

## ACADEMIC ADMINISTRATION GUIDELINES FOR IMPROVING TEACHING CHINESE WRITING THROUGH GAMIFICATION FOR VOCATIONAL HIGH SCHOOL STUDENTS

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### ABSTRACT

The objectives of this research were: 1) To investigate problems and needs of academic administration for improving teaching Chinese writing through gamification. 2) To develop guidelines of academic administration for improving teaching Chinese writing through gamification. The sample groups were 333 students, 24 teachers and 5 school administrators obtained through stratified random sampling at Taishun vocational education center as a case study. The research instruments were questionnaires with 20 questions for 5 rating scales for students, teachers and school administrators and set of questions for focus group discussion. The questions were reviewed and checked by three experts and the methodology of valuation used was the IOC. The statistics used for analyzing data including frequencies, percentages, means, and standard deviations. The results indicated that: 1) Students think that the game-based learning of Chinese writing needs to improve writing ability is in the “Highest” level. Teachers think that gamification to teach Chinese writing needs to improve students' writing efficiency is in the “Highest” level. School administrators think that gamification teaching Chinese writing needs to have enough equipment in the classroom is in the “Highest” level. 2) The Development guidelines of academic administration in Chinese writing through gamification improving teaching in vocational high school comprises of 5 parts. The guidelines include 1) Using the gamification for teaching Chinese writing 2) Improving students' interest to learn Chinese writing well by using gamification 3) Motivation students to improve their Chinese writing ability efficiently 4) Management assessment methods for gamification teaching Chinese writing 5) using equipment to help their Chinese writing.

**Keywords:** Development Guidelines, Academic Administration, Chinese Writing, Taishun Vocational Education Center

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## Introduction

Chinese is one of the languages that Chinese people use. Chinese is an important part of the compulsory course for Chinese students, which should be valued by many people (Li, Thompson, 2022). It is also a key subject in vocational and technical high school teaching. Chinese writing is an output process that allows students to observe frequently and think more. As an important part of Chinese learning, it plays an important role in improving students' language expression ability and logical thinking ability. However, there are some problems in traditional Chinese writing teaching methods. Learning for the purpose of scores requires students to master the learning content of textbooks under exam-oriented education. It ignores students' ability to think independently and innovate. For example, the teaching content makes students feel boring, the teaching process lacks a certain interest, and it is difficult to arouse students' interest, etc., which are all the reasons that constrain the development of students' writing thinking ability. In modern education, there is a correlation between the implementation of the curriculum and the active participation of learners in the learning process, as well as a lack of motivation (Mee, Pek, Von, Ghani, Shahdan, Ismail, Rao, 2021). In order to solve these problems, students can stimulate their interest and participation in learning Chinese writing by gamification and teaching Chinese writing. Experts, scholars and educational institutions in the field of education at all stages strongly promote gamification education methods, especially for students, integrate game elements into the teaching content and process, design learning tasks rich in games, integrate learning and entertainment, and students can practice Chinese writing in a relaxed and happy environment. It can not only stimulate students' interest and enthusiasm for learning, but also cultivate students' creativity and imagination (Koivisto, Hamari, 2019).

In this context, it is necessary to formulate guidelines for teaching Chinese writing through gamification. It is of great significance to formulate according to the characteristics and needs of students. Through the form of gamification, it can attract students' attention, provide an interesting learning environment, and stimulate their interest in learning Chinese writing. In addition, the gamification education method can cultivate students' writing thinking ability, creativity and critical thinking by designing various levels and challenges. The current research situation in China and abroad shows that gamification education methods have been widely applied and studied in the field of Chinese writing teaching (Reilly, Neumann, Andrews, 2019). Many scholars and educational institutions have achieved remarkable results by developing various Chinese writing games. These studies show that through gamification education methods, students' interest and enthusiasm for learning have been greatly improved, and the learning effect has also been significantly improved.

