

# The Relationship Between Game-Based Learning and English Academic Achievement among Primary Students in Huangguang School, China

Wang Yuanyuan and Zhang Dandan

**Abstract** – The study aims to determine the relationships between game-based learning and English academic achievement. Samples were 66 primary students from 2 classes in China Huangguang school. One is an experimental class (EC), and the other is a control class (CC). The experiment revolved around two research questions: (1) What is the level of pre-and post-test English academic achievement in the experimental class and the control class in Huangguang School? (2) What are the differences in pre-and post-test English academic achievement between the experimental class and the control class in Huangguang School? After two English lessons, although the students in both classes showed significant improvement in their scores, the average score of EC2 was 30.1818 and that of CC2 was 27.2121, and they both made progress to a certain extent, but the progress of EC2, which was taught with games, was more obvious. Data from SPSS 25 represents the Sig. (P)=0.019 (smaller than 0.05) between EC2 and CC2 after the experiment, and also t value is 2.470 which shows that the difference between the two sets of data with and no game teaching is statistically significant. This means that there is a significant difference between student academic achievement obtained through game-based learning and those without-based learning-based learning. So there is a significant relationship between game-based learning and English academic achievement. In addition, the author will explore the integration of game-based learning with modern pedagogical models, such as digital education and distance learning, to better adapt to the needs and trends of future learning.

**Keywords** – game-based learning, English academic achievement, primary students, curriculum design

## I. INTRODUCTION

Education research highlights the critical importance of student engagement in recent decades, with the Compulsory Education English Curriculum Standards (2011) advocating for a "student-centred, teacher-led" approach. This emphasizes viewing students as active participants in their learning process, gradually enhancing their English proficiency through classroom activities to establish a solid foundation for holistic development.

Numerous experiments and studies in game-based learning (GBL), such as Gamlo (2019) focus on developmental education and have aimed to shift education paradigm away from knowledge-centric approaches. Similarly, Taka (2019) underscores the importance of engaging in teaching activities. Practical activities like warm-up games and group collaboration

inject vibrancy into English classes, offering increased opportunities for active participation. However, there remains a lack of clarity on effective methods to enhance student engagement. Game-based learning (GBL) has gained attention for its potential to create engaging learning environments.

With the rise of educational games and emerging technologies, GBL integrates game elements into the learning process to ignite student interest and enhance engagement. From the perspectives of Constructivist Learning Theory, Behaviourism theory, and Flow theory, game teaching could significantly influence how students process, store, retrieve, and use information. This research aims to explore the impact of game teaching on English academic achievement among primary students in Guangzhou, providing evidence-based insights into how this innovative approach can improve learning outcomes and optimize English teaching strategies in primary schools.

## II. PROBLEM STATEMENT

Currently, English learning in elementary school faces many challenges, including the difficulty of subject comprehension and the decline of students' academic achievement. Traditional teaching methods may not be able to fully stimulate students' enthusiasm for the subject and their interest in language acquisition. At the same time, classroom game-based learning is gradually being emphasized as an innovative educational tool, and its engaging characteristics may bring new possibilities to elementary school English education.

According to Qin (2022), today's classroom games are unscientific, classroom discipline is more difficult to maintain, teachers are unable to pay attention to students' individual differences as well as teachers lack of comprehensive control over the classroom. If we are unable to overcome the current teaching challenges and find more engaging teaching methods, it may lead to a weakening of students' interest in the subject of English, which in turn may affect their performance in the subject. This situation may leave a negative impact on students' learning process, affecting their future language acquisition and the development of their overall subject competence.

