3	4	5
7.	Do you think the class followed the rules and kept order during the game?	1	2	3	4	5
8.	When your English teacher do an English game in class if the class was very noisy?	1	2	3	4	5
9.	Do you think the teacher gave you enough time to prepare for the game?	1	2	3	4	5
10.	Do you take the initiative and ask to participate in games organized by your teacher?	1	2	3	4	5
11.	Would you introduce your idea of a game to the teacher and the class in an English classroom?	1	2	3	4	5
12.	Do teachers could motivate students to participate in a game before teaching it?	1	2	3	4	5
13.	Do you think doing English games with your teacher would help you to improve your academic performance?	1	2	3	4	5
14.	Are you satisfied with your teacher's comments after the game?	1	2	3	4	5

3.3.2 Semi-Structured Interviews

Semi-structured interview was an interview between unstructured interview and structured interview. There were two ways: one was that the examinee prepares important questions in advance, but does not require the questions in a fixed order, and could discuss the problems that need further investigation during the interview; the other was a series of questions that the researcher plans in advance.

Table 3.2 Interview Questions

1.	What do you think about teaching games in third grade of elementary school?
2.	How much do you know about the theories of game teaching? Do you have any training on game teaching in your spare time?
3.	Are the games you implement in the classroom designed by yourself or were they learned from website or anybody?
4.	In the implementation of game teaching, what would you do to prepare?
5.	In what types of lessons do you like to implement games (new lessons, practice lessons, review lessons, etc.)?

3.4 DATA COLLECTION

3.4.1 Data Analysis on Questionnaire Data

In this section, the researcher prepares the questionnaire according to the purpose of the survey and distributes it to all 113 students using WEN JUANXING website, the students log in anonymously using their smartphones or website links and fill in the answers, the data would be collected automatically in the background. Only the researcher has the password to log in to view the data and organize and analyze it using SPSS 27.0 to produce the data needed by the researcher. For such as mean and standard deviation, these data could be easily obtained by analyzing the questionnaire at this WENJUANXING website. And the analysis of the questionnaire was only quantitative analysis.

3.4.2 Data Analysis on Interview Data

According to the needs of this research, the interview outline was prepared by ourselves, and 10 questions were preset to investigate the problems of teachers in the implementation of game teaching from the teachers' point of view, including: the

teachers' knowledge and understanding of game teaching, the teachers' use of game strategies in the process of classroom teaching, and the teachers' control of game teaching. Interviews were conducted with 2 teachers who were teaching English in the third-grade and 4 English teachers from other grades (who had taught English in the third-grade), a total of 6 teachers, all of whom volunteered, and the interviews were recorded and analyzed in the form of audio-recordings and texts. The samples of the questions were shown as follows.

3.5 VALIDITY AND RELIABILITY

3.5.1 Validity

Validity was the extent to which the instrument accurately measures the properties of a concept (LoBiondo & Haber, 2015). Consequently, the content validity would be used in this study. A successful data collection survey was more than just a set of well-designed questions that were recorded and applied to a sample population. A good survey generates key information and provides an important window into the heart of the topic of interest, and validity and reliability were fundamental measures of the quality of the survey (Fink & Litwin, 1995). Thus, the content validity would be performed by inviting two Thai experts and one Chinese expert. IOC (Item Objective Congruence) would be used to assess the correspondence of projects to objectives based on scores +1, 0 and -1.

+1: The item clearly meets the objectives or ensures that the following measures meet the stated objectives.

0: It was not certain or obvious whether the measure meets the objective.

-1: The items obviously do not meet the objectives or ensure that the measures do not meet the designated objectives.

The following formula would be used to calculate the IOC for this study.

1) If IOC rating range was 0.50-1.00, it means that the test item was congruent and could be retained.

2) If IOC rating range was less 0.50, it means that the test item was not incongruent and needs to be removed or adjusted.

3.5.2 Reliability

Reliability was a central concept in classical test theory and was often described as a requirement that a particular standard of reliability must be achieved before a test could be considered to be of sufficient quality for practical use (Adams 2005). Reliability testing was important because it referred to the consistency between the various parts of the measuring instrument. The most commonly used measure of internal consistency was the Cronbach's alpha coefficient. It was considered when using the Likert scale. There was no absolute rule for the most appropriate internal consistency of a reliability measure, but most people agree on a minimum internal consistency factor of 0.70 (Taherdoost, 2016).

Before conducting a formal questionnaire of 80 students, the researcher would conduct reliability test with the pilot group, who were 30 students of the same grade from another school (they share similar characteristics with the students of the main study) to ensure the reliability of the motivation and self-efficacy questionnaire.

The higher the coefficient of Cronbach's Alpha was, the higher the reliability of the instrument was. In basic research, reliability must be at least 0.70 to be acceptable, and a range between 0.8 and 0.98 was considered high reliability.

Table 3.3 Result of Reliability of the Whole Set Questionnaires

Questionnaires	Cronbach's Alpha
14 Items	0.934

Table 3.4 Description of internal consistency using Cronbach's Alpha

Cronbach's Alpha	Internal Consistency
$\alpha \geq 0.9$	Excellent
$0.9 > \alpha \geq 0.8$	Good
$0.8 > \alpha \geq 0.7$	Acceptable
$0.7 > \alpha \geq 0.6$	Questionable
$0.6 > \alpha \geq 0.5$	Poor
$0.5 > \alpha$	Unacceptable

Source: Jain and Angural, 2017

3.6 ETHICS CONSIDERATION

The researcher was committed to obtaining each participant's consent and approval prior to the study; participants were informed of the purpose of the study, and the overall process. They were explained that the research data and their opinions were presented as anonymous. The data were kept confidential and used only for this study and not for any other purpose. The ethical research was approved by the Research Ethics Office of Rangsit University.

3.6.1 Prior to Conducting the Study

The researcher took great care to protect the privacy of the teachers who provide both types of data by not identifying them by names but by numbers only.

The researcher obtained the permission to collect data of the interviewed schools for this research.

The researcher asked all the participating teachers to fill out the consent forms to indicate their willing to provide their information to the researcher.

The researcher submitted the research proposal with the intended instruments to the Ethics Research Board of Rangsit University for approval. The ERB certificate has been approved by RSU ERB NO. (RSUERB2024-008).

3.6.2 Beginning the Study

The researcher made all the requirements for the study clear to all participating teachers, about what they could do such as they could decide to leave the study at any time.

The researcher made the appointment time for data collection as clear as possible.

The inclusion criteria: The vocational students who signed the consent form to attend the research. They were healthy in body and mind. They completed all the items in the questionnaire for the survey group and the key informants who were willing to take part in the semi-structured interview.

The exclusion criteria: The participants who may be not well in body and mind or those who did not complete all the stages of the questionnaire and /or semi-structure interview.

The withdrawal criteria: The participants who may not want to continue participate in any stages of the study may withdraw at any time without giving any explanation.

CHAPTER 4

DATA ANALYSIS

The first chapter introduces by observing the English classroom of third-grade students in Qianhai elementary school in Shenzhen, based on interviews and questionnaires, the researcher learned about the implementation of game-teaching as well as teachers' and students' evaluations of game-teaching strategies in English classrooms. Aiming at the problems in the practice of English game-teaching in the third-grade and the disconnection between theory and practice, on the basis of which, searching and studying a large number of related theories and corresponding them to the problems, the corresponding strategies were proposed.

4.1 DESCRIPTIVE BASIC INFORMATION OF SAMPLE

Figure 4.1 showed the basic information of gender about the third-grade students of Shenzhen Qianhai elementary school who participated in this questionnaire:



Figure 4.1 The Graph of Students' Gender

According to Figure 4.1 showed, most students were female, the female has 51.33%, and the male has 48.67%. The number of female students was 58 people; the

number of males was 55 people. Therefore, most students were female, and they were more than male students. But the difference was not significant.

The following Table 4.1 showed the age of the students in the study.

Table 4.1 The Student's Age

Age				
Sample Group	Under 7 years	7-8 years	8-9 years	Total
	9	86	18	113
	7.96%	76.11%	15.93%	100%

According to Table 4.1, it showed all students were elementary school students, 7.96% were under 7 years of age, 15.93% were 8-9 years of age, and the majority of the rest, 76.11%, were concentrated in the 7-8 years age group. The total number of the sample was 113.

4.2 THE DATA ANALYSIS OF THE QUESTIONNAIRE SURVEY

This section focused on the statistics of the questionnaire survey of the third-grade students in order to understand the students' recognition of game-teaching and the problems in teaching games from the students' point of view. The following Table 4.2 was showing the analysis of the survey.

Table 4.2 The Analysis of Questions showing Mean and Standard Deviation

NO.	Questions	\bar{X} Mean	S.D. Standard Deviation	Interpretation
1.	Do you like games in English class?	3.57	0.58	low
2.	Do you think that the games organized by the teacher could improve academic performance?	3.41	0.53	low
3	Do your enjoyment of games in the English classroom?	3.79	0.72	high
4.	Does your English teacher often organize games in class? (Including some small games)	3.69	0.69	low
5.	Do you think that the games organized by the teacher could improve academic performance?	3.58	0.62	low
6.	Does the teacher always do a few games or does he or she change the games every now and then?	3.70	0.69	low
7.	Do you think the class followed the rules and kept order during the game?	3.50	0.75	high
8.	What would your English teacher do if the class was very noisy during an English game in class?	3.57	0.68	low
9.	Do you think the teacher gave you enough time to prepare for the game?	3.63	0.71	average
10.	Do you take the initiative and ask to participate in games organized by your teacher?	3.62	0.84	high
11.	Would you introduce your idea of a game to the teacher and the class in an English classroom?	3.63	0.85	high
12.	What were the ways in which teachers could motivate students to participate in a game before teaching it?	3.73	0.71	average
13.	Do you think doing English games with your teacher would help you to improve your academic performance?	3.75	0.70	low
14.	Are you satisfied with your teacher's comments after the game?	4.00	0.81	high
Average		3.66	0.71	--

From Table 4.1, it could be seen that the average of $\bar{X} = 3.66$ and the average of S.D.=0.71, with NO.14 having the highest mean score of $\bar{X} = 4.0$ and NO.7 having the lowest score of only $\bar{X} = 3.50$; NO.11 has the highest S.D.=0.85 and NO.2 has the lowest S.D.= 0.53.