Through the case study of this study, we hope to provide some effective guidelines for professionals in the field of Chinese writing to promote the reform and innovation of

Chinese writing teaching. At the same time, improve students' writing ability and cultivate their comprehensive literacy.

### Objectives of Research

This study aims to answer the following questions:

1. To investigate problems and needs of academic administration for teaching Chinese writing through gamification.
2. To develop guidelines of academic administration for improving Chinese writing through gamification teaching for vocational high school students.

### Research Methodology

The purpose of this study is to discover and study some problems and needs of vocational high school students in Chinese writing. Then make a guide for gamifying Chinese writing according to these problems and needs. A case study of a Taishun Vocational Education Center.

#### 1. Research design

Mixed Methods Research (Quantitative research and Qualitative research) was used to analyze the data because it uses both quantitative and qualitative approaches in the research process.

#### 2. Population and sample group

##### 2.1 Population

In this research, Taishun County Vocational Education Center was used as a case study. The population in this research project were divided into 3 groups, namely; 1) 2000 students 2) 24 teachers 3) 5 school administrators.

##### 2.2 Sample Group

The sample groups were divided into 3 groups, namely, 1) 333 students 2) 24 teachers 3) 5 school administrators. The sample groups were calculated according to Yamane's formula (1973). And the respondents were collected through the stratified random sampling technique.

#### 3. Research tools

The tools used for research are as follows:

##### 3.1. Questionnaires

The questionnaires were divided into three parts as follow:

- 1) General Information
  - 2) Problems of teaching Chinese writing through gamification
  - 3) Needs of teaching Chinese writing through gamification.
- Questionnaires were evaluated the correctness and suitability by the 3 specialists (one Thai professor and two

Chinese native speakers) and the methodology of valuation used was the IOC (index of item-objective congruence).

### 3.2 Focus group

Focus group discussion were used data from students, teachers and school administrators. According to the discussion and answers for creating guidelines to improving teaching Chinese writing through gamification.

## 4. Data Collection

The data were collected by distributing the questionnaires to the participants within one month. The process of data analysis spent about a week. It took two weeks to complete the report for this study.

4.1 The questionnaires were sent to 362 people in Taishun vocational education center and 362 were returned to the researcher.

4.2 The discussion of focus group was used to collect the data from 2 teachers and 2 school administrators.

## 5. Data Analysis

5.1 Quantitative survey questions were used to analyze and the statistics used for analyzing data including frequencies, means ( $\bar{x}$ ) standard deviations (*S. D.*) The Five Point Likert Rating Scale was used to evaluate the respondents' needs and problems in teaching Chinese writing through gamification.

5.2 The qualitative method was used for focus group discussion which are analyzed and the statistics used for analyzing data were based on frequencies.

## Research Results

1. Present situation of teaching Chinese writing through gamification in Taishun vocational education center. There are problems and needs of the teaching Chinese writing through gamification for students, teachers and school administrators.

**Table 1** Students' Problems and Needs of the teaching Chinese writing through gamification

Questions	n = 333		Level of problems and needs
	$\bar{x}$	<i>S. D.</i>	
Problems:			
1. I'm not interested in gamification learning Chinese writing.	4.65	0.21	Highest
2. I didn't find it interesting when I learned Chinese writing in gamification.	4.64	0.57	Highest
3. I don't think it's easy to learn Chinese writing in gamification.	4.61	0.33	Highest

Questions	n = 333		Level of problems and needs
	$\bar{x}$	<i>S. D.</i>	
4. I don't think it's easy to learn Chinese writing in gamification.	4.56	0.33	Highest
5. I think it takes a lot of time to learn Chinese writing using gamification.	4.55	0.21	Highest
<b>Needs:</b>			
1. I think the game-based learning of Chinese writing needs to improve writing ability.	4.60	0.23	Highest
2. I think gamification of learning Chinese writing needs to improve writing efficiency.	4.58	0.33	Highest
3. I think the game learning of Chinese writing needs to improve social skills.	4.55	0.31	Highest
4. I think gamification learning Chinese writing needs to improve self-learning ability.	4.54	0.41	Highest
5. I think Chinese writing needs to improve the learning motivation through gamification.	4.53	0.47	Highest

