



**EXPLORATION OF THE USE AND INTEGRATION OF GAME-BASED  
TEACHING METHOD IN TEACHING CHINESE KINDERGARTEN  
STUDENTS IN XINJIANG: THE TEACHERS'  
ATTITUDES AND REFLECTIONS**

**BY  
GUO YIFANG**

**A THESIS SUBMITTED IN PARTIAL FULFILLMENT  
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In this season of gentle summer breeze, the graduation season of the new year has also quietly arrived. In the blink of an eye, three years of graduate school life also came to an end. In the past three years, I have not only experienced the test that COVID-19 has brought to the world, but also experienced a very dreamy and memorable learning life. Recalling the courage to decide to come alone to a foreign country to study, to enter the big family of Rangsit University, after three years of learning and exercise, now I have greatly improved my language skills, theoretical knowledge, professional skills, and interpersonal skills. All this is inseparable from the training of teachers and leaders of the School of Education of Rangsit University, as well as the care of students, friends and relatives.

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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 study aimed 1) to study how Chinese teachers in Xinjiang, China integrate game-based teaching method in Chinese language teaching, 2) to study the attitude of Chinese language teachers in Xinjiang towards game-based teaching in Chinese language teaching, and 3) to study the reflections of Chinese language teachers on using game-based teaching methods in Chinese language teaching in kindergartens in Xinjiang. The study used a mixed method. SPSS software was used in data processing to calculate the mean and standard deviation of the data. In this study, 50 Chinese language teachers were selected from 85 Chinese language teachers in four kindergartens in the northern city of Shihezi, Xinjiang, China. Through questionnaire surveys and semi-structured interviews, quantitative and qualitative data analysis methods were used to clarify the selection, integration, attitude, and reflections of Chinese language teachers in Xinjiang, China, regarding the use of game-based teaching methods in Chinese language teaching. In terms of selection, teachers preferred team-based teaching games of 4.72/S.D.=0.57. Regarding integration, teachers generally chose Chinese reading as the breakthrough point for integrating game-based teaching methods of 4.66/S.D.=0.65. In reference to attitude, teachers comprehensively expressed their attitude towards game-based teaching methods from four perspectives and three directions. Four perspectives consisted of Chinese knowledge retention rate, 4.62/S.D.=0.725; Chinese listening, 4.94/S.D.=0.24; Chinese reading, 4.60/S.D.=0.99, and Chinese vocabulary, 4.88/S.D.=0.38. Three directions included improving students' own abilities, 4.98/0.14, improving students' creative abilities, 4.98/0.14, and improving students' teamwork abilities, 4.98/0.14. Through the data results, teachers had a high recognition of the attitude towards game-based teaching methods. Finally, in terms of reflections, based on the interview content of semi-structured interviews, teachers unanimously believed that the game teaching method is an excellent, diverse, and interesting form of children's Chinese language teaching. Meanwhile, according to research findings, teachers tend to prefer team-based games when choosing games for teaching with a clear bias. Therefore, in order to prevent the homogenization of game-based teaching methods and promote the diversified development of game-based teaching methods, teachers should continuously improve their comprehensive qualities. At the same time, schools and parents should actively cooperate with teachers' work to achieve two-way support. In addition, the imbalance of teachers' gender ratio also affects teachers' preference for game-based teaching to a certain extent. The ways to balance the gender ratio of children's Chinese teachers is a challenge that schools need to face when recruiting teachers.

(Total 159 Pages)

Keywords: Game teaching method, Chinese Language Teachers, Attitudes and Reflections

Student's Signature ..... Thesis Advisor's Signature .....

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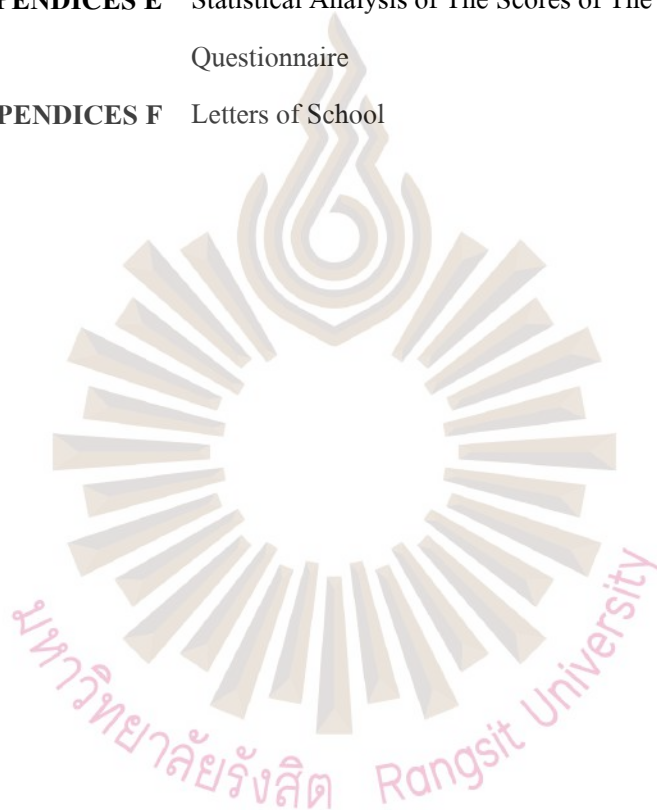
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# **Chapter 1**

## **Introduction**

This chapter introduces the context of the study, statement of the problem, research objectives, research questions, scope of the study, and the conceptual framework, the time frame, significance of the study, limitations of the study and definition of the key terms.

### **1.1 Background of the Research**

The concept of game teaching method and learning can be traced back to the 19th century. A German educator of that time, Froebel believed that learning through games was part of the nature of children. For him, young children learned through play and children's activities. The teacher's job was thus to encourage the children's self-expression through play both individually and in-group activities (Wang, 1991). Learning through play activities accompanied by songs and music, which is now advocated by modern educational techniques in kindergarten and pre-school, can be said to have originated from Froebel (Cai & Sun, 2012).

For more than half a century later, its theory has become more mature. From the initial simplest "teaching of children's nature", it has evolved into today's: we should use games as much as possible in teaching, and turn boring language phenomena into lively and interesting game forms that students are willing to accept (Jia, 2017). The purpose is to create a harmonious, interesting and rich language communication situation for students so that students can learn by playing and play by learning (Jia, 2017).

Trybus (2015) defines "Game-based Learning" as the borrowing of principles of game playing and applying them to real-life settings to engage learners. By this definition, there are many possible formats of games that can be used in teaching for

desirable learning outcomes. Examples are sports games that exercise language thinking and cooperation ability in running and jumping, role playing games that exercise language communication and thinking ability in the process of role interaction, constructive games to exercise the ability of spatial judgment in the process of putting together objects, musical interactive games that dance in the sound of music and exercise language communication ability as well as painting games to cultivate aesthetic perception more and more. So, it can be seen that the teaching games that can cultivate children's Chinese ability are very rich in both types and categories.

Currently, a large number of educational scholars have directed their attention to early childhood education although the term "early childhood education" varies from one country to another. In some countries, young kids go to school when they are two or three. Kapur (2018) states that "in kindergarten education, pedagogy is considered to be a crucial aspect, the reason being that the foundation of an individual's learning begins with kindergarten education." Perrotta, Featherstone, Aston and Houghton (2013) claimed that game-based learning can improve engagement and motivation and there is still a lot that is not known about its impact and is worth exploring. Tanago (2017) conducted a study in Thailand on the effectiveness of using game-based learning in teaching English vocabulary. It was found that game-based learning helped students learn vocabulary effectively. The class had a good atmosphere and students were positive towards game-based learning. Their spelling skills were noticeably improved and memorization of new words became much easier.

Game teaching method and learning is now being studied in various aspects. In addition to pedagogy, the game teaching method has also made new achievements in medical treatment leading to increasing in interest in game teaching method research.

In the medical field, the combination of game teaching and medical emergency simulation has formed a new teaching branch called "serious game". "Serious game" refers to the reproduction of specific scenes or activities in real life in the form of games for the purpose of education or training (Busarijo & Versteg, 2018). Unlike real-world practices that may endanger patients' safety, serious games provide a safe teaching

environment for medical learners to ensure that they can practice confidently to gain skills and experience (Bigdelis & Kaufmand, 2020). Moreover, according to research, the application of serious games as an auxiliary teaching tool in nursing classroom teaching can develop the initiative of students in medical learning, improve their learning experience, and stimulate their learning interest and motivation (Stricklandhp & Kaylcrsk, 2016). At present, Canada, the United States, Britain, Iran, Finland and other countries have successively applied serious games to basic nursing, surgical nursing, nursing ethics, health assessment and other courses. The research on serious nursing games in China started late and has been applied to surgical nursing (Luo & Liu, 2020) and internal medicine nursing courses. (Lu & Wang, 2017). Through the above survey, we can see that the game teaching method also has an excellent development prospect in other fields besides pedagogy.

In the current scenario, game teaching method in China is slowly developing, the main reason is that China has adopted the ordinary classroom teaching mode of "serious teaching" (Yang, 2018). This teaching mode believes that learning knowledge is a very serious behavior. Only with a serious and rigorous attitude can the essence of knowledge be absorbed. This is completely contrary to the idea of "teaching in fun" that the game teaching method wants to express. Therefore, in the early stage, game teaching method can only be slowly promoted and tried out in the field of Chinese teaching for young children in China. The promotion of game teaching method in China has taken a turn because of Chen, a famous Chinese child educator (Zhang, 2007). His famous role-playing classroom game "Little Bear Breaks Corn" has shown the Chinese educational circles the excellent development prospect of game teaching method in the field of teaching. This has driven the adoption of game-teaching method and has made excellent achievements in various disciplines from children to junior high schools. Mathematics, English, science, physical education and other teaching subjects have excellent teaching game output. Taking English as an example, as a second foreign language, game teaching method has developed rapidly in its field, and many excellent classroom teaching games have been originated.

However, in recent years, as a pioneer in the development of game teaching method

in China, children's Chinese teaching field, the field has fallen into a situation of slow progress with the change of time and the change of educational policy. This is why this research to be conducted aims to explore what has happened and what is happening in the field of game teaching method by exploring the teachers' experiences in adopting this pedagogy in their teaching and their attitudes towards the approach.

## 1.2 Statement of the Problem

The problems that lead to this research to be conducted consist of: first, the integration of games into the lesson content. In Xinjiang, the early game teaching method did not combine game with the classroom lessons, but divided the classroom and game into two opposite concepts. It means: "Game is playing; teaching is studying". Teachers were committed to separating games from teaching. Although students experienced the fun of games in class, some could not concentrate on normal learning activities after the games because games were not integrated into the content of the lessons. Therefore, since 2007, Xinjiang's early childhood education researchers have actively communicated with educators in mainland China, optimized and improved the game teaching method. Since then, the game teaching method has entered the second stage in Xinjiang.

In the second stage, Xinjiang has absorbed the excellent teaching experience of the mainland and combined games with knowledge. Although this has virtually increased part of the workload of preschool teachers, the teaching effect has made a qualitative leap. It not only enables children to concentrate more in classroom teaching, but also enables them to learn more knowledge in games. The second stage was officially launched in 2008 and continues to this day. Thus, Game Teaching Method is respected by the majority of Chinese preschool educators that believe that playing is learning. However, because the game teaching method is a relatively novel teaching mode where play and game must be combined to create a desired aspect. It is different from the ordinary classroom teaching mode in China, which requires maintaining a relatively more rigorous and serious classroom teaching atmosphere. It worries many scholars who adopt ordinary or traditional classroom teaching in China that game teaching



method will ignore its essential "educational" significance because of its "playfulness", especially in language learning. This has led to opposition to the promotion of game teaching in China (Yan, 2012).

Second, at this moment, game-based method has been widely adopted in Xinjiang, it is not clear what types of game formats have been used and whether they are effectively used. It will also be interesting in finding how games are integrated into the lesson content. Exploring the use of game teaching method in the classroom will contribute to the knowledge of the field of using games in language teaching as well as benefit the teachers who are in the front line of implementation and the administrators especially the school principals and the policy makers by adding to their knowledge how the teachers can be supported in making full use of Game Teaching Method in the classroom.

### **1.3 Research Objectives**

- 1) To explore how Chinese teachers in Xinjiang integrate Game Teaching Method in Chinese Language teaching
- 2) To explore the Chinese teachers' attitude towards Teaching Method in their Chinese Language teaching at the kindergarten level in Xinjiang
- 3) To study the reflections of Chinese teachers towards the use of Game Teaching Method in Chinese Language teaching at the kindergarten level in Xinjiang

### **1.4 Research Questions**

This research investigates the following s:

- 1) How do Chinese teachers in Xinjiang China integrate Game Teaching Method in Chinese Language teaching?

2) What is the attitude of Chinese language teachers in Xinjiang towards Game Teaching Method in Chinese language teaching?

3) What are the reflections of Chinese language teachers on using Game Teaching Methods in Chinese language teaching in kindergartens in Xinjiang?

## **1.5 Significance of the Research**

The significance of this study is presented as follows:

Firstly, the findings of this study benefit Chinese children and Chinese teachers in the Primary Level. With a deeper understanding of the Game Teaching Method, if advantages of using the method in children's Chinese teaching are revealed, this method can be adopted to design appropriate lessons for the children in Xinjiang and also other teachers in other provinces who may wish to try out this method will learn from this study.

Secondly, the results of this study play a guiding role on understanding the experiences of different teachers using different formats of Game Teaching Method. In addition, the attitudes of the teachers who participate in this study will be valuable for others who may wish to adopt the method and modify the various ways the teachers in the study have used in their teaching.

Thirdly, since this field has just reemerged in China, the body of knowledge extracted from the findings of the study can be used as the background knowledge for all, be they classroom teachers, educational researchers, administrators and policy makers who are interested in Game Teaching Method and the resulting learning outcomes.

## **1.6 The Research Scope**



The thesis of this study is mainly an investigation of Game Teaching Method. The main research direction is the study of Chinese language teaching for Chinese children based on the Game Teaching Method.

The questionnaire respondents the 50 Chinese language teachers from four different kindergarten schools in Shihezi, Xinjiang. The 50 teachers were finally selected from 4 kindergartens in Beicheng District, Shihezi City, Xinjiang, which is relatively rich in educational resources. The selection of the teacher sample was based on whether the teacher was engaged in children's Chinese teaching. All 50 teachers were engaged in teaching Chinese to children, and had at least one year's experience of using Game Teaching Method to teach Chinese to children. These schools were selected based on their adoption of Game Teaching Method as one of the teaching approaches of the schools. To add more in-depth knowledge towards the findings from a questionnaire, a semi-structured interview was also conducted with 8 to 12 interviewees from the 50 questionnaire respondents from four schools in the study purposively selected on a voluntary basis.

The four kindergarten schools were Shihezi Experimental Kindergarten, Shihezi Lantian Kindergarten, Shihezi Beilei Kindergarten and Shihezi Central Kindergarten. Among them, Shihezi Experimental Kindergarten is one of the most famous kindergartens. Shihezi Experimental Kindergarten was established in the 1990s and has a history of nearly 35 years. The remaining three kindergartens are public kindergartens newly established in recent years, The allocation of teachers and educational resources to the schools is also excellent. Of the four, Beilei Kindergarten pays more attention to the cultivation of children's art cells than the other three kindergartens.

## **1.7 Conceptual Framework**

The following figure shows the conceptual framework of the study.

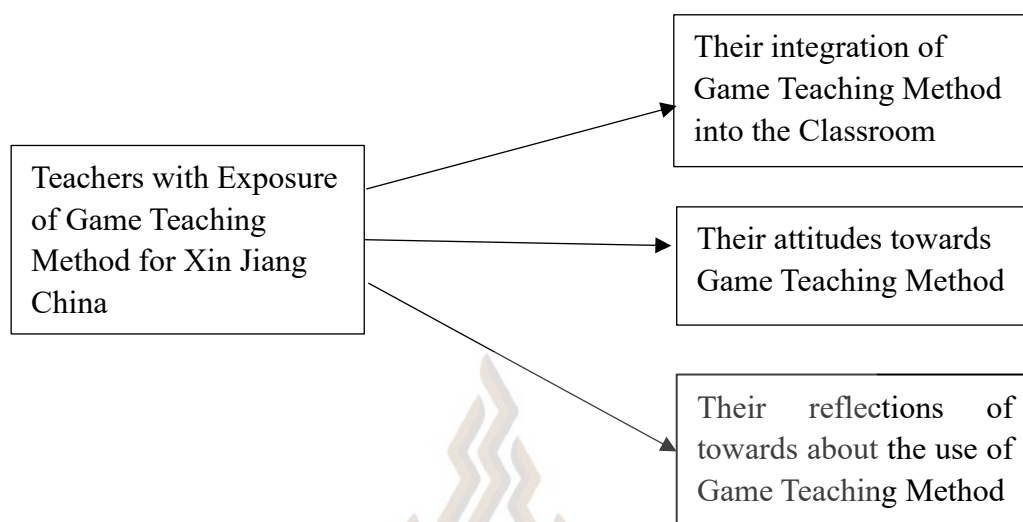


Figure 1.1 Conceptual Framework

## 1.8 Limitations of the Research

This study was carried out in Shihezi, Xinjiang, China. Therefore, the findings of this small-scale study will not be applicable to all other areas of the whole country of China. In addition, only 50 Chinese language teaching teachers from the four kindergartens in the northern urban area of Shihezi City, Xinjiang, rich in educational resources, were investigated. The findings may only be useful for places with similar contexts as they can be representatives of what may be found in similar contexts. However, these findings will be useful as a general reference to the Game Teaching Method. The reason for choosing these 50 teachers was the main teaching content of these 50 teachers was children's Chinese teaching, which was consistent with the direction of this study.

## 1.9 Definitions of Terms

The following terms are explained with the definitions that are used in the study.

### Game Teaching Method

This method adheres to the teaching method that "learning is fun". There are various teaching modes, including role-playing, music, construction, sports, and other game forms. Combining a course designed using game-based teaching methods, allowing students to learn by playing games used by the teacher, in order to achieve the expected learning outcomes of the course.

### **Chinese Language Teachers**

Teachers who teach Chinese to students whose mother tongue is Chinese in Xinjiang China. Teachers are also Chinese.

### **Chinese Children**

Young students aged 3-12 who were born and raised in Xinjiang China and whose mother tongue is Chinese.

### **Reflections**

The term "reflections" refers to the thinking generated by Chinese language teachers in Xinjiang, China during the process of using Game Teaching Method to teach Chinese in order that this method will develop better in China with the identification of the advantages and disadvantages.

### **Attitude**

Attitude is a person's position and perspective on things. In this study, the term "attitude" refers to the views of Chinese language teachers in Xinjiang on the use of game-based teaching methods in Chinese language teaching, including how they perceive game teaching methods and their reflections and ideas based on their own experience in using game teaching methods in teaching.

## **Chapter 2**

### **Literature Review**

This literature review chapter covers major areas that are related to all aspects of Game-based learning and teaching; firstly, the description of game-based learning and teaching and secondly, the different types of game-based learning and teaching. Thirdly, the development process of Game Teaching Method together with the discussion of its advantages and disadvantages as well as the theories of learning related to Game Teaching Method and its benefits towards learning. Finally, the chapter discusses reviewed related researches. Therefore, this chapter is divided into 5 sections: 1) Description of Game Teaching Method, 2) Development of Game Teaching Method through Children Development Theories, 3) Analysis of the Types of Preschool Classroom Teaching Games in China, 4) Significance of Game Teaching Method to Children's Teaching in China and 5) Related Research

#### **2.1 Definitions of Game Teaching Method**

The field of education has always been the object of continuous research and discussion by scholars all over the world. This reflects the significance of the field in a person's life from the very young age. Dewey a world-renowned educational scholar who helped to lay a firm foundation to the field said "Education is not preparation for life, but education is life" (Ji, 2009).

In Dewey's view, there are three links between children and education. First, education is growth. Education should be based on respecting children's inherent instincts, interests and needs, so that each child's nature and innate ability can grow healthily, and guide children to form good habits, that is, to promote the growth of children's nature through education (Fan, 2013).

Second, education is the transformation of experience. Learn from experience, and emphasize that education should link children's actions and results through activities, and discover the relevance between them, so as to promote the continuous reorganization and transformation of their subjective experience. Experience is the unity of subject and object, the result of interaction between human organism and environment, and the result of action and operation. (Tian & Zhi 2006). For example, a child must try to realize that his hand will burn his fingers if he reaches into the flame. When this action is connected with the pain he suffers, he will realize that his hand will burn if he reaches into the flame (Du, 1990).

Third, education is life. On the one hand, schools should link education with children's actual life and teach children to gradually adapt to the living environment. On the other hand, school life should be linked with off-campus life, linking school life with social life. Dewey pointed out that the obvious fact is that social life is undergoing thorough and fundamental changes. If education has any meaning for life, it must undergo a corresponding complete transformation (Wang, 2003). It should also be part of a child's growing-up process.

It can be seen that the discussion on children and education has always been one of the research focuses of educational scholars. With the continuous development of the times and science and technology, the research on education has also developed from the initial single classroom teaching to a more diversified direction. Among them, some theories originally only known as "Teaching concept" have gradually emerged because of the development of the times and science and technology, it has become a new star on the research stage in recent years, and the game teaching method derived from the concept of "Happy Game Teaching" is one of them (Dai, 2017).

In China, as early as the Northern Song Dynasty, Cheng Yi, a famous Chinese educationist, mentioned in his book--*Er Cheng's Suicide Note*—that "When teaching without any interest, the teacher will not be able to make the students learn happily". Thus, it is important to improve the teaching interest, so as to enhance the students' learning interest (Ding, 2014 on Volume 2 of *Er Cheng's Suicide Note*, the words of Mr.



Lu and Uncle Dong at a meeting with Mr. ER). Wang, a famous learner in the Ming Dynasty, also put forward a similar view in his book: "Teaching children will make them tend to be inspired but will not be happy to learn" (Cai, 2015). His idea of "stimulating children's learning desire with interest" in China has not only spread in China, but also laid a solid foundation for the development of game teaching in China (Sun, 2015). This is opposite to the concept of the traditional Chinese education model that emphasizes 'learning' as a very serious behavior that must be done formally, while "playing" is only a method for children's entertainment and recreation.