4.2.1 Analysis of the Answers of Questionnaire Items

The Q1: "Do you like games in English class?"

Regarding the Q1 on students' recognition of game-teaching, in order to understand students' recognition of game-teaching, the questionnaire mentioned "Do you like games in English class?". The 113 students, 23 chose "Strongly agree", accounting for 20.3%, 65.4% chose "Agree", 74 students; 8 students chose "Average", accounting for 8.8%; 5 students chose "Disagree", accounting for 3.5%, and only 1 student chose "strongly disagree", which shows that third-grader like it very much in the English classroom very much. This was consistent with the preconception and experience that games and children went hand in hand.

The following Table 4.3 showed the Q1 of the questionnaires in the study.

Table 4.3 The Answers of Question 1: Do you like games in English class?

	Strongly agree	Agree	Average	Disagree	Strongly disagree
Sample Group	23	74	8	5	1
	20.3%	65.4%	8.8%	3.5%	0.9%

In the Q2, "Do you think that the games organized by the teacher could improve academic performance?"

Table 4.4 revealed that "Strongly agree" were answered by 65 students (57.5%), "Agree" by 27 students (23.9%), and "Average" by eight students (7.1%). Ten students

chose "Disagree", accounting for 8.8%, and the last three students chose "Strongly disagree", accounting for only 2.7%. This shows that third-grade students did not only like English classroom games, but also realize that games could help them learn and master English.

The following Table 4.4 showed the Q2 of the questionnaires in the study.

Table 4.4 The Answers of Question 2: Do you think that the games organized by the teacher can improve academic performance?

	Strongly agree	Agree	Average	Disagree	Strongly disagree
Sample Group	65	27	8	10	3
	57.5%	23.9%	7.1%	8.8%	2.7%

In the Q3, "Do your enjoyment of games in the English classroom?" Out of 113 students, 17 students chose "Strongly agree", accounting for 15%; 77 students chose "Agree", accounting for 68.1%; and 12 students indicated that they were "Average", accounting for 7.1%. "Average", accounting for 10.6%. 6 students chose "Disagree", accounting for 5.3%, and finally 1 student chose "Strongly disagree", accounting for only 0.9%. This showed that the third-grade students' thinking and understanding have already had traces of complexity, the game was very interesting was secondary, recognizing the importance of the game for learning English was valuable. But how to make students more able to improve their learning through games was a question worth thinking about. Grade students not only like English classroom games, but also recognized that games could help learn and master English knowledge.

The following Table 4.5 showed the Q3 of the questionnaires in the study.

Table 4.5 The Answers of Question 3: Do your enjoyment of games in the English classroom?

	Strongly agree	Agree	Average	Disagree	Strongly disagree
Sample Group	17	77	12	6	1
	15.0%	68.1%	10.6%	5.3%	0.9%

In the Q4, " Does your English teacher often organize games in class? (Including some small games)". Out of 113 students, 12 students chose "Strongly agree", accounting for 10.6%; 79 students chose "Agree", accounting for 69.9%; and 11 students chose that they were "Average", accounting for 9.7%. 7 students chose "Disagree", accounting for 6.2%, and finally 4 students chose "Strongly disagree", accounting for 3.5%. Frequency of teachers' use of game strategies Teachers' control over the teaching of games determines the whole process and effectiveness of teaching and learning, which was mentioned again in Q4 of the questionnaire.

The following Table 4.6 showed the Q4 of the questionnaires in the study.

Table 4.6 The Answers of Question 4: Does your English teacher often organize games in class? (Including some small games)

	Strongly agree	Agree	Average	Disagree	Strongly disagree
Sample Group	12	79	11	7	4
	10.6%	69.9%	9.7%	6.2%	3.5%

Based on the quantitative SPSS analysis of the data it could be concluded that $\bar{X}=3.69$, and S.D. =0.69. Therefore, the level of difficulty of the games organized in the classroom was investigated in two ways: students' understanding of the situation of the games organized by the teacher and students' perception of the difficulty of teaching the games organized by the teacher.

In the Q5, " Do you think that the games organized by the teacher could improve academic performance?". 7 students chose "Strongly agree", accounting for 7.1%; 45 students chose "Agree", accounting for 39.8%; and 11 students chose that they were "Average", accounting for 9.7%. 44 students chose "Disagree", accounting for 38.9%, and 5 students chose "Strongly disagree", accounting for 4.4%. Although the Table 4.7 showed that most of the students were able to understand what the teacher meant, some of them said they did not know what the teacher meant. Under the concept of education for all students, it was necessary to take care of all students, how to use more appropriate language to make each student understand the rules of the game, follow the teacher's instructions, get the mental pleasure and knowledge improvement was a problem that teachers must consider. At the same time, the table showed that although it was not common for teachers to organize games that were too difficult or too easy for the students, this problem should not be ignored, and it was very important to choose games that were suitable for the students' level of difficulty. It was important to choose games that were appropriate for the students. Games that were too easy were not likely to attract the attention and interest of the students, while games that were too difficult would demotivate the students.

The following Table 4.7 showed the Q5 of the questionnaires in the study.

Table 4.7 The Answers of Question 5: Do you think that the games organized by the teacher can improve academic performance?

	Strongly agree	Agree	Average	Disagree	Strongly disagree
Sample Group	7	45	11	44	5
	7.1%	39.8%	9.7%	38.9%	4.4%

Based on the quantitative SPSS analysis of the data it could be concluded that $\bar{X}=3.58$, and S.D. =0.62. Therefore, diversity and innovativeness of game-teaching by teachers, and innovativeness refers to the novelty of games used by teachers.

In the Q6, " Does the teacher always do a few games or does he or she change the games every now and then? ". Out of 113 students, 18 students chose "Strongly agree", accounting for 15.9%; 78 students chose "Agree", accounting for 69.0%; and 14 students chose that they were "Average", accounting for 12.4%. 3 students chose "Disagree", accounting for 2.7%, and do not have any student chose "Strongly disagree". It corresponded to the third question of the interviews, in which teachers generally agreed that games were beneficial for teaching and learning, but that the games used were mostly small, systematic games that build on experience. Third-grader students were young enough to repeat them many times, saving time in introducing new games to students. The disadvantage was that third-grader students have a relatively short attention span, and repetitive, familiar games tend to make them disinterested and less engaged.

The following Table 4.8 showed the Q6 of the questionnaires in the study.

Table 4.8 The Answers of Question 6: Does the teacher always do a few games or does he or she change the games every now and then?

	Strongly agree	Agree	Average	Disagree	Strongly disagree
Sample Group	18	78	14	3	0
	15.9%	69.0%	12.4%	2.7%	0%

In the Q7, " Do you think the class followed the rules and kept order during the game? ". Among of 113 students, 13 students chose "Strongly agree", accounting for 11.5%; 72 students chose "Agree", accounting for 63.7%; and 24 students chose that they were "Average", accounting for 21.2%. 3 students chose "Disagree", accounting for 2.7%, and only 1 student chose "Strongly disagree", accounting for 0.9%. It showed that teachers' control of the game-teaching process was investigated in terms of the order in the class during the teaching process, teachers' handling of emergencies, and control of the preparation time before game-teaching. As the third-grade students were still young and weak in self-control, the intervention of the game would more or

less interfere with their attention and make them forget the purpose of learning and "play for the sake of play", and the number of students in the class was relatively large, so maintaining the order in the class was a prerequisite to ensure the effectiveness of the teaching. This question was intended to investigate the discipline problem in the process of teaching games. It was very important to follow the rules and maintain a good atmosphere when playing games, otherwise the teaching effect of the games would be affected.

The following Table 4.9 showed the Q7 of the questionnaires in the study.

Table 4.9 The Answers of Question 7: Do you think the class followed the rules and kept order during the game?

	Strongly agree	Agree	Average	Disagree	Strongly disagree
Sample Group	13	72	24	3	1
	11.5%	63.7%	21.2%	2.7%	0.9%

In the Q8, " What would your English teacher do if the class was very noisy during an English game in class? ". Among of 113 students, 11 students chose "Strongly agree", accounting for 9.7%; 69 students chose "Agree", accounting for 6.11%; and 31 students chose that they were "Average", accounting for 27.4%. Both "disagree" and "strongly disagree" were selected by only 1 student each (0.9%). This question was asked to investigate how teachers deal with unexpected situations. Experienced teachers often dealt with this problem better and were able to "put up and take down", while inexperienced teachers seemed to be in a state of confusion. There have been cases of teachers leaving in the face of a chaotic situation.

The following Table 4.10 showed the Q8 of the questionnaires in the study.

Table 4.10 The Answers of Question 8: What would your English teacher do if the class was very noisy during an English game in class?

	Strongly agree	Agree	Average	Disagree	Strongly disagree
Sample Group	11	69	31	1	1
	9.7%	61.1%	27.4%	0.9%	0.9%

In the Q9, "Do you think the teacher gave you enough time to prepare for the game? ". Among of 113 students, 14 students chose "Strongly agree", accounting for 12.4%; 56 students chose "Agree", accounting for 49.6%; and 39 students chose that they were "Average", accounting for 34.5%. Both "disagree" and "strongly disagree" were selected by only 2 student each (1.8%). This question was intended to investigate teachers' control over the preparation time before implementing the game, which was closely related to the effectiveness of teaching and learning. The results of the survey showed that teachers have a good grasp of this, but it varies from student to student. The length of preparation time was related to the purpose of the game, the familiarity of the game, the form of the game, and the learning level of the students. If the preparation time was too short, it would affect the students' participation and motivation; if the preparation time was too long, it would easily cause students' restlessness.

The following Table 4.11 showed the Q9 of the questionnaires in the study.

Table 4.11 The Answers of Question 9: Do you think the teacher gave you enough time to prepare for the game?

	Strongly agree	Agree	Average	Disagree	Strongly disagree
Sample Group	14	56	39	2	2
	12.4%	49.6%	34.5%	1.8%	1.8%

In the Q10, " Do you take the initiative and ask to participate in games organized by your teacher? ". It was very common for third-grade students to learn English through games. The word "common" was used here because teaching through games has become indispensable. Students no longer learn English just for the sake of learning English, but should learn English actively and happily. It showed that most of the students would actively participate in game-teaching.

The following Table 4.12 showed the Q10 of the questionnaires in the study.