According to table 1, it is indicated that the students rated the problems and needs of academic administration for teaching Chinese writing through gamification at the highest level. For the problems, firstly, most students indicate that they are not interested in learning Chinese writing has the highest impact on Chinese writing learning with  $\bar{x}$ =4.65. *S. D.*=0.21. Secondly, most of students indicate that they don't find it interesting when they learned Chinese writing in gamification has the highest impact on Chinese writing learning with  $\bar{x}$ =4.64. *S. D.*=0.57. Then, most of students indicate that they don't think it's easy to learn Chinese writing in gamification has the highest impact on Chinese writing learning with  $\bar{x}$ =4.06. *S. D.*=0.33. Fourthly, most of students indicate that they don't think it's easy to learn Chinese writing in gamification has the highest impact on Chinese writing learning with  $\bar{x}$ =4.56. *S. D.*=0.33. Finally, most of students indicate that they think it takes a lot of time to learn Chinese writing using gamification has the highest impact on Chinese writing learning with  $\bar{x}$ =4.55. *S. D.*=0.21.

For the needs, firstly, most students indicate that students think the game-based learning of Chinese writing needs to improve writing ability has the highest impact on Chinese writing learning with  $\bar{x}$ =4.60. *S. D.*=0.23. Secondly, most of students indicate that they think gamification of learning Chinese writing needs to improve writing efficiency has the highest impact on Chinese writing learning with  $\bar{x}$ =4.58. *S. D.*=0.33. Then, most students indicate that they think the game learning of Chinese writing needs to improve social skills has the

highest impact on Chinese writing learning with  $\bar{x}=4.55$ .  $S.D.=0.31$ . Fourthly, most of students indicate that they think gamification learning Chinese writing needs to improve self-learning ability has the highest impact on Chinese writing learning with  $\bar{x}=4.54$ .  $S.D.=0.41$ . Finally, most of students indicate that they think Chinese writing needs to improve the learning motivation through gamification has the highest impact on Chinese writing learning with  $\bar{x}=4.53$ .  $S.D.=0.47$ .

**Table 2** Teachers' Problems and Needs of the teaching Chinese writing through gamification.

Questions	n = 24		Level of problems and needs
	$\bar{x}$	<i>S. D.</i>	
<b>Problems:</b>			
1. I think the way of gamification teaching Chinese writing is very simple.	4.63	0.21	Highest
2. I am proficient in using gamification to teach students to write.	4.55	0.47	Highest
3. I don't think the content of Chinese writing in gamification is not clear enough.	4.54	0.35	Highest
4. I don't think gamification teaching writing can enhance students' logical ability.	4.53	0.41	Highest
5. I think the gamification of teaching writing methods will not make students' expressive ability clear when writing.	4.52	0.38	Highest
<b>Needs:</b>			
1. I think gamification to teach Chinese writing needs to improve students' writing efficiency.	4.62	0.28	Highest
2. I think the game teaching of Chinese writing needs to be able to stimulate students' creativity.	4.60	0.40	Highest
3. I think the gamification of teaching Chinese writing needs to be able to increase the cooperative learning between students.	4.59	0.41	Highest
4. I think the teaching method of gamification to teach Chinese writing needs to be able to improve students' interest.	4.56	0.44	Highest
5. I understand that Chinese writing needs to have clear relevant concepts about gamification teaching.	4.55	0.33	Highest