Until more than 200 years later, the famous German child psychologist, Froebel combined games with teaching in his book, *Kindergarten*, and put forward the view that game is the characteristic of children's activities. They learn from playing. Children can use play to obtain knowledge, pleasure and satisfaction" (Sun, 1991). Indeed, this view fills in some gaps in the view of Chinese scholars on "how to stimulate children's interest in learning". At the same time, "game teaching method" has officially entered the stage of education and teaching history. The game teaching method refers to the pedagogy in which teaching and learning appears as some form of games. When carrying out classroom teaching, the teacher automatically turns the boring language phenomenon into a game that is more acceptable to students (Long, 2016). This way can not only enable students to learn knowledge, but also cultivate students' interest in learning to a certain extent, develop their intelligence, and enhance their comprehensive ability development.

The following table presents the description of Game Teaching Method by scholars and researchers in the field.

Table 2.1 Description of Game Teaching Method and Learning by Some Scholars

Scholars	Year	Description of Game Teaching Method and Learning
Garris, Abler & Driscoll	2002	Game teaching methods uses game elements to enhance students' learning motivation, thereby promoting their acquisition of knowledge and skills.
Salen & Zimmerman	2004	A system in which players engage in an artificial conflict, defined by rules that results in a quantifiable outcome
Staffer, Halverson, Squire & Gee	2005	A type of game play with desired learning outcomes
Plass, Perlin & Nordlinger	2010	The design process of games for learning involves balancing the need to cover the subject matter with the desire to prioritize game play.
Whitton	2012	Learning that is facilitated by the use of games
Nisbet	2021	A teaching method that uses the power of games to define and support learning outcomes
Ma, Shi, Zhang & Zhang	2021	Games, as auxiliary tool of traditional teaching can improve students' learning motivation and learning effects.
Sendurdur	2022	Learning by playing games which are developed to reach predefined learning outcomes.
	2023	An active learning technique that uses games to improve student learning. The learning, in this case, comes from playing the game, which promotes critical thinking and problem-solving skills.

Source: Compiled by Researcher

All the scholars listed in the table from 2002 to 2023 describe Game Teaching Method in similar ways. In brief, Game Teaching Method is a method or an approach that can be adopted in teaching with the use of games as triggers of learning designed with specific learning outcomes to achieve. This concept is what the study focused on. The study investigated what type of game the teachers in the study used and what they thought about the value of Game Teaching Method.

To the question "What are the games commonly used in the classroom from basic



education to higher education? " The following table lists the definitions of games in most people's understanding.

Table 2.2 Changes in the Levels of Acceptance of the Use of Games in Education

Scholar	Year	Attitude towards Use of Games in Education
Liu	2012	Tools to improve classroom teaching efficiency
Fen	2013	A popular teaching form abroad
Luo	2014	A teaching mode that needs to be repositioned in China
Zhong & Li	2015	Teaching mode that can improve students' interest in learning
Liu	2016	Various classroom teaching modes
Xing	2018	Excellent classroom teaching mode with compound attributes
Meng	2021	Excellent teaching mode that does not stick to the form
Wang	2022	From traditional classroom to online classroom, an enduring teaching model
Hartin & Diamond	2023	Game-based learning in education is an approach to learning in which aspects of games are inherent in the learning activities that are used to teach students about a variety of topics.

Source: Compiled by Researcher

From Table 2.2 above, it can be clearly seen that the use of games in education is gradually accepted and recognized in China from 2012 to 2023 with the change in the education field and the deepening and variety of its research. In brief, the use of game in teaching changes the format from simple fun activity to the teaching mode that has no definite format, which right now moves towards the use of online facility and technology.

## 2.2 Development of Game Teaching Method through Children Development Theories

Game Teaching Method has experienced the following important stages from the evolution, emergence, development and integration of concepts:

1) From "interest teaching" to "game teaching" (the initial concept and evolution of game teaching method)

2) Initial development process of game teaching method

3) Exploration and expansion (game teaching method from green to mature)

4) Game teaching method and cognitive development (a sign of mature research on game teaching method)

### **2.2.1 From "Interest Teaching" to Game Teaching-The Formation and Generation of Concept**

Interest appears to be the key factor that makes someone learn. This remark about the predecessor of game teaching as interest teaching can be traced back to Confucius, the greatest Chinese Confucian thinker, educator and famous as China's "great sage and teacher", who showed his firm belief in his sayings, "Those who know are not as good as those who are good" (Cao, 2000). Similarly, compared with mandatory knowledge instillation, the idea of "being interested in learning" is obviously more conducive to cultivating learners' personality and desire for knowledge (Shi, 2016). Shi (2016) said "Being interested in learning" is obviously more conducive to learners' understanding and absorption of the learned knowledge than compulsory indoctrination of knowledge. This is similar to Dornyei (2009)'s commonly quoted sentence: "A motivated learner is a willing learner." He claims that learning is effective if the learner enjoys learning. That means the learner has to learn in a fun and relaxing atmosphere. If he or she is in a stressful and frightening atmosphere, he or she will not be learning anything effectively because the affective domain will be seriously threatened.

At that time, China was at war. and the social system was still changing from slavery to feudal autocracy. During that period, only the crown prince and the noble children who were canonized were qualified. There was an opportunity to learn knowledge in a private school. Therefore, this precious opportunity for the nobility also made the education system at that time very serious and rigid. Under this slightly deformed education system, the learning process can only be described as dull. Facing the hard-won learning opportunities, more young students only regard learning as a chip

"for the future interests of the family", the so-called learning was considered an important task that had to be completed in their life (Li, 2018).

Under the premise that the ideas of the times are confined, the idea of "how to improve the learners' interest" will naturally disappear under the background of the overall learning scope being relatively depressed and depressing, it became the "model" of "deviant" thought in the mouth of many scholars at that time.

Since then, although the speech and discussion on "making learning an interest" have always existed in China's feudal ritual system at that time, due to the confinement of thought and the development of the times, it only existed in speech, not action. In fact, it has made slow progress. No suitable method has been explored to extend "how to improve the learning interest".

Time went by, until the middle of the Northern Song Dynasty (around 1040 AD), the discussion on "how to improve learning interest" has never stopped, but the results are not satisfactory. Until 1055 years, Cheng Yi, a famous educationist in the Northern Song Dynasty, mentioned in his book "Er Cheng's Suicide Note" that "Teaching people who have no interest, they are not happy to learn" (Ding, 2014). While pointing out the importance of combining teaching with interest, he also put the "interest teaching" which has been silent for nearly 1000 years back on the stage of Chinese educational history. In "Er Cheng's Suicide Note", Cheng Yi also explained in detail the reasons for the development of "interest teaching" (Cai, 2004) As one of the founders and integrators of "Neo Confucianism of Song and Ming Dynasties" in the Northern Song Dynasty, Cheng Yi made great contributions to the re integration and paving of the development path of "interest teaching" in early China, and added vitality to this theory that has been silent for 1600 years (Wang, 1988).

After Cheng Yi of the Northern Song Dynasty, the time was pushed back for more than 300 years. In 1488, Wang Shouren, a famous thinker of the Ming Dynasty, once again pushed the development of "interest teaching" to a new height in China. He believed that "when children are in love, they are happy to play and afraid of detention.

(Cai & Bao, 2012). If plants and trees begin to sprout, if they are comfortable, they will reach the level, and if they are damaged, they will be impotent." it means that children are active and like to play, but are afraid of being restrained and imprisoned, just like plants and trees just sprout, develop along with others, and wither when they are destroyed by themselves (Sun, 2015). Therefore, the education of children must conform to the physical and mental characteristics of children and make them "inspired" and "happy in the heart". The focus of this adaptation is how to integrate "play", one of children's favorite activities into teaching them. This view of Wang has a great impact on the development of "interest teaching". This view is an experiment that combines "play" and "interest" and introduces them into the teaching system for the first time in the history of Chinese education, which is a considerable challenge and attempt for the Chinese education system which is in the feudal ritual system at that time. At the same time, it is also one of the important breakthroughs in the transformation from "interest teaching" to "game teaching". Although in the more than 300 years since then, the relevant discussion and development of "interest teaching" have once again fallen into a bottleneck period, in terms of the teaching theory. "Interest teaching" is no longer a theoretical knowledge that will be ignored.

In 1817, with the publication of the pan children's education book "Die menschen-erziehung" by the famous German early childhood educator Froebel (Cai & Sun Froebel, the founder of kindergarten 2008) the "Interest teaching" has ushered in the most important and key transformation in its whole educational history. In this book, Froebel expounds the importance of games to children's education and children's development. In his opinion, "people and everything are always changing and developing. In the same way, children's body and mind are always changing and developing, Moreover, children's physical and mental development is "automatic", and any repression and restraint is unfavorable to children" (Chen, 2010). Therefore, he requires that before teaching children, they should have full observation and understanding of children and conform to their nature, Otherwise, it is unfavorable to the development of young children. In order to prove this point, Froebel took pruning grapes as an example: if the gardener violates the nature of plants and the right path of development, even out of good intentions, it may endanger the growth of grapes and

reduce the yield (Chen, 2010). Therefore, he mentioned in his book: "only after a thorough, sufficient and thorough understanding of human nature, diligent exploration according to this understanding, and naturally obtaining all other knowledge necessary for the maintenance and education of human beings... can real education blossom and bear fruit" (Froebel, p. 310) Therefore, Froebel took games as an important educational means to realize "interest teaching" and incorporated it into his theory. He believes that "play is a unique role in children's preschool education system because it is not only the most interesting factor for children, but also an important part of their own life in children's cognition" (Wang, 1991). As the first famous child educator in the history of world education to recognize "game" as one of the important educational means, Froebel has found a breakthrough direction for the teaching discussion on how to realize "interest teaching". At the same time, the relevant discussion on "interest teaching" has gradually changed to the research direction of "game teaching", and finally the two teaching discussions have been gradually integrated into the educational research direction focusing on "game teaching".

When the world's first kindergarten in Brandenburg was established in 1837, the model of "classroom teaching by game" was had the officially named by "game teaching method" (Froebel, 1991). Since then, the "interest teaching" which has been discussed and studied in China for nearly two thousand years has finally been integrated with "game teaching" with the efforts of Froebel. With a new "game teaching method", it has officially stood on the stage of world education history and started its development path of the world.

### **2.2.2 Initial Development of Game Teaching Method**

After Froebel laid a sound foundation for the "game teaching method", the game teaching method has entered a stable and preliminary development stage for a hundred years. During this period, some of the viewpoints have made indelible contributions to the research and development of game teaching method. The idea from Herbert Spencer, a famous British philosopher and educator, is the famous viewpoint of "Happy Education Theory"(Yang, 2013). Without denying the seriousness of learning, Spencer



emphasized the importance of game teaching to children's physical and mental development. He believes that "education itself has a certain serious and painful nature for children, but this pain and seriousness should not be infinitely amplified and repeated". Therefore, in his book, Spencer emphasized the importance of classroom game teaching to children's knowledge acquisition. He wrote in his book: "the goal of education is to let students absorb the nutrition of knowledge in happiness" (from Spencer's Happy Education Book) In Spencer's opinion, the best education in the world is 'happy in essence'. Painful learning will make people tired of knowledge, and happy learning can make knowledge attractive. He always believed that happiness education should be people - oriented and respect children's nature (Lu, 2015). Therefore, based on Froebel's teaching theory, Spencer put forward the famous "theory of surplus energy", which aims to enable teachers to transform "games" into the energy for students to absorb knowledge in class so that students can use teaching games to absorb classroom teaching knowledge in a state of high spiritual concentration (Yang, 2018). As one of the founders of early game teaching after Froebel, Spencer's happy teaching theory and "residual experience theory", although the theory is greater than the practical effect, However, as the founder of "happy game teaching" in Europe and America, Spencer, standing on the shoulders of traditional British interest-oriented education practitioners, founded the theory of happy pedagogy, which pushed the research on game teaching method from Froebel to a new height.

In addition to Spencer's "Happy Teaching Theory", there are two important viewpoints that provide an important ideological source for the initial ideological development of game teaching method. They are the "relaxation theory" put forward by the famous German educator Lazarus at the end of the 19th century and the "reply speech" put forward by Hall, a famous American psychologist and known as the "father of child psychology" in the United States at the same times. Lazarus put forward in "relaxation theory": "teaching games are not meaningless to vent children's excess energy, but a positive and effective way to help children learn when their attention drops" (Hua, 2003). Hall (1904) said: "Teaching games can help children to vent their instinctive desires in the process, and at the same time, restrain the immature original psychology of children, that is, help students to self-discipline". Although their research

focus is different from that of Spencer (Spencer pays more attention to the research of teaching methods, while Hall and Lazarus pay more attention to the discussion of teaching games), their research direction is to demonstrate the feasibility of game teaching method and its importance in children's teaching. The three researchers laid a solid foundation for the initial development of game teaching method, and also led the transition and development of game teaching method towards a more mature direction.

### **2.2.3 Expansion and Integration-The Second Development of Game Teaching Method**

After the game teaching method gradually entered a stable development period, in the 1940s, with the in-depth research on children's educational psychology all over the world, the research on game teaching method entered a new stage again. This is the second stage of game teaching method in the history of world education. At this stage, due to the gradual maturity of children's psychological research, the game teaching method has attracted the attention of more children's psychological research scholars. They take the game teaching method as a very important link in the study of children's psychology, which not only further expands the space and direction for the game teaching method, but also promotes the game teaching method to move towards a more in-depth research direction. Similarly, in the second stage of development, due to the influence of children's psychology, the game teaching method presents a more academic side at this stage with two famous Austrian experts on child development.

One was the famous Austrian psychologist and the founder of psychoanalysis Sigmund Freud (1895). Freud elaborated the area of children's personality development in detail. He believed that children's personality development mainly goes through the following three stages: mine, miner and superego (Liu, 2018).

MINE(ID): it is the most primitive and basic part of the purport personality structure. The main age is 0-3 years old. Any behavior shown in it belongs to the subconscious category. Its biological instinct is hereditary. It must meet basic biological needs, such as hunger, thirst and sex, and follow the "joy inner only principle" (Liu,



2018).

MINER(Ego): the ego is differentiated from the ID. The main age range is 3-16 years old. During this period, the ego acts according to external needs and is dominated by reality. In addition, this stage is between the ID and the superego. It plays a role of buffering and regulating the impulsive ID and the regulated superego as a transitional stage, The control of ID is stronger than the superego stage of self-regulation and control. Among them, the distinction between good and evil and the preliminary understanding of "right" and "wrong" are important cognition that needs to be cultivated by "educators" in this stage (Liu, 2018).

SUPEREGO: Superego is a part developed from self, the highest level and the ideal part of personality structure, and which is called moral self. Superego consists of self-ideal and conscience. It should not only realize its own high standards, but also make its own behavior free from wrong restrictions. This age stage is after the age of 16, and the child is in the critical period from juvenile to underage. During this period, children's self-cognition and the concept of good and evil have been completely formed with their growth environment, and have the basic requirements to restrain their inner ID. the superego strives for perfection and beauty, does not worry about happiness and reality, and follows the "principle of perfection"(Pan, 2018)

In the theory of personality development, Freud clearly divided the "game teaching" in the "game teaching method" into the "MINER" of personality development. He made it clear that "classroom games can alleviate the anxiety of young children in an orderly classroom order. While meeting children's desire to vent in class, they can learn to control their immature thinking in class, Restrain the desire of miner "(Davies & Pearse, 2011, p.29). This view is proved to be correct in the later practical research of game teaching method, and it is very effective in controlling the classroom of early childhood education. On this basis, Freud took "children's Teaching Games" as the focus of the study of children's psychology as the breakthrough entrance in his subsequent research, deeply analyzed the topic of "the impact of classroom teaching games and children's psychological growth" and summarized and sorted out his views in the

research:

1). In the process of research, Freud found that classroom teaching games are an important mediator for "self" to adjust the contradiction between "mine" and "superego". The main embodiment is that both teachers and non-teachers (parents and elders) can help children improve their personality development through teaching games, which is one of the best ways to help children form a good "self".

2). Freud found through investigation that classroom teaching games can not only help children quickly establish learning situations, but also meet children's wishes that cannot be realized temporarily in reality, for example, the desire to become an adult. This argument has been expanded by Peller, a psychologist of the same psychoanalytic school, and formed a complete "role motivation theory"(Pan, 2018). In this theory, the types of roles played by children in play classroom teaching games are classified as follows:

- Play someone you love and respect, such as parents and elders
- Play a person who is afraid, such as a ghost etc.
- Play a person with a lower status than yourself (here, it is determined according to the child's own status, and there is no fixed crowd)

Freud believed through research that teachers can observe students' interpretation of the selected roles through the role-playing types in the teaching games obtained from the above analysis, so as to shape the correct outlook on life and guide the values of different children.

3). Finally, Freud found that classroom teaching games can not only make teaching knowledge "interesting", but also help students understand and avoid traumatic events in life through these "interesting" knowledge, it is very important to help children establish the consciousness of "danger avoidance" for children who do not form crisis consciousness and transition from "ID" to "MINER" (Liu, 2018).

Through the above analysis of game teaching method, it is not difficult to see

Freud's in-depth research on children's personality theory and his advanced cognition to Research on game teaching method. As one of the researchers in the second stage of game teaching method, Freud's personality cognitive theory perfectly combines game teaching method with psychological theory, continue to explore and expand the relevant research of game teaching method to a new field. As the founder of "psychoanalysis theory", he led other scholars of academic school to make great contributions to the research and development of game teaching method.

In addition, another famous argument in the second stage of the development of game teaching method comes from Eric H Erikson, a famous American developmental psychologist also proposed a version of "personality development theory" in the last century. In the theory of cognitive development, Erikson believed that human development was carried out according to stages. If human life is a cycle, it can be divided into eight stages (Hao, 2008) These eight stages appear in the same order and have crossed the cultural consistency. Because they are determined by genetic factors, but whether each stage can pass smoothly is determined by their own social environment and education level. Depending on the social environment and education level, the stage may appear at different times. Therefore, Erikson's stage development theory can also be called "psychosocial development stage theory" (Liu, 1997). In his research, Erikson has constantly expressed his appreciation for game teaching. He believes that "game" as a way is one of the most important and concise ways to meet the basic curiosity of young children. Whether it is used properly or not is related to people's psychological construction in the initial stage of development. For Erikson, child development stages are as follows:

Stage 1: Lip Stage (birth ~ 1 year old): basic distrust - basic trust

Erikson (Liu, 1997) found that the period from birth to about 18 months is the stage to gain basic trust and overcome basic distrust. The so-called basic means that the baby's needs are consistent with the satisfaction of the outside world. At this stage, if the baby shows trust in the mother or other agents, he or she will feel that the environment is a safe place and finally believes that the people around him or her is can be trusted. This

will be expand into trust in the ordinary people. If a baby cannot get the care or care of the people around him or no one responds to him when he seeks answers, that he will have fear and doubt about the outside world, especially the people around him, the end will affect the smooth development of the next stage (Guo, 2010). In this stage, Erikson conducted a decades long follow-up survey of 1,528 children and found that an excellent teaching communication game can help 80% of children meet their curiosity and exploration of the world in their infancy, and let them have a stronger desire for exploration and knowledge than some children who ignore communication, which directly affects their third stage of growth (Yuan, 2004). This stage is called in Erikson's research:

Stage2: Sexual organ stage (3-6 years old): initiative, spontaneity–guilt

In this stage, 4-5 years old is the preschool period of children, which is the stage of gaining a sense of initiative and overcoming guilt. At this stage, the individual's muscle movement and speech ability all over the develop rapidly. The child can participate in running, jumping, riding a car and other sports, speak some coherent words, and expand his or her activities beyond the scope of his or her family. At this time, the impact of excellent communication teaching games on children in the first stage is reflected, in addition to imitating behavior, children are full of curiosity about their surroundings (including their own body), know their gender, and know whether animals are male or female, and often ask this and move that. At this time, if adults do not obstruct children's curiosity and exploration, they will have more opportunities to participate in various activities freely and patiently answer their questions rather than laugh at them; Prohibition, not to blame, then the child's initiative will be further developed; Show great enthusiasm and enterprising spirit (Wang,2011). On the contrary, if parents take a negative and repressive attitude towards children, they will think that their games are bad, their problems are clumsy, and they are annoying in front of their parents, it causes children to have a sense of guilt and failure (the so-called guilt is that they think they have done something wrong and bad). This sense of guilt and failure will also affect the development of the next stage (Jiangbo, 2006). Therefore, in addition to parents, teachers are particularly important as a bridge between children and parents. Children

aged 3-6 as the most energetic age group, and they are also the most interested in games not with the learn, Therefore, in this stage, if children are required to carry out silent teaching, it will only make children at this stage constantly suppress the "Id" that is not completely controllable, resulting in the result of putting the cart before the horse. In Erikson's survey, whether teachers use classroom teaching games properly will be directly affect a child's cognition and attitude towards about "learning". The Interesting classroom teaching games will greatly improve children's interest in a subject which will directly affect children's aversion to think about "learning" (Zhu& Lin 1988). In addition, Erikson found that classroom games are more conducive for teachers to communicate with students in class, take care of every child as much as possible in the Limited second-class time, and let them have the opportunity to participate in classroom teaching. Based on the above findings, Eriksson added a research argument called "Mastery theory" to the theory of cognitive development, and reached the following conclusions:

- 1). Game teaching method can help students adjust themselves. It is an active way to adjust classroom learning. It can help students adjust and integrate biological and social factors.
- 2). The game teaching method regulates the stage conflict in the development of children's personality in the teaching process, and mediates and dissolves conflicts.
- 3). In addition to the above two points, Erikson also found that due to the influence of biological and social factors, there may be subtle gender differences in the selection of classroom games (this will be expanded in the types of Teaching Games mentioned below)

These two scholars and their theories have made great contributions to the development of game teaching method in the second stage of its development. Through their many years of research and scientific research, they have broadened and extended the development path of game teaching method, and laid a solid foundation for the more mature development of game teaching method in the third stage.



#### **2.2.4 Game Teaching Method and Cognitive Development-The Road to Theoretical Maturity**

After 110 years of development in two stages, the game teaching method has not only enriched the content, but also made more scholars in the field of education realize the charm of the game teaching method through its performance in the field of education. At this time, the time came to the 1970s. A brand-new psychological theory storm was sweeping the educational circles at that time. (Yang, 2018). The game teaching method was taking advantage of this storm and found a way to maturity in this "baptism". In this new psychological storm, many researchers have made great contributions to the improvement of game teaching method, especially two scholars. They not only contribute to the research of game teaching method, but also play an important role of the "stirring the tide" in this new psychological storm, and make their power in this storm.