Learning English requires a good environment and atmosphere, but at present, primary school students' English learning takes place in the classroom, and there is no corresponding learning environment and learning place after class, which makes it difficult for students to apply

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what they have learned in practice (Wu, 2023). Failure to address the current teaching problems may lead to a decline in primary school students' academic performance in the English subject and may even affect their overall academic development. Game teaching, on the other hand, as a potentially innovative approach, may provide a new way out for English education in elementary school. If successfully applied, game teaching may stimulate students' strong interest in the English subject, improve their performance in the subject, and lay a solid foundation for future academic development. Therefore, an in-depth study of the actual impact of game teaching on primary school students' English performance can help find more effective teaching strategies and promote the innovative development of English education.

### III. LITERATURE REVIEW

#### *Research on the practice of game-based learning in foreign countries and China*

Ramadhaniarti (2016) conducted a game-based study from a student's point of view, and he argued that teaching vocabulary through games is an effective and fun method that can be applied in any classroom setting. Games not only prevent students from passive learning in traditional classrooms, but also motivate them to learn. Gaudart (1999) studied many types of games (e.g., card games, board games, simulation games, and party games) to explore how games can be utilized as a pedagogical tool to assist Malaysian student teachers. iKasimova (2022) explores the importance of Ice Breakers (Ice Breakers) activities in teaching English. Ice activities as part of the beginning of the classroom are effective in increasing student engagement and motivation, thus contributing to the achievement of learning goals. n teaching English as a Second Language (ESL) and as a Foreign Language (EFL). Zhang (2023) theoretically elaborated and practically analyzed the game pedagogy based on the multiple intelligence theory, constructivist theory and affective filtering theory. The study found that there are some problems when teachers use game teaching, such as insufficient handling of teaching materials and neglecting reading and writing exercises. At the same time, suggestions were made to improve game teaching. Based on the concept of quality education. Wu (2023) used case study and empirical research. Through observing and recording specific teaching practices, the application effect of game teaching in elementary school English teaching is analyzed. Game teaching is used as an innovative teaching method for enhancing the effectiveness and fun of elementary school English teaching.

The literature reviews above all discuss different approaches to exploring the application of games in English teaching. Whether through games, ice-breaking activities, or other methods, all studies focus on improving students' learning motivation and engagement. In addition to emphasizing the advantages of game-based teaching, some studies also point out potential issues encountered in practice, such as inadequate handling of teaching materials

and neglect of reading and writing exercises. At the same time, these studies also propose suggestions for improving game-based teaching to enhance teaching quality.

#### *Related Theories*

##### a). Behaviourism Theory:

Behaviourism (also spelt behaviourism) is a systematic approach to understand the behaviour of humans and other animals. It is a school of psychology founded by John B. Watson in 1913 who argues that behaviour must be a single subject of psychology. The theory of learning behaviourism psychology was advanced by behaviourism psychologists. They believe that human behaviour is controlled by rewards or reinforcement from the environment. Thus, in the practice of learning, there is a close relationship between behavioural reactions with stimulation (Muhajirah, 2020). It assumes that behaviour is either a reflex evoked by the pairing of certain antecedent stimuli in the environment, or a consequence of that individual's history, including especially reinforcement and punishment contingencies, together with the individual's current motivational state and controlling stimuli.

Thorndike (1898) believed that learning is a process of continuous trial and error, with a gradual decrease in error responses and an increase in correct responses, eventually forming a solid linkage of stimulus ---- responses. The theory emphasizes the use of diverse forms of sentence drills in different learning activities. The purpose of this kind of language practice is to give language learners the opportunity to repeat the target language without interruption, so as to achieve the actual effect of "stimulus-response". Another representative of behaviourism, Bandura (1977), put forward the "observational learning theory". According to him, children learn new behaviours by observing and imitating the behaviours of adults. This shows that learners value the observation and imitation of language and continue to acquire language by imitating their surroundings, such as the teacher's tone of voice, audio and video, and other related materials.

##### b). Flow Theory:

The theory of flow refers to a sense of pleasure, fluidity and fulfilment that people experience during highly challenging and focused tasks. This theory, developed by Nakamura & Csikszentmihalyi (2002), emphasizes the balance between task and skill and works to explain the state of immersion that people experience when they are intently engaged in a particular situation. Mind-flow experiences are particularly important in education to motivate learners and increase interest and confidence in learning.