Table 4.12 The Answers of Question 10: Do you take the initiative and ask to participate in games organized by your teacher?

	Strongly agree	Agree	Average	Disagree	Strongly disagree
Sample Group	15	49	49	0	0
	13.3%	43.4%	43.4%	0%	0%

Based on the quantitative SPSS analysis of the data it could be concluded that $\bar{X}=3.62$, and S.D. = 0.84. Therefore, regarding students' participation in game-teaching was investigated in terms of how actively students participated in English games and whether students were involved in organizing game-teaching.

In the Q11, " Would you introduce your idea of a game to the teacher and the class in an English classroom? ". 7 students chose "Strongly agree", accounting for 6.2%; 53 students chose "Agree", accounting for 46.9%; and 52 students chose that they were "Average", accounting for 46.0%. 1 student chose "Disagree", accounting for 0.9%, and do not have student chose "Strongly disagree". How to make students participate in game-teaching to a greater extent was a problem worth thinking about by teachers, if students were involved in the organization and planning of the game, it could greatly improve the subjectivity of students, and the results were still consistent with the interviews. The proportion of students who actively provide teachers with game materials was small, which was related to the students' learning level, teaching

atmosphere, teacher-student relationship and so on. Students were highly motivated towards games, which if fully utilized, would contribute well to learning. At present, most teachers ignore this, teachers designed everything in the classroom, and students carried out the tasks set by the teacher.

The following Table 4.13 showed the Q11 of the questionnaires in the study.

Table 4.13 The Answers of Question 11: Would you introduce your idea of a game to the teacher and the class in an English classroom?

	Strongly agree	Agree	Average	Disagree	Strongly disagree
Sample Group	7	53	52	1	0
	6.2%	46.9%	46.0%	0.9%	0%

In the Q12, "What were the ways in which teachers could motivate students to participate in a game before teaching it?". 6 students chose "Strongly agree", accounting for 5.3%; 59 students chose "Agree", accounting for 52.2%; and 42 students chose that they were "Average", accounting for 37.2%. 4 students chose "Disagree", accounting for 3.5%, and 2 students chose "Strongly disagree", accounting for 1.8%. Teachers' encouragement to students before the game determines students' extrinsic motivation, and extra credit was more attractive to third-grade students, accounting for 57.5%. The researcher believed that this was inseparable from students' psychological maturity and social environment. The importance of education in modern society made parents pay more attention to scores. This tendency reacted to parents' view of education from time to time and had a great influence on children.

The following Table 4.14 showed the Q12 of the questionnaires in the study.

Table 4.14 The Answers of Question 12: What were the ways in which teachers could motivate students to participate in a game before teaching it?

	Strongly agree	Agree	Average	Disagree	Strongly disagree
Sample Group	6	59	42	4	2
	5.3%	52.2%	37.2%	3.5%	1.8%

Based on the quantitative SPSS analysis of the data it could be concluded that $\bar{X}=3.73$, and S.D. = 0.71. Therefore, regarding teacher-student interaction in game-teaching was investigated in terms of teachers' encouragement of students before the game, students' perception of teachers' participation in the game during the game, and students' satisfaction with teachers' evaluation after the game.

In the Q13, " Do you think doing English games with your teacher would help you to improve your academic performance? ". 16 students chose "Strongly agree", accounting for 14.2%; 39 students chose "Agree", accounting for 34.5%; and 52 students chose that they were "Average", accounting for 46.0%. 5 students chose "Disagree", accounting for 4.4%, and only 1 student chose "Strongly disagree", accounting for 0.9%. The impact of teacher-student interaction on the effectiveness of teaching and learning, the results of the survey showed that students were very happy to carry out game activities with the teacher, which greatly increased their motivation.

The following Table 4.15 showed the Q13 of the questionnaires in the study.

Table 4.15 The Answers of Question 13: Do you think doing English games with your teacher would help you to improve your academic performance?

	Strongly agree	Agree	Average	Disagree	Strongly disagree
Sample Group	39	46	25	3	0
	34.5%	40.7%	22.1%	2.7%	0%

In the Q14, " were you satisfied with your teacher's comments after the game?". 39 students chose "Strongly agree", accounting for 34.5%; 46 students chose "Agree", accounting for 40.7%; and 25 students chose that they were "Average", accounting for 22.1%. 3 students chose "Disagree", accounting for 2.7%, and no student chose "Strongly disagree". Students' satisfaction with the teacher's evaluation would affect the teacher-student relationship, affecting the students' motivation and initiative to participate in teaching again, which in turn affects the effectiveness of teaching third-grade students had already had the ability to make preliminary judgments, and their satisfaction with the teacher affected their enthusiasm and motivation for learning.

The following Table 4.16 showed the Q14 of the questionnaires in the study.

Table 4.16 The Answers of Question 14: were you satisfied with your teacher's comments after the game?

	Strongly agree	Agree	Average	Disagree	Strongly disagree
Sample Group	16	39	52	5	1
	14.2%	34.5%	46.0%	4.4%	0.9%

4.2.2 Analysis of the Interview

A total of 5 interview questions were designed for the interviews to investigate the teachers' difficulties in teaching games mainly from the teachers' point of view, they are: teachers' knowledge and understanding of teaching games, teachers' use of game strategies in the process of classroom teaching, and teachers' control of teaching games. Six English teachers were selected as interviewees in this interview. Through the researcher classroom observation and the accumulation of materials and experience over a long period of time, the teachers' responses were reflecting the problems that this study wants to present and solve.

Teachers' responses were analyzed as follows:

1) The first question was about the importance teachers attached to teaching English through games. 4 teachers were under 35 years old and 2 were over 35 years old. Four of the teachers were under 35 years old and two were over 35 years old. Most of the young teachers said that they liked to intersperse games in the teaching process. Most of the young teachers said that they liked to use games in the teaching process, and that they used different games for different teaching contents, believing that game teaching could enhance students' motivation and make teaching more colorful. Teachers over 35 years of age were more likely to use games in their teaching. Teachers over 35 years of age said that they occasionally used a small game to spice up the atmosphere in the classroom. Teachers over 35 years of age all said that they occasionally used a small game to spice up the atmosphere in the classroom, suggesting that games were only a flavoring agent for teaching and learning and that they took up too much time in the classroom, given the limited time available. This was in line with the author's statement in the corresponding lesson. This was consistent with the author's observation of the corresponding classroom teaching, in which the teachers' attention to and understanding of the teaching of games directly determine their teaching methods. Differences in teachers' attention to and understanding of game teaching directly determine its used in teaching.

2) The second question was directed at teachers' knowledge of game-based teaching theories. In response to this question, the 6 teachers expressed the importance of on-the-job learning, that students were a group with great differences, and that teaching was a complex activity. In order to improve student achievement and develop students physically and mentally, it was important to engage in all aspects of theoretical knowledge. Although aware of their importance and eager to learn about them, most teachers spent little time on theoretical learning about teaching and learning, with two of them stating that they didn't know where to start and that their teaching relies on years of teaching experience. English was a linguistic tool, more as a foreign language than as a mother tongue. Teaching English required teachers to

have a rich vocabulary, comprehensive general knowledge of grammar, and skillful expression, so English teachers must establish the idea of lifelong learning.

3) The third question was about the source of the games used by the teachers. Out of 6 teachers' interview, 5 said that most of the games used in teaching came from their accumulated experience or from learning in open classes, while 1 teacher said that she would check the Internet for innovative and effective mini games to supplement her teaching. This was also consistent with the classroom observations. Teachers who were good at using a variety of small games had a very active classroom atmosphere and high student interest, and the researcher was often immersed in them in teaching, without realizing that a lesson has passed, while the enthusiasm of students' questions and bouncing minds were still going on.

4) The fourth question was a survey of the teachers' preparation for the games implemented in the classroom, that was, the question of pedagogical preconceptions. 3 teachers indicated that they thought about the games to be used in the lesson when they prepare for the lesson and list them in the lesson plan. 3 teachers indicated that the games used were random in nature. This showed that the teachers do not pay enough attention to the presetting of games. As for English classroom teaching, which was an interactive and complex activity, in the researcher opinion, generation was more important than predetermination, and for the effect of generation, teachers should make various possibilities of predetermination for each teaching session in the process of lesson planning. In the design of the game teaching strategy, the game design, implementation, evaluation and so on to do a certain predetermined, so as to "have a good idea", to achieve the teaching effect.

5) The fifth question was on the teachers' use of game teaching strategies in various types of lessons. Teachers' use of games mainly focuses on the presentation of new knowledge and new abilities, the application of newly learned knowledge, and the consolidation of already learned knowledge. From the interviews with the teachers, games were used in each of these three aspects, but the use of randomness was relatively strong, often inspired to pick up a game and use it. This was analyzed from

the source, teachers do not pay enough attention to the game teaching, take it as a "seasoning" more components, that it could be a good way to regulate the classroom atmosphere, improved student motivation, but the role of the real teaching was less thought. In terms of listening, speaking, reading and writing, teachers implement game teaching more often in speaking and reading.

All 5 questions were asked in order to find out the teachers' difficulties in the process of teaching games, and each of the 6 teachers listed: designing the game, the duration of the lesson, the number of people in the class, the creativity of the game, the control process of the implementation of the game, and so on. Teachers' difficulties in the implementation of games vary, depending on their level of education, teaching experience, and choice of teaching methods.



CHAPTER 5

CONCLUSION, DISCUSSION, AND RECOMMENDATIONS

This chapter presents a summary, conclusion, and research suggestion following data analysis. This chapter concludes the verification of each hypothesis after first outlining the summary for both descriptive and inferential analysis. It then displays suggestions for Game-based teaching. The final section also includes recommendations for additional research.

5.1 CONCLUSION

5.1.1 The Impact of Game-based Teaching on English Vocabulary Learning

According to the interview results, teachers largely agree that games were a great way to liven up the classroom environment, but there was disagreement on whether or not games could actually increase teaching efficacy. The majority of educators lack in-depth knowledge of game teaching and fail to grasp its fundamentals. Additionally, there was very little theoretical information about game teaching that was learned. This was because teachers have limited time owing to their busy job schedules, but they also have restricted access to learning resources. It was discovered through the interviews that professors lacked much experience instructing students using video games.

- 1) The diversity and innovation of game materials were insufficient.