One of the scholars is Jean Piaget, a famous Swiss child psychologist known as "another giant" of psychology. In his theory of children's psychological development stage, he put forward a completely different research and view on children's psychology and game teaching method with Erikson, Piaget found that Erikson's division of children's development stages is too general. In his opinion, children's psychological development should be divided into the following four stages (Lin, 2001).

##### **Stage1 Perceptual motor phase (0-2 years old)**

This stage is the initial development of infants' cognitive ability. Infants know the world around them by feeling and action. In this stage, infants develop several important cognitive concepts, such as "parents", "feeling" and "smell", which belong to the age stage to help children establish the initial cognitive system (Cheng, 2001).

##### **Stage 2 Pre operation stage (2-7 years old)**

At this stage, children begin to learn and gradually be able to skillfully use symbols

to symbolize things, and engage in simple thinking activities with symbols. Piaget called this ability to learn through symbols named symbolic function. In this stage, the two typical limitations of children's thinking development. the first one is sidedness of thinking, the other one is self-directed thinking. One sidedness of thinking means that children tend to focus on one aspect of things and ignore others to think about something. Piaget's famous "conservation" experiment revealed this thinking characteristic of children (by changing the distance and shape of objects, children were asked to judge whether the two objects were equal. As a result, the children surveyed thought that the quality and quantity of the two objects were different). At the same time, Piaget's research shows that the game teaching method is more suitable for teachers to use among children at this stage, according to Piaget's research, "game" is the product used to balance their "Id" in children's cognitive development. Through the "game", can help the children break through their own thinking limitations and enable him or her to independently think about some questions "why is it like this" in the operation stage about themselves. (Keith, translated by Wu Qinglin 1994). For example, there is a very classic "long and short juice bottles" game form the teaching game. The teacher prepares two long and short bottles with the same volume but different shapes, guides the children to explore whether the two bottles can hold the same volume of juice, and guides the students to experiment by themselves and get the results. This not only enlivens the classroom atmosphere, but also allows teachers to guide children to understand that the "how much", they see with their "eyes" maybe is not necessarily true, must to take about themselves after their own hands-on experiments and it can help them to get the correct results. This is one of the reasons why Professor Piaget advocates game teaching. He believes that "games are not what people think of as simple fun, and a lot of truth is hidden in these fun" (Lin, 2001).

### Stage 3 Specific operation stage (7-12 years old)

In Piaget's research, children enter the specific operation stage between the ages of five and seven. The most typical sign of this stage is that children can use symbols to think logically about themselves. Compared with children in the pre operation stage, children in the specific operation stage have made great progress in classification, digital



processing, time and space concepts. At this time, children's "self-centered" degree decreases. They begin to overcome "one sidedness" and pay attention to all aspects of things, develop the ability to understand the views of others, and improve their ability to communicate with others. At this stage, due to the rapid progress of children's thinking, Professor Piaget does not recommend the use of game teaching method (Chen & Yang 2005).

#### Stage 4 Formal operation stage (after 12 years old)

The typical feature of formal operation stage is the development and perfection of abstract thinking like adult. At this time, teenagers no longer limit their thinking to specific things. They begin to use abstract concepts, put forward reasonable assumptions and verify them, and know that there are many possibilities for things to happen, so as to make their thinking more flexible and complex. Similarly, because children's thinking has matured through the first three stages in this stage, Professor Piaget also does not recommend the use of game teaching method in this stage.

Through the above investigation, the author finds that Piaget believes that the most suitable teaching stage for game teaching method is the pre operation stage of children (2-7 years old), At this stage, game teaching can perfectly help children establish their initial spiral thinking ability and help students break through their limitations at this age (Chen & Yang 2005), Through many years of research, Professor Piaget has determined the scope of timely teaching for the more general teaching method of "game teaching", and determined a clear direction for the development of game teaching method.

In addition to Professor Piaget, another scholar who contributed to the development of game teaching method in this storm is Lev Vygotsky, a famous psychologist of the former Soviet Union and known as "Mozart in the field of psychology", As an expert who mainly studies children's development and educational psychology, Vygotsky's cultural history theory has made outstanding contributions not only to the former Soviet Union, but also to the development of children's educational psychology in the world (Wang, 2017). As a famous psychologist at the same time as Professor Piaget,

Vygotsky's theory tends to emphasize the influence of culture and society on children's cognitive development (Zeng, 2014). However, due to the strong Western cultural thinking in his theory, the thinking was suppressed by the Soviet government from 1934 to 1956 after his death. It was not until the 1960s that Vygotsky's theory was gradually accepted by the Soviet government under the influence of the internationalization of world education, which is one of the reasons why the author put Vygotsky's theory in the third stage of the development of game teaching.

Vygotsky focuses on the impact of game teaching on children's development in the "zone of proximal development" chapter of social and cultural theory. The theory of "zone of proximal development" is an important part of Vygotsky's social and cultural learning theory (Sang, 2015). Vygotsky believes that the potential of children's cognitive development is limited by the "zone of proximal development" (ZPD). The so-called "zone of proximal development" is defined by Vygotsky as "the gap between the actual level of development and the potential level of development". "The former is determined by children's ability to solve problems independently, while the latter refers to children's ability to solve problems under the guidance of teachers or in cooperation with peers with strong ability (Feng, 2015). According to Vygotsky, the interaction between peers and the favorable teaching mode of teachers in the classroom are very important for students' individual cognitive development and knowledge acquisition. According to the survey, Vygotsky divides students' problem-solving ability into three categories:

- 1) Students can do it independently.
- 2) Not even with help and children can do it with themselves.
- 3) Between these two extremes, it can be shown with the help of others.

Among them, due to the age limit, the proportion of children (3-6) who can complete category I independently is very small. Therefore, in this stage, the help of adults and teachers to children is particularly important and it can help them to make a good habit. In Vygotsky's investigation, it is found that an excellent form of classroom presentation is extremely important for the cultivation of children's independent thinking ability. In the literature survey of Vygotsky, it was found that an excellent form

of classroom presentation is extremely important for the cultivation of children's independent thinking ability. To this end, Vygotsky spent nearly two years investigating different classroom teaching forms, and finally found the excellent presentation form of game teaching in the classroom. The survey shows that the age of 3-6 is the golden age to cultivate children's independent thinking ability. A simple teaching game helps students absorb more knowledge in teaching than a stiff and boring grammar teaching (Wang, 2017). At the same time, compared with ordinary classroom indoctrination teaching, game teaching combines at least three senses of seeing, listening and touching, which can better stimulate children's potential development ability in the classroom. (Feng, 2015). Because of this, Vygotsky gave a high evaluation to the game teaching method after the investigation. He believed that "classroom games are the spear and shield to solve the problem between children's ability and desire in development, and help more children create the nearest development zone" (Hua, 2003). In addition, according to this survey, Vygotsky clearly pointed out the relationship between teaching and development, teaching promotes development, and excellent teaching models should go ahead of development, "good teaching goes ahead of development and guides it". Such comments also highly evaluate the game teaching method.

As one of the core concepts of social and cultural theory, the zone of proximal development not only clarifies the social origin of individual psychological development, highlights the role of teaching, and teaching should be ahead of development; It also highlights the dominant position of teachers and excellent teaching mode for them. Teachers are the promoters of students' psychological development; At the same time, the significance of peer influence and cooperative learning to children's psychological development is clarified; It inspires the dynamic evaluation of children's learning potential in education.

The above two outstanding educators have made outstanding contributions to the development of the third stage of the game teaching method. They have not only defined the most appropriate teaching scope of the game teaching method, but also affirmed the excellence of the game teaching method as a teaching model for teaching method. In addition, the study of two scholars has further helped to extract the essence of the game

teaching development, so that after nearly three hundred years of development, the game pedagogy has gradually become stable and mature. It has finally gained a foothold in the history of world education, and has become one of the excellent teaching modes in children's education. The ignorant seeds will eventually become a towering tree, and have a happy end for the forest named education.

### **2.3 Analysis on the Types of Preschool Classroom Teaching Games in China**

In recent years, with the vigorous promotion of "interesting classroom" and "academic burden reduction" activities in China, game teaching method has been more and more favored by teachers in classroom teaching, especially for preschool children.

In this section, through literature review, several types of classroom teaching games that have been most used in Chinese preschool children's classroom in recent years are summarized.

#### **Stage 1 Music Games**

Music games are sound games that use music activities to carry out classroom education for children and promote children's emotional development and improvement. In the process of teaching with music games, early childhood educators can make full use of the invisible line of "emotion" to let music stir children's heartstrings and make them edified by beauty, and resonate with them think, learn and make things by themselves. (Chen, 2013)

There are two main characteristics in the teaching of music games. The first is "visualization". The most remarkable feature of music games is that they can shape the image through in the sound. For example, in the activity of the music game elephant walking and rabbit jumping in the middle class, the teacher runs through it with music. Two pieces of music with different properties clearly show the characteristics of two animals: elephant and rabbit. First of all, the teacher guides the children to listen to the

music carefully. The music about the rabbit is cheerful and lively; The music about elephants is deep and slow. After listening, children will follow the music to imitate these vivid animal images that they hear with their ears and to copy action for this animal. These distinctive musical images created by beautiful sounds have become the premise and necessary conditions to stimulate children's interest in games (Chen, 2013)

In addition, when teachers use music games for teaching activities, the choice of teaching materials will also be directly related to children's interest in the activities with themselves. Therefore, when choosing music materials, teachers should fully consider the acceptability and acceptability of children, so as to give full play to the advantages of music teaching games and bring the best classroom teaching experience to children (Wu, 2015).

The second characteristic of music games is interest. This principle is mainly reflected in two aspects: first, the music game materials should be humorous, humorous and exaggerated. When carrying out music activities, pay attention to the combination of song, dance and music, integrating editing, performance and appreciation (Xia, 2014). The content of the activities is interesting and situational, so that children can have a lasting passion for music games, for example, in the music game "catch small fish", as soon as children hear this music, they can swing their bodies back and forth and do small fish swimming, this shows that children can show corresponding emotions according to the nature of music. And then, another teaching game named little mouse presents is a music game with lyrics. The teacher skillfully filled in the lyrics with the plot of mice giving gifts to their natural enemy, a cat, to make the game full of fun. The second for music game is the ups and downs and changes of game playing methods. In each game, teachers constantly add new stimuli and challenges to maintain children's moderate sense of excitement. For example, the game "giving gifts to little mice" regulates the rhythm of the game and the excitement of children by changing three playing methods. First of all, each child plays finger games alone to consolidate the lyrics and be familiar with the rules of grasping and escaping at the last sound of the song; Then, children play finger games in pairs, integrating the factors of human cooperation and communication. Because these two playing methods are carried out in chairs, teachers can well control



children's emotions and make them learn playing methods and rules easily and freely in a comfortable mental state; Finally, the third way for children to play is to add the interaction between teachers and children and the plot of chasing and escaping within a certain space to make children fully move. Moving is a good way for children to feel music. The purpose of action is to let children listen and express, so that children can get better development in the game teaching.

## Stage 2 Sports Teaching Games

Such classroom teaching games have the following characteristics:

### 1) Timely

Adapt children's games based on some animation themes played by the current media to make children actively participate. For example, when teaching the new words "wolf" and "sheep", the teacher can play the cartoon "pleasant goat and grey wolf", so that children can imitate the plot inside and play a little game of wolf catching sheep, so that children can deepen their understanding and memory of these two words while understanding the habits of wolves and sheep. (Li & Xia 2012)

### 2) Scientific

Fully considering the characteristics of children's age, development needs and the characteristics of children's sports activities, children's sports games should be formed on this basis.

### 3) Interesting

Each sports activity name is a vivid childlike game name; Each sports activity process has novel guidance, scene creation, material attraction and interesting links in line with age characteristics and sports characteristics.

### 4) Innovation

Verifiable development goals, exploratory question design, expansive game playing methods, key experience, integrated physical development, diversified activity

forms, interactive on-site adjustment and reflection after activities, and other good habits.

### 5) Operability

It can embody the goal of "visible educational behavior", and aims to liberate teachers, share new research results and resources, so that teachers can use them, and new teachers can learn to apply them while learning and testing.

### Stage 3 Life Class Games

These games have the following characteristics:

Role play is a game in which children creatively reflect real life by playing roles with different life. Children love role games because their desire to actively participate in social life can be met to the greatest extent. Therefore, role games are typical games in early childhood with have a world like adult. (Chen, 2013). For example, in a classroom teaching, I learned that many children in my class are very interested in "cars", The child named Li is also a small car fan. He can tell the brand of the car as long as he sees the side of some familiar cars. Even when they play with toys and free activities, they like to play drivers and passengers. Therefore, I solicited the wishes of children and decided to carry out the role game of "Jiangmen bus terminal", which combines literacy. In the preparation stage before the game, we collected a large number of photos, toys, parts and books about the "car". At the same time, parents were also mobilized to take their children to visit the "Jiangmen bus terminal" to preliminarily understand the scale, scope, responsibilities and types of work of the station, take photos of their children and record their questions and conversations. Let the children have a preliminary understanding of "Jiangmen bus terminal". In the records of parents, we know that children prefer four models: bus, luxury bus, tourist minibus and sightseeing tricycle, so we chose these four models as the main "means of transportation" of the game. When making "vehicles", we first ask children to draw their ideal models and create their favorite shells in combination with reality about the car that they like it. Then it's time to choose to assign roles, There are usually multiple roles in a role game, so before the game, I asked the children to choose "driver, conductor, Bajie police, bank clerk, waiter

and passengers of various identities". Which role a child chooses in the game directly affects his interest in the game he plays. Generally, children are allowed to sign up and choose by themselves, but teachers should also put forward reasonable suggestions according to the child's knowledge and experience, ability, communication with peers and personality characteristics. For example, if the child is particularly timid, he can be suggested to play the role of a brave man (father and police); If the child lacks leadership and organization ability, it can be suggested that he play the role of organization in the game, such as "mother" and "sister Ba"; If the child doesn't like to talk, he can be suggested as a "waiter" or "conductor". In this way, role assignment through personality can not only mobilize the enthusiasm of all students to participate in classroom teaching, but also maximize the interest of life teaching games, so that children can understand life knowledge through the "role play".

#### Stage 4 Constructive Teaching Games

The construction type here is not mind mapping, but refers to the type of game in which students learn knowledge by guiding students to carry out jigsaw puzzles and plug-in games. This kind of game tests children's practical ability, because children's ability is strong and weak, teachers also have different guidance methods. For children with weak ability, the main guidance is how to insert plastic, and the method is hand-in-hand teaching. First of all, let children master the splicing between snowflakes and snowflakes. It is a gear-to-gear splicing. (Zhu, 2019). First, start with a simple splicing, such as inserting a straight line first, and then extending to several: trains, pistols, swords, planes, warplanes, and other things. Insert a square, and then extend it into several: pagoda, square grid, train track, etc. Insert a circle and then extend it into several: sun, lollipop, glasses, or other things. For children with strong ability, it is mainly to let them add and change their works on the basis of reviewing the knowledge they have learned, so teacher can help to turn into another works for them. Sometimes teachers can also take children's new works as the teaching content of the next class (Zhou, 2017). The main purpose is to let children's development thinking with strong ability take names according to the shape of the works. By allowing children to participate in the game, teachers can find children's difficulties in time and give help and guidance in a timely

and appropriate manner. Teachers should affirm and praise children's creation, so that children can maintain a high interest in plastic insertion activities. Teachers should use interesting situations to stimulate children's interest in building activities, and add, change and prolong children's interest in the game according to the needs of the development of the game plot. Use multimedia to retain works, retain the game process, and effectively display and evaluate.

In the process of constructing the game, teachers can record children's works in the form of photos, paste them on the wall of the construction area, and write observation records and reflection in time. After constructing the game, the children's works can be put on the display platform and the teachers can make simple comments. This can not only be imitated by other children, but also give children who show their works a sense of achievement, so as to improve children's interest and love of learning.

The above review summarizes the four game types of children's classroom teaching in modern and contemporary China. Although there are many types of games, each game is interrelated and complementary. This requires teachers to choose games comprehensively and scientifically according to the nature and characteristics of each game, so as to achieve the best effect. Because the process of game teaching activities is a cognitive process of emotional participation, When teachers play games, caring for students and setting an example are the premise of tacit cooperation between teachers and students, It is also the source of success. In addition, the understanding of each student's personality is also conducive to teachers' choice of classroom teaching game. Therefore, teachers should also maintain the concept of combining diversification and prudence in the selection of classroom teaching games, and add more game factors suitable for localization in game design, so that our children can learn knowledge from happiness and truly take learning as their "interest", rather than talking about the seriousness and depth of color change. "Let children learn in happiness "is not just a slogan for ourselves. However, games vary in content complexity, so some games may be appropriate for certain groups of children and others may be not. For example, according to Ma (2021), game teaching method should be widely used in disaster nursing education as it is found effective.

## 2.4 Significance of Game teaching Method to Children's Teaching in China

The information derived from literature review about the significance of game-based learning and that game teaching method is of great significance to the development of children's teaching in China can be summarized to describe the significance of the approach as follows.

### Stage 1 Children's Psychological Guidance

Children aged 6-7 are in an important period of psychological transition between "self" and "Id", which is a key period of mutual struggle between the most primitive desire and inhibition. In this period, "game teaching method" has become one of the best teaching methods to guide students to vent their original "Id" through the game teaching method.

Moreover, due to different national conditions, in China, the ninety percent of the people born from the end of the 1970s to the 1990s were affected by the one-child policy at that time. As a result, except twins, most families in most areas have only one child, which leads to most parents doting the most love on the only one child in their family. In addition, some children lack the opportunity to communicate with their peers, resulting in children becoming delicate and irritable, and developing a selfish character. The emergence of game teaching method has become a good way to dredge children's "sense of isolation" and "sense of alienation" caused by this special policy, and let the only children integrate into their peers through the interesting classroom games, As a bridge for children's education and communication, teachers can also guide only children to change their personality problems caused by family environmental factors through games, and give them the greatest care and correct outlook on life guidance on the premise of ensuring children's mental health development. This is an optimal option that only game teaching method can achieve.

In addition, game teaching method also has unique advantages in enhancing



children's self-confidence. Children aged 6-7 have a low level of physical and psychological development. They leave their families and enter collective life. Their living environment has changed, they leave their families and enter kindergartens for collective life (Song, 2018). The living environment has changed. They have to learn to take care of themselves and serve themselves in all aspects and feel a lot of discomfort. Therefore, children's lack of self-confidence and the emotion of believing that they have the ability to overcome difficulties and achieve success is also an important reason. Children with self-confidence can feel their own value, have a positive desire for activities, dare to explore boldly, are willing to communicate with people around, and this think can often maintain a happy mood with themselves. Self-confidence is of great significance for children's healthy growth and the development of various abilities. Classroom games can just meet the characteristics of children's hyperactivity and poor self-control. In the game, children can not only change their actions and postures freely, but also repeat the actions they are interested in many times. Children can gain the ability to influence and control the environment in the game. When children complete certain topics and tasks included in the game activities, children will feel that they are capable people, so as to obtain the joy of success and establish their confidence.

## Stage 2 Children's Intellectual Development

In China, due to the different living standards in various regions, the teaching level of children is also at an uneven stage. However, even under this educational background, children in different regions have the same desire for "play game". Children's understanding of things is generally in the intuitive plane, is the perceptual stage, and playing is their nature, their attention level is not high, but sometimes they have a deep memory of some games. Many of children's natures fade away automatically with their growth, so we should protect this nature and let children have a happy and unforgettable childhood. The researcher of China think the Early childhood is also a stage of intellectual development of child thinking world. For the rich and colorful teaching methods and teaching means, whether children's areas in developed or underdeveloped areas, they all have a desire and love for games. The growth of children not only needs the natural development of physiology, but also needs the development of intelligence.

In order to make children happy in teaching, we need to let them know the outside world, so as to embody the principle of teaching in fun and people-oriented. At this time, the role of game teaching method is particularly important. "Game", as the object of children's own desire, can provide three functions in intellectual development. First, the accumulation of cognition. Children obtain the response to life through game activities, and then accumulate the understanding of the child's life. (Bao, 2018) For example, children's literal concepts of climbing and climbing are vague and difficult to understand. If these children are allowed to play in the climbing game, through personal experience, children will have a deeper understanding of these concepts and a deeper understanding of the shape and purpose of things. The second thing is the development language for child. In order to achieve some goals in the game, young children will automatically chat with other children. At first, they may not speak fluently and clearly, but they have more contact. They can not only spread the meaning, but also share the thoughts of other peers. (Bao, 2018). So, in addition, their expression ability will be further improved before they played with the teaching games. The third is to develop child imagination. Children have a curious and imaginative heart. Teaching games can give them free imagination, help their thoughts not controlled by reality, not bound, and use them flexibly, and finally apply what they have learned to new things. This is also one of the reasons why game teaching method has been vigorously promoted in China with these recent years.

### Stage 3 Children's Imagination Training

From the perspective of game teaching, imagination itself is the presentation of a creative spirit. From the perspective of game teaching, imagination itself is the presentation of a creative spirit. In the process of play, children will continue to produce autonomous behavior according to the needs of play. This process is a choice that children understand, judge and think according to the environment and conditions, and finally make. Therefore, it is the direct presentation of children's creative behavior. In the process of creative behavior, children can get rid of the traditional utilitarian and purposeful traditional classroom teaching and promote learning to a higher degree of self-growth with themselves, in this process of improvement, children's own

imagination and creativity are also constantly improved. Game teaching permeates all kinds of favorable factors for children's growth. (Song, 2018) Whether it is mutual cooperation and joint discussion between children, or children's independent thinking and making choices, this is the performance that children's subject status has been brought into full play in the classroom, and promotes the continuous development of children's thinking ability, imagination and creativity.

#### Stage 4 Development and Cultivation of Children's Learning Ability

Although China started relatively late in the direction of developing children's learning ability by using teaching games, due to China's research spirit of "learning and refinement", this late research direction has gradually caught up with and even exceeded the research trend of western countries in recent years (Song, 2018). Chinese teaching researchers use children's curiosity, game mentality, competition mentality and competitive mentality at this stage to design rich and colorful games conducive to intellectual development, provide them with fun, and guide children to learn to think, recognize things and train good learning habits. These educational games designed based on Chinese educational forms can not only help children carry out preliminary intellectual development during the transition from "Id" to "self", but also enable researchers to form the following special game teaching strategies in guiding children to carry out teaching games.