With the development of heart flow theory over the past few decades, it is now generally accepted that heart flow only occurs when both skill level and challenge level are at a high level. If both are at a lower level, even a match is not considered to produce a flow and is generally considered to fall into a state called Apathy (indifference or senselessness). This is why we generally don't find a

sport interesting when we first start learning it and only find it more interesting when we familiarize ourselves with the technique later on, and use more advanced skill levels to challenge ourselves with more difficult technical movements. In addition to Apathy, there are other states at other levels as well.

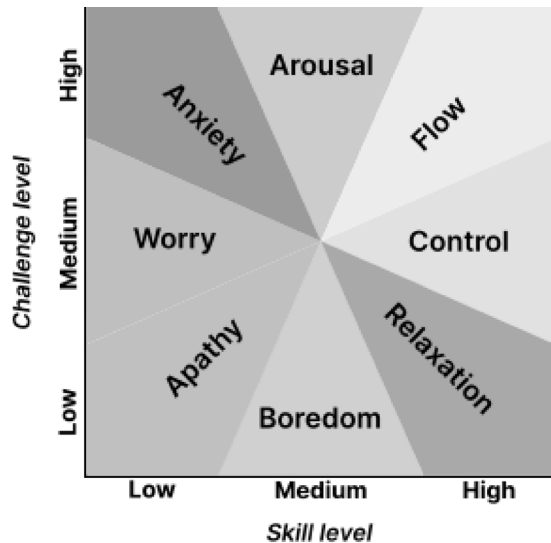


Figure 1. Model of flow (adapted from Csikszentmihalyi (1990, 1997).

c). Constructivist Learning Theory:

Constructivist learning theory, on the other hand, views learning as an active process of constructing knowledge. It emphasizes that learners make sense of and give meaning to the external world based on their own experiences and supports the use of contextual and collaborative approaches to teaching and learning. The theory is particularly important in educational design, advocating a student-centred approach that encourages them to actively construct a body of knowledge and realize the meaning of that knowledge in instructional contexts.

According to Von Glasersfeld(2012), his main focus in learning is on constructivism, particularly radical constructivism. He emphasizes the importance of understanding over mere performance and advocates for a constructivist theory of knowing in education. Von Glasersfeld highlights the need for conceptual development and the role of social interaction in the development of knowledge. He argues that teaching should focus on helping students understand why a particular conception or theory is considered scientifically viable in a given historical or practical context, rather than presenting it as a privileged truth.

**IV. METHOD**

**A. Framework for a statistical analysis program**

- Step 1: Selection of textbook content.
- Step 2: Pre-test and result analysis. A pre-test was conducted by the experimental class (EC which with game-based learning) and control

class (CC which with no game-based learning) to test the children's mastery of the content in order to exclude the influence of students with better English proficiency on the results of the experiment.

- Step 3: At the end of the class, the students were given a standardized Post-test on the content of the lesson.
- Step 4: Summarize the information

Types of Games

According to the function of instructional games, the games used in this study can be divided into 3 categories: icebreakers and warm-ups, drill games and revision games.

Icebreakers and warm-ups

a). Fragmentary pictures:  
The teacher shows pictures of parts of the vocabulary learned in the previous lesson and asks the students to guess the words.

b). Flashcards:  
Words from the vocabulary are flown in front of the screen at a fast speed for students to observe and guess the words and sentences.

c.) Running man:  
Make a video combining a running game with words and sentences. Students watch and run along with the video while reading the words aloud.

d.) What is missing:  
show a set of pictures or words, give time for the students to observe, and when one of the pictures or words disappears, have the students say the word.