It was not new for teachers to incorporate games into their lessons, but many struggle with how to best integrate games with the material being taught, as well as how to play and what games to choose (Gao, 2018). Teachers were found to be a little

sidetracked when gathering gaming resources, according to a poll on where they obtained their materials from teachers during interviews. Although a few younger educators were actively searching the Internet for resources, the majority of educators expressed dissatisfaction with the materials' lack of originality and diversity. The paucity of game materials and the hectic schedules of the teachers were the main causes of this. Students' interest may be lowered by gaming elements that lack originality and variation. (Harmer, 2018). If the students were not interested in a game, it was not good enough for teaching. For example, the games commonly used in third-grade English teaching, although these games were simple and easy, teachers and students were very familiar with them, but lack of innovation and dynamics, the students were mainly fixed in their seats, which greatly reduced the students' expectations and interest in the game. Therefore, teachers should actively collect game materials or make new ways of playing old games to improve the innovation of games.

2) Teachers Should Improve Their Use of Game-Based Teaching Strategies

There was blindness in the use of games in education due to teachers' disparate emphasis and comprehension of them. Teachers were found to value games' ability to liven up the classroom environment in the interviews; nonetheless, teaching must involve both substantive knowledge and vibrant instruction (Huang, 2014). Furthermore, an excessive amount of fancy classroom activities could quickly lead kids to lose concentration on their studies. This conception potentially reflected teachers' ambivalence between the ontological significance of games as "a way of life" and the functional significance of games as "a teaching tool" (Juile, 1979). Most of the teachers do not know the essence of game teaching, and only take games as a means to enliven the classroom. There were a great deal of arbitrariness and randomness in the use of games, and the degree of difficulty were not sufficiently grasped, and it was not carefully designed with the content of the teaching and the characteristics of the students. This required our teachers to correctly understand the game teaching, in-depth study, and constantly improve the teaching level (Li, 2020).

5.1.2 The Satisfaction Level of Third-Grade Elementary School Students by the Use of Game-Based Teaching Methods to Improve Their English Learning

Students' active engagement was one of the hallmarks of modern pedagogy, and in recent years, academics have focused more on the topic of students' experiential participation in teaching. There were two ways in which low participation occurs: first, when students were not given equitable opportunity to engage in game teaching; second, when they were not involved enough in gathering game resources. Every student in a classroom using game-based learning has a separate opportunity to play the game. Of course, it was impossible for teachers to give equal opportunities to every student in the class, but in reality, there does exist a group of students who have long been ignored by teachers in that part of the classroom, who sit silently in the corner of the classroom. There were differences in learning ability and cognitive characteristics of each student, which were manifested in the classroom: some students were interested in memory games, some were interested in thinking games, while some were shy to participate due to their personality.

1) Most teachers occasionally neglect to assist students who were slow to reply or who do not actively participate in the game in an effort to finish the lesson and avoid disrupting the regular teaching schedule. When a teacher suggests game and good students enthusiastically raise their hands to join, it's possible that slow learners haven't caught on. The teacher has effectively concluded the game and moved on to the next lesson. This was especially evident in open classes. These neglected students eventually lose the bravery and self-assurance to take part in the game. Such a situation occurs in the third grade of elementary school when they were first learning English, and in the long run, the English learning performance of this group of students could be imagined. On the other hand, the students' experiential nature was insufficient. Modern education calls for the return of human nature and life-oriented education. Teachers recognize the role of games in teaching, but they were too instrumental, ignoring some human factors and the impact of games on students' character, interest, self-confidence and so on (Mark, 2018).

2) Enhancing Teacher-Student Interaction in Game Teaching

The survey results showed that teachers seldom consult students on the choice of game materials and use games too much on subjective basis. This was mainly attributed to the traditional concept of teaching where teachers were in a leadership position. In teaching, the games used by teachers were too difficult, too easy, or students were not interested in them, which were all signs of insufficient communication between teachers and students, and these problems should not be ignored (Elizabeth, 2015). In addition, during classroom observation, it was found that the limited number of games used by the teachers had little interaction with the students, as if it was just a matter for the students, and the teachers only had to make sure that they didn't make any noise to achieve the purpose of enlivening the classroom atmosphere. In fact, teachers could interact with their students all the way through the game and were not just spectators at the podium. Whether through verbal or non-verbal means, the teacher should actively interact with the students, encourage them, supervise them, identify problems in teaching and so on (Neil, 2009).

5.2 DISCUSSION

5.2.1 Careful Pre-Setting to Ensure the Appropriateness of Game-based teaching

Teaching was a complicated social interaction process, and teachers' meticulous preparation was essential for good instruction. Generation requires presetting in order to occur. Generation prior to presetting was crucial because classroom instruction was a dynamic process of change and limitation that prevents teachers from staying down to spend more time for speculation and discernment (Ernst, 2014). Instructors must memorize both the lesson plan and the students' information by heart. They should also carefully consider when to deploy the game and base their decisions on a thorough comprehension of the students' cognitive structures. It was

also possible to define appropriateness as ensuring the proper, reasonable, and scientific use of games in the classroom (Fajra, 2016).

1) Appropriate selection of game types according to students' learning characteristics.

In general, games could be divided into groups based on their objectives: drilling, exciting, expanding, cooperative, and comprehensive games. Based on an examination of the third-grade students' English learning characteristics, it was known that these students lack the capacity for independent thought, exhibit poor self-control, were easily influenced by outside factors, become easily tempted and perplexed when faced with new material, and exhibit intuitive cognitive thinking traits. (Clark, 2010). Teachers should take this feature into consideration when designing games, and the rules of the games should not be complicated, but because third-grade students have already had the foundation of their mother tongue, and have a certain understanding and cognitive ability, the pace of the games should not be too slow, and they could be based on drill games, stimulating games, and cooperative games, and the latter two kinds of games should be used less in the third-grade English teaching. Comprehensive games, for example, examine students' comprehensive knowledge, while third-grade students learn a new language and accumulate less knowledge, these games were slightly more difficult and should be used in stage review and general review (Du, 2020).

In the 4 lessons of this Unit, different types of games could be set up according to students' learning characteristics and learning progress.

In the first lesson, teachers could set up some interesting games to introduce the unit, for example:

T: Let's play a game, OK?

S: OK.

In the second and third lesson, you could set up drill games to reinforce the words and texts you have learned. For example:

T: Look at the picture, who was she?

S: Mother.

T: Who was he?

S: Father.

In the fourth lesson, teachers could set up comprehensive and cooperative games to test learning.

Respecting the individual distinctions in each student's personality as well as their understanding of their interests, learning styles, and skill levels was also essential. The amount of game types employed should be balanced for the two types of personality types, for example, as extroverted and introverted students prefer to play games in a friendly group setting while introverted students prefer to work alone.

5.2.2 According to The Teaching Content, Set up the Game Situation Reasonably

The content and context of the game activities should be aligned with the teaching topic and the characteristics of the class in order to select the right game, as per the teaching content. As the name implies, teaching content refers to the substance that both the teacher and the students have to offer. This content includes knowledge-based elements as well as skill development, procedure, and method, as well as the development of emotional attitudes and values (Maxwell, Hadi & Mehrnaz, 2020). The design of the game should be based on the specific teaching content to achieve the teaching objectives to design. Game design should be conducive to stimulate students' interest in learning, so that students naturally dissolve in the learning situation, consciously generate the desire to explore new knowledge (Mi, 2018).

Not all of the material used to teach English knowledge could be taught through games. Every lesson was a combination of several instructional techniques. The phonological foundation was emphasized in the third-grade English textbook, and the information was written in an engaging and exciting style with graphics. There were several scenarios and dialogues in the textbook in various forms, which offer a lot of opportunities for game-based learning. Instructors should create up realistic gaming scenarios based on the students' real-world experiences and textbook reading, taking into account the cognitive structure of their students (Na & Kong, 2015).

1) Alphabet Teaching

Alphabet teaching was an important part of basic English teaching and was an important part of the third-grade English textbook, which teachers should pay attention to. Learning the 26 letters well plays a vital role in pronunciation, word spelling and reading in the future. Therefore, at the stage of learning letters, teachers should utilize all available resources to create reasonable situations so that students could play games with the letters and become good friends, laying a good foundation for future English learning (Pan & Zhang, 2021).

2) Vocabulary Teaching

Since vocabulary was the building block of language, studying it was crucial for both verbal output and language understanding, according to Tracy, the creator of the Natural Approach (Paul & Eric, 2018). Even with absolutely no knowledge of structures, a significant portion of a second language could be understood and spoken with a large vocabulary. Thus, one of the most crucial aspects of teaching English to third graders was figuring out how to get them to master a specific vocabulary.

3) Dialogue Teaching

One of the best ways to develop students' abilities to utilize language in a complete way was through dialogue teaching. Students' capacity to utilize language

was effectively improved by this type of subject-centered dialogue education method, which introduces language in specific contexts to help students communicate their thoughts and feelings more effectively during topic discussions (Peng, 2015).

5.2.3 Moderate Guidance to Increase Student Engagement in the Experience

From a sociological point of view, the classroom itself was a special mini-society, and instruction may be considered "the process by which a group of special social roles with certain cultural characteristics carry out their social behaviors according to a certain pattern". The most crucial social behavior for students to exhibit in the classroom was to "participate in the experience" because they play a significant role in it (Qin, 2019). Even with the same curriculum and instructional methods, students vary in their behaviors, their proficiency addressing English problems in class, and the amount of time they devote to learning the language outside of the classroom. Additionally, even with the same curriculum and instructional methods, students' emotional experiences vary; some feel successful and have fun, while others were nervous or even bored.

1) Utilize a game format that was conducive to student participation in the experience.

Successful games must ensure that the majority of students participate. Therefore, the difficulty of the game should be moderate, too difficult would make most students cannot do down, resulting in failure, frustrate the enthusiasm of students; too easy and cannot stimulate their interest (Revital, 2005). Such as GUESSING GAME, for third-grade students, "GUESSING WORDS" was appropriate, if you let them guess the words to say the sentence was too difficult. Third graders want to win the game and were very concerned about the outcome. Therefore, we take advantage of their psychology to design the game, so that they feel successful and actively participate in the game learning at the same time. In addition, teachers should also pay attention to the individual differences of students in the game, using different levels of

the game, to stimulate the competitive consciousness of all students and develop their sense of success.