For children with different age characteristics, different methods should be used to guide the game. For example, for middle and large classes of children, teachers can guide children's games as participants, questioners, listeners and problem-solving helpers. During this period, there is no unique identity, only the guardians and participants of the children's game (Zhu, 2019) For example, in the middle class, most of the children are 3-4-year-old children. Although they are eager to play, they do not want to follow the "rules" in the game. In their view, the so-called rules are the "culprit" that restricts them from playing games without worry. At this time, teachers can act as both participants and helpers. While guiding children to play, they can teach them the importance of "abiding by the rules" and at the same time to shape their thinking about

teaching games.

The educational significance of games is mainly to experience and understand through "interaction". Interaction includes both "interaction" and "activities". So with the Chinese researcher's opinion, only interaction can be vivid with child's active. As the makers of game rules, teachers should guide children to establish the awareness of active participation rather than passive participation. Stimulate children's initiative to the greatest extent, improve their participation in children's activities, and avoid the phenomenon of children's passive participation and passive coping, To achieve the goal of "my game is my decision", while reflecting the value of game participants, it also allows children to improve their subjective initiative in learning in the process of game through interaction.

"Game" and "Knowledge" go around hand in hand. The knowledge of the game is mainly stimulated and guided by "freshness", The combination of knowledge and play is the difficulty of children's game education. (Song, 2018) Children's games can only be "fresh" to ensure "quality", "Freshness" is not necessarily reflected in the novelty of the game, but to make each game have new content and new form, produce new value, and let children have new knowledge and new harvest in each activity. This is different from the understanding of some western countries that the game teaching method is "more playful than knowledge". Chinese scholars have made the game teaching method more suitable for China's educational form through the introduction and localization of knowledge.

Cultivating children's observation ability and discovery ability is more important than cultivating children's innovative spirit. At this stage, we should pay special attention to cultivating children's discovery instinct and cultivate the interest of being diligent and willing to discover about themselves. (Liu, 2018). Through purposeful imitation and regular imitation of games, children can experience the different characteristics of various games, experience the different pleasures of the same game, stimulate children's awareness of active discovery and exploration, and children's creativity will be gradually excavated with the courage for themselves.

To sum up, Game Teaching Method not only innovates the traditional mode of Chinese children's teaching, but also gradually makes China's children's education move towards the real direction of "teaching in fun".

## 2.5 Review of Related Research

A large number of researchers have carried out similar teaching research in different subject areas and obtained similar research results. From the perspective of teaching games, through the collation and analysis of the literature on Teaching Games in the past, several studies on game teaching method and learning can be identified.

Wang (2010) conducted a classroom teaching experiment called "game teaching and children's art intelligence development". By introducing game teaching into art class, 30 5-year-old students were taught in art class for one month. After a month of teaching, he found that by introducing game teaching, children can imagine and conceive pictures more clearly in art classes, especially in plot games. Because of this need for props, children in the class can associate pictures through props, and will have the clearer ideas.

Shen (2012), through integrating paper-cut games into art classes, found that: The students who teach on their own have not only improved their practical ability, but also their perception of various colors is higher than that of other children. It can be seen that the teaching mode of integrating games into the classroom is not only applicable to relatively serious teaching subjects, but also can be used for teaching subjects with relatively relaxed overall classroom atmosphere, so that students can improve their aesthetic judgment.

Zhu (2013) found the reason why game teaching is superior to ordinary Chinese teaching to a certain extent by observing and comparing the results of ordinary Chinese teaching and game Chinese teaching. Through the classroom teaching observation and language performance comparison of 15 teachers, he found that game teaching is superior to ordinary Chinese teaching mode in terms of children's language because it has flexible teaching games and more choices of teaching modes.



Based on the analysis of the data, Xue (2014) predicted that teaching games are suitable for Chinese children's language education. It was found that there was a general positive attitude towards the use of game teaching method in Chinese teaching in Liaoning Province of China.

Cao (2015) by introducing the game into the screenplay, found that: In the process of the game, students will increase and assign their own roles in order to make the game process more reasonable. In this process, some students will get rid of seeking teachers' help, and communicate with other students in the game process to find solutions to problems. By doing so, students not only experienced the fun of acting and playing in the process of script performance, but also exercised their communication and judgment abilities.

Chang (2016) conducted a classroom teaching experiment called "Science Game" in the kindergarten where he worked. In the experiment, Chang divided his two classes into experimental groups, One group used common teaching methods when conducting science courses (only stating the scientific knowledge in the textbook); The other group introduced interesting classroom games in the teaching process (for example, when talking about the refraction of soap bubbles, they prepared a classroom game of Bubble Solitaire to show students more intuitively the refraction of bubbles to light sources) After a half month of teaching experiment, Chang clearly found that: Students who have used the game teaching to conduct scientific experiments have a more detailed understanding and understanding of the scientific knowledge they have taught compared with another group of students, At the same time, the desire for scientific knowledge is also stronger than that of the other group of students, which further confirms the suitability of game teaching in curriculum teaching, especially in science curriculums.

Zheng (2016) conducted a teaching experiment called "the impact of game teaching on children's Chinese intellectual development", After a month of game teaching for 60 large class children aged 6, her found that: Compared with the more rigid and serious ordinary Chinese teaching, game teaching can make children who are in the early stage of Chinese learning more interested in language learning, Among the

children she taught, more than 80% of them have greatly improved their Chinese ability after using game teaching for a month.

Zhang (2017) spent a month in the Ji'an Experimental School in Jiangxi Province, where he worked, to conduct an experiment called "Children's Autonomous Play in Classroom". In the course of the experiment, Zhang only provided students with a thought of "the possibility of the game process". The specific process of the game was discussed and tried out by students themselves. During the experiment, Zhang found that students' execution and discussion of the game process were far beyond their imagination. For example; One group of students adapted the game of "Eagles catching chickens" into the form of eagles grabbing eggs. Five chickens formed a team to fight Eagles grabbing to protect eggs. This teaching form not only gives students the opportunity to participate in teaching, but also exercises their thinking. At the same time, it also expresses the important role that teaching games can play in children's teaching in a disguised form, that is, the difficulty of teaching is low, and teachers and students can participate in the production together.

Yang (2018) made a detailed analysis of the research status of game teaching method in China and other countries from the perspective of English teaching by using the combination of literature analysis. (abroad) and field research (English classroom teaching methods in four schools in Hunan) Through field investigation, he found that the original intention of domestic schools to use game teaching for language teaching is to find a relatively fast way of language learning, The view of foreign countries on game teaching is more inclined to the cultivation of grammar and language sense.

Kang (2018) conducted a controlled teaching experiment called "mixed age education and mixed teaching" in the school where she works. The so-called "mixed age education" refers to the teaching of children of different ages (such as children aged 3-4 and 5-6) in one classroom (mainly for free activities), There are 30 students in each group, including two groups. One group of students did not intervene, but carried out free activities as usual, while the other group of students arranged game teaching activities. After half a month of comparative teaching, Kang clearly found that the mixed

age experimental group using game teaching was significantly better than the other group in terms of arrangement of game activities and communication between each student. The other group of students, due to their age, basically did not communicate with children of different ages during the free activity teaching for half a month. This also shows the advantages of game teaching in mixed age education from the side, that is, it can enable children of different ages to quickly generate common topics through games, so as to exercise students' language and communication skills.

Gao (2019) discussed the possible impact of different types of teaching games on children's different learning subjects from the perspective of teaching game design, and most of this impact is two-ways. For example, textbook drama can better exercise children's language and communication skills, but if it is used in mathematics classroom, it may make the play more than the teaching, and make the teaching effect less than expected; The number answering game can strengthen children's sensitivity to numbers while exercising their thinking ability. It is a better teaching game in mathematics class, but it is difficult to use it in language class. Therefore, this also requires teachers to do enough work in the selection of teaching games, and do not let the teaching games get half the result with twice the effort.

Gao (2019), from the perspective of classroom teaching game development, elaborated on the history of classroom teaching games in China, and from the teaching dimension of each teaching game, discussed the advantages of teaching games on children's language, thinking and action ability development, such as the exercise of children's imagination and thinking by jigsaw puzzle, and the exercise of children's communication and behavior judgment by textbook drama, It further demonstrates the feasibility and importance of classroom teaching games.

Xing (2019) took role-playing teaching games as the research direction, from four different perspectives of behavior, thinking, ability and language training, as a teaching branch of game teaching, role playing has an impact on students in these four aspects, as well as the teaching advantages compared with ordinary classroom teaching in China. Through Xing's investigation, we found that, in the aspect of students' behavior

development, due to the diversity of roles, role playing can better help the players (i.e. students) to correct their own behavior errors by comparing their own behavior with their own behavior; In terms of thinking and action ability, compared with the single classroom environment of ordinary classroom teaching, role playing can also be performed through different scripts, allowing students to get different degrees of exercise in different environments.

Wu (2020) conducted an investigation on "Chinese folk games and classroom teaching". Through investigation, Wu found that China has integrated its own folk games (such as the most classic idioms to exercise language and judgment, "Solitaire", "Eagle Catching Chicken", etc.) Due to the advantages of localization, it has better integration than other teaching games, and is also one of the types of classroom teaching games that students can easily understand and accept.

Fu (2021) conducted an observation experiment on "autonomous play and language training" in his kindergarten. In the experiment, Fu allowed the students in two classes to organize classroom games independently under the condition that he only provided the idea of games. After passing the half month observation experiment, Fu found that the children in the two classes had significantly improved in language communication, communication and cooperation, and logical thinking. It can be seen that children's language and thinking ability can be improved by allowing them to plan their own classroom games.

Nihongli (2021) conducted an experiment on "video games and children's language" in the kindergarten where she worked. In the process, Nihongli released a number of self-made simple children's pronunciation games through the classroom multimedia network platform. During the production process, the students in their own classes also participated in the game and assisted in the phonetic collocation, picture selection and other aspects of the game. During the production process, Ni found that because online video games are very interesting and interactive, it also improves the enthusiasm of students in the class for Chinese learning from the side, which not only improves the classroom efficiency, but also enables students to have a higher

understanding of Chinese learning. It can be seen that the combination of game teaching and today's network technology can also be a great spark to improve Chinese ability.

Khamouja (2023) conducted a study entitled "The Importance of Role-playing Activities in Developing Students' Speaking Competence on 30 Grade 9 students' ability to communicate in the target language, which in this case was English. The findings revealed that role-playing helped to enlarge their imagination, learn different vocabulary and develop their communicative competence.

Through the above review of teaching research, we can find that:

There is no obvious disciplinary boundary in the study of language. Although most of the above research on game teaching occurs in subjects other than Chinese language teaching, the ultimate purpose of the research is to give advice on how to use game teaching to improve students' Chinese level.

The research on game teaching is also adding new content with the change of the times. From the beginning of ordinary classroom teaching in 2017 to the research on "online video games" in 2021, although the subjects of teaching are different, the research on game teaching has also been making continuous progress.

The comparative teaching experiment and observation teaching are very consistent with the relevant research of deep digging game teaching. Only by entering the classroom to practice, to ask, to record, can we better tap the charm of game teaching.

Through the above three points, we can find that the research on game teaching has always been a treasure, and there are many new research waiting for us to discover and explore.



## **Chapter 3**

### **Research Methodology**

This chapter focuses on the research methods for the study and how the research is planned to be carried out. The chapter mainly introduces the research design, research site, population and sample, research instruments, data collection and analysis as well ethical consideration of the study.

#### **3.1 Research Design**

This study will adopt both quantitative and qualitative research methods. This means that two types of data will be collected: quantitative data will be collected through questionnaires, while the qualitative research will be collected through the interviews. Descriptive statistics will be used for quantitative data analysis and content data analysis will be used for the analysis of textual interview scripts.

The following table shows how the study will be conducted. Starting with each objective, the details show what instrument will be used to achieve each objective.

#### **3.2 The Research Site**

The research site is four kindergartens in Shihezi City, Xinjiang, all four kindergartens are located in Shihezi city. The subjects of the experiment are 50 Chinese teachers in four kindergartens.

Shihezi, Xinjiang, is located in northwest China. Compared with Beijing, Shanghai and other major cities, Shihezi, Xinjiang, is relatively deficient in educational resources and relatively late in the inflow of concepts related to game teaching. However, in recent years, as the educational exchanges with Beijing, Shanghai and other large and medium-

sized cities have gradually entered the right track, the research on game teaching has also gradually entered the stage of rapid development. The four kindergartens surveyed by the researchers are the best ones in Shihezi, Xinjiang. These schools are trying to promote the game teaching method.

The reasons for choosing these four kindergarten schools are mainly from the aspects of comprehensive strength and artistry. First of all, these four kindergartens are all located in Beicheng District, which has the richest educational resources in Shihezi, Xinjiang, and have full guarantee in terms of educational resources.

Secondly, in the selection of kindergarten schools, Shihezi Experimental Kindergarten was established in the 1990s, and has gone through more than 30 years. As one of the earliest pre-school education institutions in Xinjiang, experimental kindergartens have always adhered to the pace of development and innovation, and are now also the leaders in vigorously promoting game-based language teaching in Xinjiang.

Founded around 2000, Shihezi Beilei Kindergarten is an inclusive kindergarten focusing on cultivating children's artistic ability. The overall teaching atmosphere is more relaxed than the other three kindergarten schools.

Both Blue Sky Kindergarten and Central Kindergarten are inclusive kindergartens newly built in Shihezi City in recent years. Although the establishment time is relatively short, the proportion of teachers and comprehensive facilities is also excellent.

The above kindergarten schools integrate game teaching into children's art and language training, flexibly use game props, curriculum adaptation and other methods, and transform the slightly dull art and language learning into various forms of game teaching such as musicals, text plays, and outdoor activities so that children can experience the charm of art and language in play, thus further improving children's interest in art and language. "Interest is the best teacher for children". The above kindergarten schools taking this as their purpose, are making continuous efforts in the implementation of game teaching.

### 3.3 Population and Sample

Since this research topic is Chinese teaching for Chinese children based on game teaching method, the main target group of this research was Chinese teaching teachers with Chinese children.

Therefore, after comprehensive consideration, the survey site is again narrowed down to 4 kindergartens in Beicheng District. The reason for reducing the selection scope to four kindergartens in the northern urban area of Shihezi City, Xinjiang is based on the following two points: first, the proportion of excellent educational resources. The northern urban area of Shihezi City, Xinjiang, as the old urban area of Shihezi City, has been in a relatively advantageous position in terms of educational resources. Secondly, compared with other areas in Shihezi, Xinjiang, the five kindergarten schools in the northern urban area of Shihezi, Xinjiang, have a strong atmosphere for children's Chinese game teaching, which is conducive to the investigation and research.

After narrowing the scope, four kindergarten schools in Beicheng District were investigated and inquired before the visit, among them, the first kindergarten having 20 Chinese language teachers, The second Kindergarten, the Third Kindergarten, the fourth kindergarten having 10 Chinese language teachers.

Therefore, after a series of investigations, the final survey location was determined to be four kindergartens in the northern urban area of Shihezi, Xinjiang. The survey targeted 50 Chinese teachers from 4 kindergarten schools which matched the criteria of school and teacher selection.

### 3.4 The Research Process

The following table shows the steps taken in doing research.

Table 3.1 The Steps in the Study

<b>Actions</b>	<b>Details</b>
1. Determine the study site	The research sites were selected according to the research content.
2.Determining the research participants	From four kindergartens, a total of 50 Chinese language teachers were randomly selected.
3.Concluding confidentiality agreement	Confidentiality of the investigation process was carried out as required. --Validation of the instruments --Pilot Test of the questionnaire --Ethics Approval Protocol
4.Questionnaire survey and in-depth interview	The questionnaire survey was conducted. According to the results of the questionnaire, 12 teachers were purposively selected for in-depth interviews
5. Data sorting and analysis	Both the quantitative data and the qualitative data were analyzed with descriptive statistics and content analysis.

### 3.5 The Research Instruments

Two research instruments were adopted for the study. Details of the instruments are as follows:

#### 3.5.1 The Questionnaire

The questionnaire survey method is a research method that designs the contents of the survey into a standard and unified questionnaire, and collects the relevant data of the research object by the respondents answering the questionnaire (Lu, 1993). It belongs to one of the research methods of qualitative research. Compared with other research methods, the purpose of the questionnaire survey is strong, the degree of standardization is high, and the data collection is also truer and more effective.

The questionnaire respondents were 50 Chinese language teaching teachers in Shihezi City, Xinjiang. The contents of the survey were mainly composed of four aspects: Teachers' understanding and views on game teaching, their attitude towards using game teaching for language teaching in different directions, and their choice of game teaching methods.

The questionnaire was divided into four parts. The first part for Personal Particulars gathered data about age of the 50 teachers, their familiarity with game teaching, and their overall attitude towards game teaching. The second part investigated the frequency of teachers using games to teach Chinese. The third part investigated the teachers' attitude in the use of game teaching. The fourth part was an open question and answer about game teaching. In terms of the construction of the questionnaire and the selection of questions for in-depth interviews, Sun Yan, the deputy head of Shihezi Experimental Kindergarten, gave me a lot of good comments and suggestions.

The questionnaire employed the Likert scale rating: each item rated at five levels showing the level of agreement from the most to the least.

5 means "Strongly agree", 4 means "agree", 3 means "Average", 2 means "Disagree", 1 means "Strongly disagree".

The following table shows the interpretation of the Likert Scale scores.

Table 3.2 Interpretation of Likert Scale Scores

"Strongly disagree"	1
"Disagree"	2
"Average"	3
"Agree"	4
"Strongly Agree"	5

Source: Brown, 2010

The structure of the questionnaire would be briefly introduced in the table below.



Table 3.3 Distribution of Survey Questionnaire Construction

Item 1-6 Basic Information	Questionnaire Part 1
Item 6-33 Integration of Game Teaching	Questionnaire Part 2
Item 34-58 Teacher's Attitude towards Game Teaching	Questionnaire Part 3
Item 59 Open-ended Question	Questionnaire Part 4

The first part of the questionnaire (items 1-6) is the basic information of the Chinese language teaching teachers who participated in the questionnaire survey. The second and the third parts of the questionnaire (items 6-59) were the main parts of this survey, mainly used to collect project data for the research objectives.

Table3.4 The Questionnaire (Cont.)

PART 1: PERSONAL PARTICULARS					
1. Gender	<input type="checkbox"/> Male <input type="checkbox"/> Female				
2, Age	<input type="checkbox"/> 20-30 <input type="checkbox"/> 31-40 <input type="checkbox"/> 41-50 <input type="checkbox"/> 51-60 <input type="checkbox"/> Over 60				
3.Years of teaching experience in Chinese Language teaching					
<input type="checkbox"/> 1-3 years <input type="checkbox"/> 4-6 years <input type="checkbox"/> 6-10 years <input type="checkbox"/> Over 10 years					
4.Years of teaching experience using Game-based teaching					
<input type="checkbox"/> 1-3 years <input type="checkbox"/> 4-6 years <input type="checkbox"/> 6-10 years <input type="checkbox"/> Over 10 years					
5.How often do you use game-based teaching?					
<input type="checkbox"/> In every lesson <input type="checkbox"/> Once a week <input type="checkbox"/> More than 5 times per course <input type="checkbox"/> More than 10 time per course					
PART 2: HOW DO YOU USE AND INTEGRATE GAME TEACHING METHOD INTO THE LESSONS?					
STATEMENT	5	4	3	2	1

Table3.4 The Questionnaire (Cont.)

1. I use game teaching method at the beginning to do ice-breaking.					
2. I use game teaching method to get students to practice pronunciation.					
3. I use game teaching method to design my lessons when I get students to do group activities.					
4. I use game teaching method when there is some time left after I finish teaching.					
5. I use game teaching method when I get my students to practice and learn vocabulary.					
6. I use game teaching method to teach listening.					
7. I use game teaching method to teach reading.					
8. I like to use digital games in my teaching.					
9. I like to use board games.in my teaching.					
10. I like to use group competition games for spelling.					
11. I like the idea of rewarding the winner or the winning team with some gifts.					
12. I make sure that I use only one game in a lesson.					
13. I use more than one game in a lesson.					
14. I have some criteria for selecting games for the lessons.					
15. I choose games that are enjoyable and fun activities.					
16. I rarely assess student learning based on the games that students participate in.					
17. I assess student learning based on the games that students participate in rather than use the scores from the quizzes or final exams.					
18. Participating in the games increase student engagement when they can get points and other incentives.					
19. I use a lot of video games to support my teaching.					

Table3.4 The Questionnaire (Cont.)

20. I often use card games in my teaching.					
21. I prefer to use real-life games/scenarios based on realities.					
22. I do not design games for my students myself. I use the commercial ones.					
23. I do not use digital games when the classroom is with limited device use.					
24. I often organize team games, in pairs and in groups in my class.					
25. I assess the success of a game by getting my students to do their self-report.					
26. I assess the success of a game by getting my students to discuss what they have learned.					
27. My students can always tell me about the problems they have after playing the games.					
28. I use games that promote 21st century skills such as communication and time management.					
<b>PART 3: THE TEACHER'S ATTITUDES TOWARDS GAME-BASED TEACHING</b>					
29. Game teaching method is easy to use.					
30. Game teaching method is time-consuming.					
31. Game teaching method needs thorough preparation of the lessons.					
32. The teachers need assistants if they wish to use Game-based Teaching.					
33. The teacher must be trained to be able to design lessons with Game-based Teaching.					
34. Game teaching method can be used with the learning content that is not serious.					
35. Game teaching method can improve children's knowledge retention rate of the Chinese language.					
36. Game teaching method improves the children's ability to work in teams.					
37. Game teaching method can stimulate children's interest in Chinese listening					

Table3.4 The Questionnaire (Cont.)

38. Game teaching method can stimulate children's interest in Chinese reading					
39. Game teaching method can better stimulate children's Chinese vocabulary.					
40. Game teaching method cannot improve children's Chinese reading ability.					
41. Game teaching method is suitable for young learners.					
42. Game teaching method does not produce clear learning outcomes.					
43. Game teaching method should be used from time to time to create fun class atmosphere					
44. If I can choose what teaching method to use, I will definitely use Game-based teaching.					
45. I preferred a more serious style of teaching like the traditional method.					
46. Using game-based learning indicates the teacher is adopting active learning.					
47. Online games allow students to understand the functions of the computers.					
48. The games used must be carefully designed to align with learning.					
49. I do not use game-based learning often because parents normally are against it.					
50. I believe that game-based learning can improve students' creativity.					
51. I believe that game-based learning can improve students' problem-solving skill.					
52. I take game-based learning to mean anything even a small task that requires competition.					
53. For game-based learning to be successfully launched, parents must understand what it is and how it can develop the young learners.					
PART 4: OPEN-ENDED QUESTION					
54. Please add any points you wish to make					

Some of the research questions are inspired by:

Ruhan (2015) Pre-service Teachers' Perceptions on Game-based Learning Scenarios in Primary Reading and Writing Instruction Courses. [J]. Educational Sciences: Theory & Practice. ISSN 1303-0485:186-200.