According to table 2, it is indicated that the teachers rated the problems and needs of academic administration for teaching Chinese writing through gamification at the highest level. For the problems, firstly, most teachers indicate that they think the way of gamification teaching Chinese writing is very simple has the highest impact on Chinese writing teaching with  $\bar{x}=4.63$ .  $S.D.=0.21$ . Secondly, most of teachers indicate that they are proficient in using gamification to teach students to write has the highest impact on Chinese writing teaching with  $\bar{x}=4.55$ .  $S.D.=0.47$ . Then, most of teachers indicate that they don't think the content of Chinese writing in gamification is not clear enough has the highest impact on Chinese writing teaching with  $\bar{x}=4.45$ .  $S.D.=0.35$ . Fourthly, most of students indicate that they t don't think gamification teaching writing can enhance students' logical ability has the highest impact on Chinese writing learning with  $\bar{x}=4.54$ .  $S.D.=0.41$ . Finally, most of students indicate that they think the gamification of teaching writing methods will not make students' expressive ability clear when writing has the highest impact on Chinese writing learning with  $\bar{x}=4.52$ .  $S.D.=0.38$ .

For the needs, firstly, most teachers indicate that they think gamification to teach Chinese writing needs to improve students' writing efficiency has the highest impact on Chinese writing teaching with  $\bar{x}=4.62$ .  $S.D.=0.28$ . Secondly, most of teachers indicate that they think the game teaching of Chinese writing needs to be able to stimulate students' creativity has the highest impact on Chinese writing teaching with  $\bar{x}=4.60$ .  $S.D.=0.40$ . Then, most of teachers indicate that they think the gamification of teaching Chinese writing needs to be able to increase the cooperative learning between student has the highest impact on Chinese writing teaching with  $\bar{x}=4.59$ .  $S.D.=0.41$ . Fourthly, most of students indicate that they think the teaching method of gamification to teach Chinese writing needs to be able to improve students' interest has the highest impact on Chinese writing learning with  $\bar{x}=4.56$ .  $S.D.=0.44$ . Finally, most of students indicate that they understand that Chinese writing needs to have clear relevant concepts about gamification teaching has the highest impact on Chinese writing learning with  $\bar{x}=4.55$ .  $S.D.=0.33$ .

**Table 3** School administrators' Problems and Needs of teaching Chinese writing through gamification.

Questions	n = 5		Level of problems and needs
	$\bar{x}$	<i>S.D.</i>	
Problems:			
1. I don't think there is a specific management assessment method for gamification teaching Chinese writing.	4.63	0.25	Highest
2. I don't think there is a specific method			

Questions	n = 5		Level of problems and needs
	$\bar{x}$	<i>S. D.</i>	
guide for gamification teaching Chinese in terms of management.	4.61	0.23	Highest
3. I don't think gamification to teach Chinese writing can't promote my management of writing courses.	4.60	0.23	Highest
4. I don't think gamification teaching Chinese writing can promote my management of students.	4.58	0.33	Highest
5. I don't think the gamification of teaching Chinese writing may not ensure the quality of the educational curriculum.	4.55	0.34	Highest
<b>Needs:</b>			
1. I think gamification teaching Chinese writing needs to have enough equipment in the classroom.	4.60	0.23	Highest
2) I think gamification teaching Chinese writing needs to provide specific task content guidance.	4.58	0.39	Highest
3. I think using the gamification teaching of Chinese writing requires support to manage the teacher's teaching tasks.	4.53	0.27	Highest
4. I think using the gamification of Chinese writing needs to ensure that the goal of the course is achieved.	4.51	0.23	Highest
5. I think the gamification teaching of Chinese writing requires a combination of media and interesting teaching to improve management.	4.51	0.43	Highest