Drill games

a). High and low voice:  
Simple but not easy, the skill is, first of all, the teacher should say loudly, the students say in a low voice, play the role of input, and then the students loudly, the teacher in a low voice. Summarize the results of the game in time, mobilize the atmosphere, and praise immediately.

b). Magic fingers:  
If the group outputs the word cat, the teacher extends 1 finger, and students say cat, extends 2 fingers, and students say cat, cat.

c). Touch and say:  
Prepare word cards or pictures of the corresponding words, and after sufficient practice, let the students clap the pictures while saying the word aloud to test their mastery of the word. To make it more interesting, the teacher can intentionally shrink back so that the students can't take the picture.

d). Super bomb:

This can be used as a drill and output game. There are 10-20 new words on the board, and this is done after the corrections. The teacher quickly assigns any word on the board as a bomb, without marking it, so that everyone just memorizes it in their minds. The teacher then starts to read and when the student reads the word that is a bomb, it goes off with a bang. This game appeals to the child's concentration and reflexes, as well as whether or not he or she really knows the vocabulary.

e). Sentences dragon:

This is an individual student output game. For example, the teacher starts with "I like cakes, what do you like?" and the first student responds to my question with "I like peanuts, what do you like?" And then the next student. In this way, all the students can practice in the form of solitaire. This will help students to memorize and understand the grammar.

Revision games

*Star, gun and bomb:*

In this game through two groups of competition, the stars get more group win, review session in the PPT set of exercises to answer, students can answer each question randomly for a reward, respectively, stars, guns and bombs, draw a gun on behalf of the gun can be used to knock out the other side of the 1 star, draw a bomb will automatically blow up their own 1 star. Finally, according to the number of stars obtained, to determine which group wins or loses.

*Roleplay:*

In the text of the content of the performance of the link, the teacher can first let the children read aloud the text, familiar with the text, and then set up a textbook in the same situation, ready for the content of the textbook need food materials and the corresponding law of the headdress, in this way to let the students watching a more intuitive feeling of the role. For example, Sally and her mother are preparing to make a cake at home, and the next part of the conversation is between them. The children can add some movements and expressions during the performance, so that the whole session will look more vivid. After the students finish the performance, the teacher can invite 1-3 students to make a comment on their performance, which will help the next group of students to improve their performance.

*Stand and clap:*

This game is suitable for reviewing after teaching grammar. For example, after teaching a/an grammar, start to play the game to consolidate the review. a + consonant phoneme words, an + vowel phoneme words (e.g. a,e,i,o,u). It is done as follows: first, all the students close their eyes to avoid being influenced by other students. If the teacher says the word preceded by a, please stand up. If the teacher says the word preceded by an, clap your hands once. This game is open to all students, and the teacher's eyes should cover all the students. If you find that

the children are not familiar with a certain vocabulary word, the teacher can consolidate it again after finishing the game.

*Passing down*

It can be used as a game when drilling sentences. Prepare a doll as a pass-through, according to the specified requirements to say a word or sentence that has been delimited, the teacher plays music, the student who gets the doll repeats the sentence the teacher says in his mouth, and when the music stops, which student has the doll in his hand, that student has to come out and answer the question.

*Overall teaching plan*

After the pre-tests, the students in the experimental class underwent another 2 days of the Game based learning model. In the following 2 days, the teacher selected and designed different instructional games according to the teaching contents and students' proficiency.

Day 1: Experimental Class

Step1: Warming up

- Sing a song (fruit song)
- Review words and sentences (Games of Fragmentary pictures and Flashcard)

Step 2: Presentation

- Learn the words with games: High and low voice, Magic fingers, Touch and speak.
- Present the sentences: Sentences dragon

Step 3: Review

- Practise the words with games: Touch and speak
- Practise the sentences with games: Passing down

Day 1: Control Class

Step1: Warming up

- Sing a song (fruit song)
- Review words and sentences (Show them Chinese meaning and answer)

Step 2: Presentation

- Learn the words in a regular way. The teacher read then students read.
- Present the sentences: Teacher asks, students answer. Or students ask, students answer.