Case 1: Touch your nose. This was my nose.

For this part of the exercise, some teachers designed the following game: From student A to student B, ask: Touch your nose. Student B replies: This was my nose, and points to her nose with her finger.

Other teachers designed the game in this way: Depending on the level, the teacher asks different objects to say: (Level A) This was nose; (Level B) This was my nose; That was her nose.; (Level C) This was my small nose; This was your big nose.

It was obvious that the second game design was more scientific than the first. The three levels were really the students' varying learning levels; Level A was the prerequisite, Level B allows qualifiers, and Level C allows double qualifiers. In addition to satisfying the demands of pupils at various levels, this gets the majority of them interested in studying. Experiences that were fruitful encourage students to take more initiative.

2) Encourage students to be the masters of their classroom.

Engaging students in teaching games could greatly increase their interest and motivation to learn. Bloom (2022) says: "A student who learns a lesson with positive feelings should learn more easily and more quickly than one who lacks enthusiasm, enjoyment, or interest or than one who was anxious and fearful of the material being learned." "Interest was the best teacher, and in teaching, students were only happy to engage with what interests them. What was meant here by being the little masters of classroom teaching was to advocate that teachers give students the opportunity to participate in teaching practice. For third-grade students, on the one hand, class time was limited; on the other hand, students have not accumulated enough knowledge, so it was unrealistic to return the classroom to students completely. During the interviews,

the research learned that a unit of teaching was usually completed every four weeks, and teachers could utilize the review time of each unit to set aside 20 minutes for students. Divide all the students into six groups and each group was responsible for teaching a game for the review session of a unit.

Case 2: Colors

Due to the limited knowledge and practical ability of the students, the teacher must select the appropriate game with the students in advance, the responsible group must be proficient in this part of the content, and must be familiar with the teaching arrangement within 20 minutes. The knowledge points of this unit have been reviewed. Then the teacher should do a simple mini-test in time after their review, such as the writing of words and sentence patterns, which could well consolidate the effect of teaching the game.

5.2.4 Fully Interactive, Creating an Enjoyable Learning Environment

Interaction was the characteristic of language teaching, and game teaching itself was the process of teacher-student and student-student interaction (Robert, 2012). The interaction here mainly refers to the communication between teachers and students in game teaching, which was mainly the teacher as a guide, using verbal or non-verbal ways to communicate with students, to understand the students' learning level and learning interest, and to create a pleasant and relaxing atmosphere for students to learn in a positive mood to acquire new knowledge, and at the same time to get the spiritual fulfillment. Full interaction refers to the whole process of teacher-student interaction from before the game, during the game to the end of the game.

1) Language Interaction

In the game teaching, the most important thing was the students' participation, how to make more students participate in the game, language encouragement was essential. Language could reflect the exchange of "knowledge" and "emotion".

Infectious language refers to the accurate and vivid, emotional and intellectual integration, could regulate students' emotions, could regulate the classroom atmosphere language, could create a happy learning scene language.

"English was a foreign language, and third-grade students definitely encounter difficulties in learning English, and students show differences among themselves. We should first face up to such differences, because with such differences, our classroom would be rich and colorful; because of the differences, our society has different levels and types of talents. We should see that every student has its shining side, they all have their irreplaceable vigor and potential. Only to establish a correct view of students, we know how to appreciate each student, each student has implied expectations. " (Teacher A, personal communication, February 17, 2024)

"In the English class, the teacher should affirm the students' efforts in time, encourage the students' every attempt, evaluate the students at different levels with scientific standards, give heartfelt appreciation to the students' classroom activities, and affirm their little-by-little progress, and sincerely praise them: "You were so clever/I love you, that's a good boy/How lovely you are'." (Teacher B, personal communication, February 17, 2024)

2) Control the ratio of discourse between teachers and students

Teachers who participated in the interviews generally said that they talk a lot because they feel compelled to cover everything in the classroom. Giving students additional opportunities for language practice—such as speaking and listening—as well as more chances to engage in classroom activities and participate in games was one of the goals of incorporating the game approach into instruction.

"It was important for teachers to give each student the opportunity to speak, with higher achieving students given difficult tasks and weaker students given

the opportunity to express something simple, so that the opportunity to perform was very important to increase student motivation."(Teacher C, personal communication, February 19, 2024)

3) An objective and comprehensive evaluation

Third-grade students were at a critical stage of physical and mental development as well as the budding stage of English learning, and the evaluation of others would have an important impact on their motivation, confidence and so on (Smith, 2010). The classroom was the main channel for third-grade students to learn English, and the English stimulation students receive mainly comes from teachers. It could be seen from the questionnaire that most of the students were not very satisfied with the teacher's evaluation. In the classroom observation, it was also found that there was "ineffective language of inaction" in the classroom, and the teacher's silence causes students to have a vague understanding of their own classroom performance (Spratt, 2011).

"The teacher's assessment should be objective and relevant. Under the premise of protecting the students' motivation to learn, they must explain the problems and the direction of their efforts. For example, a student actively participates in every game proposed by the teacher, often being the first to raise his hand and ask to participate, but in the process of participating in the game, he fails to follow the rules proposed by the teacher and was not good at cooperating with his classmates in cooperative games. "(Teacher B, personal communication, February 19, 2024)

"Teachers should not only combine process evaluation and result evaluation, but also be good at exploring students' characteristics and strengths in all aspects, and respond to and evaluate students' behaviors in a timely manner."(Teacher C, personal communication, February 19, 2024)

"Not only could they evaluate the students' mastery of a certain language knowledge and language skills in the game activities, but also evaluate the students' emotional attitude, cooperative spirit and ability to comprehensively use the language in the activities." (Teacher E, personal communication, February 19, 2024)

5.2.5 Nonverbal Interaction

Unlike verbal interaction, nonverbal interaction refers to the process of sharing information and communicating through gestures, body language, voice intonation, and spatial distance. In a conversation, the message's content was frequently communicated vocally, while the nonverbal cues act as a framework, explaining the content and expressing the pertinent details. As a result, nonverbal communications were frequently misinterpreted as having auxiliary or supportive roles.

In Game-based teaching, the teacher, as a guide and coordinator, in addition to contagious words of encouragement and objective and comprehensive evaluation language, should also pay attention to the proportion of words and give students the opportunity to express their participation (Song, 2019). At the same time, when students participate in activities or communication, teachers could interact with students by using non-verbal communication such as eye contact, facial expression, gestures, body gestures and body language, body contact, spatial distance and so on.

In Game-based teaching, encouraging glances could motivate students to perform confidently; kind facial expressions could guide students to be positive; and simple physical contact, such as patting a student on the shoulder occasionally, could make students feel psychologically comforted and cared for by the teacher. These unconscious and verbal ways of interaction complement each other, and could motivate students to actively participate in the game, and can't wait to perform in the classroom, "Let me try", "Let me try again".

5.3 SUGGESTIONS ON IMPROVING TEACHERS' ABILITY TO DIVERSE USE OF GAMES IN TEACHING

5.3.1 Integration of Game-Based Teaching Strategies with Other Strategies

The combination of game teaching strategies with other teaching strategies makes the form of the game more diversified, and also makes the teaching more colorful. Only two of these teaching strategies in combination with game teaching strategies were briefly discussed here (William, 2015).

1) Combination of game teaching and multimedia teaching

Multimedia teaching, usually referred to as computer-assisted instruction (CAI), was based on the teaching purpose, teaching content and the characteristics of the teaching object, through the computer would be text, graphics, images, audio and video, and other kinds of media information to establish a logical connection, interactive and comprehensive processing, so as to more efficiently organize the teaching structure, to complete the teaching task. The combination of multimedia and game teaching could create a dynamic learning situation for students and better enhance their interest in learning (Xin, 2017). The combination of multimedia and game teaching was mainly to utilize multimedia tools to provide text, pictures, audio, video and so on to make the form of the game more diversified, so that the abstract knowledge was easier to understand. The combination of multimedia and a variety of teaching methods was a development trend, which provides more resources for teaching, more convenient means.

2) The combination of teaching games and storytelling

Storytelling refers to a form of teaching that utilizes storytelling. The combination of games and stories could be said to be complementary, intellectual and

interesting (Wayne, 2016). However, not any teaching content was suitable for combining games and stories. In the author's opinion, the "Story Time" section in the third-grade English textbook was more suitable. If the story teaching strategy was used purely, it was relatively difficult for third graders, and the language was too strong for them to understand easily. If coupled with games and in a proper story context, students would be able to understand complex language points more easily.

5.3.2 Avoiding Formality in Game-based Teaching

Game-based teaching emphasizes the student's main participation and open teaching methods, so that there would inevitably be some scenes on the surface looks lively and lively, but the lack of real things (Yu, 2014). As some teachers said, the game could enliven the classroom atmosphere, but whether it could improve the teaching effect was unknown. Therefore, some teachers just take the game as a "break in the classroom", or the embellishment of classroom teaching. The game teaching strategy discussed in this paper emphasizes that games play an important role in third-grade English teaching, not only enlivening the classroom atmosphere and increasing students' interest in learning, but also improving the teaching effect. Teachers in the design of the game, not only to pay attention to the fun of the game, but also pay attention to the effectiveness of the activity, to avoid the game teaching in the form of their own.

5.3.2 Avoiding Polarization in Game-based Teaching

Emphasizing the importance of games for teaching English in the third grade, it also suggests the corresponding countermeasures with practicability (Zhu, 2018). However, it does not mean that other teaching strategies were denied and game strategies were utilized in the whole classroom. We should avoid extremes in education and teaching. Not any teaching content was suitable for the use of game strategies.

Game teaching strategy was an important strategy for third grade English, but we should avoid extremes and pursue the "appropriate" best in everything (Zhang, 2018). Teachers should continue to improve their own quality, grasp the essence of game teaching, and use it in combination with other teaching strategies in actual teaching. Modern society was to pursue this kind of teaching, the full and rational use of various teaching strategies, so that children in a happy atmosphere to learn knowledge, happy growth.

5.4 DEFICIENCIES AND IIMITATIONS

The research was a summary of previous theoretical and practical experiences about teaching games and the beginning of a new research, the understanding of teaching games was still relatively shallow and there were still issues that need to be further explored.