According to table 3, it is indicated that the school administrators rated the problems and needs of academic administration for teaching Chinese writing through gamification at the highest level. For the problems, firstly, most school administrators indicate that they don't think there is a specific management assessment method for gamification teaching Chinese writing has the highest impact on Chinese writing teaching with  $\bar{x}$ =4.63. *S. D.*=0.25. Secondly, most of school administrators indicate that they don't think there is a specific method guide for gamification teaching Chinese in terms of management has the



highest impact on Chinese writing teaching with  $\bar{x}=4.61$ .  $S.D.=0.23$ . Then, most of school administrators indicate that they don't think gamification to teach Chinese writing can't promote their management of writing courses have the highest impact on Chinese writing teaching with  $\bar{x}=4.60$ .  $S.D.=0.23$ . Fourthly, most of students indicate that they don't think gamification teaching Chinese writing can promote my management of students has the highest impact on Chinese writing learning with  $\bar{x}=4.58$ .  $S.D.=0.33$ . Finally, most of students indicate that they don't think the gamification of teaching Chinese writing may not ensure the quality of the educational curriculum has the highest impact on Chinese writing learning with  $\bar{x}=4.55$ .  $S.D.=0.34$ .

For the needs, firstly, most school administrators indicate that they think gamification teaching Chinese writing needs to have enough equipment in the classroom has the highest impact on Chinese writing teaching with  $\bar{x}=4.60$ .  $S.D.=0.23$ . Secondly, most of school administrators indicate that they think gamification teaching Chinese writing needs to provide specific task content guidance has the highest impact on Chinese writing teaching with  $\bar{x}=4.58$ .  $S.D.=0.39$ . Then, just a few of school administrators indicate that they think using the gamification teaching of Chinese writing requires support to manage the teacher's teaching tasks has the highest impact on Chinese writing teaching with  $\bar{x}=4.53$ .  $S.D.=0.27$ . Fourthly, most of students indicate that they think using the gamification of Chinese writing needs to ensure that the goal of the course is achieved has the highest impact on Chinese writing learning with  $\bar{x}=4.51$ .  $S.D.=0.23$ . Finally, most of students indicate that they think the gamification teaching of Chinese writing requires a combination of media and interesting teaching to improve management has the highest impact on Chinese writing learning with  $\bar{x}=4.52$ .  $S.D.=0.38$ .

2. The guidelines of academic administration in Chinese writing through gamification teaching in Vocational high Schools.

### 2.1 Using the gamification for teaching Chinese writing.

Designing interesting and challenging tasks is a key part of education. First, setting clear learning goals, such as focusing on sentence structure or vocabulary acquisition. Clear goals guide mission design. Second, students can be immersed in a story or situation by creating narrate-based tasks. Such as having them solve writing challenges on a virtual trip to ancient China to advance the story. In addition, games can be developed that test students' ability to recognize and distinguish Chinese characters. Such as creating a matching game where students pair characters with their meaning or pronunciation. You can also make stroke practice more playful by turning it into a timed challenge. Students can race against time to write characters with correct strokes. You can also check stroke accuracy using interactive tools that provide instant feedback. Finally, implement a progress system where students can be

rewarded for their achievements through levels or unlocking new challenges after they master the content.

2.2 Improving students' interest to learn Chinese writing well by using gamification.

In order to improve students' interest in Chinese writing. It is important to design interesting writing courses. A variety of appealing contexts can be created. Such as historical Settings, adventure stories, detective games, travel and exploration, and fantasy worlds. Allow students to immerse themselves in these worlds while completing writing challenges. It's also important to have a diverse story line. Different types of stories can be selected to suit different interests and preferences. Such as adventure, mystery, romance, fantasy, science fiction and historical fiction. Use real-life scenarios and challenges to develop a story line. And create a multicultural setting. To enable students to understand the cultural diversity and regional differences in China or other Chinese-speaking regions. Introduce a variety of characters with unique backgrounds, personalities, and motivations, and have students interact with these characters and write from their perspective.

2.3 Motivation students to improve their Chinese writing ability efficiently.

First of all, identify the topics or types of writing that students are interested in, and encourage them to actively try to write. Stimulating interest will increase motivation. Secondly, create a positive learning environment. Encourage students to share and discuss their writing. Also, encourage students to cooperate. Arrange students to exchange writing content and read it. This helps them learn from each other and provide advice. Finally, teach students how to use writing skills and strategies. Such as summary writing, argument construction and paragraph structure to help students improve their writing quality.