Step 3: Review

- Practise the words: read the words
- Practise the sentences: read the sentences

Day 2: Experimental Class

Step 1: Warming up

- Sing a food song.
- Play a high and low voice game to review the words of different foods.

Step2: Presentation

- Teach the countable and uncountable nouns with the game of "Stand and clap"

- Teach the sentences with the game of “Sentences Dragon”. To show the whole dialogue with the game of “role play”

Step 3: Exercise

- Doing exercises with the game of “star、gun and bomb”

#### Day 2: Control Class

Step 1: Warming up

- Sing a food song.
- Show pictures to review the words of different foods.

Step2: Presentation

- Teach and read the countable and uncountable nouns.
- Teach and read the sentences. To read the whole dialogue.

Step 3: Exercise

- Write the answers of the exercises.

#### Population and Sample

In this thesis, the author selected the school where the author used to work, Huang Guang Primary School No.2 Campus, Huadu District, Guangzhou City. The subjects of this experiment were the second-grade students of Huangguang Primary School Second Campus, why did we choose the second-grade students? First of all, I am more familiar with the teaching materials of this grade, so that I can have a clear goal for the design of curriculum games. Secondly, second graders have already had one year of English foundation, so they will be more familiar with the teacher's commands, and the efficiency of the classroom will also be improved. Finally, unlike the upper grades, second graders do not have much of their own ideas and personalities, nor have they gone through years of English study and extracurricular tutoring, so there is not much difference in English proficiency among their classmates.

There are 18 classes in the second grade of the school, with about 33 students in each class, totaling about 594 students. The author will take two classes as experimental subjects according to the overall situation of students' classes. The sampling flow chart is as follows:

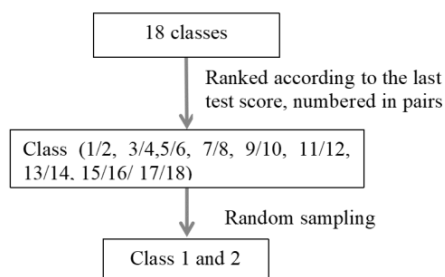


Figure 2. Sampling Flow Chart

#### Research Instrument

The research tool is an exercise question matching with the textbook, and the content test point is "New Welcome to English" 2B, chapter 2- -Our Favourite Food, Part AB section. This question is compiled by the school teacher

according to the knowledge points of the book. Questions include listening and written tests. This volume has a total of 40 questions, each one point, 25 questions, and the written part of the 15 questions. In the second-grade stage, the students do not master particularly much vocabulary, but the students in the language ability and listening comprehension ability is usually slightly stronger than the written expression ability. Therefore, giving more scores to the listening part of the English test allows for a more comprehensive assessment of the student's English proficiency. In addition, by increasing the weight of the listening part, students can pay more attention to English listening training, improve their listening comprehension ability, so as to lay a better foundation for them to learn English in the future. This is also in line with the principle of education and teaching, that is, according to the development level and characteristics of students, to promote their all-round development. Therefore, in the second-grade English test, the listening ability occupies a large proportion, which can better reflect the students' English level, and play a positive role in promoting the overall improvement of their language ability.

- Choose the words or phrases you hear.
- Select the sentences you hear.
- Select the appropriate answer sentence according to the question sentence.
- Look at the picture to judge, write the right T, and write the wrong F.
- Write the missing words in the sentence.
- Find out different kinds of words.
- Read the sentence and choose the right answer.

#### Data Analysis

Quantitative data from tests are collected from this study. And SPSS 25.0 was used to analyze the data.