### 3.5.2 In-Depth Semi-Structured Interview

In-depth semi-structured interview is a commonly used data collection method in qualitative research. It refers to a face-to-face conversation between visitors and interviewees in a separate and personal interactive way so as to achieve the purpose of exchanging opinions and building significance (Wu 2015). Through the process and content of the interview, we can explore and analyze the behavior motivation, beliefs, attitudes, views, etc. of the respondents, which is one of the comprehensive qualitative research methods.

This in-depth interview was conducted with 12 purposively selected Chinese teachers from 50 Chinese teachers who participated in the questionnaire, based on the results of the questionnaire. The main purpose of this in-depth interview was to deeply understand the teachers' understanding and views on game teaching.

#### Proposed In-depth Semi-Structured Interview Questions

- 1) Please tell me how you use game teaching method in your Chinese language courses?
- 2) Please explain how you integrate game teaching method into the lessons you prepare to deliver?
- 3) What is your opinion about game-based teaching? Is it a valuable teaching and learning approach for you?
- 4) Can you give some examples of the game teaching method activities you used?



- 5) How do you feel when you see what the students can do or cannot do?
- 6) What do you think about the task of designing game teaching method lessons?  
Is this easy to manage? What do you need to do to make it effective?
- 7) What kind of support do you need?
- 8) Have you ever observed game teaching method classes? What do you think?

### 3.6 Validity and Reliability

For the reliability and effectiveness of the questionnaire, IOC was adopted. IOC Index of Item Objective Congruence was developed by Rovinelli and Hambleton (1977). It is a procedure used in ensuring that the questionnaire items designed for the study were valid to the research objectives. Before the questionnaire was used to collect the data, three scholars in the field of children's education were invited to evaluate the content of the questionnaire. In other words, if the validity score of each questionnaire item was above 0.67, the item could be used. In this study, to ascertain the validity of the research instruments, the questionnaire and interview questions were sent to three content experts from Thai universities for Item Objective congruence (IOC). Each of them had to rate every item on the instruments according to a three-scale range of +1, 0 and -1 as they corresponded to their opinions towards content validity. Following Turner and Carlson (2003), the scale was interpreted as follows:

+1: If an item clearly measures a stated objective.

0: If the degree to which an item measures a stated objective is unclear.

-1: If an item does not clearly measure a stated objective.

After the evaluation of items by experts, the ratings were combined to give indexes of item-objective congruence. Each questionnaire item measured only one of the three objectives. Thus, a unidimensional item congruence index was adopted to check the

congruence between the content of a single questionnaire item and an objective it was intended to measure (Sukamolson and Sitti, 2019). The IOC was computed with the aid of a calculation program developed by Sukamolson and Sitti (2019).

In this study, the IOC for the whole questionnaire was 0.99 and that of the entire semi-structured interview questions was 0.99. The thumb rule for validity was that for an item to be considered acceptable, its IOC should be equal to or above and not less than 0.67; and for the entire instrument, it should be greater than 0.67 (Sukamolson and Sitti; 2019). Thus, with the IOC of 0.99 for the questionnaire and the semi-structured interview, the research instruments were considered valid.

### 3.6.2 Reliability

As for reliability check of the questionnaire, which was the step after the IOC, it was pilot-tested with a group of 30 teachers in other schools, who were not the samples in the study for a Cronbach alpha score of at least 0.7. By using SPSS to calculate the Pilot Test of questionnaire, the Cronbach's alpha value of the questionnaire was found to be 0.812. According to the data in Table 3.5, the survey questionnaire used in this experiment was considered valid and reliable.

Table 3.5 Rating Scale

Alpha Coefficient Range	Internal Consistency
$\geq 0.9$	Excellent
$\geq 0.8$	Good
$\geq 0.7$	Acceptable
$\geq 0.6$	Questionable
$\geq 0.5$	Poor
$\geq 0.5$	Unacceptable

Source: George & Mallery, 2003

### 3.7 Data Analysis

In this study, the actual data obtained from the questionnaire survey and in-depth interview were collected, calculated and analyzed by SPSS software for each viewpoint. Semi-structured interviewed data were content analysed into emerging themes (Zhao 2020).

Since this study employed two instruments, the questionnaire and the in-depth interview, two data analysis techniques were used.

1) The questionnaire data with quantitative data were analyzed by using descriptive statistics in percentage, average/mean and standard deviation. The SPSS computer program was used to analyze the questionnaire data.

2) The interview data were content analyzed into categories that of the same topics. Next, the categories were further grouped if they referred to the same concepts. Finally, the concepts were constantly compared and contrasted to derive at the most likely patterns until the central concept emerged. The details are as follows.

3) Interviewing is a technique to collect data in the form of a conversation, generally at an individual level. Communication is between the interviewer and the interviewee in a planned and purposeful way so as to collect useful information.

### **3.7.1 Coding and Categorizing Qualitative Data**

Coding and categorizing in qualitative data means clustering and classification schemes; linking categories to the concept and forming a theory (Maxwell & Miller, 2008). The three Cs' of data analysis are Codes, Categories and Concepts. The structure and steps of qualitative data analysis are presented below:

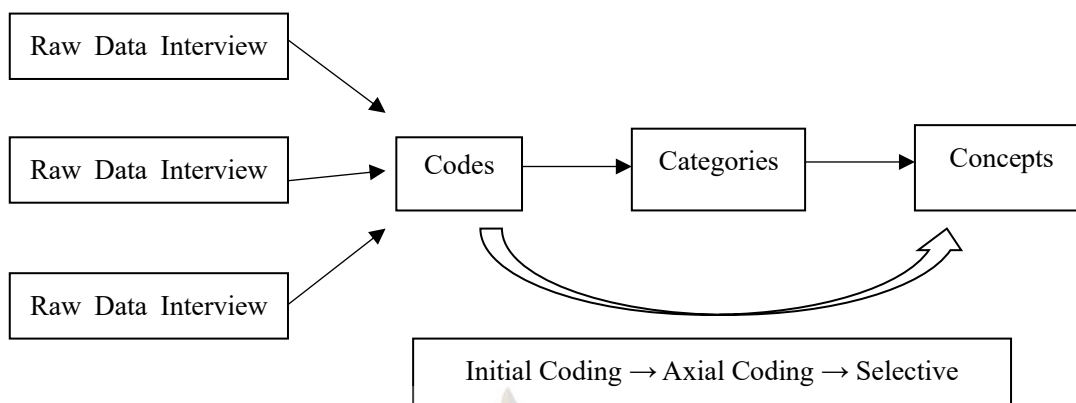


Figure 3.1: Structure of Qualitative Data Analysis

Source: Maxwell & Miller, 2013

#### Steps in qualitative data analysis

The qualitative data collected in this study went through the steps described below.

Step 1: An initial code is a word or short phrase that denotes a salient feature of visual data.

Step 2: This step comprises the development of a large number of codes. The redundant codes will be collapsed and codes will be renamed. After removing redundant codes, codes will be modified from raw data.

Step 3: After modifying codes, they will be organized into categories. It explains the major topic will be grouped and every important topic. So, there is a long list of categories and sub-categories with related codes.

Step 4: Initial list will be modified by combining two categories. So, the movement of coding initial data to category identification and from identified category to emerging concepts entail the analysis process.

Step 5: Categories and sub-categories will be revisited after removing redundancies and identifying critical elements.

Step 6: The final step of this process contains the identification of concepts in relation to identified codes and categories.

### **3.8 Ethical Considerations**

The researcher strictly observed ethics in conducting the study in all steps of data collection based on Creswell and Creswell (2018, pp. 88-98).

1) The researcher took the greatest care in protecting the students' privacy by not revealing their names and only using numbers to refer to them. All the information related to the students will be kept confidential with only the researcher knowing them in person.

2) Secondly, the researcher got approval from the Ethics Committee of Rangsit University that allowed the research to be carried out. The Certificate No. RSUERB2023-037 was obtained as evidence.

3) Then, the researcher got the school authority's approval before beginning the data collection process. Consent was also sought from the parents since the students were below the legal age.

4) The researcher promised to be very careful about unethical acts in data collection and data analysis.

#### **3.8.1 Prior to Conducting the Study**

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

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

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



4) The researcher submitted the research proposal with the intended instruments to the Ethics Research Board of Rangsit University for approval.

### **3.8.2 Beginning the Study**

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

2) The researcher made the appointment time for data collection as clearly as possible.

### **3.8.3 Collecting Data**

1) The researcher-built trust and showed respect for the participating teachers.

2) The researcher would not reveal any data that have been collected.

3) The researcher promised to be very careful in data collection and analysis.

### **3.8.4 Analyzing Data**

1) The researcher reported multiple perspectives.

2) The researcher reported report contrary findings.

### **3.8.5 Reporting, Sharing and Storing Data**

1) The researcher reported the findings honestly.

2) The researcher avoided being biased in reporting the findings.

3) The researcher gave credit to the references you used.

4) The researcher stores all the data at least for 5 years in a safe place.

Anonymity of participants and confidentiality of opinions During data collection, participants' information, opinions and behaviors will be kept confidential. While ensuring participants' confidentiality, the most authentic and effective research data are collected.



## Chapter 4

### Research Results

This chapter mainly introduces data analysis in order to answer both research objectives of the study. It presents the analysis of the data, both quantitative and qualitative. Finally, the questionnaire and interview data were analyzed and synthesized, describing the attitudes and opinions of fifty Chinese language teaching teachers for children in four schools in Shihezi City, Xinjiang, China towards using game teaching method for Chinese language teaching, as well as the attempts and efforts made to integrate game teaching method into children's Chinese language teaching.

#### 4.1 Quantitative Study Results

A descriptive statistical analysis was conducted on 50 questionnaires filled out by the 50 respondents. The data and analysis results are presented in detail.

Table 4.1 Questionnaire Part 1 Percentage of male and female participants

Gender	Number	Proportion (%)
Male	15	30%
Female	35	70%
Total	50	100%

According to the data analysis in Table 4.1, it can be seen that among the teachers participating in the study, female Chinese language teaching teachers were the majority, accounting for 70% of the total proportion.

Table 4.2 Questionnaire Part 1 Age Group Distribution of Teachers

Age group	Number	Proportion (%)
20-30	12	24.00%
30-40	28	56.00%
>40	10	20.00%
Total	50	100%

According to the age distribution analysis in Table 4.2, it can be seen that among the teachers participating in the questionnaire survey, the majority consisted of middle-aged teachers between 30 to 40, accounting for 56% of the total proportion.

Table 4.3 Distribution of Chinese Language Teaching Experience

Chinese Language Teaching Experience	Number	Proportion (%)
1-3 Years	16	32%
4-6 Years	24	48%
Over than 6 years	10	20%
Total	50	100%

According to the data analysis in Table 4.3, among the teachers who participated in the questionnaire survey, the teachers with 4-6 years of Chinese language teaching experience ranked first, reaching 48% of the total proportion.

Table 4.4 Distribution of Experience in Game Teaching

Game Teaching Experience	Number	Proportion (%)
1-3 years	16	32.00%
4-6 years	26	52.00%
>6 years	8	16.00%

According to the data analysis in Table 4.4, among the teachers participating in the survey, the teachers with 4-6 years of experience in game teaching was the majority, with 52% of the total proportion.

Table 4.5 below shows how often the teachers in the study used Game Teaching Method. The frequent use of Game Teaching Method can be an indicator for how positive the teachers are towards the use of the technique.

Table 4.5 Analysis of the Frequency of Game Teaching Usage

Frequency of Game Teaching Usage	Number	Proportion (%)
Once a week	5	10.00%
More than five times a week	17	34.00%
More than ten times a week	15	30.00%
Use every day	13	26.00%
Total	50	100%

According to the data analysis in Table 4.5, it can be seen that Chinese language teaching teachers in Shihezi City, Xinjiang, China used Game Teaching Method for Chinese language teaching. However, they used it at different frequencies. Among the teachers participating in the survey, 90% of them use classroom games more than five times a week on average to teach Chinese.

It is clear from the results that this group of teachers consisted of more female teachers than males, with over six years' experience of teaching Chinese using Game Teaching Method. Besides, almost all of them (90%) used this game teaching approach



from at least 5 years.

The following section reveals the data analysis of the second part of the questionnaire. The second part of the questionnaire mainly explores how Chinese language teaching teachers for children in Shihezi City, Xinjiang, China integrated game teaching into Chinese language teaching. There are 28 investigation questions in this part with the same number among each group. The specific analysis data is shown in Table 4.6.

Table 4.6 Questionnaire Part 2 How the Teachers Integrated Game Method Teaching in the Lessons (Items 34-58) (Cont.)

NO.	Question Item	$\bar{X}$	S.D.	Interpretation
6	I use game teaching method at the beginning to do ice-breaking.	4.00	1.10	Agree
7	I use game teaching method to get students to practice pronunciation.	4.18	1.08	Agree
8	I use game teaching method to design my lessons when I get students to do group activities.	4.24	1.13	Agree
9	I use game teaching method when there is some time left after I finish teaching.	4.60	0.67	Agree
10	I use game teaching method when I get my students to practice and learn vocabulary.	4.28	1.07	Agree
11	I use game teaching method to teach listening.	4.66	0.66	Agree
12	I use game teaching method to teach reading.	4.20	1.33	Agree
13	I like to use digital games in my teaching.	3.98	1.06	Average
14	I like to use board games in my teaching.	4.16	1.08	Agree
15	I like to use group competition games for spelling.	4.68	0.65	Agree
16	I like the idea of rewarding the winner or the winning team with some gifts.	4.20	1.13	Agree
17	I make sure that I use only one game in a lesson.	4.74	0.57	Agree
18	I use more than one game in a lesson.	2.48	1.69	Disagree
19	I have some criteria for selecting games for the lessons.	4.70	0.61	Agree

Table 4.6 Questionnaire Part 2 How the Teachers Integrated Game Method Teaching in the Lessons (Items 34-58) (Cont.)

NO.	Question Item	$\bar{X}$	S.D.	Interpretation
20	I choose games that are enjoyable and fun activities.	4.94	0.24	Agree
21	I rarely assess student learning based on the games that students participate in.	2.16	1.62	Disagree
22	I assess student learning based on the games that students participate in rather than use the scores from the quizzes or final exams.	4.86	0.45	Agree
23	Participating in the games increase student engagement when they can get points and other incentives.	4.76	0.52	Agree
24	I use a lot of video games to support my teaching.	2.32	1.73	Disagree
25	I often use card games in my teaching.	2.86	1.59	Disagree
26	I prefer to use real-life games/scenarios based on realities.	4.72	0.57	Agree
27	I do not design games for my students myself. I use the commercial ones.	2.48	1.71	Disagree
28	I do not use digital games when the classroom is with limited device use.	4.44	0.76	Agree
29	I often organize team games, in pairs and in groups in my class.	4.68	0.59	Agree
30	I assess the success of a game by getting my students to do their self-report.	4.72	0.61	Agree
31	I assess the success of a game by getting my students to discuss what they have learned.	4.88	0.39	Agree
32	My students can always tell me about the problems they have after playing the games.	4.44	0.82	Agree
33	I use games that promote 21 <sup>st</sup> century skills such as communication and time management.	4.92	0.27	Agree
	<b>Average</b>	<b>4.67</b>	<b>0.59</b>	<b>Agree</b>

From Table 4.6, the mean score of all the items in this part was 4.67 (S.D.= 0.59). This shows that the majority of the questionnaire respondents agreed with most of the items at the 'Agree' level. The five top items were *Item 20*: I choose games that are enjoyable and fun activities ( $X=4.94/S.D.=2.94$ ), *Item 33*: I use games that promote the

21<sup>st</sup> Century skills such as communication and time management ( $X=4.92/S.D.=0.27$ ), *Item 31*: I assess the success of a game by getting my students to discuss what they have learned ( $X=4.88/S.D.=0.39$ ), *Item 22*: I assess student learning based on the games that students participate in rather than use the scores for the quizzes/ or final exams ( $X=4.86/S.D.=0.45$ ) and *Item 23*: Participants in the games increase student engagement when they can get points and other incentives ( $X=4.76/S.D.=0.52$ ). In brief, the questionnaire respondents appeared to be careful about how to select the games for classroom use to enhance student engagement and use appropriate assessment techniques other than quizzes and exams.

As for the items that had the lowest mean scores, indicating “Disagree”. They were: *Item 21*: I rarely assess student learning based on the games that students participate in ( $X=2.16/S.D.=1.62$ ), *Item 24*: I use a lot of video games to support my teaching ( $X=2.32/S.D.=1.73$ ), *Item 18*: I use more than one game in a lesson ( $X=2.48/S.D.=1.69$ ), *Item 27*: I do not design games for my students myself. I use the commercial ones. ( $X=2.48/S.D.=1.71$ ), *Item 25*: I often use card games in my teaching ( $X=2.18/S.D.=1.59$ ). These five items show that the questionnaire respondents do not use only one type of games for their lessons or commercial ones.

In this part, one item was rated “Average”. That is *Item 13*: I like to use digital games in my teaching ( $X=3.98/S.D.=1.06$ ). It means the teachers do not always use digital games. They may use some other types of games too. In summary, according to the data analysis in Table 4.6, the following conclusions can be drawn.

The teachers looked at Game Teaching Method in a positive light, using games to develop the students’ English skills such as listening and reading. The majority of the teachers used games which they chose carefully for their lessons. It can be concluded that they like to use a variety of games, in particular real-life games that help student to develop their 21<sup>st</sup> century skills.

Next is the data analysis of the third part of the questionnaire. The third part of the questionnaire is to investigate the attitude of Chinese language teaching teachers for

children in Xinjiang, China towards about the Game Method Teaching. The specific data are shown in Table 4.7.

Table 4.7 Questionnaire Part 3 Attitude of the Teachers towards Game Method Teaching (Items 34-58) (Cont.)

NO.	Statement	$\bar{X}$	S.D.	Interpretation
34	Game teaching method is easy to use.	4.42	0.81	Agree
35	Game teaching method is time-consuming.	4.60	0.64	Agree
36	Game teaching method needs thorough preparation of the lessons.	4.96	0.20	Agree
37	The teachers need assistants if they wish to use Game-based Teaching.	4.62	0.73	Agree
38	The teacher must be trained to be able to design lessons with Game-based Teaching.	4.86	0.41	Agree
39	Game teaching method can be used with the learning content that is not serious.	4.77	0.50	Agree
40	Game teaching method can improve children's knowledge retention rate of the Chinese language.	4.62	0.73	Agree
41	Game teaching method improves the children's ability to work in teams.	4.98	0.14	Agree
42	Game teaching method can stimulate children's interest in Chinese listening	4.94	0.24	Agree
43	Game teaching method can stimulate children's interest in Chinese reading	4.60	0.99	Agree
44	Game teaching method can better stimulate children's Chinese vocabulary.	4.88	0.39	Agree
45	Game teaching method cannot improve children's Chinese reading ability.	1.24	0.96	Strongly disagree
46	Game teaching method is suitable for young learners.	4.94	0.24	Agree
47	Game teaching method does not produce clear learning outcomes.	1.60	1.29	Strongly disagree
48	Game teaching method should be used from time to time to create fun class atmosphere	4.76	0.55	Agree
49	If I can choose what teaching method to use, I will definitely use Game-based teaching.	4.70	0.54	Agree
50	I preferred a more serious style of teaching like the traditional method.	1.60	1.36	Strongly disagree

Table 4.7 Questionnaire Part 3 Attitude of the Teachers towards Game Method Teaching (Items 34-58) (Cont.)

NO.	Statement	$\bar{X}$	S.D.	Interpretation
51	Using game-based learning indicates the teacher is adopting active learning.	4.48	0.81	Agree
52	Online games allow students to understand the functions of the computers.	4.44	0.84	Agree
53	The games used must be carefully designed to align with learning.	5.00	0.00	Strongly agree
54	I do not use game-based learning often because parents normally are against it.	1.60	1.40	Strongly disagree
55	I believe that game-based learning can improve students' creativity.	4.98	0.14	Agree
56	I believe that game-based learning can improve students' problem-solving skill.	4.98	0.14	Agree
57	I take game-based learning to mean anything even a small task that requires competition.	4.64	0.66	Agree
58	For game-based learning to be successfully launched, parents must understand what it is and how it can develop the young learners.	4.90	0.30	Agree
	<b>Average</b>	<b>4.82</b>	<b>0.36</b>	<b>Agree</b>

According to the analysis of the data presented in Table 4.7, the total average score of the third part of the questionnaire ( $X=4.82/S.D.=0.36$ ) revealed that the teachers in the study held a positive and supportive attitude towards game teaching. The teachers also showed a full mean score of 5 ( $S.D. = 0.00$ ) for *Item 53*: The games used must be carefully designed to align with learning. This shows that they chose the games for their lessons carefully so student learning can be enhanced.

The five items with the highest mean scores consisted of *Item 41*: Game teaching method improves the children's ability to work in teams ( $X= 4.98/ S.D.=0.14$ ), *Item 55*: I believe that game-based learning can improve students' creativity ( $X= 4.98/ S.D.=0.14$ ) and *Item 56*: I believe that game-based learning can improve students' problem-solving skill ( $X= 4.98/ S.D.=0.14$ ) were ranked second by the teachers. These items revealed



that they believed that Game Teaching Method has great values in enhancing students' learning outcomes. Item 36: Game Teaching Method needs thorough preparation of the lessons ( $X = 4.96 / S.D. = 0.20$ ) showed that the teachers knew well-prepared lessons are significant. The last of the five, Item 46: Game teaching method is suitable for young learners ( $X = 4.94 / S.D. = 0.24$ ) clearly pointed out that young learners needed to learn through play. Although Item 58 came after Item 46, the message is clear: For game-based learning to be successfully launched, parents must understand what it is and how it can develop the young learners ( $X = 4.90 / S.D. = 0.30$ ).

When the items with the lowest mean scores were studied, five items need the researcher's attention, it was found that in the perception of the teachers, Item 45: Game teaching method cannot improve children's Chinese reading ability ( $X = 1.24 / S.D. = 0.96$ ). That is why they strongly disagreed on this item. Item 47: Game teaching method does not produce clear learning outcomes was also rated low by the group ( $X = 1.60 / S.D. = 1.29$ ). Item 50: I preferred a more serious style of teaching like the traditional method and Item 54: I do not use game-based learning often because parents normally are against it was ranked with a low mean score ( $X = 1.60 / S.D. = 1.36$ ) and ( $X = 1.60 / S.D. = 1.40$ ) respectively.