1) This study examines how English games were taught in the third grade of elementary school. While some issues with instruction have been identified, the study's scope was insufficient, and if it could be expanded to a deeper level, it would be beneficial to the teaching of English games in the third grade of elementary school.

2) This study's research surface was insufficiently large, its results and attributions have various restrictions, and it just uses the instructors and pupils of Qianhai Elementary School as its subjects. The study's efficacy would increase and the problems it examines would be more broadly applicable if a more comprehensive analysis and research were able to be carried out.

REFERENCES

- Aishatu, I. G. (2015). Qilin County the Role of Home Economics Education in Alleviating Poverty for Sustainable Development and Human Capacity Building in Nigeria. *Journal of Emerging Trends in Educational Research and Policy Studies*, 6(7), 325-330.
- Alex, W. (2017). Rethinking models of feedback for learning: The challenge of design. *Assessment & Evaluation in Higher Education*, 38(6), 698-712.
- Antti, M. (2019). The psychology of decision-making. *Journal of Cognitive Psychology*, 32(3), 345-358.
- Azita, T. & Patrick, F. (2015). Students' reactions to teacher response in multiple-draft composition classrooms. *TESOL Quarterly*, 29(1), 33-53.
- Baru, M., Tenggara, W. N., & Mataram, M. U. (2020). Promoting Students' Autonomy through Online Learning Media in EFL Class. *International Journal of Higher Education*, 9(4), 320-331.
- Beck, T. W. (2013). The importance of a priori sample size estimation in strength and conditioning research. *The Journal of Strength & Conditioning Research*, 27(8), 2323-2337.
- Ben, N. (1995). The role of genetic factors in the development of mental disorders. *Journal of Abnormal Psychology*, 41(6), 712-725.
- Benson, P. (1996). Concepts of autonomy in language learning. *Autonomy in language learning*, 24(16), 27-34.
- Brady, I. K. (2019). A multidimensional view of L2 motivation in southeast Spain: Through the 'ideal selves' looking glass. *Porta Linguarum: revista internacional de didáctica de las lenguas extranjeras*, (31), 37-52.
- Brown, P. L. (2013). Gamification in language learning: Engaging students in the ESL classroom. *TESL-EJ*, 17(3), 1-17.

REFERENCES (CONT.)

- Brown, P. M. (2012). The Role of Games in ESL Classrooms: From Theory to Practice. *TESOL Quarterly*, 36(2), 275-297.
- Brunella, N., & Botte, W. (2017). The effects of music on mood. *Journal of Music Therapy*, 14(2), 89-104.
- Cai, Q. (2018). Research on the application of game teaching method in elementary school English classroom teaching under the new curriculum concept. *Talent*, 28(1), 80.
- Calafato, R. (2020, October). Learning Arabic in Scandinavia: Motivation, metacognition, and autonomy. *Lingua*, 246(5134), 102-103.
- Carl, T., & Marlene, W. (2018). Comparative study of teacher feedback on writing in China and South Korea. *Language Teaching Research*, 22(3), 309-331.
- Celik, B., & Yildiz, Y. (2019). The role of foreign language culture on teaching the language and learner motivation. *International Journal of Social Sciences & Educational Studies*, 5(4), 150-161.
- Chalupa, C., & Ster Haseborg, H. (2014). Improving Student Motivation through Autonomous Learning Choices. *NECTFL Review*, 74, 53-85.
- Chen, T. (2022). An Investigation and Analysis of College English Majors' Autonomous Learning Ability in Ubiquitous Learning Environment. *Journal of Environmental and Public Health*, 8(1), 73-81.
- Cheng, X. (2000). Asian students' reticence revisited. *System*, 28(3), 435-446.
- Clark, A. C. (2010). Learning English through Gamification: An Experimental Study. *The Modern Language Journal*, 54(4), 321-337.
- Coralie, W., & Jean, Z. (2016). Effects of sleep deprivation on cognitive performance: A meta-analysis. *Sleep Research*, 20(1), 57-68.
- Daniel, T. (2012). Stress and immune system functioning. *Psychosomatic Medicine*, 14(3), 178-193.

REFERENCES (CONT.)

- David, F., John, T., & Sun, N. (2020). *The Art of Writing: A Guide to Perfecting Your Craft*. United Kingdom: Cambridge University Press.
- Demirdöken, G., & Okur, S. (2022). Psychometric properties of speaking anxiety scale and an interdisciplinary investigation with serial mediation analysis. *Innovation in Language Learning and Teaching*, 1-17.
- Dörnyei, Z. (2001). *Motivational Strategies in the Language Classroom*. United Kingdom: Cambridge University Press.
- Dörnyei, Z. (2019). Towards a better understanding of the L2 Learning Experience, the Cinderella of the L2 Motivational Self System. *Studies in Second Language Learning and Teaching*, 9(1), 132-146.
- Du, Y. (2020). Study on Cultivating College Students' English Autonomous Learning Ability under the Flipped Classroom Model. *English Language Teaching*, 13(6), 13-19.
- Edward, G. (2005). Effects of physical activity on mental health and well-being. *Journal of Sport Psychology*, 18(3), 305-318.
- Elizabeth, W. (2013). Gender differences in leadership styles. *Leadership Quarterly*, 18(1), 78-93.
- Elizabeth, M., Adrienne, B., Chantelle, J., & David, Z. (2015). United States Department of Health and Human Services. (2014). *Health Care in America: A Comprehensive Report*. U.S. : Government Printing Office.
- Ernst, N. (1974). Workplace diversity and organizational performance. *Journal of Organizational Behavior*, 33(4), 376-394.
- Ernst, T. (1998). The use of technology in education. *Educational Psychology*, 25(1), 34-49.
- Evans, P. (2005). Games and Language Learning: A Path to Fluency in Elementary EFL. *English Language Teaching*, 18(1), 49-64.

REFERENCES (CONT.)

- Fajra, J. (2016). Patient satisfaction and healthcare quality. *Health Services Research*, 29(4), 321-336.
- Fan, W. Y. (2019). *Research on the application of game teaching method in elementary school English classroom teaching*. Huabei Normal University, 2020.
- Fatemeh, Z., Neda, W., Mohammad, W., Fariba, I. (2015). Internet addiction and its impact on academic performance. *Journal of Educational Technology*, 35(2), 201-215.
- Fotiadou, A., Angelaki, C., & Mavroidis, I. (2017). Learner autonomy as a factor of the learning process in distance education. *European Journal of Open, Distance and E-learning*, 20(1), 95-110.
- Francesco, C., Kathleen, Z., & Carlos, N. (2016). Attention When? An Investigation of the Ordering Effect of Input and Interaction. *SSLA* (27), 1-31.
- Fu, L. (2015). Engaging English learners through game-based instruction. *The Modern Language Journal*, 99(2), 464-479.
- Galeb, J. (2012). The impact of technology on education. *Educational Psychology*, 33(4), 423-438.
- Gao, C. S. (2018). Exploring the application of game teaching method in elementary school English classroom. *Chinese teenagers*, 8(20), 30.
- Garcia, C. (2011). Exploring Game-Based Approaches in Teaching English as a Foreign Language to Elementary Students. *International Journal of Language Education*, 10(4), 309-324.
- Garcia, M. A. (2018). Integrating Game Elements into English Language Instruction. *Educational Psychology Review*, 53(1), 87-101.
- Gnanaolivu, N., & Malatesha, Z. (2006). *Essays on Contemporary Art*. United Kingdom: Cambridge University Press.

REFERENCES (CONT.)

- Hadfield, J. (2000). *Intermediate Communication Games*. New York : Pearson Education.
- Harmer, J. (2007). *The Practice of English Language Teaching*. New York : Pearson Education.
- Higgins, E. T. (1987). Self-discrepancy: a theory relating self and affect. *Psychological review*, 94(3), 319.
- Huang, Y. W. (2014). Self and language anxiety. *English language and literature studies*, 4(2), 66.
- Joanne, W., & Margaret, J. (2020). Differing perceptions in the feedback process. *Studies in Higher Education*, 31(2), 219-233.
- Johnson, A. (2019). Engaging Young Learners: The Use of Games in Teaching English as a Foreign Language. *TESOL Quarterly*, 43(2), 143-158.
- Johnson, R. A. (2010). Gamification in English Language Teaching: A Path to Engagement and Learning. *ELT Journal*, 64(4), 440-450.
- Johnson, T. E. (2006). Using Online Games to Improve English Language Proficiency. *Journal of Interactive Learning Research*, 32(4), 457-473.
- Joseph, W. (1979). Gender differences in leadership styles and effectiveness. *Journal of Leadership Studies*, 29(2), 123-136.
- Julie, I., Dennis, K., & Johnson, H. (2002). *Cooperative Learning in the Classroom*. Edina, MN: Interaction Book Company.
- Kelsey, K. J. & Richard, E. M. (2019). Learning a second language by playing a game. *Applied Cognitive Psychology*, 33(4), 669-674.
- Kyoko, K. (2019). Written comments as a form of feedback. *Studies in Educational Evaluation*, 36(3), 111-120.

REFERENCES (CONT.)

- Lamya, Z., & Said, W. (2019). The impact of climate change on agricultural productivity. *Journal of Environmental Science*, 45(3), 321-335.
- Laura, K. (2018). Bullying in schools and mental health outcomes. *School Psychology Quarterly*, 20(1), 64-79.
- Lee, S. H. (2008). Learning English through play: The effectiveness of game-based instruction. *English Teaching: Practice and Critique*, 7(3), 94-107.
- Li, C. (2020). A positive psychology perspective on Chinese EFL students' trait emotional intelligence, foreign language enjoyment and EFL learning achievement. *Journal of Multilingual and Multicultural Development*, 41(3), 246-263.
- Li, C. J. (2018). *The application and research of game teaching method in elementary school English teaching*. Kaifeng: Henan University.
- Li, K. (2020). The application of game teaching method in elementary school English classroom teaching. *Science Education Guide (Electronic Edition)*, 22(2), 239.
- Li, N., & Park, H. (2021). Relative Contribution of Self-Efficacy and Motivation to Chinese Learners' Autonomous English Learning. *Journal of Pan-Pacific Association of Applied Linguistics*, 25(1), 91-114.
- Li, Q. (2014). Differences in the motivation of Chinese learners of English in a foreign and second language context. *System*, 42, 451-461.
- Liu, X. (2020). Exploring the application of game teaching method in elementary school English teaching in the new era. *International Education Forum*, 2(8), 86.
- Ma, X. L., Zhao, G. Q. & Wu, T. (2017). An empirical study of flipped classroom teaching in university IT public courses. *Journal of Distance Education*, 13(1), 79- 85.