First of all, the basic analysis was used on the pre-test data to find out whether the experimental class (EC) and the control class (CC) were parallel or not. The author will analyze the first scores of the experimental class (EC1) before game teaching and the second scores of the experimental class (EC2) after game teaching, as well as the first scores of the control class (CC1) before no game teaching and the second scores of control class (CC2) after no game teaching,

Secondly, the author used the Independent Samples T Test again on post-tests to see if there was any difference between the experimental class (EC1/2) and the control class (CC1/2) after the teaching experiment.

Thirdly, the Pearson correlation analysis was employed to analyze the correlation between game-based teaching and English academic achievement.

## V. FINDINGS

This chapter focuses on the analysis of the results of the experiment, with a total of two pre-and post-tests to be analyzed. First, the Independent Samples T Test, and Pearson correlation analysis are adopted. The results of the experiment will be analyzed in the form of data icons to

see whether game teaching has an effect on English academic performance, and thus how teachers should adjust their teaching strategies to improve students' English academic performance in the future classroom.

According to the obtained data, the performance of the two classes was compared and contrasted to determine any significant differences. The detailed results are presented in the following tables.

Basic analysis in EC and CC

**TABLE I : THE BASIC STATISTICS OF ENGLISH ACADEMIC ACHIEVEMENT IN EC AND CC**

<i>Descriptive Statistics</i>					
	N	Minimum	Maximum	Mean	Std. Deviation
EC1	33	10.00	25.00	18.1818	4.558
EC2	33	20.00	40.00	30.1818	5.434
CC1	33	10.00	26.00	18.9697	4.355
CC2	33	19.00	35.00	27.2121	5.023

Before the empirical study, a pre-test was carried out to test whether all the subjects in EC1 and CC1 were at the same level of English academic achievement. The scores of each test can vary theoretically from 0 to 40. The higher the score on the test, the higher the level of students' English academic performance will be, and vice versa. After 2 lessons of teaching, the post-tests were carried out in both EC2 and CC2 to testify to whether there is a distinct difference between the two classes and the effectiveness of the game-based learning model on students' academic achievement. An Independent Samples Descriptive Statistics was held to examine whether the difference between EC and CC is statistically significant in terms of scores of reading performance.

We can see from Table I that the average scores of the two classes EC1 and CC1 were not much different from each other before the test, EC1 was 18.1818 and CC1 was 18.9697. The lowest score of the classes was 10 and the highest scores were 25 and 26 respectively, which indicated that the two classes had comparable levels of English before the experiment. After two English lessons, although the students in both classes showed significant improvement in their scores, the average score of EC2 was 30.1818 and that of CC2 was 27.2121, and they both made progress to a certain extent, but the progress of EC2, which was taught with games, was more obvious.

Correlation analysis in EC and CC

**TABLE II : CORRELATION BETWEEN THE GAME-BASED TEACHING AND ENGLISH ACADEMIC ACHIEVEMENT IN EC AND CC PAIRS**

<i>Paired Samples Test</i>						
		n	m	t	df	p
Pair 1	EC1- EC2	33	-12.000	-18.506	32	.000
Pair 2	CC1- CC2	33	-8.242	-14.655	32	.000
Pair 3	EC1 -CC1	33	-.787	-.774	32	.445
Pair 4	EC2-CC2	33	2.969	2.470	32	.019

From Table II, it can be seen that there is a difference of 12 points between the mean scores of the EC group before and after the experiment, and 8.242 between the mean scores of the CC group before and after the experiment, the difference between EC and CC before the experiment is 0.787, but after the experiment, the difference between the two classes is 2.969.

In addition to that, Sig.(P)=0 for pair1 and pair2. It means that students' English academic achievement has significant differences between pre-tests and post-tests.

Furthermore, pair 3 of EC1-CC1 can be seen that it has Sig.(P)=0.445 (much higher than 0.05). It means that students' English academic achievement has no significant differences in the EC and CC.

Finally, pair4 data represents the Sig.(P)=0.019 (smaller than 0.05) between EC2 and CC2 after the experiment, and also t value is 2.470 which shows that the difference between the two sets of data with and no game teaching is statistically significant. This means that there is a significant difference between student academic achievement obtained through game-based learning and those without-based learning-based learning. So there is a significant relationship between game-based learning and English academic achievement.