In addition, according to the survey results, teachers unanimously believe that excellent game teaching is closely related to a well-designed classroom game. At the same time, teachers are actively calling for promoting Game Teaching Method among parents.

Item 59 is an open-ended question. There were no responses from the questionnaire respondents.

## 4.2 Qualitative Study Results

The teacher interview method mainly adopted the form of interview records, combined with the author's questions and other forms, to conduct in-depth investigations and understand the teacher's attitude towards the game teaching method. This interview

ultimately provided inspiration for the future development of game teaching methods in Shihezi City, Xinjiang, China. Based on eight prompt questions and an observation list, while conducting a classroom observation record, eight Chinese language teaching teachers for children in Shihezi City, Xinjiang, China were interviewed.

#### **4.2.1 Observation Checklist Record and Results**

In order to make the survey more authentic and effective, an offline game classroom teaching observation record was conducted. The start time of this course is April 12<sup>th</sup>, 2023. There were one class teacher and one teaching assistant in this class. The observer of the current course was only the researcher. In order to protect the privacy of the lecturer and students, no camera was used throughout the entire process, and only written observation records were made.

In this classroom observation, the following aspects were mainly observed and recorded.

**Description of the Lesson:** This course was a painting game course. The intention was to cultivate students' imagination while exercising their color perception ability through the combination of different colors and graphics.

**Game in Use:** The course utilized a game format that combined painting and teamwork, allowing students to freely create paintings through teamwork and communication.

**Purpose with this class:** After communicating with the teacher, the purpose of this course are as follows:

- 1) Encourage students to express emotions and perceive emotions through painting and colors.
- 2) Enable students to learn communication and cooperation in teams.

3) Cultivate students' imagination.

4) Class Atmosphere: The classroom atmosphere of this course was relaxing and students had a high level of participation. Different group members presented with many different colored paintings.

5) General Evaluation: The overall course was excellent. The atmosphere was relaxing, and students had a high level of participation. During the process of team drawing, students basically did not need guidance from teachers and could communicate independently and effectively.

6) Students: 30 students participated in this course. They were divided into three groups in the course. In this class, the students displayed a rich imagination in the process of participation. Through different painting languages, they drew their own emotional expressions.

7) Teachers: In the conversation with the teacher after class, I knew that in order to better complete this course, the instructor of this course started preparing for the lesson three days earlier and also prepared various painting tools.

In summary, the researcher conducted a comprehensive observation of this offline course from 7 aspects, with the focus shown in Table 4.8.

Table 4.8 Observation Checklist

Lesson: Art game Let's draw together Date/Time: 4/12/2023	
Aspect	Observed Scenario/Keywords
Description of the Lesson	Painting expressed through colors
Game in Use	Painting teamwork game
Purpose	Teams perceiving emotions
Class Atmosphere	High level of participation
General Evaluation	Relaxed and happy
Students	Dark colors (boys) bright and warm colors(girls)
The Teacher	Preparation of lessons in advance Adequate props preparation

Based on the table above and 7-point observation record, it could be concluded that:

- 1) The game teaching method can effectively exercise students' sensory awareness. The exercise of sensory awareness is based on the teacher's selection of game content during the preparation process, the production of game props, and the construction of the game environment.
- 2) The game teaching method allows for relatively free selection of game forms. The teaching games used in the table belong to team games, and high comprehensiveness is the main feature of such games.
- 3) The game teaching method can effectively cultivate students' teamwork and aesthetic awareness.
- 4) Game teaching method can effectively activate the classroom atmosphere, allowing students to learn and consolidate knowledge in a joyful way.
- 5) The game teaching method can create a relatively easier teaching environment.

6) Game teaching methods can investigate the preferences of different groups of people towards things through games.

7) Game teaching is not an easy teaching method. In order to better present classroom effects, the teacher needs to learn more knowledge to enrich his/her knowledge reserves.

#### 4.2.2 Interview Study Results

The following section explains the number of codes, categories, and concepts collected during interviews with eight teachers.

Table 4.9 Number of Codes, Categories and Concepts

Interviewee	Number of Codes	Number of Categories	Number of Concepts
Teacher A	12	8	1
Teacher B	10	6	1
Teacher C	10	7	1
Teacher D	9	8	1
Teacher E	11	5	1
Teacher F	7	6	1
Teacher G	8	7	1
Teacher H	8	5	1
<b>Total</b>	<b>75</b>	<b>52</b>	<b>8</b>

From the data in Table 4.9 above, a total of 75 codes which were reduced to 52 categories and finally, 8 concepts emerged.

The following table shows the category analysis of code concepts in semi-structured interviews.



Table 4.10 The Code-Concept-Analysis

Code	Category	Concept
Prepare lesson plans in advance (14) Valuable teaching methods (8) Team type game teaching (7) Extension of ideological education (8) Integration with different types of courses (8) Ensuring classroom safety in game teaching (5) Need external support (10) Excellent teaching format (8) A very valuable teaching method (9)	Need for class preparation (14) Value Teaching Method (19) Course integration (4) Need for choice of game format (9) Need for external support (6)	Reflection for teachers (8)

8 concepts appeared, as shown in Table 4.10: 1) Preparation of the class; 2) Teaching mode; 3) Course integration; 4) Teacher's think about themselves; 5) Choice of game format; 6) Teaching value; 7) High inclusivity; 8) Adequate external support. These categories can be further grouped into a concept, which is the teacher's reflection towards about game teaching.

#### 4.2.2.1 Teachers' Reflection towards Game-based Teaching

The research results revealed eight factors that were related to the use of games in the classroom. In the teachers' reflection, they were 1) preparation for the class, 2) the teaching mode, 3) course integration, 4) teachers' opinion about themselves, 5) choice of game format, 6) teaching value, 7) high inclusivity and 8) adequate external support. The following is the specific content of the interview.

#### 4.2.2.2 Preparation for the Class

"Firstly, before class, I will arrange game props in advance based on the course content, such as role-playing headgear and others." (Teacher A, personal communication, December 15, 2023)

"I think designing a game teaching method requires first, preparing lesson plans in advance, second, arranging teaching games based on the content of the lesson, third, if props are required for this course, they also need to be prepared in advance." (Teacher A, personal communication, December 15, 2023)

"Because game creation requires a certain amount of time for preparation, in order to ensure smooth teaching, I will prepare for the teaching game in advance." (Teacher B, personal communication, December 15, 2023)

"Game teaching method content needs to be prepared in advance of ordinary Chinese language teaching courses." (Teacher B, personal communication, December 15, 2023)

"Firstly, I will prepare the lesson plan a few days in advance, and then, the day before the game teaching, I will contact other teachers in advance for assistance to dress up the classroom environment as the scene needed for the game teaching." (Teacher C, personal communication, December 15, 2023)

"I think the task of designing a game teaching is to first prepare the lesson plan in advance." (Teacher D, personal communication, December 15, 2023)

"I think the main task of designing a game teaching is to prepare the lesson plan in advance. Only with sufficient preparation can we lay a solid foundation in the preparation of props, game creation, and other aspects of the classroom." (Teacher E, personal communication,

December 15, 2023)

"Firstly, I will prepare lesson plans in advance based on the course content. " (Teacher F, personal communication, December 15, 2023)

"Before class, I will arrange game props in advance based on the course content, such as role-playing headgear, and then write lesson plans one week before the start of game teaching." (Teacher G, personal communication, December 15, 2023)

"Because game creation requires a certain amount of time for preparation, in order to ensure smooth teaching, I will prepare for the teaching game in advance. For example, making props, creating game content, and so on, this means that I must prepare 3 days or even a week in advance." (Teacher H, personal communication, December 15, 2023)

#### 4.2.2.3 Teaching mode

"I will try my best to arrange teaching games in the form of team games in the course." (Teacher A, personal communication, December 16, 2023)

"In order to allow all students to experience the fun of games, I will use group games because I want all my students to participate." (Teacher B, personal communication, December 16, 2023)

"I prefer to present game teaching to my students in the form of textbooks and dramas. Because textbook dramas allow children to experience the emotions of characters on their own during the process of playing roles, not only can they exercise their language expression skills, but also their independent thinking and judgment abilities."

(Teacher C, personal communication, December 16, 2023)

"I usually use game forms in Chinese language teaching, such as role-playing, team building, large-scale jigsaw puzzles, and situational drama performances, to integrate game teaching into Chinese language teaching." (Teacher D, personal communication, December 16, 2023)

"I enjoy using game teaching methods that allow for team action in Chinese language teaching. For example, cooperative painting, team word relay, role-playing, and so on." (Teacher E, personal communication, December 16, 2023)

"I prefer to arrange team games for my students in game teaching because team games allow the entire class to participate and have a stronger sense of participation." (Teacher F, personal communication, December 16, 2023)

"I prefer teaching games that allow students to play on their own, rather than allowing them to play games in groups." (Teacher G, personal communication, December 16, 2023)

"In order to allow all students to experience the fun of games, I will use group games because I want all my students to participate." (Teacher H, personal communication, December 16, 2023)

#### 4.2.2.4 Creative Game Choice of Individual Teachers

"In a course, I asked students to recall some tourist cities they had visited during their holidays and organized a group "map puzzle" activity. While teaching students to recognize some place names, we also popularized basic geographical knowledge. I think this is one of the charms of game teaching method." (Teacher A, personal

communication, December 16, 2023)

"I gave a classroom concert where students met new friends through music." (Teacher B, personal communication, December 16, 2023)

"I also held a holiday sharing relay meeting, where students were asked to express their vacation destinations through relay games." (Teacher B, personal communication, December 16, 2023)

"In an exchange course, I asked my students to create a world composed of graphics in their eyes through team drawing. The performance of the students is excellent. I saw many wonderful ideas that surprised me." (Teacher C, personal communication, December 17, 2023)

"I prepared a fun giant puzzle toy for students in a class. Without the help of a teacher, students formed various magical small cars by teaming up these spliced toys. The students are all excellent." (Teacher D, personal communication, December 17, 2023)

"In a course, I used the form of a picture relay game to help students learn about the place names of many Chinese cities and some very beautiful scenic spots during collaborative competitions." (Teacher E, personal communication, December 17, 2023)

"In one course, I conducted a food sharing activity. Through displaying food pictures, displaying and tasting food samples, and splicing food maps, students were able to get to know different regional cuisines in a pleasant atmosphere." (Teacher F, personal communication, December 17, 2023)

"In a course, I used role-playing to immerse students in a



wonderful journey of flying. The students were very satisfied with this flight experience." (Teacher G, personal communication, December 17, 2023)

"In one class, I had students perform a scenario play about 'getting lost and seeking help'. In this game, there is no script, no lines, and students need to make their own judgments and communicate based on the situation, ultimately completing the "Lost Help" on themselves." (Teacher H, personal communication, December 17, 2023)

#### 4.2.2.5 Teachers' Positive Thoughts about Game Teaching Method

"I think game teaching is a very excellent teaching method. It once helped a student in my teaching. When this student first arrived at school, he was quite shy and couldn't communicate well with other classmates for a period of time. It was game teaching that gradually helped him learn to communicate with classmates in the game, and ultimately gained good friends." (Teacher A, personal communication, December 17, 2023)

"I think the game teaching method is a very convenient and cumbersome teaching method. The convenience lies in its ability to quickly establish good teacher-student relationships between students and teachers through games as a medium." (Teacher B, personal communication, December 17, 2023)

"I think game teaching is a teaching method that is very helpful for children's Chinese language teaching. It is excellent because it can enhance students' interest in Chinese characters." (Teacher C, personal communication, December 18, 2023)

"I think game teaching is a very excellent teaching method because it can effectively exercise my students' language expression skills." (Teacher D, personal communication, December 18, 2023)

"I believe that game teaching is a very excellent teaching method. It allows my students to boldly express their opinions and ideas in the game, not only exercising their Chinese expression ability, but also allowing them to experience the importance of cooperation in the game." (Teacher E, personal communication, December 18, 2023)

"I think game teaching is a very excellent teaching method. It once sparked one of my students' interests in learning art in my teaching, so I believe it is really a valuable teaching method." (Teacher F, personal communication, December 18, 2023)

"I believe that game teaching method is a very excellent teaching method. It can create a simulation environment where students can collaborate and experience the fun and importance of cooperation in the game." (Teacher G, personal communication, December 18, 2023)

"I believe that game teaching method is a very excellent teaching method. It allows classroom teaching to tell a relatively serious matter in a pleasant atmosphere." (Teacher H, personal communication, December 18, 2023)

"I think game teaching is very excellent because it can make a potentially dull Chinese language learning experience very interesting." (Teacher A, personal communication, December 19, 2023)

"During the observation process, I found that the game teaching method is very inclusive. For example, a classroom game can include

various game forms such as role-playing, relay games, puzzle games, etc. Moreover, game teaching can enhance students' interest in learning. So, I think game teaching is a great form of Chinese language teaching." (Teacher B, personal communication, December 19, 2023)

"I think the teaching methods of game teaching method are very diverse, and it is easy to mobilize the classroom atmosphere, allowing students to learn Chinese knowledge in a relaxed and enjoyable atmosphere." (Teacher C, personal communication, December 19, 2023)

"I believe that game teaching has a strong comprehensiveness, as it allows students to learn different Chinese knowledge in a single course." (Teacher D, personal communication, December 19, 2023)

"I think game teaching is very excellent because it can make a potentially dull Chinese language learning experience very interesting. Moreover, there are many forms of game teaching that allow all of my students to participate, which also facilitates the teacher to observe the students' movements, make appropriate judgments, and guide them during the game process." (Teacher E, personal communication, December 19, 2023)

"I think game teaching is very excellent because it can make a potentially dull Chinese language learning experience very interesting. And there are many forms of game teaching that can involve all of my students." (Teacher F, personal communication, December 19, 2023)

"I think game teaching is very excellent because it can make a potentially dull Chinese language learning experience very interesting. Moreover, there are many forms of game teaching that allow all of my students to participate." (Teacher G, personal communication, December 19, 2023)

"I think game teaching is very excellent because it can make a potentially dull Chinese language learning experience very interesting. which also facilitates the teacher to observe the students' movements, make appropriate judgments, and guide them during the game process." (Teacher H, personal communication, December 19, 2023)

#### 4.2.2.6 Varieties of Game Formats

"I will try my best to arrange teaching games in the form of team games in the course." (Teacher A, personal communication, December 19, 2023)

"I prefer to present game teaching to my students in the form of textbooks and dramas." (Teacher C, personal communication, December 19, 2023)

"I usually use game forms in Chinese language teaching, such as role-playing, team building, large-scale jigsaw puzzles." (Teacher D personal communication, December 19, 2023)

#### 4.2.2.8 Diversified Teaching Activities

"During the observation process, I found that the game teaching method is very inclusive." (Teacher B personal communication, December 19, 2023)

"Because of its high inclusivity, it can generate more and more interesting forms of game teaching." (Teacher H, personal communication, December 19, 2023)

#### 4.2.2.9 External Support

"I think three aspects of support are needed:

School: Encourage teachers to create classroom games without suppressing their enthusiasm for creativity.

Parents: We will showcase game teaching method and the advantages it can bring to Chinese language teaching to parents on open days. We also hope that parents can see the positive development that game teaching method can bring to their children and cooperate with our teachers in teaching work.

Teacher: During the preparation process, I need at least one teacher to work with me in the preliminary preparation work and assist me in controlling the field during the course" (Teacher A, personal communication, December 19, 2023)

"I think the support I need is in the following areas

1) With the support of the school, I hope the school can provide certain funding and idea support in the teacher's game teaching creation

2) Mutual cooperation between teachers. I need to cooperate with other teachers to complete this process. This requires mutual cooperation between our teachers." (Teacher B, personal communication, December 20, 2023)

"I need the cooperation and support of parents. Because only when teachers understand the advantages of game teaching can they stand on the same front as our teachers. At the same time, the divergent thinking of parents can also help me expand my brain through teaching games." (Teacher C, personal communication, December 20,



2023)

"1) I need the active cooperation of parents. When teaching science popularization games to parents, parents must feel the charm with their hearts. Only with the support and cooperation of parents can we teachers boldly implement game teaching for all students.

2) In order to have a successful game teaching experience, I definitely need the help of other teachers in some pre class preparations." (Teacher D, personal communication, December 20, 2023)

"1) I need the cooperation of parents, as students are young and to some extent follow the teacher's teaching pace. However, if parents resist, teaching in game-based classrooms will inevitably be difficult.

2) A successful game teaching requires teachers to help each other in game teaching, because I believe that an excellent game teaching cannot be carried out with only one teacher." (Teacher E, personal communication, December 20, 2023)

"In the process of preparing for game teaching, I need at least one teacher to work with me in the preliminary preparation work and assist me in controlling the field during the course." (Teacher F, personal communication, December 20, 2023)

"Firstly, I need the school to make more efforts in promoting game teaching. And I need cooperation between our teachers." (Teacher G, personal communication, December 20, 2023)

"I think the support I need is in the following areas

1) With the support of the school, I hope the school can provide certain funding and idea support in the teacher's game teaching creation

2) Mutual cooperation between teachers. I need to cooperate with other teachers to complete this process." (Teacher H, personal communication, December 20, 2023)

### 4.3 Summary of the Quantitative Data and the Qualitative Data

The analysis of the questionnaire data shows that the game teaching method has shown a movement of teaching from the firmly established traditional style to the new choice of appropriate format of teaching such as game-based teaching in Shihezi City, Xinjiang, China. The teachers in the study from four kindergarten schools indicated that they were willing to use game-based teaching in Chinese language teaching. They demonstrated positive attitude towards what it could do to improve the learning outcomes required by the changing world. At the same time, teachers have maintained a positive and optimistic attitude towards using Game Teaching Method for Chinese language teaching. The qualitative data collected from the interviews can be illustrated below.

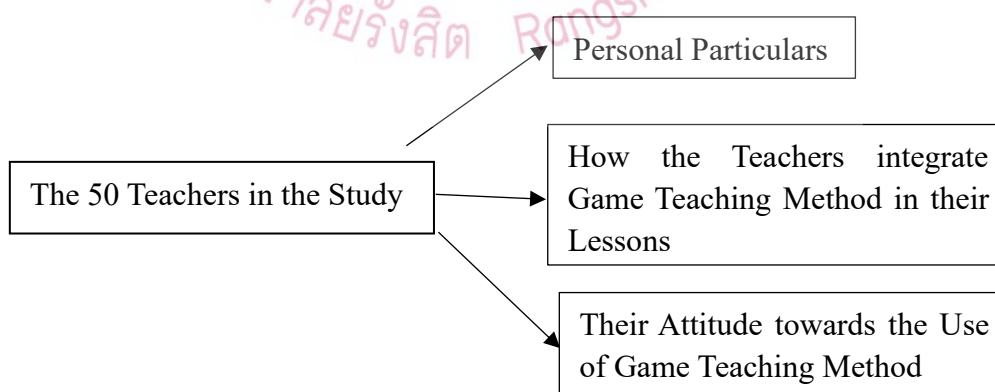


Figure 4.1 Findings from the Questionnaire

The second instrument adopted to collect another set of data was the Classroom

Checklist. It was used to reveal what really happened in the actual classroom that used game-based teaching. The third instrument used in this study was a semi-structured interview where more in-depth data on the use of Game-based teaching were collected. Indirectly, the teachers' reflections on the use of Game-based teaching were also collected. "Reflections" means a more detailed exploration and exploration of something, and it is one of the important signs that things can continue to develop. The following map shows the analyzed data in eight items.

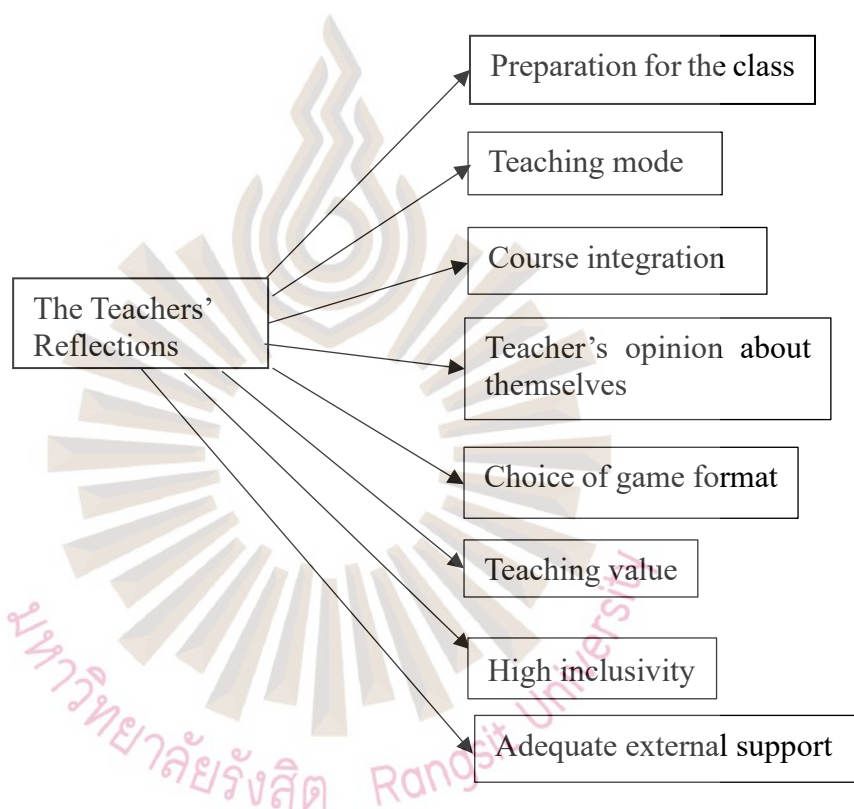


Figure 4.2 Data from the Semi-structured Interview

According to the data collected from all the instruments, it can be concluded that the teachers in the study were willing to integrate Game Teaching Method into their Chinese lessons. They had quite good knowledge about the Game Teaching Method, expressing that it would benefit the young learners but the choice of appropriate games for the lessons was necessary. Besides, the parents needed to have a correct understanding of the Game Teaching Method. Preparation for the class was also important to make the lessons successful.

## **Chapter 5**

### **Conclusion, Discussion and Recommendations**

This chapter summarizes the statistical analysis of 50 questionnaires and the content analysis of 8 sets of interview qualitative data. Next, the chapter discusses how these findings are similar or different from those of other studies or if there had been any emerging s that contribute to the field. The final part of this chapter provides suggestions for children's Chinese language teaching teachers in Shihezi City, Xinjiang, China to help them improve their ability to explore game teaching methods and their overall quality, in order to broaden the exploration direction of teaching games for teachers and achieve diversified development of game teaching methods.