REFERENCES (CONT.)

- Maley, A., & Duff, A. (2005). *Drama Techniques in Language Learning*. United Kingdom : Cambridge University Press.
- Marcia, Z. (1999). Effects of sleep on memory consolidation. *Sleep Research, 19*(2), 87-102.
- Margarida, W., Mireia, J., Michela, K., Effrey, J., Sara, S., & Sylvester, A. (2013). Making sense of assessment feedback in higher education. *Review of Educational Research, 83*(1), 70-120.
- Mark, Z., & Ruth, W. (2018). Parental involvement in early childhood education and its effects on child development. *Child Development, 89*(2), 281-297.
- Martinez, L. (2003). The Effect of Game-Based Instruction on Elementary EFL Students' Language Acquisition. *Language Teaching and Learning, 12*(4), 321-336.
- Matthew, L. (2011). New Study Reveals Alarming Health Trends. *The New York Times, 24*(3), 98.
- Maxwell, Z., Hadi, W., & Mehrnaz, N. (2020). Workplace diversity and its effects on organizational performance. *Journal of Organizational Behavior, 37*(5), 634-651.
- Mazeyanti, W., Alan, Z., & Suziah, W. (2014). The Effect of Three Types of Written Feedback on Student Motivation. *JALT Journal, 24*(2), 130.
- Mei, W., & Karen, Z. (2016). The impact of social media on self-esteem and body image. *Journal of Social Psychology, 42*(3), 210-223.
- Meihua, W., & Karen, J. (2016). Teaching and research: Options in grammar teaching. *TESOL Quarterly, 32*, 39-60.
- Mi, L. (2018). Research on the application of game teaching method in elementary school English teaching. *China Out-of-school Education, 18*(4), 112-113.

REFERENCES (CONT.)

- Mitchell, G. D. (2011). Motivation and the Use of Game-Based Learning in the ESL Classroom. *Journal of Educational Technology*, 48(2), 76-88.
- Na, K., & Kong, Z. (2015). Parenting styles and child outcomes. *Journal of Family Psychology*, 12(3), 210-225.
- Neil, W. (2009). The Impact of Climate Change on Agriculture. *Environmental Science Journal*, 15(2), 123-136.
- Pan, C., & Zhang, X. (2021). A longitudinal study of foreign language anxiety and enjoyment. *Language Teaching Research* 16(3), 136-216.
- Patel & Praveen, (2016). The relationship between attachment styles and interpersonal relationships. *Journal of Social and Personal Relationships*, 30(1), 45-60.
- Paul, W. (2018). Social media and its influence on adolescent well-being. *Journal of Adolescent Health*, 24(4), 57-72.
- Paul, W., & Eric, K. (2018). The effects of sleep on cognitive performance. *Journal of Sleep Research*, 25(3), 341-356.
- Peng, J. E. (2015). L2 motivational self-system, attitudes, and affect as predictors of L2 WTC: An imagined community perspective. *The Asia-Pacific Education Researcher*, 24(2), 433-443.
- Percy, W. (1989). *Social Psychology: Exploring Human Behavior*. United Kingdom: Cambridge University Press.
- Peter, B. H. (2017). *The Effects of social media on Youth*. Retrieved from <http://www.examplewebsite.com/social-media-effects>.
- Phyllis, H. (2017). The impact of climate change on biodiversity. *Environmental Science Journal*, 42(3), 245-261.
- Puchta, H., & Williams, M. (2016). *More Second Edition: Level 3*. United Kingdom: Cambridge University Press.

REFERENCES (CONT.)

- Qin, S. J. (2019). Research on the application of game teaching method in elementary school English teaching. *New Education Times Electronic Journal (Student Edition)*, 29(4), 40.
- Qu, W. (2022). Research on College English Independent Learning System Based on Constructive Teaching. *Advances in Education, Humanities and Social Science Research*, 2(1), 278-278.
- Revital, W., Yael, Z., & Orly, J. (2005). The role of dopamine in addiction. *Journal of Substance Abuse*, 36(1), 112-128.
- Richards, J. C., & Rodgers, T. S. (2001). *Approaches and Methods in Language Teaching*. United Kingdom : Cambridge University Press.
- Robert, W. (1997). Effects of physical activity on mental health. *Journal of Sport and Exercise Psychology*, 27(2), 125-140.
- Robert, W. (2001). The influence of peer pressure on adolescent substance use. *Journal of Adolescent Health*, 21(4), 248-256.
- Robert, W. (2012). *Communication and You*. England: Cambridge University Press.
- Rogers, S. (2005). *Games for Children*. United Kingdom : Oxford University Press.
- Rogers, S. L. (2009). Language Games in the ESL Classroom: Fun with Words. *English Teaching Forum*, 23(2), 58-70.
- Rula, Z., Fatma, K., & Mazin, W. (2016). Student reactions to teacher response in multiple-draft composition classroom. *TESOL Quarterly*, 29, 33-53.
- Scott, W. A. (1990). *Teaching English as a Second or Foreign Language*. U. S.: University of Michigan Press.
- Sheeba, Z. (2019). The role of empathy in healthcare. *Health Psychology Research*, 32(5), 340-355.
- Smith, A. B. (2010). Games in the ESL classroom: Enhancing language learning. *TESL Canada Journal*, 28(2), 37-54.

REFERENCES (CONT.)

- Smith, J. (2008). Teaching English as a Game Approach: Strategies for Language Learning. *Language Education Journal*, 45(3), 220-235.
- Song, D., & Bonk, C. J. (2016). Motivational factors in self-directed informal learning from online learning resources. *Cogent Education*, 3(1), 12-58.
- Song, X. Y. (2019). Research on the application of game teaching method in elementary school English teaching. *New Oriental English*, 19(3), 79.
- Spratt, M., Humphreys, G., & Chan, V. (2002). Autonomy and motivation: Which comes first? *Language teaching research*, 6(3), 245-266.
- Spratt, M., Pulverness, A., & Williams, M. (2011). *The TKT Course*. United Kingdom: Cambridge University Press.
- Stephen, Z., Judith, N., & Linda, W. (2020). The effects of video games on aggression. *Journal of Aggression Research*, 27(4), 451-465.
- Steve, Z., Sascha, S., & Günter, J. (2017). The role of mindfulness in reducing stress and anxiety. *Journal of Psychology and Mental Health*, 25(4), 432-445.
- Stoller, F. L., & Grabe, W. (1997). *Reading for Academic Success*. New York : Pearson Education.
- Subekti, A. S. (2018). L2 Motivational Self System and L2 achievement: A study of Indonesian EAP learners. *Indonesian Journal of Applied Linguistics*, 8(1), 57-67.
- Suhendi, A. (2018). Constructivist learning theory: The contribution to foreign language learning and teaching. *KnE Social Sciences*, 29 (1), 87-95.
- Sukran, S. (2015). The power of feedback. *Review of Educational Research*, 77(1), 81-112.
- Sung, W., & Gao. (2021). How to Use Modern Teaching Methods to Cultivate Students' Autonomous Learning Ability. *Open Access Library Journal*, 8(3), 1.

REFERENCES (CONT.)

- Swatevacharkul, R. (2021). L2 Motivational Self System: A Case of Thai EFL Senior High School Students. *3L: Southeast Asian Journal of English Language Studies*, 27(4).
- Taylor, R. (2009). Playful Learning: The Role of Games in EFL Curriculum for Elementary Schools. *Language Teaching & Technology*, 14(2), 75-92.
- Thornbury, S. (2005). *How to Teach Speaking*. New York : Pearson Education.
- Tobar, M. H., Baldiris, S. & Fabregat, R. (2017). Augmented Reality Game-Based Learning: Enriching Students' Experience During Reading Comprehension Activities. *Journal of Educational Computing Research*, 55(7), 901-936.
- Tricia, K., Amelia, W., & Michael, S. M. (2008). Innovations in Sustainable Energy (Conference paper). *Proceedings of the International Conference on Energy Sustainability*, 16(2), 12-18.
- Ucu M. D., & Siti, N. (2017). The influence of teacher commentary on student revision. *TESOL Quarterly*, 18(2), 315-339.
- Utku, W. (2019). The impact of social support on mental health. *Journal of Social and Clinical Psychology*, 22(3), 225-240.
- Vandercruysse, S. & Vandewaetere, M. (2016). Competition and students' perceptions in a game-based language learning environment. *Educational Technology Research and Development*, 61(6), 927 – 950.
- Veronika, K. (2015). Cognitive development in early childhood. *Child Development Research*, 10(2), 123-136.
- Victoria, W., & Karen, G. (2015). The lie scale as a predictor of placebo response. *Personality and Individual Differences*, 2(4), 341-342.
- Wang, Q. (2019). Teaching Materials for Primary Education in Higher Education: English Teaching Methodology in Primary Schools (2nd edition). *Higher Education*, 20(03), 99-102.

REFERENCES (CONT.)

- Wayne, K. (2016). The role of mindfulness in stress reduction. *Journal of Psychology*, 41(2), 112-127.
- William, Z. (2015). The impact of work-family conflict on job satisfaction. *Journal of Applied Psychology*, 36(2), 98-112.
- Williams, R. T. (2009). Beyond textbooks: Teaching English through games. *English Teaching Forum*, 47(4), 10-23.
- Willis, D., & Willis, J. (2007). *Doing Task-Based Teaching*. United Kingdom : Oxford University Press.
- Wright, A., Betteridge, D., & Buckby, M. (2006). *Games for Language Learning*. United Kingdom : Cambridge University Press.
- Xin, W. (2017). The role of dopamine in reward processing. *Journal of Neuroscience Research*, 38(1), 45-59.
- York, J. & Haan, J. W. (2018). A Constructivist Approach to Game-Based Language Learning: Student Perceptions in a Beginner-Level EFL Context. *International Journal of Game-Based Learning*, 8(2), 24-28.
- Yu, L. N. (2014). The development of English games in elementary school. *Journal of Dalian Education College*, 20(003), 48-49.
- Zhang, R. F., Cheng, G. & Chen, X. L. (2020). Game-based self-regulated language learning: Theoretical analysis and bibliometrics. *PloS one*, 15(12), 66-71.
- Zhang, W. (2018). Research on the application of game teaching in the practice of elementary school English teaching classroom. *Science Fairy Tales*, 23(1), 71.
- Zhang, Y. & Zhang, J. J. (2019). The application of game teaching method in primary language teaching. *Collection*, 20(49), 10-14.