**VI. DISCUSSION**

Differences between Game-Based learning and Traditional Learning Methods

Game-based learning in English offers a captivating approach that enhances language proficiency through interactive engagement. Unlike traditional methods, it excels in several aspects.

First of all, it can immerse the students in the game atmosphere of the classroom, which makes them very focused and eager to participate in the learning activities, thus improving the students' enthusiasm. This is in sharp contrast to the monotony of the traditional classroom, thus improving the learning effect of students. Secondly, students promote the practical use of the language with teachers or classmates by communicating and cooperating in English during the game. Unlike rote grammar memorization, this practical application enriches contextual understanding and mastery of language skills and improves students' speaking and listening skills.

In addition, group games in the classroom can foster teamwork and communication, which is crucial to improving your oral English skills. Different from traditional delay feedback systems, real-time feedback mechanism helps teachers to correct errors and improve expression for students. It develops their independent learning and problem-solving skills through challenging gameplay that promotes student active learning and the application of practical skills.

How to promote the overall development of English language proficiency

Section 4.7 of the United Nations Sustainable Development Goals (SDG) 2030 agenda emphasizes the importance of equipping all learners with the knowledge and skills needed to advance sustainable development. This includes education for sustainable development, human rights, gender equality, the promotion of a culture of peace, global citizenship, and an appreciation of cultural diversity. Combining the content of this conference, it is crucial for future English classes to incorporate English language learning into this framework of combining development goals.

Therefore, in future English classes, teachers can combine traditional classroom teaching and modern technological means, such as virtual reality, gamified learning, etc., to stimulate students' interest and participation. Secondly, teachers introduce global civic education, so that students can understand how English is used in different cultural backgrounds, and pay attention to cultural diversity and inclusiveness. It can also stimulate students' creative thinking and problem-solving ability through project-based learning, and cultivate their comprehensive quality.

## VII. SUGGESTION FOR FURTHER STUDIES

The integration of game-based teaching in the classroom with modern teaching models such as digital education and distance learning can provide better adaptability to future learning needs and trends. Here are some reflections:

In class:

Application of virtual and augmented reality

With virtual reality (VR) and augmented reality (AR) technology, game-based learning can create a more immersive learning experience. Students can experience the English context more intuitively through the virtual environment, increasing the realism and fun of learning. For example, multimedia tools can be used to create word review videos, such as the Temple Run game, where students can watch the video, run in the real world, and get points to gain a sense of satisfaction by reciting the words.

Real-time feedback and data analysis:

The game-based learning platform can provide a real-time feedback mechanism to help teachers better understand students' learning. Meanwhile, through data analysis, students' weaknesses and needs in language learning can be identified for more targeted teaching interventions. For example, the XIVO Whiteboard, a teaching tool used in most Chinese classrooms, contains a variety of games. Teachers can design corresponding games according to the different contents of each lesson, and after the students finish the games, the system will provide feedback on their performance, so that both the

teacher and the students will be able to see where they still have deficiencies.

After class:

Game-based instruction can be integrated with digital education platforms to provide a more flexible and personalized learning experience. Students can access game-based learning content anytime, anywhere through an online platform, making learning less limited by time and place. For example, in Guangzhou, China, all primary school students use an English learning software, the Together Homework app, which is a combination of homework and games with games designed with cute, lively drawings and moderate difficulty. Teachers can assign students the corresponding after-school homework of the day through the back-end platform, and students can also complete the tasks in a relaxed game atmosphere. Similarly, teachers can assess students' language skill levels more effectively through the data reflected in the back-end, track students' learning progress and interest more finely, and adjust the difficulty and content according to individual needs. Such personalized learning paths can better meet students' subject needs and improve learning outcomes.

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