This study had 3 objectives:

- 1) To explore how Chinese teachers use and integrate Game teaching method into their Chinese Language teaching at the kindergarten level in Xinjiang.
- 2) To explore the Chinese teachers' attitudes towards Game Teaching Method in their Chinese Language teaching at the kindergarten level in Xinjiang.
- 3) To study the reflections of Chinese teachers towards the use of Game Teaching Method in Chinese Language teaching at the kindergarten level in Xinjiang.

### **5.1 Conclusion**

#### **5.1.1 Responses to Research Question 1**

"How do Chinese teachers in Xinjiang China integrate Game Teaching Methods in

### Chinese Language teaching?"

According to the survey results of the questionnaire, teachers of Chinese language teaching for children in Xinjiang, China tried various methods in the application of game teaching. A relatively independent game teaching mode, including card games ( $X=2.86$ ,  $S.D.=1.59$ ), board games ( $X=4.16$ ,  $S.D.=1.08$ ), and digital games ( $X=3.98$ ,  $S.D.=1.06$ ) and a team-based teaching game mode based on real scenes ( $X=4.72$ ,  $S.D.=0.57$ ). Through data comparison, Team games had the highest teaching scores ( $X=4.72$ ,  $S.D.=0.57$ ) and is the most commonly used game teaching method by teachers.

At the same time, in the integration of teaching, teachers started from four aspects and fully integrated game teaching with Chinese language teaching: Chinese pronunciation ( $X=4.18$ ,  $S.D.=1.08$ ), Chinese vocabulary ( $X=4.28$ ,  $S.D.=1.07$ ), Chinese reading ( $X=4.66$ ,  $S.D.=0.66$ ), and Chinese listening ( $X=4.2$ ,  $S.D.=1.33$ ). Meanwhile, based on the comparison of data results, it can be seen that Chinese reading was the preferred direction for teachers to integrate into game teaching ( $X=4.66$ ,  $S.D.=0.66$ ).

#### 5.1.2 Responses to Research Question 2

"What is the attitude of Chinese language teachers in Xinjiang towards game teaching method in Chinese language teaching?"

Based on the survey results, a comprehensive attitude survey was conducted on teachers from four perspectives: Chinese knowledge retention rate ( $X=4.62$ ,  $S.D.=0.725$ ), Chinese listening ( $X=4.94$ ,  $S.D.=0.24$ ), Chinese reading ( $X=4.60$ ,  $S.D.=0.99$ ), and Chinese vocabulary ( $X=4.88$ ,  $S.D.=0.39$ ). According to the data results, teachers have highly affirmed whether game teaching can improve students' basic Chinese language learning ability.

Meanwhile, based on the results of the questionnaire survey, this study examines whether game teaching can help improve students' own abilities from three aspects:



improving creativity ( $X=4.98$ ,  $S.D.=0.14$ ), problem-solving ability ( $X=4.98$ ,  $S.D.=0.14$ ), and teamwork ability ( $X=4.98$ ,  $S.D.=0.14$ ). According to data, teachers acknowledge that game teaching method enhances students' abilities in these three areas.

Similarly, according to the interviewed data, teachers agreed with the excellence of game teaching in children's Chinese language teaching, and were also willing to improve their comprehensive qualities in order to adapt to the pressure brought by the high comprehensiveness of game teaching to classroom teaching. The coexistence of challenges and opportunities was currently the most intuitive feeling that game teaching has brought to children's Chinese language teachers.

### **5.1.3 Responses to Research Question 3**

"What are the reflections of Chinese language teachers on using game teaching method in Chinese language teaching in kindergartens in Xinjiang?"

Based on the interview content of semi-structured interviews, this study collected the teachers' reflections on the application of game teaching from the perspectives of game format, teaching value, classroom observation, and classroom management. The survey results show that teachers believed that the game teaching method is an excellent, diverse, and interesting form of Chinese language teaching for children, in line with the teaching trend of "combining education with pleasure" that is currently being vigorously popularized in China.

In summary, in game teaching, Chinese language teachers in Shihezi City, Xinjiang, China strived for comprehensive and diversified development. The teachers are willing to take up Game-based teaching and learning. With proper support and training, with parents' understanding about the benefits of game-based teaching, the approach could be further developed to match the needs of the students.

## **5.2 Discussion**

The s for discussion that emerged from the study can be listed as follows:

### **5.2.1 The Benefits of Game Teaching Method**

The teachers in the study realized the value of Game Teaching Method because of its several benefits. First, it can enhance motivation, student interest in the subject matter and finally student engagement. This is in line with the findings from several studies on the use of games in teaching. Pho and Dinscore (2015) state that game-based learning has a greater potential to enhance motivation and increase student interest in the subject matter. Huizenga (2017) found that teachers who use games in class perceived student engagement and clear cognitive learning outcomes. Fu (2021) found that the children in the two classes he studied had significantly improved in language communication, communication and cooperation, and logical thinking. Tamosevicius (2022) claims that game-based learning promotes critical thinking and problem-solving skills by playing the game. Not surprisingly, this is also supported by a number of scholars who have expressed similar view that student learning can be enhanced by game-based learning (Garris, Ablers & Driscoll, 2002; Salen & Zimmerman, 2004; Staffer, Halverson, Squire & Gee, 2005; Plass, Perlin & Nordlinger, 2010; Whitton, 2012; Nisbet, 2021; Ma, Shi, Zhang & Zhang, 2021; Sendurdur, 2022; Tamosevicius, 2022).

### **5.2.2 The Choice of Game Format**

Game Teaching Method is easy to use and can be easily adopted for a variety of activities such as in teaching language skills-listening, reading, vocabulary learning or pronunciation practice (Nihongli, 2021). Garadag (2015) found in the study of the pre-service teachers' perceptions on Game-based learning scenarios in primary reading and writing instruction courses that they preferred to use games in their classroom instruction. Games can be used at different stages of the lessons. For example, games can be used for ice-breaking at the beginning of the lesson or as fillers when there is still some time left. Some teachers use board games, card games and online games. Role-plays are also considered a kind of game-based learning activities and they are believed to help students develop their speaking skills and develop the language in the real

context (Khamouja, 2023). Games do not only benefit the students but also the teachers. Chen (2021) mentioned in his research that: "in the teaching process of team games, two or more complementary educators can provide a richer perspective, guide students while allowing colleagues to learn from each other, and also create a dynamic and interactive learning environment, which can help improve the quality of teaching". In addition, according to Zhu's (2013) research, team games can not only complement each other in the teaching process, but also enhance the ability of teachers to cooperate with each other. This advantage makes team games the preferred choice for most Chinese language teachers in Xinjiang, China.

### **5.2.3 The Support that Teachers Need When Using Games for Teaching**

Faced with the teaching pressure brought about by the high comprehensiveness of game teaching, it is required that teachers also need support from game teaching when using game teaching. There are three support directions.

#### **Aspect 1: Support from the school**

In addition to fixed teaching venue support, schools should regularly hold seminars on game teaching, so that teachers can better spread their thinking and engage in thinking collisions for the creation of teaching games.

#### **Aspect 2: Support from parents**

As guardians of students, parents have an obligation to personally understand what "game-based teaching" is. Teachers invite parents to observe teaching games, allowing them to experience the charm of game teaching method up close, so that both parties can reach a consensus and cooperate with the smooth progress of game-based teaching.

#### **Aspect 3: Cooperation between teachers**

A complete game teaching requires the cooperation of multiple teachers to complete, which not only alleviates the pressure of the course, but also allows different ideas to collide and spark in the cooperation.

In summary, support for the teachers is an important factor for successful implementation of game-based teaching in Shihezi City, Xinjiang, China. to step out of the traditional approach of teaching.

## **5.3 Recommendation**

There are two types of recommendation this study can offer.

### **5.3.1 Recommendation for Future Research**

Although the Game Teaching Method has been in use for many years and its popularity is rising. There are many possibilities to conduct more studies with a wider scope of population and sample. In other words, similar studies can be extended to other levels of courses. In addition, it is also worthwhile studying students in-depth to find out whether they have really developed their skills as expected. It is also suggested that more longitudinal studies are conducted to do a follow-up study on those students who have studied through game-based learning lessons.

### **5.3.2 Recommendation for Using the Findings of the Study**

Since this study was conducted in Xinjiang, other parts of China may not be able use the findings as their directions. These findings can be used as guidelines or references for other researchers.

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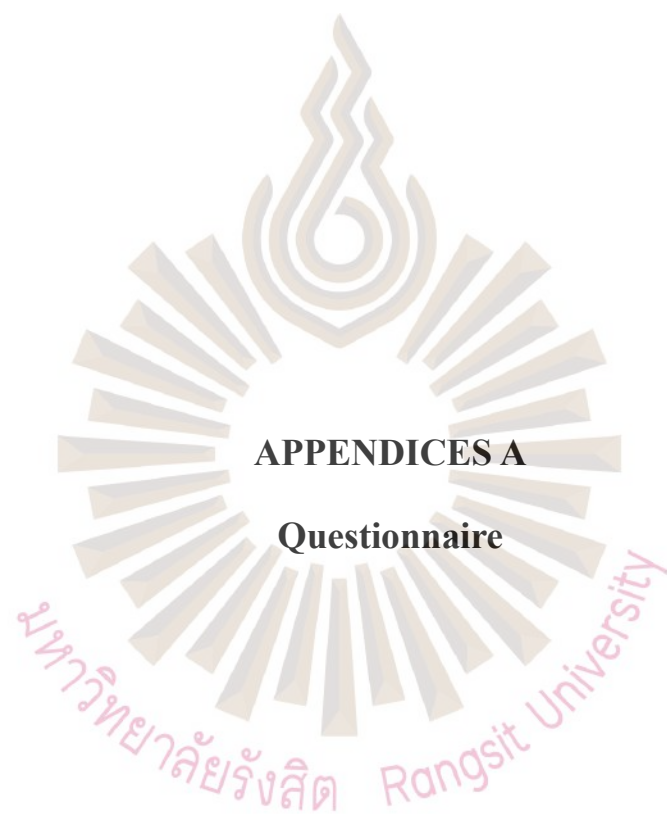
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## **APPENDICES A**

### **Questionnaire**

NO PART 1:  
PERSONAL PARTICULARS

- 1 Gender
  - Male
  - Female
  
- 2 Age
  - 20-30
  - 31-40
  - 41-50
  - 51-60
  - Over 60
  
- 3 Years of teaching experience in Chinese Language teaching
  - 1-3 years
  - 4-6 years
  - 6-10 years
  - Over 10 years
  
- 4 Years of teaching experience using Game-based teaching
  - 1-3 years
  - 4-6 years
  - 6-10 years
  - Over 10 years
  
- 5 How often do you use game-based teaching?
  - In every lesson
  - Once a week
  - More than 5 times per course
  - More than 10 time per course

NO PART 2: HOW DO YOU USE AND INTEGRATE GAME-BASED  
TEACHING INTO THE LESSONS?

- 6 I use game-based teaching at the beginning to do ice-breaking.  
5 ( ) 4 ( ) 3 ( ) 2 ( ) 1 ( )
  
- 7 I use game-based teaching to get students to practice pronunciation.  
5 ( ) 4 ( ) 3 ( ) 2 ( ) 1 ( )
  
- 8 I use game-based teaching to design my lessons when I get students to do group activities.

5 ( ) 4 ( ) 3 ( ) 2 ( ) 1 ( )

9 I use game-based teaching when there is some time left after I finish teaching.

5 ( ) 4 ( ) 3 ( ) 2 ( ) 1 ( )

10 I use game-based teaching when I get my students to practice and learn vocabulary.

5 ( ) 4 ( ) 3 ( ) 2 ( ) 1 ( )

11 I use game-based teaching to teach listening.

5 ( ) 4 ( ) 3 ( ) 2 ( ) 1 ( )

12 I use game-based teaching to teach reading.

5 ( ) 4 ( ) 3 ( ) 2 ( ) 1 ( )

13 I like to use digital games in my teaching

5 ( ) 4 ( ) 3 ( ) 2 ( ) 1 ( )

14 I like to use board games.in my teaching.

5 ( ) 4 ( ) 3 ( ) 2 ( ) 1 ( )

15 I like to use group competition games for spelling.

5 ( ) 4 ( ) 3 ( ) 2 ( ) 1 ( )

16 I like the idea of rewarding the winner or the winning team with some gifts.

5 ( ) 4 ( ) 3 ( ) 2 ( ) 1 ( )

17 I make sure that I use only one game in a lesson.

5 ( ) 4 ( ) 3 ( ) 2 ( ) 1 ( )

18 I use more than one game in a lesson.

5 ( ) 4 ( ) 3 ( ) 2 ( ) 1 ( )

19 I have some criteria for selecting games for the lessons.

5 ( ) 4 ( ) 3 ( ) 2 ( ) 1 ( )

20 I choose games that are enjoyable and fun activities.

5 ( ) 4 ( ) 3 ( ) 2 ( ) 1 ( )

21 I rarely assess student learning based on the games that students participate

in.

5 ( ) 4 ( ) 3 ( ) 2 ( ) 1 ( )

22 I assess student learning based on the games that students participate in rather than use the scores from the quizzes or final exams.

5 ( ) 4 ( ) 3 ( ) 2 ( ) 1 ( )

23 Participating in the games increase student engagement when they can get points and other incentives.

5 ( ) 4 ( ) 3 ( ) 2 ( ) 1 ( )

24 I use a lot of video games to support my teaching.

5 ( ) 4 ( ) 3 ( ) 2 ( ) 1 ( )

25 I often use card games in my teaching.

5 ( ) 4 ( ) 3 ( ) 2 ( ) 1 ( )

26 I prefer to use real-life games/scenarios based on realities.

5 ( ) 4 ( ) 3 ( ) 2 ( ) 1 ( )

27 I do not design games for my students myself. I use the commercial ones.

5 ( ) 4 ( ) 3 ( ) 2 ( ) 1 ( )

28 I do not use digital games when the classroom is with limited device use.

5 ( ) 4 ( ) 3 ( ) 2 ( ) 1 ( )

29 I often organize team games, in pairs and in groups in my class.

5 ( ) 4 ( ) 3 ( ) 2 ( ) 1 ( )

30 I assess the success of a game by getting my students to do their self-report.

5 ( ) 4 ( ) 3 ( ) 2 ( ) 1 ( )

31 I assess the success of a game by getting my students to discuss what they have learned.

5 ( ) 4 ( ) 3 ( ) 2 ( ) 1 ( )

32 My students can always tell me about the problems they have after playing the games.

5 ( ) 4 ( ) 3 ( ) 2 ( ) 1 ( )

33 I use games that promote 21st century skills such as communication and



time management.

5 ( ) 4 ( ) 3 ( ) 2 ( ) 1 ( )

NO PART 3: THE TEACHER'S  
ATTITUDES TOWARDS GAME-BASED TEACHING

34. Game-based Teaching is easy to use.

5 ( ) 4 ( ) 3 ( ) 2 ( ) 1 ( )

35. Game-based Teaching is time-consuming.

5 ( ) 4 ( ) 3 ( ) 2 ( ) 1 ( )

36. Game-based Teaching needs thorough preparation of the lessons.

5 ( ) 4 ( ) 3 ( ) 2 ( ) 1 ( )

37. The teachers need assistants if they wish to use Game-based Teaching.

5 ( ) 4 ( ) 3 ( ) 2 ( ) 1 ( )

38. The teacher must be trained to be able to design lessons with Game-based Teaching.

5 ( ) 4 ( ) 3 ( ) 2 ( ) 1 ( )

39. Game-based Teaching can be used with the learning content that is not serious.

5 ( ) 4 ( ) 3 ( ) 2 ( ) 1 ( )

40. Game-based Teaching can improve children's knowledge retention rate of the Chinese language.

5 ( ) 4 ( ) 3 ( ) 2 ( ) 1 ( )

41. Game-based Teaching improves the children's ability to work in teams.

5 ( ) 4 ( ) 3 ( ) 2 ( ) 1 ( )

42. Game-based Teaching can stimulate children's interest in Chinese listening

5 ( ) 4 ( ) 3 ( ) 2 ( ) 1 ( )

43. Game-based Teaching can stimulate children's interest in Chinese reading

5 ( ) 4 ( ) 3 ( ) 2 ( ) 1 ( )

44. Game-based Teaching can better stimulate children's Chinese vocabulary.

5 ( ) 4 ( ) 3 ( ) 2 ( ) 1 ( )

45 Game-based Teaching cannot improve children's Chinese reading ability.

5 ( ) 4 ( ) 3 ( ) 2 ( ) 1 ( )

46 Game-based Teaching is suitable for young learners.

5 ( ) 4 ( ) 3 ( ) 2 ( ) 1 ( )

47 Game-based Teaching does not produce clear learning outcomes.

5 ( ) 4 ( ) 3 ( ) 2 ( ) 1 ( )

48 Game-based Teaching should be used from time to time to create fun class atmosphere

5 ( ) 4 ( ) 3 ( ) 2 ( ) 1 ( )

49 If I can choose what teaching method to use, I will definitely use Game-based teaching.

5 ( ) 4 ( ) 3 ( ) 2 ( ) 1 ( )

50 I preferred a more serious style of teaching like the traditional method.

5 ( ) 4 ( ) 3 ( ) 2 ( ) 1 ( )

51 Using game-based learning indicates the teacher is adopting active learning.

5 ( ) 4 ( ) 3 ( ) 2 ( ) 1 ( )

52 Online games allow students to understand the functions of the computers.

5 ( ) 4 ( ) 3 ( ) 2 ( ) 1 ( )

53 The games used must be carefully designed to align with learning, so there are few usable ones.

5 ( ) 4 ( ) 3 ( ) 2 ( ) 1 ( )

54 I do not use game-based learning often because parents normally are against it.

5 ( ) 4 ( ) 3 ( ) 2 ( ) 1 ( )

55 I believe that game-based learning can improve students' creativity.

5 ( ) 4 ( ) 3 ( ) 2 ( ) 1 ( )

56 I believe that game-based learning can improve students' problem-solving

skill.

5 ( ) 4 ( ) 3 ( ) 2 ( ) 1 ( )

57 I take game-based learning to mean anything even a small task that requires competition.

5 ( ) 4 ( ) 3 ( ) 2 ( ) 1 ( )

58 For game-based learning to be successfully launched, parents must understand what it is and how it can develop the young learners.

5 ( ) 4 ( ) 3 ( ) 2 ( ) 1 ( )

NO PART 4: OPEN-ENDED QUESTION

59 Please add any points you wish to make





## **APPENDICES B**

### **Interview Questions**

### **Proposed In-depth Semi-Structured Interview Questions**


- 1 Please tell me how you use game-based teaching in your Chinese language courses?
- 2 Please explain how you integrate game-based teaching into the lessons you prepare to deliver?
- 3 What is your opinion about game-based teaching? Is it a valuable teaching and learning approach for you?
- 4 Can you give some examples of the game-based teaching activities you used?
- 5 How do you feel when you see what the students can do or cannot do?
- 6 What do you think about the task of designing game-based teaching lessons? Is this easy to manage? What do you need to do to make it effective?
- 7 What kind of support do you need?
- 8 Have you ever observed game-based teaching classes? What do you think?





## **APPENDICES C**

### **Items Objective Congruence (IOC)**

<b>RSU</b>	มหาวิทยาลัยรังสิต RANGSIT UNIVERSITY		มหาวิทยาลัยรังสิต เมืองเอก ถนนพหลโยธิน จ.ปทุมธานี 12000	Rangsit University Muang-Aek, Paholyothin Rd. Pathumthani 12000, Thailand	T. (66) 2997 2200-30 F. (66) 2791 5752 E. info@rsu.ac.th
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STC.4800/0811

24 March 2023

Subject: Invitation for you to be our IOC (Item Objective Congruence) expert


Dear Dr. Mongkol Sodachan,

Our student, Mr. Guo Yifang student number 6205772, who has already completed his coursework and thesis proposal defense on 23 December 2022. His research is entitled "Exploration of the Use and Integration of Game-based Teaching in Teaching Chinese Kindergarten Children in Xinjiang: The Teachers' Attitudes and Reflections". On this occasion, Suryadhep Teachers College is honored to invite you to be an Item Objective Congruence (IOC) expert of the instruments since the student is now ready to take the next step in research, that is, getting the IOC experts to review her instruments (Attached herewith) which are:

- 1) The questionnaire
- 2) Semi-structured Interview questions

I hope that you will kindly accept this invitation. On behalf of Suryadhep Teachers College, Rangsit University, I would like to thank you for your kind support.

Sincerely yours,



Malivan Praditteera, Ed.D.  
Dean  
Suryadhep Teachers College  
Rangsit University

[www.rsu.ac.th](http://www.rsu.ac.th)

STC.4800/0812

24 March 2023

Subject: Invitation for you to be our IOC (Item Objective Congruence) expert

Dear Assistant Professor Dr. Pairin Srisintorn,

Our student, Mr. Guo Yifang student number 6205772, who has already completed his coursework and thesis proposal defense on 23 December 2022. His research is entitled "Exploration of the Use and Integration of Game-based Teaching in Teaching Chinese Kindergarten Children in Xinjiang: The Teachers' Attitudes and Reflections". On this occasion, Suryadhep Teachers College is honored to invite you to be an Item Objective Congruence (IOC) expert of the instruments since the student is now ready to take the next step in research, that is, getting the IOC experts to review her instruments (Attached herewith) which are:

- 1) The questionnaire
- 2) Semi-structured Interview questions

I hope that you will kindly accept this invitation. On behalf of Suryadhep Teachers College, Rangsit University, I would like to thank you for your kind support.

Sincerely yours,




Malivan Praditteera, Ed.D.

Dean

Suryadhep Teachers College

Rangsit University

RSU	มหาวิทยาลัยรังสิต RANGSIT UNIVERSITY		มหาวิทยาลัยรังสิต เมืองเอก อ.พหลโยธิน จ.ปทุมธานี 12000	Rangsit University Mueang-Aek, Pathayothin Rd. Pathumthani 12000, Thailand	T. (66) 2997 2200-30 F. (66) 2791 5757 E. info@rsu.ac.th
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STC.4800/0813

24 March 2023

Subject: Invitation for you to be our IOC (Item Objective Congruence) expert


Dear Assistant Professor Phitsinee Koad,

Our student, Mr. Guo Yifang student number 6205772, who has already completed his coursework and thesis proposal defense on 23 December 2022. His research is entitled "Exploration of the Use and Integration of Game-based Teaching in Teaching Chinese Kindergarten Children in Xinjiang: The Teachers' Attitudes and Reflections". On this occasion, Suryadhep Teachers College is honored to invite you to be an Item Objective Congruence (IOC) expert of the instruments since the student is now ready to take the next step in research, that is getting the IOC experts to review her instruments (Attached herewith) which are:

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I hope that you will kindly accept this invitation. On behalf of Suryadhep Teachers College, Rangsit University, I would like to thank you for your kind support.