2.4 Management assessment methods for gamification teaching Chinese writing.

There are four assessment methods. 1) Self-assessment, 2) Peer assessments, 3) Formative assessments and 4) Summative assessments.

2.5 Using equipment to help their Chinese writing

Learn to use equipment to improve writing. First of all, a computer or tablet is a good learning tool in modern times. There are many online Chinese learning platforms on the Internet. Students and teachers can explore online platforms and websites designed for learning Chinese writing. These platforms usually provide interactive exercises, role recognition and writing exercises. You can also download a digital Chinese dictionary on the computer. Encourage students to use the digital Chinese dictionary to help find words on their devices. Secondly, teachers can use the multimedia equipment in the classroom. Play pictures, videos and illustrations in multimedia to illustrate words and concepts. Create visual tips for video animations for writing and creation, such as storyboards or comics. Combine infographics or charts to explain complex ideas or structures. Including video clips showing real scenes in

China or Chinese regions. Being good at using effective tools can make learning twice the result with half the effort.

### Research Discussion

1. Analysis on the status quo of teaching Chinese writing through gamification in Taishun vocational education center.

The findings from the investigation of Chinese writing through gamification teaching problems and needs of Chinese writing teachers in Taishun vocational education center. Even Chinese students as using Chinese as a mother language, but Chinese students still get confused of the Chinese writing. It is correspondent with Putra, Priyatmojo (2021), the findings include that gamification has become an innovation in education. Incorporate game elements into the classroom, capitalize on student interest in games and leverage them into the teaching process. Game-based learning ensures that students have more class activities and avoids boredom as it creates a learning atmosphere and increases motivation without compromising the students' understanding of the material being learned (Pazilaha, Hashimb, Yunusc, 2019). In order to solve the problems and needs in this study, develop guidelines of academic administration for improve teaching Chinese writing through gamification.

2. Develop guidelines for improving Chinese writing through gamification teaching in Taishun vocational education center.

In this research, using games in the Chinese writing classroom of vocational high schools, creating a rich teaching environment, stimulating students' learning motivation, and fully mobilizing students' enthusiasm is one of the keys to realizing teachers to promote students' learning. When students are at their best physically and mentally, they will learn the best. Developing guidelines for improving the teaching of Chinese writing include five parts, namely: 1) Using the gamification for teaching Chinese writing 2) Improving students' interest to learn Chinese writing well by using gamification 3) Motivation students to improve their Chinese writing ability efficiently 4) Management assessment methods for gamification teaching Chinese writing 5) Using equipment to help their Chinese writing. Through gamification teaching, students can be accepted in the vocational education center of high school Students and teachers. It can be used as a Chinese writing teaching guide to improve their Chinese writing skills and abilities in Taishun Vocational Education Center.

### Research Body of Knowledge

The knowledge of the research includes academic administration, using the gamification for teaching Chinese writing, improving students' interest to learn Chinese writing well by using gamification, motivation students to improve their Chinese writing ability

efficiently, management assessment methods for gamification teaching Chinese writing and using equipment to help their Chinese writing. It is shown in Figure 1.