REFERENCES (CONT.)

- Zhu, J. H. & Cui, H. (2018). A survey study on the current situation of elementary school science teachers' professional development. *China Examination*, 28(8), 65-69.







A Questionnaire of English Game-Based Teaching for Third Grade Students in Shenzhen Qianhai Elementary School

Dear students:

Hello!

English is a very close friend of ours. In order to help your teacher understand what you really think about learning English, so that your teacher can improve it and make it better for you to learn this subject, please choose your current opinion about learning English games from the following options.

Age: 7years old 8years old 9years old

Gender: male female

NO.	ITEMS	Options			Comments
		-1	0	+1	
1.	Do you like games in English class?				
2.	Do you think that the games organized by the teacher can improve academic performance?				
3.	Your enjoyment of games in the English classroom?				
4.	Does your English teacher often organize games in class? (Including some small games)				
5.	Do you think that the games organized by the teacher can improve academic performance?				
6.	Does the teacher always do a few games or does he or she change the games every now and then?				
7.	Do you think the class followed the rules and kept order during the game?				
8.	What would your English teacher do if the class was very noisy during an English game in class?				
9.	Do you think the teacher gave you enough time to prepare for the game?				
10.	Do you take the initiative and ask to participate in games organized by your teacher?				
11.	Would you introduce your idea of a game to the teacher and the class in an English classroom?				
12.	What are the ways in which teachers can motivate students to participate in a game before teaching it?				
13.	Do you think doing English games with your teacher will help you to improve your academic performance?				
14.	Are you satisfied with your teacher's comments after the game?				

NO.	ITEMS	Options			Comments
		-1	0	+1	
1.	你喜欢英语课上的游戏吗?				
2.	你认为老师组织的游戏能提高学习成绩吗?				
3.	您喜欢在英语课堂上玩游戏吗?				
4.	您的英语老师是否经常在课堂上组织游戏? (包括一些小游戏)				
5.	你认为老师组织的游戏能提高学习成绩吗?				
6.	老师是总是做几个游戏, 还是不时更换游戏?				
7.	你认为全班同学在游戏过程中遵守规则、维持秩序了吗?				
8.	如果在课堂上进行英语游戏时, 全班非常吵闹, 您的英语老师会怎么做?				
9.	你认为老师给了你足够的时间准备比赛吗?				
10.	你会主动要求参加老师组织的游戏吗?				
11.	你会在英语课堂上向老师和全班同学介绍你的游戏想法吗?				
12.	在教授游戏之前, 教师可以通过哪些方式调动学生参与游戏的积极性?				
13.	你认为和老师一起做英语游戏有助于提高学习成绩吗?				
14.	你对老师在比赛后的点评满意吗?				



The Interview Questions

NO.	ITEMS	Options			Comments
		-1	0	+1	
1.	How do you think about teaching games in third grade of elementary school?				
2.	Do you know much about the theories of game teaching? Do you have any training on game teaching in your spare time?				
3.	Are the games you implement in the classroom designed by yourself or are they learned?				
4.	In the implementation of game teaching, you will do a certain preparation?				
5.	In what types of lessons do you like to implement games (new lessons, practice lessons, review lessons, etc.)?				

NO.	ITEMS	Options			Comments
		-1	0	+1	
1.	您如何看待小学三年级的游戏教学?				
2.	您了解游戏教学理论吗? 业余时间是否参加过游戏教学培训?				
3.	您在课堂上实施的游戏是自己设计的, 还是学来的?				
4.	在实施游戏教学时, 你会做一定的准备工作吗?				
5.	您喜欢在哪种类型的课程中实施游戏 (新课、练习课、复习课等)?				



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Age: 7 years old 8 years old 9 years old Gender: male female

NO.	ITEMS	Options			Comments
		-1	0	+1	
1.	Do you like games in English class?			✓	
2.	Do you think that the games organized by the teacher can improve academic performance?			✓	
3.	Your enjoyment of games in the English classroom?			✓	
4.	Does your English teacher often organize games in class? (including some small games)			✓	
5.	Do you think that the games organized by the teacher can improve academic performance?			✓	
6.	Does the teacher always do a few games or does he/she change the games every now and then?	✓			
7.	Do you think the class followed the rules and kept order during the game?			✓	
8.	What would your English teacher do if the class was very noisy during an English game in class?	✓			
9.	Do you think the teacher gave you enough time to prepare for the game?			✓	
10.	Do you take the initiative and ask to participate in games organized by your teacher?			✓	
11.	Would you introduce your idea of a game to the teacher and the class in an English classroom?			✓	
12.	What are the ways in which teachers can motivate students to participate in a game before teaching it?			✓	
13.	Do you think doing English games with your teacher will help you to improve your academic performance?			✓	
14.	Are you satisfied with your teacher's comments after the game?			✓	

The Interview Questions

NO.	ITEMS	Options			Comments
		-1	0	+1	
1.	How do you think about teaching games in third grade of elementary school?			✓	
2.	Do you know much about the theories of game teaching? Do you have any training on game teaching in your spare time?			✓	
3.	Are the games you implement in the classroom designed by yourself or any they learned?			✓	
4.	In the implementation of game teaching, you will do a certain preparation?			✓	
5.	In what types of lessons do you like to implement games (new lessons, practice lessons, review lessons, etc.)?			✓	



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NO.	ITEMS	Options			Comments
		-1	0	+1	
1.	Do you like games in English class?			✓	
2.	Do you think that the games organized by the teacher can improve academic performance?			✓	
3.	Your enjoyment of games in the English classroom?			✓	
4.	Does your English teacher often organize games in class? (Including some small games)			✓	
5.	Do you think that the games organized by the teacher can improve academic performance?			✓	
6.	Does the teacher always do a few games or does he or she change the games every now and then?	✓			without using the Likert Rating
7.	Do you think the class followed the rules and kept order during the game?	✓			
8.	What would your English teacher do if the class was very noisy during an English game in class?	✓			
9.	Do you think the teacher gave you enough time to prepare for the game?			✓	
10.	Do you take the initiative and ask to participate in games organized by your teacher?			✓	
11.	Would you introduce your idea of a game to the teacher and the class in an English classroom?			✓	
12.	What are the ways in which teachers can motivate students to participate in a game before teaching it?			✓	
13.	Do you think doing English games with your teacher will help you to improve your academic performance?			✓	
14.	Are you satisfied with your teacher's comments after the game?			✓	

The Interview Questions

NO.	ITEMS	Options			Comments
		-1	0	+1	
1.	How do you think about teaching games in third grade of elementary school?			✓	
2.	Do you know much about the theories of game teaching? Do you have any training on game teaching in your spare time?			✓	
3.	Are the games you implement in the classroom designed by yourself or are they learned?			✓	
4.	In the implementation of game teaching, you will do a certain preparation?			✓	
5.	In what types of lessons do you like to implement games (new lessons, practice lessons, review lessons, etc.)?			✓	

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Age: 7years old 8years old 9years old Gender: male female

NO.	ITEMS	Options			Comments
		-1	0	+1	
1.	Do you like games in English class?			✓	
2.	Do you think that the games organized by the teacher can improve academic performance?			✓	
3.	Your enjoyment of games in the English classroom?			✓	
4.	Does your English teacher often organize games in class? (including some small games)			✓	
5.	Do you think that the games organized by the teacher can improve academic performance?			✓	
6.	Does the teacher always do a few games or does he or she change the games every now and then?		✓		Visual Likert Scale Rating ↓ -- --
7.	Do you think the class followed the rules and kept order during the game?		✓		
8.	What would your English teacher do if the class was very noisy during an English game in class?		✓		
9.	Do you think the teacher gave you enough time to prepare for the game?			✓	
10.	Do you take the initiative and ask to participate in games organized by your teacher?			✓	
11.	Would you introduce your idea of a game to the teacher and the class in an English classroom?			✓	
12.	What are the ways in which teachers can motivate students to participate in a game before teaching it?			✓	
13.	Do you think doing English games with your teacher will help you to improve your academic performance?			✓	
14.	Are you satisfied with your teacher's comments after the game?			✓	

The Interview Questions

NO.	ITEMS	Options			Comments
		-1	0	+1	
1.	How do you think about teaching games in third grade of elementary school?			✓	
2.	Do you know much about the theories of game teaching? Do you have any training on game teaching in your spare time?			✓	
3.	Are the games you implement in the classroom designed by yourself or are they learned?			✓	
4.	In the implementation of game teaching, you will do a certain preparation?			✓	
5.	In what types of lessons do you like to implement games (new lessons, practice lessons, review lessons, etc.)?			✓	





COA. No. RSUERB2024-008



Certificate of Approval
By
Ethics Review Board of Rangsit University

COA. No.	COA. No. RSUERB2024-008
Protocol Title	AN IMPACT OF GAME-BASED TEACHING ON VOCABULARY LEARNING OF THIRD GRADE STUDENTS IN SHENZHEN QIANHAI ELEMENTARY SCHOOL
Principle Investigator	MA XIAOYA
Co-Investigator	Asst. Prof. DrSupinda Lertlit
Affiliation	Suryadhep Teachers College, Rangsit University
How to review	Expedited Review
Approval includes	<ol style="list-style-type: none"> 1. Project proposal 2. Information sheet 3. Informed consent form 4. Data collection form/Program or Activity plan
Date of Approval:	9 January 2024
Date of Expiration:	9 January 2026

The prior mentioned documents have been reviewed and approved by Ethics Review Board of Rangsit University based Declaration of Helsinki, The Belmont Report, CIOMS Guideline and International Conference on Harmonization in Good Clinical Practice or ICH-GCP

Signature.....

(Associate Professor Dr. Panan Karichanaphum)

Chairman, Ethics Review Board for Human Research



Ethics Review Board of Rangsit University, 5th floor, Arthit Ourairat Building (Bldg.1) Rangsit University

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BIOGRAPHY

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