Sincerely yours,



Malivan Praditteera, Ed.D.  
Dean  
Suryadhep Teachers College  
Rangsit University

www.rsu.ac.th



## INVITATION TO BE AN IOC EXPERT

In

Exploration of the Use and Integration of Game-based Teaching in Teaching Chinese Kindergarten Children in Xinjiang: The Teachers' Attitudes and Reflections

.....

Dear Expert

I would like to thank you for accepting to be an IOC expert in my thesis. Please find below the Research Title, Research Objectives, Research Questions, Research Instruments, and the Guidelines for Expert Review Using Item Objective Congruence (IOC) as well as the criteria for expert review.

### My Research Title

Exploration of the Use and Integration of Game-based Teaching in Teaching Chinese Kindergarten Children in Xinjiang: The Teachers' Attitudes and Reflections

### Research Objectives

1. To explore how Chinese teachers use and integrate Game-based teaching into their Chinese Language teaching at the kindergarten level in Xinjiang
2. To explore the Chinese teachers' attitudes towards Game-based teaching in their Chinese Language teaching at the kindergarten level in Xinjiang
3. To study the reflections of Chinese teachers towards the use of Game Teaching Method in Chinese Language teaching at the kindergarten level in Xinjiang

### Research Questions

1. How do Chinese teachers integrate Game Teaching Method in Chinese Language teaching?
2. What is the attitude of Game Teaching Method in Chinese Language teaching?



### **The research Instruments**

- 1) A questionnaire for the teachers consisting of 61 questions (60 Likert scale items and one open-ended question).
- 2) The Semi-Structured Interview Questions for the Teachers consists of ten open-ended interview questions.
- 3) Course Observation Record Form, used to record and observe the teacher's class process.

### **Guidelines for Expert Review Using Items Objective Congruence (IOC)**

Please rate each item that corresponds to your opinion on content validity

### **Rating Criteria**

- +1 for the item that matches the stated objectives
- 0 for the unclear item and the rater is unsure whether it meets the stated objectives
- 1 for the item that does not match the objectives

I truly appreciate your kind help and valuable support for my thesis.

Guo Yifang

Researcher

### Item Objective Congruence (IOC) Form 1

THE QUESTIONNAIRE FOR THE TEACHERS										
<b>Research Title</b> Exploration of the Use and Integration of Game-based Teaching in Teaching Chinese Kindergarten Children in Xinjiang: The Teachers' Attitudes and Reflections		<div style="text-align: right;">Expert's Evaluation</div> <table border="1"> <thead> <tr> <th>Agree</th> <th>Not Sure</th> <th>Disagree</th> </tr> <tr> <th>+1</th> <th>0</th> <th>-1</th> </tr> </thead> </table>			Agree	Not Sure	Disagree	+1	0	-1
Agree	Not Sure				Disagree					
+1	0				-1					
<b>Research Objectives</b>										
4. To explore how Chinese teachers use and integrate Game-based teaching into their Chinese Language teaching at the kindergarten level in Xinjiang 5. To explore the Chinese teachers' attitudes towards Game-based teaching in their Chinese Language teaching at the kindergarten level in Xinjiang 6. To study the reflections of Chinese teachers towards the use of Game Teaching Method in Chinese Language teaching at the kindergarten level in Xinjiang										
<b>NO</b>	<b>PART 1: PERSONAL PARTICULARS</b>									
1	Gender <input type="checkbox"/> Male <input type="checkbox"/> Female	✓								
2	Age <input type="checkbox"/> 20-30 <input type="checkbox"/> 31-40 <input type="checkbox"/> 41-50 <input type="checkbox"/> 51-60 <input type="checkbox"/> Over 60	✓								
3	Years of teaching experience in Chinese Language teaching <input type="checkbox"/> 1-3 years <input type="checkbox"/> 4-6 years <input type="checkbox"/> 6-10 years <input type="checkbox"/> Over 10 years	✓								
4	Years of teaching experience using Game-based teaching <input type="checkbox"/> 1-3 years <input type="checkbox"/> 4-6 years <input type="checkbox"/> 6-10 years <input type="checkbox"/> Over 10 years	✓								
5	How often do you use game-based teaching? <input type="checkbox"/> In every lesson	✓								

	<input type="checkbox"/> Once a week <input type="checkbox"/> More than 5 times per course <input type="checkbox"/> More than 10 time per course			
<b>NO</b>	<b>PART 2: HOW DO YOU USE AND INTEGRATE GAME-BASED TEACHING INTO THE LESSONS?</b>			
6	I use game-based teaching at the beginning to do ice-breaking.	✓		
7	I use game-based teaching to get students to practice pronunciation.	✓		
8	I use game-based teaching to design my lessons when I get students to do group activities.	✓		
9	I use game-based teaching when there is some time left after I finish teaching.	✓		
10	I use game-based teaching when I get my students to practice and learn vocabulary.	✓		
11	I use game-based teaching to teach listening.	✓		
12	I use game-based teaching to teach reading.	✓		
13	I like to use digital games in my teaching	✓		
14	I like to use <u>board games</u> in my teaching.		✓	
15	I like to use group competition games for spelling.	✓		
16	I like the idea of rewarding the winner or the winning team with some gifts.			
17	I make sure that I use only one game in a lesson.	✓		
18	I use more than one game in a lesson.	✓		
19	I have some criteria for selecting games for the lessons.	✓		
20	I choose games that are enjoyable and fun activities.	✓		
21	I rarely assess student learning based on the games that students participate in.	✓		
22	I assess student learning based on the games that students participate in rather than use the scores from the quizzes or final exams.	✓		
23	Participating in the games increase student engagement when they can get points and other incentives.	✓		
24	I use a lot of video games to support my teaching.	✓		
25	I often use card games in my teaching.	✓		

26	I prefer to use real-life games/scenarios based on realities.	✓		
27	I do not design games for my students myself. I use the commercial ones.	✓		
28	I do not use digital games when the classroom is with limited device use.	✓		
29	I often organize team games, in pairs and in groups in my class.	✓		
30	I assess the success of a game by getting my students to do their self-report.	✓		
31	I assess the success of a game by getting my students to discuss what they have learned.	✓		
32	My students can always tell me about the problems they have after playing the games.	✓		
33	I use games that promote 21 <sup>st</sup> century skills such as communication and time management.	✓		
34	I use game-based learning to enhance various skills of the Chinese language such as listening, speaking, reading, vocabulary and grammar.	✓		
35	The children are too young, so I don't get students to practice Chinese writing skill.	✓		
<b>NO</b>	<b>PART 3: THE TEACHER'S ATTITUDES TOWARDS GAME-BASED TEACHING</b>	<b>Agree</b>	<b>Not Sure</b>	<b>Disagree</b>
36	Game-based Teaching is easy to use.	✓		
37	Game-based Teaching is time-consuming.	✓		
38	Game-based Teaching needs thorough preparation of the lessons.	✓		
39	The teachers need assistants if they wish to use Game-based Teaching.	✓		
40	The teacher must be trained to be able to design lessons with Game-based Teaching.	✓		
41	Game-based Teaching can be used with the learning content that is not serious.	✓		
42	Game-based Teaching can improve children's knowledge retention rate of the Chinese language.	✓		
43	Game-based Teaching improves the children's ability to work in teams.	✓		
44	Game-based Teaching can stimulate children's interest in Chinese listening	✓		
45	Game-based Teaching can stimulate children's interest in Chinese reading	✓		
46	Game-based Teaching can better stimulate children's Chinese vocabulary.	✓		
47	Game-based Teaching cannot improve children's Chinese reading ability.	✓		
48	Game-based Teaching is suitable for young learners.	✓		

49	Game-based Teaching does not produce clear learning outcomes.	✓		
50	Game-based Teaching should be used from time to time to create fun class atmosphere.	✓		
51	If I can choose what teaching method to use, I will definitely use Game-based teaching.	✓		
52	I preferred a more serious style of teaching like the traditional method.	✓		
53	Using game-based learning indicates the teacher is adopting active learning.	✓		
54	Online games allow students to understand the functions of the computers.	✓		
55	The games used must be carefully designed to align with learning, so there are few usable ones.	✓		
56	I do not use game-based learning often because parents normally are against it.	✓		
57	I believe that game-based learning can improve students' creativity.	✓		
58	I believe that game-based learning can improve students' problem-solving skill.	✓		
59	I take game-based learning to mean anything even a small task that requires competition.	✓		
60	For game-based learning to be successfully launched, parents must understand what it is and how it can develop the young learners.	✓		
<b>NO</b>	<b>PART 4: OPEN-ENDED QUESTION</b>	<b>Agree</b>	<b>Not Sure</b>	<b>Disagree</b>
61	Please add any points you wish to make			



## Item Objective Congruence (IOC) Form 2

### SEMI-STRUCTURED INTERVIEW QUESTIONS

NO	Questions	Agree	Not Sure	Disagree
		1+	0	-1
1	Please tell me how you use game-based teaching in your Chinese language courses?	✓		
2	Please explain how you integrate game-based teaching into the lessons you prepare to deliver?	✓		
3	What is your opinion about game-based teaching? Is it a valuable teaching and learning approach for you?	✓		
4	Can you give some examples of the game-based teaching activities you used?	✓		
5	How do you feel when you see what the students can do or cannot do?	✓		
6	What do you think about the task of designing game-based teaching lessons? Is this easy to manage? What do you need to do to make it effective?	✓		
7	What kind of support do you need?	✓		
8	Have you ever observed game-based teaching classes? What do you think?	✓		



### Item Objective Congruence (IOC) Form 3

#### Observation Checklist

**Lesson**.....

**Date/Time**.....

**Observer**.....

Aspect	Description in Brief
Description of the Lesson	
Game in Use	
Purpose	
Class Atmosphere	

General Evaluation	
Students	
The Teacher	

มหาวิทยาลัยรังสิต Rangsit University



## **APPENDICES D**

### **Certificate of Approval**



COA. No. RSUERB2023-037

**Certificate of Approval  
By  
Ethics Review Board of Rangsit University**

COA. No. COA. No. RSUERB2023-037

Protocol Title A Study of the Experiences and Attitudes of Chinese Language Teachers towards the Use of Game-based Teaching in Teaching Chinese Children

Principle Investigator Guo Yifang

Affiliation Suryadhep Teachers College, Rangsit University

How to review Expedited Review


Approval includes

1. Project proposal
2. Information sheet
3. Informed consent form
4. Data collection form/Program or Activity plan

Date of Approval: 2 April 2023

Date of Expiration: 2 April 2025

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 Kanchanaphum)  
Chairman, Ethics Review Board for Human Research



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

Tel. 0-2791-5728 Email: rsuethics@rsu.ac.th

The image features a large, faint watermark of the Rangsit University logo in the background. The logo is a circular emblem with a stylized flame or sunburst at the top, radiating lines in the middle, and the university's name in Thai and English at the bottom.

## **APPENDICES E**

### **Statistical Analysis of The Scores of The Questionnaire**



[0000] 13

描述统计量

	N	最小值	最大值	均值	标准差
分数	50	1	5	3.98	1.059
有效的 N (列表状态)	50				

[0000] 16

描述统计量

	N	最小值	最大值	均值	标准差
分数	50	1	5	4.20	1.125
有效的 N (列表状态)	50				

[0000] 17

描述统计量					
	N	极小值	极大值	均值	标准差
分数	50	3	5	4.74	.565
有效的 N (列表状态)	50				

[0000] 14

描述统计量

	N	极小值	极大值	均值	标准差
分数	50	1	5	4.16	1.076
有效的 N (列表状态)	50				

[0000] 15

描述统计量

	N	最小值	最大值	均值	标准差
分数	50	3	5	4.68	.653
有效的 N (列表状态)	50				

[0000] 20

描述统计量

	N	最小值	最大值	均值	标准差
分数	50	4	5	4.94	.240
有效的 N (列表状态)	50				

[0000] 19

描述统计量

	N	最小值	最大值	均值	标准差
分数	50	3	5	4.70	.614
有效的 N (列表状态)	50				

[0000] 14

描述统计量

	N	最小值	最大值	均值	标准差
分数	50	1	5	4.16	1.076
有效的 N (列表状态)	50				

✖ [0000] 22

描述统计量

	N	最小值	最大值	均值	标准差
分数	50	3	5	4.86	.452
有效的 N (列表状态)	50				

[0000] 21

描述统计量

	N	最小值	最大值	均值	标准差
分数	50	1	5	2.16	1.621
有效的 N (列表状态)	50				

[0000] 23

描述统计量					
	N	最小值	最大值	均值	标准差
分数	50	3	5	4.76	.517
有效的 N (列表状态)	50				

[0000] 24

描述统计量					
	N	最小值	最大值	均值	标准差
分数	50	1	5	2.32	1.731
有效的 N (列表状态)	50				



【0000】 25

描述统计量

	N	最小值	最大值	均值	标准差
分数	50	1	5	2.86	1.591
有效的 N (列表状态)	50				

【0000】 26

描述统计量

	N	最小值	最大值	均值	标准差
分数	50	3	5	4.72	.573
有效的 N (列表状态)	50				

[0000] 27

描述统计量

	N	最小值	最大值	均值	标准差
分数	50	1	5	2.48	1.705
有效的 N (列表状态)	50				

[0000] 28

描述统计量

	N	最小值	最大值	均值	标准差
分数	50	3	5	4.44	.760
有效的 N (列表状态)	50				

▶ [0000] 29

描述统计量

	N	最小值	最大值	均值	标准差
分数	50	3	5	4.68	.587
有效的 N (列表状态)	50				

▶ [0000] 30

描述统计量

	N	最小值	最大值	均值	标准差
分数	50	3	5	4.72	.607
有效的 N (列表状态)	50				

☛ [0000] 31

描述统计量

	N	最小值	最大值	均值	标准差
分数	50	3	5	4.88	.385
有效的 N (列表状态)	50				

☛ [0000] 32

描述统计量

	N	最小值	最大值	均值	标准差
分数	50	3	5	4.44	.812
有效的 N (列表状态)	50				

[0000] 33

描述统计量

	N	最小值	最大值	均值	标准差
分数	50	4	5	4.92	.274
有效的 N (列表状态)	50				

[0000] 6

描述统计量

	N	最小值	最大值	均值	标准差
分数	50	2	5	4.00	1.107
有效的 N (列表状态)	50				

• [0000] 7

描述统计量

	N	最小值	最大值	均值	标准差
分数	50	1	5	4.18	1.082
有效的 N (列表状态)	50				

[0000] 8

描述统计量

	N	最小值	最大值	均值	标准差
分数	50	1	5	4.24	1.135
有效的 N (列表状态)	50				



[0000] 34

描述统计量

	N	最小值	最大值	均值	标准差
分数	50	2	5	4.42	.810
有效的 N (列表状态)	50				

[0000] 9

描述统计量

	N	最小值	最大值	均值	标准差
分数	50	3	5	4.60	.670
有效的 N (列表状态)	50				

• [0000] 35

描述统计量

	N	最小值	最大值	均值	标准差
分数	50	3	5	4.60	.639
有效的 N (列表状态)	50				

• [0000] 36

描述统计量

	N	最小值	最大值	均值	标准差
分数	50	4	5	4.96	.198
有效的 N (列表状态)	50				

[0000] 37

描述统计量

	N	最小值	最大值	均值	标准差
分数	50	3	5	4.62	.725
有效的 N (列表状态)	50				

[0000] 38

描述统计量

	N	最小值	最大值	均值	标准差
分数	50	4	5	4.94	.240
有效的 N (列表状态)	50				

[0000] 39

描述统计量

	N	最小值	最大值	均值	标准差
分数	50	3	5	4.86	.405
有效的 N (列表状态)	50				

[0000] 40

描述统计量

	N	最小值	最大值	均值	标准差
分数	50	2	5	4.62	.726
有效的 N (列表状态)	50				

[0000] 41

描述统计量

	N	最小值	最大值	均值	标准差
分数	50	4	5	4.98	.141
有效的 N (列表状态)	50				

[0000] 42

描述统计量

	N	最小值	最大值	均值	标准差
分数	50	4	5	4.94	.240
有效的 N (列表状态)	50				

[0000] 43

描述统计量

	N	最小值	最大值	均值	标准差
分数	50	1	5	4.60	.990
有效的 N (列表状态)	50				

[0000] 44

描述统计量

	N	最小值	最大值	均值	标准差
分数	50	3	5	4.88	.385
有效的 N (列表状态)	50				



[0000] 45

描述统计量

	N	最小值	最大值	均值	标准差
分数	50	1	5	1.24	.950
有效的 N (列表状态)	50				

[0000] 46

描述统计量

	N	最小值	最大值	均值	标准差
分数	50	4	5	4.94	.240
有效的 N (列表状态)	50				

➔: [0000] 47

描述统计量

	N	最小值	最大值	均值	标准差
分数	50	1	5	1.60	1.294
有效的 N (列表状态)	50				

➔: [0000] 48

描述统计量

	N	最小值	最大值	均值	标准差
分数	50	3	5	4.76	.555
有效的 N (列表状态)	50				

◆: [0000] 49

描述统计量

	N	最小值	最大值	均值	标准差
分数	50	3	5	4.70	.544
有效的 N (列表状态)	50				

◆: [0000] 50

描述统计量

	N	最小值	最大值	均值	标准差
分数	50	1	5	1.60	1.355
有效的 N (列表状态)	50				

→ [0000] 51

描述统计量

	N	最小值	最大值	均值	标准差
分数	50	3	5	4.48	.814
有效的 N (列表状态)	50				

→ [0000] 52

描述统计量

	N	最小值	最大值	均值	标准差
分数	50	3	5	4.44	.837
有效的 N (列表状态)	50				

[0000] 53

描述统计量

	N	最小值	最大值	均值	标准差
分数	50	5	5	5.00	.000
有效的 N (列表状态)	50				

[0000] 54

描述统计量

	N	最小值	最大值	均值	标准差
分数	50	1	5	1.60	1.400
有效的 N (列表状态)	50				

[0000] 56

描述统计量

	N	最小值	最大值	均值	标准差
分数	50	4	5	4.98	.141
有效的 N (列表状态)	50				

[0000] 57

描述统计量

	N	最小值	最大值	均值	标准差
分数	50	3	5	4.64	.663
有效的 N (列表状态)	50				



【0000】 58

描述统计量

	N	最小值	最大值	均值	标准差
分数	50	4	5	4.90	.303
有效的 N (列表状态)	50				

【0000】 10

描述统计量

	N	最小值	最大值	均值	标准差
分数	50	1	5	4.28	1.070
有效的 N (列表状态)	50				

➔ [0000] 11

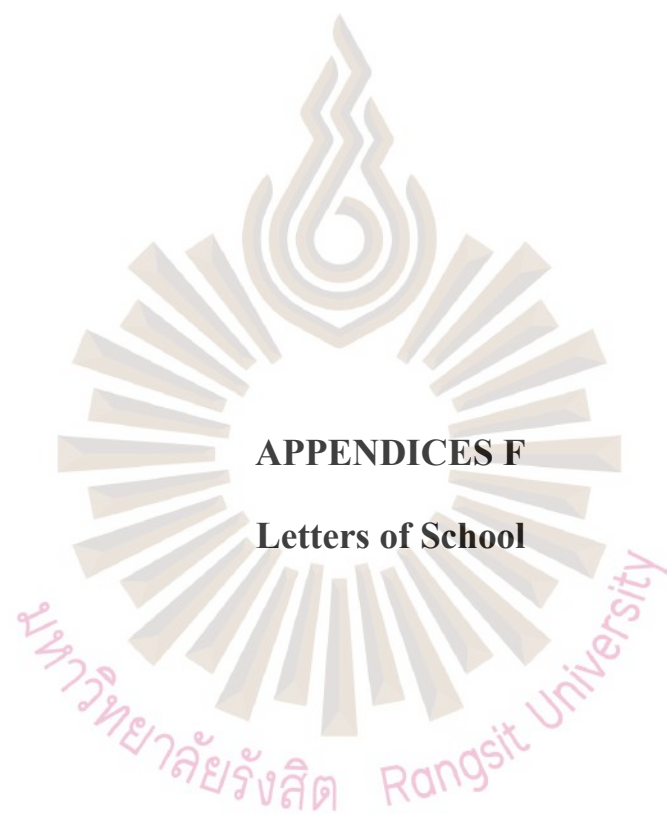
描述统计量

	N	最小值	最大值	均值	标准差
分数	50	3	5	4.66	.658
有效的 N (列表状态)	50				

➔ [0000] 12

描述统计量

	N	最小值	最大值	均值	标准差
分数	50	1	5	4.20	1.325
有效的 N (列表状态)	50				



## **APPENDICES F**

### **Letters of School**

### Certificate

Student Guo Yifang, During the internship in Shihezi experimental kindergarten, Xinjiang. Participated in the research on the topic of "comparison between game Chinese teaching and ordinary Chinese teaching". Undertake the collection and sorting of data in the project, and use the project data with the consent and authorization of the park and the project team.

Xinjiang Shihezi Experimental Kindergarten

Year 2021 month 4

### Prove

With the consent of Shihezi Experimental Kindergarten in Xinjiang, China, Guo Yifang, a postgraduate majoring in bilingual education from the school of education of Lanshi University in Thailand, came to our kindergarten for internship. In line with China's educational system that allows male teachers to carry out early childhood education. Under the guidance of our teacher Sun Yan, Guo Yifang conducted a four month internship and research, The research data were collected anonymously, which had no impact on the students in the park and normal teaching activities. Guo Yifang performed well during with his internship.

It is hereby certified.

Signature of the principal

Sun Hong Xia

Signature of instructor

Sun Yan

Signature of student

Guo yi Fang

2021.12

**BIOGRAPHY**

Name	Guo Yifang
Date of Birth	May 24, 1997
Place of Birth	Shi Hezi, China
Education Background	Kunming University of Science and Technology, China Bachelor of Education in International Education of Chinese, 2014 Rangsit University, Thailand Master of Education in Bilingual Education, 2023
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