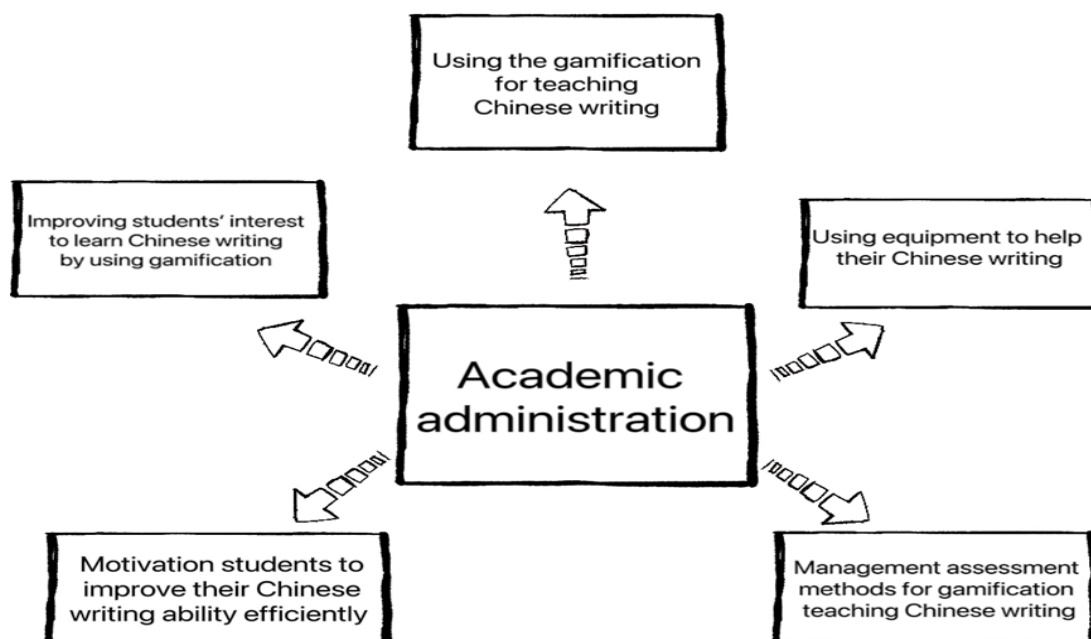


Figure 1 Research Body of Knowledge

### Research Suggestion

#### 1. Recommendations of the research for implement.

Using gamification to improve Chinese writing skills can make the learning process engaging and fun. For teachers, firstly, improving the information technology level of language teachers. Many language learning applications and platforms provide gamification exercises for Chinese learners. For example, when used in typical gamified applications dolingo, it has been found that storylines and rewards to increase participants' motivation to learn. And challenges and competition to increase learners' persistence. In addition, the storyline promotes the understanding and mastery of Chinese characters and words for Chinese learners (Li, O'Rourke, 2022). Secondly, choose a game or activity that is consistent with learning goals. There are many kinds of games suitable for Chinese writing, such as crossword puzzles, storytelling games or language-related board games. Only in the right way can the effect be highlighted. Finally, teaching is a two-way activity between teachers and students. Teachers should guide students to actively explore and study problems and develop potential, rather than guiding students' thinking and operation processes. Teachers can design customized games or activities according to the needs of students. For example, using Chinese characters to design a short story, so that students can take turns to add sentences and plots to the story to enhance the development of the storyline.

For school administrators, first of all, developing and improving gamification courses for teaching Chinese writing effectively. Secondly, using evaluation methods and supervision and management methods to ensure the quality of Chinese writing taught by teachers.

## 2. Suggestion for further research.

Based on the phenomenon that senior vocational students lack interest and motivation for Chinese writing and are often unwilling to take the initiative to participate and practice. Teachers should Improving teaching through gamification to enhance the interest of Chinese writing. Further research can be carried out around the following aspects: 1) Through gamification teaching design methods to stimulate the writing interest and motivation of vocational high school students, and improve their participation and enthusiasm. 2) Provide targeted Chinese writing guidance and support according to the different characteristics and needs of vocational high school students through personalized learning. 3) Establish an effective feedback and evaluation mechanism, find problems in students' writing in a timely manner, and provide reasonable suggestions and guidance to help them improve their writing ability. 4) According to the needs and interests of vocational high school students, design suitable writing materials and topics to improve their writing participation and enthusiasm. To sum up, through further research, it can deeply understand the phenomena and problems of vocational high school students in Chinese writing, and explore effective teaching strategies and methods to solve these problems. Such research can provide more targeted and effective guidance for Chinese writing teaching.

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